846-498

SATA® Spray Equipment

Distributed By Dan-Am Co.®

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January 19, 1998

NIOSH Docket Office
Attn.. Ms. Diane Manning
Robert A. Taft Laboratories
4676 Columbia Columbia Parkway
Cincinnati, OH 45226

Dear Ms. Manning:

SATA Farbspritztechnik GmbH and Co., a German firm manufacturing air supplied respirators in Kornwestheim has requested our company to forward documentation to the Docket Office for entry into the FEDERAL REGISTER. Dan-Am Company is a distributor of SATA products in the U.S.

It is our understanding that NIOSH will be scheduling a module on supplied air respirators. One of the issues to be looking into will be the possibility of utilizing a single compressed air line as a source for breathing air and the connection of a pneumatic tool. Since the European version already allows such an arrangement, it may help the NIOSH rule making process to utilize the European documentation as a guideline for the possible changes to be made at NIOSH.

Enclosed please find the following documents in duplicate. . .

A. OPERATING INSTRUCTIONS, SATA Full Mask
B. OPERATING INSTRUCTIONS, SATA Half Mask
C. EUROPEAN STANDARD EN 270
D. COUNCIL DIRECTIVE, 12/21/89 relating to personal protective equipment (PPE)

We hereby formally request the enclosed documents be included in the FEDERAL REGISTER.

Thank you for your assistance.

Sincerely yours,

David Bond

David Bond

SATA

Super Atemschutz-Set

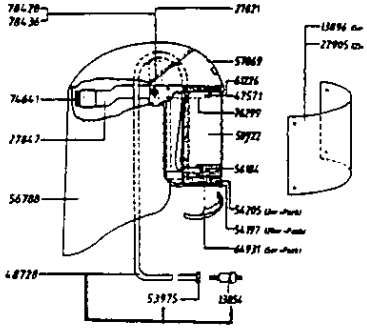
CE 0299 95

(A)(D) Bedienungsanleitung
(B)(F)(L) Mode d'emploi
(DK) Betjeningveledning
(E) Instrucciones de servici
(FIN) Käyttöohje
(GB)(IRL) Operating Instructions
(GR) Οδηγίες χρήσης
(I) Istruzioni d'uso
(N) Bruksanvisning
(NL) Gebruiksanwijzing
(P) Instrucoesde servico
(S) Bruksanvisning

Vor Inbetriebnahme des Gerätes ist die Gebrauchsanleitung vollständig und eingehend zu lesen.
Avant la mise en route de l'appareil, le mode d'emploi doit être lu soigneusement.
For masken tages i brug, skal denne brugsvejledning læses omhyggeligt og i sin fulde længde.
Antes de usar o aparelho, as instruções de uso devem ser estudadas cuidadosa e inteiramente.
Lue käyttöohje huolellisesti kokonaan läpi ennen laitteen käyttöönottoa.
Prior to operating read operating instructions carefully.
Πριν την θέση σε λειτουργία της συσ ευής διαβάστε χροσε τ ι ά αυτές τις οδηγίες χρήσης.
Prima di mettere in servizio l'apparecchio, leggere attentamente ed integralmente le presenti istruzioni per l'uso.
Voor de ingebruikname dient de gehele handleiding zorgvuldig te worden doorgelezen.
Før apparatet tas i bruk må du lese grundig gjennom hele bruksanvisningen.
Antes de poner en marcha la máscara, se deberán leer completa y minuciosamente las instrucciones de manejo.
Innan man börjar använda masken är det mycket viktigt att läsa igenom hela bruksanvisningen mycket noga.

13623	"SATA-Schnellkupplung 100.14, R ¼ AG "SATA Quick coupling 100 14 R1/4" outside thread / Accouplement rapide SATA 100.14 R 1/4 po. filet exterieur
13854	Schalldämpfer allein, für SATA-ASS Silencer alone, for SATA breathing mask / Silencieux seul, pour l'ensemble de protection respiratoire
13870	Luftschlauch 1,2 m, kpl. montiert, für Spritzpistolen zu SATA-ASS Air hose 1.2 m compl. with fittinCE, between breathing mask and spray gun / Tuyau d'air 1,2 m pour pistolet de 'E.P.R.
13896	Packung mit 5 Stück Ersatzfolien für SATA-ASS Replacement visor sheets, pkg. of 5, for SATA breathing mask / Feuilles de rechange pour E.P.R. (paquet de 5 pieces) no. 0/767
13904	Filterpatrone allein, für SATA ASS Filter cartridge alone, for belt SATA breathing mask sets / Cartouche de filtre seule, pour E.P.R.
13920	Gurt ASS mit Schnalle, allein Nr. 0/714 Waist belt only for breathing mask, with buckle, no. 0/714 / Ceinture E.P.R. av. bouche, seule, No 0/714
20958	Regulierschraube komplett mit O-Ring für Adsorber ASS Regulator screw complete with O-ring for SATA breathing full-mask-adsorber / Vis a regler complet avec Anneau (O) pour adsorbre E.P.S.
22905	Packung mit 25 Stück Ersatzfolien für SATA-ASS Replacement vizor sheets, pack of 25 pcs.for SATA full mask breathing set / Paquet de 25 feuilles de rechange SATA E.P R. no. 0/767
22947	O-Ring 54 x 2,5 mm, Perbunan, für Gehäuse ASS O-ring 54 x 2,5 mm Perbunan for housing of SATA breathing mask / Anneau (0) 54 x 2,5 pr. boite E.P.R.
27797	Adsorberglas komplett für ASS - Vollmaske Adsorber glass compl. for SATA breathing mask / Verre pour l'adsorbre complet pour E.P.R.
27821	Kunststoffmutter M6 fuer ASS Plastic nut M6 for SATA breathing mask / Ecrou en PVC M6 pour E.P.R. 0/694-2
27847	Kopfband fuer ASS, CE-Ausfuehrung Head strap for SATA breathing mask, CE version / Ruban de tete pour E.P.R. No. 0/694-4
29751	Ueberdruckventil komplett, fuer Adsorber ASS Over pressure valve complete for breathing mask absorber / Soupape de surete pr. filtre E.P.R.
41632	Haftband für Klettverschluß ASS 16 mm, selbstklebend per Meter Adhesive tape for closure breathing masks, 16 mm, self-sticking, each meter / Ruban pour fermeture adhesive ASS 16 mm, auto- adhesive
47571	Schweissband fuer ASS, Kunstleder CE-Ausfuehrung Sweatband for breathing masks, CE version, imitation leather / Ruban contre la sueur pour EPR, cuir artificiel
48728	Luftschlauch 1550 mm, komplett für SATA-ASS, CE-Ausführung mit akustischer Warnvorrichtung und Schaumstoffhülse
49080	Sicherheits-Druckluftzuführungsschlauch 9,5 x 5,0 mm, für SATA-ASS-CE-Ausführung, 6 m lang kpl., nach DIN EN 139 Safety air hose 9,5x5,0 mm, for SATA breathing mask, approved safety execution CE, 6 metres long, completely mounted with safety-quick coupling / Tuyau a air comprime 9,5 x 5,0 mm, p. SATA E.P.R., exec. CE, 6 m long, a. accouplement rapide de securite
49114	Luftschlauch 1850 mm, komplett für SATA-ASS, CE-Ausführung mit akustischer Warnvorrichtung und Schaumstoffhülse
49726	Schutzkorb fuer Adsorber ASS Protection basket for adsorber SATA breathing mask / Cage a protection pour filtre complet de l'E.P.R.
50922	Gesichtsschild allein für SATA-ASS incl. Beutel mit 4 Clip und CE-Zulassung
51003	Gesichtsschild allein, für ASS-Industrieausf. mit ausgest. Sichtfeld, incl. Beutel mit 4 Clip, CE-Zulassg.
53934	Schnellkupplung Sicherheitsausführung klein, für SATA Vollmaske-ASS Quick coupling safety execution, small, for SATA breathing set, full mask, CE version / Accoupl. rapide exec. de securite petite pr. E.P.R.
53942	"Nippel R 1/4"" fuer SATA-ASS CE "Nipple R 1/4"" for breathing set CE" version / "Raccord filete R 1/4"" pr. SATA EPR." execution CE
53959	Arretierung fuer Adsorber ASS CE-Ausfuehrung, fertig bearbeitet Detend for breathing-mask set / Fixation pour filtre de E.P.R. execution CE
53975	Schlauchklemme 10,5 GER 1-Ear hosedip 10.5 GER / 1 pince pour tuyau souple,10.5 GER
53983	Adsorber komplett, ohne Gurt, fuer SATA Vollmaske-ASS Adsorber compl., without belt, for SATA breathing mask set, CE approved safety execution / Filtre complet, sans ceinture pour E.P.R. SATA, masque complet, ex. CE
54155	Kopfhaube SATA-ASS, mit Kunststoffeinsätzen, ZuführunCEschlauch und 5er Foliensatz, Kopftuch rot, flusenfreier Cuprastoff Hood for SATA breathing mask, approved safety execution CE complete with plastic inserts and feeding hose, set of 5 plastic sheets, head scarf red, stub-free Cupra material / Calotte p. E.P.R., ex. CE, avec inserts en plastique, tuyau, 5 feuilles transparentes et foulard rouge sans peluches (Cupra)
54197	Packung mit 20 Stück Haubeneinlagen für SATA-ASS SATA full mask hood inserts, pkg. of 20 pces / Paquet de 20 doublures pour cagoule de E.P.R. SATA

No. 54155



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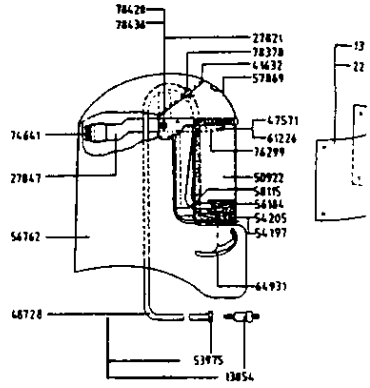

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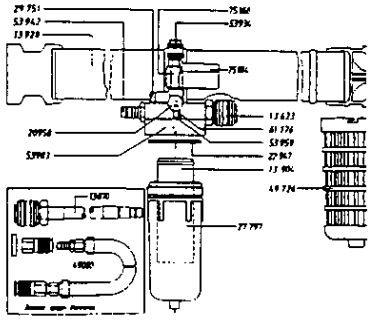

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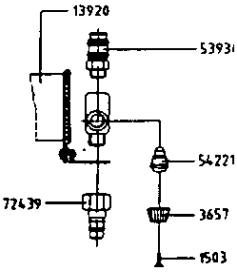

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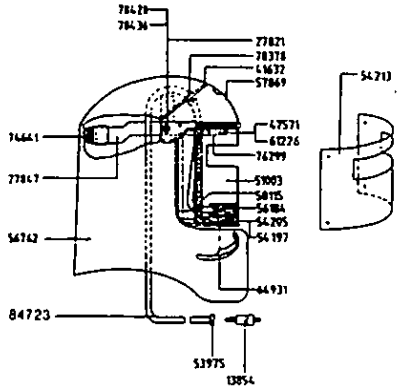

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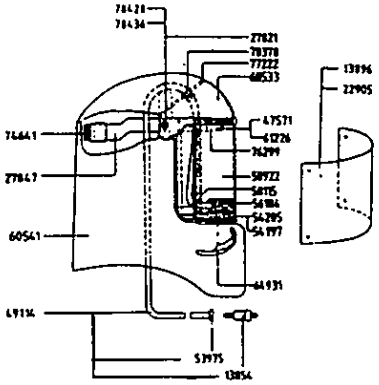

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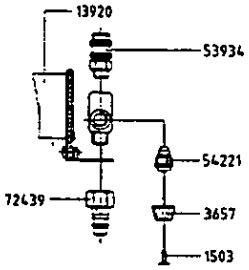
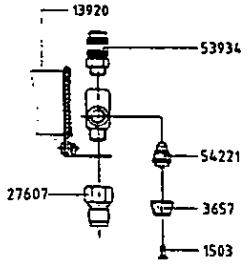


No. 30668

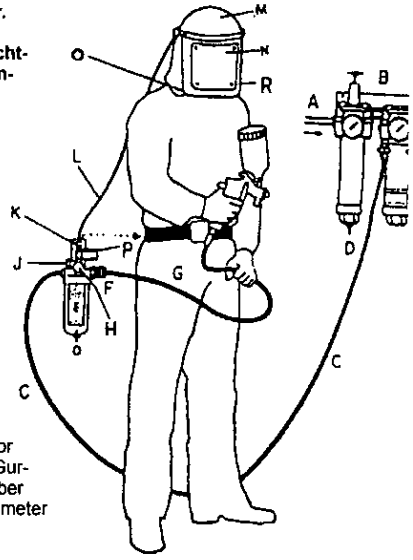


54205	Packung mit 2 Stück Haubeneinsätzen, für SATA-ASS SATA full mask hood inserts, pack of 2 / Emballage a 2 doublures pour "la cag SATA ""Execution CE"
54213	Folienssatz a 25 Stück für ASS-Industrieausführung mit ausgestanztem Sichtfeld Set of 25 plastic sheets for breathing mask set industrial execution with punch visual surface, packed / Paquet a 25 feuilles pour l'e.p.r. execution industrielle avec champ visuel poinconne, emballe
54221	Spindel komplett, für SATAJET/90, SATAJET, Regulierventil und MC-E Spindle complete, for SATAJET/90, SATAJET, NR92,regulating valve, MC93 / Tige complète pour SATAJet 90, SATA Jet, NR 92, valve de rÛglage, MC 93
54825	Kopfhaube ASS-Industrie mit ausgestanztem Sichtfeld, Kopftuch grau Brusttuch, Haubeneinlage und Haubeneinsatz, Schlauch und Schalld. Hood ASS-industry with visor, antistatic hair- and neck guard (grey), plastic ca inlet and -insert, hose and silencer / Masque pour E.P.R. pour l'industrie a. fen foulard gris a. bavette, doublure, tuyau et amortisseur
56184	Schaumstoffhuelse fuer ASS CE-Ausfuehrung Foam sleeve for breathing mask set CE approved safety execution / Doublle er mousse de nylon p. E.P.R.SATA, exec. CE
56762	Kopftuch grau m. Brusttuch in Cupra-Faser, mit Klettverschluss, fuer A Sonderausfuehrung Headcloth grey with chest cover made of Cupra fibre, with velcro closure, for special version of Breathing Set / Foulard Ó tÛte, gris, avec pi¤ce Ó poitrine e fibres Cupra, avec fermeture Velcro, pour version spÚciale de l'EPR
56788	Kopftuch rot für ASS, mit Klettverschluß, flusenfreier Stoff Head shield red for breathing mask set, CE execution, with closure slub-less ti / Foulard rouge pr. E.P.R. avec fermeture band velcro
57869	Kalotte (schwarzes Kappenteil) fuer ASS mit Klettband Cap for industrial version of breathing mask set with closure / Calotte (noire) p E.P.R. avec fermeture de velcro
58115	Clip fuer ASS CE-Ausfuehrung, mit Ring Clips for SATA breathing mask set CE execution with ring
59840	Kopfhaube ASS mit Klettverschluss, Kopftuch grau mit Brusttuch, Haubeneinlage u. -einsatz, Schlauch und Schalldämpfer Cap ASS with fastener, antistatic hair- and neck guard, cap inlet and -insert, h damper / Masque p. E.P.R. a. fermeture bande VELCRO, foulard gris av. bav doublure, tuyau et amortisseur
60533	Kalotte ASS (Schwarzes Kappenteil) fuer Kopftuch grau ueber Kalotte
60541	Kopftuch grau ueber Kalotte mit Brusttuch fuer ASS
61176	Linsenschraube mit Kreuzschlitz M4x5 DIN 7985, für Adsorber ASS, g verzinkt Overhead screw with cross-slot M4x5 5 for adsorber for breathing-set / Vis a t conique a fente M 4x5 DIN 7985 pr. l'adsorber de l'E.P.R.
61226	Schweissband Leder fuer ASS Sweatband for breathing set, leather / Ruban transpiration pour EPR, cuir
64931	Packung mit 5 Stk. Abschlussblenden fuer Vollmaske ASS-CE End screen packed to 5 pcs for breathing set, exec. CE, full mask / Ecran de fermeture, paquet de 5 pcs, p. E.P.R. exec. CE
67595	SATA Kopfhaube ASS mit Kopftuch grau ueber Kalotte, Brusttuch, Schalldaempfer SATA Hood for breathing mask, with grey lining, breast cloth, silencer / Masq SATA ASS avec protege-cheveux gris, calotte, protection du thoray et amortisseurs
72439	Sicherheits-Stecknippel fuer ASS-Gurteinheit Industrie Safety nipple for belt unit exec. 'industry' for breathing masks
74641	Raetschenteil fuer Kopfband ASS Gear adjusting belt for headstrap of SATA breathing systems / Pieces a clique pour ruban de tete de l'ensemble de protection resp.
75168	Stutzen fuer Manometer am Adsorber fuer Halbmaske und Vollmaske- ASS-CE Nipple of pressure gauge for adsorber of SATA CE approved full and half mas sets / Tubulure p. manometre a l'adsorber du demi- et masque entier de P.R.
75184	Manometer 0-6 bar, 40 mm, fuer Adsorber Vollmaske-ASS CE Pressure gauge 0-6 bar,(0-90 psi) dia 40mm for air cleaning unit SATA full ma breathing set, CE version / Manometre 0-6 bar, 40 mm pour masque complet protec. resp., exec. CE
76299	Schaumstoffstreifen einseitig selbstklebend 8x25x345 mm fuer ASS Bande de mousse en caoutchouc autocollante sur un cote 8x25x345 mm p. masque de protection respiratoire
77222	Klette selbstklebend 40 cm lang, fuer ASS-Kopfhaube Ruban auto-collant 40 cm de long p. masque de protection respiratoire
78378	Rohrschelle aus PVC fuer ASS Pipe strap made of PVC for breathing set / Bride pour tuyaux en plastique, po ensemble de protection respiratoire
78428	Vierkant-Kunststoffteil fuer Kopfband (Gegenstueck zu 27821- Kunststoffmutter) Square end plastic part for head strap (equivalent of 27821 plastic nut) / Piece carree en plastique pour ruban de tete (pendant de l'ecrou en plastique 27821
78436	Sechskantschraube M6 x 25 DIN 933, galv. verzinkt (Gegenstueck zu 27821-Kunststoffmutter) Hexagon screw M6 x 25 DIN 933, galvanized (equivalent of 27821 plastic nut) Bouton hexagonal M6 x 25 DIN 933, galvanise (pendant de l'ecrou en plastiqu 27821

Gebrauchsanweisung für SATA Super-Atemschutz-Set 92

Vor Inbetriebnahme des Gerätes ist die Gebrauchsanleitung vollständig und eingehend zu lesen. Die Unfallverhütungsv schriften, Arbeitsstättenverordnungen und Richtlinien sowie geltende Gesetze und Beschränkungen, z.B. Regeln zum E satz von Atemschutz-Geräten ZH 1/701, bei Lackierung VBG 23 etc., sind zu berücksichtigen. Das Gerät darf nur von eingewiesenen Personen und nur bestimmungsgemäß verwendet werden. Vor jeglicher Reparatur- und Wartungsarbeit muß das Gerät vom Druckluftversorgungssystem abgekoppelt werden.

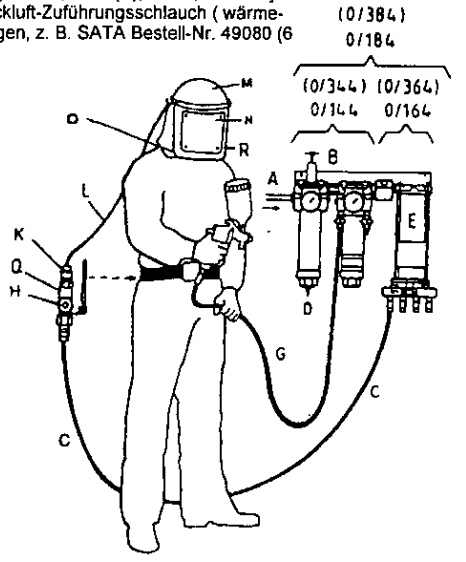
SATA-Super-Atemschutz-Set, Type 25-13/Best.Nr. 54148, Druckluftschlauchgerät EN 270, bestehend aus Atemschutzhaube 54155 (oder 59840 bzw. 67595) und Gurteinheit mit Aktivkohleadsorber, Bild 1
oder alternativ mit Gurteinheit ohne Aktivkohleadsorber, Best.Nr. 58149 (oder 30668 oder 82719), Bild 2.
SATA-Atemschutz-Set, Atemschutzhaube mit ausgestanztem Sichtfeld mit Gurteinheit ohne Aktivkohleadsorber Best.Nr. 82719 (ähnlich Bild 2), Druckluftschlauchgerät für leichte Einsätze prEN 1835, Atemschutzhaube Klasse 1.



Das SATA-Super-Atemschutz-Set ist ein hochwirksamer Gesundheitsschutz für Lackierer, sowie für Arbeiten in gesundheitsgefährdender Umgebung. Er besteht aus einer belüfteten Atemschutzhaube, welche mit gefilterter Atemluft versorgt wird, einer Gurteinheit mit Aktivkohlefilter mit zusätzlichem Anschluß für ein Druckluftgerät, Bild 1, oder alternativ einem Gurtteil ohne Aktivkohlefilter und ohne Anschluß für ein Druckluftgerät, Bild 2, und einem Druckluftzuführungsschlauch.
Vom Betreiber ist sicherzustellen, daß die vom Kompressor angesaugte Luft so frei von schädlichen Gasen, Dämpfen und Partikeln (z.B. Abgasen von Verbrennungsmotoren oder -öfen, Lösemitteldämpfen) ist, daß die Anforderungen gemäß DIN EN 132 bezüglich des Kohlendioxidgehaltes gewährleistet sind. Die Verwendung von Sauerstoff oder sauerstoffangereicherter Luft ist nicht zulässig. Das Gerät kann in brennbarer Atmosphäre eingesetzt werden. Zur Entfernung von Verunreinigungen in der Atemluft, die vom Kompressor herrühren, wie z.B. Ölnebel, muß zwischen Aktivkohle-Adsorber der Gurteinheit, Bild 1, oder alternativ dem wandmontierten Aktivkohle-Adsorber 0/164 (0/364) und dem Luftnetz zusätzlich ein Druckluftfilter mit Manometer montiert sein (z.B. SATA 0/144 oder 0/344).

Die Verbindung zwischen dem Druckluftversorgungssystem (B), Bild 1, bzw. (E), Bild 2, und der jeweiligen Gurteinheit (Gurtteil) muß mit dem zugelassenen Druckluft-Zuführungsschlauch (wärmebeständig, max. 50 m) mit Sicherheitsschnellkupplungen erfolgen, z. B. SATA Bestell-Nr. 49080 (6 m).

A - Luftversorgungssystem
B - SATA Druckluftfilter 0/144 (0/344)
C - Druckluft-Zuführungsschlauch zum Atemschutz-Set, SATA Bestell-Nr. 49080
D - Öl- und Kondensatablaßventil
E - Aktivkohle-Adsorber mit auswechselbarer Filterpatrone
F - Schnellkupplung für Anschluß Druckluftgerät
G - Pistolen-Luftschlauch
H - Regelventil für Atemluft
J - Überdruck-Sicherheitsventil
K - Schnellkupplung für Atemschlauch
L - Atemschlauch
M - Belüftete Atemschutzhaube mit hochstellbarem Sichtfenster und Nackenschutz (innen versehen mit wechselbarem Haubeneinsatz und Haubeneinlage zur persönlichen Hygiene)
N - Auswechselbare Folie
O - Hochstellbares Sichtfenster
P - Luftvolumenstromanzeige
Q - Gurtteil ohne Aktivkohleadsorber
R - Akustische Warneinrichtung für Mindestdurchfluß (nicht sichtbar)



(A) (D)

Gebrauchsanweisung für SATA Super-Atemschutz-Set 92

1. Lieferumfang
- Standardausführung
Belüftete Atemschutzhaube mit regelbarer kontinuierlicher Luftversorgung, mit hochstellbarem Sichtfenster für auswechselbare
Folien, antistatischem Haar- und Nackenschutz und wechselbarem Haubeneinsatz mit Haubeneinlage, sowie 5 Ersatzhaubeneinlagen,
an einem verstellbaren Leibgurt montierte Filterpatrone mit Regelventil, Überdrucksicherheitsventil, Aktivkohlefilter, Luftlumenstromanzeige, je einem Schnellkupplungsanschluß für Lufteingang und -abgang zur Atemschutzhaube, sowie Abgang z.B. zur Spritzpistole, Ersatzfolien für Sichtfenster.
Bei der Standardausführung 54148 wird das Gerät, bestehend aus Atemschutzhaube 54155 und Gurteinheit 54015, komplett geliefert.
Bei den anderen Gerätevarianten, gemäß der Aufstellung, werden die Einzelelemente Atemschutzhaube (Kopfhaube) und Gurteinheit (Gurtteil) getrennt geliefert und vom Anwender kombiniert.

Kombination	Atemschutzhaube	Atemschutzhaube	Atemschutzhaube	Atemschutzhaube
Gurteinheit	Kopfhaube ASS, Kopftuch rot Best.Nr.54155	Kopfhaube ASS, Kopftuch grau mit Brusttuch, Ind.ausführung Nr.59840	Kopfhaube ASS, Kopftuch grau über Kalotte mit Brusttuch, Best.Nr.67595	Kopfhaube ASS mit ausge- stanztem Sichtfeld, Kopftuch grau mit Brusttuch, Nr.54825
Gurteinheit mit Aktivkohlefilter, Luftreinigungseinheit Best.Nr. 54015	X	X		
Gurteinheit ohne Aktivkohleadsorber, Industrieausführung	X Best.Nr. 58149	X Best.Nr. 58149		X Best.Nr. 82719
Gurteinheit ohne Aktivkohleadsorber, Schraubanschluß 9/16"-20UNS Best.Nr.30668			X	

- Alternativausführung, bestehend aus den Einzelelementen z. B.
1. Belüftete Atemschutzhaube, Bestell-Nr. 54155, wie bei Standardausführung
2. Gurtteil, Bestell-Nr. 58149 oder 82719, regelbare Luftversorgung (Regelventil), montiert an einem verstellbaren Leibgurt, mit einem Schnellkupplungsanschluß für den Lufteingang (bei 30668 Schraubanschluß) und -abgang zur Atemschutzhaube (Kopfhaube).

2. Technische Daten

Erforderlicher Betriebsüberdruck*		4 bar
Max. Betriebsüberdruck*		4 bar
Erforderlicher Mindestvolumenstrom		170 Nl/min**
	Bestell Nr. 82719	240 Nl/min**
Gurteinheit mit Aktivkohleadsorber:		
Max. Betriebsüberdruck mit Druckluftwerkzeug (Druckanzeige muß im grünen Bereich sein, bei Bedarf Regelventil schließen)		8 bar
Betriebstemperatur		-6°C bis 60°C
Max. Schlauchlänge		50 m
Schallpegel bei Mindestvolumenstrom		73 dB (A)
Gewicht der Atemschutzhaube		ca. 470 g
Gewicht des Aktivkohle-Adsorbers		ca. 750 g
Gewicht der Gurteinheit ohne Aktivkohlefilter		ca. 260 g

* Luftversorgungssystemdruck (A) mind. 1 bar über eingestelltem Betriebsüberdruck.
Bei gleichzeitigem Betrieb eines Druckluftwerkzeuges bei Gurteinheit mit Aktivkohleadsorber 54015, Betriebsüberdruck soweit erhöhen, bis sich der gewünschte Luftdurchsatz einstellt (Druckanzeige an Luftreinigungseinheit im grünen Bereich).
** ACHTUNG:
Bei Unterschreitung des Mindestvolumenstromes von 170 Nl/min (bzw. 240 Nl/min). ertönt ein akustisches Warnsignal das darauf hinweist, daß die Luftmenge für eine ausreichende Schutzfunktion zu gering ist. Betriebsüberdruck sofort so weit erhöhen bzw. Regelventil öffnen, bis kein Pfeifton mehr hörbar ist (Manometeranzeige im Grünbereich).
Ist dies nicht möglich, sofort Atemschutzhaube abnehmen und gesundheitsgefährdende Umgebung verlassen und Luftversorgungssystem bzw. Atemschutzgerät überprüfen.

Gebrauchsanweisung für SATA Super-Atemschutz-Set 92

3. Wirkungsweise der Luftreinigungseinheit mit Aktivkohle-Adsorber und dem Gurtteil ohne Aktivkohle-Adsorb
Die Standzeit der Aktivkohlepatronen und die Qualität der Atemluft hängt wesentlich von der Vorreinigung der zugeführten Druckluft ab. Daher muß der Druckluftfilter SATA 0/144 (0/344) mit automatischer Kondensatentleerung vorgeschalte werden. Dieses Gerät filtert nahezu alle Wasser- und Staubpartikel aus der Druckluft. Ist die Druckdifferenz zwischen de am 0/144 (0/344) angebrachten Manometern größer als 1 bar, so ist die Feinfilterpatrone auszutauschen (siehe Bedienungsanleitung SATA-Luftfilter).
Zur weiteren Reinigung der Atemluft von Ölnebeldämpfen ist ein Aktivkohlefilter (E) zwischengeschaltet. Die Sättigung der Aktivkohle ist leicht an der blauen Einfärbung des Indikatorstreifens erkennbar.
Bei der Standardausführung, Bild 1, ist dieser in der Aktivkohlepatrone und bei der Alternativausführung hinter dem Sich fenster des Aktivkohlefilters 0/164 (0/364), Bild 2, angebracht.

- Bei Standardausführung, Luftreinigungseinheit 54015
  Nach Sättigung der Patrone einfach Schutzkorb abziehen,die durchsichtige Kunststoffglocke abschrauben und eine neue Patrone einstecken. An der Unterseite der transparenten Kunststoffglocke befindet sich ein Ablaßventil. Mit diesem wird eventuell angesammeltes Kondensat abgelassen.
  Das Regelventil für den erforderlichen Luftvolumenstrom ist so ausgelegt, daß bei dem Mindestbetriebsdruck von 4 bar ohne Druckluftgerät ca. 170 Nl/min gereinigte Luft zur Atemschutzmaske zugeführt wird (Druckanzeige noch im grünen Bereich). Durch Öffnen des Regelventils (Position -H-) kann der Luftvolumenstrom bis auf über 300 Nl/min gesteigert werden (Druckanzeige an der oberen Grenze des grünen Bereiches). Bei weiterer Erhöhung des Luftvolumenstromes muß Gehörschutz getragen werden. Das integrierte Sicherheitsüberdruckventil spricht bei ca. 8 bar an.
- Bei Alternativausführung, Gurtteil 58149, 82719 und 30668
  Nach Sättigung der Patrone Filterrohr am 0/164 (0/364) abschrauben, Filterpatrone herausziehen und neue Filterpatrone in umgekehrter Reihenfolge einsetzen. Indikatorpapier durch Abschrauben des Sichtfensters entnehmen und ein neues Indikatorpapier einsetzen.
  Das Regelventil ist so ausgelegt, daß bei einem Mindestbetriebsüberdruck von 4 bar 170 Nl/min (bzw. 240 Nl/min) gereinigte Luft zur Atemschutzmaske zugeführt werden. Durch Öffnen des Regelventils (Position -H-) kann der Luftvolumenstrom auf über 300 Nl/min gesteigert werden.

4. Wartung, Pflege und Lagerung

- Das Gerät ist nach Gebrauch einer Reinigung, Desinfektion sowie einem Funktions- und Dichtheitstest (Adsorbereinheit in druckbeaufschlagtem, betriebsbereitem Zustand in klares Wasser kurz eintauchen) zu unterziehen.
- Öl-Sättigung der Filterpatrone (E) überprüfen.
- Gängigkeit des Regelventils (H) überprüfen.
- Luftvolumenstromanzeige (P) bei Luftreinigungseinheit auf Schäden prüfen.
- Druckfilter (B) hinsichtlich Funktion und Manometeranzeige überprüfen. Bei Bedarf Sinterbroncefilter reinigen und Feinfilterpatrone ersetzen (siehe Bedienungsanleitung SATA-Luftfilter).
- In regelmäßigen Abständen, täglich, wöchentlich bei täglichem Gebrauch, sowie bei nicht luftdicht verpackten Gerät halbjährlich ist die Haube einer Desinfektion zu unterziehen. Hierzu kann der Haubeneinsatz herausgenommen werden. Die Haubeneinlagen sind bei Verschmutzungen zu ersetzen (Bestell. Nr. siehe Ersatzteilliste). Benutzen mehrere Personen die Haube, so ist die Desinfektion bei Personenwechsel durchzuführen. Hier empfiehlt es sich, für jede Person eine eigene Kopfhaube anzuschaffen. Als Desinfektionsmittel empfehlen wir Incidur der Fa. Henkel. Spätestens halbjährlich ist das Gerät zu reinigen und einem Funktions- und Dichtheitstest zu unterziehen, sowie die Aktivkohlepatrone zu tauschen. Ersatzpatrone und Neugerät 5 Jahre lagerfähig, wenn luftdicht verpackt.
  Das Gerät ist bei Nichtbenutzung an einem sauberen trockenem Ort aufzubewahren, jedoch nicht in der Kombikabir

5. Hinweise zur Anwendung

ACHTUNG:
1. Druckluft-Schlauchgeräte, EN 270, mit Atemschutzhaube (geschlossenes Sichtfeld) als Atemanschluß dürfen aufgrund ihrer Bauweise nicht in giftiger Umgebungsatmosphäre eingesetzt werden, in welcher Sauerstoffmangel herrscht oder der 100fache MAK- bzw. TRK-Wert überschritten wird.
2. Druckluftschlauchgeräte für leichte Einsätze, pr EN 1835 Klasse 1 mit Atemschutzhaube (ausgestanztes Sichtfeld) dürfen aufgrund ihrer Bauweise nicht gegen krebserzeugende, sehr giftige und radioaktive Stoffe, Mikroorganismen (Viren, Bakterien und Pilze und deren Sporen) und Enzyme sowie in giftiger Umgebung eingesetzt werden, in welcher Sauerstoffmangel herrscht oder der 5fache MAK- bzw. TRK-Wert überschritten wird.

- Vor jedem Gebrauch ist ein Funktions- und Dichtheitstest mit dem gesamten Gerät durchzuführen.
- Nicht alle Personen dürfen Atemschutzgeräte tragen. Atemschutz-Geräteträger sind durch ärztliche Untersuchungen gem. "Berufgenossenschaftlicher Grundsätze für arbeitsmedizinische Vorsorgeuntersuchungen G 26: Träger von Atemschutzgeräten für Arbeit und Rettung" (A.W. Gentner-Verlag, Stuttgart) auf Eignung zu überprüfen. Desweiteren sind die einschlägigen Vorschriften gem. Atemschutz-Merkblatt ZH 1/701 zu berücksichtig
- Das Gerät hat eine bedarfsunabhängige Atemluftversorgung. Mit dem Regelventil (H) kann der jeweilige Atemluftbedarf für die betreffende Person nachgeregelt werden.
- Das Gerät nur mit einem zugelassenen Druckluft-Zuführungsschlauch (max. 50 m, bei Gurtteil 30668 max. 6 m) mit Sicherheits-Schnellkupplungen betreiben (z. B. SATA Bestell-Nr. 49080, 6 m).
- ACHTUNG: Zum Entkuppeln der Sicherheits-Schnellkupplungen den Kupplungsnippel in Kupplung eindrücken und gleichzeitig die Schiebemuffe der Kupplung zurückschieben.

(A) (D)

- Immer sicherstellen, daß die angesaugte Verdichterluft nicht durch Umwelteinflüsse, wie z. B. Abgase von Verbrennungsmotoren, Heizungen, Lösungsmitteldämpfen etc. verunreinigt wird und der DIN EN 132 bezüglich des Kohlendioxidgehaltes entspricht.
- Bei Einsatz des Gerätes unter +5°C Umgebungstemperatur ist die Sichtscheibe von innen mit einem zugelassenen Antibeschlagmittel zu behandeln. Wir empfehlen hierzu:
  Klarsichtmittel 75 - Bestell-Nr. 6700470 von Drägerwerk AG, Moislinger Allee 53-55, 23542 Lübeck
  oder Klarsichtmittel 2260-903 von Auergesellschaft GmbH, Hanauer Landstraße 213, 60314 Frankfurt/Main
- ACHTUNG:
  Schutzwirkung ist nur gewährleistet, wenn

1. Standardausführung

Die Druckanzeige im grünen Bereich. Bei jeder Inbetriebnahme, besonders bei gleichzeitigem Betrieb einer Spritzpistole, ist die Druckanzeige zu prüfen, bzw. akustische Warneinrichtung zu prüfen (Zeiger im Rotbereich - Pfeifton muß ertönen), evt. Betriebsdruck erhöhen.

2. Alternativausführung

Der Betriebsdruck am Druckluftfilter (B) beträgt 4 bar, bei Unterschreitung ertönt ein Pfeifton, evt. Betriebsdruck anpassen.

- Haube so aufsetzen, daß die Haubeneinlage zumindest unter dem Kinn am Gesicht anliegt.

6. Instandsetzung

Bei Defekten bzw. Verschleiß am Gerät ist das betreffende Bauteil zu ersetzen, wenn es gemäß Gebrauchsanleitung al Ersatzteil aufgeführt ist. Ansonsten ist das Gerät zur Instandsetzung einzuschicken.
Nach dem Austausch von Teilen, die die Dichtheit beeinflussen können, ist eine vollständige Funktions- und Dichtheitsp fung durchzuführen.

7. Sinnvolles Zubehör

Bestell-Nr.	Benennung
84996	SATA-Kombi-Feinfilter-Einheit 0/344 kpl. verpackt
13870	Luftschlauch 1,2 m kpl. montiert, für Spritzpistole zu SATA-ASS
49080	Druckluft-Zuführungsschlauch 9,5x5 mm für SATA ASS CE-Ausführung, 6 m lang, kpl. montiert mit Sicherheitsschnellkupplung
22905	Ersatzfolien für SATA ASS, Paket à 25 Stück Nr. 0/767
54197	Packung mit 20 Stück Haubeneinlagen für SATA-ASS
54205	Packung mit 2 Stück Haubeneinlagen für SATA-ASS

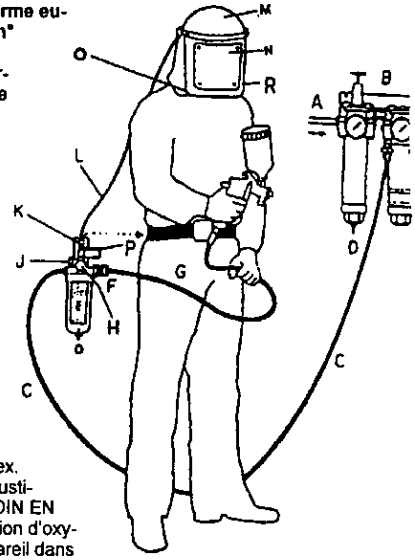
8. Garantiebedingungen

Für derartige Geräte leisten wir eine Garantie von 6 Monaten, die mit dem Tage des Verkaufs an den Endabnehmer beginnt.
Die Garantie erstreckt sich auf den Materialwert von Teilen mit Fabrikations- und Materialfehlern, die sich innerhalb der Garantiezeit herausstellen. Ausgeschlossen sind Schäden, die durch ungeeignete oder unsachgemäße Verwendung, fe lerhafte Montage bzw. Inbetriebsetzung durch den Käufer oder durch Dritte, natürliche Abnutzung, fehlerhafte Behandlung oder Wartung, ungeeignete Spritzmaterialien, Austauschwerkstoffe und chemische, elektrochemische oder elektrische Einflüsse entstehen, sofern die Schäden nicht auf ein Verschulden von uns zurückzuführen sind. Schmirgeln de Spritzmaterialien, wie z.B. Bleimennige, Dispersionen, Glasuren, flüssige Schmirgel o.ä. verringern die Lebensdauer von Ventilen, Packungen, Pistole und Düse. Hierauf zurückzuführende Verschleißerscheinungen sind durch die Garanti nicht gedeckt.
Das Gerät ist unverzüglich nach Empfang zu kontrollieren. Offensichtliche Mängel sind bei Vermeidung des Verlustes d Mängelrechte innerhalb von 14 Tagen nach Empfang des Gerätes der Lieferfirma oder uns schriftlich mitzuteilen. Weite gehende Ansprüche jeglicher Art, insbesondere auf Schadenersatz, sind ausgeschlossen. Das gilt auch für Schäden, di bei Beratung, Einarbeitung und Vorführung entstehen. Wünscht der Käufer sofortige Reparatur oder Ersatz, bevor festg stellt ist, ob von uns eine Ersatzpflicht besteht, so erfolgt die Ersatzlieferung oder Reparatur gegen Berechnung und Bezahlung des jeweiligen Tagespreises. Stellt sich bei der Überprüfung der Mängelrüge heraus, daß ein Garantieanspruch besteht, erhält der Käufer für die beechnete Reparatur oder Ersatzlieferung eine Gutschrift entsprechend der Garantiele stung. Teile, für die Ersatz geliefert wurde, gehen in unser Eigentum über.
Mängelrügen oder sonstige Beanstandungen berechtigen den Käufer bzw. den Auftraggeber nicht, die Bezahlung zu ve weigern oder zu verzögern.
Versand des Gerätes hat an uns spesenfrei zu erfolgen. Montagekosten (Arbeitszeit- und Fahrtkosten) sowie Fracht un Verpackungsspesen können wir nicht übernehmen. Hier gelten unsere Montagebedingungen. Garantieleistungen bewir ken keine Verlängerung der Garantiezeit. Die Garantie erlischt bei Fremdeingriffen.

Mode d'emploi p. Super lot de protection des voies respiratoires

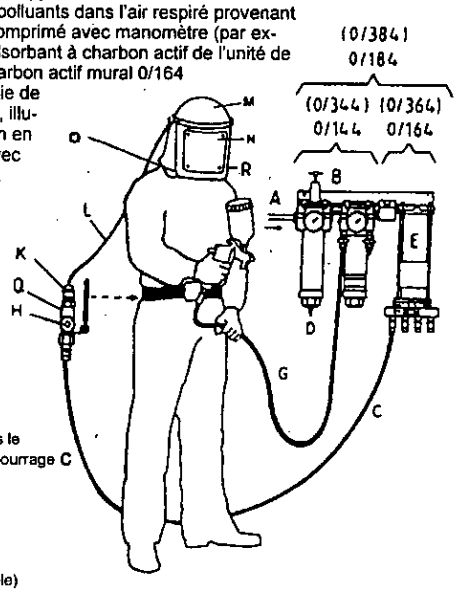
Avant de mettre l'appareil en service, il est indispensable de lire attentivement et entièrement le mode d'emploi ainsi que d'observer les règlements de prévoyance contre les accidents, les prescriptions des centres de travail ainsi que les directives, la législation et les restrictions en vigueur, par exemple les règles d'utilisation d'appareils de respiration ZH 1/701, pour le laquage, la directive VGB 23, etc. L'utilisation de l'appareil est strictement réservée à des personnes ayant reçu les instructions correspondantes et il doit uniquement être mis en oeuvre conformément à sa destination spécifique. Avant tout travail de réparation et de maintenance, l'appareil doit être découplé du système d'alimentation en air comprimé.

Super lot de protection des voies respiratoires SATA , type 25-13 / n° de commande 54 148, appareil à flexible à air comprimé selon la norme européenne EN 270, comprenant un masque respiratoire intégral, n° de commande 54155 (ou 59840 ou resp. 67595) et une unité de sangle avec adsorbant à charbon actif, illustration 1, ou, en alternative, une unité de sangle sans adsorbant à charbon actif, n° de commande 58149 (ou 30668), illustration 2.



Lot de protection des voies respiratoires SATA, masque respiratoire intégral avec découpe de champ visuel, unité de sangle avec adsorbant à charbon actif (comme illustration 1) et, en alternative, sans adsorbant à charbon actif (comme illustration 2), appareil à flexible à air comprimé pour utilisations faciles selon la norme européenne prEN 1835, masque respiratoire intégral classe 1.

Le super lot de protection des voies respiratoires SATA, protège efficacement la santé des peintres et son utilisation est judicieuse partout là où l'on travaille dans un environnement nocif. Il comprend un masque respiratoire intégral aéré qui est alimenté en air filtré de la respiration, une unité de sangle avec filtre à charbon actif où un appareil à air comprimé supplémentaire peut être raccordé, illustration 1 ou, en alternative, une unité de sangle sans filtre à charbon actif et sans possibilité de raccordement d'un appareil à air comprimé, illustration 2, et un flexible d'alimentation en air comprimé. L'exploitant est tenu de s'assurer que l'air passant par le compresseur est exempt de gaz, de vapeurs et de particules nocives (p. ex. gaz d'échappement de moteurs à combustion interne, fours de combustion, vapeurs de solvants) de sorte que les exigences selon la norme DIN EN 132 eu égard à la teneur en gaz carbonique soient remplies. L'utilisation d'oxygène ou d'air enrichi à l'oxygène est interdite. Une utilisation de l'appareil dans une atmosphère combustible est autorisée. Pour éliminer des polluants dans l'air respiré provenant du compresseur, par exemple embruns d'huile, un filtre à air comprimé avec manomètre (par exemple SATA 0/144 ou 0/344) doit être monté en plus entre l'adsorbant à charbon actif de l'unité de sangle, illustration 1, ou alternativement entre l'adsorbant à charbon actif mural 0/164 (0/364) et le réseau d'air d'alimentation. L'unité de sangle (partie de sangle) est liée au système d'alimentation en air comprimé (B), illustration 1 ou resp. (E), illustration 2 par le flexible d'alimentation en air comprimé homologué (résistant à la chaleur, 50 m max.) avec des raccords rapides de sécurité, p. ex. SATA, n° 49080 (6 m).



A - système d'alimentation en air
B - filtre à air comprimé SATA 0/144 (0/344)
C - flexible d'alimentation en air comprimé pour le lot de protection des voies respiratoires, SATA, n° 49080
D - soupape de purge d'huile et de condensats
E - adsorbant à charbon actif avec cartouche filtrante interchangeable
F - raccord rapide pour raccordement de l'appareil à air comprimé
G - flexible d'alimentation en air du pistolet
H - soupape de régulation d'air de respiration
J - soupape anti-surpression
K - raccord rapide pour flexible respiratoire
L - flexible respiratoire
M - masque respiratoire intégral aéré avec champ visuel rabattable vers le haut et protège-nuque (pourvu à l'intérieur d'un insert et d'un rembourrage interchangeables pour assurer l'hygiène personnel)
N - feuille interchangeable
O - champ visuel rabattable vers le haut
P - indicateur de débit d'air
Q - partie de sangle sans adsorbant à charbon actif
R - dispositif d'avertissement acoustique pour débit minimum (pas visible)

Mode d'emploi p. Super lot de protection des voies respiratoires

1. Matériel fourni d'origine
- Exécution standard
Masque respiratoire intégral aéré à alimentation en air continue réglable, avec champ visuel rabattable vers le haut pour feuilles interchangeables, protection des cheveux et protège-nuque antistatiques, insert de masque interchangeable avec rembourrage ainsi que 5 inserts de remplacement, cartouche filtrante avec soupape de régulation montée sur une sangle ajustable, soupape anti-surpression, filtre à charbon actif, indicateur de débit d'air, branchement pour raccord rapide pour l'entrée d'air inspiratoire et un branchement pour la sortie d'air expiratoire vers le masque respiratoire intégral ainsi qu'un sortie vers le pistolet, feuilles de remplacement pour le champ visuel. Pour l'exécution standard 54148, l'appareil comprenant un masque respiratoire intégral 54155 et une unité de sangle 54015, est fourni complet. Pour les autres variantes d'appareil, conformément au tableau, les éléments individuels, à savoir masque respiratoire intégral (protection de la tête et unité de sangle (partie sangle) sont fournis séparément et doivent être combinés par l'utilisateur.

Exécution	Masque respiratoire	Masque respiratoire	Masque respiratoire	Masque respiratoire
Unité de sangle	**Masque respiratoire intégral ASS, toile protège-tête rouge, n° de commande 54155**	Masque respiratoire intégral ASS, toile protège-tête gris avec tablier, exécution industrielle, n° de commande 59840	Masque respiratoire intégral ASS, toile protège-tête gris au-dessus de calotte avec tablier, n° de commande 67595	Masque respiratoire intégral ASS avec découpe de champ visuel, toile protège-tête gris avec tablier, n° de commande 54825
Unité de sangle avec adsorbant à charbon actif, unité d'epuration d'air, n° de commande 54015	X	X		X
Partie de sangle sans adsorbant à charbon actif, execution industrielle, n° de commande 58149	X	X		X
Partie de sangle sans adsorbant à charbon actif, raccordement vissable 9/16"-20UNS, n° de commande 30668			X	

* Uniquement flexible d'alimentation en air comprimé de 6 m de long au maximum, avec connecteur rotatif sur le filtre à air comprimé (B) admissible (raccordement unité de sangle raccord vissé de flexible)

- Exécution alternative comprenant les éléments tels que par exemple
1. Masque respiratoire intégral aéré, n° de commande 54155, comme pour exécution standard
2. Partie de sangle, n° de commande 58149, alimentation en air réglable (soupape de régulation d'air de respiration, montée sur une sangle de corps ajustable, avec un branchement pour raccord rapide pour l'entrée inspiratoire (raccord vissé pour 30668) et la sortie expiratoire vers le masque respiratoire intégral (protection de la tête).

2. Caractéristiques techniques

Surpression de service requise*)	4 bars
Surpression de service maxi*	4 bars
Débit minimum requis	170 Nl/mn**
Unité de sangle avec adsorbant à charbon actif:	
surpression de service maxi avec outil à air comprimé	8 bars
(l'indicateur de pression doit être dans la zone verte, si nécessaire, fermer la soupape de régulation)	
Température de service	-6°C à 60°C
Longueur de flexible maximale	50 m
Niveau sonore pour débit d'air minimum	73 dB (A)
Poids du masque respiratoire intégral	470 g environ
Poids de l'adsorbant à charbon actif	750 g environ
Poids de l'unité de sangle sans filtre à charbon actif	260 g environ

*) Pression du système d'alimentation en air (A) 1 bar au minimum au-dessus de la surpression de service réglée. En cas de fonctionnement simultané d'un outil à air comprimé avec absorbant à charbon actif 54015, augmenter la surpression de service jusqu'à ce que le débit d'air souhaité s'ajuste (indication de pression sur l'unité d'épuration d'air dans la zone verte).

** ATTENTION: En cas de dépassement par le bas du débit minimum de 170 Nl/mn., un signal d'avertissement acoustique est délivré, indiquant que le débit d'air est trop faible pour une fonction de protection suffisante. Augmenter la pression de service ou ouvrir la soupape de régulation immédiatement jusqu'à ce que plus aucun sifflement ne soit audible (indicateur manométrique dans la zone verte). Si cela n'est pas possible, enlever immédiatement le masque respiratoire intégral et quitter l'environnement nocif puis contrôler le système d'alimentation en air ou l'appareil respiratoire.

Mode d'emploi p. Super lot de protection des voies respiratoires

3. Mode de fonctionnement de l'unité d'épuration d'air avec adsorbant à charbon actif et l'unité de sangle san adsorbant à charbon actif

La durée de vie des cartouches à charbon actif et la qualité de l'air respiré dépendent essentiellement de la préépuratior de l'air comprimé alimenté. C'est pourquoi le filtre à air comprimé SATA 0/144 (0/344) avec une purge automatique des condensats doit être monté en amont. Cet appareil filtre quasiment toutes les particules d'eau et de poussière de l'air comprimé. Si la différence de pression entre les manomètres disposés sur 0/144 (0/344) est supérieure à 1 bar, la carto che filtrante fine doit être remplacée (voir mode d'emploi des filtres à air SATA). Pour éliminer encore plus les vapeurs d'embruns d'huile de l'air à respirer, un filtre à charbon actif (E) est intercalé. La saturation des charbons actifs peut être aisément détectée lorsque la bande d'indicateur passe au bleu. Dans le cas de l'exécution standard, illustration 1, celle-c est logée dans la cartouche à charbon actif et, pour l'exécution alternative, elle se situe derrière la fenêtre de contrôle du filtre à charbon actif 0/164 (0/364), illustration 2.

- Pour exécution standard, unité d'épuration d'air 54015

  Une fois que la cartouche est saturée, il suffit d'enlever le panier protecteur, de dévisser la cloche en plastique transparent et d'insérer une cartouche neuve. Au dessous de la cloche en plastique transparent se trouve une soupape de purge qui permet d'évacuer les condensants susceptibles de s'y être accumulés. La soupape de régulation du débit d'air requis est dimensionnée de sorte qu'en présence d'une pression de service minimale de 4 bars sans appareil à air comprimé, 170 Nl/mn d'air épuré soient amenés au masque respiratoire (indicateur de pression encore dans la zone verte). En ouvrant la soupape de régulation (position -H-), le débit d'air peut être augmenté jusqu'à plus de 300 Nl/mn (indicateur de pression dans la limite supérieure de la zone verte). En cas d'augmentation plus importante du débit d'air, un anti-bruits doit être porté. La soupape anti-surpression intégrée se déclenche en présence d'une pression de 8 bars environ.

- Pour exécution alternative, partie de sangle 58149 et 30668

  Une fois que la cartouche est saturée, dévisser le tube de filtre de sur 0/164 (0/364), extraire la cartouche filtrante puis y placer une neuve dans le sens inverse des opérations. Enlever le papier indicateur en dévissant la fenêtre de contrôle puis y placer un papier indicateur neuf. La soupape de régulation est dimensionnée de sorte qu'en présenc d'une pression de service minimale de 4 bars, 170 Nl/mn d'air épuré soient amenés au masque respiratoire. En ouvrant la soupape de régulation (position -H-), le débit d'air peut être augmenté jusqu'à plus de 300 Nl/mn.

4. Entretien, soins, et stockage

- Après utilisation, l'appareil doit être nettoyé et désinfecté et l'appareil complet doit être soumis à un test fonctionnel d'étanchéité (plonger brièvement l'unité d'absorbant à l'état prêt à fonctionner et alimenté en air dans de l'eau claire
- Contrôler la saturation d'huile de la cartouche filtrante (E).
- Contrôler le bon fonctionnement de la soupape de régulation (H).
- Contrôler si l'indicateur de débit d'air (P) de l'unité d'épuration d'air est en parfait état de fonctionnement.
- Contrôler le fonctionnement du filtre à air comprimé et de l'indicateur manométrique, si nécessaire, nettoyer le filtre bronze fritté et remplacer la cartouche de filtre fin (voir le mode d'emploi des filtres à air SATA)
- Le masque intégral doit être désinfecté à intervalles réguliers, une fois par jour, une fois par semaine en cas d'utilisation quotidienne, tous les six mois si les appareils ne sont pas emballés hermétiquement. A cet effet, l'insert peut être enlevé. Les rembourrages doivent être remplacés s'ils ne sont plus propres (pour le n° de commande, vo liste des pièces de rechange). Au cas où le masque respiratoire intégral serait utilisé par plusieurs personnes, la désinfection doit être réalisée à chaque fois avant qu'une nouvelle personne l'utilise. Il est cependant judicieux que chaque personne dispose de son propre masque. En tant que désinfectant, nous préconisons l'utilisation du produit "Incidur" de l'entreprise Henkel. L'appareil doit être nettoyé et soumis à un test fonctionnel et d'étanchéité au plus ta tous les semestres et la cartouche à charbon actif doit être remplacée. La cartouche de rechange et l'appareil pas encore utilisé peuvent être stockés 5 ans à condition d'être conditionnés hermétiquement. Si l'appareil est inutilisé, doit être conservé dans un endroit propre et sec, toutefois pas dans la cabine combinée.

5. Consignes d'utilisation

- ATTENTION:

1. L'utilisation des appareils à flexible à air comprimé, EN 270, avec masque respiratoire intégral (à champ visuel fern en tant que raccord d'air respiratoire dans une atmosphère toxique au sein de laquelle un manque d'oxygène règne ou au sein de laquelle la valeur de concentration maximale au poste de travail est cent fois plus élevée est interdite.
2. Les appareils à flexible à air comprimé pour interventions faciles, pr EN 1835 classe 1 avec masque respiratoire intégral (champ visuel découpé) n'ont pas le droit d'être utilisés, en raison de leur construction, pour se protéger de substances, micro-organismes très nocifs, radioactifs, cancérigènes (virus, bactéries et champignons et leurs spor et pour se protéger d'enzymes ainsi que dans un environnement nocif au sein duquel un manque d'oxygène règne au sein duquel la valeur de concentration maximale au poste de travail est cinq fois plus élevée.

- Avant toute utilisation, l'étanchéité et le fonctionnement de la totalité de l'appareil doivent être contrôlés.
- Le port d'appareils respiratoires est réservé aux personnes autorisées. L'aptitude des porteurs de protections des voies respiratoires doit avoir été vérifiée par des examens médicaux conformément aux "Principes fondamentaux d caisses de prévoyance contre les accidents relatives aux examens prophylactiques de médecine du travail G 26: Porteurs d'appareils respiratoires pour le travail et le secourisme" (A. W. Gentner-Verlag, Stuttgart). En outre, les prescriptions et réglementations en vigueur figurant dans la fiche relative à la protection des voies respiratoires ZH 1/701 ou les prescriptions et législations en vigueur dans le pays d'utilisation doivent être observées.

(B) (F) (L)

Mode d'emploi p. Super lot de protection des voies respiratoire

- L'appareil dispose d'une alimentation en air respirable indépendante des besoins. La soupape de régulation (H) assure un réglage des besoins individuels en air respirable.
- L'appareil doit être exclusivement exploité avec un flexible d'alimentation en air comprimé homologué (50 m max.,p partie de sangle 30668 6 m max.) doté de raccords rapides de sécurité (p. ex. SATA, n° de commande 49080, 6 m

ATTENTION:
Pour découpler les raccords rapides de sécurité, enfoncer le nipple dans le raccord tout en repoussant simultanément le manchon coulissant du raccord.

- Toujours s'assurer que l'air du compresseur aspiré n'est pas pollué par des influences ambiantes, p. ex. gaz d'échappement de moteurs à combustion interne, chauffages, vapeurs de solvants, etc. et qu'il satisfait aux exigences de la norme DIN EN 132 eu égard à la teneur en gaz carbonique.
- En cas d'utilisation de l'appareil à une température ambiante inférieure à +5 °C, il convient de traiter la paroi intérieu de la vitre au moyen d'un agent antibuée homologué. A cet effet, nous recommandons l'emploi des produits suivan antibuée Klarsichtmittel 75 - n° de commande 6700470 de l'entreprise Drägewerk AG, Moislinger Allee 53-55, D-23542 Lübeck ou antibuée Klarsichtmittel 2260-903 de l'entreprise Auergesellschaft GmbH, Hanauer Landstraße 213, D-60314 Frankfurt/Main

ATTENTION: Un effet de protection est uniquement garanti si les conditions suivantes sont remplies:
1. Exécution standard
L'indication de pression est dans la zone verte. A chaque mise en service, plus particulièrement en exploitation simultanée d'un pistolet, l'indication de pression ou le dispositif d'avertissement acoustique doit être vérifié (aiguille dans la zone rouge - un sifflement doit retentir) et la pression de service doit être augmentée si nécessaire.
2. Exécution alternative
La pression de service sur le filtre à air comprimé (B) est de 4 bars, un sifflement d'alarme est délivré en cas de dépassement par le bas, adapter la pression de service si nécessaire.

- Placer le masque respiratoire intégral de sorte que l'insert soit au moins au contact sous le menton.

6. Réparation
En cas de défectuosités de l'appareil ou en présence d'usure, le module concerné doit être remplacé lorsqu'il est, selon mode d'emploi, déclaré en tant que pièce de rechange. Sinon, l'appareil doit être expédié pour être réparé. A la suite d'u remplacement de pièces susceptibles d'influencer l'étanchéité, un essai fonctionnel et d'étanchéité intégral doit être réal sé.

7. Accessoires utiles

N° de commande	Désignation
84996	Unité de filtre fin combinée SATA 0/344 entièrement emballée
13870	Flexible à air de 1,2 m entièrement monté, pour pistolet du SATA ASS
49080	Flexible d'alimentation en air comprimé 9,5 x 5,0 mm pour SATA ASS, exécution CE, 6 m de long, entièrement monté, avec raccord rapide de sécurité
22905	Feuilles de rechange pour SATA ASS, paquet de 25 unités, n° 0/767
54197	Paquet de 20 unités de rembourrages pour SATA-ASS
54205	Paquet de 2 unités de rembourrages pour SATA-ASS

Conditions de garantie
Conditions de garantie dans la mesure où le fournisseur accorde une garantie de fabrication selon l'offre.

a) Le fournisseur concède une garantie de 6 mois sur l'appareil à compter du jour des la vente au client.
b) La garantie s'étend à la valeur des pièces entachées de vices de fabrication et de matériaux constatés durant la période de garantie. En sont exclus les dommages qui résultent d'une fausse commande, d'une usure normale ou d'endommagements mécaniques.
c) Toutes les autres revendications de nature quelconque envers le fournisseur, notamment la prétention à une réparation de dommage, sont exclues. Ceci s'applique également aux dommages se produisant lors de l'assistanc conseil, de l'initiation et de la présentation. Les revendications du client final envers son partenaire contractuel à l'a ne sont pas concernées.
d) Si l'acheteur souhaite une réparation ou un remplacement immédiat avant constatation de l'obligation de remplacement du fournisseur, la livraison de rechange ou la réparation se fait contre facturation et règlement du barème hor respectif. S'il s'avère, lors du contrôle de la réclamation, que le droit à garantie s'applique, l'acheteur bénéficie d'un avoir conformément à la prestation de garantie pour la réparation ou la livraison de pièces de rechange facturée. L pièces livrées pour le remplacement deviennent la propriété du fournisseur. Les réclamations de vices ou autres réclamations ne donnent pas à l'acheteur ou au commettant le droit de refuser ou de retarder le règlement.
e) L'expédition de l'appareil doit se faire sans frais. Les coûts engagés pour la délégation de monteurs (frais de déplacement et de trajet) ainsi que les coûts de frêt et d'emballage ne sont pas supportés par le fournisseur. Les conditions de montage du fournisseur trouvent ici application.
f) Les prestations de garantie ne donnent lieu à aucune prolongation de la période de garantie.
g) La garantie expire lors d'interventions effectuées sur l'appareil par des tiers.
h) Les clauses de garantie font partie intégrante des conditions générales de livraison du fournisseur.

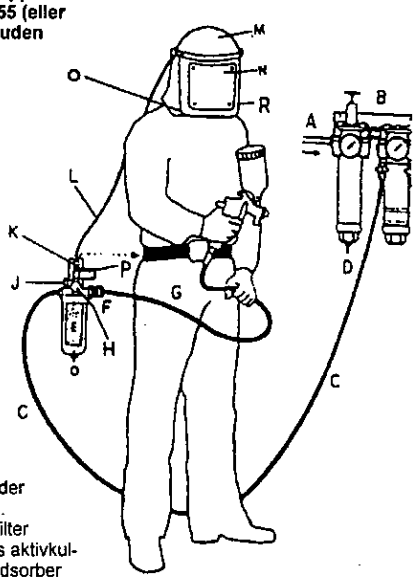
SATA ne prend aucune responsibilité pour des dégâts occasionnés par un non-respect du mode d'emploi.
Sous réserve de changements techniques.

Betjeningsveldning før SATA-Super-iltmaske-sæt

Før apparatet tages i brug, skal hele brugsvejledningen læses omhyggeligt. Herved skal man være opmærksom på alle bestemmelser, der vedrører ulykkesforebyggende foranstaltninger, arbejdspladsforhold og retningslinjer samt gældende lovforskrifter og indskrænkninger, f.eks. forskrifter angående brug af apparater af typen ZH 1/701 til beskyttelse af luftvejene samt bestemmelser vedr. lakeringsarbejder VBG 23, etc. Apparatet må kun benyttes af instruerede personer i henhold til dets bestemmelse. Forud for reparations- og vedligeholdelsesarbejder skal apparatet kobles fra trykluftsystemet.

SATA-Super-iltmaske-sæt af typen 25-13/ordre-nr. 54148, trykluftapparat med slange EN 270, bestående af luftvejsbeskyttelsesmaske 54155 (eller 59840/67595) samt seleenhed med aktivkul-adsorber (fig. 1) eller uden aktivkul-adsorber, ordre-nr. 58149 (eller 30668), fig. 2.

SATA-iltmaske-sæt, luftvejsbeskyttelsesmaske med udstanset synsfelt samt seleenhed med aktivkul-adsorber (svarer til fig. 1) eller uden aktivkul-adsorber (svarer til fig. 2), trykluftapparat med slange til lettere arbejder prEN 1835, luftvejsbeskyttelsesmaske kl. 1.

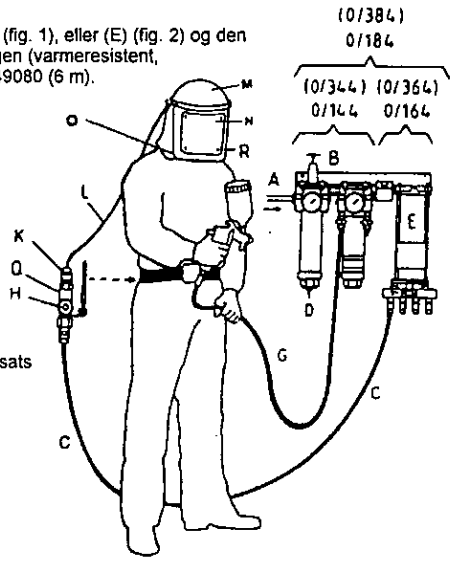


SATA-sættet til effektiv beskyttelse af luftvejene er bl.a. beregnet til lakeringsarbejder samt til opgaver, der udføres i sundhedsfarlige områder. Sættet består af en ventileret luftvejsbeskyttelsesmaske, der forsynes med luft, der er blevet filtreret, en seleenhed med aktivkul-filter, der kan sluttes til et trykluftaggregat (fig. 1) eller seleenhed uden aktivkul-filter og uden mulighed for tilslutning til trykluftaggregat (fig. 2) inkl. tilførselsslange.

Det påhviler brugeren af masken at sørge for, at den luft der indsuges gennem kompressoren, er fri for skadelige gasser, dampe og partikler (f.eks. udstødningsgas fra forbrændingsmotorer eller -ovne eller dampe fra opløsningsmidler) i et omfang, der svarer til kravene i DIN EN 132 vedr. indholdet af kuldioxid. Det er ikke tilladt at benytte ilt eller iltholdig luft. Apparatet er velegnet til benyttelse i områder med brandfare. Til fjernelse af smudspartikler i indåndingsluften (f.eks. olietåger), der stammer fra kompressoren, monteres et ekstra trykluftfilter inkl. manometer (f.eks. SATA 0/144 eller 0/344) mellem seleenhedens aktivkul-adsorber (fig. 1) eller alternativt mellem den vægmonterede aktivkul-adsorber 0/164 (0/364) og luftnettet.

Etablering af forbindelse mellem trykluftforsyningssystemet (B) (fig. 1), eller (E) (fig. 2) og den pågældende seleenhed (seledel) sker via trykluft-tilførselsslangen (varmeresistent, maks. 50 m) med sikkerhedskoblinger, f.eks. SATA, ordre-nr. 49080 (6 m).

A - Lufttilførselssystem
B - SATA trykluftfilter 0/144 (0/344)
C - Trykluft-tilførselsslange til luftvejsbeskyttelses-sættet, SATA ordre-nr. 49080
D - Aftapningsventil til olie og kondensat
E - Aktivkul-adsorber med udskiftelig filterpatron
F - Hurtigkoblingsenhed for tilslutning til trykluftaggregat
G - Luftslange til sprøjtepistol
H - Justeringsventil til indåndingsluft
J - Overtryksventil
K - Hurtigkoblingsenhed til iltslange
L - Iltslange
M - Ventileret luftvejsbeskyttelsesmaske med rude (kan klappes op) og nakkebeskyttelse med indvendig kappeindsats og kappeindlæg til personlig hygiejne (kan udskiftes).
N - Udskiftelig folie
O - Rude (kan klappes op)
P - Visning af luftvolumenstrøm
Q - Seledel uden aktivkul-adsorber
R - Akustisk advarselsmekanisme til minimumgennemløb (ikke synligt)



DK

Betjeningsveldning før SATA-Super-iltmaske-sæt

1. Leveringsomfang
- Standardudførelse
Ventileret luftvejsbeskyttelseskappe med justerbar, kontinuerlig lufttilførsel, rude med folie (kan udskiftes), antistatisk hår- og nakkebeskyttelse und udskiftelig kappeindsats med indlæg samt 5 reserveindlæg, filterpatron med justeringsventil, monteret på justerbar sele, overtryksventil, aktivkul-filter, visning af luftvolumenstrøm, hurtigkoblingsenhed til iltkappens luftindtag og -udgang, samt udgang til f.eks. sprøjtepistol, reservefolier til rude.
Ved standardudførelse 54148 leveres apparatet, bestående af kappe 54155 og seleenhed 54015, komplet.
Hos de andre variationer (se opstilling) leveres enkeltdelene (kappe og seleenhed) separat og kombineres herefter af bru geren.

Combinations	Respirator Hood	Respirator Hood	Respirator Hood	Respirator Hood
Seleenhed	Kappe ASS rødt tørklæde, N° 54155	Kappe ASS gråt tørklæde med brystdug, industri-udførelse, , N° 59840	Kappe ASS gråt tørklæde over katotte med brystdug, N° 59840	Kappe ASS med udstanset synsfelt, gråt tørklæde med brystdug, N° 54825
Seleenhed med aktivkul-adsorber, luftrensningsenhed, ordre-nr. 54015	X	X		X
Seledel uden aktivkuladsorber, industriudførelse, ordre-nr. 58149	X	X		X
Seledel uden aktivkuladsorber, skrueforbindelse 9/16"-20 UNS ordre-nr. 30668*			X	

* Anvend kun trykluftilførselsslange på maks. 6 m med drejbar kobling ved trykluftfilteret (B) (forbindelse på seleenhed, slangeforskruning)
- Alternativ udførelse, bestående af enkeltelementer, f.eks.
1. Ventileret luftvejsbeskyttelseskappe, ordre.nr. 54155, som ved standardudførelse.
2. Seledel, ordre-nr. 58149, justerbar luftforsyning (justeringsventil), monteret på regulerbar sele, med hurtigkoblingsforbi delse til luftindtag (ved 30668 skrueforbindelse) og luftafgang på luftvejsbeskyttelseskappe (hovedkappe).

2. Tekniske data

Påkrævet driftsovertryk*	4 bar
Maks. driftsovertryk*	4 bar
Påkrævet volumenstrøm	min. 170 Nl/min**
Seleenhed med aktivkuladsorber:	
Maks. driftsovertryk med trykluftværktøj	8 bar
(trykvisning skal bevæge sig i det grønne område. Justeringsventil lukkes efter behov)	
Driftstemperatur	-6°C til 60°C
Maks. slangelængde	50 m
Lydniveau ved min. volumenstrøm	73 dB (A)
Kappens vægt	ca. 470 g
Aktivkul-adsorberens vægt	ca. 750 g
Seleenhedens vægt (uden aktivkulfilter)	ca. 260 g

* Systemtryk for lufttilførsel (A) mindst 1 bar over indstillet driftsovertryk.
Ved samtidig drift af pneumatisk værktøj i forbindelse med seleenhed med aktivkul-adsorber 54015, øges driftsover- trykket, indtil luftkapaciteten svarer til den ønskede værdi (indikatoren på luftrensningsenheden bevæger sig i det grønne område).
** **OBS.:** Kommer man ned under den minimale volumenstrøm på 170 Nl/min., høres et akustisk advarselssignal, som i dikerer, at luftmængden er for ringe til at kunne yde tilstrækkelig beskyttelse. I situationer som disse skal driftsovertrykke øges med det samme, eller der åbnes så meget for justeringsventilen, at hyletonen ophører (manometervisning bevæge sig i det grønne område). Såfremt dette ikke kan lade sig gøre, tages kappen af straks, hvorefter det sundhedstruende område forlades og lufttilførselssystemet/luftvejsbeskyttelsesapparatet efterses.

Betjeningsveldning før SATA-Super-iltmaske-sæt

3. Hvordan virker luftrensningsenheden med aktivkul-adsorber og seleenheden uden aktivkul-adsorber?
Aktivkul-patronernes holdbarhed samt kvaliteten af den luft, der indåndes, afhænger af måden, den tilførte trykluft forren ses på. Derfor anbefales det at tilslutte et trykluftfilter, SATA 0/144 (0/344) med automatisk kondensataftapning.
Apparatet udfiltrerer så godt som alle vand- og støvpartikler i trykluften. Hvis trykforskellen mellem manometrene på 0/144 (0/344) er større end 1 bar, skal finfilterpatronen udskiftes (se brugervejledning for SATA-luftfilter).
Til yderligere rensning af indåndingsluften for olieholdige tåger/dampe tilsluttes aktivkul-filter (E). Aktivkullets mætnings-grad kan nemt aflæses af indikatorstrimlens blå farve.
I standardudførelsen (fig. 1) er strimlen anbragt i selve aktivkulpatronen, medens den befinder sig bag filterets rude 0/16 (0/364) i den alternative udførelse (fig. 2).

- Luftrensningsenhed 54015 i standardudførelse
  Når patronen har nået sit højeste mætningspunkt, trækkes kurven af. Klokken af kunststof (gennemsigtig) skrues af og ny patron indsættes. På undersiden af klokken er anbragt en ventil til evt. aftapning af kondensat. Ved et driftstry på mindst 4 bar er justeringsventilen til den påkrævede luftvolumenstrøm konstrueret til at forsyne masken med ca. 170 Nl/min renset luft uden brug af pneumatiske redskaber (visningen bevæger sig endnu i det grønne område Ved at åbne for justeringsventilen (position -H-) kan luftvolumenstrømmen bringes op på over 300 Nl/min. (visninge befinder sig i det grønne områdes øvre grænse). Hvis luftvolumenstrømmen sættes yderligere op, skal personer, de befinder sig i området, bruge høreværn. Den indbyggede sikkerhedsventil begynder at reagere ved et tryk på ca. 8 l
- Ved alternativ udførelse, seleenhed 58149 og 30668
  Når patronen har nået sit højeste mætningspunkt, skrues filterrøret på 0/164 (0/364) af. Patronen tages ud og erstattes af en ny, der indsættes i omvendt rækkefølge. Indikatorpapiret udskiftes ved at skrue ruden af.

Ved et driftsovertryk på mindst 4 bar er justeringsventilen konstrueret til at forsyne masken med 170 Nl/min renset luft.
Ved at åbne for justeringsventilen (position -H-) kan luftvolumenstrømmen øges til ca. 300 Nl/min.

4. Pleje, vedligeholdelse og opbevaring
Efter brug skal apparatet renses og desinficeres. Desuden gennemføres funktions- og tæthedstest (adsorberenhed dyppes kort i klart vand i driftsklar tilstand).

- Filterpatronens (E) oliemætningsgrad undersøges.
- Justeringsventilens (H) bevægelighed kontrolleres.
- Indikatoren for luftvolumenstrøm (P) på luftrensningsenheden undersøges for evt. skader.
- Trykfilterets (B) funktion inkl. manometer kontrolleres. Sinterbronzefilteret renses og finfilterpatronerne udskiftes eft behov (se brugervejledning for SATA-luftfilter).
- Kappen desinficeres med jævne mellemrum. Dagligt, ugentligt ved regelmæssig brug samt en gang hvert halve år, såfremt apparatet ikke befinder sig i lufttæt emballage. I forbindelse med rensning udtages kappens indsats. Kappens indlæg udskiftes, hvis disse er blevet for snavsede (ordre-nr., se listen over reservedele). Hvis kappen benyttes af flere personer, skal denne desinficeres fra gang til gang. Hertil anbefales det at bruge midlet "incidur" af mærket Henkel. Det er dog mere hensigtsmæssigt at anskaffe det antal kapper, der svarer til antallet af aktive brug Apparatet renses senest efter et halvt år. Ved samme lejlighed foretages funktions- og tæthedstest og aktivkul-patronerne udskiftes. Reservepatroner og nye apparater kan lagres i op til 5 år i lufttæt emballage.

Apparatet opbevares på et tørt og hygiejnisk forsvarligt sted i de perioder, hvor det ikke er i brug, dog ikke i kombikabine

5. Oplysninger om rigtig anvendelse
- OBS.:

1. Trykluftslange-apparater, EN 270, med luftvejsbeskyttelseskappe (lukket synsfelt) må som følge af deres konstruktionsmåde ikke benyttes i giftige omgivelser, hvor der hersker iltmangel eller hvor den 100-dobbelte MAK-/TRK-værdi er blevet overskredet.
2. Trykluftslange-apparater til lette opgaver, prEN 1835 klasse 1 med luftvejsbeskyttelseskappe (udstanset synsfelt) m som følge af deres konstruktion ikke benyttes mod kræftfremkaldende, meget giftige og radioaktive stoffer, mikro-organismer (virusser, bakterier og svampe samt deres sporer) og enzymer eller i giftige omgivelser, hvor der herske iltmangel eller hvor den 5-dobbelte MAK-/TRK-værdi er blevet overskredet.

- Før ibrugtagning gennemføres funktions- og tæthedstest for hele apparatet.
- Ikke alle personer kan siges at være egnede til at benytte apparater til beskyttelse af luftvejene. Brugere af sådanne apparater skal forinden af en læge have fået attest på, at anvendelsen ikke er forbundet med en sundheds risiko for dem. Desuden skal brugeren have gjort sig bekendt med forskrifterne i.h.t. vejledning ZH 1/701.
- Apparatet råder over en lufttilførselsenhed, der kan efterjusteres med justeringsventilen (H) til individuel indstilling af luftbehovet.
- Apparatet må kun benyttes i kombination med en godkendt trykluft-tilførselsslange (maks. 50 m, ved seleenhed 30668 maks. 6 m) med sikkerheds-hurtigkobling (f.eks. SATA ordre-nr. 49080, 6 m).
- **OBS.:** Sikkerhedskoblingen udkobles ved at trykke niplen ned i koblingsenheden og lade muffen glide tilbage.
- Sørg altid for, at luften, der indsuges, ikke forurenes af hverken udstødningsgasser fra forbrændingsmotorer, varmeaggregater eller dampe fra opløsningsmidler. Luften skal under alle omstændigheder svare til normen DIN EN 132 med hensyn til indholdet af kuldioxid.

DK

Betjeningsveldning før SATA-Super-iltmaske-sæt

- Hvis apparatet anvendes ved temperaturer under +5°C skal ruden behandles indefra med et godkendt antidugmidd
  Her anbefales det at benytte:
  Antidugmiddel 75 - ordre-nr. 6700470 Producent: Drägerwerk AG, Moislinger Allee 53-55, D-23542 Lübeck,
  eller: Antidugmiddel 2260-903 Producent: Auergesellschaft GmbH Hanauer Landstraße 213, D-60314 Frankfurt/Ma
- **OBS.: Beskyttelseseffekten opnås kun, hvis**
  1. Standardudførelse
  visningen af trykket bevæger sig inden for det grønne område. Trykindikatoren eller den akustiske advarselsenhed efterses forud for enhver ibrugtagning, særligt ved samtidig drift af sprøjtepistol (viser bevæger sig i det røde områd hyletone skal kunne høres). Evt. øges driftstrykket.
  2. Alternativ udførelse
  driftstrykket ved trykluftfilteret (B) ligger på 4 bar. Værdier herunder vil fremkalde en hyletone. Der foretages evt. tilpasning til driftstrykket.
- Kappen sættes på, således at kappeindlægget kommer til at hvile mod ansigten (under hagen).

6. Istandsættelse

Er der tale om defekte dele eller slitage udskiftes den pågældende konstruktionsdel, hvis den i.h.t. brugsvejledningen stå opført som reservedel. I modsat fald skal hele apparatet indsendes til reparation. Efter udskiftning af dele, der kunne tæ kes at have indflydelse på tætheden, gennemføres funktions- og tæthedstest.

7. Tilbehørsdele

Ordre-nr.	Betegnelse
84996	SATA-kombi-finfilter-enhed 0/344, kompl. emballage
13870	Luftslange 1,2 m, kompl. monteret, til sprøjtepistol SATA-ASS
49080	Trykluft-tilførselsslange 9,5x5 mm til SATA ASS CE-udførelse, 6 m lang, kompl. monteret med sikkerhedskoblinger
22905	Reservefolier til SATA ASS, pakke à 25 stk. nr. 0/767
54197	Pakke med 20 stk. kappeindlæg til SATA-ASS
54205	Pakke med 2 stk. kappeindlæg til SATA-ASS

Garantibetingelser:

For apparater af den beskrevne type ydes en 6-mneders garanti, der trder i kraft samtidig med kbet. Garantien omfatter materialevrdien p de dele af apparatet, der mtte udvise fabrikations- eller materialefejl inden for garantiperioden og som derfor skal udskiftes. Der ydes ingen garanti p skader, der mtte opst som flge af uegnet eller usagkyndig anvendelse, fejlagtig montering eller ibrugtagning gennem kber eller tredjemand. Endvidere er skader som flge af naturlig slitage, fejlagtig betjening eller vedligeholdelse, brug af uegnede sprjtematerialer eller erstatningsprodukte samt kemisk, elektrokemisk eller elektrisk pvirkning udelukket fra garantien, medmindre de pgldende skader kan lgges producenten til last.

Apparatet skal efterses for evt. transportskader umiddelbart efter modtagelsen. Synlige mangler skal meddeles leverandren eller producenten senest 14 dage efter modtagelse af apparatet. Retten til reklamation bortfalder med udlb af denne frist. Videregende krav og rettigheder, herunder isr krav om skadeserstatning, kan ikke gres gldende af kber, heller ikke for skader, der mtte opst i forbindelse med rdgivning, instruktion eller fremvisning af apparatet. Skulle kber nske jeblikkelig reparation eller omlevering, inden sprgsmlet om slgers erstatningspligt er endelig afklaret, vil reparation eller levering af erstatningsdele ske mod beregning og betaling af gldende priser. Hvis det herefter skulle vise sig, at kbers erstatningskrav var fuldt berettiget, vil han af slger for reparationen eller omleveringen modtage en kreditnota lydende p et belb, der svarer til garantiydelsen. Materialedele, der er blevet erstattet af nye, tilfalder slger.

Reklamationer o.lign giver ikke kberen eller ordregiveren ret til at ngte betaling eller forhale denne.

Omkostningerne for forsendelse af apparatet til slger samt monteringsomkostninger (arbejdstid, krselgodtgrelse) og omkostninger i forbindelse med fragt og forpakning vil ikke blive overtaget af slger. Se slgers almindelige monteringsbetingelser.

Garantiydelser medfrer ikke forlngelse af garantiperioden.

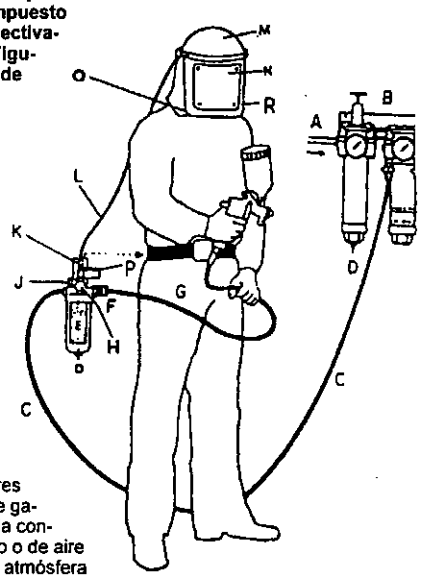
Garantien bortfalder i forbindelse med fremmed intervention.

Instrucciones para el uso Conjunto de protección respiratoria

Antes de efectuar la puesta en marcha del aparato se tendrán que leer completa y minuciosamente las instrucciones para el uso. Se deberán tener en cuenta las prescripciones para la prevención de accidentes, los reglamentos de los talleres de trabajo y las Directivas, así como las leyes y restricciones vigentes, p. ej. las reglas para la aplicación de aparatos de protección respiratoria ZH 1/701, para barnizados VGB 23, etc. El aparato podrá ser utilizado únicamente por personas instruidas y sólo conforme a los fines previstos. Antes de efectuar cualquier tipo de trabajos de reparación y de mantenimiento, se deberá desacoplar el aparato del sistema de abastecimiento de aire comprimido.

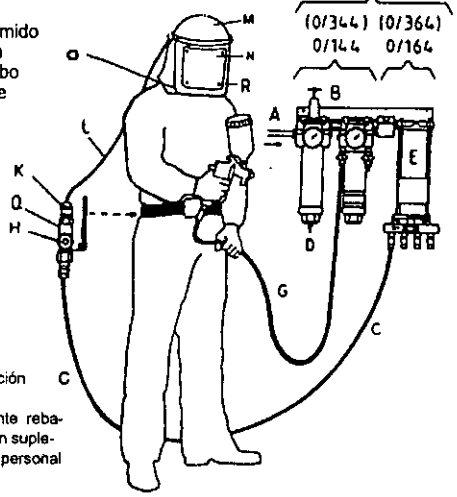
Conjunto de protección respiratoria SATA Super, tipo 25-13/No. de pedido 54148, aparato con tubo flexible de aire comprimido EN 270, compuesto de careta de protección respiratoria 54155 (ó 59840 y 67595 respectivamente) y unidad de cinturón con adsorbedor de carbón activo, Figura 1, o alternativamente, con unidad de cinturón sin adsorbedor de carbón activo, No. de pedido 58149 (ó 30668), Figura 2.

Conjunto de protección respiratoria SATA, careta de protección respiratoria con campo visual troquelado, unidad de cinturón y adsorbedor de carbón activo (similar a la Figura 1) y, alternativamente, sin adsorbedor de carbón activo (similar a la Figura 2), aparato con tubo flexible de aire comprimido para aplicaciones ligeras prEN 1835, careta de protección respiratoria clase 1.



El conjunto de protección respiratoria SATA Super es un dispositivo protector de la salud de alta eficacia para barnizadores, así como para trabajos en ambientes peligrosos para la salud. El conjunto consta de una careta de protección respiratoria ventilada, la cual es abastecida de aire respirable filtrado, así como de una unidad de cinturón con filtro de carbón activo con conexión adicional para un aparato de aire comprimido, Figura 1; o, alternativamente, de una unidad de cinturón sin filtro de carbón activo y sin conexión para una aparato de aire comprimido, Figura 2, y también de un tubo flexible de alimentación de aire comprimido. El usuario tendrá que asegurar que el aire aspirado por el compresor esté tan libre de gases, vapores y partículas nocivos (p. ej. gases de escape de motores u hornos de combustión, vapores de disolventes), de tal forma que se garantice los requerimientos conforme a DIN EN 132 relacionados con la concentración de dióxido de carbono. No se admite el empleo de oxígeno o de aire enriquecido de oxígeno. El aparato puede ser utilizado dentro de una atmósfera inflamable. Para la eliminación de las impurezas contenidas en el aire respirable que provienen del compresor, como p. ej. niebla aceitosa, se tendrá que montar adicionalmente un filtro de aire comprimido con manómetro (p. ej. SATA 0/144 ó 0/344) entre el adsorbedor de carbón activo y la unidad de cinturón, Figura 1, o, alternativamente, entre el adsorbedor de carbón activo montado a la pared 0/164 (0/364) y la red de aire.

La conexión entre el sistema de abastecimiento de aire comprimido (B), Figura 1, o (E), Figura 2, y la respectiva unidad de cinturón (componente de cincho) tendrá que efectuarse utilizando un tubo flexible de alimentación de aire comprimido admitido (resistente al calor, máx. 50 m) con acoplamientos de encaje instantáneo de seguridad, p. ej. SATA No. de pedido 49080 (6 m).



A Sistema de abastecimiento de aire
B Filtro de aire comprimido SATA 0/144 (0/344)
C Tubo flexible de alimentación de aire comprimido correspondiente al conjunto de protección respiratoria,No.49080
D Válvula de descarga de aceite y de condensado
E Adsorbedor de carbón activo con cartucho filtrante de recambio
F Acoplamiento de encaje instantáneo para la conexión a la unidad de aire comprimido
G Tubo flexible neumático de pistola
H Válvula reguladora para el aire respirable
J Válvula de seguridad contra la sobrepresión
K Acoplamiento de encaje instantáneo para el tubo flexible de respiración
L Tubo flexible de respiración
M Careta de protección respiratoria ventilada con ventanilla transparente rebatible hacia arriba y protección de la nuca (interiormente dotada de un suplemento de careta intercambiable y un forro de careta para la higiene personal
N Lámina sustituible
O Ventanilla transparente rebatible hacia arriba
P Indicador de la corriente volumétrica del aire
Q Unidad de cinturón sin adsorbedor de carbón activo

Instrucciones para el uso Conjunto de protección respiratoria

1. Volumen de entrega

- **Modelo estándar** Careta de protección respiratoria con alimentación de aire continua y regulable, con ventanilla transparente rebatible hacia arriba para láminas sustituibles, protección antiestática para los cabellos y la nuca y suplemento de careta intercambiable con forro de careta, así como 5 forros de careta de repuesto, cartucho filtrante montado en un cincho ajustable con válvula reguladora, válvula de seguridad contra la sobrepresión, filtro de carbón activo, indicador de la corriente volumétrica del aire, así como salida p. ej. a la pistola pulverizadora, láminas de recambio para la ventanilla transparente. En el caso del modelo estándar 54148 se suministra el aparato completo compuesto de la careta de protección respiratoria 54155 y de la unidad de cinturón 54015. Tratándose de las otras variantes del aparato, según la relación, se suministran separadamente cada uno de los elementos, careta de protección respiratoria (careta de casco) y unidad de cinturón (componente de cincho), para ser combinados por el usuario.

Modelo	Careta de protección respiratoria	Careta de protección respiratoria	Careta de protección respiratoria	Careta de protección respiratoria
Unidad de cinturón	Careta de casco ASS, capa testera roja, No. de pedido 54155	Careta de casco ASS, capa testera gris con capa de pecho, modelo industrial, No. de pedido 59840	Careta de casco ASS, capa testera gris por encima del casquete, con capa de pecho, No. de pedido 67595	Careta de casco ASS con ventanilla transparente troquelada, capa testera gris con capa de pecho, No. de pedido 54825
Unidad de cinturón con adsorbedor de carbón activo, No. de pedido 54015	X	X		X
Componente de cincho sin adsorbedor de carbón activo, modelo industrial, No. de pedido 58149	X	X		X
Componente de cincho sin adsorbedor de carbón activo, conexión roscada 9/16"-20 UNS, No. de pedido 30668			X	

* Se admite sólo tubo flexible de alimentación de aire comprimido máx. 6 m, con acoplamiento giratorio en el filtro de aire comprimido (B) (conexión de la unidad de cinturón y unión roscada del tubo flexible).

- **Modelo alternativo, compuesto de los elementos individuales, p. ej.:**

1. Careta de protección respiratoria ventilada, No. de pedido 54155, como en el modelo estándar.
2. Unidad de cinturón, No. de pedido 58149, dispositivo de abastecimiento de aire regulable (válvula reguladora), montada en un cincho ajustable, con una conexión de encaje instantáneo para la admisión (en el caso del modelo 30668 con conexión roscada) y la salida de aire a la careta de protección respiratoria (careta de casco).

2. Datos técnicos

Sobrepresión de régimen necesaria	4 bares
Sobrepresión de régimen máxima	4 bares
Corriente volumétrica mín. necesaria	170 Nl/min.**
Unidad de cinturón con adsorbedor de carbón activo:	
Sobrepresión de régimen máx. con herramienta de aire comprimido	8 bares
(El indicador de la presión tendrá que estar dentro del margen verde. Cerrar la válvula de regulación si es necesario).	
Temperatura de servicio	-6 °C hasta 60 °C
Longitud máxima del tubo flexible	50 m
Nivel de ruido a la corriente volumétrica mínima de aire	73 dB (A)
Peso de la careta de protección respiratoria	aprox. 470 g
Peso del adsorbedor de carbón activo	aprox. 750 g
Peso de la unidad de cinturón sin filtro de carbón activo	aprox. 260 g

*) Presión del sistema de abastecimiento de aire (A) mín. 1 bar por encima de la sobrepresión de servicio ajustada. En caso de hacer funcionar simultáneamente una herramienta de aire comprimido en la unidad de cinturón con adsorbedor de carbón activo 54015, aumentar tanto la sobrepresión de servicio hasta que se haya adaptado el caudal de aire deseado (indicador de presión en la unidad purificadora de aire dentro del margen verde).

** **ATENCION:** Si el caudal de aire queda por debajo de la corriente volumétrica mínima de 170 Nl/min., sonará una señal acústica de advertencia que indica que la cantidad de aire es demasiado pequeña para satisfacer suficientemente la función protectora. En tal casom aumentar inmediatamente la sobrepresión de régimen o abrir la válvula reguladora hasta que no se escuche más la señal (el indicador manométrico tendrá que encontrarse en el margen verde). Si esto no es posible, quitarse inmediatamente la careta de protección respiratoria y abandonar el ambiente peligroso para la salud y revisar el sistema de abastecimiento de aire y el aparato de protección respiratoria respectivamente.

3. Modo de funcionamiento de la unidad purificadora de aire con adsorbedor de carbón activo y la unidad de cinturón sin adsorbedor de carbón activo

La duración útil de los cartuchos de carbón activo y la calidad del aire de respiración dependen esencialmente de la purí cación previa del aire comprimido aportado. Por tal razón, se tendrá que intercalar el filtro de aire comprimido SATA 0/144 (0/344) con vaciado automático de condensado. Este aparato filtra casi todas las partículas de agua y de polvo se parándolas del aire comprimido. Si la diferencia de presión entre los manómetros montados en el 0/144 (0/344) es mayc que 1 bar, entonces se tendrá que sustituir el cartucho de filtro fino (véanse las instrucciones de manejo de los filtros de aire SATA). Un filtro de carbón activo (E) se encuentra intercalado para la purificación ulterior del aire respirable y tiene l función de liberar el aire de nieblas aceitosas. La saturación del carbón activo se puede distinguir fácilmente por la colon ción azul de la tira indicadora.

En el caso del modelo estándar, figura 1, la tira indicadora está dispuesta en el cartucho de carbón activo y, en el model alternativo, detrás de la ventanilla de control del filtro de carbón activo 0/164 (0/364), Figura 2.

- **En el modelo estándar. Unidad purificadora de aire 54015** En caso de que el cartucho esté completamente saturado, extraer simplemente el cestillo protector, desenroscar la campana de plástico transparente e insertar el cartucho nuevo. En la parte inferior de la campana de plástico transparente se halla una válvula de purga. Con ésta se descarga el condensado que pueda haberse acumulado. La válvula reguladora para la corriente volumétrica aire necesa ria está dimensionada de tal forma que teniendo una presión de servicio mínima de 4 bares sin aparato de aire comprim do se aporten aprox. 150 Nl/min. de aire purificado a la máscara de protección respiratoria (indicador de presión todavía dentro del margen verde). Abriendo la válvula reguladora (posición -H-), puede incrementarse la corriente volumétrica de aire hasta por encima de los 300 Nl/min. (indicador de presión en el límite superior del margen verde). Si se sigue aumentando la corriente volumétrica del aire, se tendrá que llevar una protección auditiva. La válvula de seguridad integrada contra la sobrepresión reacciona a unos 8 bares.
- **En el modelo alternativo** En caso de que el cartucho esté completamente saturado, desenrocar el tubo del filtro e el 0/164 (0/364), extrer el cartucho filtrante y colocar el cartucho filtrante nuevo en orden inverso. Sacar la tira indicadora desenroscando la ventanilla de control y colocar una nueva tira indicadora.

La válvula reguladora está dimensionada de tal forma que teniendo una presión de servicio mínima de 4 bares se aporten aprox. 170 Nl/min. de aire purificado a la máscara de protección respiratoria. Abriendo la válvula reguladora (posició -H-), puede incrementarse la corriente volumétrica de aire hasta por encima de los 300 Nl/min.

4. Mantenimiento, cuidado y almacenamiento

- Después de haber sido usado, el aparato tendrá que ser sometido a una limpieza y a una desinfección, así como a una prueba de funcionamiento y de estanqueidad (sumergir brevemente en agua clara la unidad del adsorbedor estando sometida a presión y dispuesta para el servicio).
- Comprobar la saturación de aceite del cartucho filtrante (E).
- Comprobar la facilidad de funcionamiento de la válvula reguladora (H).
- Examinar el indicador de corriente volumétrica de aire (P) en la unidad purificadora de aire para comprobar si tiene defectos.
- Comprobar el filtro de aire comprimido (B) con respecto a su funcionamiento, así como el indicador manométrico. E caso necesario, limpiar el filtro de bronce sinterizado y sustituir el cartucho de filtro fino (véanse las instrucciones de manejo para los filtros de aire SATA).
- El aparato deberá ser sometido a una desinfección en intervalos regulares, diariamente y semanalmente si se utiliz cada día. En el caso de aparatos no embalados a prueba de aire se desinfectará la careta cada seis meses. Para l fin se podrá extraer el suplemento de la careta. Si los forros de la careta están sucios, tendrán que ser sustituidos (No. de pedido, véase la lista de repuestos). Si varias personas utilizan la careta, entonces la desinfección tendrá q efectuarse cada vez que se cambie de usuario. Aquí se recomienda comprar una careta de casco propia para cad persona. Como desinfectante recomendamos "Incidur" de la Firma Henkel. A más tardar cada seis meses se tendr que limpiar el aparato y someterlo a una prueba de funcionamiento y de estanqueidad, así como sustituir el cartuch de carbón activo. El cartucho de repuesto y el aparato nuevo pueden almacenarse 5 años si se cierran herméticamente.

Si no se utiliza el aparato, éste tendrá que guardarse en un lugar limpio y seco, pero no en la cabina combinada.

5. Indicaciones relacionadas con el empleo

- **ATENCION:**

1. En virtud de su forma constructiva, los aparatos de tubo flexible de aire comprimido, EN 270, con careta de protecc respiratoria /campo visual cerrado) como conexión respiratoria no deberán ser utilizados en una atmósfera ambien tóxica donde reina la falta de oxígeno o se excede 100 veces más el valor MAK o TRK.
- En virtud de su forma constructiva, los aparatos de tubo flexible de aire comprimido par aplicaciones ligeras, pr EN 1835, clase 1, con careta de protección respiratoria (campo visual troquelado), no deberán ser utilizados contra sustancias cancerógenas, muy tóxicas y radioactivas, microorganismos (virus, bacterias y hongos y sus respectiva esporas) y enzimas, así como tampoco en una atmósfera ambiental tóxica donde reina la falta de oxígeno o se excede 5 veces más el valor MAK o TRK.
- Antes de cada uso se deberá llevar a cabo una prueba del funcionamiento y de la estanqueidad con todo el aparat
- No todas las personas pueden llevar aparatos de protección respiratoria. Los portadores de aparatos de protección respiratoria tendrán que ser sometidos a una prueba de aptitud mediante un examen médico conforme a los "Princi pios de la Asociación Profesional para exámenes preventivos médico-laborales G 26: Portadores de aparatos de protección respiratoria para el trabajo y el rescate", (A.W. Gentner-Verlag, Stgt). Por lo demás, tendrán que observarse las respectivas prescripciones conforme a la hoja informativa de protección sobre protecciones respiratorias ZH 1/701.

Instrucciones para el uso Conjunto de protección respiratoria

- El aparato cuenta con un dispositivo de abastecimiento de aire respirable independiente de la necesidad. La cantida necesaria de aire respirable para la respectiva persona puede ser reajustada con la válvula reguladora (H).
- Utilizar el aparato sólo con un tubo flexible de alimentación de aire respirable admitido (máx. 50 m, en el caso de la unidad de cinturón 30668 máx. 6 m) con acoplamientos de seguridad de encaje instantáneo (p. ej. No. 49080, 6 m).
- ATENCION: Para desacoplar los acoplamientos de seguridad de encaje rápido, basta comprimir el racor en el acoplamiento y retroceder al mismo tiempo el manguito corredizo del acoplamiento.
- Asegurar siempre que el aire succionado del compresor no esté contaminado por influencias ambientales como p. gases de escape de motores de combustión, calefacciones, vapores de disolventes, etc., y que satisfaga la norma DIN EN 132 con respecto a la concentración de dióxido de carbono.
- Para utilizar el aparato bajo una temperatura ambiente de +5 °C se tendrá que tratar la luna transparente por dentro con un agente antiempañante admisito. Para tal fin, recomendamos: Agente antiempañante 75 - No. de pedido 6700470 de Drägerwerk AG, Moislinger Allee 53-55, 23642 Lübeck, o agente antiempañante 2260-903 de Auergesellschaft GmbH Hanauer Landstrasse 213, 60314 Frankfurt/Main.
- ATENCION: Un efecto protector estará garantizado si se cumplen las siguientes indicaciones:

1. Modelo estándar

El indicador de presión se halla dentro del margen verde. Tanto el indicador de presión, como también el dispositivo de advertencia acústica (puntero en dentro del margen rojo - la señal acústica tiene que sonar) tendrán que ser comprobados cada vez que se ponga en marcha el aparato, especialmente cuando se hace funcionar simultáneamente una pistol pulverizadora. Si es necesario, se aumentará la presión de servicio.

2. Modelo alternativo

La presión de servicio en el filtro de aire comprimido (B) asciende a 4 bares. Al quedar la presión bajo este valor nominal sonará una señal acústica. En tal caso, adaptar la presión de servicio.

- Colocarse la careta de tal manera que el forro interior de la careta quede ceñido a la cara por lo menos por debajo d la barba.

6. Reparación

En caso de defectos o desgaste en el aparato, se deberá sustituir el respectivo componente, si éste figura en las instruc ciones para el uso como pieza de repuesto. De lo contrario, se tendrá que enviar el aparato para su reparación. Después de sustituir las piezas que puedan influir en la estanqueidad del aparato de protección respiratoria, se tendrá que llevar a cabo una prueba completa del funcionamiento y de la estanqueidad.

7. Accesorios convenientes

No. de pedido	Denominación
84996	Unidad combinada de filtros finos SATA 0/344, completamente embalada
13870	Tubo flexible de aire, 1,2 m, completamente montado, para la pistola pulverizadora correspondiente a SATA ASS
49080	Tubo flexible de alimentación de aire comprimido, 9,5 x 5,0 mm para el modelo SATA ASS CE, 6 m de largo, completamente montado con acoplamiento de encaje instantáneo
22905	Láminas de recambio para SATA-ASS, paquete a 25 unidades, No. 0/767
54197	Paquete con 20 forros de careta para SATA-ASS
54205	Paquete con 2 forros de careta para SATA-ASS

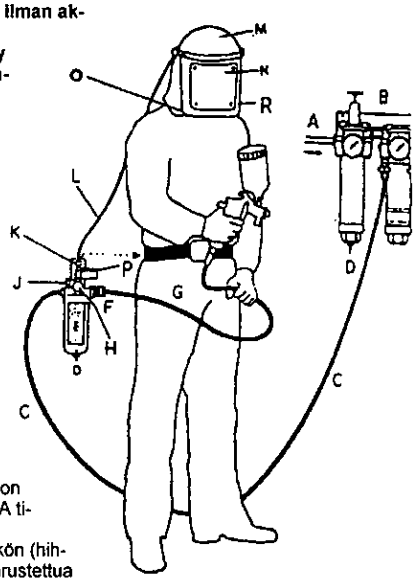
Condiciones de garantía: Para aparatos de tal tipo concedemos una garantía de 6 meses, la cual empieza con el día de la venta al comprador final. La garantía se extiende sobre el valor material de componentes con defectos de fabricación y de material que se comprueben dentro del período de garantía. Quedan exceptuados aquellos daños que se origi nen debido a una aplicación inadecuada o impropia, a un montaje o una puesta en servicio deficientes de parte del comprador o terceras personas, al desgaste natural, tratamiento o mantenimiento equivocados, empleo de materiales pu verizables inadecuados, materiales supletorios e influencias químicas, electroquímicas o eléctricas, mientras estos daño no se atribuyan a una falta de parte nuestra. El aparato tendrá que ser controlado inmediatamente después de haber sido recibido. Con el objeto de evitar la pérdida de los derechos por defectos, las deficiencias evidentes tendrán que con unicarse por escrito ya sea a la firma suministradora o a nosotros, dentro del plazo de 14 días tras haber recibido el apa rato. Se excluyen las exigencias de cualquier tipo que vayan más allá de los derechos concedidos, en particular, las del derecho de indemnización por daños y prejuicios. Esto se aplicará también a los daños que se originen durante el ase soramiento, la adquisición de práctica y la demostración. Si el comprador desea una reparación o una reposición antes de que se haya comprobado si existe una obligación de reposición de nuestra parte, entonces el suministro de reposició o la reparación se efectuarán a cambio de factura y pago del respectivo precio del día. Si durante la revisión de la recla mación por defectos se constata que existe un derecho de garantía, entonces el comprador recibirá una nota de abono por la reparación o suministro de reposición puestos a cuenta, que corresponda a la prestación de garantía. Las piezas para las cuales se haya suministrado repuesto pasarán a ser propiedad nuestra.
Las reclamaciones por defectos o cualquier otro tipo de objeciones no le dan el derecho al comprador o contratador de negar o demorar el pago.
El envío del aparato deberá llevarse a cabo libres de todo gasto. No podemos hacernos cargo de los costes de montaje (costes por tiempo de trabajo y de viaje), así como de los costes de transporte y embalaje. En este caso tienen validez nuestras condiciones de montaje. Las prestaciones de garantía no implican una prolongación del período de garantía. La garantía caducará en el caso de manipulaciones ajenas.

SATA-Super-hengityksensuojainsarja

Lue käyttöohje huolellisesti kokonaan läpi ennen laitteen käyttöönottoa. Ota huomioon onnettomuuksien ehkäisyä ja työpaikkojen suunnittelua koskevat määräykset ja ohjeet sekä voimassa olevat lait ja rajoitukset, esim. hengityksensuojamien käyttöä koskeva ohjeisto ZH 1/701, maalauksen yhteydessä VBG 23 jne. Laitetta saavat käyttää ainoastaan opastusta saaneet henkilöt vain käyttötarkoituksen mukaisella tavalla. Laite on irrotettava paineilmaverkosta ennen kaikkia korjaustöitä.

SATA-Super-hengityksensuojainsarja, tyyppi 25-13/til.nro. 54148, paineilmaletkulaite EN 270, koostuu hengitysnaamarista 54155 (tai 59840 tai 67595) ja aktiivihiilisuodattimella varustetusta hihnayksiköstä, kuva 1, tai vaihtoehtoisesti hihnayksiköstä ilman aktiivihiilisuodatinta, til.nro. 58149 (tai 30668), kuva 2.

SATA-hengityksensuojainsarja, hengitysnaamari, jossa meistetty katseluaukko, sis. hihnayksikön jossa aktiivihiilisuodatin (samankalt. kuin kuva 1) tai vaihtoehtoisesti ilman aktiivihiilisuodatinta (samankalt. kuin kuva 2), paineilmaletkulaite keveään käyttöön prEN 1835, hengityksensuojanaamari luokka 1.



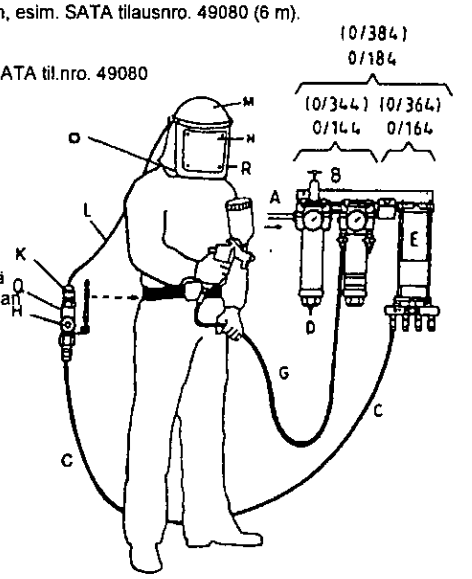
SATA-hengityksensuojainsarja on erittäin tehokas suoja maalareita sekä sellaisia henkilöitä varten, jotka työskentelevät terveydelle vahingollisessa ympäristössä. Se koostuu suojanaamarista, johon johdetaan suodatettua hengitysilmaa, aktiivihiilisuodattimella varustetusta hihnayksiköstä, jossa on lisäliitäntä paineilmalaitetta varten, kuva 1, tai vaihtoehtoisesti hihnayksiköstä ilman aktiivihiilisuodatinta ja ilman paineilmaliitäntää, kuva 2, sekä paineilmajohdosta.

Käyttäjän on varmistettava, että kompressorista imetty ilma on niin puhdas haitallisista kaasuista, höyryistä ja hiukkasista (esim. polttomoottorien ja -uunien pakokaasuista, liuotinainehöyryistä), että standardin DIN EN 132 vaatimukset hiilidioksipitoisuuden suhteen täyttyvät. Hapen tai hapella rikastetun ilman käyttö ei ole sallittua. Laitetta voidaan käyttää helposti palavassa ilmassa.

Kompressorista tulevien epäpuhtauksien, esim. öljysumun, poistamiseksi hengitysilmasta on hihnayksikön aktiivihiilisuodattimen, kuva 1, tai seinään asennetun aktiivihiilisuodattimen 0/164 (0/364) ja ilmaverkon väliin asennettava lisäksi paineilmasuodatin ja manometri (esim. SATA tilausnro. 0/144 tai 0/344).

Paineilmaverkon (B), kuva 1, tai (E), kuva 2, ja käytettävän hihnayksikön (hihnaosan) välinen liitos on tehtävä hyväksyttyä, turvapikakytkennällä varustettua paineilman syöttöjohtoa (lämmönkestävä, enint. 50 m) käyttäen, esim. SATA tilausnro. 49080 (6 m).

A - ilmansyöttöjärjestelmä
B - SATA paineilmasuodatin 0/344
C - paineilman syöttöjohto hengityksensuojainsarjaa varten, SATA til.nro. 49080
D - öljyn ja kondensaatin poistoventtiili
E - aktiivihiilisuodatin jossa vaihdettava suodatinpatruuna
F - pikaliitin paineilmalaitteen kytkentää varten
G - pistooli-ilmaletku
H - hengitysilman säätöventtiili
J - ylipaineturvaventtiili
K - hengitysletkun pikaliitin
L - hengitysletku
M - ilmaliitännällä varustettu hengityksensuojanaamari, jossa ylöskäännettävä katseluaukko ja niskasuojus (sisältää vaihto-osa ja vaihdettava suojus henkilökohtaisen hygienian takaamiseksi)
N - vaihdettava kalvo
O - ylös käännettävä katseluaukko
P - ilman tilavuusvirran näyttö
Q - hihnayksikkö ilman aktiivihiilisuodatinta
R - akustinen minimivirtauksen varoituslaite (ei näkyvissä)



FIN

SATA-Super-hengityksensuojainsarja

1. Toimituksen laajuus
- Standardimalli
Ilmaliitännällä varustettu hengityksensuojanaamari, jossa säädettävä jatkuva ilmansyöttö, ylöskäännettävä, vaihdettavilla kalvoilla varustettu katseluaukko, antistaattinen hius- ja niskasuojus sekä vaihto-osa jossa vaihdettava suojus sekä 5 var suojusta, säädettävään hihnaan asennettu suodatinpatruuna jossa säätöventtiili, ylipaineturvaventtiili, aktiivihiilisuodatin, man tilavuusvirran näyttö, yksi pikakytkinliitäntä hengityksensuojaimen ilman tuloliitäntää ja yksi poistoliitäntää varten sekä poistoliitäntä esim. ruiskutuspistooliin, varakalvoja katseluaukkoa varten.
Standardimallissa 54148 laite toimitetaan täydellisenä pakkauksena, johon kuuluvat hengityksensuojanaamari 54155 ja hihnayksikkö 54015.
Muissa laitevaihtoehdoissa yksittäiset elementit - hengityksensuojanaamari (kypärä) ja hihnayksikkö (hihnaosa) toimiteta an erillisinä, ja käyttäjä voi yhdistellä niitä tarpeen mukaan.

Combinations	Hengityksensuojanaamari	Hengityksensuojanaamari	Hengityksensuojanaamari	Hengityksensuojanaamari
Hihnayksikkö	Kypärä ASS, punainen kangas,til.nro. 54155	Kypärä ASS, harmaa kangas jossa rintasuojus, teollisuusmalli, til.nro. 59840	Kypärä ASS, harmaa kangas kalotin päällä, rintasuojus, til.nro. 67595	Kypärä ASS jossa meistetty katseluaukko, harmaa kangas, rintasuojus, til.nro. 54825
Hihnayksikkö jossa aktiivihiilisuodatin, ilmanpuhdistusyksikkö, til.nro. 54015	X	X		X
Hihnaosa ilman aktiivihiilisuodatinta, teollisuusmalli, til.nro. 58149	X	X		X
Hihnaosa ilman aktiivihiilisuodatinta, ruuviliitäntä 9/16"-20 UNS, til.nro. 30668*			X	

* Sallittu vain enint. 6 m pituinen paineilman syöttöletku, jossa käännettävä kytkin paineilmasuodattimessa (B) (hihnayksi kön kytkentä ruuviliitoksella)
- Vaihtoehtomalli, sis. yksittäiselementit esim.
1. Ilmaliitännällä varustettu puolinaamari, til.nro. 54155, kuten standardimalli
2. Hihnaosa, til.nro. 58149, säädettävä ilmansyöttö (säätöventtiili), asennettu säädettävään hihnaan, pikakytkinliitäntä he gityksensuojanaamarin (kypärän) ilman tulo- (30668 ruuviliitos) ja poistoliitäntää varten.

2. Tekniset tiedot

Vaadittava käyttöylipaine*	4 bar
Maks. käyttöylipaine*	4 bar
Vaadittava vähimmäistilavuusvirta	170 Nl/min
Vyöyksikkö jossa aktiivihiilisuodatin:	
Maks. käyttöylipaine paineilmatyökalun kanssa (painenäytön on oltava vihreällä alueella, tarvittaessa sulje säätöventtiili)	8 bar
Käyttölämpötila	-6°C ... 60°C
Maks. letkupituus	50 m
Melutaso vähimmäistilavuusvirralla	73 dB (A)
Hengityksensuojanaamarin paino	n. 470 g
Aktiivihiilisuodattimen paino	n. 750 g
Hihnayksikön paino ilman aktiivihiilisuodatinta	n. 260 g

* Ilmansyöttöjärjestelmäpaine (A) vähintään 1 bar yli säädetyn käyttöylipaineen.
Käytettäessä aktiivihiilisuodattimella varustetun hihnayksikön 54015 kanssa samanaikaisesti paineilmatyökalua korota käyttöylipainetta, kunnes ilman läpäisymäärä on toivotun suuruinen (ilmanpuhdistusyksikön painenäyttö vihreällä alueella
** HUOMIO:
Jos vähimmäistilavuusvirta 170 Nl/min. alittuu, kuuluu akustinen äänimerkki, joka varoittaa siitä, että ilmamäärä on liian vähäinen riittävän suojatehon saavuttamiseksi. Korota käyttöpainetta tai avaa säätöventtiiliä välittömästi sen verran, että äänimerkkiä ei enää kuulu (manometrin näyttö vihreällä alueella). Ellei tämä ole mahdollista, riisu hengityksensuojanaamari ja poistu terveydelle vaarallisesta ympäristöstä sekä tarkista ilmansyöttöjärjestelmä ja hengityksensuojalaite.

3. Ilmanpuhdistusyksikön toimintatapa käytettäessä aktiivihiilisuodatinta ja hihnayksikköä ilman aktiivihiilisuodatinta

Aktiivihiilipatruunoiden kestoikä ja hengitysilman laatu riippuu oleellisesti laitteeseen johdetun paineilman esipuhdistuksesta. Tämän vuoksi niitä ennen on kytkettävä automaattisella kondensaatinpoistolla varustettu paineilmasuodatin SATA 0/144 (0/344). Tämä laite suodattaa paineilmasta lähes kaikki vesi- ja pölyhiukkaset. Kun 0/144 (0/344) -laitteeseen liitettyjen manometrien paine-ero on suurempi kuin 1 bar, on hienosuodatinpatruuna vaihdettava (ks. SATA-ilmansuodattimen käyttöohje).

Hengitysilman puhdistamiseksi myös öljysumuhöyryistä on väliin kytketty aktiivihiilisuodatin (E). Aktiivihiilen kyllästyneisyys on helppo tunnistaa indikaattorinauhan värjäytymisestä siniseksi.

Standardimallissa, kuva 1, nauha on sijoitettu aktiivihiilipatruunaan ja vaihtoehtomallissa aktiivihiilisuodattimen 0/164 (0/364) tarkastusaukon taakse, kuva 2.

- Standardimalli, ilmanpuhdistusyksikkö 54015

Patruunan kyllästymisen jälkeen vedä suojakori irti, ruuvaa irti läpinäkyvä muovikupu ja työnnä uusi patruuna paikoilleen. Läpinäkyvän muovikuvun alapuolella on poistoventtiili, jonka avulla mahdollisesti kertynyt kondensaatti päästetään pois. Tarvittavan ilmatilavuusvirran säätöventtiili on säädetty siten, että 4 baarin vähimmäiskäyttöpaineessa ilman paineilmalaitetta hengityksensuojanaamariin johdetaan n. 170 Nl/min puhdistettua ilmaa (painenäyttö vielä vihreällä alueella). Säätöventtiiliä avaamalla (asento -H-) voidaan ilmatilavuusvirtaa nostaa yli 300 Nl:aan/min (painenäyttö vihreän alueen ylärajalla). Jos painetta ilman tilavuusvirtaa nostetaan vielä enemmän, on käytettävä kuulosuojaimia. Laitteeseen kuuluva ylipaineen turvaventtiili alkaa toimia n. 8 baarin paineessa.

- Vaihtoehtomalli, hihnaosa 58149 ja 30668

Patruunan kyllästymisen jälkeen ruuvaa irti 0/164:n (0/364) suodatinputki. Vedä suodatinpatruuna irti ja aseta uusi suodatinpatruuna kohdalleen päinvastaisessa järjestyksessä. Ruuvaa tarkastusaukko irti ja poista indikaattoripaperi, tämän jälkeen aseta uusi indikaattoripaperi paikoilleen.

Säätöventtiili on säädetty siten, että 4 baarin vähimmäiskäyttöpaineessa hengityksensuojanaamariin johdetaan 170 Nl/min puhdistettua ilmaa. Avaamalla säätöventtiiliä (asento -H-) voidaan ilman tilavuusvirtaa nostaa yli 300 Nl:aan/min.

4. Huolto, hoito ja varastointi

- Hengityksensuojain on käytön jälkeen puhdistettava, desinfioitava ja koko laitteen toiminta ja tiiviys on tarkistettava (upc
ta suodatinyksikkö tai hihnaosa paineenalaisessa, käyttövalmiissa tilassa hetkeksi puhtaaseen veteen).
- Tarkista suodatinpatruunan (E) öljykyllästyminen.
- Tarkista säätöventtiilin toiminta (H)
- Tarkista ilman tilavuusvirran näyttö (N) ilmanpuhdistusyksikössä
- Tarkista paineilmasuodattimen (B) toiminta ja manometrinäyttö. Tarvittaessa puhdista sintrauspronssisuodatin ja vaihda hienosuodatinpatruuna (ks. SATA-ilmansuodattimen käyttöohje).
- Hengityksensuojanaamari on desinfioitava säännöllisin välein, säännöllisessä käytössä päivittäin, viikoittain, ei ilmatiiviisti pakatut laitteet puolivuosittain. Tätä varten voidaan irrottaa vaihto-osa. Mikäli vaihdettava suojus on likaantunut, se on vaihdettava (til.nro. ks. varaosaluettelo). On suositeltavaa hankkia jokaiselle käyttäjälle oma suojanaamari. Desinfiointiaineeksi suosittelemme Henkel-yhtiön valmistamaa Inciduria. Laite on puhdistettava, sen toiminta ja tiiviys on tarkistettava ja aktiivihiilisuodattimet on vaihdettava vähintään puolen vuoden välein. Varapatruunoita ja käyttämätöntä laitetta voidaan varastoida 5 vuotta, jos ne on pakattu ilmatiiviisti. Kun laitetta ei käytetä, se on säilytettävä puhtaassa, kuivassa paikassa ei kuitenkaan yhdistelmäkaapissa.

5. Käyttöön liittyviä ohjeita

- HUOMIO:

1. Hengityksensuojanaamarilla (suljettu katseluaukko) varustettuja paineilmaletkulaitteita EN 270 ei saa niiden rakenteen vuoksi käyttää myrkyllisessä ympäristössä, jossa on vähän happea tai jossa MAK- tai TRK-kattoarvo ylittyy 100-kertaisesti.
2. Keveään käyttöön tarkoitettuja, hengityksensuojanaamarilla (meistetty katseluaukko) varustettuja paineilmaletkulaitteita prEN 1835, luokka 1, ei saa niiden rakenteen vuoksi käyttää syöpää aiheuttavia, erittäin myrkyllisiä tai radioaktiivisia aineita, mikro-organismeja (viruksia, bakteereja, sieniä ja niiden itiöitä) tai entsyymejä vastaan eikä myrkyllisessä ympäristössä, jossa on vähän happea tai jossa MAK- tai TRK-kattoarvo ylittyy 5-kertaisesti.

- Ennen käyttöä on aina suoritettava koko laitteen toiminta- ja tiiviystesti.
- Hengityksensuojaimet eivät sovellu kaikkien henkilöiden käytettäväksi. Hengityksensuojainten käyttäjien soveltuvuus on tarkastettava lääkärintarkastuksessa, huomioi "ammattiyhdistysten antamat perusohjeet työterveydellisistä ennakkotutkimuksista G 26: hengityksensuojalaitteita työssä ja pelastustoimissa käyttävät henkilöt" (A. W. Gentner-Verlag, Stuttgart). Lisäksi on noudatettava hengityksensuojaimia koskevia määräyksiä ohjeiston ZH 1/701 mukaisesti.
- Laitteessa on tarpeesta riippumaton hengitysilman syöttö. Säätöventtiilillä (H) voidaan säätää kunkin henkilön tarvitseman hengitysilman määrää.
- Laitetta saa käyttää vain hyväksytyn paineilmaletkun (enint. 50 m, hihnayksikön 30668 kanssa enint. 6 m) ja turvapikakytkimen kanssa (esim. SATA til.nro. 49080, 6 m).
- HUOMIO:

Turvapikakytkennän irrottamiseksi paina kytkimen nippaa ja samanaikaisesti vedä liukumuhvia taaksepäin.

- Varmista aina, että imettyyn ilmaan ei tule epäpuhtauksia ympäristöstä, esim. polttomoottorien tai lämmittimien pakokaasuja, liuotinainehöyryjä jne. ja että ilma vastaa DIN EN 132 -standardin määräyksiä hiilidioksidipitoisuuden suhteen.

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- Kun laitetta käytetään alle +5°C:een lämpötilassa, on katseluaukko käsiteltävä sisäpuolelta hyväksytyllä huurtumisenestoaineella. Suosittelemme:
huurteenestoaine 75 - til.nro. 6700470 Drägerwerk AG, Moislinger Allee 53-55, 23542 Lübeck tai
huurteenestoaine 2260-903 Auergesellschaft GmbH, Hanauer Landstraße 213, 60314 Frankfurt/Main.
- HUOMIO:
Suojateho voidaan taata vain, kun:
1. Standardimalli
Painenäyttö on vihreällä alueella. Jokaisen käyttöönoton yhteydessä, erityisesti kun samanaikaisesti käytetään ruiskutuspistoolia (tarv. lisää käyttöpainetta) on tarkistettava painenäyttö ja akustinen varoitusjärjestelmä (osoitin punaisella alueella - äänimerkin tulee kuulua), tarv. lisää käyttöpainetta.
2. Vaihtoehtomalli
Paineilmasuodattimen (B) käyttöpaine on 4 bar, jos se alittuu, kuuluu äänimerkki, tarv. sovita käyttöpaine.
Aseta naamari siten, että vaihdettava suojus on ainakin leuan alta kiinni kasvoissa.

6. Kunnostus
Jos laitteeseen ilmaantuu vikoja tai se kuluu käytössä, on viallinen rakenneosa vaihdettava, mikäli se on käyttöohjeessa mainittu varaosien luettelossa. Muussa tapauksessa laite on lähetettävä valmistajalle kunnostusta varten. Sellaisten osien vaihdon jälkeen, jotka voivat vaikuttaa suojaimen tiiviyteen, on suoritettava täydellinen toiminta- ja tiiviystarkastus.

7. Hyödylliset lisätarvikkeet

Tilausnro.	Nimike
84996	SATA yhdistelmähienosuodatinyksikkö 0/144 (0/344) täyd. pakattuna
13870	Ilmaletku 1,2 m täyd. asennettuna, SATA ASS:n ruiskutuspistooleja varten
49080	Paineilman syöttöletku 9,5 x 5,0 mm SATA ASS CE:tä varten, pituus 6 m, täyd. asennettu, turvapikakytkennällä asennettu
22905	Varakalvot SATA ASS -laitetta varten, pakkaus à 25 kpl nro. 0/767
54197	20 kpl:een pakkaus vaihdettavia suojuksia SATA-ASS:ää varten
54205	2 kpl:een pakkaus vaihdettavia suojuksia SATA-ASS:ää varten

8. Takuuehdot:
Tämäntyyppisille laitteille myönnämme 6 kuukauden takuun, joka alkaa siitä myyntipäivästä, jolloin laite siirtyy lopulliselle käyttäjälle. Takuu kattaa niiden osien materiaaliarvon, joissa ilmenee takuuajan kuluessa valmistus- ja materiaalivirheitä. Takuu ei koske vahinkoja, jotka aiheutuvat soveltumattomasta tai epäasianmukaisesta käytöstä, ostajan tai kolmansien osapuolien suorittamasta väärästä asennuksesta tai korjauksesta, luonnollisesta kulumisesta, virheellistä käsittelystä tai huollosta, soveltumattomista ruiskutusmateriaaleista, vaihdettavista materiaaleista tai kemiallisen, elektrokemiallisen tai sähköisen vaikutuksen seurauksena, jollei valmistajan voida katsoa olevan vastuussa vahingon syntymisestä. Laite on kontrolloitava välittömästi oston jälkeen. Ilmeiset vauriot on ilmoitettava 14 päivän kuluessa laitteen vastaanottamisesta sen toimittaneelle yritykselle tai valmistajalle kirjallisesti, jotta valitusoikeuden menettäminen vältetään. Kaikenlaiset muut vaatimukset, erityisesti vahingonkorvausvaatimukset, ovat poissuljettuja. Tämä koskee myös vahinkoja, jotka syntyvät opastuksen, tutustumisen ja esittelyn yhteydessä. Mikäli ostaja vaatii korjausta tai tavaran korvaamista välittömästi, ennen kuin on todettu, onko valmistaja korvausvelvollinen, toimitetaan korvaava tuote tai suoritetaan korjaus laskua vastaan päivän hinnan mukaisesti. Mikäli reklamaatiota tutkittaessa ilmenee, että takuuvaatimus oli oikeutettu, ostaja saa laskutettua korjausta tai korvaavan tuotteen hintaa vastaavan hyvityksen takuuehtojen mukaisesti. Osat, joiden tilalle on lähetetty korvaava tuote, siirtyvät takaisin valmistajan omistukseen.
Reklamaatio tai muu vastalause ei oikeuta ostajaa tai toimeksiantajaa kieltäytymään maksusta tai lykkäämään sitä.
Laite on lähetettävä valmistajalle maksuttomasti. Valmistaja ei vastaa asennuksen (matka ja matka-aika) aiheuttamista kulusta eikä rahti- tai pakkauskuluista. Näihin sovelletaan valmistajan asennusehtoja.
Takuusuoritukset eivät pidennä takuuaikaa.
Takuu peruuntuu, mikäli ulkopuolinen tekee laitteeseen muutoksia.

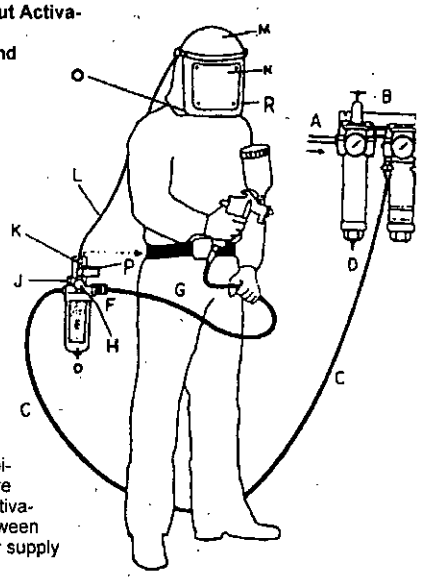
Operating Instructions for Super Respirator Set

Please read these Directions for Use carefully and in their entirety before the respirator is used for the first time. The requ site accident prevention rules, workplace regulations and guidelines, as well as the valid laws and limitations, e.g. rules o the use of respirators (ZH 1/701), when painting (VGB 23), etc., must be observed. The respirator must only be used by instructed personnel and only for the intended purpose. The respirator must always be disconnected from the compressed-air supply system prior to any repair and maintenance work.

SATA Super Respirator Set, type 25-13 / Order No. 54148, Compressed-Air Hose Unit EN 270, consisting of the Respirator Hood 54155 (or 59840 and 67595) and Waistbelt Unit with Activated-Carbon Adsorber, fig.1, or alternatively, Waistbelt Unit without Activated-Carbon Adsorber, Order No. 58149 (or 30668), fig.2.

SATA Respirator Set, Respirator Hood with punched out visor and Waistbelt Unit with Activated-Carbon Adsorber (similar to fig.1), and alternatively, without Activated-Carbon Adsorber (similar to fig.2), Compressed-Air Hose Unit for minor incidents prEN 1835, Respiratory Hood Class 1.

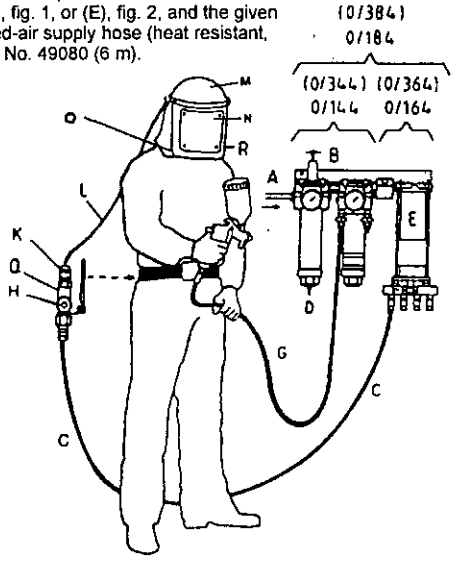
The SATA Respirator Set is a highly effective piece of equipment for health protection while painting or performing other work in a health-hazardous environment. The set consists of a respirator hood that is supplied with filtered respiratory air, a waistbelt unit with activated-carbon filter, and an additional connection for a compressed-air unit, fig.1, or alternatively, a waistbelt unit without activated-carbon filter and without connection for a compressed-air unit, fig. 2, and a compressed-air supply hose.



The operator must ensure that the air drawn in by the compressor is free of harmful gases, vapours and particles (e.g. exhaust gases of combustion engines or furnaces, solvent vapours) in conformity with the statutory requirements regarding the carbon-dioxide content specified in DIN EN 132. It is prohibited to use oxygen or oxygen-enriched air. The respirator can be used in an explosive atmosphere. To remove compressor-induced pollutants from the respiration air, e.g. oil mist, an additional compressed-air filter with pressure gauge (e.g SATA 0/144 or 0/344) must be interposed between the activated-carbon adsorber and the waistbelt unit, fig. 1, or alternatively, between the wall-mounted activated-carbon adsorber 0/164 (0/364) and the air supply network.

The connection between the compressed-air supply system (B), fig. 1, or (E), fig. 2, and the given waistbelt unit must be established with an approved compressed-air supply hose (heat resistant, max. 50 m) with a rapid-action safety coupler, e.g. SATA Order No. 49080 (6 m).

A -Air supply system
B -SATA compressed-air filter 0/144 (0/344)
C - Compressed-air supply hose for the respirator set, SATA Order No. 49080
D -Oil and condensate draining valve
E -Activated-carbon adsorber with exchangeable filter cartridge
F -Rapid-action coupler to connect the compressed-air unit
G -Pistol-grip air hose
H - Control valve for the respiratory air
J - Overpressure safety valve
K - Rapid-action coupler for respiratory hose
L - Respiratory hose
M - Air-supplied respirator hood with visor that can be raised, and neck protection cover (fitted on the inside with exchangeable hood insert, and a hood lining for personal hygiene)
N - Exchangeable Film
O - Visor that can be raised
P - Volumetric air-flow rate indicator
Q - Waistbelt unit without activated-carbon adsorber
R - Acoustic alarm for minimum flow rate (not visible)



Operating Instructions for Super Respirator Set

1. Items supplied

- Standard version

The air-supplied respirator hood features a variable, continuous air supply with a visor that can be raised and for exchangeable visor foil, anti-static hair and neck protecting cover, exchangeable hood insert and hood lining, 5 spare hood linings, an adjustable waistbelt with filter cartridge and control valve, overpressure safety valve, activated-carbon filter, volumetric air flow rate indicator, and separate rapid-action couplers for incoming and outgoing air for the respirator hood, an outgoing circuit to the spraygun, and replacement films for the visor.
The standard version 54148 is supplied as a complete set consisting of the respirator hood 54155 and waistbelt 54015. With other versions (as indicated in the subsequent table) the individual elements - respirator hood and waistbelt unit - are supplied separately and must be combined by the user.

Set-Type	Breathing-Protection Hood	Breathing-Protection Hood	Breathing-Protection Hood	Breathing-Protection Hood
	Belt UnitHood, hair and neck guard red, Order No. 54 155	Hood, hair and neck guard grey with breast cloth, industrial version, Order No. 59 840	Hood, hair and neck guard grey over cap with breast cloth, Order No. 67 595	Hood with punch visor, hair and neck guard grey with breast cloth, Order No. 54 825
Belt Unit with acitve charcoal adsorbent, Order No. 54 015	**95020003**	**95020005**		**95020007**
Belt Unit without acitve charcoal adsorbent, Industrial-version Order No. 58 149	**95020004**	**95020006**		**95020008**
Belt Unit without acitve charcoal adsorbent,bolt connection 9/16"-20 UNS Order No. 30 668			**95020009**	

*) Only permissible in connection with compressed-air supply hose, maximum length 6 m, rotating coupler on the compressed-air filter (B) (connecting waistbelt unit hose screw joint).

- Alternative version, consisting of individual elements, e.g.

1. Air-supplied respirator hood, Order No. 54155, as the standard version
2. Waistbelt unit, Order No. 58149, variable air supply (control valve), mounted on an adjustable waistbelt with a rapid-action coupler for incoming (with 30668 screw connection) and outgoing air for respirator hood.

2. Technical Data

Required operating overpressure*	4 bar
Maximum operating overpressure*	4 bar
Minimum volumetric flow rate required	170 Nl/mm**
Waistbelt unit with activated-carbon adsorber	
Max. operating overpressure with compressed-air tool	8 bar
(Pressure indication must be within the green area; close the control valve should this prove to be necessary)	
Operating temperature	-6°C to 60°C
Max. hose length	50 m
Sound level at minimum volumetric air flow rate	73 dB (A)
Weight of respirator hood	approx. 470 g
Weight of activated-carbon adsorber	approx. 750 g
Weight of waistbelt unit without activated-carbon filter	approx. 260 g

*) Air-supply system pressure (A) at least 1 bar above the adjusted operating pressure.

With simultaneous operation of a compressed-air tool with the waistbelt unit and activated-carbon adsorber 54015, raise the operating pressure to the point where the required volumetric air flow rate is adjusted (pressure indication of the air-cleaning unit within the green area).

****CAUTION** An acoustic alarm is emitted when the volumetric flow rate falls short the minimum level of 170 Nl/minute to indicate that the air volume is insufficient for adequate protection. The operating pressure must be immediately increased i.e. the control valve must be opened, until the whistling sound ceases (pressure indication within the green area). If this i not possible, then immediately remove the respirator hood and leave the health-endangering environment; check the air supply system and the respirator!

3. Manner of operation of the air-cleaning unit with activated-carbon adsorber and waistbelt unit without activated-carbon adsorber

The service life of the activated-carbon cartridge and the quality of the respiratory air depends primarily upon the level of precleaning of the supplied compressed air. For this purpose it is necessary to interpose the SATA 0/144 (0/344) compressed-air filter with an automatic condensate drain. This device filters nearly all water and dust particles out of the compressed air. The fine filter cartridge must be exchanged (see Operating Instructions SATA Air Filter) when the pressure difference between the manometer mounted on the 0/144 (0/344) is larger than 1 bar.

Saturation of the activated-carbon filter (E) is readily discernible by the blue colouration of the indicator strip.

On the standard version, fig. 1, this strip is integrated in the activated-carbon cartridge, while on the alternative version it is located behind the viewing window of the activated-carbon filter 0/164 (0/364), fig. 2.

- For the standard version - Air Cleaning Unit 54015

When the cartridge has become saturated, simply remove the protective basket, unscrew the transparent plastic dome, and insert a new cartridge. A draining valve is located underneath the transparent plastic dome. This can be used to drain off any condensate that may have collected. The control valve for the volumetric air flow rate is designed in such a manner that, at a minimum operating pressure of 4 bar without compressed-air unit, approx. 170 Nl/min cleaned air is supplied to the respirator mask (pressure indication still within the green area). The volumetric air flow rate can be increased to over 300 Nl/min by opening the control valve (position -H-). The integrated overpressure safety valve responds at approx 8 bar.

- For the alternative version, waistbelt unit 58149 and 30668

When the cartridge has become saturated, unscrew the filter tube on the 0/164 (0/364), extract the filter cartridge, and insert a new filter cartridge in reversed sequence. Unscrew the viewing window, remove the old indicator strip and insert a new one.

The control valve for the volumetric air flow rate is designed in such a manner that, at a minimum operating pressure of 4 bar, approx 170 Nl/min cleaned air is supplied to the half mask respirator. The volumetric air flow rate can be increased to over 300 Nl/min by opening the control valve (position -H-).

4. Maintenance, Care and Storage

- After the respirator has been used, ensure that it is thoroughly cleaned and disinfected, and then subjected to a performance and leakage test (briefly submerge the adsorber unit in clear water while it is under pressure and ready for operation).
- Check the filtering cartridge (**E**) for oil saturation.
- Check the control valve (**H**) for smooth action.
- Check the volumetric air flow rate indicator (**P**) for damage.
- Check the performance of the compressed-air filter (B) and the manometer reading. If necessary, clean the sinter-bronze filter, and replace the fine filter cartridge (see Operating Instructions SATA Air Filter).
- Clean at regular intervals - daily/weekly intervals when it is used every day, and when not air-tight packed. The hood must be replaced when it has become soiled (See Spares List for Order No.). If the same hood is worn by several people, then it must be disinfected each time the wearer changes. In such instances it would be more appropriate to ensure that each person has his or her own respirator hood.

We recommend "Incidur" disinfectant made by Henkel.

The respirator hood must be cleaned at the latest in half-yearly intervals, and this must be combined with a performance and leakage test; the activated-carbon cartridge must be exchanged (replacement cartridge and new unit have a shelf life of 5 years when stored in an air-tight state).

The half mask should be stored in a clean dry place while it is not being used, but not in the Combi-Cubicle.

5. Remarks concerning application

- CAUTION:

1. On account of their specific design, compressed-air hose respirators, EN 270, with respirator hood (closed visor) for respiratory protection must not be used in a poisonous ambient atmosphere in which oxygen deficiency prevails or in which the maximum workplace concentration value (MAK and TRK) is exceeded 100-fold.
2. On account of their specific design, compressed-air hose units for minor incidents, prEN 1835 Class 1, with respiratory hood (punched-out visor), must not be used for protection from carcinogenic, very toxic and radioactive substances, microorganisms (viruses, bacteria, fungi and their spores) and enzymes, as well as in a poisonous ambient atmosphere in which oxygen deficiency prevails or in which the maximum workplace concentration value (MAK and TRK) is exceeded 5 fold.

- A performance and leakage test should be completed with the entire set prior to each use.
- Not everyone can wear mask respirators. All persons who are to wear mask respirators must be medically examined line with the requisite industrial medicine regulations for wearers of respirators at work and in life-saving services ("Berufsgenossenschaftlicher Grundsätze für arbeitsmedizinische Vorsorge-untersuchungen G 26: Träger von Atemschutzgeräten für Arbeit und Rettung"; Published by: A.W. Gentner-Verlag, Stuttgart, Germany), and the Guidance Note on Respirators ZH 1/701.

- The air supply for the respirator is independent of individual requirements. The actual respiratory air requirements of the respirator hood wearer can be individually adjusted with the control valve (H).
- The respirator hood must only be operated with the approved compressed-air supply hose (max. length 50 m; with waistbelt unit 30668 max. 6 m) with safety rapid-action coupler (e.g. SATA Order No. 49080, 6 m).
- WARNING: To disconnect the safety rapid-action coupler simply depress the coupling nipple into the coupler and simultaneously push back the sliding sleeve.
- Always ensure that the sucked-in compressor air is not contaminated by ambient conditions such as the exhaust gases of combustion engines, the flue gases of heaters, solvent vapours, etc., and that the carbon dioxide content complies with DIN EN 132.
- When the respirator hood is used at ambient temperatures below +5°C, it is necessary to treat the inside of the visor with an approved anti-misting agent. We recommend:
  Klarsichtmittel 75 - Order No. 6700470 from Drägerwerk AG, Moislinger Allee 53-55, D-23542 Lübeck, Germany, or
  Klarsichtmittel 2260-903 from Auergesellschaft mbH Hanauer Landstrasse 213, D-60314 Frankfurt/Main, Germany

WARNING: The protective action is only assured under the following circumstances:

1. Standard version

Pressure indication is within the green area. The pressure reading and the acoustic alarm should always be checked, particularly when a spraygun is simultaneously operated (A whistling signal must be emitted when the pointer is in the red area); raise the operating pressure should this prove to be necessary.

2. Alternative version

The minimum operating pressure at the compressed-air filter (B) amounts to 4 bar; a whistling alarm signal will be generated if the operating pressure falls short of this minimum level; readjust the operating pressure should this prove to be necessary.

- The hood must be worn in such a manner that the hood insert at least seals off the face under the chin.

6. Repairs

Defective or worn out parts must be immediately replaced, but only if the operating instructions list the item concerned as a spare part. Otherwise, the respirator must be returned for repair. A performance and leakage test must be completed after parts that influence the air-tightness of the half mask have been exchanged.

7. Accessories

Order No.	Designation
84996	SATA Combi-Fine Filter Unit 0/344, fully packed.
13870	Air hose, 1.2 m, fully assembled, for spraygun, SATA ASS.
49080	Compressed-air supply hose 9.5 x 5.0 mm for SATA ASS CE version, 6 m long, fully assembled.
22905	Replacement visor film for SATA ASS, pack of 25, No. 0/767
54197	Pack of 20 hood inserts for SATA ASS
54205	Pack of 2 hood inserts for SATA ASS

8. Guarantee conditions

Guarantee conditions in so far as the supplier has assumed a manufacturer's guarantee as stated in the offer.

a) The supplier grants a guarantee period of 6 months for this kind of equipment; the guarantee period commences on the date of sale to the final customer.

b) The guarantee covers the material value of components with manufacturing and material faults which are detected during the guarantee period. The guarantee does not cover any damage caused by incorrect handling, normal wear mechanical damage.

c) Any other further claims of any sort lodged against the supplier, particularly claims for damages, are ruled out. This also applies to damages caused during consultation talks, instruction sessions and demonstrations. The final customer's rights vis-à-vis his contracting partner remain unaffected.

d) If the customer requires immediate repair or replacement before ascertaining whether we as suppliers are obliged to provide replacement, the replacement delivery or repairs are provided and will be invoiced and paid according to the currently valid price. If further verification of the complaint reveals that the customer is entitled to claim under the guarantee, the purchaser shall receive a credit note corresponding to the guarantee service provided for the invoiced repair or replacement delivery. Components for which replacements have been delivered become the property of the supplier again. Notifications of faults or other complaints do not entitle the customer or his representative to refuse or delay payment.

e) The unit is to be returned with transport costs paid. The supplier does not assume any costs for delegating engineers (travelling time and costs) together with freight and packaging costs. The supplier's conditions for the delegation of engineers apply here.

f) Any services provided under the guarantee do not prolong the guarantee period.

g) The guarantee becomes null and void in the event of any third-party interference

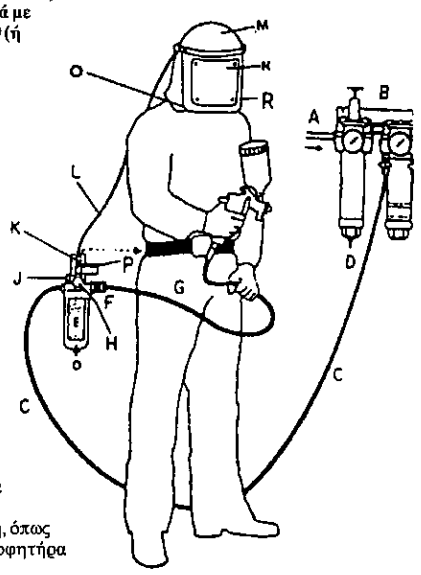
h) These guarantee conditions are an integral part of the supplier's general conditions of delivery

SATA can not be held responsible for injuries caused by non-observance of the operating instruction.

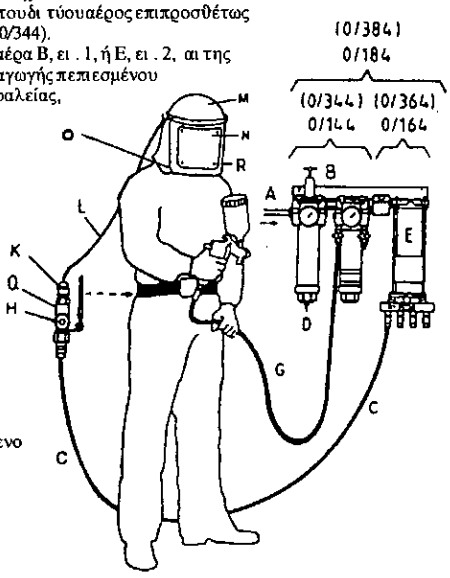
Subject to technical alterations.

Οδηγίεςχρήσης οσεταναπνευστι ήςπροστασίαςSATA-Super

Πριν την θέση σε λειτουργία της συσ ευής σας παρα αλούμε να διαβάσετε προσε τι ότατα την οδηγία χρήσης. Ναληφθούν υπόψη οι διατάξεις πρόληψης ατυχημάτων, οι διατάξεις στον τόπο εργασίας αι οι ατευθυντήριες γραμμές αι οι νόμοι αι περιορισμοί, π.χ. ανόνες για την χρήση των συσ ευών αναπνευστι ής προστασίας 1/701, για βάψιμο VGB 23 λπ. .
συσ ευή να χρησιμοποιείται μόνο από ειδι ευμένα πρόσωπα αι μόνο για τον σ οπό για τον οποίο προορίζεται. Πριν από άθε εργασίας επισ ευής ή συντήρησης να αποσυνδέεται η συσ ευή από το σύστημα εφοδιασμού πεπιεσμένου αέρα.
οσετ αναπνευστι ής προστασίας SATA-Super, τύπος 25-13/αρ. παραγγ. 54148, συσ ευή σωλήνα πεπιεσμένου αέρα EN 270, αποτελούμενο από άλυμμα αναπνευστι ή προστασίας 54155 (ή 59840 ή 67595) αι η μονάδα ζώνης με προσροφητήρα ενεργού άνθρα α, ει . 1, ή εναλλα τι ά με μονάδα ζώνης χωρίς προσροφητήρα ενεργού άνθρα α, αρ. παραγγ. 58149 (ή 30668) ει . 2.



οσεταναπνευστι ής προστασίας SATA, άλυμμα αναπνευστι ής προστασίας με τμήμα προσώπου, με μονάδα ζώνης με προσροφητήρα ενεργού άνθρα α, (παρόμοιο προς ει . 1, ή εναλλα τι ά με μονάδα ζώνης χωρίς προσροφητήρα ενεργού άνθρα α (παρόμοιο προς ει . 2), συσ ευή σωλήνα πεπιεσμένου αέρα για ελαφριές εργασίες prEN 1835, άλυμμα αναπνευστι ής προστασίας, ατηγορία 1.
οσετ SATA αναπνευστι ής προστασίας είναι μία αποτελεσματι ότατη προστασίας για την υγεία όσον βάφουν αλλά αι για εργασίες σε επιβλαβές περιβάλλον. Αποτελείται από ένα αεριζόμενο άλυμμα (ου ούλα) που τροφοδοτείται με φιλτραρισμένο αέρα αναπνοής, από μονάδα ζώνης με φίλτρο ενεργού άνθρα α με πρόσθετη σύνδεση για συσ ευή πεπιεσμένου αέρα, ει . 1, ή εναλλα τι ά από μονάδα ζώνης χωρίς φίλτρο ενεργού άνθρα α αι χωρίς σύνδεση για συσ ευή πεπιεσμένου αέρα, ει . 2, αι από σωλήνα προσαγωγής πεπιεσμένου αέρα.
Οχρήστης της συσ ευής πρέπει να εξασφαλίσει να είναι ελεύθερος από βλαβερά αέρια, ατμούς αι μόρια (π.χ. αυσαέρια ινητήρων, αμίνων, ατμών διαλυτών) ο αναρροφούμενος αέρας αι να εξασφαλίζεται η ανταπό ριση στις απαιτήσεις σύμφωνα με το πρότυπο DIN EN 132 ως προς το περιεχόμενο σε διοξείδιο του άνθρα ος. Δεν επιτρέπεται η χρήση οξυγόνου ή αέρα με οξυγόνο. συσ ευή μπορεί να χρησιμοποιηθεί σε εύφλε τη ατμόσφαιρα. Για την απομά ρυνση α αθαρσιών από τον αέρα αναπνοής που προέρχονται από τον συμπιεστή, όπως π.χ. ε νεφώσεις πετρελαίου, πρέπει να τοποθετηθεί μεταξύ του προσροφητήρα ενεργού άνθρα ος, της ζώνης, ει . 1, ή εναλλα τι ά μεταξύ του στον τοίχο μανταρισμένου προσροφητήρα ενεργού άνθρα ος 0/164 (0/364) αι του δι τύου αέρος επιπροσθέτως ένα φίλτρο πεπιεσμένου αέρα με μανόμετρο (π.χ. SATA 0/144 ή 0/344).
ένωση μεταξύ του συστήματος τροφοδότησης του πεπιεσμένου αέρα B, ει . 1, ή E, ει . 2, αι της ε άστοτε ζώνης πρέπει να γίνεται με επιτετραμμένο σωλήνα προσαγωγής πεπιεσμένου αέρα (να αντέχει σε θερμότητα, το ανώτ. 50 μ.) με συνδέσμους ασφαλείας, π.χ. SATA αριθμ. παραγγ. 49080 (6 μ.).



A - Σύστημα τροφοδότησης αέρα
B - SATA φίλτρο πεπιεσμένου αέρα 0/144 (0/344)
C - Σωλήνας προσαγωγής πεπιεσμένου αέρα για το σετ αναπνευστι ής προστασίας, SATA αριθμ. παραγγελίας 49080
D - Βαλβίδα εξόδου λαδιού αι συμπυ νώματος
E - Απορροφητήρας ενεργού άνθρα ος με αλλαζόμενη φύσιγγα φίλτρου
F - αχύς σύνδεσμος για σύνδεση σε συσ ευή πεπιεσμένου αέρα
G - Αεροσωλήνας
H - Βαλβίδα για αέρα αναπνοής
J - Βαλβίδα ασφαλείας υπερπίεσης
K - αχύς σύνδεσμος για αεροσωλήνα
L - Αεροσωλήνας
M - Αεριζόμενο άλυμμα (ου ούλα) με ανα λινόμενο άνοιγμα προσώπου αι προστασία τραχήλου (εσωτερι ά με αλλαζόμενο ένθετο για υγιεινή ου ούλα)
N - Μεμβράνη για αλλαγή
O - Ανα λινόμενο άνοιγμα προσώπου
P - Ενδειξη όγ ου αέρα
Q - ώνη με προσροφητήρα ενεργού άνθρα α
R - Α ουστι ό προειδοποιητι ό σύστημα (δεν φαίνεται) για την περίπτωση μειωμένης διαροής.

GR

Οδηγίεςχρήσης οσεταναπνευστι ήςπροστασίαςSATA-Super

1. Περιεχόμενο συσ ευασίας ατά την παράδοση

- Μοντέλλο στάνταρτ

Αεριζόμενο άλυμμα (ου ούλα) αναπνευστι ής προστασίας, με ρυθμιζόμενη συνεχή τροφοδότηση αέρα, με ανα λινόμ άνοιγμα προσώπου για αλλαγή μεμβράνης, αντιστατι ή προστασία μαλλιών αι τραχήλου αι ένθετο αλλαγής για την ου ούλα, αθώς αι 5 ανταλλα τι ά μι ρά ένθετα για την ου ούλα, φύσιγγα φίλτρου με βαλβίδα μονταρισμένη σε ρυθμιζόμενη ζώνη, ασφαλιστι ή βαλβίδα υπερπίεσης, φίλτρο ενεργού άνθρα ος, ένδειξη ρεύματος όγ ου αέρος, απόμία ταχεία σύνδεση για άθε είσοδο αι έξοδο αέρα προς το άλυμμα αναπνευστι ής προστασίας αθώς αι έξοδο προς το παστόλι ψε ασμού.

Στο στάνταρτ μοντέλλο 54148 η συσ ευή, αποτελούμενη από άλυμμα (ου ούλα) αναπνευστι ής προστασίας 54155 αι ζώνη 54015, προσφέρεται πλήρης.

Στα άλλα μοντέλλα -βλ. πίνα α - προσφέρονται τα τεμάχια - άλυμμα αναπνευστι ής προστασίας αι ζώνη- χωριστά αι συνδυάζονται από τον χρήστη.

Μοντέλλο	Κάλυμμα εφ.ASS, ό ινο πανί εφ., αρ.παραγγ. 54155	Κάλυμμα εφ. ASS, γ ρι πανί εφ. με πανί στήθους, βιομηχ. μοντέλλο, αρ.παραγγ. 59840	Κάλυμμα εφ. ASS, γ ρι πανί εφ.με πανί στήθους, αρ. παραγγ.67595	Κάλ. εφ. ASS με άνοιγμα προσώ που, γ πανί εφ. με πανί στήθους, αρ.παρ. 5482
ώνη με προσρο- φητήρα ενεργού άνθρα α, σύστημα αθαρισμού αέρα, αρ.παραγγ.54015	X	X		X
ώνη χωρίς προσροφ. ενεργού άνθρα α, βιομηχ. μοντέλλο, αρ.παραγγ. 58149	X	X		X
ώνη χωρίς προσροφ. ενεργού άνθρα α, με βιδ. σύνδεση 9/16"-20 UNS αρ.παραγγ.30668*			X	

*) Επιτρέπεται μόνο η χρήση σωλήνα προσαγωγής πεπιεσμένου αέρα μάξιμουμ 6 μ. με περιστρεφόμενη σύνδεση στο φ πεπιεσμένου αέρα (B) (σύνδεση ζώνης- σωλήνα)

- Εναλλα τι ό μοντέλλο

1. Αεριζόμενο άλυμμα (ου ούλα) όπως το στάνταρτ μοντέλλο, αριθμ. παραγγ. 54155
2. Μονάδα ζώνης, αριθμ.παραγγ. 58149, ρυθμιζόμενη τροφοδότηση αέρα (βαλβίδα), μονταρισμένη σε ρυθμιζόμενη ζών ταχεία σύνδεση για την είσοδο αι έξοδο του αέρα (με βιδ. σύνδεση 30668) προς το άλυμμα (ου ούλα) αναπνευστι ής προστασίας.

2. εχνι ά στοιχεία

Απαιτούμενη πίεση λειτουργίας*)	4 bar
Ανώτατη υπερπίεση λειτουργίας*)	4 bar
Απαιτούμενος ατώτατος όγ οσροής	170 Nl/min
Απαιτούμενος ανώτατος όγ οσροής	305 Nl/min
Ζώνη με προσροφητήρα ενεργού άνθρα α:	
Ανύτατη υπερπίεση λειτουργίας με εργ. πεπ. αέρα (η ένδειξη πίεσης να είναι στην πράσινη περιοχή, ενδεχομένως λείστε τη βαλβίδα)	8 bar
Θερμο ρασία ατά την λειτουργία	-6°Cέως 60°C
Ανώτ.μή οσωλήνα	50 μ.
Στάθμη ήχου σε ελάχ. όγ οροής αέρος	73 dB(A)
Βάρος του αλύμματος αναπνευστι ής προστασίας	περ. 470 γρ.
Απορροφητήρας ενεργού άνθρα ος	περ. 750 γρ.
Βάρος της ζώνης χωρίς φίλτρο ενεργού άνθρα ος	περ. 260 γρ.

*)Πίεση συστήματος τροφοδότησης αέρος (A) τουλάχ. 1 bar άνω της ρυθμισμένης υπερπίεσης λειτουργίας.

Σε περίπτωση σύγχρονης λειτουργίας ενός συστήματος πεπιεσμένου αέρα στη ζώνη με προσροφητήρα ενεργού άνθρα α 54015, να αυξηθεί η υπερπίεση λειτουργίας μέχρι να επιτευχθεί η επιθυμούμενη διέλευση αέρος (ένδειξη πίεσης στο σύ αθαρισμού αέρα στο πράσινο πεδίο).

**) ΠΡΟΣΟΧ :

Σε περίπτωση υπέρβασης του ελάχιστου όγ ου οής των 170 Nl/min, α ούγεται προειδοποιητι ός ήχος που σας υποδει νί ότι η ποσότητα αέρα είναι πολύ χαμηλή για ι ανοποιητι ή προστατευτι ή λειτουργία. Να αυξηθεί η υπερπίεση λειτους ή να ανοιχθεί η βαλβίδα έτσι ώστε να μην α ούγεται πια ο σφυριχτός ήχος (ένδειξη μανομέτρου στην πράσινη περιοχή). αυτό δεν είναι δυνατό, βγάλτε αμέσως την ου ούλα αναπνευστι ής προστασίας αι ακομα ρυνθείτε από την περιοχή με επιβλαβή για την υγεία ατμόσφαιρα. Ελέγξτε το σύστημα εφοδιασμού αέρα ή όλη την συσ ευή σας.

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3. ρόπος δράσης του συστήματος αθαρισμού του αέρα με προσροφητήρα ενεργού άνθρα ος αι με την ζώνηχωρίς προσροφητήρα ενεργούάνθρα ος

Ο χρόνος χρήσης των φυσιγγών ενεργού άνθρα α αι η ποιότητα του αέρα ποα αναπνέεται εξαρτάται από τον προ αθαρισμό του προσαγόμενου πεπιεσμένου αέρα. Γιαυτό πρέπει το φίλτρο πεπιεσμένου αέρα SATA 0/144 (0/344) να διαθέτει σύστημα ένωσης του συμπυ νώματος. Αυτή η συσ ευή φιλτράρει σχεδόν όλα τα μόρια νερού αι σ όνης από τον πεπιεσμένο αέρα.
Εάν η διαφορά πίεσης μεταξύ των μανομέτρων που τοποθετήθη αν στο 0/144 (0/344) είναι άνω του 1 bar, πρέπει να αντι ατασταθεί η φύσιγγα λεπτού φίλτρου(βλ. οδηγίες χρήσης SATA φίλτρο αέρος).
Για τον α όλουθο αθαρισμό του αέρα που αναπνέεται από ατμούς ε νεφωμάτων πετρελαίου έχει τοποθετηθεί ενδιάμεσα ένα φίλτρο ενεργού άνθρα α (Ε). Ο ορεσμός του ενεργού άνθρα α αναγνωρίζεται εύ ολα από το μπλε χρώματης λωρίδας-δεί τη.
Στο στάνταρτ μοντέλλο, ει . 1, βρίσ εται η λωρίδα-δεί της στην φύσιγγα ενεργού άνθρα ος αι στο εναλλα τι ό μοντέλλο πίσω από το παράθυρο του φίλτρου ενεργού άνθρα α 0/164 (0/364), ει . 2.
- Για το στάνταρτ μοντέλλο σύστημα αθαρισμού αέρα 54015
Οταν γεμίσει η φύσιγγα βγάζετε το προστατευτι ό αλάθι, ξεβιδώνετε τον διαφανή πλαστι ό ώδωνα αι τοποθετείτε την νέα φύσιγγα. Στην άτω πλευρά του διαφανούς πλαστι ού ώδωνα υπάρχει μία βαλβίδα μέσω της οποίας εξάγετεενδεχομένως το συμπύ νωμα.
βαλβίδα για την απαιτούμενη ροή του όγ ου του αέρα έχει ατασ ευασθεί έτσι, ώστε σε ελάχιστη πίεσηλειτουργίας4 bar να προσάγονται χωρίς συσ ευή πεπιεσμένου αέρα περ. 170 Nl/min αθαρού αέρα στην μάσ α (η ένδειξηπίεσης βρίσ εται α όμη στο πράσινο πεδίο). Ανοίγοντας την βαλβίδα (θέση - -) μπορεί να αυξηθεί η ροή του όγ ου του αέρα πάνω από 300 Nl/min. ενσωματωμένη ασφαλιστι ή βαλβίδα υπερπίεσης λειτουργεί στα περ. 8 bar.
- Για το εναλλα τι ό μοντέλλο, ζώνη 58149 αι 30688
Οταν γεμίσει η φύσιγγα, ξεβιδώνετε τον σωλήνα φίλτρου στο 0/164 (0/364). ραβάτε την φύσιγγα φίλτρουπρος τα έξω αι τοποθετείτε στην αντίστροφη σειρά την νέα φύσιγγα. Βγάζετε το χαρτί του δεί τη ξεβιδώνοντας το παράθυρο αι τοποθετείτε αινούργιο χαρτί.
βαλβίδα για την απαιτούμενη ροή του όγ ου του αέρα έχει ατασ ευασθεί έτσι, ώστε σε ελάχιστη πίεσηλειτουργίας4 bar να προσάγονται χωρίς συσ ευή πεπιεσμένου αέρα περ. 170 Nl/min αθαρού αέρα στην μάσ α (η ένδειξηπίεσης βρίσ εται α όμη στο πράσινο πεδίο). Ανοίγοντας την βαλβίδα (θέση - -) μπορεί να αυξηθεί η ροή του όγ ου του αέρα πάνω από 300 Nl/min.

4. Συντήρηση, περιποίηση αι φύλαξη

- συσ ευή πρέπει μετά τη χρήση να αθαρισθεί, να απολυμανθεί αι να γίνει τεστ λειτουργίας αι στεγανότητας για όλό ληρη τη συσ ευή (να βυθισθεί η μονάδα προσρόφησης του αέρα - σε ατάσταση υπό πίεση αι έτοιμη για λειτουργία - για σύντομο χρον ό διάστημα σε νερό).
- Να ελεγχθεί ο ορεσμός από λάδι της φύσιγγας φίλτρου(Ε).
- Να ελεγχθεί η λειτουργία της βαλβίδας( ).
- Να ελεγχθεί ο δεί της ροής του όγ ου του αέρα (Ρ) στο σύστημα αθαρισμού του αέρα.
- Να ελεγχθεί το φίλτρο πεπιεσμένου αέρα (Β) ως προς την αλή λειτουργία αι την ένδειξη μανομέτρου. Εάν χρειάζεται, να αθαρισθεί το εραμομεταλλι ό φίλτρο αι να αντι ατασταθεί η φύσιγγα λεπτού φίλτρου (βλ. οδηγία χρήσηςτωνSATA φίλτρωναέρος).
- ου ούλα να απολυμαίνεται τα τι ά, αθημερινά, εβδομαδιαία σε περίπτωση αθημερινής χρήσης αι σε περίπτωση που δεν είναι συσ ευασμένη αεροστεγώς, άθε εξάμηνο.
ο ένθετο να αφαιρείται αι να αντι αθίστανται τα μι ρά ένθετα (αρ. παραγγ. βλ. εξαρτήματα)
Σε περίπτωση που χρησιμοποιούν την ου ούλα περισσότερα άτομα να απολυμαίνεται ε νέου για άθε χρήστη.
Συνιστούμε να υπάρχει για άθε χρήστη χωριστή ου ούλα.
Σαν απολυμαντι ό συνιστούμε το «Incidur» της εταιρίας Henkel. ο αργότερο άθε εξάμηνο να αθα΄ρίζετε τη συσ ευή, να ελέγχετε την άψογη λειτουργία της αι την στεγανότητά της, αι να αντι αθίσταται η φύσιγγα ενεργού άνθρα α. αναπληρωματι ή φύσιγγα αι η νέα συσ ευή διατηρούνται επί 5 έτη εφ΄όσον είναι λειισμένες αεροστεγώς.
Εάν δεν χρησιμοποιείται η συσ ευή να φυλάγεται σε αθαρό αι στεγνό τόπο αλλά όχι στην στην ομπι- αμπίνα.

5. ποδείξεις για τη χρήση

- ΠΡΟΣΟΧ :
1. Οι σωληνοσυσ ευές πεπιεσμένου αέρα EN 270 με ου ούλα αναπνευστι ής προστασίας (λειστό τμήμα προσώπου) λόγω του τρόπου ατασ ευής τους δεν επιτρέπεται να χρησιμοποιούνται σε τοξι ή ατμόσφαιρα με έλλειψη οξυγόνου ή όπου υπάρχει υπέρβαση του 100-πλασίου της τιμής MAK ή TRK.
2. Οι σωληνοσυσ ευές για ελαφριές εργασίες, ρ EN 1835 ατηγορία 1 με ου ούλα αναπνευστι ής προστασίας(άνοιγμα προσώπου) λόγω του τρόπου ατασ ευής τους δεν επιτρέπεται να χρησιμοποιούνται ατά αρ ινογενών, λίαν τοξι ών, ραδιενεργών υλι ών, μι ροοργανισμών (μι ροβίων, βα τηριδίων αι μυ ήτων αθώς αι των σπορίων τους) αι ενζύμων, ούτε αι σε τοξι ό περιβάλλον με έλλειψη οξυγόνου ή όπου υπάρχει υπέρβαση του 5-πλου της τιμής MAK ή TRK.
- Πριν από άθε χρήση να διεξάγεται τεστ λειτουργίας αι στεγανότητας για όλη τη συσ ευή.
-Δενεπιτρέπεται να φοροά ο αθένας της συσ ευέςαναπνευστι ής προστασίας. Οι χρήστες τωνσυσ ευών αναπνευστι ής προστασίας να εξετάζονται ιατρι ά σύμφωνα με «τις διατάξεις των επαγγελματι ών συνεταιρισμών για εργασιοιατρι ές προληπτι έςεξετάσειςG26:φορείςσυσ ευώναναπνευστι ής προστασίαςγιαεργασία αιπρώτεςβοήθειες » (A.W. Gentner-Verlag, Stuttgart). Ε τός αυτού πρέπει να λαμβάνονται υπόψη οι σχετι ές διατάξεις του ενημερωτι ού φυλλαδίου για αναπνευστι ή προστασία 1/701.
— συσ ευή διαθέτει ανεξάρτητη τροφοδότηση αέρα αναπνοής

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Οδηγίεςχρήσης οσεταναπνευστι ήςπροστασίαςSATA-Super

- ΠΡΟΣΟΧ :

Οι σωληνοσυσ ευές πεπιεσμένουαέρα με ημίμασ α δενεπιτρέπεται -εξαιτίας του τρόπου αταο ευής τους - να χρησιμοποιούνται σε τοξι ή ατμόσφαιρα με έλειψη οξυγόνου ή όπου υπάρχει υπέρβαση του 100-πλού της τιμήςΜΑΚή TRK.

- συσ ευή διαθέτει ανεξάρτητο σύστημα τροφοδότηση αέρα αναπνοής. Με την βαλβίδα (·) μπορεί να ρυθμισθεί η ατομι ή ανάγ η για αέρα του χρήστη.

- συσ ευή να λειτουργεί μόνο με επιτρεπτό σωλήνα προσαγωγής πεπιεσμένου αέρα (το ανώτ. 50 μ.) με ταχείεςσυνδέσε ασφαλείας (ο.χ. SATA αριθμ.παραγγ. 49080, 6 μ.)

- ΠΡΟΣΟΧ :

Για την αποσύνδεση των συνδέσεων ασφαλείας να πιέσετε τη γλωσσίτσα αι συγχρόνως να σπρώξετε προς τα πίσω τη μοι

- Να βεβαιώνεστε πάντα ότι ο αέρας συμπύ νωσης που απορροφάται δεν έχει μολυνθεί από το περιβάλλον, π.χ. αυσαές ινητήρες, θερμάνσεις, ατμούς διαλυτών λπ. αι ότι το περιεχόμενο τουσε διοξείδιο τουάνθρα οςαντιστοιχεί σταο DIN I 132

- Σε περίπτωση χρήσης της συσ ευής σε θερμο ρασία άτω των +5°C να χρησιμοποιείτε για το εσωτερι ό τουτμήματοςτο προσώπου υλι ό αντιθαμπωτι ό. Συνιστούμε

Klarsichtmittel 75 - αριθμ. παραγγ. 6700470 από την εταιρία Drägerwerk AG, Moislinger Allee 53-55, 23542 Lübeck ή Klarsichtmittel 2260-902 από την εταιρία Auerfgesellschaft GmbH Hanauer Landstr. 213, 60314 Frankfurt.

- ΠΡΟΣΟΧ :

προστασία είναι δεδομένη μόνο όταν:

1. Στάνταρτ μοντέλλο:

ένδειξη πίεσης βρίσ εται στο πράσινο πεδίο. Σε άθε θέση σε λειτουργία, ιδιαίτερα σε σύγχρονη λειτουργία με το πιστόλι ψε ασμού, να ελέγχεται η ένδειξη πίεσης ή/ αι το σύστημα προειδοποίησης (δεί της στην ό ινη περιοχή - πρέπει να α ούγεται το σφύριγμα), ενδεχομένως να αυξάνεται η πίεση λειοτυργίας.

2. Εναλλα τι ό μοντέλλο:

ελάχιστη πίεση λειτουργίας στο φίλτρο πεπιεσμένου αέρα (Β) ανέρχεται σε 4 bar, ενδεχομένως να προσαρμοσθεί η πί λειτουργίας.

6. Επισ ευή

Σε περίπτωση βλάβης ή φθοράς της συσ ευής να αντι αθίσταται το σχετι ότμήμα της, συσ ευής, όταναναφέρεται σαν εξάρτημα στις οδηγίες χρήσης. Αλλιώς να στέλνετε τη συσ ευή για επισ ευή. Μετά από την αντι ατάσταση των εξαρτημό πουμπορεί να σχετίζονται με την στεγανότητα, να γίνει πλήρης έλεγχος της λειτουργίας αι της στεγανότητας.

7. Εξαρτήματα

Αριθμ.παραγγ.	Ονομασία
84996	SATA λεπτό φίλτρο SATA 0/144 (0/344), syskeyasméno komplé
13870	σωλήνας αέρας 1,2μ: έτοιμος τοποθετημένος, για πιστόλι ψε ασμού για SATA ASS
49080	σωλήνας προσαγωγής πεπιεσμένου αέρα 9,5 X 5,0 χιλ. για SATA ASS CE, μή ος 6 μ., ομπλέτοποθετημένος
22905	Ανταλλα τι ές μεμβράνες για SATA ASS, πα έτο με 25 τεμάχια, αρ. 0/767
54197	Πα έτο με 20 τεμάχια ενθέτων ου ούλας για SATA-ASS
54205	Πα έτο με 2 τεμάχια ενθέτων ου ούλας για SATA-ASS

Οροιεγγύησης:

Για παρόμοιες συσ ευές παρέχουμε 6 μήνες εγγύηση, η οποία αρχίζει από την ημέρα της πώλησης τον τελι ό αγοραστή. εγγύηση ε τείνεται αι στην αξία του υλι ού τεμαχίων με ελαττώματα αταο ευής ή υλι ού, τα οποία διαπιστώνονται εντ της ισχύος της εγγύησης. Απο λείονται οι ζημιές που οφείλονται σε α ατάλληλη ή όχι σωστή χρήση, σε λάθος συναρμολό ή θέση σε λειτουργία από τον αγοραστή ή από τρίτους, σε φυσιολογι ή φθορά, λάθος χειρισμό ή συντήρηση, σε α ατάλληλα υλι ά ψε ασμού, σε ανταλλα τι ά υλι ά αι σε χημι ές ή ηλε τροχημι ές ή ηλε τρι ές επιδράσεις, εφ΄όσον οι ζημιές αυτές δεν οφείλονται στην δι ή μας υπαιτιότητα. συσ ευή να ελέγχεται αμέσως μετά την παραλαβή της. Εμφανή ελαττώματα να δηλώνονται αμέσως στον προμηθευτή ή σε εμάς -προς αποφυγή απωλείας του δι αιώματος διαμαρτυρίας-ε ημερών μετά την παραλαβή της συσ ευής. Αυτό ισχύει αι για ζημιές που προ αλούνται ατά την παροχή συμβουλών, δο ιμαστι ή εργασία αι επίδειξη. Εάν ο αγοραστής επιθυμεί άμεση επισ ευή ή αντι ατάσταση, προτού διαπιστωθεί, εάν είμαστε υποχρεωμένοι προς αποζημίωση/αντι ατάσταση, α ολουθεί η παράδοση νέας συσ ευής ή η επισ ευή ατόπιν υπολογισμού αι πληρωμής της ε άστοτε ημερήσιας τιμής. Εάν ατά την εξέταση της διαμαρτυρίας διαπιστωθεί ότι υφίστατ αξίωση προς παροχή εγγύησης, τότε θα δοθεί στον αγοραστή για την επισ ευή ή την νέα συσ ευή ένα ουπόνι που αντιστοιχεί στην παροχή εγγύησης. α τεμάχια, τα οποία αντι αταστήθη αν, περιέρχονται στην ιδιο τησίαμας. Ενδεχόμενες διαμαρτυρίες δεν δίνουν το δι αίωμα στον αγοραστή ή στον εντολέα να αρνηθεί ή να αθυστερήσει την πληρωμή.

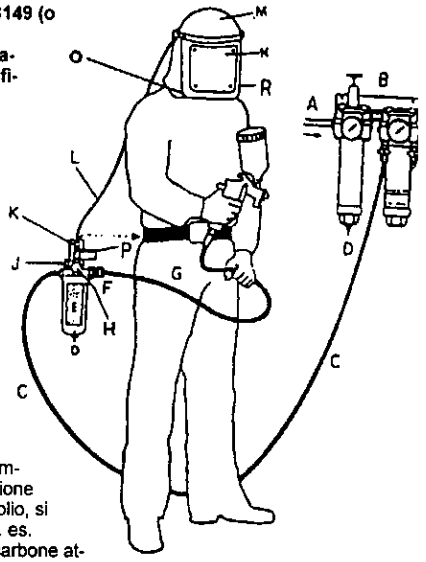
αποστολή της συσ ευής θα σταλεί σε εμάς χωρίς δι ή μας επιβάρυνση. Δεν αναλαμβάνουμε τα έξοδα συναρμολόγησης(έ εργασίας αι διαδρομής) ούτε τα έξοδα μεταφοράς αι συσ ευασίας. Εδώ ισχύουν οι όροι μας για συναρμολόγηση. Οι παροχέ εγγύησης δεν θεμελιώνουν επέ ταση του χρόνου εγγύησης. εγγύηση παύει να ισχύει σε περίπτωση επέμβασης τρίτων.

Istruzioni per l'uso per Set super-respiratore SATA

Prima di mettere in servizio l'apparecchio, leggere attentamente e integralmente le istruzioni per l'uso. Osservare le prescrizioni in materia antinfortunistica, i regolamenti e le direttive sui luoghi di lavoro nonché le leggi e le limitazioni vigenti, quali le regole per l'impiego di respiratori ZH 1/701, per verniciatura VBG 23 ecc. L'apparecchio deve essere utilizzato solo da persone addestrate ed in conformità alla destinazione d'uso. Prima di qualsiasi intervento di riparazione e di manutenzione, l'apparecchio deve essere staccato dal sistema per l'alimentazione con aria compressa.

Set super-respiratore SATA, tipo 25-13/n° ord. 54148, apparecchio a tubo flessibile alimentato da aria compressa EN 270, consistente di casco respiratore 54155 (oppure 59840 o 67595) con unità cintura con adsorbitore a carbone attivo, figura 1, o in alternativo con unità a cintura senza adsorbitore a carbone attivo, n° ord. 58149 (o 30688), figura 2.

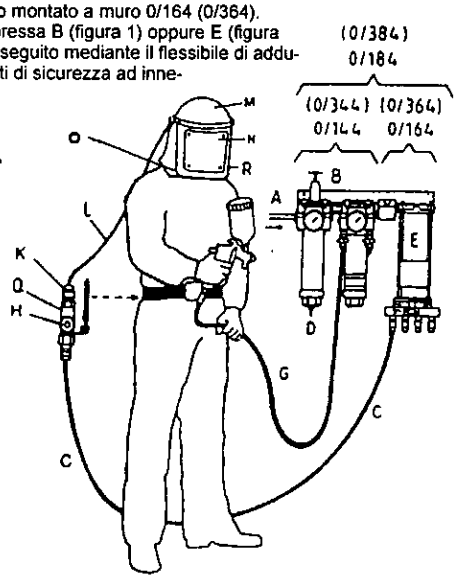
Set respiratore SATA, casco respiratore con campo visivo tranciato, con unità a cintura con adsorbitore a carbone attivo (simile a figura 1) e, in alternativa, senza adsorbitore a carbone attivo (simile a figura 2), apparecchio a tubo flessibile alimentato da aria compressa per impieghi facili prEN 1835, casco respiratore classe 1.



Il set super-respiratore SATA è un dispositivo di protezione ad alta efficienza per verniciatori e per lavori in ambienti con pericoli per la salute. Esso consiste di un casco respiratore ventilato che viene alimentato da aria di respirazione filtrata, di un'unità a cintura con filtro a carbone attivo con raccordo supplementare per un apparecchio pneumatico, figura 1, oppure in alternativa, di un'unità a cintura senza filtro a carbone attivo e senza raccordo per un apparecchio pneumatico, figura 2, nonché di un tubo flessibile per l'adduzione dell'aria compressa.

L'esercente deve assicurare che l'aria aspirata dal compressore sia esente da gas, vapori e particelle nocivi (p. es. gas di scarico di motori o forni a combustione interna, vapori di solventi), in modo tale che siano soddisfatti i requisiti imposti dalla norma DIN EN 132 relativi al contenuto di biossido di carbonio. Non è ammesso l'impiego di ossigeno o di aria arricchita d'ossigeno. L'apparecchio può essere impiegato in atmosfera combustibile. Al fine di depurare l'aria di respirazione dall'inquinamento proveniente dal compressore, p. es. dalle nebbia d'olio, si deve inoltre prevedere un filtro per aria compressa con manometro (p. es. SATA 0/144 o 0/344), da inserire tra la rete dell'aria e l'adsorbitore a carbone attivo dell'unità a cintura (figura 1) o l'adsorbitore a carbone attivo montato a muro 0/164 (0/364).

Il collegamento tra il sistema per l'alimentazione con aria compressa B (figura 1) oppure E (figura 2) e la relativa unità a cintura (elemento cintura) deve essere eseguito mediante il flessibile di adduzione omologato (resistente al calore, max. 50 m), tramite giunti di sicurezza ad innesto rapido, p. es. SATA n° 49080 (6 m).



A sistema per l'alimentazione con aria
B filtro per aria compressa SATA 0/144 (0/344)
C flessibile di adduzione aria compressa per set respiratore, n° ord. SATA 49080
D valvola di scarico olio e condensa
E adsorbitore a carbone attivo con cartuccia filtrante intercambiabile
F giunto ad innesto rapido per collegamento apparecchio pneumatico
G flessibile aria pistola
H valvola regolatrice per l'aria di respirazione
J valvola limitatrice della pressione
K giunto ad innesto rapido per flessibile di respirazione
L flessibile di respirazione
M casco respiratore ventilato con finestrino alzabile e salvanuca (all'interno dotato di inserto e imbottitura intercambiabili per assicurare l'igiene personale)
N foglio intercambiabile
O finestrino alzabile
P indicatore portata volumetrica dell'aria
Q elemento cintura senza adsorbitore a carbone attivo
R avvisatore acustico per portata minima (non visibile)

Istruzioni per l'uso per Set super-respiratore SATA

1. Entità della fornitura

- Esecuzione standard

Casco respiratore ventilato con alimentazione aria continua e regolabile, con finestrino alzabile per fogli intercambiat salvacapelli e salvanuca antistatico e inserto intercambiabile con imbottitura nonché 5 imbottiture di ricambio, cartuc tro montata sulla cintura regolabile con valvola regolatrice, valvola limitatrice della pressione, filtro a carbone attivo, i tore della portata volumetrica dell'aria, giunti ad innesto rapido per ingresso dell'aria e uscita dell'aria verso il casco respiratore nonché per l'uscita verso la pistola a spruzzo, fogli di ricambio per finestrino.

Nell'esecuzione standard 54148, l'apparecchio consistente di casco respiratore 54155 e di unità cintura 54015 viene to completo.

Nella altre varianti dell'apparecchio, i singoli componenti, cioè casco respiratore (casco) e unità a cintura (elemento ra), vengono forniti separatamente e combinati da parte dell'utente.

Esecuzione	Casco respiratore	Casco respiratore	Casco respiratore	Casco respiratore
Unità a cintura	Casco ASS, tela proteggicapo rossa n° ord. 54155	Casco ASS, tela proteggicapo grigia con grembiule, esecuzione industriale n° ord. 59840	Casco ASS, tela proteggicapo grigia sopra calotta con grembiule, n° ord. 67595	Casco ASS con car visivo tranciato, tela proteggicapo grigia grembiule, n° ord. 5
Unità a cintura con adsorbitore a carbone attivo, depuratore dell'aria, n° ord. 54015	X	X		X
Unità a cintura senza adsorbitore a carbone attivo, esecuzione industriale, n° ord. 54015	X	X		X
Unità cintura senza adsorbitore a carbone attivo, raccordo a vite 9/16"-20 UNS n° ord. 30688*			X	

* Ammesso solo flessibile adduzione aria compressa max. 6 m con giunto girevole sul filtro dell'aria compressa (B) (cordo unità a cintura avvitamento tubo flessibile).

- Esecuzione alternativa, consistente di singoli componenti, p. es.

1. Casco respiratore ventilato, n° ord. 54155, come nell'esecuzione standard
2. Unità a cintura, n° ord. 58149, alimentazione aria regolabile (valvola regolatrice), montata su cintura regolabile, cc unto ad innesto rapido per ingresso aria (raccordo a vite per 30688) e uscita verso il casco respiratore (casco).

2. Dati tecnici

Sovrappressione d'esercizio minima richiesta*)	4 bar
Sovrappressione d'esercizio massima*	4 bar
Portata volumetrica minima richiesta	170 NL/min**
Unità cintura con adsorbitore a carbone attivo:	
sovrapressione d'esercizio max. con attrezzo pneumatico	8 bar
(l'indicatore di pressione deve trovarsi nel campo verde, se necessario chiudere la valvola regolatrice).	
Temperatura d'esercizio	-6°C ... 60 °C
Lunghezza max. del flessibile	50 m
Livello di pressione acustica con portata volumetrica minima	73 dB (A)
Peso del casco respiratore	circa 470 g
Peso dell'adsorbitore a carbone attivo	circa 750 g
Peso dell'unità cintura senza filtro a carbone attivo	circa 260 g

* Pressione del sistema per l'alimentazione con aria (A) almeno 1 bar superiore alla sovrappressione d'esercizio imp ta.

In caso di funzionamento contemporaneo di un attrezzo pneumatico, con unità a cintura dotata di adsorbitore a carb attivo 54015, la sovrappressione d'esercizio va aumentata fino ad ottenere la portata d'aria desiderata (indicatore di sione sul depuratore dell'aria entro il campo verde).

** ATTENZIONE

Quando la portata volumetrica dell'aria scende sotto il valore minimo di 170 Nl/min. viene emesso un segnale acusti per avvertire che la quantità d'aria è troppo bassa per assicurare una protezione sufficiente. Aumentare immediatam la sovrappressione d'esercizio oppure aprire la valvola regolatrice finché non si sente più alcun fischio (indicazione manometro entro il campo verde). Se ciò non fosse possibile, sfilare subito il casco respiratore, uscire dall'ambiente coloso per la salute e controllare il sistema per l'alimentazione con aria nonché l'apparecchio respiratore.

Istruzioni per l'uso per Set super-respiratore SATA

3. Azione del depuratore dell'aria con adsorbitore a carbone attivo e dell'unità a cintura senza adsorbitore a carbone attivo

La durate utile delle cartucce a carbone attivo e la qualità dell'aria respirata dipendono essenzialmente dalla pre-depurazione dell'aria compressa addotta. Per questo motivo si deve installare a monte il filtro per aria compressa SATA 0/144 (0/344) con scarico automatico della condensa. Questo dispositivo elimina dall'aria compressa quasi tutte le particelle d'acqua e di polvere. Quando la differenza di pressione, tra i manometri installati sullo 0/144 (0/344), supera 1 bar, la cartuccia del filtro fine deve essere sostituita (vedi Istruzioni per l'uso dei Filtri dell'aria SATA).

Per l'ulteriore depurazione dell'aria di respirazione, con eliminazione dei vapori di nebbie d'olio, è stato inserito un filtro a carbone attivo (E). La saturazione del carbone attivo si riconosce facilmente dalla coloritura blu della striscia reagente. Nell'esecuzione standard, figura 1, la striscia reagente è disposta nella cartuccia di carbone attivo, nell'esecuzione alternativa invece dietro il finestrino del filtro a carbone attivo 0/164 (0/364), figura 2.

- Per l'esecuzione standard, depuratore dell'aria 54015

Quando la cartuccia è satura, sfilare semplicemente il cestello di protezione, svitare la tazza trasparente di plastica e inserire una cartuccia nuova. Sul fondo della tazza trasparente di plastica è disposta una valvola di scarico. Aprirla per scaricare l'eventuale condensa raccolta. La valvola regolatrice per la portata richiesta dell'aria è progettata in modo che, alla pressione d'esercizio minima di 4 bar e senza apparecchio pneumatico, la maschera di protezione venga alimentata con circa 170 Nl/min (indicatore di pressione ancor nel campo verde). Aprendo la valvola regolatrice (posizione -H-), la portata volumetrica dell'aria può essere aumentata fino a oltre 300 Nl/min. La valvola limitatrice della pressione interviene a circa 8 bar.

- Per l'esecuzione alternativa, elemento cintura 58 149

Quando la cartuccia è satura, svitare il tubo filtro sullo 0/164 (0/364), estrarre la cartuccia filtro e inserire la nuova cartuccia procedendo nel modo inverso. Svitare il finestrino per prelevare la carta reagente e introdurre la carta reagente nuova. La valvola regolatrice è progettata in modo che, alla pressione d'esercizio minima di 4 bar, la maschera di protezione venga alimentata con 170 Nl/min di aria depurata. Aprendo la valvola regolatrice (posizione -H-), la portata volumetrica dell'aria può essere aumentata fino a oltre 300 Nl/min.

4. Manutenzione, cura e immagazzinaggio

- Dopo l'uso, l'apparecchio deve essere pulito e disinfettato e sottoposto ad una prova di funzione e di tenuta (immergere brevemente in acqua limpida l'unità adsorbitore, in condizioni di pronto per il funzionamento e sotto pressione).
- Controllare il grado di saturazione d'olio della cartuccia filtro (E).
- Verificare il libero movimento della valvola regolatrice (H).
- Accertarsi che non sia danneggiato l'indicatore della portata volumetrica (P) sul depuratore dell'aria.
- Controllare il filtro dell'aria compressa (B) per quanto riguarda funzione e indicazione del manometro. Se necessario, pulire il filtro di bronzo sinterizzato e sostituire la cartuccia del filtro fine (vedi Istruzioni per l'uso dei Filtri dell'aria SATA).
- Disinfettare il casco ad intervalli regolari, giornalmente o settimanalmente in caso di impiego giornaliero, una volta ogni sei mesi se gli apparecchi non sono imballati a tenuta d'aria. A questo scopo, si può rimuovere l'inserto e l'imbottitura dovrà essere sostituita in caso non fosse più pulita (N° ord. vedi lista delle parti di ricambio). Se l'apparecchio viene utilizzato da più persone, occorre effettuare la disinfezione ad ogni cambio di persona. Come disinfettante consigliamo il prodotto "Incidur" della ditta Henkel. Almeno ogni sei mesi l'apparecchio deve essere pulito e sottoposto ad una prova di funzione e di tenuta; inoltre occorre sostituire la cartuccia a carbone attivo. Cartuccia di ricambio e apparecchio sono immagazzinabili per 5 anni se conservati a tenuta d'aria. Quando non viene usato, l'apparecchio deve essere conservato in un luogo pulito ed asciutto, ma non nella cabina combinata.

5. Avvertenze per l'applicazione

- ATTENZIONE!

1. Per le loro caratteristiche costruttive, gli apparecchi a tubo flessibile alimentati da aria compressa, EN 270, con raccordo di respirazione sotto forma di casco respiratore (campo visivo chiuso), non devono essere impiegati in atmosfera tossica dove esiste mancanza d'ossigeno o viene superato il centuplo del valore MAK o TRK.
2. Gli apparecchi a tubo flessibile alimentati da aria compressa e previsti per impieghi facili, prEN 1835 classe 1, con casco respiratore (campo visivo tranciato), sempre per le loro caratteristiche costruttive non possono essere impiegati in presenza di sostanze cancerogene, fortemente tossiche e radioattive, microrganismi (virus, batteri, funghi e le loro spore) e neanche in ambienti tossici, in cui esiste mancanza d'ossigeno o viene superato il quintuplo del valore MAK o TRK.

- Prima dell'uso, effettuare sempre una prova di funzione e di tenuta con l'apparecchio intero.
- Non tutte le persone possono portare dei respiratori. L'idoneità delle persone soggette all'uso di respiratori deve essere accertata tramite esami medici da effettuarsi a norma dei "Berufsgenossenschaftliche Grundsätze für arbeitsmedizinische Vorsorgeuntersuchungen G 26: Träger von Atemschutzgeräten für Arbeit und Rettung) (Principi per gli esami medici riguardanti gli esami di prevenzione nell'ambito della medicina del lavoro, Portatori di apparecchi respiratori per lavoro e soccorso; casa editrice A. W. Gentner, Stoccarda). Inoltre si deve far riferimento alle prescrizioni vigenti di cui al Bollettino sulla protezione della respirazione ZH 1/701.
- L'apparecchio possiede un'alimentazione di aria di respirazione indipendente dal fabbisogno. Mediante la valvola regolatrice (H) è possibile adattare la quantità dell'aria di respirazione al fabbisogno della persona interessata.

Istruzioni per l'uso per Set super-respiratore SATA

1. Entità della fornitura
- Esecuzione standard
Casco respiratore ventilato con alimentazione aria continua e regolabile, con finestrino alzabile per fogli intercambiabili, salvacapelli e salvanuca antistatico e inserto intercambiabile con imbottitura nonché 5 imbottiture di ricambio, cartuccia filtro montata sulla cintura regolabile con valvola regolatrice, valvola limitatrice della pressione, filtro a carbone attivo, indicatore della portata volumetrica dell'aria, giunti ad innesto rapido per ingresso dell'aria e uscita dell'aria verso il casco respiratore nonché per l'uscita verso la pistola a spruzzo, fogli di ricambio per finestrino.
Nell'esecuzione standard 54148, l'apparecchio consistente di casco respiratore 54155 e di unità cintura 54015 viene fornito completo.
Nella altre varianti dell'apparecchio, i singoli componenti, cioè casco respiratore (casco) e unità a cintura (elemento cintura), vengono forniti separatamente e combinati da parte dell'utente.

Esecuzione	Casco respiratore	Casco respiratore	Casco respiratore	Casco respiratore
Unità a cintura	Casco ASS, tela proteggicapo rossa n° ord. 54155	Casco ASS, tela proteggicapo grigia con grembiule, esecuzione industriale n° ord. 59840	Casco ASS, tela proteggicapo grigia sopra calotta con grembiule, n° ord. 67595	Casco ASS con campo visivo tranciato, tela proteggicapo grigia con grembiule, n° ord. 54825
Unità a cintura con adsorbitore a carbone attivo, depuratore dell'aria, n° ord. 54015	X	X		X
Unità a cintura senza adsorbitore a carbone attivo, esecuzione industriale, n° ord. 54015	X	X		X
Unità cintura senza adsorbitore a carbone attivo, raccordo a vite 9/16"-20 UNS n° ord. 30688*			X	

* Ammesso solo flessibile adduzione aria compressa max. 6 m con giunto girevole sul filtro dell'aria compressa (B) (raccordo unità a cintura avvitamento tubo flessibile).
- Esecuzione alternativa, consistente di singoli componenti, p. es.
1. Casco respiratore ventilato, n° ord. 54155, come nell'esecuzione standard
2. Unità a cintura, n° ord. 58149, alimentazione aria regolabile (valvola regolatrice), montata su cintura regolabile, con giunto ad innesto rapido per ingresso aria (raccordo a vite per 30688) e uscita verso il casco respiratore (casco).

2. Dati tecnici

Sovrappressione d'esercizio minima richiesta*)	4 bar
Sovrappressione d'esercizio massima*	4 bar
Portata volumetrica minima richiesta	170 NL/min**
Unità cintura con adsorbitore a carbone attivo:	
sovrapressione d'esercizio max. con attrezzo pneumatico	8 bar
(l'indicatore di pressione deve trovarsi nel campo verde, se necessario chiudere la valvola regolatrice).	
Temperatura d'esercizio	-6°C ... 60 °C
Lunghezza max. del flessibile	50 m
Livello di pressione acustica con portata volumetrica minima	73 dB (A)
Peso del casco respiratore	circa 470 g
Peso dell'adsorbitore a carbone attivo	circa 750 g
Peso dell'unità cintura senza filtro a carbone attivo	circa 260 g

* Pressione del sistema per l'alimentazione con aria (A) almeno 1 bar superiore alla sovrappressione d'esercizio impostata.
In caso di funzionamento contemporaneo di un attrezzo pneumatico, con unità a cintura dotata di adsorbitore a carbone attivo 54015, la sovrappressione d'esercizio va aumentata fino ad ottenere la portata d'aria desiderata (indicatore di pressione sul depuratore dell'aria entro il campo verde).
** ATTENZIONE
Quando la portata volumetrica dell'aria scende sotto il valore minimo di 170 Nl/min. viene emesso un segnale acustico per avvertire che la quantità d'aria è troppo bassa per assicurare una protezione sufficiente. Aumentare immediatamente la sovrappressione d'esercizio oppure aprire la valvola regolatrice finché non si sente più alcun fischio (indicazione del manometro entro il campo verde). Se ciò non fosse possibile, sfilare subito il casco respiratore, uscire dall'ambiente pericoloso per la salute e controllare il sistema per l'alimentazione con aria nonché l'apparecchio respiratore.

Istruzioni per l'uso per Set super-respiratore SATA

3. Azione del depuratore dell'aria con adsorbitore a carbone attivo e dell'unità a cintura senza adsorbitore a carbone attivo

La durate utile delle cartucce a carbone attivo e la qualità dell'aria respirata dipendono essenzialmente dalla pre-depurazione dell'aria compressa addotta. Per questo motivo si deve installare a monte il filtro per aria compressa SATA 0/144 (0/344) con scarico automatico della condensa. Questo dispositivo elimina dall'aria compressa quasi tutte le particelle d'acqua e di polvere. Quando la differenza di pressione, tra i manometri installati sullo 0/144 (0/344), supera 1 bar, la cartuccia del filtro fine deve essere sostituita (vedi Istruzioni per l'uso dei Filtri dell'aria SATA).

Per l'ulteriore depurazione dell'aria di respirazione, con eliminazione dei vapori di nebbie d'olio, è stato inserito un filtro a carbone attivo (E). La saturazione del carbone attivo si riconosce facilmente dalla coloritura blu della striscia reagente. Nell'esecuzione standard, figura 1, la striscia reagente è disposta nella cartuccia di carbone attivo, nell'esecuzione alternativa invece dietro il finestrino del filtro a carbone attivo 0/164 (0/364), figura 2.

- Per l'esecuzione standard, depuratore dell'aria 54015

Quando la cartuccia è satura, sfilare semplicemente il cestello di protezione, svitare la tazza trasparente di plastica e inserire una cartuccia nuova. Sul fondo della tazza trasparente di plastica è disposta una valvola di scarico. Aprirla per scaricare l'eventuale condensa raccolta. La valvola regolatrice per la portata richiesta dell'aria è progettata in modo che, alla pressione d'esercizio minima di 4 bar e senza apparecchio pneumatico, la maschera di protezione venga alimentata con circa 170 Nl/min (indicatore di pressione ancor nel campo verde). Aprendo la valvola regolatrice (posizione -H-), la portata volumetrica dell'aria può essere aumentata fino a oltre 300 Nl/min. La valvola limitatrice della pressione interviene a circa 8 bar.

- Per l'esecuzione alternativa, elemento cintura 58 149

Quando la cartuccia è satura, svitare il tubo filtro sullo 0/164 (0/364), estrarre la cartuccia filtro e inserire la nuova cartuccia procedendo nel modo inverso. Svitare il finestrino per prelevare la carta reagente e introdurre la carta reagente nuova. La valvola regolatrice è progettata in modo che, alla pressione d'esercizio minima di 4 bar, la maschera di protezione venga alimentata con 170 Nl/min di aria depurata. Aprendo la valvola regolatrice (posizione -H-), la portata volumetrica dell'aria può essere aumentata fino a oltre 300 Nl/min.

4. Manutenzione, cura e immagazzinaggio

- Dopo l'uso, l'apparecchio deve essere pulito e disinfettato e sottoposto ad una prova di funzione e di tenuta (immergere brevemente in acqua limpida l'unità adsorbitore, in condizioni di pronto per il funzionamento e sotto pressione).
- Controllare il grado di saturazione d'olio della cartuccia filtro (E).
- Verificare il libero movimento della valvola regolatrice (H).
- Accertarsi che non sia danneggiato l'indicatore della portata volumetrica (P) sul depuratore dell'aria.
- Controllare il filtro dell'aria compressa (B) per quanto riguarda funzione e indicazione del manometro. Se necessario, pulire il filtro di bronzo sinterizzato e sostituire la cartuccia del filtro fine (vedi Istruzioni per l'uso dei Filtri dell'aria SATA).
- Disinfettare il casco ad intervalli regolari, giornalmente o settimanalmente in caso di impiego giornaliero, una volta ogni sei mesi se gli apparecchi non sono imballati a tenuta d'aria. A questo scopo, si può rimuovere l'inserto e l'imbottitura dovrà essere sostituita in caso non fosse più pulita (N° ord. vedi lista delle parti di ricambio). Se l'apparecchio viene utilizzato da più persone, occorre effettuare la disinfezione ad ogni cambio di persona.
  Come disinfettante consigliamo il prodotto "Incidur" della ditta Henkel. Almeno ogni sei mesi l'apparecchio deve essere pulito e sottoposto ad una prova di funzione e di tenuta; inoltre occorre sostituire la cartuccia a carbone attivo.
  Cartuccia di ricambio e apparecchio sono immagazzinabili per 5 anni se conservati a tenuta d'aria.
  Quando non viene usato, l'apparecchio deve essere conservato in un luogo pulito ed asciutto, ma non nella cabina combinata.

5. Avvertenze per l'applicazione

- ATTENZIONE!

1. Per le loro caratteristiche costruttive, gli apparecchi a tubo flessibile alimentati da aria compressa, EN 270, con raccordo di respirazione sotto forma di casco respiratore (campo visivo chiuso), non devono essere impiegati in atmosfera tossica dove esiste mancanza d'ossigeno o viene superato il centuplo del valore MAK o TRK.
2. Gli apparecchi a tubo flessibile alimentati da aria compressa e previsti per impieghi facili, prEN 1835 classe 1, con casco respiratore (campo visivo tranciato), sempre per le loro caratteristiche costruttive non possono essere impiegati in presenza di sostanze cancerogene, fortemente tossiche e radioattive, microrganismi (virus, batteri, funghi e le loro spore) e neanche in ambienti tossici, in cui esiste mancanza d'ossigeno o viene superato il quintuplo del valore MAK o TRK.

- Prima dell'uso, effettuare sempre una prova di funzione e di tenuta con l'apparecchio intero.
- Non tutte le persone possono portare dei respiratori. L'idoneità delle persone soggette all'uso di respiratori deve essere accertata tramite esami medici da effettuarsi a norma dei "Berufsgenossenschaftliche Grundsätze für arbeitsmedizinische Vorsorgeuntersuchungen G 26: Träger von Atemschutzgeräten für Arbeit und Rettung) (Principi per gli esami medici riguardanti gli esami di prevenzione nell'ambito della medicina del lavoro, Portatori di apparecchi respiratori per lavoro e soccorso; casa editrice A. W. Gentner, Stoccarda). Inoltre si deve far riferimento alle prescrizioni vigenti di cui al Bollettino sulla protezione della respirazione ZH 1/701.
- L'apparecchio possiede un'alimentazione di aria di respirazione indipendente dal fabbisogno. Mediante la valvola regolatrice (H) è possibile adattare la quantità dell'aria di respirazione al fabbisogno della persona interessata.

Istruzioni per l'uso per Set super-respiratore SATA

- L'apparecchio deve essere utilizzato solo in combinazione con un flessibile di adduzione dell'aria compressa om (max. 50 m, in caso di elemento a cintura max. 6 m), dotato di giunti di sicurezza ad innesto rapido (p. es. SATA n° c 49080, 6 m).
- ATTENZIONE!

Per disinnestare i giunti di sicurezza, premere il nipplo del giunto nel giunto stesso e spingere contemporaneamente tro il manicotto scorrevole del giunto.

- Assicurarsi sempre che l'aria aspirata del compressore non sia inquinata da influenze ambientali, quali gas di sc motori a combustione interna, riscaldamenti, vapori di solventi, ecc. e che corrisponda alle disposizioni relative al cor to di biossido di carbonio di cui alla norma DIN EN 132.
- Utilizzando l'apparecchio con temperatura ambiente inferiore a +5°C, il finestrino deve essere trattato dall'interni anti-appannante approvato. In tal caso consigliamo l'uso di:

Klarsichtmittel 75 - n° ord. 6700470 della Drägerwerk AG, Moislinger Alle 53-55, 23542 Lübeck oppure
Klarsichtmittel 2260-903 della Auergesellschaft GmbH, Hanauer Landstraße 213, 60314 Frankfurt/Main.

- ATTENZIONE!

L'azione protettiva è garantita solo se:
1° esecuzione standard
l'indicatore di pressione si trova entro il campo verde. Controllare l'indicatore di pressione o l'avvisatore acustico ad c messa in servizio, specie in caso di funzionamento contemporaneo di una pistola a spruzzo (indice nel campo rosso fischio deve suonare), se necessario aumentare la pressione d'esercizio.
2° esecuzione alternativa
la pressione d'esercizio sul filtro dell'aria compressa (B) è pari a 4 bar, in caso di pressione inferiore viene emesso u fischio; eventualmente adattare la pressione d'esercizio.
- Indossare il casco in modo che l'imbottitura si trovi almeno appoggiata sotto il mento.

6. Riparazione

Nel caso in cui l'apparecchio presenti dei difetti o dei fenomeni di usura, il relativo componente deve essere sostituitc esso figura tra i pezzi di ricambio riportati nelle istruzioni per l'uso. Altrimenti occorre rispedire in fabbrica l'apparecch per la riparazione. Dopo aver sostituito dei pezzi che potrebbero compromettere la tenuta, occorre effettuare un cont completo di funzione e di tenuta.

7. Accessori utili

N° ord.	Denominazione
84996	Unità filtro fine combinato SATA 0/144 (0/344) confez. compl.
13870	Flessibile dell'aria 1,2 m, compl. assemblato, per pistola a spruzzo su SATA ASS
49080	Flessibile per adduzione aria compressa, 9,5 x 5,0 mm, per esecuzione SATA ASS CE, lung 6 m, compl. assemblato
22905	Fogli di ricambio per SATA ASS, confezione da 25 pezzi n° 0/767
54197	Confezione da 20 pezzi imbottiture per SATA-ASS
54205	Confezione da 2 pezzi imbottiture per SATA-ASS

8. Condizioni di garanzia:

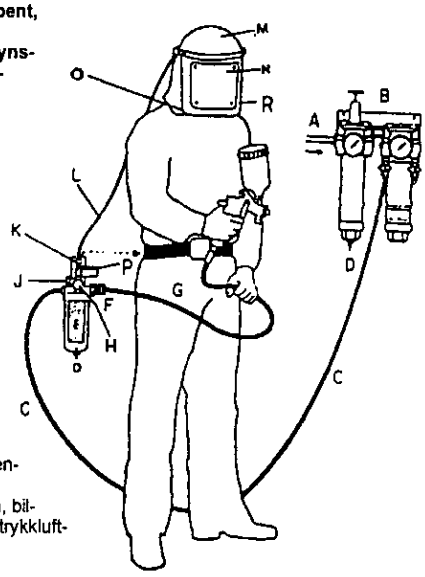
per tali apparecchi prestiamo una garanzia di 6 mesi a decorrere dalla data della vendita all'acquirente finale. La gar si estende sul valore materiale di pezzi con difetti di fabbricazione e di materiale che si verificano entro il periodo dell garanzia. Rimane escluso qualsiasi danno causato dall'impiego non adeguato o non appropriato, da errori di montag di messa in servizio commessi dall'acquirente o da terzi, da usura naturale, da trattamento e manutenzione sbagliati materiali da spruzzo o di ricambio non adatti o da influenze chimiche, elettrochimiche o elettriche, a meno che tali da siano da attribuire a colpevolezza nostra. L'apparecchio deve essere controllato immediatamente dopo la presa in cc segna. I vizi apparenti devono essere comunicati per iscritto, alla ditta fornitrice oppure a noi, entro e non oltre 14 gic dalla presa in consegna, sotto pena della decadenza dei diritti di ricorso in garanzia. Si esclude qualsiasi rivendicazi ulteriore, in particolare quella del risarcimento danni. Ciò vale anche per gli eventuali danni che si verificano in occas di attività di consulenza, di addestramento o di dimostrazione. Se l'acquirente desidera la riparazione o la sostituzion mediata, prima che sia stato accertato se da parte nostra sussiste l'obbligo di compensazione, la fornitura di comper zione o la riparazione avvengono dietro fatturazione e pagamento del relativo prezzo del giorno. Se esaminando il ri per i vizi della cosa si constata l'esistenza del diritto alla garanzia, l'acquirente riceve, per la riparazione o la fornitura compensazione, un accredito corrispondente alla prestazione di garanzia. I pezzi, per i quali sono stati effettuati dell niture di compensazione, passano alla nostra proprietà.
I ricorsi in garanzia per i vizi della cosa ed eventuali altri reclami non danno all'acquirente o al committente alcuna fa di rifiutare o di ritardare il pagamento.
La spedizione dell'apparecchio alla nostra ditta deve avvenire franco di spese. Non possiamo sostenere né i costi di taggio (tempo di lavoro e spese di viaggio) né le spese di trasporto e di imballaggio. In tal caso si applicano le nostre condizioni di montaggio.
Le prestazioni di garanzia non comportano alcuna proroga del periodo di garanzia.
La garanzia scade in caso di interventi effettuati da estranei.

Bruksanvisning SATA-super-åndedrettsvern-sett

Før apparatet tas i bruk må du lese grundig gjennom hele bruksanvisningen. Ta hensyn til forskriftene for ulykkesforebyggelse, skrifter og retningslinjer for arbeidsplassen såvel som gjeldende lover og restriksjoner, f.eks. regler for bruk av åndedrettsvern-apparater ZH 1/701, ved lakkering VBG 23 etc. Apparatet må bare benyttes av personer som er blitt instruert i bruken og bare til formålstjenlig bruk. Før alle reparasjonsarbeider må apparatet koples fra luftnettet og gjøres trykkløst.

SATA-super-åndedrettsvern-sett, type 25-13/best.nr. 54148, trykkluft-slangeapparat EN 270, består av åndedrettsvernhette 54155 (eller 59840 hhv. 67595) og båndenhet med aktivkull-adsorbent, bilde 1 eller alternativ med båndenhet uten aktivkull-adsorbent, best.nr. 58149 (eller 30668), bilde 2.

SATA-åndedrettsvern-sett, åndedrettsvernhette med utstanset synsfelt med bånd og aktivkull-adsorbent (lignende bilde 2), trykkluft-slangeapparat for lette brukstilfeller prEN 1835, åndedrettsvernhette klasse 1.

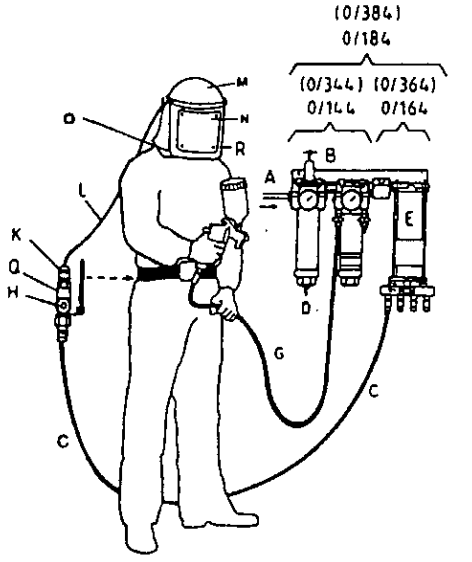


SATA-super-åndedrettsvern-settet er en høyverdig helsebeskyttelse for lakkarbeidere og for arbeider i helsefarlige omgivelser. Det består av en ventilert åndedrettsvernhette som forsynes med filtrert pusteluft, en båndenhet med aktivt kullfilter med ekstra tilkopling for et trykkluftapparat, bilde 1 eller alternativt båndenhet uten aktivt kullfilter og uten tilkopling for et trykkluftapparat, bilde 2, og en trykklufttilførselsslange.

Brukeren må forvisse seg om at luften som blir suget fra kompressoren er så fri for skadelige gasser, damper og partikler (f.eks. eksos fra forbrenningsmotorer eller -ovner, løsemiddeldamper) slik at kravene i.hht. DIN EN 132 angående kulldioksidinnholdet er garanterte. Bruken av oksygen eller luft tilsatt oksygen er ikke tillatt. Apparatet kan benyttes i brennbar atmosfære. For fjerning av forurensninger i luften som kommer fra kompressoren, som f.eks. oljetåke, må det monteres et ekstra trykkluftfilter med manometer (f.eks. SATA 0/144 eller 0/344) mellom aktivkull-adsorbent på båndenheten, bilde 1, eller alternativt den veggmonterte aktivkull-adsorbenten 0/164 (0/364) og luftnettet.

Forbindelsen mellom trykkluftforsyningssystemet (B), bilde 1, hhv. (E), bilde 2, og den henholdsvise båndenheten må skje med den godkjente trykkluft-tilførselsledningen (varmebestandig, maks. 50 m) med sikkerhetshurtigkoplinger, f.eks. SATA best.-nr. 49080 (6 m).

A - Luftforsyningssystem
B - SATA trykkluftfilter 0/144 (0/344)
C - Trykkluft-tilførselsslange for åndedrettsvern-sett, SATA best.-nr. 49080
D - Olje- og kondensat-tømmeventil
E - Aktivkull-adsorbent med utskiftbar filterpatron
F - Hurtigkopling for tilkopling trykkluftapparat
G - Pistol-luftslange
H - Reguleringsventil for luft
J - Overtrykksikkerhetsventil
K - Hurtigkopling for luftslange
L - Luftslange
M - Ventilert åndedrettsvernhette med vindu som kan slås opp og nakkebeskyttelse (innvendig utstyrt med utskiftbar hetteinnsats og hetteinnlegg for personlig hygiene)
N - Utskiftbar folie
O - Vindu som kan slås opp
P - Luftvolumstrømindikering
Q - Båndddel uten aktivkulladsorbent
R - Akustisk varselinnretning for minimum gjennomstrømning (ikke synlig)



(N)

Bruksanvisning SATA-super-åndedrettsvern-sett

1. Leveranseprogram
- Standardutførelse
Ventilert åndedrettsvernhette med regulerbar kontinuerlig luftforsyning, med vindu som kan slås opp for utskiftbare fc antistatisk hår- og nakkebeskyttelse og utskiftbar hetteinnsats med hetteinnlegg såvel som 5 reservehetteinnlegg, filt tron med reguleringsventil montert på en innstillbar livrem, overtrykksikkerhetsventil, aktivt kullfilter, luftvolumstrømin ring, hhv. en hurtigkoplingstilslutning for luftinngang og -utgang til åndedrettsvernhette såvel som avgang til f.eks. sprøytepistolen, reservefolier for vindu.
Ved standardutførelsen 54148 leveres apparatet som består av åndedrettsvernhette 54155 og båndenhet 54015 kor Ved de andre apparatvarianter, i hht. opplisting leveres de enkle elementene åndrettsvernhette (hodehette) og bånd (bånddel) separat og kombineres av brukeren.

Utførelse	Åndedrettsvern-hette	Åndedrettsvern-hette	Åndedrettsvern-hette	Åndedrettsvern-hett
båndenhet	Hodehette ASS hodetørkle rødt best.nr. 54155	Hodehette ASS, hodetørkle grått med brystduk, industri-utførelse, best.-nr. 59840	Hodehette ASS, hodetørkle grått over kalott med brystduk, best.-nr. 67595	Hodehette ASS me utstanset vindu, hodetørkle grått me brystduk, best.-nr. 54825
Båndenhet med aktivkull-adsorbent, luftrenseenhet, best.-nr. 54015	X	X		X
Bånddel uten aktivkull-adsorbent, industri-utførelse best.-nr. 58149	X	X		X
Bånddel uten aktivkull-adsorbent, skrutilkopling 9/16"-20 UNS best.-nr. 30668*			X	

* Bare trykkluftilførselsslange maks. 6 m med dreibar kopling på trykkluftfilter (B) tillatt (tilkopling båndenhet slange-forskruning)
- Alternativutførelse, består av enkelte elementer f.eks.
1.Ventilert åndedrettsvernhette, best.-nr. 54155, som ved standardutførelse
2.Bånddel, bestillings-nr. 58149, regulerbar luftforsyning (reguleringsventil), montert på en innstillbar livrem, med en koplingstilslutning for luftinngang (ved 30668 skrutilkopling) og -utgang til åndedrettsvernhette (hodehette).

2. Tekniske data

Nødvendig driftsovertrykk*)	4 bar
Maks. driftsovertrykk*	4 bar
Nødvendig minste volumstrøm	170 NL/min**
Båndenhet med aktivkull-adsorbent	
Maks. driftsovertrykk med trykkluftverktøy	8 bar
(Trykkindikering må være i det grønne området, ved behov må reguleringsventil lukkes)	
Driftstemperatur	-6°C til 60°C
Maks. slangelengde	50 m
Lydnivå ved minste luftvolumstrøm	70dB(A)
Vekt vernehette	ca. 470 g
Vekt aktivkull-adsorbent	ca. 750 g
Vekt båndenhet uten aktivt kullfilter	ca. 260 g

* Luftforsyningssystemtrykk (A) minst 1 bar over innstilt driftsovertrykk.
Ved samtidig drift med et trykkluftverktøy ved båndenhet med aktivkull-adsorbent 54015 forhøyes driftsovertrykket i den ønskede luftgjennomgangen er innstilt (trykkindikering på luftrense-enheten i det grønne området).
** OBS:
Hvis den minste volumstrømmen på 170 Nl/min. underskrides lyder et akustisk varselsignal som henviser til at luftm den er for liten for en tilstrekkelig beskyttelsesfunksjon. Driftsovertrykk må med en gang forhøyes hhv. reguleringsve må åpnes til pipelyden ikke lenger kan høres (manometerindikering i det grønne området). Hvis dette ikke er mulig, vernehetten tas av med en gang og man må forlate den helsefarlige omgivelsen og kontrollere luftforsyningssystem hhv. åndedrettsvernapparatet.

Bruksanvisning SATA-super-åndedrettsvern-sett

3. Virkemåten til luftrenseenheten med aktivkull-adsorbent og båndenheten uten aktivkull-adsorbent
Brukstiden for de aktive kullpatronene og luftens kvalitet er vesentlig avhengig av en forhåndsrensning av den tilførte trykkluften. Derfor må trykkluftfilteret SATA 0/144 (0/344) med automatisk kondensattømming tilkoples foran. Dette apparatet filtrerer nærmest alle vann- og støvpartikler fra trykkluften. Dersom trykkdifferansen mellom manometrene som er satt på 0/144 (0/344) er større enn 1 bar, så må finfilterpatronen skiftes ut (se bruksanvisning SATA-luftfilter).
For en ytterligere rensing av luften fra oljetåkedamper er det mellomkoplet et aktivt kullfilter (E). Metningen av aktivkullen kan lett gjenkjennes på den blå fargingen av indikatorstripen. Ved standardutførelsen, bilde 1, er denne plassert i aktivkull patronen og ved alternativutførelsen bak vinduet til aktivkullfiltret 0/164 (0/364), bilde 2.

- Ved standardutførelse, luftrenseenhet 54015
  Når en patron er mettet trekkes ganske enkelt beskyttelseskurven av, den gjennomsiktige kunststoffklokken skrus av og en ny patron stikkes inn. På undersiden av den transparente kunststoffklokken befinner det seg en tømmeventil. Med denne kan kondensat som eventuelt har samlet seg, tappes ut. Reguleringsventilen for den nødvendige luftvolumstrømmen er dimensjonert slik at det ved et minste driftstrykk på 4 bar uten trykkluftapparat tilføres ca. 170 Nl/min renset luft til vernemasken (trykkindikering fremdeles i det grønne området). Ved å åpne reguleringsventilen (posisjon -H-) kan luftvolumstrømmen økes til over 300 Nl/min (trykkindikering ved den øvre grensen til det grønne området). Ved ytterligere økning av luftvolumstrømmen må man benytte hørselvern. Den integrerte overtrykksikkerhetsventilen reagerer ved ca. 8 bar.
- Ved alternativ utførelse, bånddel 58149 og 30668

Etter metning av patronen skrus filterrøret på 0/164 (0/364) av, filterpatronen trekkes ut og ny filterpatron settes inn i omvendt rekkefølge. Indikatorpapir tas ut ved å skru av vinduet og nytt indikatorpapir settes inn.
Reguleringsventilen er dimensjonert slik at det ved et minste driftstrykk på 4 bar tilføres 170 Nl/min renset luft til vernemasken. Ved å åpne reguleringsventilen (posisjon -H-) kan luftvolumstrømmen økes til over 300 Nl/min.

4. Vedlikehold, pleie og lagring

- Apparatet må etter bruk rengjøres, desinfiseres og kontrolleres for funksjon og tetthet (adsorbentenhet dyppes kort i klart vann mens den er under trykk og i driftsklar tilstand).
- Kontrollér oljemetning på filterpatronen (E).
- Kontrollér at reguleringsventilen (H) kan dreies lett.
- Kontrollér om luftvolumstrømindikering (P) ved luftrenseenheten er skadet.
- Kontrollér trykkluftfilter (B) for funksjon og manometerindikering. Ved behov renses sinterbronsefilter og finfilterpatron skiftes ut (se bruksanvisning SATA-luftfilter)
- Vernehetten må desinfiseres med regelmessige mellomrom, hver dag, én gang i uken ved daglig bruk og ved ikke lufttett innpakkede apparater etter 6 måneder.

Dertil kan hetteinnsatsen tas ut. Hetteinnleggene må skiftes ut når de er forurenset (bestillings-nr. se reservedelsliste). Hvis flere personer benytter hetten må den desinfiseres når en annen person skal bruke hetten. Det anbefales å anskaffe en egen hodehette for hver person. Som desinfeksjonsmiddel anbefaler vi "Incidur" fra firma Henkel. Senest etter seks måneder må apparatet renses og det må kontrolleres at apparatet fungerer og at det er tett, likeledes må aktivkull-patronene skiftes ut. Reservepatron og nytt apparat kan lagres i 5 år hvis det er lufttett innpakket. Hvis apparatet ikke benyttes må det oppbevares på et rent og tørt sted.

5. Henvisninger for bruk

- OBS:

1. Trykkluft-slangeapparater, EN 270, med åndedrettsvernhette (lukket synsfelt) som pustetilkopling er ikke konstruert f bruk i giftig atmosfære hvor det er mangel på oksygen eller hvor den 100-doble MAK- hhv. TRK-verdien overskrides.
2. Trykkluft-slangeapparater for lette brukstilfeller, pr EN 1835 klasse 1 med åndedrettsvernhette (utstanset synsfelt) er ikke konstruert for bruk mot kreftfremkallende, meget giftige og radioaktive stoffer, mikroorganismer (vira, bakterier o sopp samt sporer) og enzymer såvel som i giftig atmosfære hvor det er mangel på oksygen eller hvor den 5-doble MAK- hhv. TRK-verdien overskrides.

- Før hver bruk må det gjennomføres en funksjons- og tetthetstest med hele apparatet.
- Ikke alle personer får lov til å bære vernemasker. Personer som skal benytte vernemaske må legeundersøkes i.hht. "Berufsgenossenschaftlicher Grundsätze für arbeitsmedizinische Vorsorgeuntersuchungen G26: Träger von Atemschutzgeräten für Arbeit und Rettung" (A.W. Gentner-Verlag, Stuttgart) (Fagforeningenes prinsipper for arbeidsmedisinske legeundersøkelser G 26: Bærer av vernemasker for arbeid og redning) om de er egnet for å bruke disse. Videre må det tas hensyn til de vedkommmende forskrifter i.hht. Atemschutz-Merkblatt ZH 1/701 (rundskriv for åndedrettsvern).
- Apparatet har en behovsuavhengig luftforsyning. Med reguleringsventilen (H) kan det henholdsvise luftbehovet for den enkelte person etterreguleres.
- Apparatet må bare drives med en godkjent trykkluft-tilførselslange (maks. 50 m, ved bånddel 30668 maks. 6 m) med sikkerhets-hurtigkoplinger (f.eks. SATA best.-nr. 49080, 6 m).
- OBS:

For frakopling av sikkerhets-hurtigkoplingene trykkes koplingsnippelen i koplingen inn og samtidig skyves koplingens skyvemuffe tilbake.

- Forviss deg alltid om at den tilførte kompressorluften ikke blir forurenset av miljøet som f.eks. eksos fra forbrenningsmotorer, ovner, løsemiddeldamper etc. og at den tilsvarer DIN EN 132 med hensyn til kuldioksidinnholdet.

(N)

Bruksanvisning SATA-super-åndedrettsvern-sett

- Ved bruk av apparatet under +5°C omgivelsestemperatur må vinduet behandles innvendig med et tillatt antidugg middel. Vi anbefaler: Klarsichtmittel (antiduggmiddel) 75 - bestillings-nr. 6700470 fra Drägerwerk AG, Moislinger 53-55, 23542 Lübeck eller Klarsichtmittel 2260-903 fra Auergesellschaft GmbH Hanauer Landstraße 213, 60314 Frankfurt/Main
- OBS:

Beskyttende virkning er bare garantert hvis:

1. Standardutførelse

Trykkindikeringen i det grønne området. Ved hver igangsetting, spesielt ved samtidig drift av en sprøytepistol, må trykkindikeringen hhv. den akustiske varselinnretningen kontrolleres (viser i det røde området - pipelyd må lyder), evt. økes driftstrykk.et

2. Alternativ utførelse

Driftstrykket på trykkluftfilteret (B) utgjør 4 bar, ved underskridelse lyder en pipelyd, evt. tilpasses driftstrykket.

- Hette settes på slik at hetteinnlegget i hvert fall i hakeområdet ligger an mot ansiktet.

6. Istandsetting

Ved defekter hhv. slitasjer på apparatet må den tilsvarende delen skiftes ut hvis det i.hht. bruksanvisningen er oppfør som reservedel. Ellers må apparatet sendes inn til reparasjon. Etter utskifting av deler som kan påvirke tettheten, må gjennomføres en komplett funksjons- og tetthetskontroll.

7. Hensiktsmessig tilbehør

Bestillings-nr.	Betegnelse
13680	SATA kombi-finfilter-enhet 0/144 (0/344) komplett innpakket
13870	Luftslange 1,2 m komplett montert for sprøytepistol til SATA ASS
49080	Trykkuft-tilførselsslange 9,5 x 5,0 mm for SATA ASS CE-utførelse, 6 m lang, komplett montert med sikkerhetshurtigtilkopling
22905	Reservefolier for SATA ASS, pakke á 25 stk. nr. 0/767
54197	Pakke med 20 stk. hetteinnlegg for SATA-ASS
54205	Pakke med 2 stk. hetteinnlegg for SATA-ASS

8. Garantibetingelser:

For slike apparater yter vi en garanti på 6 måneder regnet fra den dagen kunden har kjøpt apparatet. Garantien omfa materialverdien til deler med fabrikasjons- og materialfeil som viser seg i garantitiden. Utelukket fra garantien er skad som er forårsaket av uegnet eller usakkyndig bruk, feil montering hhv. igangsetting av kjøper eller tredje personer, na slitasje, feil behandling eller vedlikehold, uegnede sprøytematerialer, utskiftingsmaterialer og kjemiske, elektrokjemis ler elektriske påvirkninger, dersom disse skadene ikke skyldes feil fra vår side. Apparatet må kontrolleres med en ga ter mottak. Åpenbare mangler må meldes skriftlig til oss eller til leveringsfirmaet innen 14 dager etter mottak for å unn tap av rett på reklamasjon. Alle andre krav, spesielt erstatningskrav, er utelukket. Dette gjelder også for krav som op ved rådgivning, innarbeidelse og demonstrasjon. Dersom kunden ønsker en reparasjon eller erstatning med én gang det er fastslått om det består en erstatningsplikt fra vår side, så skjer leveringen eller reparasjonen mot regning og be taling til aktuell pris. Dersom det ved kontroll av reklamasjonen fastslås at det består et garantikrav, så får kjøperen e godehavende for reparasjonen eller reservedelsleveringen tilsvarende garantiytelsen. Deler som det er levert erstatn for går over i vår eiendom.

Reklamasjoner eller andre klager gir kjøperen hhv. oppdragsgiveren ikke rett til å nekte eller forsinke betalingen.

Kunden må betale kostnader for forsendelse av apparatet til oss. Monteringskostnader (arbeids- og transportkostnac og frakt- og emballasjeomkostninger kan vi ikke overta. Her gjelder våre monteringsbetingelser.

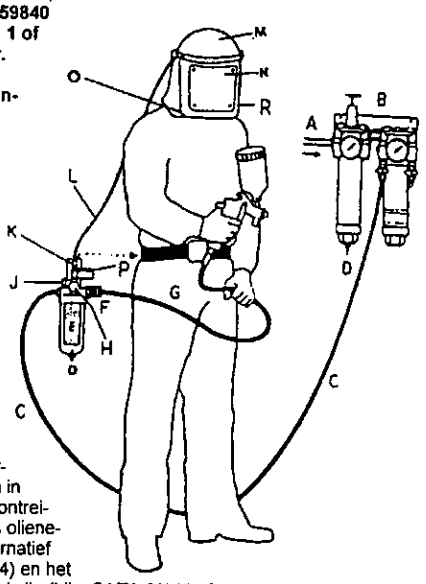
Garantiytelser medfører ingen forlengelse av garantitiden.

Garantien bortfaller ved fremmede inngrep.

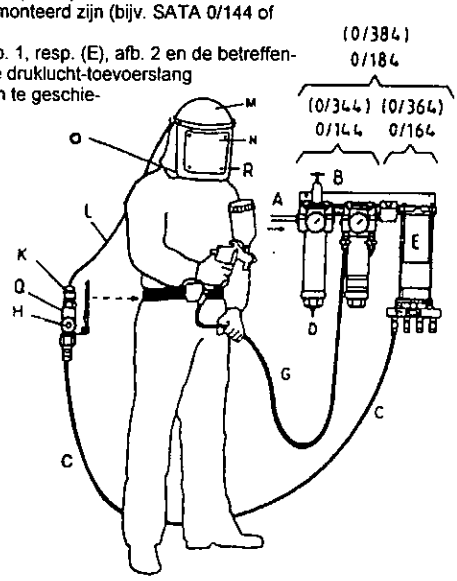
Gebruiksaanwijzing SATA-super-ademhalingsbeschermingsset

Voor de inbedrijfname van het apparaat dient men de gebruiksaanwijzing compleet en grondig te lezen. De ongevallenpreventievoorschriften, werkplaatsverordeningen en richtlijnen alsmede de geldende wetten en beperkingen, bijv. regels t.a.v. het gebruik van ademhalingsbeschermingsapparatuur ZH 1/701, bij het lakspuiten VBG 23 etc, dienen in acht te worden genomen. Het apparaat mag uitsluitend door geïnstrueerde personen en uitsluitend voor de doeleinden waarvoor het bestemd is worden gebruikt. Voor alle eventuele reparatie- en onderhoudswerkzaamheden moet het apparaat van het drukluchtverzorgingssysteem worden afgekoppeld.

SATA-super-ademhalingsbeschermingsset, type 25-13/bestelnr. 54148, drukluchtslangapparaat EN 270, bestaande uit gasmasker 41155 (of 59840 resp. 67595) en riemeenheid met actief kool-adsorber, afbeelding 1 of alternatief met riemeenheid zonder actief kool-adsorber, bestelnr. 58149 (of 30668), afbeelding 2.
SATA-ademhalingsbeschermingsset, gasmasker met opschuifvenster met riemeenheid met actieve kool-adsorber (vergelijkbaar afb. 1) en alternatief zonder actieve kool-adsorber (vergelijkbaar afb. 2) drukluchtslang-apparaat voor lichte toepassingen prEN 1835, gasmasker klasse 1.



De SATA-super-ademhalingsbeschermingsset is een hoog effectieve gezondheidsbescherming van lakspuiters alsmede voor werkzaamheden in omgevingen, die gevaar opleveren voor de gezondheid. Hij bestaat uit een geventileerd gasmasker, welk met gefilterde ademlucht wordt verzorgd, een riemeenheid met actief kool-filter met extra aansluiting voor een drukluchtapparaat, afbeelding 1, of alternatief een riemelement zonder actief kool-filter en zonder aansluiting voor een drukluchtapparaat, afb. 2, en een drukluchtslang-toevoerslang.
De gebruiker dient er steeds voor te zorgen dat de door de compressor aangezogen lucht zo vrij is van schadelijke gassen, dampen en deeltjes (bijv. uitlaatgassen van verbrandingsmotoren of kachels, oplosmiddeldampen), dat aan de eisen conform DIN EN 132 m.b.t. het kooldioxidegehalte wordt voldaan. Het gebruik van zuurstof of met zuurstof verrijkte lucht is niet toegestaan. Het apparaat kan in brandbare atmosfeer worden toegepast. Voor het verwijderen van verontreinigingen in de ademlucht, die van de compressor afkomstig zijn, zoals olienevel, moeten tussen actief kool-adsorber en riemeenheid, afb. 1, of alternatief tussen de aan de wand gemonteerde actief kool-adsorber 0/164 (0/364) en het luchtnet een extra een extra drukluchtfilter met manometer gemonteerd zijn (bijv. SATA 0/144 of 0/344).
De verbinding tussen het drukluchtverzorgingssysteem (B), afb. 1, resp. (E), afb. 2 en de betreffende riemeenheid (riemgedeelte) dient met het de goedgekeurde drukluchtslang (warmteversteller, max. 50 m) met veiligheids- snelkoppelingen te geschieden, bijv. SATA bestelnr. 49080 (6 m).



A - luchtverzorgingssysteem
B - SATA drukluchtfilter 0/14 (0/344)
C- drukluchtslang bij de gasmasker set, SATA bestelnr. 49080
D - olie- en condensaataftapventiel
E - actief kool-adsorber met verwisselbaar filterpatroon
F - snelkoppeling voor aansluiting van het drukluchtapparaat
G - pistool-luchtslang
H - regelventiel voor ademlucht
J - overdruk-veiligheidsventiel
K - snelkoppeling voor ademhalingsslang
L - ademslang
M - geventileerd gasmasker met venster dat omhoog kan worden gezet en nekbescherming (van binnen voorzien van verwisselbare maskerinzet en maskerinleg voor de persoonlijke hygiëne)
N - verwisselbare folie
O - venster dat omhoog kan worden geschoven
P - luchtvolumestroomindicator
Q - riemelement zonder actief kool-adsorber
R - akoestische alarminrichting voor minimale doorstroming (niet zichtbaar)

NL

Gebruiksaanwijzing SATA-super-ademhalingsbeschermingss

1. Leveringsomvang

– standaarduitvoering

Geventileerd gasmasker met regelbare, gelijkmatige luchtverzorging, met venster dat omhoog geschoven kan worde voor verwisselbare folies, anti statische haar- en nekbescherming en verwisselbare maskerinzet met maskerinleg, al de 5 reserve-maskerinleggen, aan een verstelbare lijfriem gemonteerd filterpatroon met regelventiel, overdrukveiligh ventiel, actief kool-filter, luchtvolumestroomindicator, elk een snelkoppelingsaansluiting voor luchtingang en -afvoer n het gasmasker afvoer bijv. naar het spuitpistool, reserve folies voor het venster.

Bij de standaarduitvoering 54148 wordt het apparaat, bestaande uit gasmasker 54155 en riemeenheid 54015, compl geleverd.

Bij de andere apparatuurvarianten, conform de lijst, worden de afzonderlijke elementen gasmasker (hoofdmasker) er riemeenheid (riemgedeelte) apart geleverd en door de gebruiker gecombineerd.

Uitvoering	gasmasker	gasmasker	gasmasker	gasmasker
riemeenheidt	**gasmasker ASS, hoofddoek rood, bestelnr. 54155**	gasmasker ASS, hoofddoek grijs met borstdoek, industrie-uitvoering, bestelnr. 59840	gasmasker ASS, hoofddoek grijs over kalot met borstdoek, bestelnr. 67595	gasmasker ASS met uitgestanst venster, hoofddoek grijs met borstdoek, bestelnr. 54825
riemeenheid met actief kool-adsorber, luchtreinigingseenheid, bestelnr. 54015	X	X		X
riemelement zonder actief kool-adsorber, industrie-uitvoering, bestelnr. 58149	X	X		X
riemelement zonder actief kool-adsorber, schroefaansluiting 9/16"-20 UNS bestelnr. 30668*			X	

* Alleen drukluchttoevoerslang max. 6 m met draaibare koppeling aan de drukluchtfilter (B) toegestaan (aansluitin riemeenheid slangwartel)

– Alternatieve uitvoering, bestaande uit de afzonderlijke elementen bijv.

1. Geventileerd gasmasker, bestelnr. 54155, als bij standaarduitvoering.
2. Riemelement, bestelnr. 58149, regelbare luchtverzorging, (regelventiel), gemonteerd aan een verstelbare lijfrien een snelkoppelingsaansluiting voor de luchtingang (bij 30668 schroefaansluiting) en -afvoer naar het gasmasker (hoofdmasker).

2. Technische specificaties

Vereiste bedrijfsoverdruk*	4 bar
Max. bedrijfsoverdruk*	4 bar
Vereiste minimale volumestroom	170 Nl/min**
Riemeenheid met actief kool-adsorber:	
Max. bedrijfsoverdruk met drukluchtgereedschap (Drukweergave moet in de groene zone zijn, indien nodig regelventiel sluiten)	8 bar
Bedrijfstemperatuur	- 6°C tot 60 °C
Max. slanglengte	50 m
Geluidsniveau bij minimale volumestroom	73 dB(A)
Gewicht van het gasmasker	ca. 470 g
Gewicht van de actief kool-adsorber	ca. 750 g
Gewicht van de riemeenheid zonder actief kool-filter	ca. 260 g

* Luchtverzorgingssysteemdruk (A) tenminste 1 bar boven de ingestelde bedrijfsoverdruk.

Bij gelijktijdige toepassing van een drukluchtgereedschap bij riemeenheid met actief kool-adsorber 54015, bedrijfsov druk zover verhogen tot de gewenste luchtdoorzet ontstaat (drukweergave aan luchtreinigingseenheid in de groene z

** LET OP:

Als de minimale volumestroom van 170 Nl/min wordt onderschreden, weerklinkt er een akoestisch waarschuwingssi dat er op wijst dat de hoeveelheid lucht te gering is om voldoende bescherming te kunnen bieden. Bedrijfsoverdruk c dellijk zover verhogen, resp. regelventiel openen tot er geen fluittoon meer hoorbaar is (manometerindicatie in de grc zone). Als dit niet mogelijk is, moet men het gasmasker onmiddellijk afnemen en de gevaarlijke omgeving verlaten e luchtverzorgingssysteem resp. het gasmasker controleren.

Gebruiksaanwijzing SATA-super-ademhalingsbeschermingsset

3. Werking van de luchtreinigingseenheid met actief kool-adsorber en het riemelement zonder actief kool-adsorber

De standtijd van de actief kool-patronen en de kwaliteit van de ademlucht is in wezenlijke mate afhankelijk van de voorreiniging van de toegevoerde druklucht. daarom moet de drukluchtfilter SATA 0/144 (0/344) met automatische condensaatlediging worden voorgeschakeld.Dit apparaat filtert nagenoeg alle water- en stofdeeltjes uit de druklucht. Als het drukverschil tussen de aan de 0/144 (0/344) aangebrachte manometers groter dan 1 bar is, dan dient het fijnfilter-patroon te worden vervangen (zie bedieningshandleiding SATA-luchtfilter).
Voor de verdere reiniging van de ademlucht van olieneveldampen is er een actief kool-filter (E) tussengeschakeld. De verzadiging van de actieve kool is gemakkelijk te herkennen aan de blauwe verkleuring van de indicatorstrook.
Bij de standaarduitvoering, afb. 1, is deze in het actief kool-patroon en bij de alternatieve uitvoering achter het venster var het actief kool-filter 0/164 (0/364), afb. 2, aangebracht.

— Bij standaarduitvoering, luchtreinigingseenheid 54015

Na verzadiging van het patroon eenvoudig beschermkapje er af trekken, de doorzichtige kunststof mantel er af schroever en er een nieuw patroon insteken. Aan de onderkant van de transparante kunststofmantel bevindt zich een afvoerventiel. Hiermee wordt eventueel verzameld condensaat afgetapt. Het regelventiel voor de vereiste luchtvolumestroom is zo geconstrueerd dat bij de minimale bedrijfsdruk van 4 bar zonder drukluchtapparaat ca. 170 Nl/min gereinigde lucht naar het gasmasker wordt getransporteerd (drukweergave nog in de groene zone). Door het openen van het regelventiel (pos -H-) kan de luchtvolumestroom tot boven 300 Nl/min worden vergroot (drukweergave aan de bovengrens van de groene zone). Bij verdere vergroting van de luchtvolumestroom dient men een gehoorbeschermer te dragen. Het geïntegreerde veiligheidsoverdruk spreekt bij ca. bar aan.

- Bij alternatieve uitvoering, riemelement 58149 en 30668

Na verzadiging van het patroon filterbuis aan de 0/164 (0/364) afschroeven, filterpatroon er uittrekken en nieuw filterpatroon in omgekeerde volgorde aanbrengen. Indicatorpapier door afschroeven van het venster verwijderen en nieuw indicatorpapier aanbrengen.
Het regelventiel is zo geconstrueerd dat bij een minimale bedrijfsoverdruk van 4 bar 170 Nl/min gereinigde lucht naar het gasmasker wordt getransporteerd. Door het regelventiel (positie -H-) te openen kan de luchtvolumestroom op meer dan 300 Nl/min worden vergroot.

4. Onderhoud, reiniging en bewaring

- Het apparaat dient vóór gebruik te worden gereinigd, ontsmet alsmede aan een functie- en dichtheidstest (adsorbereenheid in onder druk staande, bedrijfsklare toestand kort in helder water dompelen) te worden onderworpen.
- Olie-verzadiging van het filterpatroon (E) controleren.
- Werking van het regelventiel (H) controleren.
- Luchtvolumestroomindicatie (P) bij luchtreinigingseenheid t.a.v. schade controleren.
- Drukfilter (B) t.a.v. werking en manometerindicatie controleren. Indien nodig sinterbronsfilter reinigen en fijn-filterpatroon vervangen (zie bedieningshandleiding SATA-luchtfilter).
- In regelmatige intervallen, dagelijks, wekelijks bij dagelijks gebruik, alsmede bij niet luchtdicht verpakte apparaten halfjaarlijks dient het gasmasker te worden gedesinfecteerd. Hiervoor kan de gasmaskerinzet er worden uitgenomen De gasmaskerinleggen dienen bij verontreinigen te worden vervangen (bestelnr., zie reserveonderdeellijst). Gebruike meerdere personen het gasmasker, dan dient het gasmasker te worden ontsmet als dit door een andere persoon wordt gebruikt. Als desinfectiemiddel adviseren wij Incidur van de firma Henkel. Het apparaat dient tenminste halfjaarlijks te worden gereinigd en aan een functie- en dichtheidstest te worden onderworpen. Bovendien dient het actief kool-patroon te worden vervangen. Het reservepatroon en nieuwe gasmaskers kunnen 5 jaar worden bewaard als ze luchtdicht verpakt zijn.

Het apparaat dient, als het niet wordt gebruikt, op een schone en droge plaats te worden bewaard, maar niet in de combicabine.

5. Aanwijzingen voor het gebruik

- LET OP:

1. Druklucht-slangapparaten EN 270, met gasmasker (gesloten venster) als ademaansluiting mogen op grond van hun constructie niet in giftige omgevingsatmosfeer worden toegepast, waarin zuurstofgebrek heerst of de honderdvoudige MAK- resp. TRK-waarde wordt overschreden.
2. Drukluchtslangapparaten voor licht gebruik pr EN 1835 klasse 1 met gasmasker (uitgestanst venster) mogen op grond van hun constructie niet tegen kankerverwekkende, zeer giftige en radioactieve stoffen, micro-organismen (virussen, bacteriën en schimmels en de sporen ervan) en enzymen alsmede in giftige omgeving worden toegepast waarin zuurstofgebrek heerst of waar de 5-voudige MAK resp. TRK-waarde wordt overschreden.

- Telkens voor het gebruik dient er een functie- en dichtheidstest met het gehele apparaat te worden uitgevoerd.
- Niet alle personen mogen gasmaskers dragen. Dragers van gasmaskers dienen op grond van medische onderzoeke conform de "principes voor arbeidsgeneeskundige preventieve onderzoeken G26 van de bedrijfsvereniging: dragers van gasmaskers voor werk en redding" (A.W Gentner-Verlag, Stuttgart) t.a.v. hun geschiktheid te worden gekeurd. Verder dienen de ter zake geldende voorschriften conform het ademhalingsbeschermings-informatieblad ZH 1/701 i acht te worden genomen.
- Het apparaat heeft een van de behoefte onafhankelijke ademluchtverzorging. Met het regelventiel (H) kan de betreffende ademluchtbehoefte voor de betreffende persoon worden bijgesteld.

NL

Gebruiksaanwijzing SATA-super-ademhalingsbeschermingss

- Het apparaat alleen met een goedgekeurde druklucht-toevoerslang (max. 5m, bij riemelement 30668 max. 6 m) veiligheids-snelkoppelingen gebruiken (bijv. SATA bestelnr. 49080, 6 m).
- LET OP:

Voor het ontkoppelen van de veiligheids-snelkoppelingen moet de koppelingsnippel in de koppeling worden gedrukt gelijkertijd de schuifmof van de koppeling te worden teruggeschoven.

- Zorg er steeds voor dat de aangezogen compressorlucht niet door milieu-invloeden, zoals bijv. uitlaatgassen va verbrandingsmotoren, verwarmingen, oplosmiddeldampen etc. wordt verontreinigd en wat betreft het kooldioxid gehalte voldoet aan de norm DIN EN 132.
- Bij gebruik van het apparaat onder 5°C omgevingstemperatuur dient het venster van binnen met een goedgeke middel tegen het beslaan van de ruit te worden behandeld. Wij adviseren hiervoor:
  ruitreinigingsmiddel 75 - bestelnr. 6700470 van Drägerwerk AG Mosilinger Allee 53-55, 23542 Lübeck of
  ruitreinigingsmiddel 2260-903 van Auergesellschaft GmbH Hanauer Landstraße 213, 60314 Frankfurt/Main.

-LET OP:

De beschermende werking is alleen gegarandeerd als

1. Standaarduitvoering

De drukweergave in de groene zone. Bij elke ingebruikname, met name bij gelijktijdig gebruik van een spuitpistool, di de drukindicatie te worden gecontroleerd resp. de akoestische alarminrichting te worden gecontroleerd (wijzer in de r zone - fluittoon moet hoorbaar zijn), eventueel bedrijfsdruk verhogen.

2. Alternatieve uitvoering

De bedrijfsdruk op de drukluchtfilter (B) bedraagt 4 bar, bij onderschrijding weerklinkt een fluittoon, eventueel bedrijfs aanpassen.

- Gasmasker zo opzetten dat de gasmaskerinleg tenminste onder de kin tegen het gezicht aanligt.

6. Reparaties

Bij defecte resp. slijtage aan het gasmasker dient de betreffende component te worden vervangen, als deze conform gebruiksaanwijzing als reserveonderdeel vermeld is. Anders dient het apparaat ter reparatie te worden opgestuurd. N het vervangen van delen die de dichtheid kunnen beïnvloeden, dient er een complete functie-dichtheidscontrole te w den uitgevoerd.

7. Zinvol toebehoren

Bestelnr.	Omschrijving
84996	SATA-combi-fijn-filtereenheid 0/344 compleet verpakt
13870	Luchtslang 1,2 m compleet gemonteerd, voor spuitpistool bij SATA-ASS
49080	Druklucht-toevoerslang 9,5 x 5 mm voor SATA ASS CE-uitvoering, 6 m lang, compleet gemonteerd met veiligheids-snelkoppeling
22905	Reservefolies voor SATA ASS, pakket a 25 stuks nr. 0/767
54197	Verpakking met 20 stuks gasmaskerinleggen voor SATA-ASS
54205	Verpakking met 2 stuks gasmaskerinleggen voor SATA-ASS

Garantievoorwaarden:

Voor dergelijke apparaten verlenen wij een garantie van 6 maanden, die begint op de dag van de verkoop aan de ein nemer. De garantie heeft betrekking op de materiaalwaarde van delen met fabricage- en materiaalgebreken die binn de garantieperiode aan het licht komen. Uitgesloten is schade die ontstaat door ongeschikt of ondeskundig gebruik, f montage resp. in gebruik nemen door de koper of door derden, natuurlijke slijtage, foute behandeling of onderhoud, c schikte spuitmaterialen, vervangende werkstoffen en chemische, elektrochemische of elektrische invloeden, voor zo de schade niet te wijten is aan onze schuld. Het apparaat moet onmiddellijk na ontvangst gecontroleerd worden. Ken jke gebreken moeten ter voorkoming van het verlies van rechten bij gebreken binnen 14 dagen na ontvangst van het paraat schriftelijk medegedeeld worden aan de leveringsfirma of ons. Verdergaande aanspraken van iedere aard, vo op schadevergoeding, zijn uitgesloten. Dat geldt ook voor schade die ontstaat bij advies, inwerk-werkzaamheden en monstratie. Als de koper onmiddellijke reparatie of vervanging wenst, voordat vastgesteld is of van onze kant een ver gingsplicht bestaat, dan vindt de vervangende levering of reparatie tegen berekening en betaling van de betreffende dagprijs plaats. Als bij de controle van de gebreken blijkt dat een aanspraak op garantie bestaat, krijgt de koper voor berekende reparatie of vervangende levering een creditnota overeenkomstig de garantie. Delen waarvoor vervangin leverd werd, worden ons eigendom.

Gebreken of overige aanmerkingen geven de koper resp. opdrachtgever niet het recht de betaling te weigeren of te vertragen.

Het apparaat moet zonder kosten aan ons opgestuurd worden. Montagekosten (arbeids- en rijkosten) alsmede vrach verpakkingskosten kunnen wij niet op ons nemen. Hier gelden onze montagevoorwaarden.

Garantiewerkzaamheden hebben geen verlenging van de garantieperiode tot gevolg.

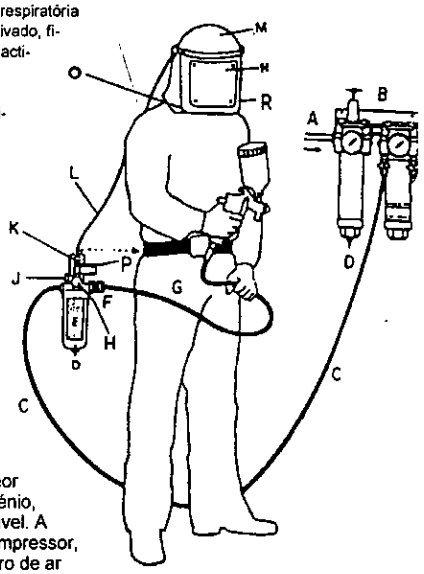
De garantie vervalt bij ingrepen door derden.

Jogo SATA Super para a protecção respiratória

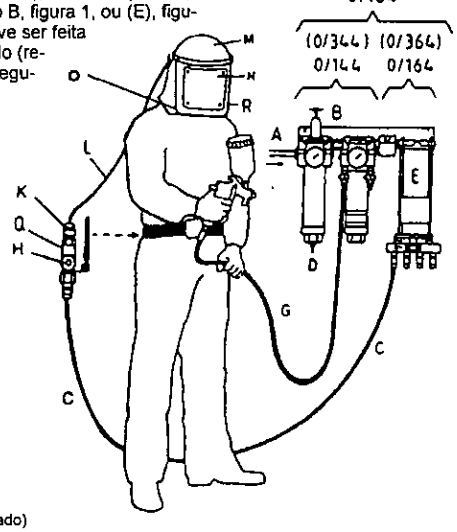
Antes de usar o aparelho, as instruções de serviço devem ser lidas completa e cuidadosamente. Devem ser levados em consideração as directivas para a prevenção de acidentes, os regulamentos e directivas concernentes ao local de trabalho, bem como a legislação e as restrições em vigor, p.ex., regras para o emprego de aparelhos de protecção respiratória ZH 1/701, regras que se referem à pintura , VGB 23 (Alemanha), etc. O aparelho pode ser usado apenas por pessoas devidamente instruídas e em conformidade com os regulamentos. Antes de iniciar qualquer trabalho de reparação e manutenção, o aparelho deve ser desligado do sistema de abastecimento de ar comprimido.

Jogo SATA Super para a protecção respiratória, tipo 25-13/nº de encomenda 54148, aparelho ligado à mangueira de ar comprimido EN 270, composto do capuz de protecção respiratória 54155 (ou 59840 ou 67595) e conjunto de cintas com absorvedor de carvão activado, figura 1 ou, alternativamente, com conjunto de cintas sem absorvedor de carvão activado, nº de encomenda 58149 (ou 30668), figura 2.

Jogo SATA para a protecção respiratória, capuz de protecção respiratória com campo visual recortado, com conjunto de cintas, com absorvedor de carvão activado (semelhante à figura 1) e, alternativamente, sem absorvedor de carvão activado (semelhante à figura 2), aparelho ligado à mangueira de ar comprimido, para aplicações secundárias prEN 1835, capuz de protecção respiratória, classe 1.



O super jogo SATA para protecção respiratória constitui uma protecção altamente eficaz para pintores, assim como para trabalhos em ambientes nocivos à saúde. O sistema consiste em um capuz ventilado, que é abastecido com ar de respiração filtrado, um conjunto de cintas com um absorvedor de carvão activado e com uma conexão adicional para um aparelho pneumático, figura 1. A alternativa consiste em um elemento de cintas sem absorvedor de carvão activado e sem conexão para um aparelho pneumático, figura 2, e em uma mangueira abastecedora de ar comprimido. O utilizador tem a obrigação de garantir que o ar aspirado pelo compressor seja isento de gases, vapores e partículas nocivos (p. ex., gases de exaustão provenientes de motores de combustão ou de incineradores e emanações de solventes), até o ponto que fique garantido o cumprimento das exigências da norma DIN EN 132, no tocante ao teor de óxido de carbono. O uso de oxigénio ou de ar enriquecido de oxigénio, não é permitido. O aparelho pode ser usado em um ambiente inflamável. A fim de eliminar as impurezas do ar de respiração, originadas pelo compressor, como p. ex., névoa de óleo, deve ser instalado adicionalmente um filtro de ar comprimido com manómetro (p. ex., SATA 0/144 ou 0/344). Ficará entre o absorvedor de carvão activado do conjunto de cintas, figura 1 e a rede de ar comprimido. Uma outra modalidade seria intercalar o filtro entre o absorvedor de carvão activado 0/164 (0/364), fixado na parede, e a rede. A conexão entre o sistema de abastecimento com ar comprimido B, figura 1, ou (E), figura 2, e o respectivo conjunto de cintas (elemento de cintas) deve ser feita mediante a mangueira aprovada de admissão de ar comprimido (resistente ao calor, máx. 50 m), munida de engates rápidos de segurança, p. ex., SATA nº de encomenda 49 080 (6 m).



A - Sistema de abastecimento de ar comprimido
B - Filtro de ar comprimido SATA 0/144 (0/344)
C - Mangueira abastecedora de ar comprimido, apropriada para o jogo de protecção à respiração, Nº de encomenda SATA 49 080
D - Válvula de purga para óleo e líquido condensado
E - Absorvedor de carvão activado com cartucho de filtração intercambiável
F - Engate rápido para a conexão do aparelho pneumático
G - Mangueira de ar comprimido para pistola
H - Válvula reguladora para ar de respiração
J - Válvula de segurança de sobrepressão
K - Engate rápido para mangueira de ar de respiração
L - Mangueira de ar de respiração
M - Capuz ventilado de protecção respiratória, com visor articulado de com cobre-nuca (munido interiormente de uma guamição trocável e de um forro, para garantir a higiene pessoal)
N - Lâmina intercambiável
O - Visor articulado
P - Indicador da vazão de ar
Q - Elemento de cintas sem absorvedor de carvão activado
R - Dispositivo de alarme acústico para vazão mínima (não representado)

(P)

Operating Instructions for Super Respirator Set

1. Escopo do fornecimento

- Modelo padrão Capuz ventilado de protecção respiratória com suprimento contínuo de ar regulável, com visor artic
do para lâminas intercambiáveis, protecção antiestática para os cabelos, cobre-nuca, guarnição trocável do capuz, fc
para a guarnição, assim como 5 forros de reserva, cartucho de filtração montado em uma cilha ajustável, válvula de
lação, válvula de segurança de sobrepressão, filtro de carvão activado, indicador da vazão de ar, uma conexão de e
te rápido cada para a entrada do ar e para a saída ao capuz de protecção respiratória, bem como para a saída à pist
de pulverização, para citar um exemplo, lâminas de reserva para o visor.

No modelo padrão 54148 fornecemos o aparelho completo, composto do capuz de protecção respiratória 54155 e dc
conjunto de cintas 54015.

Em outras variantes do equipamento fornecemos os componentes individuais, a saber, o capuz de protecção respira
(capuz) e o conjunto de cintas (elemento da cinta), isoladamente, conforme a relação abaixo, e o utilizador os combi

Combinacoes de equipamentos	Capuz de protecção respiratória	Capuz de protecção respiratória	Capuz de protecção respiratória	Capuz de protecção respiratória
Conjunto de cintas	Capuz ASS, Lenço vermelho de cabeça, nº de encomenda 54155	Capuz ASS, lenço de cabeça cinza com peitilho, modelo industrial, nº de encomenda 59840	Capuz ASS, lenço de cabeça cinza passando por cima da calota, com peitilho, nº de encomenda 67595	Capuz ASS, com cam visual recortado, lenço cabeça cinza com peitilho, nº de encome 54825
Conjunto de cintas com absorvedor de carvão activado e com módulo para a limpeza do ar, nº de encomenda 54015	X	X		X
Conjunto de cintas sem absorvedor de carvão activado, Modelo industrial, nº de encomenda 58149	X	X		X
Conjunto de cintas sem absorvedor de carvão activado, Conexão roscada 9/16" - 20 UNS, nº de encomenda 30668 *			X	

* Admite-se somente mangueira abastecedora de ar comprimido, de no máximo 6 m de comprimento, com acoplam
giratório no filtro de ar comprimido (B) (conexão conjunto de cintas - união roscada na mangueira)

- Modelo alternativo, composto dos componentes individuais, p. ex., de

1. capuz ventilado de protecção respiratória, nº de encomenda 54155, igual ao do modelo padrão
2. elemento de cintas, nº de encomenda 58149, abastecimento regulável com ar (válvula reguladora), montada er
cilha ajustável, com conexão de engate rápido para a entrada de ar (conexão roscada no caso do 30668) e para a s
ao capuz de protecção respiratória (capuz).

2. Características técnicas

Sobrepressão de serviço necessária *	4 bar
Sobrepressão de serviço máxima *	4 bar
Vazão mínima necessária	170 Nl/min. * *
Conjunto de cintas com absorvedor de carvão activado	
Sobrepressão de serviço máxima com ferramenta pneumática	8 bar
(indicação da pressão deve encontrar-se na gama verde, se for preciso, fechar a válvula reguladora)	
Temperatura de serviço	-6ºC até 60ºC
Comprimento máximo da mangueira	50 m
Nível de ruído com vazão mínima	73 dB(A)
Peso do capuz de protecção respiratória	aprox. 470 g
Peso do absorvedor de carvão activado	aprox. 750 g
Peso do conjunto de cintas sem filtro de carvão activado	aprox. 260 g

* Pressão do sistema de abastecimento com ar (A) pelo menos 1 bar acima da sobrepressão de serviço ajustada.
Se uma ferramenta pneumática estiver trabalhando simultaneamente, e desde que se trate do conjunto de cintas co
sorvedor de carvão activado 54015, aumentar a sobrepressão de serviço até que a vazão desejada de ar seja produ
(indicação da pressão no módulo de limpeza do ar deve encontrar-se na gama verde).

* * ATENÇÃO: Se a vazão mínima de 170 Nl/min. não for atingida, soa um alarme acústico que alerta o pessoal de
volume de ar é insuficiente para uma protecção adequada. Aumentar a sobrepressão de serviço imediatamente ou
a válvula reguladora até que o apito não se ouça mais (indicação manométrica no campo verde). Se isto não for
possível, retirar o capuz de protecção respiratória imediatamente, sair do ambiente nocivo à saúde e verificar o siste
de abastecimento de ar ou o aparelho de protecção à respiração.

3. Modo de funcionamento do módulo de limpeza do ar, com absorvedor de carvão activado e com o conjunto de cintas sem absorvedor de carvão activado

A vida útil dos cartuchos de carvão activado e a qualidade do ar de respiração dependem, essencialmente, da pré-purificação do ar comprimido introduzido. Consequentemente o filtro de ar comprimido SATA 0/144 (0/344), com purga automática do líquido condensado, deve ser ligado à frente. Este aparelho elimina quase todas as partículas de água e de poeira do ar comprimido. Se a pressão diferencial entre os manómetros montados no 0/144 (0/344) for maior do que 1 bar, o cartucho de filtração de precisão deve ser substituído (ver instruções de serviço filtros de ar SATA).

Para efectuar uma limpeza suplementar do ar de respiração, para a eliminação das névoas de óleo, é intercalado um filtro de carvão activado (E). A saturação do carvão activado é facilmente reconhecível graças à coloração da fita reagente. No caso da execução padrão, figura 1, a fita reagente está acomodada no cartucho de carvão activado, enquanto na execução alternativa fica colocada atrás do visor do filtro de carvão activado 0/164 (0/364), figura 2.

- No modelo padrão, módulo de limpeza de ar 54015

Depois da saturação do cartucho, simplesmente tirar a gaiola protectora, desaparafusar o copo plástico e introduzir um novo cartucho. No lado de baixo do copo plástico transparente encontra-se uma válvula de purga. Líquido condensado que eventualmente possa ter acumulado é esvaziado com a ajuda desta válvula. A válvula reguladora para a vazão de ar necessária foi projectada de forma que, com uma pressão mínima de serviço de 4 bar e sem aparelho pneumático, aproximadamente 170 Nl/min. de ar limpo são conduzidos para a máscara de protecção respiratória (a indicação da pressão ainda está na gama verde). Abrindo a válvula reguladora (posição -H-), a vazão de ar pode ser aumentada, até acima de 300 Nl/min. Quando se aumenta mais ainda a vazão de ar, é preciso usar uma protecção auditiva. A válvula de segurança de sobrepressão, integrada no sistema, actua ao atingir aprox. 8 bar.

- Na execução alternativa, elementos de cintas 58149 e 30668

Depois da saturação do cartucho, o desaparafusar tubo filtrante no 0/164 (0/364), sacar o cartucho do filtro e introduzir o cartucho novo, obedecendo a sequência inversa. Retirar o papel reagente, desaparafusando o visor e colocar novo papel reagente.

A válvula reguladora foi projectada de forma que, com uma sobrepressão mínima de serviço de 4 bar, 170 Nl/min. de ar limpo são conduzidos para a máscara de protecção respiratória. Abrindo a válvula reguladora (posição -H-), a vazão de ar pode ser aumentada até acima de 300 Nl/min.

4. Manutenção, conservação e armazenagem

- Após o uso, o aparelho deve ser submetido a uma limpeza e desinfecção. Também deve ser testado referente ao funcionamento e à estancação (imergir o módulo do absorvedor brevemente em um recipiente de água pura, quando estiver pronto para entrar em serviço e já sob pressão).
- Verificar o cartucho de filtração (E) quanto à saturação com óleo.
- Verificar a facilidade de manejo da válvula reguladora (H).
- Procurar eventuais danos na indicação de vazão (P), no módulo de limpeza de ar.
- Verificar o filtro de ar comprimido (B), no tocante ao funcionamento e à indicação manométrica. Se for preciso, limpar o filtro de bronze sinterizado e substituir o cartucho de filtração fina (ver instruções de serviço do filtro de ar SATA).
- Efectuar uma desinfecção do capuz periodicamente, diariamente, semanalmente quando for usado todos os dias, e semestralmente tratando-se de aparelhos não embalados hermeticamente. Para tanto a guarnição pode ser retirada do capuz. Quando os forros estiverem sujos, devem ser substituídos (nº de encomenda ver lista de sobresselentes). Caso pessoas diferentes usem o capuz, a desinfecção tem que ser feita após cada emprego. Recomendamos providenciarem um capuz próprio para cada indivíduo. Como desinfectante sugerimos o produto "Incidur", da empresa Henkel. O aparelho deve ser limpo e submetido a um teste de funcionamento e estanquidade pelo menos a cada meio ano. Igualmente o cartucho de carvão activado deve ser substituído. O cartucho de reserva e o aparelho novo são passíveis de serem armazenados sem detrimento durante 5 anos, desde que sejam embalados hermeticamente.

Quando não estiver em uso, o aparelho deve ser guardado em um local limpo e seco, porém não deve ser na cabina combinada.

5. Indicações referentes ao uso

- ATENÇÃO

1. Devido à sua forma de construção, aparelhos ligados à mangueira de ar comprimido, EN 270, com o capuz de protecção respiratória (campo visual fechado) como conexão de respiração, não podem ser usados em ambientes tóxicos, em ambientes que carecem de oxigénio ou em ambientes que ultrapassam 100 vezes os valores MAK ou TRK.
2. Devido à sua forma de construção, os aparelhos ligados à mangueira de ar comprimido para uso secundário, prEN 1835, classe 1, com capuz de protecção respiratória (campo visual recortado), não podem ser usados onde houver substâncias cancerígenas, materiais muito tóxicos ou radioactivos, microorganismos (vírus, bactérias, fungo e os seus esporos) e enzimas. Não podem ser usados em ambientes tóxicos onde houver falta de oxigénio ou onde o ambiente ultrapassar 5 vezes os valores MAK ou TRK.

- Toda utilização deve ser precedida por um teste funcional e de estancação feito no aparelho inteiro.
- Nem todas as pessoas podem usar máscaras de protecção respiratória. Os utilizadores de aparelhos de protecção respiratória devem ser submetidos a exames médicos, para que seja apurada a sua qualificação, conforme os "Princípios das Entidades de Classe quanto a Exames preventivos de Medicina de Trabalho, G 26: Usuários de Aparelhos de Protecção respiratória, utilizados durante o serviço e para o salvamento" (editora A. W. Gentner, Stuttgart). Além do mais devem ser levadas em conta as prescrições, conforme Memorando sobre Protecção à Respiração ZH 1/701.

Operating Instructions for Super Respirator Set

- O aparelho dispõe de um abastecimento com ar de respiração, independente do consumo. Por meio da válvula reguladora (H) pode ser ajustada a quantidade de ar necessária para a respectiva pessoa.
- O aparelho pode ser usado somente em conjunto com uma mangueira de abastecimento aprovada para ar comprimido (máx. 50 m, se for elemento de cintas 30668, máx. 6 m) munida de engates rápidos de segurança (p. ex., nº de encomenda SATA 49080, 6 m).
- ATENÇÃO: Para desacoplar os engates rápidos de segurança, pressionar o botão para dentro do acoplamento passar para trás a luva corrediça ao mesmo tempo.
- Sempre assegurar-se de que o ar aspirado pelo compressor não tenha sido contaminado devido a influências ambientais, como p. ex., gases de escape de motores de combustão, caldeiras, vapores de solventes, etc. e qu ar corresponda à norma DIN EN 132, no que diz respeito ao conteúdo de dióxido de carbono.
- Caso o aparelho for usado em locais com uma temperatura ambiente abaixo de + 5 °C, o visor deveria ser trata com um agente antiembaçante homologado, do lado de dentro. Recomendamos: "Klarsichtmittel 75", nº de encomenda 6700470, de Drägerwerk AG, Moislinger Allee 53-55, 23542 Lübeck, ou "Klarsichtmittel 2260-903", de Auergesellschaft GmbH, Hanauer Landstr. 213, 60314 Frankfurt/Main
- ATENÇÃO:

A protecção fica garantida apenas quando

1. Modelo padrão

a indicação da pressão estiver na gama verde. Por ocasião de cada colocação em serviço, em especial quando uma pistola de pulverização é usada ao mesmo tempo, deve ser verificada a pressão ou o dispositivo de alarme acústico teiro no campo vermelho deve apitar). Se for preciso, aumentar a pressão de serviço.

2. Modelo alternativo

a pressão de serviço, junto ao filtro de ar comprimido (B), atingir 4 bar. Se este valor não for alcançado, soa o apito; for preciso, ajustar a pressão de serviço.

- Vestir o capuz de forma que o forro encoste no rosto pelo menos abaixo do queixo.

6. Reparação

Em caso de defeitos ou de desgaste do aparelho deve ser substituída a respectiva peça, desde que figure como sot selente nas instruções de serviço. Se não for o caso, o aparelho deve ser enviado ao fabricante para reparação. Apó uma troca de peças, que poderiam influenciar na estancação, é imprescindível realizar uma verificação completa qu ao funcionamento e à estancação.

7. Acessórios convenientes

Nº de encomenda	Denominação
84996	Módulo SATA-Kombi de filtração fina 0/344, completamente embalado
13870	Mangueira para ar 1,2 m, completamente equipada, para pistola de pulverização, destina-se SATA-ASS
49080	Mangueira abastecedora de ar comprimido 9,5x5 mm, para SATA-ASS, modelo CE, 6 m de comprimento, completamente montada, com engate rápido de segurança
22905	Lâminas de reserva para SATA ASS, pacote de 25 peças nº 0/767
54197	Pacote com 20 forros de capuz para SATA-ASS
54205	Pacote com 2 forros de capuz para SATA-ASS

Condições de garantia: Para tais aparelhos prestamos uma garantia de 6 meses, que iniciam-se com a data da ve ao utilizador final. A garantia abrange o valor da matéria prima das peças com defeitos de fabricação e com defeitos material verificados durante o prazo de garantia. Excluem-se danos provenientes de emprego desapropriado ou des primento dos preceitos estabelecidos, danos devidos à montagem incorrecta ou à colocação em serviço deficiente p comprador ou por um terceiro, danos causados por desgaste natural, por manejo errado ou manutenção inadequad nos ocasionados por materiais de pulverização impróprios, por materiais substitutos, sequelas de fenómenos químic electroquímicos ou eléctricos, desde que os danos não possam ser atribuídos à nossa falta. O aparelho deve ser ve do imediatamente após o recebimento. Para evitar a perda do direito à reclamação, defeitos aparentes devem ser co nicados, por escrito, à empresa fornecedora ou a nós, dentro de 14 dias após o recebimento do aparelho. São inadmissíveis reivindicações posteriores de qualquer natureza, em especial de indemnizações. Isto igualmente diz r to a danos produzidos no decorrer de consultas, de formação e de demonstrações. Caso o comprador desejar repar ou substituição imediata - antes de que tenha sido apurado se existe uma obrigação à substituição da nossa parte - necimento substituto ou a reparação efectua-se contra facturamento e pagamento do preço do dia em questão. Se, verificar a reclamação, existir o direito ao serviço de garantia, o comprador receberá uma nota de crédito para a repa ração ou o fornecimento substituto, em conformidade com a prestação da garantia. As peças que foram substituídas nam-se propriedade nossa.

Reclamações e demais deficiências comunicadas não autorizam o comprador ou o mandante a recusar ou a atrasa pagamento.

O despacho do aparelho ao nosso endereço deve ser feito com frete pago. Não podemos assumir despesas de mon gem (tempo de trabalho e custos de locomoção), nem custos com frete e embalagem. A respeito valem as nossas c dições de montagem.

A prestação de garantia não origina um prolongamento do prazo de garantia. A garantia cessa se houver uma inter- venção alheia.

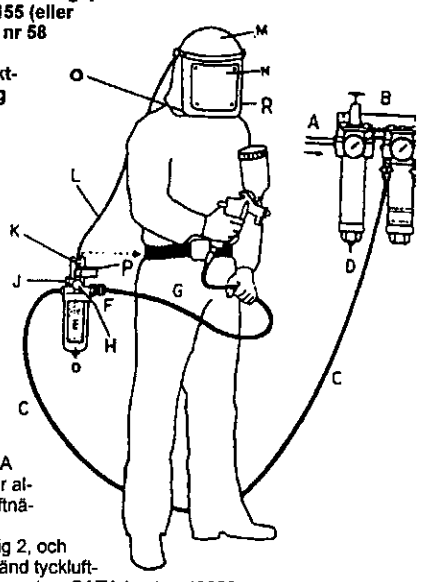
Bruksanvisning SATA Super-andningsskyddssats

Det är mycket viktigt att läsa igenom bruksanvisningen noga innan man börjar använda apparaten. Dessutom måste mar beakta arbetsskyddsföreskrifter, bestämmelserna och direktiven avseende arbetslokaler samt gällande lagar och föreskri ter för t ex användningen av andningsskyddsapparater ,ZH 1/701, avseende lackeringsarbeten även VGB 23, etc. Appar ten får endast användas av personer som har undervisats om sådan användning och som noga har läst bruksanvisningen. Bruksanvisningen måste alltid beaktas. Apparaten måste alltid frånkopplas från tryckluftsystemet före en reparation eller innan underhållsåtgärder vidtas.

SATA Super-andningsskyddssats, typ 25/13/best nr 54 148, tryckluftslangapparat EN 270, som består av en andningsskyddshuv, best nr 54 155 (eller 59 840 resp 67 595) och bältesenhet med aktivkol-adsorber, best nr 58 159 (eller 30 668), fig 2.

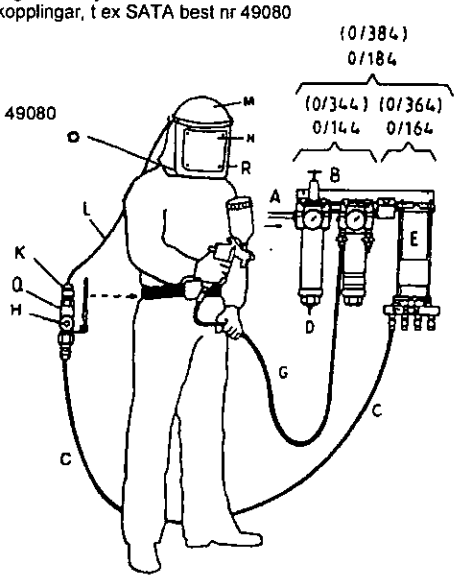
SATA andningsskyddssats, andningsskyddshuv med stansat siktfönster och bältesenhet med aktivkol-adsorber (liknande som fig 1), alternativt utan aktivkol-adsorber (liknande som fig 2), tryckluftslangapparat för enklare användningsfall prEN 1835, andningsskyddshuv klass 1.

SATA-Super andningsskyddssatsen är ett mycket effektivt skydd vid lackeringsarbeten samt vid arbeten i hälsovådlig omgivning. Satsen består av en ventilerad andningsskyddshuv som försörjs med filtrerad andningsluft, en bältesenhet med aktivkolfilter med en extra anslutning för tryckluftaggregat, fig 1, eller alternativt en bältesenhet utan aktivkolfilter och utan anslutning för tryckluftaggregat, fig 2, och en slang för tryckluftstillförsel.



Användarenn ansvarar för att luften från kompressorn är fri från skadliga gaser, ångor och partiklar (t ex avgaser från förbränningsmotorer eller -ugnar, lösningsmedel etc) och att kraven enligt Din EN 132 avseende kolmonoxidhalten uppfylls. Det är inte tillåtet att använda syre eller luft som är anrikad med syre. Apparaten kan användas i en brännbar atmosfär. För att avlägsna föoreningar i andningsluften som kommer från kompressorn, som t ex oljedimma, måste man installera ett extra tryckluftfilter med manometer (t ex SATA 0/144 eller 0/344) mellan aktivkol-adsorbern, bältesenheten, fig 1, eller alternativt den väggmonterade aktivkol-adsorbern 0/164 (0/364) och luftnätet.

Förbindelsen mellan tryckluftförsörjningssystemet (B), fig 1 resp (E) fig 2, och respektive bältesenhet (bältesdel) måste iordningställas med en godkänd tryckluftmatarslang (värmebeständig, max 50 m) med säkerhetssnabbkopplingar, t ex SATA best nr 49080 (6 m).



A Luftförsörjningssystem
B SATA tryckluftfilter 0/144 (0/344)
C Tryckluftmatarslang för andningsskyddssats SATA best nr 49080
D Olje- och kondensavtappningsventil
E Aktivkol-adsorber med utbytbar filterpatron
F Snabbkoppling för anslutng till tryckluftaggregat
G Pistol-luftslang
H Regleringsventil för andningsluften
J Övertrycksäkerhetsventil
K Snabbkoppling för andningsslangen
L Andningsslang
M Ventilerad andningsskyddshuv med uppfällbart siktfönster (på insidan utrustad med en utbytbar huvinsats och utbytbart huvinlägg för den personliga hygienen)
N Utbytbar folie
O Uppfällbart siktfönster
P Luftvolymströmsindikering
Q Bältesdel utan aktivkoladsorber
R Akustisk varningsanordning vid minmiflöde (ej synlig)

Bruksanvisning SATA Super-andningsskyddssats

1. Leveransomfattning

- Standardutförande

Ventilerad andningsskyddshuv med regleringsbar och kontinuerlig luftförsörjning, med uppfällbart siktfönster för den utbytbara folien, antistatiskt hår- och nackskydd och utbytbar huvinsats med huvinlägg samt 5 st reservhuvinlägg, en ett justerbart bälte monterad filterpatron med regleringsventil, övertrycksäkerhetsventil, aktivkolfilter, luftvolymströmsi kering, vardera en snabbkopplingsanslutning för luftinloppet och -utloppet till andningsskyddshuven samt ett utlopp t sprutpistolen, reservfolie för siktfönstret.

I standardutförandet 54 148 levereras apparaten, bestående av andningsskyddshuven 54 155 och bältesenheten 54 komplett.

Hos andra apparatvariationer enligt specifikationen levereras de enskilda delarna såsom andningsskyddshuv (huvudkåpa) och bältesenhet (bältesedel) separat för att sedan kunna kombineras av användaren.

Utförande	Andningsskyddshuv	Andningsskyddshuv	Andningsskyddshuv	Andningsskyddshuv
Bältesenhet	Huvudkåpa ASS, huvudduk röd, best nr 54 155	Huvudkåpa ASS, huvudduk grå med duk för bröstkorgen, industriutförande, best nr 59 840	Huvudkåpa ASS, huvudduk grå över kalott med duk för bröstkorgen, best nr 67 595	Huvudkåpa ASS me stansat siktfönster, huvudduk grå med d för bröstkorgen, bes 54 825
Bältesenhet med aktivkol-adsorber, luftreningsenhet best nr 54 015	X	X		
Bältesdel utan aktivkol-adsorber, industriutförande, best nr 58 149	X	X		X
Bältesdel utan aktiv-kol-adsorber, skruv-koppling 9/16" -20 UNS best nr 30 668 *			X	

* Endast tillåten för tryckluftstillförselslang max 6 m med vridbar koppling på tryckluftfiltret (B) (anslutning bältesenh slangskruvkoppling)

- Alternativutförande, bestående av enskilda delar t ex

1. Ventilerad andningsskyddshuv, best nr 54 155, som standardutförande
2. Bältesenhet, best nr 58 149, regleringsbar luftförsörjning (regleringsventil) som är monterad på ett justerbart bält en snabbkopplingsanslutning för luftinloppet och -utloppet till resp från andningsskyddshuven (huvudkåpan).

2. Teknisk data

Erforderligt min arbetsövertryck *	4 bar
Max arbetsövertryck *	4 bar
Erforderlig min volymström	170 Nl/min **
Bältesenhet med aktivkoladsorber:	
Max arbetsövertryck med tryckluftverktyg	8 bar
(tryckindikeringen måste vara inom det gröna området, stäng eventuellt regleringsventilen)	
Driftstemperatur	-6°C till 50°C
Max slanglängd	50 m
Ljudnivå vid min luftvolymström	73 dB (A)
Vikt andningsskyddshuv	ca 470 g
Vikt aktivkol-adsorber	ca 750 g
Vikt bältesenhet utan aktivkolfilter	ca 260 g

* Systemtryck luftförsörjning (A) minst 1 bar över det inställda arbetsövertrycket.

Om man använder ett tryckluftverktyg tillsammans med bältesenheten med aktivkoladsorber 54 015, måste man höj betsövertrycket så mycket, att man uppnår den önskade luftgenomströmningen (tryckindikeringen på luftreningsenhe det gröna området).

** OBSERVERA:

Underskrids min volymströmmen p 170 Nl/min aktiveras en akustiskt varningssignal som betyder att luftmängden är liten för att skydda användaren på ett säkert sätt. I denna situation är det mycket viktigt att omgående höja arbetsöve cket resp att öppna regleringsventilen så mycket, att varningssignalen inte längre hörs (manometerindikeringen i det gröna området). Om detta inte är möjligt måste man omgående ta av sig andningsskyddshuven, lämna den hälsovå omgivningen och kontrollera luftförsörjningssystemet resp andningskyddsapparaten.

3. Funktionssätt luftreningsenhet med aktivkol-adsorber och bältesenhet utan aktivkol-adsorber

Hur länge man kan använda aktivkolpatronerna och vilken kvalitet andningsluften har, står i huvudsak i förhållande till hur förorenad tryckluften som tillförs är. Därför måste man förkoppla ett tryckluftfilter SATA 0/144 (0/344) med automatisk kor densavtappning.

Denna anordning filtrerar i stort sett bort alla vatten- och dammpartiklar i tryckluften. Om tryckskillnaden mellan den på 0/144 (0/344) monterade manometern är större än 1 bar, måste man byta ut filterpatronen (se bruksanvisningen SATA-luftfilter).

För att rena andningsluften från oljedimmaånga är ett aktivkolfilter (E) mellankopplat. Mättnadsgraden på aktivkolet är lätt att registrera genom att indikatorremsan då blir blå.

På standardutförandet, fig 1, finns denna remsa i aktivkolfilterpatronen och på alternativutförandet bakom aktivkolfiltrets 0/164 (0/364) siktfönster, fig 2.

- **Standardutförande, luftreningsenhet 54 015**

När patronen är mättad behöver man bara dra bort skyddskorgen, skruva av den genomskinliga plastkupan och sätta i en ny patron. På den transparenta plastkupans undersida finns en avtappningsventil. Via denna kan man tappa av kondens som eventuellt kan ha samlats. Regleringsventilen för den erforderliga luftvolymströmmen är så konstruerad, att ca 17 Nl/min renad luft tillförs vid ett min arbetstryck på 4 bar utan tryckluftaggregat (tryckindikeringen ännu i det gröna om-rådet). Genom att öppna regleringsventilen (position -H-) kan man öka luftvolymströmmen till över 300 Nl/min. Ökar man luftvolymströmmen utöver detta värde måste man använda hörselskydd. Den inbyggda säkerhetsövertryckventilen akti-veras vid ca 8 bar.

- **Alternativutförande, bältesdel 58 149 och 30 668**

När patronen är mättad behöver man bara skruva av filterröret på 0/164 (0/364), dra ut filterpatronen och sedan sätt i en ny filterpatron i omvänd ordningsföljd. Indikatorpappret tar man bort genom att skruva av siktfönstret. Sedan behöver man bara sätta i ett nytt.

Regleringsventilen för den erforderliga luftvolymströmmen är så konstruerad, att ca 170 Nl/min renad luft tillförs vid ett min arbetstryck på 4 bar utan tryckluftaggregat. Genom att öppna regleringsventilen (position -H-) kan man öka luftvolym strömmen till över 300 Nl/min.

4. Underhåll, skötsel och lagring

- Efter användningen måste apparaten rengöras, desinficieras och hela apparaten kontrolleras avseende funktionen och tätheten (adsorberenheten doppar man helt kort i rent vatten i driftsfärdigt och trycksatt tillstånd).
- Kontrollera filterpatronens (E) oljemättnad.
- Kontrollera att regleringsventilen (H) är lättmanövrerad.
- Kontrollera om luftvolymströmindikeringen på luftreningsenheten är skadad.
- Kontrollera tryckluftfiltret (B) avseende funktionen och manometerindikeringen. Eventuellt måste sinterbronsfiltret rengöras och finfilterpatronen bytas ut (se bruksanvisningen SATA-luftfilter).
- Apparaten måste desinficieras regelbundet, om den används dagligen en gång i veckan, om den inte är lufttätt förpackad varje halvår. För desinficieringen kan man ta ut huvinsatsen. Huvinläggen måte bytas ut om de är nedsmutsade (best nr, se reservdelslistan). Om flera personer använder samma huv måste den desinficieras varje gång som en annan person använder den. Vi rekommenderar att ställa en huv till förfogande för varje medarbetare. Som desinfektionsmedel rekommenderar vi "Incidur" från firman Henkel. Senast varje halvår måste apparaten rengöras och dess funktion och täthet kontrolleras samt aktivkolpatronen bytas ut. Reservpatroner och nya apparate kan lagras i 5 år om de är lufttätt förpackade. Om apparaten inte används ska den lagras torrt och rent, emellertid ej kombi-hytten.

5. Anvisningar för användningen

- OBSERVERA:

1. Tryckluft-slangapparater EN 270 med andningsskyddshuv (stängt siktfönster) som andningsanslutning får p g a sin konstruktion inte användas i en giftig omgivningsatmosfär med syrebrist eller om MAK resp TRK-värdet överskrid med de 100-dubbla.
2. Tryckluft-slangapparater för användning i enklare fall, prEN 1835, klass 1 med andningsskyddshuv (stansat siktfönst får p g a sin konstruktion inte användas som skydd mot cancerframkallande, mycket giftiga och radioaktiva ämnen, mikro organismer (virer, bakterier, svampar och deras sporer) och enzymer samt i en giftig omgivnings med syrebrist eller om MAK resp TRK-värdet överskrid med det 5-dubbla.

- Före varje användning är det viktigt att kontrollera hela apparaten avseende funktion och täthet.
- Alla människor får inte använda andningsskyddsapparater. Personer som ska använda andningdsskyddsapparater måste genom en undersökning enligt "yrkesinspektionens principer för arbetsmedicinska undersökningar" (i Tysklan G26: 'Användning av andningsskyddsapparater för arbete och räddningskår", A.W. Gentner-Verlag, Stuttgart) godkännas att få använda sådana apparater. Dessutom måste man beakta föreskrifterna i andningsskydds-informationsbladet ZH 1/701.
- Apparaten har en behovsoberoende andningsluftförsörjning. Med regleringsventilen (H) kan man justera andnings-luftbehovet för respektive person.
- Apparaten får endast användas med en godkänd tryckluftillförselslang (max 50 m, med bältesdel 30 668 max 6 m) med säkerhetssnabbkopplingar (t ex SATA best nr 49 080, 6 m).
- OBSERVERA:

För att lossa säkerhetssnabbkopplingen trycker man in kopplingsnippeln i kopplingen och skjuter samtidigt tillbaka koppli gens skjuthylsa.

Bruksanvisning SATA Super-andningsskyddssats

- Man måste alltid säkerställa, att den komprimerade luften som sugs in inte förorenas t ex genom avgaser från förbränningsmotorer, värmesystem, lösningsmedelsångor etc och att denna luft svarar mot DIN EN 132 avseende koldioxidhalten.
- Om apparaten används i en omgivningstemperatur på mindre än +5°C måste man behandla sikfönstrets insida m ett godkänt medel mot imma. Vi rekommenderar: Klarsiktsmedel 75 - best nr 6700470, Drägerwerke AG Moislinge Allee 53-55, D-235 42 Lübeck eller Klarsiktsmedel 2260-903, Auergesellschaft GmbH Hanauer Landstrasse 213, D-603 14 Frankfurt/Main
- OBSERVERA:

Skyddsfunktionen är endast säkerställd, om:

1. Standardutförande

tryckindikeringen är i det gröna området. Varje gång som apparaten tas i drift, i synnerhet samtidigt som en sprutpistol, måste tryckindikeringen resp den akutstiska varningsanordningen kontrolleras (visaren i det röda området) - varningssi gnal hörs), evtl måsta man höja arbetstrycket,

2. Alternativutförande

min arbetstryck på tryckluftfiltret (B) uppgår till 4 bar, underskrids detta värde hörs en varningssignal, evtl måsta arbets cket anpassas.

- Sätt på huven så, att huvans inlägg anligger mot ansiktet minst under hakan.

6. Underhåll och reparationer

Vid fel eller slitage måste respektive del bytas ut, om denna del är angiven som reservdel i buksanvisningen. Annars måste hela apparaten skickas in för reparation.
När man byter ut delar som kan påverka tätheten måste man alltid utföra en komplett funktions- och täthetskontroll efte monteringen.

7. Tillbehör som rekommenderas

Best nr	Beteckning
84996	SATA-kombinationsfinfilter-enhet 0/344, komplett förpackad
13 870	Luftslang 1,2 m, kompl monterad, för sprutpistol SATA-ASS
49 080	Tryckluftstillförselslang 9,5 x 5 mm för SATA-ASS-CE-utförande, 6 m lång, kompl monterad me säkerhetssnabbkoppling
22 905	Reservfolie för SATA-ASS, paket med 25 styck nr 0/767
54 197	Förpackning med 20 styck huvinlägg för SATA-ASS
54 205	Förpackning med 2 styck huvinlägg för SATA-ASS

8. Garantivillkor:

För dessa apparater lämnar vi en garanti på 6 månader fr o m dagen som apparaten såldes till konsumenten. Garantin omfattar materialvärdet för delar med tillverknings- och materialfel, som uppstår under garantitiden. Garantin omfattar e skador som uppstår på grund av felaktig hantering eller åsidosättande av bruksanvisningen, felaktig montering eller an- vändning av den som köper apparaten resp tredje man, naturligt slitage, felaktig behandling, felaktigt underhåll, olämpli sprutmaterial, utbytesmaterial och kemisk, elkemisk eller elektrisk påverkan, såvida det inte kan påvisas att skadorna h för sig till oss. Det är mycket viktigt att kontrollera apparaten direkt när den har tagits emot. Bristfälligheter eller fel måst reklameras inom 14 dagar från och med att apparaten togs emot av leverantören resp av oss. Reklamationer måste all vara skriftliga. Andra förpliktelser eller kostnader, i synnerhet skadeersättning, åtas ej. Detta gäller även för skador som uppstår i samband med rådgivning, inarbetande och presentation. Om köparen önskar ersättning eller reparation omgå de, d v s innan vi har kunnat kontrollera om garantin omfattar respektive skada, sker detta mot betalning och till aktuellt pris. Om det skulle visa sig att skadan omfattas av garantin, får köparen ett tillgodohavande på respektive belopp. Dela för vilka vi har levererat ersättning övergår i vår ägo.
I reklamationsfall har köparen resp beställaren inte rätt att vägra betala en faktura eller att dröja med betalningen. Kostnaderna som uppstår genom att apparater skickas till oss på grund av en reklamation åtar vi oss ej. Monterings- kostnader (arbetstid och färdkostnader) samt frakt och förpackningskostnader kan vi inte överta. Här gäller våra monteringsvillkor. Fullgörande av garantianspråk förlänger inte garantitiden. Garantin upphör att gälla vid externa ingre på apparaten.

EG-Konformitätserklärung (A)(D

SATA Farbspritztechnik GmbH & Co., Domertalstraße 20 - D-70806 Kornwestheim
erklärt hiermit, daß die nachstehend beschriebenen PSA (PPE), **SATA Super-Atemschutz-Set und SATA Atemschutz-Set, Type 25-13** gemäß Aufstellung übereinstimmt mit der Richtlinie 89/686/EWG sowie deren Modifikationen (93/95 EWG und 93/68 EWG) und übereinstimmt mit der nationalen Norm, durch die die harmonisierte Norm **EN 270** umgesetzt wird, identisch ist mit der PSA (PPE), die Gegenstand der vom **Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizierung Atemschutz, Kurfürsten-Anlage 62, D-69115 Heidelberg** ausgestellten EG-Baumuster-Prüfbescheinigungen gemäß Aufstellung vom **24.07.199** war, dem Verfahren nach Artikel **11A** der Richtlinie 89/686/EWG der Kontrolle der gemeldeten Stelle **Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizierung Atemschutz, Kurfürsten-Anlage 62, D-69115 Heidelberg notifiziert unter Nr. 0299** unterliegt.

Kombination	Atemschutzhaube	Atemschutzhaube	Atemschutzhaube	Atemschutzhaube
Gurteinheit	Kopfhaube ASS, Kopftuch rot Best.Nr.54155	Kopfhaube ASS, Kopftuch grau mit Brusttuch, Ind.ausführung Nr.59840	Kopfhaube ASS, Kopftuch grau über Kalotte mit Brusttuch, Best.Nr.67595	Kopfhaube ASS mit ausgestanztem Sichtfeld, Kopftuch grau mit Brusttuch, Nr.54825
Gurteinheit mit Aktivkohlefilter, Luftreinigungseinheit Best.Nr. 54015	**95020003**	**9502005**		
Gurteinheit ohne Aktivkohleadsorber, Industrieausführung	**95020004 Nr.58149**	**9502006 Nr.58149**		**95020008 Nr.82719**
Gurteinheit ohne Aktivkohleadsorber, Schraubanschluß 9/16"-20UNS Best.Nr.30668			**95020009**	

Déclaration de conformité de la CE (B)(F)(

SATA Farbspritztechnik GmbH & Co., Domertalstraße 20 - D-70806 Kornwestheim
déclare par cette présente que le PSA (PPE) décrit par la suite, Super lot de protection des voies respiratoires SATA et Lot de protection des voies respiratoires SATA, type 25-13, satisfait, selon le tableau, à la prescription de la Directive 89/686/CEE ainsi qu'à ses modifications (93/95 CEE et 93/68 CEE) et correspond à la norme nationale qui met en application la norme harmonisée EN 270, est identique au PSA (PPE) qui faisait l'objet du certificat de la CE selon le tableau du 24.07.95, issu du comité spécialisé Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizierung Atemschutz, Kurfürsten-Anlage 62, D-69115 Heidelberg, est sujet à la procédure selon l'article 11A de la Directive 89/686/CEE sous le contrôle du service autorisé Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizierung Atemschutz, Kurfürsten-Anlage 62, D-69115 Heidelberg, notée sous le n° 0299.

Exécution	Masque respiratoire	Masque respiratoire	Masque respiratoire	Masque respiratoire
Unité de sangle	Masque respiratoire intégral ASS, toile protège-tête rouge, n° de commande 54155	Masque respiratoire intégral ASS, toile protège-tête gris avec tablier, exécution industrielle, n° 59840	Masque respiratoire intégral ASS, toile protège-tête gris au-dessus de calotte avec tablier, n° 67595	Masque respiratoire intégral ASS avec découpe de champ visuel, toile protège-tête gris avec tablier, n° 54825
Unité de sangle avec adsorbant à charbon actif, unité d'epuration d'air, n° 54015	**95020003**	**95020005**		
Partie de sangle sans adsorbant à charbon actif, execution industrielle, n° 58149	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
Partie de sangle sans adsorbant à charbon actif, raccordement vissable 9/16"- 20UNS, n° 30668			**95020009**	

EF-konformitetserklæring (D

SATA Farbspritztechnik GmbH & Co., Domertalstraße 20, D-70806 Kornwestheim
erklærer hermed, at nedennævnte PSA (PPE), SATA super-iltmaske-sæt og SATA iltmaske-sæt af typen 25-13, iflg. opstilling stemmer overens med bestemmelserne i EF-direktiv 89/686/EF samt tilhørende modifikationer (93/95 EF og 93/68 EF) og herudover svarer til den relevante nationale norm, gennem hvilken den harmoniserede norm EN 270 opfyldes. Desuden er maskerne identiske med PSA (PPE), der figurerede i EF-prototypeattester i.h.t opstilling af 24.07.1995, udstedt af "Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert., Fachzertifizierung Atemschutz", Kurfürstenanlage 62, D-69115 Heidelberg, og er efter art. 11A i EF-direktiv 89/686/EF underlagt kontrolforanstaltninger, gennemført af den nævnte instans "Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert., Fachzertifizierung Atemschutz", Kurfürstenanlage 62, D-69115 Heidelberg, notificeret under nr. 0299.

Combinations	Respirator Hood	Respirator Hood	Respirator Hood	Respirator Hood
Seleenhed	Kappe ASS rødt tørklæde, N° 54155	Kappe ASS grået tørklæde med brystdug, industri-udførelse, , N° 59840	Kappe ASS grået tørklæde over kalotte med brystdug, N° 59840	Kappe ASS med udstan synsfelt, grået tørklæde brystdug, N° 54825
Seleenhed med aktivkul-adsorber, luftrensningsenhed, ordre-nr. 54015	**95020003**	**95020005**		
Seledel uden aktivkuladsorber, industriudførelse, ordre-nr. 58149	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
Seledel uden aktivkuladsorber, skrueforbindelse 9/16"-20 UNS ordre-nr. 30668*			**95020009**	

Declaración de conformidad C.E.E.
SATA Farbspritztechnik GmbH & Co., Domertalstrasse 20, D-70806 Kornwestheim
declara mediante la presente que las PSA (PPE) descritas a continuación, conjunto de protección respiratoria SATA Super y conjunto d
lección respiratoria SATA, tipo 25-13 según la relación, concuerdan con la Directiva 89/686/C.E.E., así como con sus respectivas
modificaciones (93/95 C.E.E. y 93/68 C.E.E.) y con la norma nacional que implementa la norma armonizada **EN 270**, que son idénticas
PPE (PSA) que fue objeto de la Certificación de Modelos C.E.E. extendida por el **"Fachausschuß Persönliche Schutzausrüstung, P
und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizierung Atemschutz, Kurfürstenanlage 62, D-69115 Heidelberg"** conforme a
lación del 24-07-1995, y están sujetas al procedimiento según el artículo 11A de la Directiva 89/686 C.E.E. del control de la entidad reg
da **"Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizierung Atemsch
Kurfürstenanlage 62, D-69115 Heidelberg", notificado bajo el No. 0299.**

Modelo	Careta de protección respiratoria	Careta de protección respiratoria	Careta de protección respiratoria	Careta de protección respiratoria
Unidad de cinturón	Careta de casco ASS, capa testera roja, No. de pedido 54155	Careta de casco ASS, capa testera gris con capa de pecho, modelo industrial, No. de pedido 59840	Careta de casco ASS, capa testera gris por encima del casquete, con capa de pecho, No. de pedido 67595	Careta de casco ASS c ventanilla trans- parente troquelada, cap testera gris con capa de pecho, No. de pedido 5
Unidad de cinturón con adsorbedor de carbón activo, No. 54015	**95020003**	**95020005**		
Componente de cincho sin adsorbedor de carbón activo, modelo industrial, No. 58149	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
Componente de cincho sin adsorbedor de carbón activo, conexión roscada 9/16"-20 UNS, No. 30668*			**95020009**	

EY-vaatimustenmukaisuusvakuutus
SATA Farbspritztechnik GmbH & Co., Domertalstraße 20 - D-70806 Kornwestheim
vakuuttaa täten, että alla kuvattu henkilösuojain (PSA/PPE) **SATA Super-hengityksensuojainsarja** ja **SATA hengityksensuojainsar**
tyyppi 25-13 luettelon mukaisesti, vastaa direktiivin 89/686/EEC sekä sen modifikaatioiden (93/95 EEC ja 93/68 EEC) vaatimuksia, vas
kansallista standardia, jolla vahvistetaan harmonisoitu standardi **EN 270**, on yhdenmukainen sen henkilösuojaimen (PSA/PPE) kanssa,
tarkastuslaitos
**"Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im EG-Prüfzert, Fachzertifizierung Atemschutz
fürsten-Anlage 62, D-69115 Heidelberg"** on **24.07.1995** myöntänyt EY-tyyppitarkastushyväksynnän,
on nrolla 0299 rekisteröidyn tarkastuslaitoksen
**"Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im EG-Prüfzert, Fachzertifizierung Atemschutz
fürsten-Anlage 62, D-69115 Heidelberg"** suorittaman, direktiivin 89/686/EEC kohdan 11A mukaisen kontrollin alainen.

Combinations	Hengityksensuojanaamari	Hengityksensuojanaamari	Hengityksensuojanaamari	Hengityksensuojanaa
Hihnayksikkö	Kypärä ASS, punainen kangas,til.nro. 54155	Kypärä ASS, harmaa kangas jossa rintasuojus, teollisuusmalli, til.nro. 59840	Kypärä ASS, harmaa kangas kalotin päällä, rintasuojus, til.nro. 67595	Kypärä ASS jossa meis katsetuaukko, harmaa kangas, rintasuojus, til. 54825
Hihnayksikkö jossa aktiivihiilisuodatin, ilmanpuhdistusyksikkö, til.nro. 54015	**95020003**	**95020005**		
Hihnaosa ilman aktiivihiilisuodatinta, teollisuusmalli, til.nro. 58149	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
Hihnaosa ilman aktiivihiilisuodatinta, ruuviliitäntä 9/16"-20 UNS, til.nro. 30668*			**95020009**	

EC-Declaration of Conformity (GB)
SATA Farbspritztechnik GmbH & Co., Domertalstraße 20 - D-70806 Kornwestheim
declares that the PPE (PSA) hereinafter described), **SATA Super-Atemschutz-Set und SATA Atemschutz-Set, Type 25-13** according to the chart below conforms to the EC 89/686 Directive and its modifications (93/95 and 93/68 EC) and to the relevant national standards imple menting the harmonised standard **EN 270** is identical to the PPE (PSA) assessed with Certificates CE according to the chart below from **07/24/1995** issued by **Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizie-rung Atemschutz,, Kurfürsten-Anlage 62, D-69115 Heidelberg** is subjected to the procedure 11A of the 89/686 Directive under control from **Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizierung Atemschutz,, Kurfürsten-Anlage 62, D-69115 Heidelberg** notified body **no. 0299.**

Set-Type	Breathing-Protection Hood	Breathing-Protection Hood	Breathing-Protection Hood	Breathing-Protection Hood
	Belt UnitHood, hair and neck guard red, Order No. 54 155	Hood, hair and neck guard grey with breast cloth, industrial version, Order No. 59 840	Hood, hair and neck guard grey over cap with breast cloth, Order No. 67 595	Hood with punch visor, hair and neck guard grey with breast cloth, Order No. 54 825
Belt Unit with acitve charcoal adsorbent, Order No. 54 015	**95020003**	**95020005**		
Belt Unit without acitve charcoal adsorbent, Industrial-version Order No. 58 149	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
Belt Unit without acitve charcoal adsorbent,bolt connection 9/16"-20 UNS Order No. 30 668			**95020009**	

Δήλωσηανταπό ρισηςΕΟΚ (G
H SATA Farbspritztechnik GmbH & Co., Domertalstraße 20 - D-70808 Kornwestheim δηλώνει με την παρούσα, ότι τα ατωτέρω περιγραφόμενα PSA (PPE), SATA Super-Atemschutzset (σούπερ σετ αναπνευστι ής προστασίας) αι SATA Ate mschutz-Set(σεταναπνευστι ής προστασίας), τύπος 25-13, σύμφωνα με τον πίνα α, ανταπο ρίνεται στην οδηγία 89/686/ΕΟΚ αθώς αι στις τροποποιήσεις της(93/95 ΕΟΚ αι 93/68 ΕΟΚ) αι με το εθνι ό πρότυπο, με το οποίο εναρμονίζεται το πρότυπο EN 270, ότι είναι ίδια με το PSA (PPE) που ήταν αντι είμενο των πιστοποιητι ών ελέγχου δειγμάτων ΕΟΚ, ε δοθέντων από την ειδι ή επιτροπή προστατευτι ού εξοπλισμού, πηρεσία ελέγχου αι πιστοποιήσεων στο BG-Prüfzert, Fachzertifizierung Atemschutz, Kurfürsten-Anlage 62, D-69115 Heidelberg, σύμφωνα με τον πίνα α από 24.07.1995, αι ότι υπό ειναι στην ελεγ τι ή διαδι ασία σύμφωνα με το άρθρο 11A της οδηγίας 89/686/ΕΟΚ της υπηρεσίας στην οποία δηλώνονται, δηλαδή πηρεσία ελέγχου αι πιστοποιήσεων στο BG-Prüfzert, Fachzertifizierung Atemschutz , Kurfürsten-Anlage 62, D-69115, Heidelberg, με αριθμό αταχώρησης 0299.

Μοντέλλο				
	Κου ούλα ASS ό ινο άλυμ εφαλ ιού, αρ. παραγγ. 54155	Κου ούλα ASS γ ρι άλυμμα εφαλιού με άλυμμα στήθους, μοντέλλο 59840	Κου ούλα ASS γ ρι άλυμμα πάνω από σ ούφο, με άλυμμα στήθους, βιομηχ., αρ.παρ. θους, αρ.παρ. 67595	Κου ούλα ASS με αφαιρ.τμήμ προσώπου, γ ρι άλυμμα εφα λιού με άλυμμα στήθους, αρ. πα 54826
ώνη με προσρο- φητήρα ενεργού άνθρα α, σύστημα αθαρισμού αέρα, αρ.παραγγ.54015	**95020003**	**95020005**		
ώνη χωρίς προσροφ. ενεργού άνθρα α, βιομηχ. μοντέλλο, αρ.παραγγ. 58149	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
ώνη χωρίς προσροφ. ενεργού άνθρα α, με βιδ. σύνδεση 9/16"-20 UNS αρ.παραγγ.30668			**95020009**	

Dichiarazione di conformità CE (
La *SATA Farbspritztechnik GmbH & Co., Domertalstraße 20 - D-70806 Kornwestheim*
dichiara che il dispositivo di protezione individuale Sata Super-Atemschutz-Set e Sata-Atemschutz-Set, tipo 25-13, di cui al prospett è conforme alle disposizioni della direttiva 89/686/CEE e delle relative modifiche (93/95/CEE e 93/68/CEE) nonché al regolamento nazional emanato in attuazione della norma armonizzata EN 270, ed è identico al dispositivo di protezione individuale (PPE) oggetto dei certificati di omologazione CE rilasciati in base al prospetto del 24.07.1995 da parte del ***Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizierung Atemschutz, Kurfüsten-Anlage 62, D-69115 Heidelberg***, ed è soggetto, conformemente alla procedura di cui all'articolo 11A della direttiva 89/686/CEE, al controllo da parte dell'istituzione ***Fachausschuß Persönliche Schutzausrüstung, Prüf und Zertifizierungsstelle im BG-Prüfzert, Fachzertifizierung Atemschutz, Kurfüsten-Anlage 62, D-69115 Heidelberg***, notificata con il n° 0299.

Esecuzione	Casco respiratore	Casco respiratore	Casco respiratore	Casco respiratore
Unità a cintura	Casco ASS, tela proteggicapo rossa n° ord. 54155	Casco ASS, tela proteggicapo grigia con grembiule, esecuzione industriale n° ord. 59840	Casco ASS, tela proteggicapo grigia sopra calotta con grembiule, n° ord. 67595	Casco ASS con campo visivo tranciato, tela proteggicapo grigia con grembiule, n° ord. 5482
Unità a cintura con adsorbitore a carbone attivo, depuratore dell'aria, n° ord. 54015	**95020003**	**95020005**		
Unità a cintura senza adsorbitore a carbone attivo, esecuzione industriale, n° ord. 54015	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
Unità cintura senza adsorbitore a carbone attivo, raccordo a vite 9/16"-20 UNS n° ord. 30688*			**95020009**	

EG-verklaring van overeenstemming
SATA Farbspritztechnik GmbH & Co., Domertalstraße 20, D-70806 Kornwestheim verklaart hierbij dat de hieronder beschreven PSA (F
SATA super-ademhalingsbeschermingsset en SATA ademhalingsbeschermingsset, type 25-13 volgens de opstelling voldoet aan de ric
89/686/EEG alsmede aan de wijzigingen hierop (93/95/EEG en 93/68 EEG) en overeenstemt met de nationale norm, waardoor de geha
seerde norm EN 270 wordt omgezet, identiek is aan de PSA (PPE), die het onderwerp was van de door de vakcommissie Persoonlijke
schermuitrusting, keurings- en certificeringsdienst in het BG-keuringscert., vakcertificering ademhalingsbescherming, Kurfürsten-Anlag
D-59115 Heidelberg afgegeven ED-type-keuringscertificaten conform opstelling van 24.07.1995, de methode conform artikel 11A van ri
89/686/EEG onder de controle van de genoemde dienst Vakcommissie Persoonlijke Beschermuitrusting, Keurings- en Certificeringsdi
het BG-keuringscert., vakcertificering ademhalingsbescherming, Kurfürsten-Anlage 62, D-69115 Heidelberg geregistreerd onder numm
0299 valt.

Uitvoering	gasmasker	gasmasker	gasmasker	gasmasker
riemeenheidt	**gasmasker ASS, hoofddoek rood, bestelnr. 54155**	gasmasker ASS, hoofddoek grijs met borstdoek, industrie-uitvoering, bestelnr. 59840.	gasmasker ASS, hoofddoek grijs over kalot met borstdoek, bestelnr. 67595	gasmasker ASS met uitgestanst venster, hoofddoek grijs met borstdoek, bestelnr. 54
riemeenheid met actief kool-adsorber, luchtreinigingseenheid, bestelnr. 54015	**95020003**	**95020005**		
riemelement zonder actief kool-adsorber, industrie-uitvoering, bestelnr. 58149	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
riemelement zonder actief kool-adsorber, schroefaansluiting 9/16"-20 UNS bestelnr. 30668*			**95020009**	

Declaração de Conformidade CE
SATA Farbspritztechnik GmbH & Co. Domertalstraße 20 - D-70806 Kornwestheim
declara, por meio desta, que o PSA (PPE), SATA jogo de protecção de aspiração Super e SATA jogo de protecção de aspiração, tipo 2
de acordo com a relação, corresponde à directiva 89/686/CEE, assim como às suas alterações (93/95 CEE e 93/68 CEE) e correspon
norma nacional, mediante a qual a norma harmonizada **EN 270** é praticada, é idêntica à PSA (PPE) que foi objecto da aprovação de ti
CE, documento emitido pelo **"Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle no BG-Prüfzert, Fac
fizierung Atemschutz", Kurfürsten-Anlage 62, D-69115 Heidelberg,** de acordo com a relação de 30.06.1995, sujeito ao procedimer
forme o artigo 11A da directiva 89/686 CEE sob a supervisão do órgão registado **"Fachausschuß Persönliche Schutzausrüstung, P
und Zertifizierungsstelle no BG-Prüfzert, Fachzertifizierung Atemschutz", Kurfürsten-Anlage 62, D-69115 Heidelberg, notificac
pelo n° 0299.**

Combinacoes de equipamentos	Capuz de protecção respiratória	Capuz de protecção respiratória	Capuz de protecção respiratória	Capuz de protecção respiratória
Conjunto de cintas	Capuz ASS, Lenço vermelho de cabeça, nº de encomenda 54155	Capuz ASS, lenço de cabeça cinza com peitilho, modelo industrial, nº de encomenda 59840	Capuz ASS, lenço de cabeça cinza passando por cima da calota, com peitilho, nº 67595	Capuz ASS, com campo visual recortado, lenço de cabeça cinza com peitilho, nº 54825
Conjunto de cintas com absorvedor de carvão activado e com módulo para a limpeza do ar, nº de encomenda 54015	**95020003**	**95020005**		
Conjunto de cintas sem absorvedor de carvão activado, Modelo industrial,	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
Conjunto de cintas sem absorvedor de carvão activado, Conexão roscada 9/16" - 20 UNS, nº de encomenda 30668 *			**95020009**	

EG-konformitetsförklaring
SATA Farbspritztechnik GmbH & Co., Domertalstrasse 20, D-708 06 Kornwestheim, förklarar härmed att den nedan beskrivna PSA (PPE), SATA Super-andningsskydds-sats 92 och SATA andningsskydds-sats, typ 25 13, enligt specifikationen uppfyller kraven enligt direktivet 89/686/EEC samt respektive ändringar (93/95 EEC och 93/68 EEC) och den nationella normen, genom vilken den harmoniserade normen EI 270 omsätts, och att den är identisk med den PSA (PPE) som var föremål för utfärdande av EG-typgodkännande av Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert., Fachzertifizierung, Atemschutz,, Kurfürsten-Anlage 62, D 691 15 Heidelberg, enligt specifikationen daterad 95-07-24 och att den är underkastad kontrollen via Fachausschuß Persönliche Schutzausrüstung, Prüf- und Zertifizierungsstelle im BG-Prüfzert., Fachzertifizierung, Atemschutz,, Kurfürsten-Anlage 62, D 691 15 Heidelberg, bokförd med nr 0299, enligt förfarandet artikel 11 A i direktivet 89/686/EEC.

Utförande	Andningsskyddshuv	Andningsskyddshuv	Andningsskyddshuv	Andningsskyddshuv
Bältesenhet	Huvudkåpa ASS, huvudduk röd, best nr 54 155	Huvudkåpa ASS, huvudduk grå med duk för bröstkorgen, industriutförande, best nr 59 840	Huvudkåpa ASS, huvudduk grå över kalott med duk för bröstkorgen, best nr 67 595	Huvudkåpa ASS med stansat siktfönster, huvudduk grå med duk för bröstkorgen, best nr 54 825
Bältesenhet med aktivkol-adsorber, luftreningsenhet best nr 54 015	**95020003**	**95020005**		
Bältesdel utan aktivkol-adsorber, industriutförande, best nr 58 149	**95020004 Nr.58149**	**95020006 Nr.58149**		**95020008 Nr.82719**
Bältesdel utan aktiv-kol-adsorber, skruv-koppling 9/16" -20 UNS best nr 30 668 *			**95020009**	

SATA - Farbspritztechnik GmbH & Co.
Kornwestheim, 28.07.1995

Liphardt
- Geschäftsführer

COUNCIL DIRECTIVE

of 21 December 1989

on the approximation of the laws of the Member States relating to personal protective equipment

(89/686/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100a thereof,

Having regard to the proposal from the Commission (1),

In cooperation with the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas it is necessary to adopt measures with the aim of progressively establishing the internal market over a period expiring on 31 December 1992; whereas the internal market comprises an area without internal frontiers in which the free movement of goods, persons, services and capital is guaranteed;

Whereas various Member States have, over recent years, adopted provisions covering numerous items of personal protective equipment with a view in particular to safeguarding public health, improving safety at work and ensuring user protection;

Whereas these national provisions are often very detailed as regards the requirements relating to the design, manufacture, quality level, testing and certification of personal protective equipment with a view to the protection of individuals against injury and illness;

Whereas, in particular, the national provisions relating to safety at work make the use of personal protective equipment compulsory; whereas many requirements oblige employers to make appropriate personal protective equipment available to their staff in the absence or inadequacy of priority public protection measures;

Whereas national provisions relating to personal protective equipment differ significantly from one Member State to another; whereas they may thus constitute a barrier to trade with direct consequences for the creation and operation of the common market;

Whereas it is necessary to harmonize these different national provisions in order to ensure the free movement of these products, without in any way reducing the valid levels of protection already required in the Member States, and to provide for any necessary increase therein;

Whereas the provisions governing the design and manufacture of personal protective equipment laid down in this Directive which are fundamental, in particular, to attempts to ensure a safer working environment are without prejudice to provisions relating to the use of such equipment and the organization of the health and safety of workers at the workplace;

Whereas this Directive defines only the basic requirements to be satisfied by personal protective equipment; whereas, in order to facilitate proof of conformity with those basic requirements, it is essential that harmonized European standards be available relating, in particular, to the design and manufacture of, and the specifications and test methods applicable to, personal protective equipment, since compliance therewith confers on these products a presumption of conformity with the abovementioned basic requirements; whereas such harmonized European standards are drawn up by private bodies and must retain the status of non-mandatory texts; whereas, to this end, the European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (Cenelec) are the competent bodies which have been authorized to adopt harmonized standards in accordance with the general guidelines governing cooperation between the Commission and those two institutions ratified on 13 November 1984; whereas, for the purposes of this Directive, a harmonized standard is a text containing technical specifications (a European standard or a harmonization document) which has been adopted by one or both of the abovementioned bodies at the instigation of the Commission in accordance with Council Directive 83/189/EEC of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations (4), as amended by Directive 88/182/EEC (5), and pursuant to the abovementioned general guidelines;

Whereas, pending the adoption of harmonized standards, which will be very numerous because of the broad scope of application and the preparation of which within the deadline set for the creation of the internal market will involve a great deal of work, it would be advisable to maintain, on a transitional basis and subject to the requirements of the Treaty, the status quo as regards conformity with existing national standards for personal protective equipment not covered by a harmonized standard at the date of adoption of this Directive;

(1) OJ No C 141, 30. 5. 1988, p. 14.
(2) OJ No C 12, 16. 1. 1989, p. 109.
OJ No C 304, 4. 12. 1989, p. 29.
(3) OJ No C 337, 31. 12. 1988, p. 37.

(4) OJ No L 109, 26. 4. 1983, p. 8.
(5) OJ No L 81, 26. 3. 1988, p. 75.

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Whereas, given the general and horizontal nature of the role played by the Standing Committee set up pursuant to Article 5 of Directive 83/189/EEC in Community standardization policy and, more particularly, its part in the preparation of standardization applications and the operation of the existing European standardization agreements, this Standing Committee is especially suited to the task of assisting the Commission in monitoring the conformity of harmonized standards throughout the Community;

Whereas compliance with these technical requirements must be monitored in order to ensure adequate user and third-party protection; whereas existing monitoring procedures may differ appreciably from one Member State to another; whereas, in order to avoid numerous checks which merely impede the free movement of personal protective equipment, provision should be made for the mutual recognition of inspections conducted by the Member States; whereas, in order to facilitate such recognition, it is necessary, in particular, to lay down harmonized Community procedures and to harmonize the criteria to be taken into account in selecting the bodies responsible for examination, monitoring and verification;

Whereas the legislative framework should be improved so that both sides of industry will make an effective and appropriate contribution to the process of standardization,

HAS ADOPTED THIS DIRECTIVE:

CHAPTER I

SCOPE, PLACING ON THE MARKET AND FREE MOVEMENT

Article 1

1. This Directive applies to personal protective equipment, hereinafter referred to as 'PPE'.

It lays down the conditions governing its placing on the market and free movement within the Community and the basic safety requirements which PPE must satisfy in order to ensure the health protection and safety of users.

2. For the purposes of this Directive, PPE shall mean any device or appliance designed to be worn or held by an individual for protection against one or more health and safety hazards.

PPE shall also cover:

(a) a unit constituted by several devices or appliances which have been integrally combined by the manufacturer for the protection of an individual against one or more potentially simultaneous risks;

(b) a protective device or appliance combined, separably or inseparably, with personal non-protective equipment worn or held by an individual for the execution of a specific activity;

(c) interchangeable PPE components which are essential to its satisfactory functioning and used exclusively for such equipment.

3. Any system placed on the market in conjunction with PPE for its connection to another external, additional device shall be regarded as an integral part of that equipment even if the system is not intended to be worn or held permanently by the user for the entire period of risk exposure.

4. This Directive does not apply to:

— PPE covered by another directive designed to achieve the same objectives as this Directive with regard to placing on the market, free movement of goods and safety,

— the PPE classes specified in the list of excluded products in Annex I, independently of the reason for exclusion mentioned in the first indent.

Article 2

1. Member States shall take all appropriate measures to ensure that the PPE referred to in Article 1 may be placed on the market and brought into service only if it preserves the health and ensures the safety of users without prejudice to the health or safety of other individuals, domestic animals or goods, when properly maintained and used for its intended purpose.

2. This Directive shall be without prejudice to the right of Member States to lay down — in conformity with the Treaty — any requirements which they consider necessary to ensure user protection, provided that this does not give rise to modifications to PPE which could result in its non-conformity with the provisions of this Directive.

3. Member States shall not prevent the presentation at trade fairs, exhibitions and the like of PPE which is not in conformity with the provisions of this Directive, provided that an appropriate notice is displayed drawing attention to this fact and the prohibition on its acquisition and/or use for any purpose whatsoever until it has been brought into conformity by the manufacturer or his representative established in the Community.

Article 3

The PPE referred to in Article 1 must satisfy the basic health and safety requirements laid down in Annex II.

Article 4

1. Member States shall not prohibit, restrict or hinder the placing on the market of PPE or PPE components which

satisfy the provisions of this Directive and which bear the EC mark.

2. Member States shall not prohibit, restrict or impede the placing on the market of PPE components which do not bear the EC mark, and which are intended to be incorporated in PPE, provided that they are not essential to its satisfactory functioning.

Article 5

1. Member States shall regard as in conformity with the basic requirements referred to in Article 3 the PPE referred to in Article 8 (3) bearing the EC mark with respect to which the manufacturer is able to produce, on demand, the declaration of conformity referred to in Article 12.

2. Member States shall presume that the PPE referred to in Article 8 (2) satisfies the basic requirements referred to in Article 3 if it bears the EC mark with respect to which the manufacturer is able to produce, on demand, not only the declaration referred to in Article 12 but also the certificate issued by the body of which notification has been given in accordance with Article 9 attesting to their conformity to the relevant national standards, transposing the harmonized standards, assessed at the EC type examination level in accordance with the first indent of Article 10 (4) (a) and (b).

Where a manufacturer has not applied or has only partly applied the harmonized standards or where there are no such standards the certificate issued by the body of which notification has been given must state the conformity to the basic requirements in accordance with the second indent of Article 10 (4) (a) and (b).

3. The PPE referred to in Article 8 (2) for which harmonized standards are not available may continue on a transitional basis, until 31 December 1992 at the latest, to be subject to national arrangements already in force on the date of adoption of this Directive, provided that such arrangements are compatible with the provisions of the Treaty.

4. The Commission shall publish the references of the harmonized standards in the *Official Journal of the European Communities*.

Member States shall publish the references of the national standards transposing the harmonized standards.

5. Member States shall ensure that by 30 June 1991 appropriate steps are taken to enable both sides of industry to have an influence at national level on the process of formulating the harmonized standards and keeping them under review.

Article 6

1. Should a Member State or the Commission consider that the harmonized standards referred to in Article 5 do not completely satisfy the relevant basic requirements referred to in Article 3, the Commission or the Member State concerned shall refer the matter to the committee created pursuant to Directive 83/189/EEC (1), setting out its reasons. The committee shall deliver an opinion without delay.

In the light of the committee's opinion, the Commission shall notify Member States of whether or not it is necessary to withdraw the standards concerned from publications made pursuant to Article 5.

2. The Standing Committee set up by Article 6 (2) of Directive 89/392/EEC (2) may be apprised, in accordance with the procedure described below, of any matter to which the implementation and practical application of this Directive give rise.

The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft, within a time limit which the chairman may lay down according to the urgency of the matter, if necessary by taking a vote.

The opinion shall be recorded in the minutes; in addition, each Member State shall have the right to ask to have its position recorded in the minutes.

The Commission shall take the utmost account of the opinion delivered by the committee. It shall inform the committee of the manner in which its opinion has been taken into account.

Article 7

1. If a Member State discovers that PPE bearing the EC mark and used in accordance with its intended purpose could compromise the safety of individuals, domestic animals or property, it shall take all necessary measures to remove that equipment from the market and prohibit the marketing or free movement thereof.

The Member State concerned shall immediately inform the Commission of such action, indicating the reasons for its decision and, in particular, stating whether non-conformity is due to:

(a) failure to comply with the basic requirements referred to in Article 3;

(b) the unsatisfactory application of the standards referred to in Article 5;

(c) a shortcoming in the standards referred to in Article

2. The Commission shall initiate discussions with the parties concerned as soon as possible. If, after such consultation, the Commission decides that the action taken

(1) OJ No L 109, 26. 4. 1983, p. 8.
(2) OJ No L 183, 29. 6. 1989, p. 9.

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was justified, it shall immediately inform the Member State concerned and all the other Member States to that effect. If, after such consultation, the Commission decides that the action taken was not justified, it shall immediately inform the Member State concerned and the manufacturer or his authorized representative established in the Community to that effect. If the decision referred to in paragraph 1 is in response to a shortcoming in the standards, the Commission shall refer the matter to the Committee referred to in Article 6 (1) if the Member State concerned intends to adhere to its decision and shall initiate the procedure referred to in Article 6 (2).

3. If PPE which is not in conformity with the relevant requirements bears the EC mark, the Member State concerned shall take the appropriate measures with regard to those responsible for affixing the mark and shall inform the Commission and the other Member States accordingly.

4. The Commission shall ensure that the Member States are kept informed of the progress and results of the procedure provided for in this Article.

CHAPTER II

CERTIFICATION PROCEDURES

Article 8

1. Before placing a PPE model on the market, the manufacturer or his authorized representative established in the Community shall assemble the technical documentation referred to in Annex III so that this can, if necessary, be submitted to the competent authorities.

2. Prior to the series production of PPE other than those referred to in paragraph 3, the manufacturer or his authorized representative established in the Community shall submit a model for EC type-examination as referred to in Article 10.

3. EC type-examination shall not be required in the case of PPE models of simple design where the designer assumes the user can himself assess the level of protection provided against the minimal risks concerned the effects of which, when they are gradual, can be safely identified by the user in good time.

This category shall cover exclusively PPE intended to protect the wearer against:

- mechanical action whose effects are superficial (gardening gloves, thimbles, etc.),
- cleaning materials of weak action and easily reversible effects (gloves affording protection against diluted detergent solutions, etc.),
- risks encountered in the handling of hot components which do not expose the user to a temperature exceeding 50 °C or to dangerous impacts (gloves, aprons for professional use, etc.),
- atmospheric agents of a neither exceptional nor extreme nature (headgear, seasonal clothing, footwear, etc.),
- minor impacts and vibrations which do not affect vital areas of the body and whose effects cannot cause irreversible lesions (light anti-scalping helmets, gloves, light footwear, etc.),
- sunlight (sunglasses).

4. Production of PPE shall be subject:

(a) according to the manufacturer's choice, to one of the two procedures referred to in Article 11 in the case of PPE of complex design intended to protect against mortal danger or against dangers that may seriously and irreversibly harm the health, the immediate effects of which the designer assumes the user cannot identify in sufficient time. This category shall cover exclusively:
   - filtering respiratory devices for protection against solid and liquid aerosols or irritant, dangerous, toxic or radiotoxic gases,
   - respiratory protection devices providing full insulation from the atmosphere, including those for use in diving,
   - PPE providing only limited protection against chemical attack or against ionizing radiation,
   - emergency equipment for use in high-temperature environments the effects of which are comparable to those of an air temperature of 100 °C or more and which may or may not be characterized by the presence of infra-red radiation, flames or the projection of large amounts of molten material,
   - emergency equipment for use in low-temperature environments the effects of which are comparable to those of an air temperature of − 50 °C or less,
   - PPE to protect against falls from a height,
   - PPE against electrical risks and dangerous voltages or that used as insulation in high-tension work,
   - motor cycle helmets and visors;

(b) the EC declaration of conformity referred to in Article 12 for all PPE.

Article 9

1. Each Member State shall inform the Commission and the other Member States of the approved bodies responsible for the execution of the certification procedures referred to in Article 8. For information purposes, the Commission shall publish in the *Official Journal of the European Communities* and keep up to date a list giving the names of these bodies and the distinguishing numbers it has assigned to them.

2. Member States shall apply the criteria laid down in Annex V in assessing the bodies to be indicated in such notification. Bodies meeting the assessment criteria laid down in the relevant harmonized standards shall be presumed to fulfil those criteria.

3. A Member State shall withdraw its approval from such a body if it establishes that the latter no longer satisfies the criteria referred to in Annex V. It shall inform the Commission and the other Member States of its action forthwith.

EC TYPE-EXAMINATION

Article 10

1. EC type-examination is the procedure whereby the approved inspection body establishes and certifies that the PPE model in question satisfies the relevant provisions of this Directive.

2. Application for EC type-examination shall be made by the manufacturer or his authorized representative to a single approved inspection body in respect of the model in question. The authorized representative shall be established in the Community.

3. The application shall comprise:

— the name and address of the manufacturer or his authorized representative and of the PPE production plant in question,

— the manufacturer's technical file referred to in Annex III.

It shall be accompanied by the appropriate number of specimens of the model to be approved.

4. The inspection body of which notification has been given shall conduct the EC type-examination in accordance with the undermentioned procedures:

(a) Examination of the manufacturer's technical file

— It shall examine the manufacturer's technical file to establish its suitability with respect to the harmonized standards referred to in Article 5.

— Where a manufacturer has not applied, or has only partly applied, the harmonized standards or where there are no such standards, the body of which notification has been given must check the suitability of the technical specifications used by the manufacturer with respect to the basic requirements before examining the manufacturer's technical file to establish its suitability with respect to these technical specifications.

(b) Examination of the model

— When examining the model, the inspection body shall verify that it has been produced in accordance with the manufacturer's technical file and can be used in complete safety for its intended purpose.

— It shall conduct the necessary examinations and tests to establish the conformity of the model with the harmonized standards.

— Where a manufacturer has not applied or has only partly applied the harmonized standards or where there are no such standards the body of which notification has been given shall conduct the necessary examinations and tests to establish the conformity of the model with the technical specifications used by the manufacturer, subject to their being suitable with respect to these basic requirements.

5. If the model satisfies the relevant provisions, the inspection body shall draw up an EC type-examination certificate and shall notify the applicant to this effect. This certificate shall reproduce the findings of the examination, indicate any conditions attaching to its issue and incorporate the descriptions and drawings necessary for the identification of the approved model.

The Commission, the other approved inspection bodies and the other Member States may obtain a copy of the certificate and, in response to a reasoned request, a copy of the manufacturer's technical file and the reports of the examinations and tests conducted.

The file shall be held at the disposal of the competent authorities for 10 years following the placing of the PPE on the market.

6. Any inspection body which refuses to issue an EC type-examination certificate shall inform the other approved inspection bodies of this fact. An inspection body withdrawing an EC type-examination certificate shall inform the Member State which approved it, to this effect. That Member State shall then inform the other Member States and the Commission, setting out the reasons for the decision.

CHECKING OF PPE MANUFACTURED

Article 11

A. 'EC' quality control system for the final product

1. A manufacturer shall take all steps necessary to ensure that the manufacturing process, including the final inspection of PPE and tests, ensures the homogeneity of production and the conformity of PPE with the type described in the EC type-approval certificate and with the relevant basic requirements of this Directive.

2. A body of which notification has been given, chosen by a manufacturer, shall carry out the necessary checks. Those checks shall be carried out at random, normally at intervals of at least one year.

3. An adequate sample of PPE taken by the body of which notification has been given shall be examined and appropriate tests defined in the harmonized standards or necessary to show conformity to the basic requirements of this Directive shall be carried out to check the conformity of PPE.

4. Where a body is not the body that issued the relevant EC type-approval certificate it shall contact the body of which notification has been given in the event of difficulties in connection with the assessment of the conformity of samples.

5. The body of which notification has been given shall provide the manufacturer with a test report. If the report concludes that production is not homogeneous or that the PPE examined do not conform to the type described in the EC

type-approval certificate or the relevant basic requirements, the body shall take measures appropriate to the nature of the fault or faults recorded and inform the Member State which gave notification thereof accordingly.

6. The manufacturer must be able to present, on request, the report of the body of which notification has been given.

B. System for ensuring EC quality of production by means of monitoring

1. *The system*

(a) Under this procedure the manufacturer submits an application for the approval of his quality-control system to a body of which notification has been given, of his choice.

That application shall include:

— all the information relating to the category of PPE concerned, including, where appropriate, documentation relating to the model approved,

— documentation on the quality-control system,

— the undertaking to maintain the obligations arising from the quality-control system and to maintain its adequacy and efficiency.

(b) Under the quality-control system, each PPE shall be examined and the appropriate tests referred to in Section A paragraph 3 shall be carried out to check their conformity to the relevant basic requirements of this Directive.

The documentation on the quality-control system shall in particular include an adequate description of:

— the quality objectives, the organization chart, the responsibilities of executives and their powers in respect of product quality,

— the checks and tests which must be carried out after manufacture,

— the means to be employed to check the efficient operation of the quality-control system.

(c) The body shall assess the quality-control system to determine whether it satisfies the provisions referred to in paragraph 1 (b). It shall assume that quality-control systems applying the relevant harmonized standard satisfy those provisions.

The body carrying out audits shall make all necessary objective evaluations of the components of the quality-control system and shall check in particular whether the system ensures conformity of PPE manufactured with the approved model.

The decision shall be communicated to the manufacturer. It shall include the conclusions of the check and the reasoned assessment decision.

(d) The manufacturer shall inform the body which approved the quality-control system of any plan to alter the quality-control system.

The body shall examine the proposed changes and decide whether the altered quality-control system satisfies the relevant provisions. It shall communicate its decision to the manufacturer. The communication shall include the conclusions of the check and the reasoned assessment decision.

2. *Supervision*

(a) The purpose of supervision is to ensure that a manufacturer correctly fulfils the obligations arising from the approved quality-control system.

(b) The manufacturer shall authorize the body to have access, for purposes of inspection, to PPE inspection, testing and storage sites and shall provide the body with all requisite information, in particular:

— documentation on the quality-control system,

— technical documentation,

— quality control manuals.

(c) The body shall periodically carry out audits to ensure that the manufacturer is maintaining and applying the approved quality-control system and shall provide the manufacturer with a copy of the audit report.

(d) In addition, the body may make unannounced visits to the manufacturer. In the course of such visits the body shall provide the manufacturer with a report of the visit and, if appropriate, with an audit report.

(e) The manufacturer must be able to present, on request, the report of the body of which notification has been given.

EC DECLARATION OF PRODUCTION CONFORMITY

Article 12

The EC declaration of conformity is the procedure whereby the manufacturer:

1. draws up a declaration using the form laid down in Annex VI certifying that the PPE placed on the market are in conformity with the provisions of this Directive with a view to its submission to the competent authorities;

2. affixes the EC mark of conformity provided for by Article 13 to each PPE.

CHAPTER III

EC MARK

Article 13

1. The EC mark consists of the letters 'CE' followed by the last two figures of the year in which the mark was affixed

and, in the event of the involvement of a notified body having carried out an EC examination of the type referred to in Article 10, its distinguishing number shall be added.

The form of the mark to be used is shown in Annex IV.

2. The EC mark shall be affixed to each production PPE and its packaging so as to be visible, legible and indelible throughout the foreseeable useful life of that PPE.

3. Marks or inscriptions which could be confused with the EC mark may not be affixed to PPE.

CHAPTER IV

FINAL PROVISIONS

Article 14

Any decision taken in implementation of this Directive and leading to restrictions on the marketing of PPE shall be accompanied by a detailed explanation of the grounds on which it is based. The interested party shall be notified of the decision without delay and informed of the possibilities for appeal under the legislation in force in the Member State concerned and of the deadlines for lodging such appeals.

Article 15

The Commission shall take the necessary steps to ensure that data concerning all the relevant decisions in connection with the management of this Directive are made available.

Article 16

1. By 31 December 1991, Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith inform the Commission thereof.

They shall apply those provisions from 1 July 1992.

2. Member States shall communicate to the Commission the texts of the provisions of national law which they adopt in the field governed by this Directive.

Article 17

This Directive is addressed to the Member States.

Done at Brussels, 21 December 1989.

For the Council

The President

E. CRESSON

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ANNEX I

EXHAUSTIVE LIST OF PPE CLASSES NOT COVERED BY THIS DIRECTIVE

1. PPE designed and manufactured specifically for use by the armed forces or in the maintenance of law and order (helmets, shields, etc.).
2. PPE for self-defence (aerosol canisters, personal deterrent weapons, etc.).
3. PPE designed and manufactured for private use against:
   - adverse atmospheric conditions (headgear, seasonal clothing, footwear, umbrellas, etc.),
   - damp and water (dish-washing gloves, etc.),
   - heat (gloves etc.).
4. PPE intended for the protection or rescue of persons on vessels or aircraft, not worn all the time.

ANNEX II

BASIC HEALTH AND SAFETY REQUIREMENTS

1. GENERAL REQUIREMENTS APPLICABLE TO ALL PPE

PPE must provide adequate protection against all risks encountered.

1.1. Design principles

1.1.1. *Ergonomics*

PPE must be so designed and manufactured that in the foreseeable conditions of use for which it is intended the user can perform the risk-related activity normally whilst enjoying appropriate protection of the highest possible level.

1.1.2. *Levels and classes of protection*

1.1.2.1. Highest level of protection possible

The optimum level of protection to be taken into account in the design is that beyond which the constraints imposed by the wearing of the PPE would prevent its effective use during the period of exposure to the risk or normal performance of the activity.

1.1.2.2. Classes of protection appropriate to different levels of risk

Where differing foreseeable conditions of use are such that several levels of the same risk can be distinguished, appropriate classes of protection must be taken into account in the design of the PPE.

1.2. Innocuousness of PPE

1.2.1. *Absence of risks and other 'inherent' nuisance factors*

PPE must be so designed and manufactured as to preclude risks and other nuisance factors under foreseeable conditions of use.

1.2.1.1. Suitable constituent materials

PPE materials and parts, including any of their decomposition products, must not adversely affect user hygiene or health.

1.2.1.2. Satisfactory surface condition of all PPE parts in contact with the user

Any PPE part in contact or in potential contact with the user when such equipment is worn must be free of roughness, sharp edges, projections and the like which could cause excessive irritation or injuries.

1.2.1.3. Maximum permissible user impediment

Any impediment caused by PPE to movements to be made, postures to be adopted and sensory perception must be minimized; nor must PPE cause movements which endanger the user or other persons.

1.3. Comfort and efficiency

1.3.1. *Adaptation of PPE to user morphology*

PPE must be so designed and manufactured as to facilitate correct positioning on the user and to remain in place for the foreseeable period of use, bearing in mind ambient factors, movements to be made and postures to be adopted. For this purpose, it must be possible to optimize PPE adaptation to user morphology by all appropriate means, such as adequate adjustment and attachment systems or the provision of an adequate size range.

1.3.2. *Lightness and design strength*

PPE must be as light as possible without prejudicing design strength and efficiency.

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Apart from the specific additional requirements which they must satisfy in order to provide adequate protection against the risks in question (see 3), PPE must be capable of withstanding the effects of ambient phenomena inherent under the foreseeable conditions of use.

1.3.3. *Compatibility of different classes or types of PPE designed for simultaneous use*

If the same manufacturer markets several PPE models of different classes or types in order to ensure the simultaneous protection of adjacent parts of the body against combined risks, these must be compatible.

1.4. Information supplied by the manufacturer

In addition to the name and address of the manufacturer and/or his authorized representative established in the Community, the notes that must be drawn up by the former and supplied when PPE is placed on the market must contain all relevant information on:

(a) storage, use, cleaning, maintenance, servicing and disinfection. Cleaning, maintenance or disinfectant products recommended by manufacturers must have no adverse effect on PPE or users when applied in accordance with the relevant instructions;

(b) performance as recorded during technical tests to check the levels or classes of protection provided by the PPE in question;

(c) suitable PPE accessories and the characteristics of appropriate spare parts;

(d) the classes of protection appropriate to different levels of risk and the corresponding limits of use;

(e) the obsolescence deadline or period of obsolescence of PPE or certain of its components;

(f) the type of packaging suitable for transport;

(g) the significance of any markings (see 2.12).

These notes, which must be precise and comprehensible, must be provided at least in the official language(s) of the Member State of destination.

2. ADDITIONAL REQUIREMENTS COMMON TO SEVERAL CLASSES OR TYPES OF PPE

2.1. PPE incorporating adjustment systems

If PPE incorporates adjustment systems, the latter must be so designed and manufactured as not to become incorrectly adjusted without the user's knowledge under the foreseeable conditions of use.

2.2. PPE 'enclosing' the parts of the body to be protected

As far as possible, PPE 'enclosing' the parts of the body to be protected must be sufficiently ventilated to limit perspiration resulting from use; if this is not the case, it must if possible be equipped with devices which absorb perspiration.

2.3. PPE for the face, eyes and respiratory tracts

Any restriction of the user's field of vision or sight by PPE for the face, eyes or respiratory tract must be minimized.

The degree of optical neutrality of the vision systems of these PPE classes must be compatible with the type of relatively meticulous and/or prolonged activities of the user.

If necessary, they must be treated or provided with facilities to prevent moisture formation.

PPE models intended for users requiring sight correction must be compatible with the wearing of spectacles or contact lenses.

2.4. PPE subject to ageing

If it is known that the design performances of new PPE may be significantly affected by ageing, the date of manufacture and/or, if possible, the date of obsolescence, must be indelibly inscribed on every PPE item or interchangeable component placed on the market in such a way as to preclude any misinterpretation; this information must also be indelibly inscribed on the packaging.

If a manufacturer is unable to give an undertaking with regard to the useful life of PPE, his notes must provide all the information necessary to enable the purchaser or user to establish a reasonable obsolescence date, bearing in mind the quality level of the model and the effective conditions of storage, use, cleaning, servicing and maintenance.

Where appreciable and rapid deterioration in PPE performance is likely to be caused by ageing resulting from the periodic use of a cleaning process recommended by the manufacturer, the latter must, if possible, affix a mark to each item of PPE placed on the market indicating the maximum number of cleaning operations that may be carried out before the equipment needs to be inspected or discarded; failing that, the manufacturer must give this information in his notes.

2.5. PPE which may be caught up during use

Where the foreseeable conditions of use include in particular the risk of the PPE being caught up by a moving object thereby creating a danger for the user, the PPE must possess an appropriate resistance threshold above which a constituent part will break and eliminate the danger.

2.6. PPE for use in explosive atmospheres

PPE intended for use in explosive atmospheres must be so designed and manufactured that it cannot be the source of an electric, electrostatic or impact-induced arc or spark likely to cause an explosive mixture to ignite.

2.7. PPE intended for emergency use or rapid installation and/or removal

These PPE classes must be so designed and manufactured as to minimize the time required for attachment and (or) removal.

Any integral systems permitting correct positioning on, or removal from, the user must be susceptible of rapid and easy operation.

2.8. PPE for use in very dangerous situations

The information notes supplied by the manufacturer together with PPE for use in the very dangerous situations referred to in Article 8 (4) (a) must include, in particular, data intended for the exclusive use of competent trained individuals who are qualified to interpret them and ensure their application by the user.

They must also describe the procedure to be adopted in order to verify that PPE is correctly adjusted and functional when worn by the user.

If PPE incorporates an alarm which is activated in the absence of the level of protection normally provided, this must be so designed and accommodated as to be perceived by the user in the conditions of use for which the PPE is marketed.

2.9. PPE incorporating components which can be adjusted or removed by the user

Any PPE components which can be adjusted or removed by the user for the purpose of replacement must be so designed and manufactured as to facilitate adjustment, attachment and removal without tools.

2.10. PPE for connection to another, external complementary device

If PPE incorporates a system permitting connection to another, complementary, device, the attachment mechanism must be so designed and manufactured as to enable it to be mounted only on appropriate equipment.

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2.11. PPE incorporating a fluid circulation system

If PPE incorporates a fluid circulation system, the latter must be so chosen, or designed, and incorporated as to permit adequate fluid renewal in the vicinity of the entire part of the body to be protected, irrespective of user gestures, posture or movement under the foreseeable conditions of use.

2.12. PPE bearing one or more identification or recognition marks directly or indirectly relating to health and safety.

The identification or recognition marks directly or indirectly relating to health and safety affixed to these types or classes of PPE must preferably take the form of harmonized pictograms or ideograms and must remain perfectly legible throughout the foreseeable useful life of the PPE. In addition, these marks must be complete, precise and comprehensible so as to prevent any misinterpretation; in particular, when such marks incorporate words or sentences, the latter must appear in the official language(s) of the Member State where the equipment is to be used.

If PPE (or a PPE component) is too small to allow all or part of the necessary marking to be affixed, the relevant information must be mentioned on the packing and in the manufacturer's notes.

2.13. PPE in the form of clothing capable of signalling the user's presence visually

PPE in the form of clothing intended for foreseeable conditions of use in which the user's presence must be visibly and individually signalled must have one (or more) judiciously positioned means of or devices for emitting direct or reflected visible radiation of appropriate luminous intensity and photometric and colorimetric properties.

2.14. 'Multi-risk' PPE

All PPE designed to protect the user against several potentially simultaneous risks must be so designed and manufactured as to satisfy, in particular, the basic requirements specific to each of those risks (see 3).

3. ADDITIONAL REQUIREMENTS SPECIFIC TO PARTICULAR RISKS

3.1. Protection against mechanical impact

3.1.1. *Impact caused by falling or projecting objects and collision of parts of the body with an obstacle*

Suitable PPE for this type of risk must be sufficiently shock-absorbent to prevent injury resulting, in particular, from the crushing or penetration of the protected part, at least up to an impact-energy level above which the excessive dimensions or mass of the absorbing device would preclude effective use of the PPE for the foreseeable period of wear.

3.1.2. *Falls*

3.1.2.1. Prevention of falls due to slipping

The outsoles for footwear designed to prevent slipping must be so designed, manufactured or equipped with added elements as to ensure satisfactory adhesion by grip and friction having regard to the nature or state of the surface.

3.1.2.2. Prevention of falls from a height

PPE designed to prevent falls from a height or their effects must incorporate a body harness and an attachment system which can be connected to a reliable anchorage point. It must be designed so that under the foreseeable conditions of use the vertical drop of the user is minimized to prevent collision with obstacles and the braking force does not, however, attain the threshold value at which physical injury or the tearing or rupture of any PPE component which might cause the user to fall can be expected to occur.

It must also ensure that after braking the user is maintained in a correct position in which he may await help if necessary.

The manufacturer's notes must specify in particular all relevant information relating to:

— the characteristics required for the reliable anchorage point and the necessary minimum clearance below the user,

— the proper way of putting on the body harness and of connecting the attachment system to the reliable anchorage point.

3.1.3. *Mechanical vibration*

PPE designed to prevent the effects of mechanical vibrations must be capable of ensuring adequate attenuation of harmful vibration components for the part of the body at risk.

Under no circumstances must the effective value of the accelerations transmitted to the user by those vibrations exceed the limit values recommended in the light of the maximum foreseeable daily exposure of the part of the body at risk.

3.2. **Protection against (static) compression of part of the body**

PPE designed to protect part of the body against (static) compressive stress must be sufficiently capable of attenuating its effects to prevent serious injury or chronic complaints.

3.3. **Protection against physical injury (abrasion, perforation, cuts, bites)**

PPE constituent materials and other components designed to protect all or part of the body against superficial injury caused by machinery, such as abrasion, perforation, cuts or bites, must be so chosen or designed and incorporated as to ensure that these PPE classes provide sufficient resistance to abrasion, perforation and gashing (see also 3.1) under the foreseeable conditions of use.

3.4. **Prevention of drowning (lifejackets, armbands and lifesaving suits)**

PPE designed to prevent drowning must be capable of returning to the surface as quickly as possible, without danger to his health, a user who may be exhausted or unconscious after falling into a liquid medium, and of keeping him afloat in a position which permits breathing while awaiting help.

PPE may be wholly or partially inherently buoyant or may be inflated either by gas which can be manually or automatically released or orally.

Under the foreseeable conditions of use:

— PPE must, without prejudice to its satisfactory operation, be capable of withstanding the effects of impact with the liquid medium and the environmental factors inherent in that medium,

— inflatable PPE must be capable of inflating rapidly and fully.

Where particular foreseeable conditions of use so require, certain types of PPE must also satisfy one or more of the following additional requirements:

— it must have all the inflation devices referred to in the second subparagraph, and/or a light or sound-signalling device,

— it must have a device for hitching and attaching the body so that the user may be lifted out of the liquid medium,

— it must be suitable for prolonged use throughout the period of activity exposing the user, possibly dressed, to the risk of falling into the liquid medium or requiring his immersion in it.

3.4.1. *Buoyancy aids*

Clothing which will ensure an effective degree of buoyancy, depending on its foreseeable use, which is safe when worn and which affords positive support in water. In foreseeable conditions of use, this PPE must not restrict the user's freedom of movement but must enable him, in particular, to swim or take action to escape from danger or rescue other persons.

3.5. Protection against the harmful effects of noise

PPE designed to prevent the harmful effects of noise must be capable of attenuating the latter to such an extent that the equivalent sound levels perceived by the user do not under any circumstances exceed the daily limit values laid down by Council Directive 86/188/EEC of 12 May 1986 on the protection of workers from the risks related to exposure to noise at work (1).

All PPE must bear labelling indicating the noise attenuation level and the value of the comfort index provided by the PPE; should this not be possible, the labelling must be fixed to the packaging.

3.6. Protection against heat and/or fire

PPE designed to protect all or part of the body against the effects of heat and/or fire must possess thermal insulation capacity and mechanical strength appropriate to foreseeable conditions of use.

3.6.1. *PPE constituent materials and other components*

Constituent materials and other components suitable for protection against radiant and convective heat must possess an appropriate coefficient of transmission of incident heat flux and be sufficiently incombustible to preclude any risk of spontaneous ignition under the foreseeable conditions of use.

Where the outside of these materials and components must be reflective, its reflective power must be appropriate to the intensity of the heat flux due to radiation in the infra-red range.

Materials and other components of equipment intended for brief use in high-temperature environments and of PPE which may be splashed by hot products such as large quantities of molten material must also possess sufficient thermal capacity to retain most of the stored heat until after the user has left the danger area and removed his PPE.

PPE materials and other components which may be splashed by large amounts of hot products must also possess sufficient mechanical-impact absorbency (see 3.1).

PPE materials and other components which may accidentally come into contact with flame and those used in the manufacture of fire-fighting equipment must also possess a degree of non-flammability corresponding to the risk class associated with the foreseeable conditions of use. They must not melt when exposed to flames nor contribute to flame propagation.

3.6.2. *Complete PPE ready for use*

Under the foreseeable conditions of use:

1. the quantity of heat transmitted by PPE to the user must be sufficiently low to prevent the heat accumulated during wear in the part of the body at risk from attaining, under any circumstances, the pain or health impairment threshold,
2. PPE must if necessary prevent liquid or steam penetration and must not cause burns resulting from contact between its protective integument and the user.

If PPE incorporates refrigeration devices for the absorption of incident heat by means of liquid evaporation or solid sublimation, their design must be such that any volatile substances released are discharged beyond the outer protective integument and not towards the user.

If PPE incorporates a breathing device, the latter must adequately fulfil the protective function assigned to it under the foreseeable conditions of use.

The manufacturer's notes accompanying each PPE model intended for brief use in high-temperature environments must in particular provide all relevant data for the determination of the maximum permissible user exposure to the heat transmitted by the equipment when used in accordance with its intended purpose.

3.7. Protection against cold

PPE designed to protect all or part of the body against the effects of cold must possess thermal insulating capacity and mechanical strength appropriate to the foreseeable conditions of use for which it is marketed.

(1) OJ No L 137, 24. 5. 1986, p. 28.

3.7.1. *PPE constituent materials and other components*

Constituent materials and other components suitable for protection against cold must possess a coefficient of transmission of incident thermal flux as low as required under the foreseeable conditions of use. Flexible materials and other components of PPE intended for use in a low-temperature environment must retain the degree of flexibility required for the necessary gestures and postures.

PPE materials and other components which may be splashed by large amounts of cold products must also possess sufficient mechanical-impact absorbency (see 3.1).

3.7.2. *Complete PPE ready for use*

Under the foreseeable conditions of use:

1. the flux transmitted by PPE to the user must be sufficiently low to prevent the cold accumulated during wear at any point on the part of the body being protected, including the tips of fingers and toes in the case of hands or feet, from attaining, under any circumstances, the pain or health-impairment threshold;
2. PPE must as far as possible prevent the penetration of such liquids as rain water and must not cause injuries resulting from contact between its cold protective integument and the user.

If PPE incorporates a breathing device, this must adequately fulfil the protective function assigned to it under the foreseeable conditions of use.

The manufacturer's notes accompanying each PPE model intended for brief use in low-temperature environments must provide all relevant data concerning the maximum permissible user exposure to the cold transmitted by the equipment.

3.8. Protection against electric shock

PPE designed to protect all or part of the body against the effects of electric current must be sufficiently insulated against the voltages to which the user is likely to be exposed under the most unfavourable foreseeable conditions.

To this end, the constituent materials and other components of these PPE classes must be so chosen or designed and incorporated as to ensure that the leakage current measured through the protective integument under test conditions at voltages correlated with those likely to be encountered *in situ* is minimized and, at all events, below a maximum conventional permissible value which correlates with the tolerance threshold.

Together with their packaging, PPE types intended exclusively for use during work or activities in electrical installations which are or may be under tension must bear markings indicating, in particular, their protection class and (or) corresponding operating voltage, their serial number and their date of manufacture; a space must also be provided outside the protective integument of such PPE for the subsequent inscription of the date of entry into service and those of the periodic tests or inspections to be conducted.

The manufacturer's notes must indicate, in particular, the exclusive use for which these PPE types are intended and the nature and frequency of the dielectric tests to which they are to be subjected during their useful life.

3.9. Radiation protection

3.9.1. *Non-ionizing radiation*

PPE designed to prevent acute or chronic eye-damage from sources of non-ionizing radiation must be capable of absorbing or reflecting the majority of the energy radiated in the harmful wavelengths without unduly affecting the transmission of the innocuous part of the visible spectrum, the perception of contrasts and the ability to distinguish colours where required by the foreseeable conditions of use.

To this end, protective glasses must be so designed and manufactured as to possess, for each harmful wave, a spectral transmission factor such that the radiant-energy illumination density capable of reaching the user's eye through the filter is minimized and, under no circumstances, exceeds the maximum permissible exposure value.

Furthermore, the glasses must not deteriorate or lose their properties as a result of the effects of radiation emitted under the foreseeable conditions of use and all marketed specimens must bear the protection-factor number corresponding to the spectral distribution curve of their transmission factor.

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Classes suitable for radiation sources of the same type must be classified in the ascending order of their protection factors and the manufacturer's notes must indicate, in particular, the transmission curves which make it possible to select the most appropriate PPE bearing in mind such inherent factors of the effective conditions of use as distance to source and the spectral distribution of the energy radiated at that distance.

The relevant protection-factor number must be marked on all specimens of filtering glasses by the manufacturer.

3.9.2. *Ionizing radiation*

3.9.2.1. Protection against external radioactive contamination

PPE constituent materials and other components designed to protect all or part of the body against radioactive dust, gases, liquids or mixtures thereof must be so chosen or designed and incorporated as to ensure that this equipment effectively prevents the penetration of the contaminants under the foreseeable conditions of use.

Depending on the nature or condition of these contaminants, the necessary leak-tightness can be provided by the impermeability of the protective integument and/or by any other appropriate means, such as ventilation and pressurization systems designed to prevent the back-scattering of these contaminants.

Any decontamination measures to which PPE is subject must not prejudice its possible re-use during the foreseeable useful life of these classes of equipment.

3.9.2.2. Limited protection against external irradiation

PPE intended to provide complete user protection against external irradiation or, failing this, adequate attenuation thereof, must be designed to counter only weak electron (e.g. beta) or weak photon (e.g. X, gamma) radiation.

The constituent materials and other components of these PPE classes must be so chosen or designed and incorporated as to provide the degree of user protection required by the foreseeable conditions of use without leading to an increase in exposure time as a result of the impedance of user gestures, posture or movement (see 1.3.2).

PPE must bear a mark indicating the type and thickness of the constituent material(s) suitable for the foreseeable conditions of use.

3.10. Protection against dangerous substances and infective agents

3.10.1. *Respiratory protection*

PPE intended for the protection of the respiratory tract must make it possible to supply the user with breathable air when the latter is exposed to a polluted atmosphere and/or an atmosphere having inadequate oxygen concentration.

The breathable air supplied to the user by the PPE must be obtained by appropriate means, for example after filtration of the polluted air through the protective device or appliance or by a piped supply from an unpolluted source.

The constituent materials and other components of these PPE classes must be so chosen or designed and incorporated as to ensure appropriate user respiration and respiratory hygiene for the period of wear concerned under the foreseeable conditions of use.

The leak-tightness of the facepiece and the pressure drop on inspiration and, in the case of the filtering devices, purification capacity must be such as to keep contaminant penetration from a polluted atmosphere low enough not to be prejudicial to the health or hygiene of the user.

The PPE must bear the manufacturer's identification mark and details of the specific characteristics of that type of equipment which, in conjunction with the instructions for use, will enable a trained and qualified user to employ the PPE correctly.

The manufacturer's notes must also in the case of filtering devices, indicate the deadline for the storage of filters as new and kept in their original packaging.

3.10.2. *Protection against cutaneous and ocular contact*

PPE intended to prevent the surface contact of all or part of the body with dangerous substances and infective agents must be capable of preventing the penetration or diffusion of such substances through the protective integument under the foreseeable conditions of use for which the PPE is placed on the

To this end, the constituent materials and other components of these PPE classes must be so chosen, or designed and incorporated as to ensure, as far as possible, complete leak-tightness, which will allow where necessary prolonged daily use or, failing this, limited leak-tightness necessitating a restriction of the period of wear.

Where, by virtue of their nature and the foreseeable conditions of their use, certain dangerous substances or infective agents possess high penetrative power which limits the duration of the protection provided by the PPE in question, the latter must be subjected to standard tests with a view to their classification on the basis of effeciency. PPE which is considered to be in conformity with the test specifications must bear a mark indicating, in particular, the names or, failing this, the codes of the substances used in the tests and the corresponding standard period of protection. The manufacturer's notes must also contain, in particular, an explanation of the codes (if necessary), a detailed description of the standard tests and all appropriate information for the determination of the maximum permissible period of wear under the different foreseeable conditions of use.

3.11. Safety devices for diving equipment

1. Breathing equipment

The breathing equipment must make it possible to supply the user with a breathable gaseous mixture, under foreseeable conditions of use and taking account in particular of the maximum depth of immersion.

2. Where the foreseeable conditions of use so require, the equipment must comprise:

(a) a suit which protects the user against the pressure resulting from the depth of immersion (see 3.2) and/or against cold (see 3.7);

(b) an alarm designed to give the user prompt warning of an approaching failure in the supply of breathable gaseous mixture (see 2.8);

(c) a life-saving suit enabling the user to return to the surface (see 3.4.1).

ANNEX IV

EC MARK OF CONFORMITY

The EC mark of conformity consists of the symbol shown below.

(1) (2)

The vertical dimensions of the different components of the EC mark must be perceptibly the same and not less than 5 mm.

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(1) As provided in Article 13 (1) the mark may also include the distinguishing number of the approved inspection body referred to in Article 9 (1).

(2) Year in which the mark was affixed.

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ANNEX V

CONDITIONS TO BE FULFILLED BY THE BODIES OF WHICH NOTIFICATION HAS BEEN GIVEN

(Article 9 (2))

The bodies designated by the Member States must fulfil the following minimum conditions:

1. availability of personnel and of the necessary means and equipment;
2. technical competence and professional integrity of personnel;
3. independence, in carrying out the tests, preparing the reports, issuing the certificates and performing the surveillance provided for in the Directive, of staff and technical personnel in relation to all circles, groups or persons directly or indirectly concerned with PPE;
4. maintenance of professional secrecy by personnel;
5. subscription of a civil liability insurance unless that liability is covered by the State under national law.

Fulfilment of the conditions under 1 and 2 shall be verified at intervals by the competent authorities of the Member States.

ANNEX VI

MODEL EC DECLARATION OF CONFORMITY

The manufacturer or his authorized representative established in the Community (1):

.....

.....

.....

declares that the new PPE described hereafter (2)

.....

.....

.....

.....

.....

is in conformity with the provisions of Council Directive 89/686/EEC and, where such is the case, with the national standard transposing harmonized standard No ..... (for the PPE referred to in Article 8 (3))

is identical to the PPE which is the subject of EC certificate of conformity No ..... issued by (3) (4) .....

.....

.....

is subject to the procedure set out in Article 11 point A or point B (4) of Directive 89/686/EEC under the supervision of the notified body (3) .....

.....

.....

Done at ..... on .....

.....

Signature (5)

---

(1) Business name and full address; authorized representatives must also give the business name and address of the manufacturer.

(2) Description of the PPE (make, type, serial number, etc.).

(3) Name and address of the approved body.

(4) Delete whichever is inapplicable.

(5) Name and position of the person empowered to sign on behalf of the manufacturer or his authorized representative.

ANNEX III

TECHNICAL DOCUMENTATION SUPPLIED BY THE MANUFACTURER

The documentation referred to in Article 8 (1) must comprise all relevant data on the means used by the manufacturer to ensure that a PPE complies with the basic requirements relating to it.

In the case of PPE models referred to in Article 8 (2), the documentation must comprise in particular:

1. the manufacturer's technical file consisting of:
   (a) overall and detailed plans of the PPE accompanied, where appropriate, by calculation notes and the results of prototype tests in so far as necessary for the verification of compliance with the basic requirements;
   (b) an exhaustive list of the basic safety requirements and of the harmonized standards or other technical specifications referred to in Articles 3 and 5, taken into account in the design of the model;
2. a description of the control and test facilities to be used in the manufacturer's plant to check compliance of production PPE with the harmonized standards or other technical specifications and to maintain quality level;
3. a copy of the information notice referred to in Annex II, 1.4.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 270

October 1994

UDC 614.894.72:620.1

Descriptors: Respiratory protective equipment, accident prevention, compressed air, classifications, specifications, tests, marking

English version

Respiratory protective devices - Compressed air line breathing apparatus incorporating a hood - Requirements, testing, marking

Appareils de protection respiratoire - Appareils de protection respiratoire à adduction d'air comprimé avec cagoule - Exigences, essais, marquage

Atemschutzgeräte - Druckluft-Schlauchgeräte in Verbindung mit Haube - Anforderungen, Prüfung, Kennzeichnung

This European Standard was approved by CEN on 1994-10-14. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 79 "Respiratory protective devices", the secretariat of which is held by DIN.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

This European Standard shall be given the status of a National Standard, either by publication of an identical text or by endorsement, at the latest by April 1995, and conflicting national standards shall be withdrawn at the latest by April 1995.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

Introduction

A given respiratory protective device can only be approved when the individual components satisfy the requirements of the test specification which may be a complete standard or part of a standard and practical performance tests have been carried out on complete apparatus where specified in the appropriate standard. If for any reason a complete apparatus is not tested then simulation of the apparatus is permitted provided the respiratory characteristics and weight distribution are similar to those of the complete apparatus.

1 Scope

This European Standard specifies minimum requirements for compressed air line breathing apparatus incorporating a hood as a respiratory protective device. Escape and diving apparatus and that used in abrasive blasting operations are not covered by this standard.

Laboratory and practical performance tests are included for the assessment of compliance with the requirements.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 132:1990	Respiratory protective devices - Definitions
EN 134:1990	Respiratory protective devices - Nomenclature of components
EN 136:1989	Respiratory protective devices - Full face masks - Requirements, testing, marking
EN 146:1991	Respiratory protective devices - Powered particle filtering devices incorporating helmets or hoods - Requirements, testing, marking
EN 148-1:1987	Respiratory protective devices - Threads for facepieces - Standard thread connection
EN 148-2:1987	Respiratory protective devices - Threads for facepieces - Centre thread connection
EN 148-3:1992	Respiratory protective devices - Threads for facepieces - Thread connection M 45 x 3
EN 28031:1993	Rubber and plastics hoses and hose assemblies - Determination of electrical resistance (ISO 8031:1987)
IEC 651 :1979	Sound level meters
ISO 6941:1984/ AMD 1:1992	Textile fabrics - Burning behaviour - Measurement of flame speed properties of vertically oriented specimens

3 Definitions and nomenclature

For the purposes of this European Standard the definitions and nomenclature given in EN 132 and EN 134 respectively apply together with the following:

3.1 Compressed air line breathing apparatus incorporating a hood

Apparatus incorporating a hood which is not self-contained and in which the wearer is supplied with breathable air from a source of compressed air at a maximum pressure of 10 bar.

3.2 Compressed air supply tube

A tube which delivers breathable air at a maximum pressure of 10 bar from a source of compressed air.

4 Description

The construction of this apparatus enables the wearer to be provided with breathable air (as defined in the relevant European Standard) supplied at a continuous flow to a suitable hood via a breathing hose. The apparatus may be fitted with a continuous flow valve which may be carried by the wearer. The exhaled and excess air flows into the ambient atmosphere. A compressed air supply tube connects the wearer to a supply of compressed air. This can be ensured by a breathable air supply system or an additional device (e.g. a filtering device).

Where a full face mask, half mask or mouthpiece assembly is incorporated into a hood the apparatus is classified as being fitted with a full face mask, half mask or mouthpiece assembly.

5 Designation

Respiratory protective devices meeting the requirements of this standard shall be designated as follows:

Compressed air line BA EN 270.

6 Requirements

6.1 Materials

6.1.1 All materials used in the construction shall have adequate mechanical strength, durability and resistance to deterioration by heat.

6.1.2 Exposed parts i.e. those which may be subjected to impact during use of the apparatus shall not be made of aluminium, magnesium, titanium or alloys containing such proportions of these metals as will, on impact, give rise to frictional sparks capable of igniting flammable gas mixtures.

6.1.3 Materials that may come into direct contact with the wearer's skin or that may affect the quality of the breathable air shall not be known to be likely to cause skin irritation or any other adverse effects to health.

6.1.4 The finish of any part of the apparatus likely to be in contact with the wearer shall be free from sharp edges and burrs.

6.1.5 The requirements of 6.1.1, 6.1.2, 6.1.3 and 6.1.4 shall be assessed during the tests described in 7.2 and 7.6.

5.2 Cleaning and disinfecting

The materials used shall withstand the cleaning and disinfecting agents and procedures recommended by the manufacturer.

Testing in accordance with 7.2.

6.3 Resistance to temperature

6.3.1 After storing in accordance with 7.3.1 and returning to room temperature the apparatus shall show no appreciable deformation or distortion of the lens(es) or visor and all other requirements of this standard shall be met.

6.3.2 After storing in accordance with 7.3.1 the apparatus shall continue to operate satisfactorily as assessed by the procedures described in 7.3.2 and 7.3.3.

6.3.3 Apparatus specifically designed for temperatures beyond the limits for storage and use given in 7.3.1 shall be tested and marked accordingly.

6.4 Inward leakage

The continuous flow valve (if fitted) in the "minimum flow" position shall permit the minimum flow specified by the manufacturer at the minimum stated supply pressure, when measured at the coupling to the hood and with the maximum stated length of compressed air supply tube, and/or filter and air conditioner, (if fitted). The inward leakage shall not exceed an average of 0,5 % of the inhaled air of any of the 10 test subjects in any of the test exercises when tested in accordance with 7.4.

6.5 Flammability

All exposed components of the apparatus (including the hood) shall not continue to burn for more than 5 s after passing through the flame when tested in accordance with 7.5.

6.6 Practical performance test

When assessed in accordance with 7.6 the apparatus shall be such that it can be worn without avoidable discomfort, the wearer shall show no undue signs of strain attributable to wearing the apparatus, and it shall impede the wearer as little as possible when in a crouched position or when working in a confined space.

These tests serve the purpose of checking the equipment for imperfections that cannot be determined by the tests described elsewhere in this standard.

Where in the opinion of the test station approval is not granted because practical performance tests show the apparatus has imperfections related to wearer's acceptance as indicated by comments recorded in 7.6.6, the test station shall describe the test which revealed these imperfections. This will enable other test stations to duplicate the tests and assess the results thereof.

6.7 Connectors

6.7.1 General

Components of the apparatus shall be readily separated for cleaning, examining and testing.

All demountable connections shall be readily connected and secured, where possible by hand. Any means of sealing used shall be retained in position when the joints and couplings are disconnected during normal maintenance.

Testing in accordance with 7.2 and 7.6.

6.7.2 Couplings

The apparatus shall be constructed so that any twisting of the hoses and tubes does not affect the fit or performance of the apparatus, or cause the hoses or tubes to become disconnected. The design of the coupling shall be such as to prevent unintentional interruption of air supply. At least one swivelling coupling shall be fitted to the compressed air supply tube adjacent to the wearer.

Testing in accordance with 7.2 and 7.6.

6.7.3 Strength of breathing hose connections

When tested in accordance with 7.7 the connections of the breathing hose between belt and hood shall withstand axially a tensile force of 250 N for 10 s.

6.7.4 Connection between apparatus and hood

The connection between the hood and the remainder of the apparatus may be achieved by a permanent or special type of connection or by a screw thread connection.

Threads defined in EN 148-1, EN 148-2 and EN 148-3 shall not be used for the hood connector.

If any screw thread is used it shall not be possible to connect it to the threads defined in EN 148-1, EN 148-2 or EN 148-3.

Testing in accordance with 7.2.

6.8 Head harness

6.8.1 The head harness, if provided, shall be designed so that the hood can be donned and removed readily. It shall be adjustable or self-adjusting and shall hold the hood firmly and comfortably in position.

Testing in accordance with 7.2 and 7.6.

6.8.2 In case of emergency, e.g. air loss or severe over-inflation, it shall be possible easily to obtain ambient air or to make use of any emergency system provided.

Testing in accordance with 7.6.

6.9 Body harness or belt

6.9.1 A body harness or belt shall be provided to which the breathing hose shall be attached. Buckles shall not slip.

Testing in accordance with 7.2 and 7.6.

6.9.2 It shall not be possible to connect the compressed air supply tube directly to the breathing hose or hood.

Testing in accordance with 7.2.

6.10 Mobile high pressure air supply systems

6.10.1 General

The air supply system shall be fitted with a pressure reducer, incorporating a high pressure gauge, low pressure gauge, safety valve and high pressure warning device.

Testing in accordance with 7.2.

6.10.2 Pressure reducer

The pressure reducer and the characteristics of the compressed air supply system incorporating the compressed air supply tube(s) shall be such that the requirements of 6.4 and 6.15.4 shall be met.

Testing in accordance with 7.4 and 7.14.

The required pressure on the outlet side shall be either preset or variable; in the latter case the variable valve shall not be adjustable without the use of special tools and the pressure gauge shall be suitably marked to indicate the pressure range.

Testing in accordance with 7.2 and 7.6.

6.10.3 High pressure warning device for compressed air cylinder systems

The system shall have a warning device that warns the wearer or assistant when the cylinder pressure drops to a predetermined level. The warning device shall operate, at a residual pressure of minim. 30 bar. If an audible warning device is incorporated, the sound pressure level shall be a minimum of 85 dB(A) and not greater than 95 dB(A) at a distance of 1 m from the warning device. The duration of the audible warning at 90 dB(A) shall be at least 15 s for a continuous signal and 60 s for an intermittent signal. The frequency range shall be between 2000 Hz and 4000 Hz.

Testing in accordance with 7.2.

6.10.4 Pressure reducer safety valve

A pressure reducer safety valve shall be provided. The pressure reducer safety valve shall be designed to pass an air flow of 400 l/min at a medium pressure not exceeding 30 bar. With the pressure reducer safety valve operational, the inhalation and exhalation breathing resistances shall not exceed 25 mbar when tested in accordance with 7.17.

Note: This requirement only applies to one wearer operating from one pressure reducer; where multiple wearers operate from a single pressure reducer additional safety features will be needed.

6.11 Compressed air supply tube

6.11.1 Resistance to kinking

When tested in accordance with 7.8 the compressed air supply tube shall maintain a uniform near-circular shape and spiral from the loop configuration described and shall not deform to an extent that decreases the flow of air through it by more than 10 % compared with that measured when the tube is straight and unstressed.

6.11.2 Resistance to collapse

When tested in accordance with 7.9 using an applied load of 1000 N the reduction in air flow shall not be greater than 10 %.

6.11.3 Strength

The compressed air supply tube, couplings and continuous flow valve if present, shall not separate from the couplings, when tested in accordance with 7.10.

6.11.4 Flexibility

When pressurized to the maximum working pressure the compressed air supply tube shall be capable of being wound once around a drum 300 mm in diameter.

Testing in accordance with 7.2.

6.11.5 Heat resistance

Compressed air supply tubes claimed to be resistant to damage from contact with hot surfaces and boiling water shall be tested in accordance with 7.11 and shall show no signs of damage or indications of failure and the air quality shall not be significantly affected.

6.11.6 Electrostatic properties

Compressed air supply tubes claimed to be antistatic, when tested in accordance with EN 28031 making connections to the couplings shall have an electrical resistance that is greater than 10^3 Ω and less than 10^6 Ω.

6.11.7 Couplings

Where a hand operated connection is fitted to the outlet of the compressed air supply tube it shall incorporate a self-sealing coupling to seal the air supply.

Testing in accordance with 7.2.

6.11.8 Resistance to air pressure

The compressed air supply tube and its couplings shall be capable of withstanding without damage an air pressure of 30 bar for not less than 15 min.

Testing in accordance with 7.2.

6.12 Breathing hose

Breathing hoses shall be flexible and non-kinking. Breathing hoses shall permit free head movement and shall not restrict or close off the air supply under chin or arm pressure during practical performance tests.

Testing in accordance with 7.2 and 7.6.

6.13 Continuous flow valve

6.13.1 A continuous flow valve when fitted, shall be easily adjusted by the wearer to supply air as required. The complete apparatus in the "minimum flow" condition shall pass the manufacturer's minimum design flow rate at the minimum supply pressure, when measured at the coupling to the hood and with the maximum stated length of compressed air supply tube, and/or filter (if fitted). If the valve is designed to shut off it shall not be possible inadvertently to reduce the flow below the manufacturer's minimum design flow rate.

The requirements of this clause shall apply to every apparatus connected to the air supply system.

6.13.2 A means shall be provided to enable the user to check that the manufacturer's minimum design flow rate is achieved or exceeded prior to a use of the equipment.

6.13.3 All devices shall be fitted with a warning facility that immediately draws the attention of the wearer during use to the fact that the manufacturer's minimum design flow rate is not being achieved.

If an audible warning device is incorporated in the apparatus the sound pressure level shall be not less than 90 dB(A) when measured at the ears of the wearer. The frequency range of the warning device shall be between 2000 Hz to 4000 Hz.

Testing in accordance with 7.2, 7.6 and 7.12.

6.14 Adjustable parts

All parts requiring manipulation by the wearer shall be readily accessible and easily distinguishable from one another by touch. All adjustable parts and controls shall be constructed so that their adjustment is not liable to accidental alteration during use. Parts that are not intended for adjustment by a wearer shall require the use of tools for their adjustment.

Testing in accordance with 7.2 and 7.6.

6.15 Hood

Note: It is proposed to include requirements for strength of hood materials when appropriate test methods and levels of performance are available from CEN/TC 162.

6.15.1 Lens(es) and visor

Lenses and anti-mist discs designed to serve as lenses shall be attached in a reliable manner to the hood.

Lenses and visors shall not distort vision as determined in practical performance tests.

When the apparatus is tested in accordance with 7.3.3, 7.4 and 7.6 vision shall remain adequate as assessed by the test subjects in 7.4 and 7.6.

Where anti-misting compounds are used they shall be compatible with the components of the hood, and shall not be known to be likely to cause adverse effects to the eyes and skin under normal conditions.

The mechanical resistance of the lens(es) or visor of hoods shall be tested in accordance with 7.13. After the test the hood shall meet the requirements of 6.4.

6.15.2 Field of vision

The field of vision shall be satisfactory when the apparatus is subjected to the practical performance tests described in 7.6.

In cases of dispute the method using the Stoll apertometer as described in clause 5.8 of EN 138:1989 shall be used for comparative tests.

6.15.3 Exhalation valves

The complete apparatus may be provided with one or more exhalation valves. Hoods which employ a drawstring neck seal shall have at least one exhalation valve.

Valve assemblies shall be such that they can be readily maintained and correctly replaced.

Where exhalation valves are used they shall function properly in all orientations.

The exhalation valve(s) shall be protected against or be resistant to dirt and mechanical damage. It may be shrouded or include any other device that may be necessary to comply with 6.4.

The exhalation valve(s) shall continue to operate after a continuous exhalation flow of 160 l/min plus the manufacturer's maximum design flow rate for (1 ± 0,1) min.

The exhalation valve housing shall be attached to the hood such that it withstands axially a tensile force of 50 N for (10 ± 1) s.

6.15.4 Breathing resistance

6.15.4.1 General

The requirements of 6.15.4.2 and 6.15.4.3 shall apply simultaneously to every apparatus connected to the air supply system.

6.15.4.2 Inhalation resistance

When tested in accordance with 7.14 the pressure in the hood shall not fall below zero.

6.15.4.3 Exhalation resistance

When tested in accordance with 7.14 the exhalation resistance shall not exceed 5 mbar.

6.15.5 Ease of removal

The hood shall be easily removable as assessed in accordance with 7.6.

6.16 Carbon dioxide content of the inhalation air

When tested in accordance with 7.15 the carbon dioxide content of the inhalation air shall not exceed an average of 1,0 % (by volume).

6.17 Noise inside the hood

The noise associated with the air supply to the hood is measured in accordance with 7.16, in the hood at the ears of the wearer and shall be not greater than 80 dB(A).

6.18 Leaktightness

With the maximum designed working pressure applied to the apparatus, the compressed air supply tube, couplings, continuous flow valve, if fitted, and breathing hose shall be tested for leak-tightness by immersion in water for 1 min. The test shall be applied after all other tests except that for flammability and the practical performance test. No bubbles shall be observed escaping from the apparatus.

7 Testing

7.1 General

If no special measuring devices or measuring methods are specified, commonly used methods and devices should be applied.

The flammability test in 7.5 shall be carried out on two unconditioned samples which are not then used for other tests.

The conditioning procedures described in 7.3.1 and 7.3.2 shall be completed on two further samples prior to the remaining tests being carried out.

The leaktightness test shall be carried out on the conditioned samples after all other tests except the pratical performance test. The practical performance test shall be carried out using the two conditioned samples after all other tests (with the exception of 7.5) have been completed.

Table 1 details the tests and requirement clause numbers.

In all tests, both samples need to meet the requirements.

Table 1. Testing schedule

Test clause	Title	Temperature conditioning to 7.3.1 and 7.3.2	Requirement clause
7.2	Visual inspection	Yes	6.1, 6.2, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14
7.3	Resistance to temperature	Yes	6.3
7.4	Inward leakage	Yes	6.4, 6.10.2, 6.15.1
7.5	Flammability	No	6.5
7.6	Practical performence	Yes	6.1, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.14, 6.15
7.7	Strength of breathing hose connections	Yes	6.7.3
7.8	Resistance to kinking of compressed air supply tube	Yes	6.11.1
7.9	Resistance to collapse of compressed air supply tube	Yes	6.11.2
7.10	Strength of compressed air supply tube, body harness and couplings	Yes	6.11.3
7.11	Heat resistance of compressed air supply tube	Yes	6.11.5 (optional)
7.12	Low flow indicator	Yes	6.13
7.13	Lens and visor	Yes	6.15.1
7.14	Breathing resistance	Yes	6.15.4
7.15	Carbon dioxide content of inhalation air	Yes	6.16
7.16	Noise inside the hood	Yes	6.17
7.17	Pressure reducer safety valve	Yes	6.10.4
-	Leaktightness	Yes	6.18

7.2 Visual inspection

A visual inspection is made by the appropriate testing authority prior to laboratory or practical performance tests. This may entail a certain amount of dismantling in accordance with the manufacturer's instructions for maintenance. The visual inspection shall include marking and instructions for use.

7.3 Resistance to temperature

7.3.1 Storage

The apparatus shall be exposed

a) for not less than 4 h but not more than 16 h to an atmosphere of (60 ± 3) °C and a relative humidity of not less than 95 %, followed by

b) for not less than 4 h but not more than 16 h to a temperature of (-30 ± 3) °C.

It shall then be allowed to return to ambient temperature.

7.3.2 Laboratory test after storage

After undergoing the procedure in accordance with 7.3.1, the apparatus is tested using a breathing machine at a minute volume of 50 l/min (25 cycles/min, 2 l/stroke) for 30 min.

Check that the continuous flow valve functions correctly in the closed position.

A check of the warning device shall be carried out.

7.3.3 Practical temperature tests at -6 °C

7.3.3.1 With cooled apparatus

7.3.3.1.1 Preparation

The hoods of two sets of apparatus are cleaned internally according to manufacturer's instructions and any excess liquid removed by shaking.

The sets of apparatus are then made ready for use and pre-cooled for not less than 2 h but not more than 3 h to a temperature of (-6 ± 3) °C.

7.3.3.1.2 Procedure

Two warmly clothed subjects don the apparatus in a cold chamber and perform work at an ambient temperature of (-6 ± 3) °C. The test is continuous, without removal of the apparatus, for 30 min.

The programme is divided into 5 min periods spent:

a) walking slowly,

b) crawling slowly,

c) carrying wooden blocks or similar over a distance of 6 m and stacking them to a height of approximately 1 m in a pattern as shown in figure 1. The wooden block dimensions are approximately 160 mm x 160 mm to give a mass of (7 ± 1) kg.

At the end of the test each apparatus is examined to check for malfunction due to low temperature.

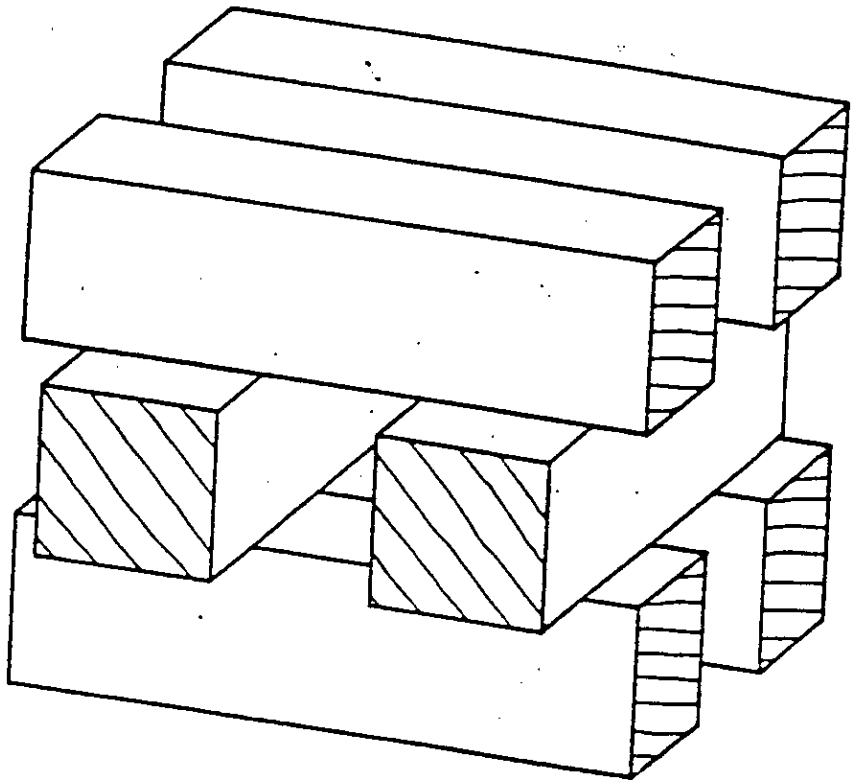


Figure 1. Wooden blocks as used in practical performance test

7.3.3.2 With apparatus at room temperature

7.3.3.2.1 Preparation

Two sets of apparatus are prepared ready for use and conditioned for not less than 2 h at (23 ± 2) °C.

7.3.3.2.2 Procedure

Two warmly clothed subjects don the apparatus at room temperature (approximately 20 °C) and enter a cold chamber at (-6 ± 3) °C. A similar test programme to that described in 7.3.3.1.2 is carried out for a period of 30 min. At the end of the 30 min period, examine the apparatus for malfunction.

7.4 Inward leakage

Inward leakage shall be measured using the procedures described in 5.4 of EN 136:1989 with the additional use of the supplementary fan as described in 6.1 of EN 146:1991. The experimental plan for the exercises shall be that given in 6.1.4 of EN 146:1991 and the expression of results as in 6.1.5 of EN 146:1991.

7.5 Flammability

7.5.1 Principle

The hood or component is mounted either on a dummy head (hood) or in a suitable manner on a rotating support arm and passed through a flame and the effects of the flame on the device observed.

7.5.2 Apparatus

7.5.2.1 A dummy head mounted on a support which enables it to be rotated to describe a horizontal circle (see figure 2). A facility to enable attachment of any other part of the device to the rotating support.

7.5.2.2 Gas supply rig consisting of a propane storage tank with flow control valve and pressure gauge, flash back arrester and a propane burner. The burner shall be adjustable in height.

A 'TEKLU' burner or that described in ISO 6941:1984/AMD 1:1992 has been found suitable [1].

7.5.2.3 Thermocouple, 1,5 mm diameter, mineral insulated.

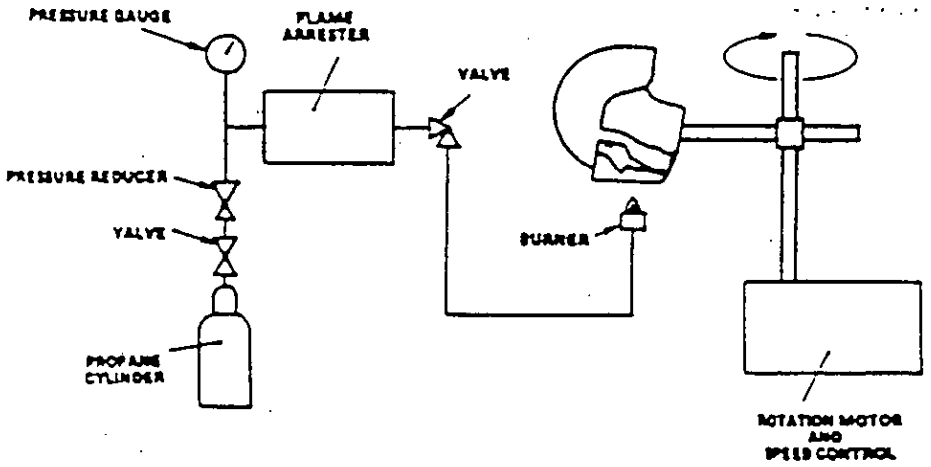


Figure 2. Arrangement for testing flammability

[1] Information on source available from the secretariat of CEN / TC 79.

7.5.3 Procedure

7.5.3.1 Hood

Fit the hood to the dummy head and ensure that a speed of rotation of (60 ± 6) mm/s can be obtained.

7.5.3.2 Other components

Fit the component to the support arm at such a radius that a speed of (60 ± 6) mm/s can be obtained.

7.5.3.3 Rotate the head and hood or component so that it is over the burner. Adjust the position of the burner such that the distance between the top of the burner and the lowest part of the apparatus which is to pass through the flame is (20 ± 2) mm. Rotate the head away from the burner.

Ignite the gas at the burner. Ensure that the burner air vent is fully closed and adjust the flow control valve to give a flame height of (40 ± 4) mm above the burner top. These settings shall give a flame temperature of (800 ± 50) °C at a point (20 ± 2) mm above the burner top.

Pass the hood or component once through the flame at the set speed of (60 ± 6) mm/s.

Repeat the test to enable an assessment to be made of all materials on the exterior of the apparatus. Any one component shall be passed through the flame once only.

7.5.4 Assessment and test report

Examine the hood or component after it has passed through the flame and report whether it continues to burn.

7.6 Practical performance test

7.6.1 General

Practical performance tests shall be carried out using two sets of apparatus and four different test subjects. Apparatus which has satisfied the laboratory tests shall be used. The test plan shall be as shown below:

Test subjects 1 and 2 use apparatus 1,

Test subjects 3 and 4 use apparatus 2.

7.6.2 Test subjects

Apparatus shall be tested by test subjects who practice regularly with breathing apparatus and whose medical history is known to be satisfactory. The subjects shall be medically examined and certified fit to undertake the test procedures.

The necessity of a medical examination immediately before the tests and medical supervision during the tests shall be decided by the testing officer.

7.6.3 Preparation of apparatus to be tested

Before each test check the apparatus for leak tightness.

Ensure that air supplies from compressed air systems or from compressed air cylinders are within the specified pressures. The length of the compressed air supply tube shall be of the maximum specified.

7.6.4 Test conditions

All tests shall be carried out at ambient temperature and the test temperature and humidity shall be recorded.

7.6.5 Work simulation test

The following activities shall be done in simulation of the practical use of the apparatus. The test be completed within a total working time of 30 min. The test shall be continuous without removal of the apparatus.

The sequence of activities is at the discretion of the test officer.

a) 30 pulls on a work machine, each pull being vertical from ' 3 m towards the ground on a mass of 25 kg,

b) walking on the level with full headroom (total distance 125 m)*,

c) walking on the level with headroom of (1,3 ± 0,2) m (total distance 200 m)*,

d) crawling on the level with headroom of (0,70 ± 0,05) m (total distance 100 m)*,

e) climbing up and down a ladder and passing once, in both directions, through a 460 mm square opening (total vertical distance 20 m)*,

f) carrying 22 sandbags (12 kg) individually over a distance of 10 m and placing them on a 1,5 m high wall.

* These operations may be split for the convenience of the test officer.

7.6.6 Information to be recorded

During the test the apparatus is subjectively assessed by the wearer and the following shall be recorded:

a) harness comfort,

b) security of fastenings and couplings,

c) accessibility of controls and pressure gauge (if fitted),

d) clarity of vision from the facepiece,

e) accessibility and ease of operation of the supplementary supply (if fitted),

f) ease of speech transmission,

g) effectiveness of audible warning device (if fitted),

h) manoeverability of the compressed air supply tube,

i) comfort of facepiece,

j) comments by the wearer on the ease of obtaining ambient air or the use of any emergency system provided,

k) any other comments volunteered by the wearer.

7.7 Strength of breathing hose connections

Apply 250 N as shown in figures 3 a) and 3 b).

Examine the apparatus for signs of failure.

7.8 Resistance to kinking of compressed air supply tube

Apply the minimum designed supply pressure to the supply end of the tube and ensure that the continuous flow valve, if fitted, is fully open. Connect a means of measuring air flow to the tube.

Figures 4 and 5 show the principle of the test and an outline of an apparatus that has proved satisfactory for this test.

Place a length of the tube on a horizontal surface and shape into a one-loop coil of (300 ± 10) mm diameter.

Pull the ends of the loop tangentially to the loop and in the plane of the loop until the tube takes the form of a straight line. It may be convenient to clamp one end of the loop and pull the other.

Observe the manner in which the tube unfolds and measure the air flow as it is unfolded.

7.9 Resistance to collapse of compressed air supply tube

7.9.1 Principle

A specified air flow is passed through the compressed air supply tube, a specified load is applied to the tube and the change in air flow measured.

7.9.2 Apparatus

An arrangement for testing is shown in figure 6.

7.9.2.1 Two metal plates 100 mm square or circular with a diameter of 100 mm and a thickness of at least 10 mm. One plate is fixed and the other is capable of moving at right angles to the plane of the plates. The moving plate is capable of being loaded to ensure a total force of 1000 N can be applied between the plates.

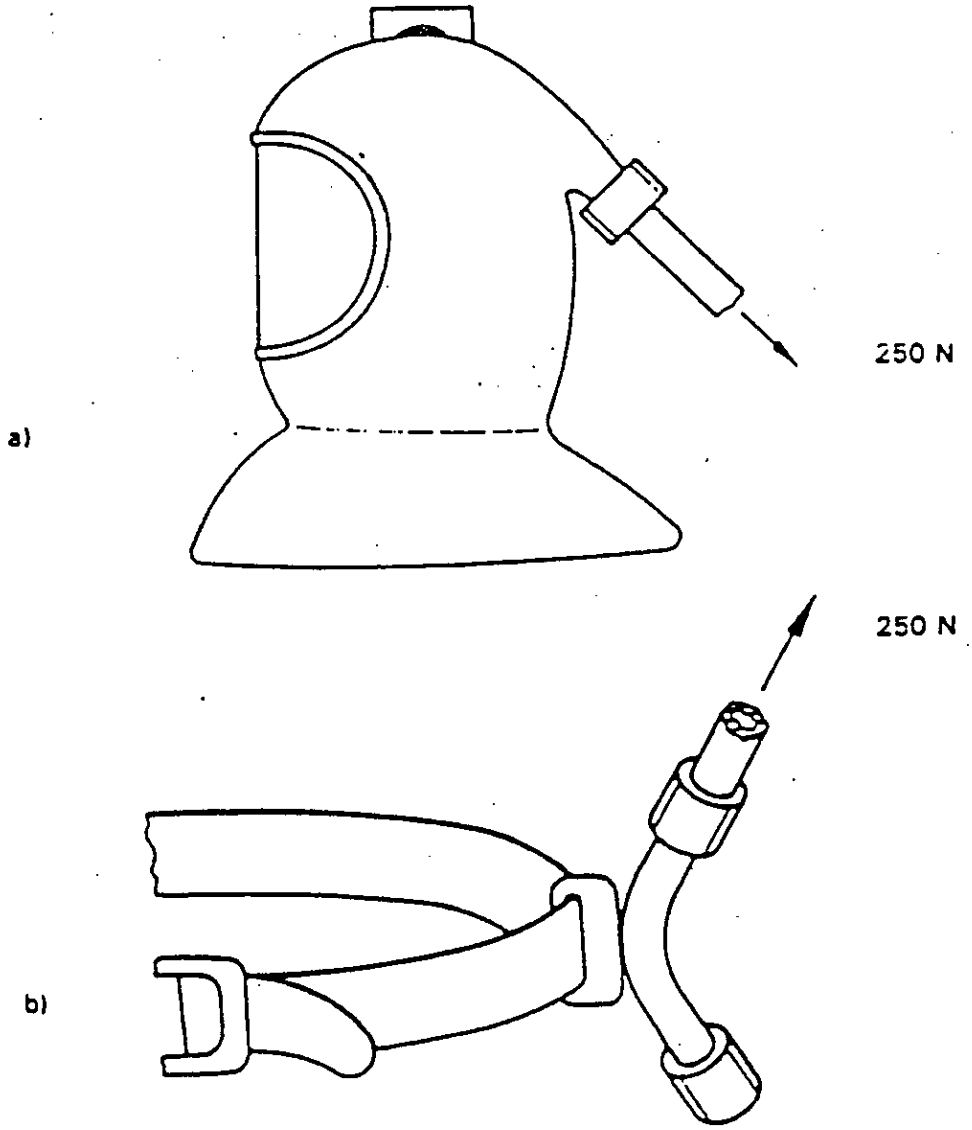


Figure 3. Arrangement for testing strength of breathing hose connections

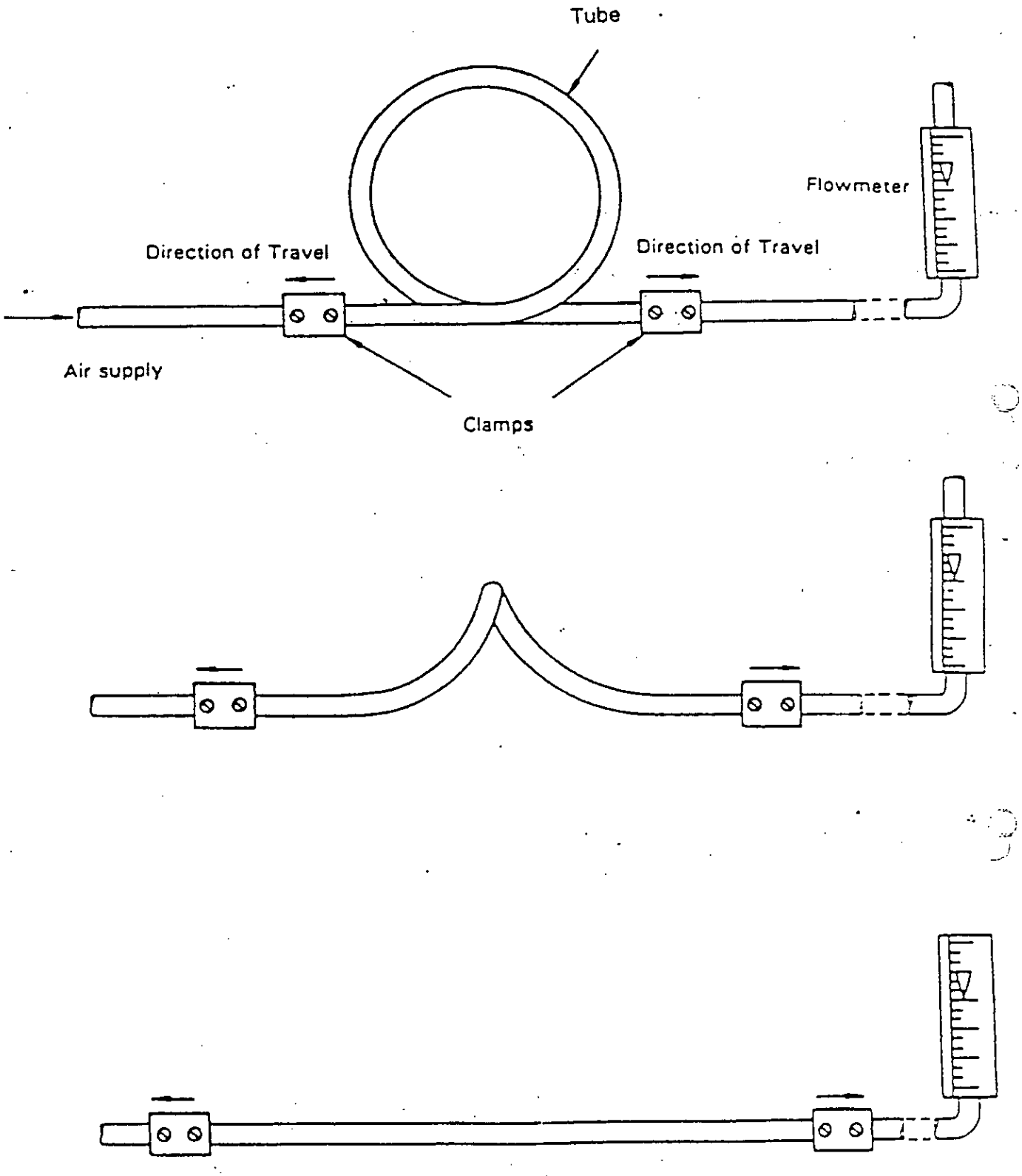
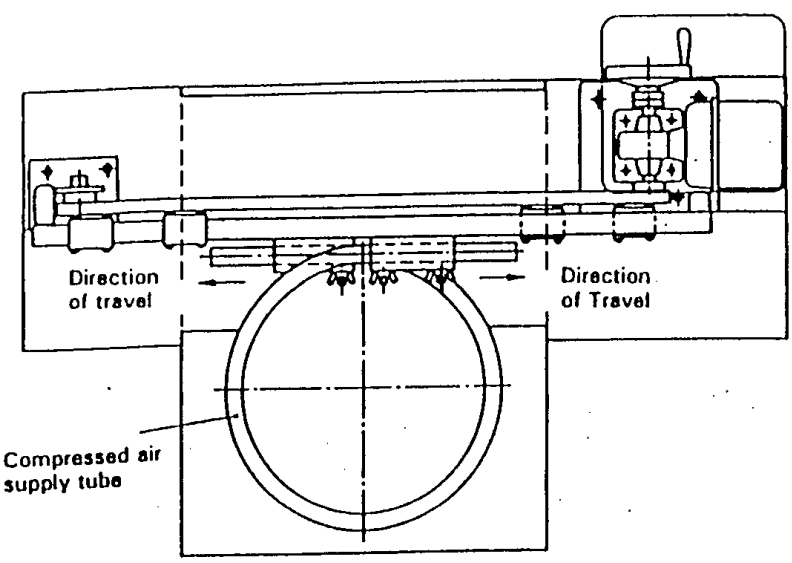
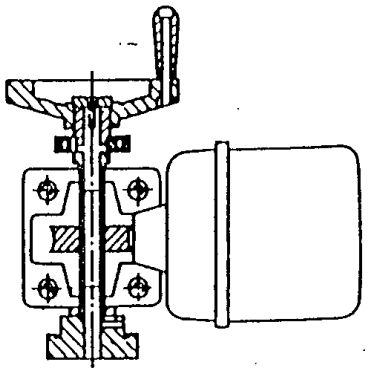
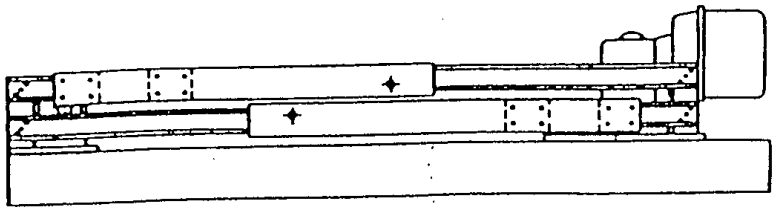


Figure 4: Arrangement for testing kinking of compressed air supply tube

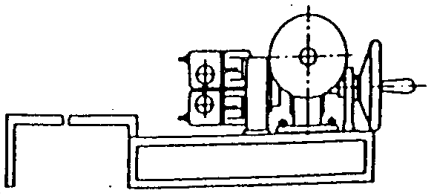




Section B - B



View does not show pipe or clamps



Section A - A not showing hose pipe

Figure 5. Arrangement for testing kinking of compressed air supply tube

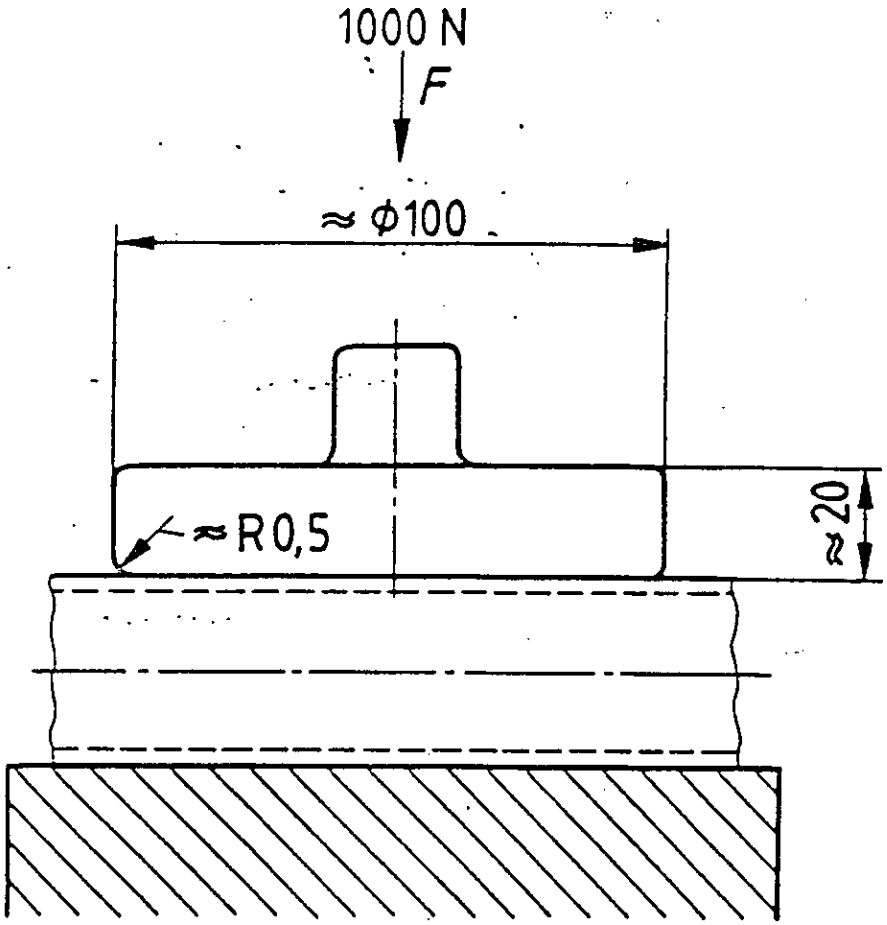


Figure 6. Arrangement for testing collapse of compressed air supply tube

7.9.2.2 Flowmeter.

7.9.3 Procedure

Place the compressed air supply tube centrally between the two plates and pass the manufacturer's design air flow or 120 l/min whichever is the less through the tube. Record the flow.

Apply a force of 1000 N (which includes that due to the moveable plate itself) to the moveable plate and measure the air flow again.

7.10 Strength of compressed air supply tube, body harness and couplings

The belt or body harness with couplings and continuous flow valve (if present) is secured to a dummy torso in an upright position. A steady pull of 1000 N is applied to the air supply tube in the direction of its axis for 5 min. Figure 7 shows suitable test details.

Dimensions in mm

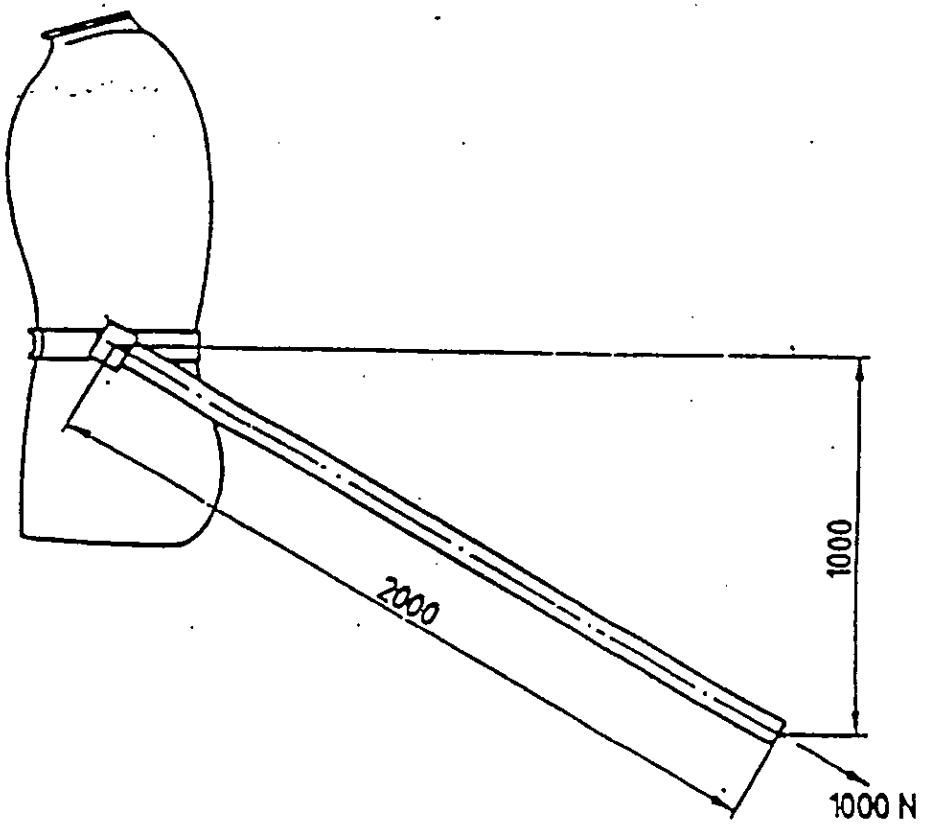


Figure 7 Arrangement for testing strength of body harness or belt, compressed air supply tube and couplings

7.11 Heat resistance of compressed air supply tube

With the compressed air supply tube at maximum working pressure, the apparatus is tested on a breathing machine at 25 cycles/min and 2 l/stroke with the flow control valve set at the minimum flow rate. Approximately 100 mm of the compressed air supply tube is placed in contact with a hot plate maintained at (130 ± 15) °C and a further part immersed in boiling water.

After 15 min remove the compressed air supply tube from the hot plate and the boiling water, examine for signs of damage and check that the quality of the air passing through the hose has not been significantly affected.

7.12 Low flow indicator

7.12.1 Apparatus

7.12.1.1 Sheffield dummy head/torso connected to a variable suction device and flowmeter.

7.12.1.2 Lightweight plastics bag to seal around hood and breathing hose

7.12.2 Procedure

7.12.2.1 Mount the hood on the dummy head/torso which is connected to the suction device and flowmeter.

7.12.2.2 Seal a lightweight plastics bag round hood and breathing hose.

7.12.2.3 Connect up the air supply system and low flow indicator device in accordance with the manufacturer's instructions for use.

7.12.2.4 Fully close the supply valve (if fitted) and adjust the supply pressure to the input of the compressed air supply tube until the low flow warning functions.

7.12.2.5 Adjust the variable suction device connected to the flowmeter until zero pressure is measured in the plastics bag. At this point the flow being measured on the flowmeter is equal to the flow being delivered to the flowmeter.

7.12.2.6 If an audible warning device is incorporated on the equipment being worn, measure the sound pressure level at a position equivalent to that of the ears of the wearer.

7.12.3 Report

7.12.3.1 Whether or not the flow measured in 7.12.2.5 is greater or equal to the manufacturer's minimum design flow rate.

7.12.3.2 The average sound pressure level measured in 7.12.2.6.

7.13 Mechanical resistance of lens or visor

The mechanical resistance is tested using a complete assembled hood mounted on a dummy head with air supplied to the hood. A steel ball (22 mm diameter, approx. 44 g) is allowed to fall normally from a height of 130 cm on to the centre of the lens.

7.14 Breathing resistance

Fit the hood to a dummy head and torso (figures 8 and 9). Ensure that the maximum length of compressed air supply tube is submitted with the apparatus for test and that half of this length is coiled to an inside diameter of 300 mm. Where the compressed air supply tube is intended to be extendable by the joining of multiple lengths of tube then the total maximum length recommended by the manufacturer is fitted and extended as straight as practicable (coils not less than 200 mm in diameter).

Connect a breathing machine to the dummy head and operate it at 25 cycles/min and 2,0 l/stroke.

Measure the breathing resistance between the opening for the mouth and the nose of the dummy head under the following conditions:

a) Inhalation resistance

With the continuous flow valve, if fitted, fully closed at the minimum stated working pressure.

b) Exhalation resistance

With the continuous flow valve, if fitted, fully open at the maximum stated working pressure. The exhalation resistance is measured with the Sheffield head successively placed in 5 defined orientations. These orientations shall be: with the visor of the hood looking ahead, vertically upwards, vertically downwards, and then with the normally vertical axis of the head horizontal, with the head looking to the right and to the left.

7.15 Carbon dioxide content of inhalation air

Fit the hood on a dummy head and torso as shown in figures 8 and 9.

Set the air flow to the hood at the minimum air flow condition specified by the manufacturer. For the test a breathing machine is used adjusted to 25 cycles/min and 2,0 l/stroke and the exhaled air shall have a carbon dioxide content of 5 % by volume.

A typical test arrangement is shown in figure 10.

Continue the test until a constant carbon dioxide content in the inhalation air is achieved.

Record the level of carbon dioxide.

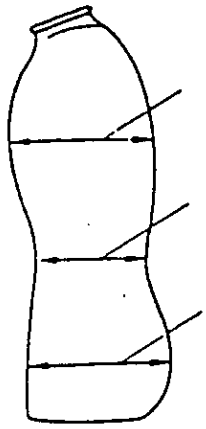
7.16 Noise inside the hood

7.16.1 Principle

The device is worn by a test subject and the noise level (in dB(A)) measured at the subject's ears inside the device.

7.16.2 Apparatus

7.16.2.1 Microphones capable of being fitted inside the hood to be tested at the wearer's ears.

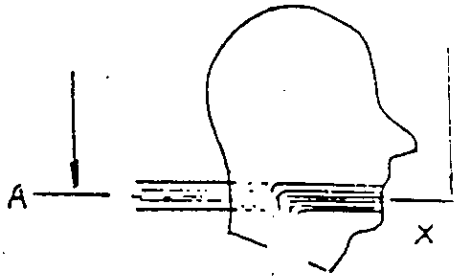


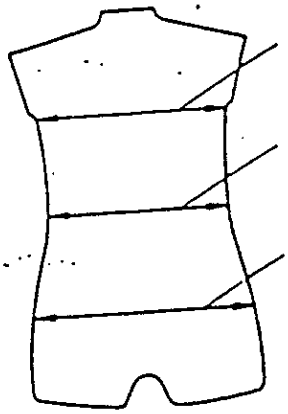
Dimensions in mm

Horizontal depth of chest 260

Horizontal depth of waist 250

Horizontal depth of buttocks 260



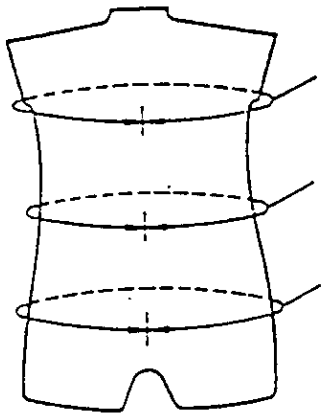


Horizontal breadth of chest 380

Horizontal breadth of waist 330

Horizontal breadth of hips 400

Sheffield head



Horizontal circumference of chest 1030

Horizontal circumference of waist 960

Horizontal circumference of hips 1100

Insert for measuremer
of breathing resistance

Dummy torso

Figure 8. Sheffield head for measurement of carbon dioxide in inhalation air and breathing resistance. Example of dummy torso

Dimensions in mm

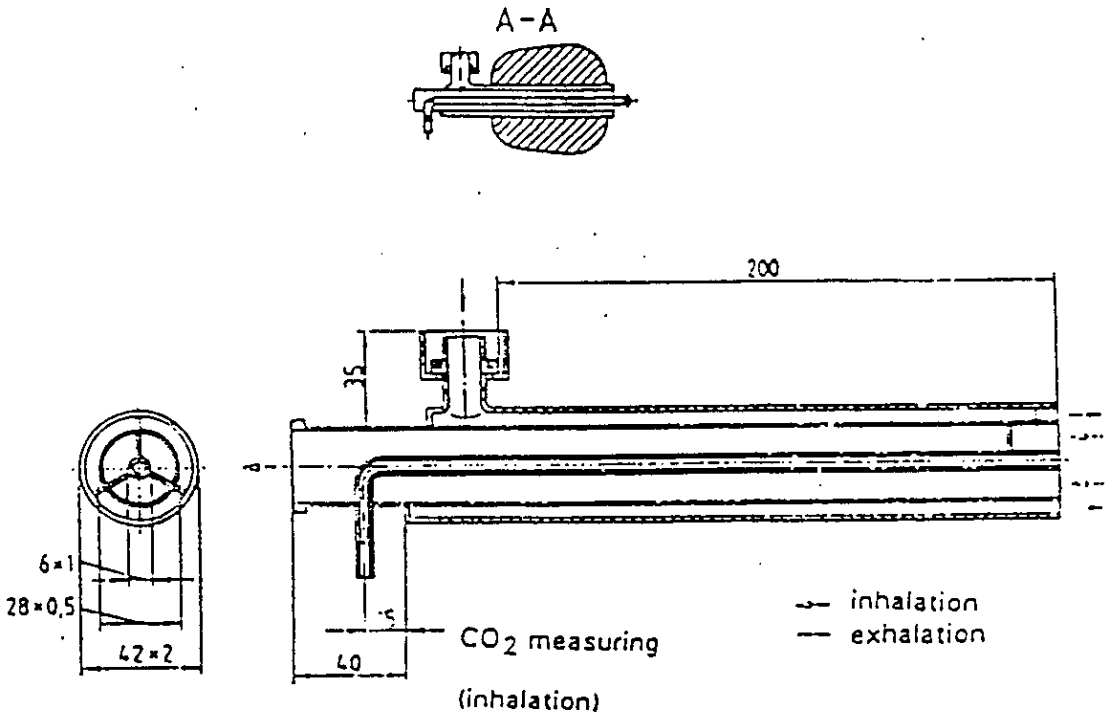
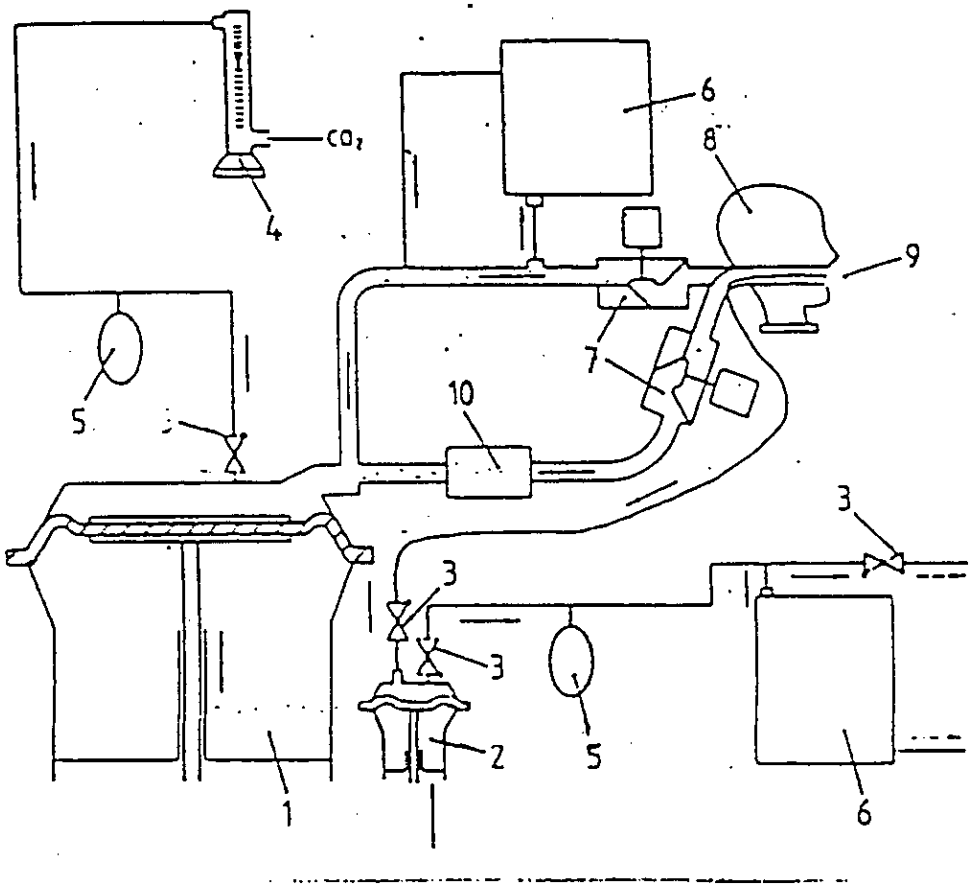


Figure 9. Arrangement of Sheffield head for measuring carbon dioxide content of inhalation air



1 Breathing machine
2 Auxiliary lung
3 Non-return valve
4 Flowmeter
5 Compensator
6 Carbon dioxide analyser
7 Solenoid valve
8 Dummy head
9 Sampling tube for inhalation air
10 Carbon dioxide absorber

Figure 10. Arrangement for testing carbon dioxide content of inhalation air

7.16.2.2 Suitable sound level meters are specified for example in IEC 651:1979, type 1 or type 2.

7.16.3 Procedure

Calibrate the sound level meter in accordance with the manufacturer's instructions.

Fix the microphones to the test subject at the centres of each of the external ears and level with the tragions.

Have the test subject don the hood.

Supply the hood with air at the extremes of the manufacturer's specified pressure and air flow ranges. Measure the sound pressure level at each of the two ears with the sound level meter set to indicate frequency weighting characteristics A.

Check that the background noise level in the test room is not less than 10 dB(A) lower than that measured for the device and adjust the background level as necessary to meet this condition and repeat the measurements.

Report the maximum and minimum levels as the noise generated by the device.

7.17 Pressure reducer safety valve

Connect the apparatus including the hood to a breathing machine with the hood on a Sheffield dummy head and torso.

Adjust the breathing machine to operate at 25 cycles/min and 2 l/stroke.

With the breathing machine not operating, connect a flow measuring device to the outlet of the pressure reducer safety valve and supply air to the medium pressure side of the reducer. Increase the air supply pressure slowly until an air flow of 400 l/min passes through the pressure reducer safety valve. When this condition has been established switch the breathing machine on and measure the breathing resistance at the appropriate pressure sample point.

8 Marking

8.1 All units of the same model shall be provided with a type-identifying marking. Sub-assemblies and piece parts with considerable bearing on safety shall be marked so that they can be identified. The manufacturer shall be identified by name, trademark or other means of identification.

8.2 Where the reliable performance of piece parts may be affected by ageing, the date (at least the year) of manufacture shall be marked. For parts which cannot be marked the relevant information shall be included in the instructions for use.

8.3 The compressed air supply tube shall be marked with:

8.3.1 Manufacturer's name, trade mark or other means of identification.

8.3.2 Year of manufacture.

8.3.3 If appropriate "heat resistant".

8.3.4 If appropriate "antistatic".

8.4 The apparatus shall be marked with:

8.4.1 Manufacturer's name, trade mark or other means of identification.

8.4.2 Year of manufacture.

8.4.3 The number of this European Standard.

8.4.4 The serial number.

8.4.5 The temperatures the apparatus is designed to withstand if different from those in this standard.

8.5 The marking shall be as clearly visible and as durable as possible.

9 Instructions for use

9.1 Instructions for use in the official language(s) of the country of application shall accompany every apparatus on delivery enabling trained and qualified persons to use it. These instructions shall comprise the range of application and instructions necessary for correct fitting, care, maintenance and storage.

It is recommended that maintenance instructions be provided separately to instructions for use.

9.2 Other instructions shall comprise:

9.2.1 Correct selection and fitting of the hood.

9.2.2 Whether or not designed for use in low or high temperature.

9.2.3 The maximum length of compressed air supply tube.

9.2.4 The pressure range of the air supply to the apparatus.

9.2.5 The working pressure of the compressed air supply tube.

9.2.6 The maximum and minimum flow in l/min of the air supply to the apparatus.

9.2.7 Where appropriate a warning that adequate protection may not be provided by the apparatus in certain highly toxic atmospheres.

9.2.8 A warning that at very high work rates the pressure in the hood may become negative at peak inhalation flow.

9.2.9 A warning concerning the need to ensure the purity and identity of the breathing air supply.

9.2.10 A warning against excessive moisture of the breathable air to the effect that when apparatus is to be used in temperatures below 4 °C the moisture content of the breathable air should be controlled to avoid freezing the apparatus.

9.2.11 A warning against the use of oxygen or oxygen enriched air.

9.2.12 A recommendation that the user is advised to check that the supply pressure and flow available are in accordance with the instructions for use.

9.2.13 Suitability of the equipment for use in flammable atmosphere.

9.2.14 Any other information the supplier may care to provide.

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Unterbau 71 1/8
82383 Hohenpeißenberg
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Az

Ohne Begleitschreiben übersandt mit der Bitte um

- o Erledigung
- o Kenntnisnahme
- o Bearbeitung
- o Beantwortung
- o Anruf
- o weitere Veranlassung
- ☒ Verbleib
- o Rückgabe
- o Weitergabe
- o mit Dank zurück
- o Unterschrift

Ihr

☒ Anruf o Besuch o Schreiben

Anlage

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Herrn Schick
Postfach 1828

70799 Kornwestheim

Kurzmitteilung:

Sehr geehrter Herr Schick,
wie mit Ihnen telefonisch besprochen, senden wir Ihnen die Unterlagen zu.

Hohenpeißenberg, den 10.10.97

Mit freundlichen Grüßen
i.A. Sa