



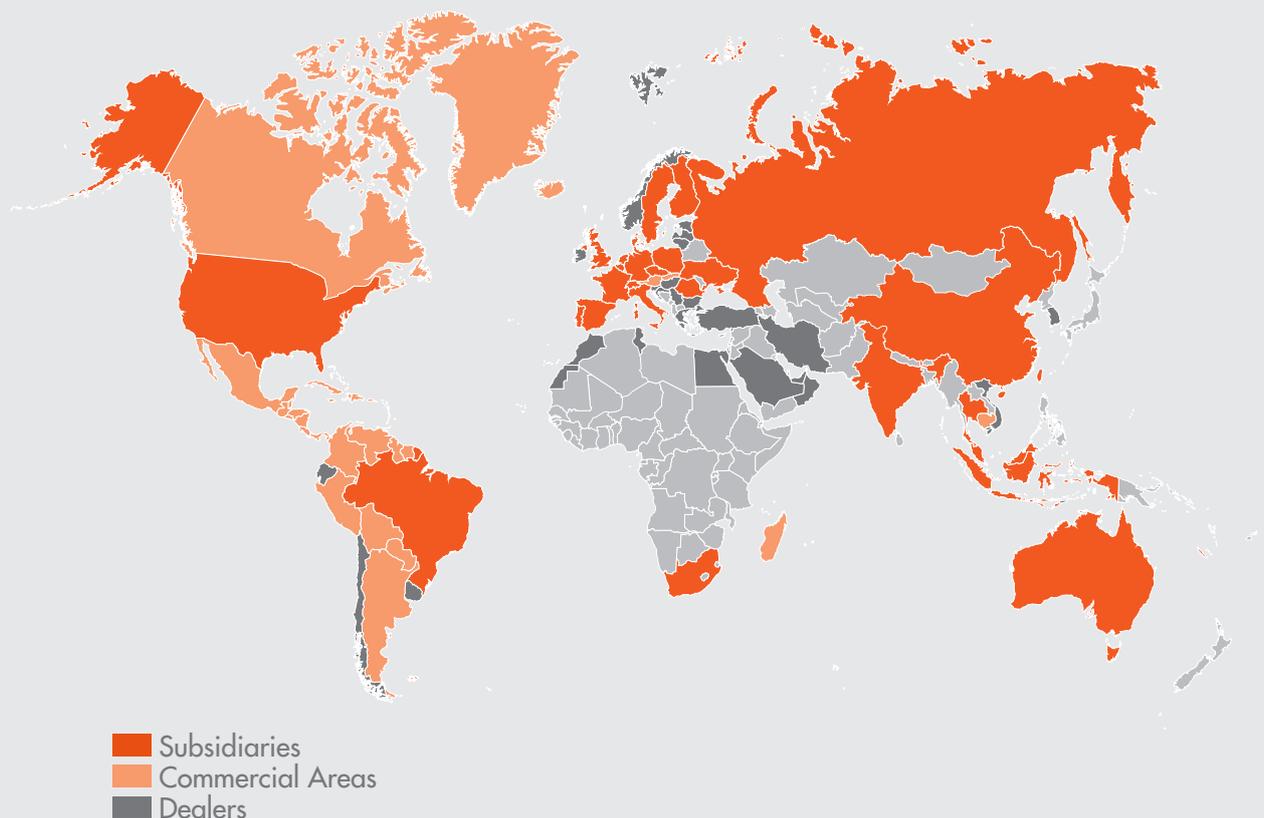
Complementary products
hose and quick connectors

A worldwide company

Metal Work was founded in 1967 and produced push-in fittings for compressed air systems. Since then the company has gradually extended its structure and production range to become a market leader in pneumatic fittings for automation systems.

The main production plant in Concesio, near Brescia, now has a total workforce of over 400. The Italian and worldwide sales network has a further 700 employees.

Product distribution and technical assistance are entrusted to more than 50 Italian and worldwide branches that offer an extensive pre and after sales service. Product quality and an efficient commercial organisation are the basis of the Metal Work model. These qualities enable the company to meet all possible requirements in terms of pneumatic automation.



World Sales Network

Metal Work Danmark

I dag er automationssystemer vigtige for enhver produktion, hvor integrationen af digitale værktøjer er med til at sikre hurtige og mere effektive produktionsprocesser samt ensartede resultater – uanset industri.

Globale løsninger forankret lokalt

Metal Work blev grundlagt i Italien i 1967 og vi har siden specialiseret os i pneumatiske komponenter til automationssystemer på tværs af industrier i hele verden. Metal Work Danmark A/S blev etableret i 1986, og i dag er vi 18 kompetente medarbejdere, som rådgiver og leverer kundespecifikke automationsløsninger til produktionsvirksomheder på tværs af den danske industri.

Mennesker er afgørende for din og vores succes

Hos Metal Work Danmark er medarbejderne vores vigtigste ressource. Vores dygtige rådgivere har mange års erfaring og tilbyder tekniske løsningsforslag baseret på den nyeste viden inden for pneumatik og automation. I tæt samarbejde med dig og med udgangspunkt i din produktion sammensættes automationsløsninger, som er med til at sikre dig hurtige og mere effektive produktionsprocesser. Og med vores egne produktionsanlæg tilbyder vi hurtig leveringstid på alle vores produkter.

Kvalitet i design, produktion og distribution

Når du samarbejder med Metal Work, er du altid garanteret høj kvalitet i alle faser. Vi er en fuldt automatiseret produktionsvirksomhed, som er ISO 9001-certificeret, hvilket er din garanti for at alle vores produkter opfylder kundespecifikke krav samt relevante lov- og myndighedskrav. Stort set alle vores produkter produceres på vores egne fabrikker, hvilket gør det muligt for os at overvåge hele processen – fra valg af råvarer til slutmontering og test i din produktion.



Metal Work Sverige

I dag är automationssystem viktiga för alla produktioner, där integrationen av digitala verktyg finns för att säkra snabba och mer effektiva produktionsprocesser och konsekventa resultat, oavsett industri.

Globala lösningar förankrade lokalt

Metal Work grundades i Italien 1967 och vi har sedan dess specialiserat oss på pneumatiska komponenter till automationssystem över hela världen. Metal Work Sverige AB etablerades 1988 och idag är vi 14 kompetenta medarbetare som hjälper och levererar kundspecifika automationslösningar till produktionsverksamheter åt hela den svenska industrin.

Människor är avgörande för din och vår framgång

Hos Metal Work Sverige är medarbetare vår viktigaste resurs. Våra duktiga rådgivare har många års erfarenhet och erbjuder tekniska lösningsförslag baserade på den senaste kunskapen inom pneumatik och automation. I nära samarbete med er, med utgångspunkt från er produktion, komponeras automationslösningar som bidrar till att säkra snabba och mer effektiva produktionsprocesser för er som kund. Med vår egna produktionsanläggning erbjuder vi snabba leveranstider på alla våra produkter.

Kvalitet i design, produktion och distribution

När ni samarbetar med Metal Work är ni garanterad en hög kvalitet i alla faser. Vi är en fullt automatiserad produktionsverksamhet, som är ISO 9001-certifierad, vilket är din garanti för att alla våra produkter uppfyller kundspecifika krav samt relevanta lag och myndighetskrav. I stort sett alla våra produkter produceras på våra egna fabriker, vilket gör det möjligt för oss att övervaka hela processen, från val av råvaror till slutmontering och test i er produktion.



Metal Work Finland

Metal Work Finland Oy perustettiin 2001. Konttori ja varastomme sijaitsevat Järvenpäässä, jossa työskentelee tällä hetkellä 6 pneumatiikan ammattilaista. Olemme joustava ja asiakaslähtöinen yritys joka tunnetaan hyvästä ja nopeasta palvelusta sekä korkeasta toimitusvarmuudesta. Kansainvälisenä yhtiönä Metal Work tarjoaa asiakkailleen kattavan myyntiorganisaation sekä asiantuntijaverkoston ympäri maailman. Samalla meille on tärkeää tarjota asiakkaillemme tehokkaimmat ratkaisut ja palvelut paikallisesti.

Näitä palveluita ovat mm.

Myynti ja neuvonta pneumatiikka komponentteja valittaessa

Tekninen tuki

Varastointi sopimukset

Sovellukset ja osakokonaisuudet

Erikoistuotteet

Venttiiliasennelmat

Metal Work maailmalla

Metal Work on Italialainen yritys joka on erikoistunut valmistamaan pneumatiikka tuotteita. Yritys on perustettu vuonna 1967. Tehdas sijaitsee Bressiassa jossa työskentelee 400 henkilöä, kotimaan ja maailman myyntiorganisaatiossa lisäksi 700 henkilöä.

Metal Work sai vuonna 1992 ISO 9001 sertifikaatin ollen ensimmäinen alan yritys Italiassa jolle se myönnettiin. Vuonna 2000 yritys sai ISO 14001 sertifikaatin.

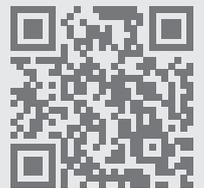
Työterveyden ja -turvallisuuden hallintajärjestelmän takaamiseksi Metal Work sai vuonna 2007 brittiläisen OHSAS 18001 -standardin, ja siirtyi sitten ISO 45001 -standardiin vuonna 2019. Kyseiset sertifikaatit on myöntänyt TGA- akkreditoitu DEKRA ITS. Tuotteiden jakelua ja teknistä tukea asiakkaillemme hoitaa 45 Metal Workin toimipistettä ympäri maailman.

Tuotteiden korkea laatu sekä tehokas myyntiorganisaatio ovat perustana sille, että Metal Work täyttää markkinoiden eri vaatimukset pneumaattisille järjestelmille automaatiassa.





Metal Work
complete range of products
please see our e-catalogue



PNEUMATIC HOSE

| | |
|--|-------|
| ● PA 11 PHL | A1.2 |
| ● PA 11 PHL Spiral hose | A1.4 |
| ● PA 12 PHL MB-LONGLIFE® | A1.6 |
| ● PA 12 EXTRAFLEX MB-LONGLIFE® | A1.8 |
| ● RILSAN® HIGH TEMPARTURE | A1.10 |
| ● PA 12 ANITSTATIC | A1.11 |
| ● PA 12 PHLY | A1.12 |
| ● PA MB-TEC™ | A1.14 |
| ● POLYURETHANE 98 MB-LONGLIFE® | A1.15 |
| ● POLYURETHANE 1190 EXTRAFLEX Spiral hose | A1.17 |
| ● POLYURETHANE 1198 ANTI U.V. (UV-resistant) | A1.19 |
| ● SPARK RESISTANT POLYURETHANE | A1.20 |
| ● P T F E | A1.21 |
| ● KYNAR® IPVDF HD 4000 | A1.22 |
| ● LOW DENSITY POLYETILENE | A1.23 |
| ● LINEAR LOW DENSITY POLYETHYLENE | A1.25 |
| ● PUR ON POLYETHER BASIS - TRANSLUCENT | A1.26 |
| ● PUR ON POLYESTER BASIS | A1.27 |
| ● PUR ON POLYETHER BASIS - FULL COLOR | A1.28 |
| ● FLAMEX HYBRID® -A- (AIR) | A1.29 |
| ● FLAMEX HYBRID® -HD- (HEAVY DUTY) | A1.30 |
| ● FLAMEX HYBRID® -W- (WATER) | A1.31 |
| ● KKS-NEO | A1.32 |
| ● A:S:S® | A1.33 |
| ● AGRARPUR® | A1.34 |
| ● PUR DUO ON POLYETHER BASIS | A1.35 |
| ● PUR DUO SPIRAL ON POLYETHER BASIS | A1.36 |

PA 11 PHL Linear flexible hose



PNEUMATIC HOSE

PA 11 PHL - Linear flexible hose

DIN 73378/74324 - RESIN FEATURES

- Tube in bio-polyamide 11 of vegetable origin derived from castor oil
- Plasticized, light and heat stabilized
- Produced with raw materials designed to meet DIN 73378/74324 standards

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 3 = Black / 4 = Natural / 5 = Green / 6 = Yellow / 7 = Red

Other colours on request.

STANDARD LENGTH

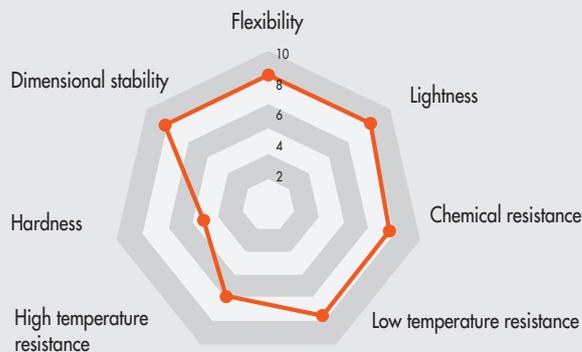
▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

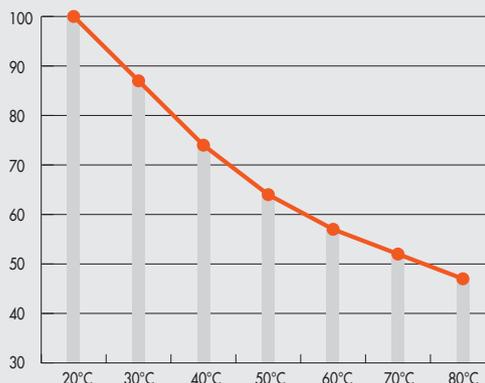
GRADE ALTERNATIVES

- PHL superflexible
- HL rigid
- HL rigid and food grade

TECHNICAL FEATURES Tube Rilsan® PA11



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +80°C)



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APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



Breaking systems truck trailers



Robotics



Cluth system



Chemical resistance



Petroleum based chemical transfer



Pest control lines

| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors |
|-----------------|----------------------|-------|--------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| Only on request | 2 ± 0.07 | 1 | 0.5 ± 0.07 | 2.4 | 10 | 44 | 3-4 |
| Only on request | 3 ± 0.07 | 1 | 1 ± 0.07 | 6.6 | 10 | 66 | 4 |
| Only on request | 4 ± 0.07 | 1 | 1.5 ± 0.07 | 12.4 | 10 | 80 | 4 |
| Only on request | 2.5 ± 0.07 | 1.5 | 0.5 ± 0.07 | 3.3 | 10 | 33 | 3-4 |
| Only on request | 3 ± 0.07 | 1.5 | 0.75 ± 0.07 | 5.6 | 10 | 44 | 3-4 |
| Only on request | 3.17 ± 0.07 | 1.6 | 0.785 ± 0.07 | 6.2 | 10 | 43 | 3-4 |
| Only on request | DIN 3 ± 0.07 | 2 | 0.5 ± 0.07 | 4.1 | 15 | 26 | 3-4 |
| Only on request | DIN 4 ± 0.07 | 2 | 1 ± 0.07 | 9.9 | 15 | 44 | 2-3-4 |
| Only on request | DIN 4 ± 0.07 | 2.3 | 0.85 ± 0.07 | 8.9 | 15 | 35 | 4 |
| Only on request | 3 ± 0.07 | 2.5 | 0.25 ± 0.07 | 2.2 | 30 | 12 | 4 |
| Only on request | DIN 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 8.1 | 15 | 30 | 2-3-4 |
| 999280 ■ - ▲ | 4 ± 0.07 | 2.7 | 0.65 ± 0.07 | 7.2 | 20 | 25 | 2-3-4-6 |
| Only on request | 4 ± 0.07 | 3 | 0.5 ± 0.07 | 5.8 | 25 | 19 | 3-4 |
| Only on request | DIN 5 ± 0.07 | 3 | 1 ± 0.07 | 13.3 | 20 | 33 | 3-4 |
| Only on request | DIN 6 ± 0.07 | 3 | 1.5 ± 0.07 | 22.4 | 20 | 44 | 3-4 |
| Only on request | 5 ± 0.07 | 3.5 | 0.75 ± 0.07 | 10.6 | 25 | 23 | 3-4 |
| Only on request | 6 ± 0.07 | 3.5 | 1.25 ± 0.07 | 19.7 | 20 | 35 | 3-4 |
| Only on request | 5 ± 0.07 | 4 | 0.5 ± 0.07 | 7.4 | 40 | 14 | 4 |
| 999261 ■ - ▲ | DIN 6 ± 0.07 | 4 | 1 ± 0.07 | 16.6 | 30 | 26 | 2-3-4-5-6-7 |
| Only on request | DIN 8 ± 0.07 | 4 | 2 ± 0.07 | 39.9 | 25 | 44 | 3-4 |
| Only on request | 6.35 ± 0.07 | 4.35 | 1 ± 0.07 | 17.8 | 30 | 24 | 3-4 |
| Only on request | 6 ± 0.07 | 4.5 | 0.75 ± 0.07 | 13.1 | 40 | 19 | 3-4 |
| Only on request | 7 ± 0.07 | 5 | 1 ± 0.07 | 19.9 | 40 | 22 | 3-4 |
| Only on request | DIN 8 ± 0.07 | 5 | 1.5 ± 0.07 | 32.4 | 30 | 30 | 3-4 |
| 999263 ■ - ▲ | DIN 8 ± 0.07 | 6 | 1 ± 0.07 | 23.3 | 50 | 19 | 2-3-4-5-6-7 |
| Only on request | DIN 10 ± 0.07 | 6 | 2 ± 0.07 | 53.3 | 35 | 33 | 3-4 |
| Only on request | 10 ± 0.07 | 6.5 | 1.75 ± 0.07 | 48.1 | 40 | 28 | 3-4 |
| Only on request | 9 ± 0.07 | 7 | 1 ± 0.07 | 26.6 | 65 | 16 | 3-4 |
| Only on request | 9.52 ± 0.07 | 7 | 1.26 ± 0.07 | 34.6 | 55 | 20 | 3-4 |
| Only on request | DIN 10 ± 0.07 | 7 | 1.5 ± 0.07 | 42.4 | 50 | 23 | 3-4 |
| Only on request | DIN 10 ± 0.07 | 7.5 | 1.25 ± 0.07 | 36.4 | 60 | 19 | 3-4 |
| 999264 ■ - ▲ | DIN 10 ± 0.07 | 8 | 1 ± 0.07 | 29.9 | 80 | 14 | 2-3-4-5-6-7 |
| Only on request | DIN 12 ± 0.1 | 8 | 2 ± 0.07 | 66.6 | 55 | 26 | 3-4 |
| Only on request | DIN 12 ± 0.1 | 9 | 1.5 ± 0.07 | 52.4 | 75 | 19 | 2-3-4-6 |
| Only on request | 12.7 ± 0.1 | 9.52 | 1.59 ± 0.07 | 58.8 | 75 | 19 | 3-4 |
| 999265 ■ - ▲ | 12 ± 0.1 | 10 | 1 ± 0.07 | 36.6 | 115 | 12 | 2-3-4-6 |
| Only on request | DIN 14 ± 0.1 | 10 | 2 ± 0.07 | 79.9 | 75 | 22 | 3-4 |
| Only on request | 14 ± 0.1 | 11 | 1.5 ± 0.07 | 62.4 | 100 | 16 | 3-4 |
| Only on request | 15 ± 0.1 | 11 | 2 ± 0.07 | 86.6 | 85 | 20 | 3-4 |
| 999268 ■ - ▲ | 14 ± 0.1 | 12 | 1 ± 0.07 | 43.3 | 155 | 10 | 2-3-4-6 |
| Only on request | DIN 15 ± 0.1 | 12 | 1.5 ± 0.07 | 67.4 | 115 | 14 | 3-4 |
| 999266 ■ - ▲ | DIN 16 ± 0.1 | 12 | 2 ± 0.07 | 93.3 | 95 | 19 | 3-4 |
| Only on request | 15 ± 0.1 | 12.5 | 1.25 ± 0.07 | 57.2 | 140 | 12 | 2-3-4 |
| Only on request | DIN 15 ± 0.1 | 13 | 1 ± 0.07 | 46.6 | 180 | 9 | 3-4 |
| Only on request | 16 ± 0.1 | 13 | 1.5 ± 0.07 | 72.4 | 130 | 13 | 3-4 |
| Only on request | 16 ± 0.1 | 14 | 1 ± 0.07 | 49.9 | 205 | 8 | 2-3-4 |
| Only on request | DIN 18 ± 0.1 | 14 | 2 ± 0.07 | 106.6 | 125 | 16 | 3-4 |
| Only on request | 18 ± 0.1 | 15 | 1.5 ± 0.07 | 82.4 | 170 | 12 | 3-4 |
| Only on request | 18 ± 0.1 | 16 | 1 ± 0.07 | 56.6 | 260 | 7 | 3-4 |
| Only on request | DIN 20 ± 0.1 | 16 | 2 ± 0.07 | 119.9 | 155 | 14 | 3-4 |
| Only on request | 20 ± 0.1 | 18 | 1 ± 0.07 | 63.3 | 320 | 7 | 4 |
| Only on request | 22 ± 0.1 | 18 | 2 ± 0.07 | 133.3 | 185 | 13 | 3-4 |
| Only on request | 22 ± 0.1 | 19 | 1.5 ± 0.07 | 102.4 | 255 | 9 | 3-4 |
| Only on request | 25 ± 0.15 | 19 | 3 ± 0.07 | 219.9 | 155 | 18 | 3-4 |
| Only on request | 24 ± 0.1 | 20 | 2 ± 0.07 | 146.6 | 225 | 12 | 4 |
| Only on request | 25 ± 0.15 | 22 | 1.5 ± 0.07 | 117.4 | 330 | 8 | 4 |
| Only on request | 28 ± 0.15 | 24 | 2 ± 0.07 | 173.2 | 310 | 10 | 4 |
| Only on request | 30 ± 0.15 | 25 | 2.5 ± 0.07 | 229.1 | 280 | 12 | 4 |
| Only on request | 40 ± 0.15 | 34 | 3 ± 0.07 | 369.9 | 415 | 10 | 4 |

DIN Complies with DIN 74324 (only black color) and 73378 regulations

Ordering example code: 9992612-25 = Ø6/4 (code: 999261), Blue (■ colour = 2) , 25 (▲ Length = 25 m)

PA 11 PHL Spiral hose



SPIRAL STRAIGHT END HOSE



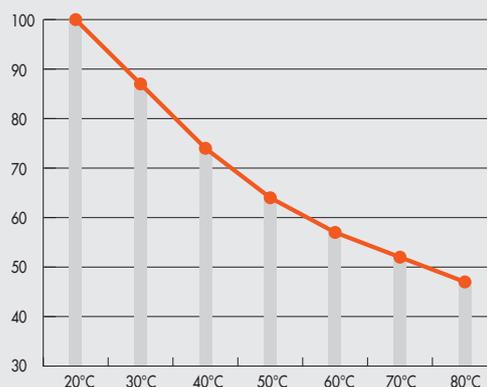
DIN 73378/74324 - RESIN FEATURES

- Spirals made of plasticized polyamide 11 tube, stabilized to light and heat
- Among polyamides, for the production of standard coils, PA 11 has been chosen for its elastic memo, as well as exceptional flexibility, which guarantee high performance and long service life to the product.

ON REQUEST

Recoiled hoses against custom drawing, also with electric cables

PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +80°C)



WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 3 = Black / 4 = Natural / 5 = Green / 6 = Yellow / 7 = Red

Other colours on request.

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RILSAN
BY ARKEMA

SPIRAL HOSE

| Code | Hose dimensions (mm) | | | Material length m | Operating Length m | Retracted length mm | Turns N° N | iØi - oØe Coil mm | Weight g/N | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------|-------------|----------------------|-----------------------|------------------------|---------------|----------------------|---------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | | | | | |
| 908410 ■ -10 | 4 ± 0.07 | 2 | 1 ± 0.07 | 10 | 6.5 | 564 | 134 | 20-28 | 99.9 | 44 | 2 |
| Only on request | 4 ± 0.07 | 2 | 1 ± 0.07 | 10 | 6.5 | 395 | 94 | 30-38 | 99.9 | 44 | 2 |
| Only on request | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 10 | 6.5 | 564 | 134 | 20-28 | 81.2 | 30 | 2 |
| Only on request | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 10 | 6.5 | 395 | 94 | 30-38 | 81.2 | 30 | 2 |
| 908412 ■ -25 | 6 ± 0.07 | 4 | 1 ± 0.07 | 25 | 16.5 | 903 | 143 | 50-62 | 416.5 | 26 | 2 |
| 908422 ■ -30 | 6 ± 0.07 | 4 | 1 ± 0.07 | 30 | 19.5 | 991 | 157 | 55-67 | 499.8 | 26 | 2 |
| 908413 ■ -25 | 8 ± 0.07 | 6 | 1 ± 0.07 | 25 | 16.5 | 993 | 118 | 60-76 | 583.2 | 19 | 2 |
| 908423 ■ -30 | 8 ± 0.07 | 6 | 1 ± 0.07 | 30 | 19.5 | 1035 | 123 | 70-86 | 699.8 | 19 | 2-3-4-7 |
| 908414 ■ -25 | 10 ± 0.07 | 8 | 1 ± 0.07 | 25 | 16.5 | 936 | 89 | 80-100 | 749.8 | 14 | 2 |
| 908444 ■ -30 | 10 ± 0.07 | 8 | 1 ± 0.07 | 30 | 19.5 | 1010 | 96 | 90-110 | 899.8 | 14 | 2-4-7 |
| 908415 ■ -30 | 12 ± 0.1 | 10 | 1 ± 0.07 | 30 | 19.5 | 997 | 79 | 110-134 | 1099.7 | 12 | 2-3-4 |
| Only on request | 15 ± 0.1 | 12 | 1.5 ± 0.07 | 30 | 19.5 | 915 | 58 | 150-180 | 2024.5 | 14 | 2 |
| Only on request | 18 ± 0.1 | 14 | 2 ± 0.07 | 30 | 19.5 | 1023 | 54 | 160-196 | 3199.2 | 16 | 4 |
| Only on request | 18 ± 0.1 | 15 | 1.5 ± 0.07 | 30 | 19.5 | 1023 | 54 | 160-196 | 2474.4 | 12 | 4 |
| Only on request | 22 ± 0.1 | 18 | 2 ± 0.07 | 60 | 39 | 1042 | 45 | 400-444 | 7998.2 | 13 | 4 |
| Only on request | 24 ± 0.1 | 20 | 2 ± 0.07 | 50 | 32.5 | 960 | 38 | 400-444 | 7331.7 | 12 | 4 |

Ordering example code: 9084102-10 = Ø 4/2 (code: 908410), Blue (■ colour = 2), 10 (Retracted length = 564 mm)

SPIRAL HOSE STRAIGHT END

| Code | Hose dimensions (mm) | | | Material length m | Operating Length m | Retracted length mm | Turns N° N | Tales | iØi - oØe Coil mm | Weight g/N | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------|-------------|----------------------|-----------------------|------------------------|---------------|---------|----------------------|---------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | | | | | | |
| Only on request | 4 ± 0.07 | 2 | 1 ± 0.07 | 2.5 | 1.5 | 92 | 22 | 100-100 | 30-38 | 24.9 | 44 | 2 |
| Only on request | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 2.5 | 1.5 | 92 | 22 | 100-100 | 30-38 | 20.3 | 30 | 2 |
| Only on request | 6 ± 0.07 | 4 | 1 ± 0.07 | 7.5 | 5 | 258 | 41 | 130-130 | 50-62 | 124.9 | 26 | 2 |
| Only on request | 6 ± 0.07 | 4 | 1 ± 0.07 | 10 | 6.5 | 353 | 56 | 130-130 | 50-62 | 166.6 | 26 | 2 |
| Only on request | 6 ± 0.07 | 4 | 1 ± 0.07 | 15 | 10 | 530 | 84 | 130-130 | 50-62 | 249.9 | 26 | 2 |
| Only on request | 8 ± 0.07 | 6 | 1 ± 0.07 | 7.5 | 5 | 294 | 35 | 130-130 | 60-76 | 174.9 | 19 | 2 |
| Only on request | 8 ± 0.07 | 6 | 1 ± 0.07 | 10 | 6.5 | 387 | 46 | 130-130 | 60-76 | 233.2 | 19 | 2 |
| Only on request | 8 ± 0.07 | 6 | 1 ± 0.07 | 15 | 10 | 581 | 69 | 130-130 | 60-76 | 349.9 | 19 | 2 |
| Only on request | 10 ± 0.07 | 8 | 1 ± 0.07 | 7.5 | 5 | 263 | 25 | 170-170 | 80-100 | 224.9 | 14 | 2 |
| Only on request | 10 ± 0.07 | 8 | 1 ± 0.07 | 10 | 6.5 | 357 | 34 | 170-170 | 80-100 | 299.9 | 14 | 2 |
| Only on request | 10 ± 0.07 | 8 | 1 ± 0.07 | 15 | 10 | 557 | 53 | 170-170 | 80-100 | 449.9 | 14 | 2 |
| Only on request | 12 ± 0.1 | 10 | 1 ± 0.07 | 7.5 | 5 | 252 | 20 | 180-180 | 100-124 | 274.9 | 12 | 2 |
| Only on request | 12 ± 0.1 | 10 | 1 ± 0.07 | 10 | 6.5 | 366 | 29 | 180-180 | 100-124 | 366.5 | 12 | 2 |
| Only on request | 12 ± 0.1 | 10 | 1 ± 0.07 | 15 | 10 | 530 | 42 | 180-180 | 100-124 | 549.8 | 12 | 2 |
| Only on request | 15 ± 0.1 | 12 | 1.5 ± 0.07 | 10 | 6.5 | 284 | 18 | 200-200 | 160-190 | 674.8 | 14 | 2 |
| Only on request | 15 ± 0.1 | 12 | 1.5 ± 0.07 | 15 | 10 | 426 | 27 | 200-200 | 160-190 | 1012.2 | 14 | 2 |
| Only on request | 18 ± 0.1 | 14 | 2 ± 0.07 | 10 | 6.5 | 341 | 18 | 200-200 | 160-196 | 1066.4 | 16 | 4 |
| Only on request | 18 ± 0.1 | 14 | 2 ± 0.07 | 15 | 10 | 492 | 26 | 200-200 | 160-196 | 1599.6 | 16 | 4 |
| Only on request | 18 ± 0.1 | 15 | 1.5 ± 0.07 | 10 | 6.5 | 341 | 18 | 200-200 | 160-196 | 824.8 | 12 | 4 |
| Only on request | 18 ± 0.1 | 15 | 1.5 ± 0.07 | 15 | 10 | 511 | 27 | 200-200 | 160-196 | 1237.2 | 12 | 4 |

PA 12 PHL MB-LONGLIFE® Linear flexible hose



PNEUMATIC HOSE

PA 12 PHL MB-LONGLIFE® - Linear flexible hose



DIN 73378/74324 - RESIN FEATURES

- Polyamide 12 PHL flexible tubing, plasticized, light and heat stabilized
- Produced with raw materials designed to meet DIN 73378/74324 standards

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 3 = Black / 4 = Natural / 5 = Green / 6 = Yellow / 7 = Red

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

GRADE ALTERNATIVES

- HIPHL flexible

APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



Breaking systems truck trailers



Robotics



Cluth system



Chemical resistance



Petroleum based chemical transfer

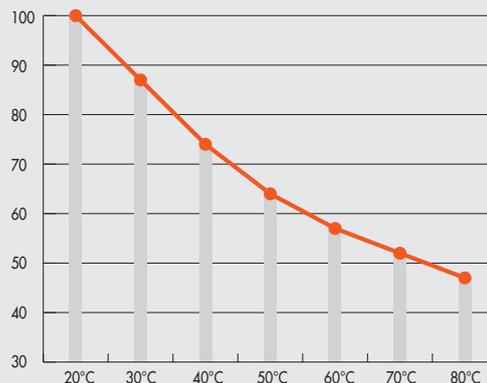


Pest control lines

TECHNICAL FEATURES Tube PA 12 PHL MB-Longlife™



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +80°C)



| Code | Hose dimensions (mm) | | | Weight g/m | Working pressure (23°C) BAR | Colors ■ | |
|-----------------|----------------------|-------------|-------------|---------------|--------------------------------|-------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| 999210 ■ - ▲ | DIN | 4 ± 0.07 | 2 | 1 ± 0.07 | 9.9 | 44 | 2-3-4-5-6-7 |
| Only on request | DIN | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 8 | 30 | 2-3-4-6-7 |
| 999200 ■ - ▲ | | 4 ± 0.07 | 2.7 | 0.65 ± 0.07 | 7.1 | 25 | 2-3-4-5-7 |
| 999201 ■ - ▲ | DIN | 5 ± 0.07 | 3 | 1 ± 0.07 | 13.2 | 33 | 2-3-4 |
| Only on request | DIN | 6 ± 0.07 | 3 | 1.5 ± 0.07 | 22.2 | 44 | 3-4-7 |
| 999202 ■ - ▲ | DIN | 6 ± 0.07 | 4 | 1 ± 0.07 | 132 | 26 | 2-3-4-5-6-7 |
| Only on request | | 6.35 ± 0.07 | 4.35 | 1 ± 0.07 | 17.6 | 24 | 2-3-4 |
| Only on request | DIN | 8 ± 0.07 | 5 | 1.5 ± 0.07 | 32.1 | 30 | 3-4-7 |
| 999203 ■ - ▲ | DIN | 8 ± 0.07 | 6 | 1 ± 0.07 | 23.1 | 19 | 2-3-4-5-6-7 |
| Only on request | DIN | 10 ± 0.07 | 7 | 1.5 ± 0.07 | 42 | 23 | 2-3-4 |
| Only on request | DIN | 10 ± 0.07 | 7.5 | 1.25 ± 0.07 | 36 | 19 | 2-3-4 |
| 999204 ■ - ▲ | DIN | 10 ± 0.07 | 8 | 1 ± 0.07 | 29.7 | 14 | 2-3-4-5-6-7 |
| 999206 ■ - ▲ | DIN | 12 ± 0.1 | 9 | 1.5 ± 0.07 | 51.9 | 19 | 2-3-4-5-6-7 |
| 999205 ■ - ▲ | | 12 ± 0.1 | 10 | 1 ± 0.07 | 36.3 | 12 | 2-3-4-5-6-7 |
| Only on request | DIN | 14 ± 0.1 | 10 | 2 ± 0.07 | 79.2 | 22 | 2-3-4 |
| 999207 ■ - ▲ | | 14 ± 0.1 | 11 | 1.5 ± 0.07 | 61.8 | 16 | 2-3-4-7 |
| Only on request | | 14 ± 0.1 | 12 | 1 ± 0.07 | 42.9 | 10 | 2-3-4-6-7 |
| Only on request | DIN | 15 ± 0.1 | 12 | 1.5 ± 0.07 | 66.8 | 14 | 2-3-4 |
| Only on request | DIN | 16 ± 0.1 | 12 | 2 ± 0.07 | 92.4 | 19 | 2-3-4 |
| 999208 ■ - ▲ | | 15 ± 0.1 | 12.5 | 1.25 ± 0.07 | 56.7 | 12 | 2-3-4-7 |
| Only on request | | 16 ± 0.1 | 13 | 1.5 ± 0.07 | 71.7 | 13 | 2-3-4 |
| Only on request | | 16 ± 0.1 | 14 | 1 ± 0.07 | 49.5 | 8 | 3-4 |
| Only on request | DIN | 18 ± 0.1 | 14 | 2 ± 0.07 | 105.6 | 16 | 3-4 |
| Only on request | | 18 ± 0.1 | 15 | 1.5 ± 0.07 | 81.6 | 12 | 3-4 |
| Only on request | | 22 ± 0.1 | 18 | 2 ± 0.07 | 132 | 13 | 2-3-4 |
| Only on request | | 22 ± 0.1 | 19 | 1.5 ± 0.07 | 101.4 | 9 | 2-4 |

DIN Complies with DIN 74324 (only black color) and 73378 regulations

Ordering example code: 9992022-25 = Ø6/4 (code: 999261), Blue (■ colour = 2), 25 (▲ Length = 25 m)

NOTES

PA 12 EXTRAFLEX MB-LONGLIFE®

Linear extraflexible hose



PNEUMATIC HOSE

PA 12 EXTRAFLEX MB-LONGLIFE® - Linear extraflexible hose



DIN 73378/74324 - RESIN FEATURES

- Polyamide 12 PHL flexible tubing, plasticized, light and heat stabilized
- Produced with raw materials designed to meet DIN 73378/74324 standards

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 3 = Black / 4 = Natural / 5 = Green / 6 = Yellow / 7 = Red

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



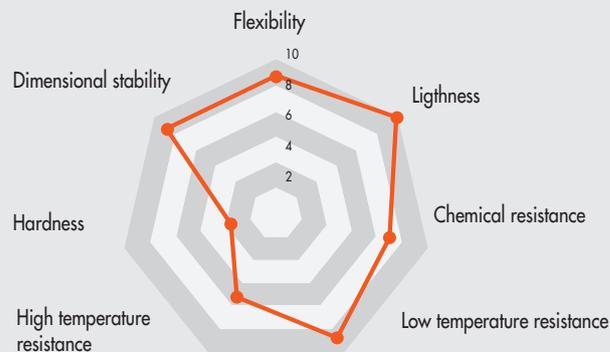
Robotics



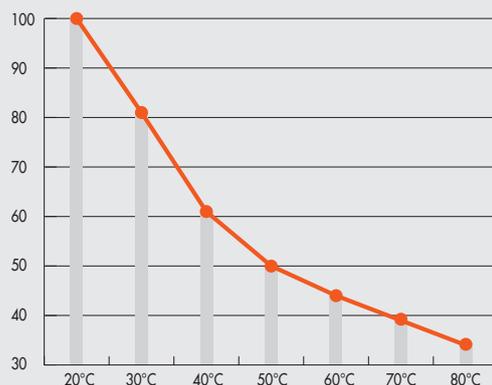
Pest control lines

NOTES

TECHNICAL FEATURES PA 12 MB-Longlife™ Extraflex



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +80°C)



| Code | Hose dimensions (mm) | | | Weight | Bending radius | Working pressure (23°C) | Colors |
|-----------------|----------------------|-------|----------------|--------|----------------|-------------------------|---------|
| | o Ø e | i Ø i | Wall thickness | g/m | mm | BAR | |
| Only on request | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 7.8 | 15 | 23 | 3-4 |
| 999230 ■ - ▲ | 4 ± 0.07 | 2.7 | 0.65 ± 0.07 | 7 | 20 | 20 | 3-4 |
| 999232 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 16.1 | 25 | 20 | 2-3-4 |
| Only on request | 10 ± 0.07 | 5 | 2.5 ± 0.07 | 60.6 | 25 | 34 | 4 |
| Only on request | 8 ± 0.07 | 5.5 | 1.25 ± 0.07 | 27.3 | 40 | 19 | 2-3-4 |
| 999233 ■ - ▲ | 8 ± 0.07 | 6 | 1 ± 0.07 | 22.6 | 50 | 14 | 2-3-4-6 |
| Only on request | 10 ± 0.07 | 6.5 | 1.75 ± 0.07 | 46.7 | 40 | 21 | 4 |
| Only on request | 10 ± 0.07 | 7.5 | 1.25 ± 0.07 | 35.3 | 60 | 14 | 2-3-4 |
| 999234 ■ - ▲ | 10 ± 0.07 | 8 | 1 ± 0.07 | 29.1 | 75 | 11 | 2-3-4 |
| 999235 ■ - ▲ | 12 ± 0.1 | 9 | 1.5 ± 0.07 | 50.9 | 70 | 14 | 2-3-4 |
| Only on request | 12 ± 0.1 | 10 | 1 ± 0.07 | 35.6 | 110 | 9 | 3-4 |
| Only on request | 14 ± 0.1 | 11 | 1.5 ± 0.07 | 60.6 | 100 | 12 | 2-3-4 |
| Only on request | 16 ± 0.1 | 11 | 2.5 ± 0.07 | 109.2 | 75 | 19 | 4 |
| Only on request | 15 ± 0.1 | 12.5 | 1.25 ± 0.07 | 55.6 | 140 | 9 | 4 |
| Only on request | 22 ± 0.1 | 18 | 2 ± 0.07 | 129.4 | 185 | 10 | 4 |

Ordering example code: 9992322-25 = Ø6/4 (code: 999232), Blue (■ colour = 2), 25 (▲ Length = 25 m)

NOTES

RILSAN® HT HIGH TEMPERATURE Linear semi-flexible hose

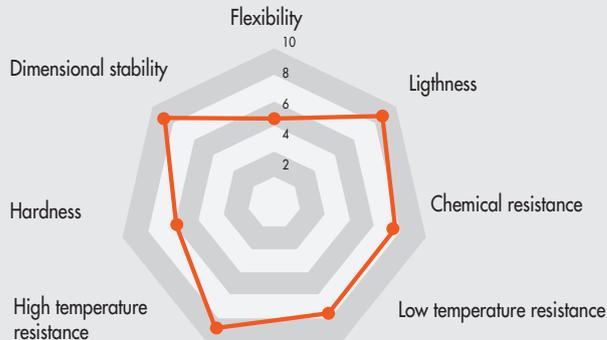


PNEUMATIC HOSE

RILSAN® HT HIGH TEMPERATURE - Linear semi-flexible hose



TECHNICAL FEATURES Rilsan® HT



RESIN FEATURES

- Bio-Polymer Polyphthalamide (PPA) RILSAN® HT thermoplastic tubing obtained from renewable sources
Semi-flexible bio-polymer stabilized to light and heat, suitable for usage at high temperatures

WORKING PRESSURE

Safety factor 3:1

COLORS

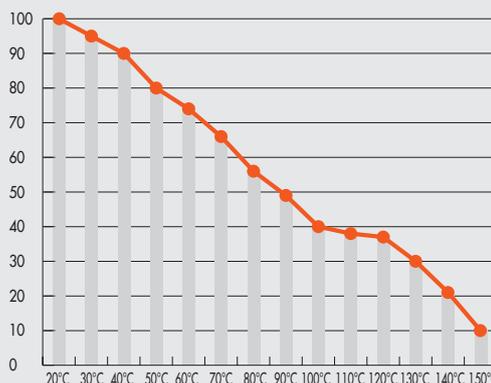
■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

3 = Black

Other colours on request.

PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -30°C TO +130°C)



STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

RILSAN is an international trade mark granted by ARKEMA



APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



High temp above 100°C



Chemical resistance



Steam

| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors |
|--------------|----------------------|-------|-------------|------------|-------------------|-----------------------------|--------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| 999260 ■ - ▲ | 4 ± 0.07 | 2 | 1 ± 0.07 | 9.8 | 15 | 66 | 3 |
| 999262 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 16.3 | 35 | 40 | 3 |
| 999263 ■ - ▲ | 8 ± 0.07 | 6 | 1 ± 0.07 | 22.8 | 65 | 28 | 3 |
| 999267 ■ - ▲ | 10 ± 0.07 | 8 | 1 ± 0.07 | 29.4 | 100 | 22 | 3 |
| 999268 ■ - ▲ | 12 ± 0.1 | 10 | 1 ± 0.07 | 35.9 | 150 | 18 | 3 |

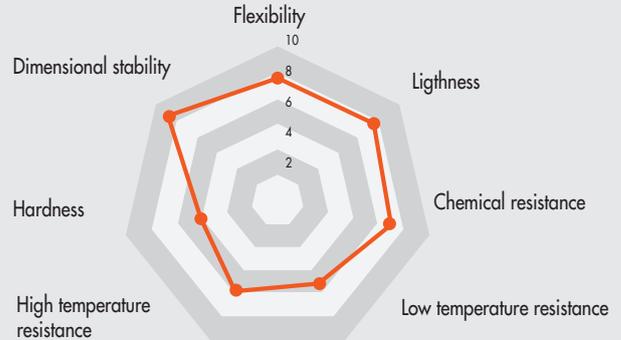
Ordering example code: 9992623-25 = Ø6/4 (code: 999262), Black (■ colour = 3), 25 (▲ Length = 25 m)

PA 12 ANITSTATIC Linear flexible multi-layer hose

DISTRIBUTED BY
METALWORK[®]
P N E U M A T I C



TECHNICAL FEATURES Tube PA12 Antistatic



RESIN FEATURES

- Flexible plasticized triple-layer tube, light and heat stabilized
- Multilayer tube made up of an internal and an external layer of antistatic polyamide 12 having surface electrical resistance $<10^6$ Ohm according to ISO 8031: 2009 (E) and an intermediate layer of Polyamide 12 PHL with excellent gas barrier properties.
Suitable to be installed in ATEX environment, group 2, category 2/3 G&D, installation areas 1, 21, 2, 22
- Electrically conductive external and internal layer able to dissipate the accumulation of electrostatic charges avoiding sparks occurrences that might trigger explosions in potentially explosive environments
- Intermediate layer with barrier properties to reduce particle permeation of the transported fluid

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■
Standard colours: 3 = Black Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲
25-50-100 m (NB: Standard length in stock varies from country to country)

APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



Robotics



Powdered paint

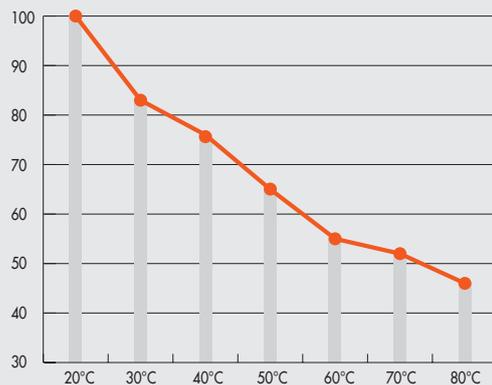


Electrical resistance



ATEX

PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM - 30°C TO +80°C)



GRADE ALTERNATIVES

ANTISTATIC PU

| Cod.e | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors |
|--------------|----------------------|-------|-------------|---------------|----------------------|--------------------------------|--------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| 999620 ■ - ▲ | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 8.3 | 20 | 24 | N |
| 999622 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 17.3 | 30 | 21 | N |
| 999623 ■ - ▲ | 8 ± 0.07 | 6 | 1 ± 0.07 | 24.1 | 55 | 15 | N |
| 999624 ■ - ▲ | 10 ± 0.07 | 8 | 1 ± 0.07 | 31 | 85 | 11 | N |
| 999625 ■ - ▲ | 12 ± 0.1 | 10 | 1 ± 0.07 | 37.9 | 120 | 9 | N |
| 999626 ■ - ▲ | 14 ± 0.1 | 12 | 1 ± 0.07 | 44.9 | 170 | 8 | N |
| 999627 ■ - ▲ | 15 ± 0.1 | 12.5 | 1.25 ± 0.07 | 59.5 | 150 | 9 | N |

Ordering example code: 9996223-25 = Ø6/4 (code: 999622), Black (■ colour = 3), 25 (▲ Length = 25 m)

PA 12 PHL Linear flexible hose



PNEUMATIC HOSE

PA 12 PHL - Linear flexible hose



DIN 73378/74324 - RESIN FEATURES

- Polyamide 12 PHL flexible tubing, plasticized, light and heat stabilized, with enhanced resistance to impact at low temperature
- Produced with raw materials designed to meet DIN 73378/74324 standards

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 3 = Black / 6 = Yellow / 7 = Red

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

100 m

GRADE ALTERNATIVES

- PHL flexible
- HIPHL flexible
- HL rigid



APPLICATIONS



Vacuum equipment



Petroleum based chemical transfer

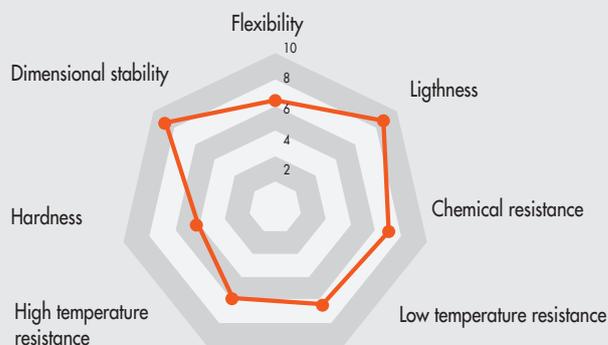


Cluth system

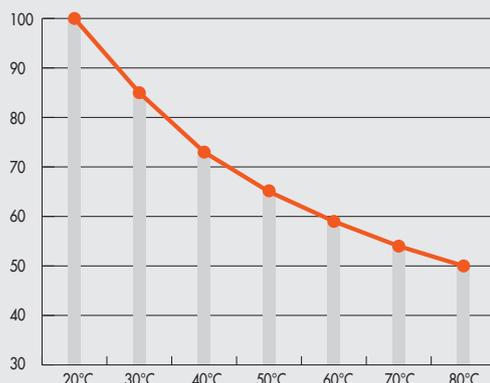


Breaking systems truck trailers

TECHNICAL FEATURES PA12 PHL



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +80°C)



| Code | | Hose dimensions (mm) | | | Weight | Bending radius | Working pressure (23°C) | Colors |
|-----------------|-----------|----------------------|-------|----------------|--------|----------------|-------------------------|--------|
| | | o Ø e | i Ø i | Wall thickness | g/m | mm | BAR | ■ |
| 999292 | ■ - ▲ DIN | 6 ± 0.07 | 4 | 1 ± 0.07 | 16.4 | 30 | 36 | 3 |
| 999293 | ■ - ▲ DIN | 8 ± 0.07 | 6 | 1 ± 0.07 | 22.8 | 55 | 25 | 3-6-7 |
| Only on request | DIN | 9 ± 0.07 | 6 | 1.5 ± 0.07 | 36.7 | 45 | 36 | 3 |
| Only on request | DIN | 10 ± 0.07 | 6 | 2 ± 0.07 | 52.2 | 40 | 45 | 3 |
| Only on request | DIN | 10 ± 0.07 | 7 | 1.5 ± 0.07 | 41.6 | 55 | 31 | 3 |
| Only on request | DIN | 10 ± 0.07 | 7.5 | 1.25 ± 0.07 | 35.7 | 65 | 25 | 3 |
| 999294 | ■ - ▲ DIN | 10 ± 0.07 | 8 | 1 ± 0.07 | 29.4 | 85 | 20 | 3 |
| 999295 | ■ - ▲ DIN | 12 ± 0.1 | 9 | 1.5 ± 0.07 | 51.4 | 80 | 25 | 3-6-7 |
| Only on request | DIN | 14 ± 0.1 | 10 | 2 ± 0.07 | 78.4 | 80 | 30 | 3 |
| Only on request | | 15 ± 0.1 | 11 | 2 ± 0.07 | 84.9 | 90 | 27 | 3 |
| Only on request | DIN | 15 ± 0.1 | 12 | 1.5 ± 0.07 | 66.1 | 125 | 20 | 3 |
| Only on request | DIN | 16 ± 0.1 | 12 | 2 ± 0.07 | 91.5 | 105 | 25 | 3 |
| Only on request | DIN | 18 ± 0.1 | 14 | 2 ± 0.07 | 104.5 | 135 | 22 | 3 |

DIN Complies with DIN 74324 (only black color)

Ordering example code: 9992923-25 = Ø6/4 (code: 999292), Black (■ colour = 3), 25 (▲ Length = 25 m)

NOTES

PA MB-Tec™ Linear flexible hose



PNEUMATIC HOSE

PA MB-Tec™ - Linear flexible hose



ISO 7628 - RESIN FEATURES

- Flexible plasticized PHL polyamide tube, light and heat stabilized
- Equivalent performances to polyamide 12, but no problem of availability of the raw material
- Produced with raw material suitable to meet the ISO 7628: 2010 standard

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 3 = Black / 4 = Normal

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



Breaking systems truck trailers



Robotics



Cluth system



Chemical resistance

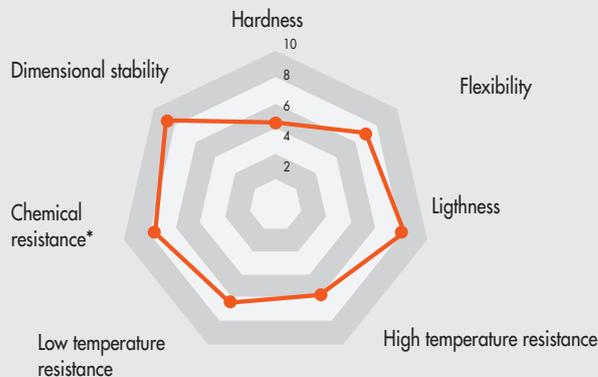


Petroleum based chemical transfer

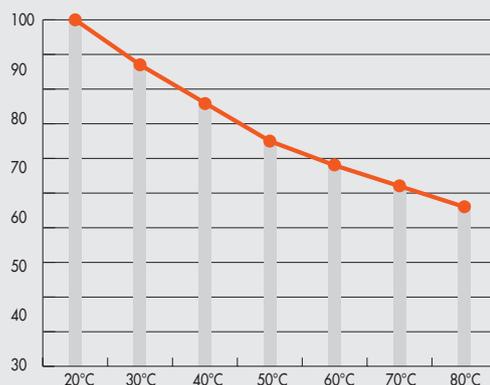


Pest control lines

TECHNICAL FEATURES PA MB-Tec™



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +80°C)



| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------|-------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| 999270 ■ - ▲ | 4 ± 0.07 | 2 | 1 ± 0.07 | 10.2 | 15 | 50 | A-N-T |
| 999272 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 17.1 | 30 | 30 | A-N-T |
| 999273 ■ - ▲ | 8 ± 0.07 | 6 | 1 ± 0.07 | 24 | 50 | 21 | A-N-T |
| Only on request | 9 ± 0.07 | 6 | 1.5 ± 0.07 | 38.5 | 40 | 30 | N |
| Only on request | 10 ± 0.07 | 7.5 | 1.25 ± 0.07 | 37.5 | 60 | 21 | N-T |
| 999274 ■ - ▲ | 10 ± 0.07 | 8 | 1 ± 0.07 | 30.8 | 80 | 16 | A-N-T |
| Only on request | 12 ± 0.1 | 9 | 1.5 ± 0.07 | 54 | 75 | 21 | A-N-T |
| Only on request | 14 ± 0.1 | 10 | 2 ± 0.07 | 82.2 | 75 | 25 | N-T |
| Only on request | 15 ± 0.1 | 12 | 1.5 ± 0.07 | 69.4 | 115 | 16 | A-N-T |
| Only on request | 16 ± 0.1 | 12 | 2 ± 0.07 | 96 | 95 | 21 | N-T |
| Only on request | 18 ± 0.1 | 14 | 2 ± 0.07 | 109.7 | 125 | 18 | N-T |

Ordering example code: 9992722-25 = Ø6/4 (code: 999272), Blue (■ colour = 2), 25 (▲ Length = 25 m)

POLYURETHANE 98 MB-LONGLIFE®

Linear flexible hose



DISTRIBUTED BY
METAL WORK®
 P N E U M A T I C



RESIN FEATURES

- Flexible ester-based polyurethane tube
- Hardness 52 Shore D.

WORKING PRESSURE

Safety factor 3:1

SUGGESTED FITTINGS

All kind of pneumatic fittings (quick, push in, compression...)

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 3 = Black / 4 = Natural / 5 = Green / 6 = Yellow / 7 = Red

Other colours on request.

ON REQUEST

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool

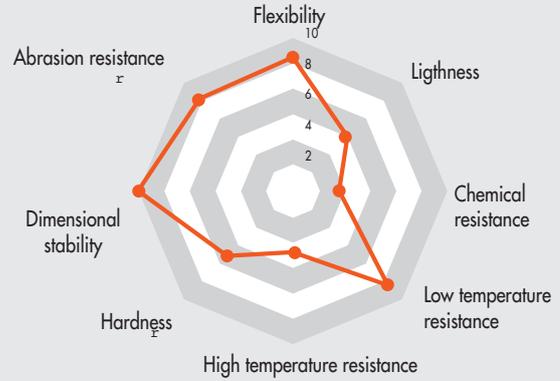


Robotics

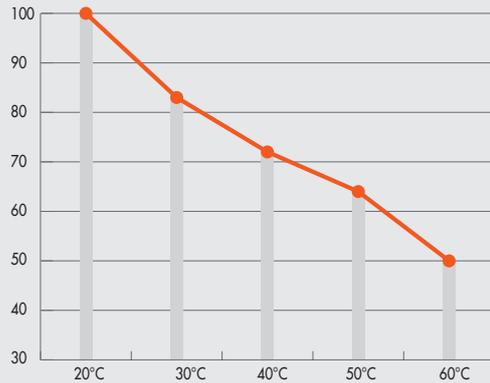


Cable carrier chain

TUBO POLYURETHANE 98 MB-LONG LIFE™



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +60°C)



GRADE ALTERNATIVES

- ShD 45; - ShD 50; - ShD 63;

POLYURETHANE 1190 EXTRAFLEX

Spiral straight end hose



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METAL WORK[®]
 P N E U M A T I C



RESIN FEATURES

- Coils made of polyurethane ether based hose resistant to hydrolysis and microbial. They guarantee excellent resistance to abrasion and an outstanding memory that favors good resistance to overstretching, kinking and repeated flexing.

WORKING PRESSURE

Safety factor 3:1

SUGGESTED FITTINGS

Due to its flexibility and abrasion resistance it is suggested the usage of compression fittings.

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

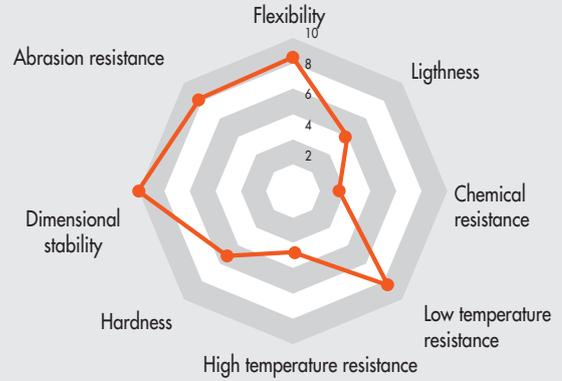
2 = Blue / 3 = Black / 4 = Natural / 6 = Yellow

Other colours on request.

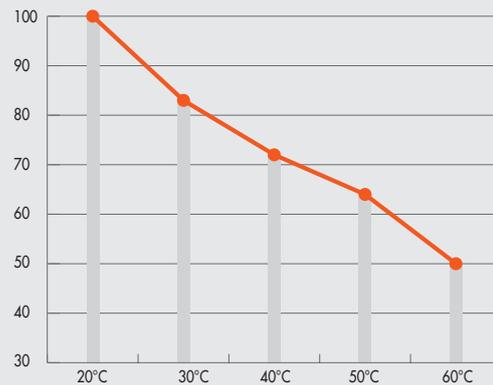
ON REQUEST

Recoiled hoses against custom drawing, also with electric cables.

TECHNICAL FEATURES 1190 EXTRAFLEX SPIRAL STRAIGHT END HOSE

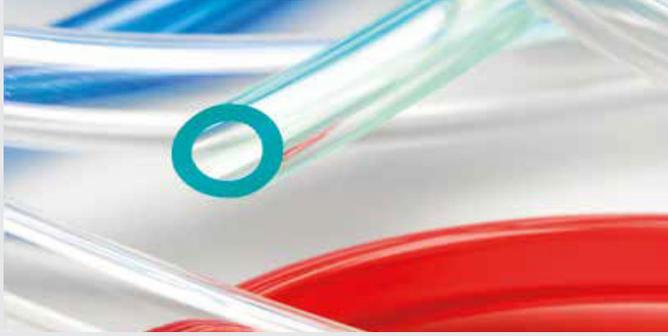


PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +60°C)



POLYURETHANE 1198 ANTI U.V. UV-resistant linear flexible hose

DISTRIBUTED BY
METALWORK
PNEUMATIC



RESIN FEATURES

- Flexible ether-based polyurethane tube
- Stabilized to lighth
- Hardness 52 Shore D

WORKING PRESSURE

Safety factor 3:1

SUGGESTED FITTINGS

All kind of pneumatic fittings (quick, push in, compression...)

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:
2 = Blue / 3 = Black / 4 = Natural

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



Robotics

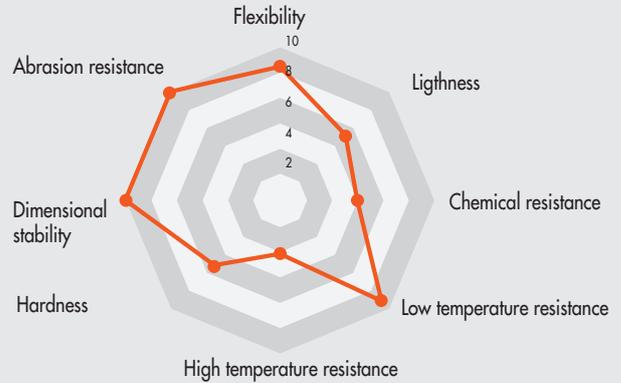


Hydrolysis resistance

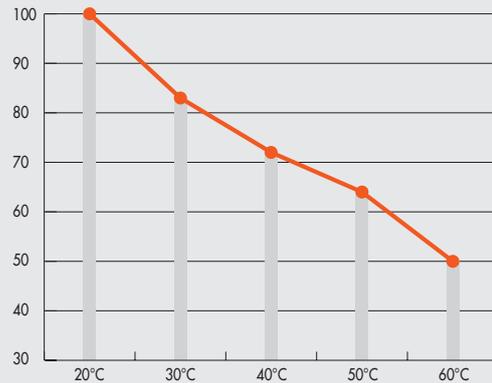


Cable carrier chain

TECHNICAL FEATURES Polyurethane 1198 Anti U.V.



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM - 40°C TO +60°C)



| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------|-------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| 908320 ■ - ▲ | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 9 | 15 | 12 | 4 |
| 908322 ■ - ▲ | 6 ± 0.07 | 3.8 | .1 ± 0.07 | 20 | 25 | 11 | 3-4 |
| 908323 ■ - ▲ | 8 ± 0.07 | 5 | 1.5 ± 0.07 | 36.2 | 30 | 12 | 4 |
| Only on request | 8 ± 0.07 | 5.5 | 1.25 ± 0.07 | 31.3 | 40 | 9 | 3-4 |
| Only on request | 10 ± 0.07 | 6.5 | 1.75 ± 0.07 | 53.6 | 40 | 11 | 4 |
| Only on request | 10 ± 0.07 | 7 | 1.5 ± 0.07 | 47.3 | 50 | 9 | 3-4 |
| 908324 ■ - ▲ | 10 ± 0.07 | 7.5 | 1.25 ± 0.07 | 40.6 | 60 | 7 | 4 |
| 908325 ■ - ▲ | 12 ± 0.1 | 8 | 2 ± 0.07 | 74.3 | 50 | 10 | 4 |
| Only on request | 12 ± 0.1 | 9 | 1.5 ± 0.07 | 58.5 | 70 | 7 | 4 |

Ordering example code: 9083224-25 = Ø6/3,8 (code: 908322), Natural (■ colour = 4), 25 (▲ Length = 25 m)

SPARK RESISTANT POLYURTHANE Fireproof double layer hose



PNEUMATIC HOSE



RESIN FEATURES

- Flexible double layer tube heat stabilized, and an outer layer of self-extinguishing UL 94 V0 ether-based polyurethane that ensures protection against sparks and welding slag
- The external protective sheath has been designed to be easily removed with a special tool for easy use with quick couplings

SUGGESTED FITTINGS

All kind of pneumatic fittings (quick, push in, compression...)

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)



APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



Robotics



Chemical resistance



Welding machines

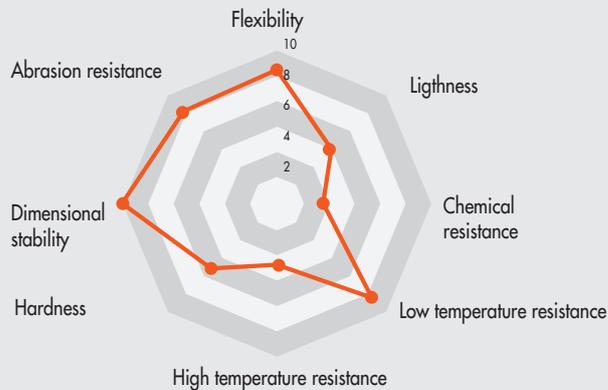


Hydrolysis resistance

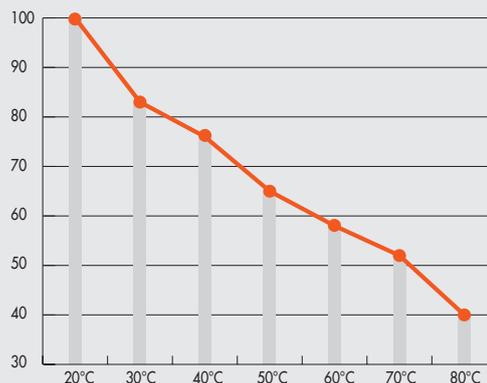


Self-extinguishing rate

TECHNICAL FEATURES PA12 MB-Longlife™ Spark resistant



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +80°C)



| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|--------------|----------------------|-------|----------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thickness | | | | |
| 999650 ■ - ▲ | 4 ± 0.07 | 2 | 1 ± 0.07 | 29.6 | 15 | 44 | 2 |
| 999652 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 44.1 | 30 | 26 | 2 |
| 999653 ■ - ▲ | 8 ± 0.07 | 6 | 1 ± 0.07 | 58.4 | 50 | 19 | 2 |
| 999654 ■ - ▲ | 10 ± 0.07 | 7.5 | 1.25 ± 0.07 | 79.3 | 60 | 19 | 2 |
| 999655 ■ - ▲ | 12 ± 0.1 | 9 | 1.5 ± 0.07 | 103.1 | 75 | 19 | 2 |

Ordering example code: 9996522-25 = Ø6/4 (code: 999652), Blue (■ colour = 2), 25 (▲ Length = 25 m)

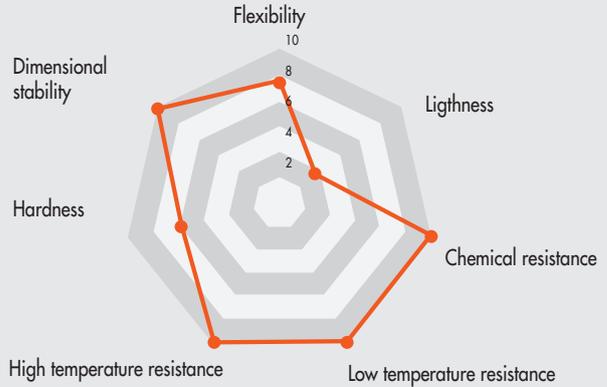
SPARK RESISTANT POLYURTHANE - Fireproof double layer hose

PTFE Linear flexible hose



DISTRIBUTED BY
METAL WORK[®]
 P N E U M A T I C

TECHNICAL FEATURES PTFE linear flexible hose



RESIN FEATURES

- Flexible Polytetrafluoroethylene (PTFE) tube
- Material intrinsically resistant to light, heat and aging
- UL94 V0 intrinsically self-extinguishing material with excellent chemical resistance

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

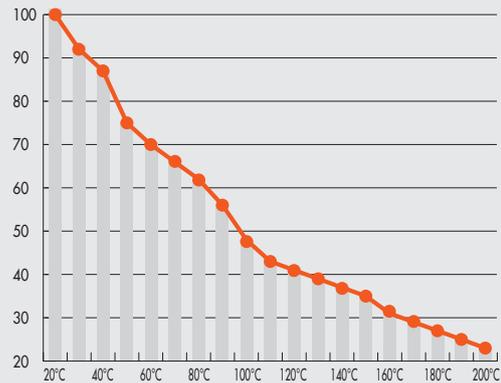
Standard colours: 4 = Natural

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲
 25-50-100 m (NB: Standard length in stock varies from country to country)

PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM - 40°C TO +200°C)



APPLICATIONS



Vacuum equipment



Chemical resistance



Low permeability



Food transfer



Steam



High temp above 150°C



Low temp below -60°C



Self-extinguishing rate



UV resistance

| Cod.e | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------------|--------------|------------|-------------------|-----------------------------|----------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| Only on request | 3.17 | 1.6 ± 0.16 | 0.785 ± 0.15 | 12.6 | 15 | 25 | 4 |
| 999020 ■ - ▲ | 4 | 2 ± 0.16 | 1 ± 0.15 | 20.2 | 15 | 25 | 4 |
| Only on request | 4 | 2.5 ± 0.16 | 0.75 ± 0.15 | 16.4 | 25 | 17 | 4 |
| Only on request | 5 | 3 ± 0.2 | 1 ± 0.15 | 27 | 25 | 19 | 4 |
| Only on request | 6.35 | 3.18 ± 0.2 | 1.585 | 51 | 25 | 25 | 4 |
| 999040 ■ - ▲ | 6 | 4 ± 0.2 | 1 ± 0.15 | 33.7 | 40 | 15 | 4 |
| Only on request | 8 | 5 ± 0.2 | 1.5 ± 0.17 | 65.8 | 45 | 17 | 4 |
| 999060 ■ - ▲ | 8 | 6 ± 0.25 | 1 ± 0.15 | 47.2 | 70 | 10 | 4 |
| Only on request | 10 | 6 ± 0.25 | 2 ± 0.2 | 108 | 50 | 19 | 4 |
| Only on request | 9.52 | 6.35 ± 0.25 | 1.585 | 84.9 | 60 | 15 | 4 |
| 999080 ■ - ▲ | 10 | 8 ± 0.3 | 1 ± 0.15 | 60.7 | 115 | 8 | 4 |
| Only on request | 12 | 9 ± 0.3 | 1.5 ± 0.17 | 106.3 | 105 | 10 | 4 |
| 999090 ■ - ▲ | 12 | 10 ± 0.3 | 1 ± 0.15 | 74.2 | 165 | 6 | 4 |
| Only on request | 14 | 12 ± 0.35 | 1 ± 0.15 | 87.8 | 230 | 5 | 4 |
| 999091 ■ - ▲ | 15 | 12.5 ± 0.35 | 1.25 ± 0.17 | 116 | 210 | 6 | 4 |
| Only on request | 18 | 15 ± 0.35 | 1.5 ± 0.17 | 167.1 | 250 | 6 | 4 |

Ordering example code: 9990404-25 = Ø6/4 (code: 999040), Natural (■ colour = 4), 25 (▲ Length = 25 m)

KYNAR® PVDF HD 4000

Rigid linear hose

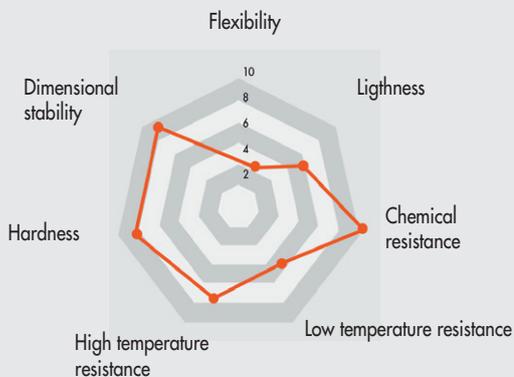


TECHNICAL FEATURES KYNAR® HD 4000



(CE) Reg. 10/2011 - (CE) Reg. 1935/2004 -D.M. 21/03/73
RESIN FEATURES

- KYNAR® 4000 tube, vinylidene polyfluoride (PDVF) rigid
- Material intrinsically resistant to light, heat and aging
- UL94 V0 intrinsically self-extinguishing material with excellent chemical resistance



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +100°C)



WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

4 = Natural

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

APPLICATIONS



Industrial automation



Vacuum equipment



Chemical resistance



Low permeability



Petroleum based chemical transfer



Self-extinguishing rate



UV resistance

| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors |
|-----------------|----------------------|-------|-------------|---------------|----------------------|--------------------------------|--------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| 999070 ■ - ▲ | 4 ± 0,07 | 2 | 1 ± 0,07 | 17,1 | 20 | 77 | ■ |
| Only on request | 4 ± 0,07 | 2,5 | 0,75 ± 0,07 | 13,9 | 30 | 53 | 4 |
| 999072 ■ - ▲ | 6 ± 0,07 | 4 | 1 ± 0,07 | 28,5 | 45 | 46 | 4 |
| Only on request | 8 ± 0,07 | 5 | 1,5 ± 0,07 | 55,6 | 55 | 53 | 4 |
| 999073 ■ - ▲ | 8 ± 0,07 | 6 | 1 ± 0,07 | 39,9 | 85 | 33 | 4 |
| 999074 ■ - ▲ | 10 ± 0,07 | 8 | 1 ± 0,07 | 51,3 | 135 | 25 | 4 |
| 999075 ■ - ▲ | 12 ± 0,1 | 10 | 1 ± 0,07 | 62,7 | 200 | 21 | 4 |
| Only on request | 14 ± 0,1 | 11 | 1,5 ± 0,07 | 106,9 | 175 | 28 | 4 |

Ordering example code: 9990724-25 = Ø6/4 (code: 999072), Natural (■ colour = 4), 25 (▲ Length = 25 m)

LOW DENSITY POLYETHYLENE

Linear flexible hose for pneumatic use



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RESIN FEATURES

- Tube in Low Density Polyethylene (LDPE) flexible light stabilized.

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 3 = Black / 4 = Natural / 5 = Green / 6 = Yellow / 7 = Red

Other colours on request.

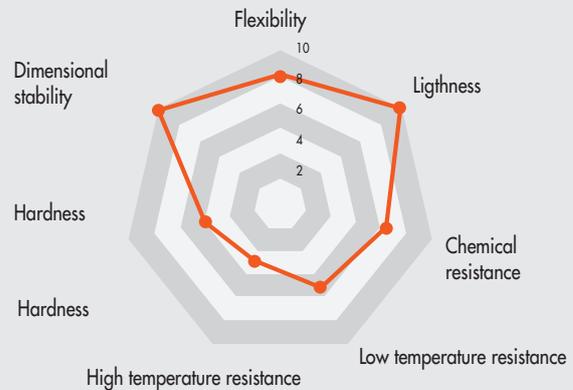
STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

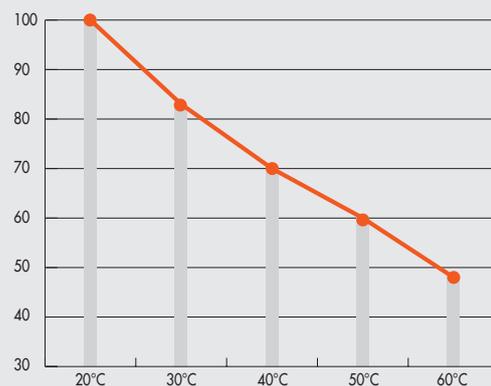
25-50-100 m (NB: Standard length in stock varies from country to country)

TECHNICAL FEATURES AT A GLANCE

Low density polyethylene



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -10°C TO +60°C)



APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



Chemical resistance

LINEAR LOW DENSITY POLYETHYLENE

Food grade linear low density polyethylene

DISTRIBUTED BY

 METAL WORK
 PNEUMATIC



Reg.10/2011 D.M. 21-03-1973 FDA CFR 177.1520
RESIN FEATURES

- Low Density Polyethylene Linerary Tube (LLDPE), food grade, semi-flexible, light stabilized

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours: 2 = Blue / 3 = Black / 4 = Natural

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲
 25-50-100 m (NB: Standard length in stock varies from country to country)

APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool

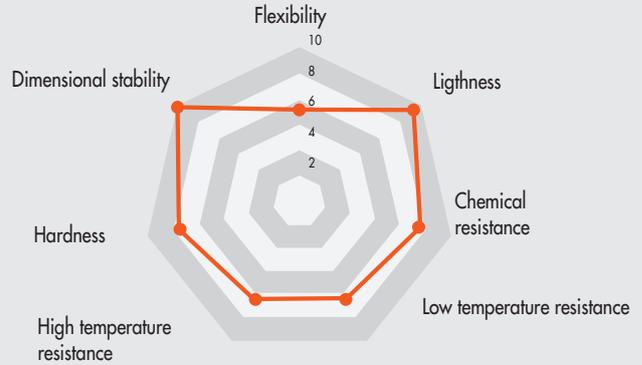


Chemical resistance

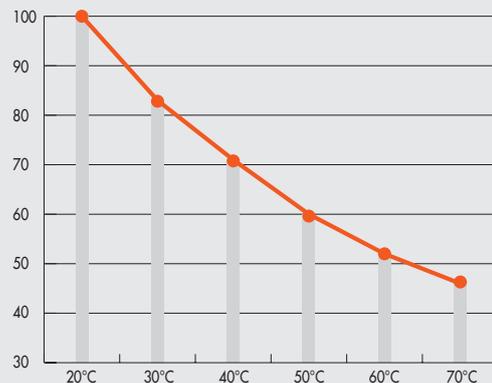


Food transfer

TECHNICAL FEATURES Linear low density polyethylene



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -20°C TO +70°C)



| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------|--------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| Only on request | 3 ± 0.07 | 1.5 | 0.75 ± 0.07 | 5 | 10 | 30 | 3-4 |
| Only on request | 4 ± 0.07 | 2 | 1 ± 0.07 | 8.9 | 15 | 30 | 4 |
| 999100 ■ - ▲ | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 7.2 | 20 | 20 | 3-4 |
| 999102 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 14.9 | 30 | 18 | 3-4 |
| Only on request | 6.35 ± 0.07 | 4.35 | 1 ± 0.07 | 16 | 35 | 16 | 4 |
| Only on request | 8 ± 0.07 | 5 | 1.5 ± 0.07 | 29.1 | 35 | 20 | 3-4 |
| 999103 ■ - ▲ | 8 ± 0.07 | 6 | 1 ± 0.07 | 20.9 | 60 | 12 | 3-4 |
| Only on request | 9.52 ± 0.07 | 6.35 | 1.585 ± 0.07 | 37.6 | 50 | 17 | 3-4 |
| 999104 ■ - ▲ | 10 ± 0.07 | 8 | 1 ± 0.07 | 26.9 | 90 | 10 | 3-4 |
| 999105 ■ - ▲ | 12 ± 0.1 | 9 | 1.5 ± 0.07 | 47.1 | 85 | 12 | 2-3-4 |
| Only on request | 12.7 ± 0.1 | 9.52 | 1.59 ± 0.07 | 52.8 | 90 | 12 | 3-4 |
| 999106 ■ - ▲ | 12 ± 0.1 | 10 | 1 ± 0.07 | 32.9 | 135 | 8 | 3-4 |
| Only on request | 14 ± 0.1 | 12 | 1 ± 0.07 | 38.9 | 185 | 6 | 3-4 |
| 999107 ■ - ▲ | 16 ± 0.1 | 12 | 2 ± 0.07 | 83.8 | 115 | 12 | 4 |
| Only on request | 16 ± 0.1 | 14 | 1 ± 0.07 | 44.8 | 240 | 6 | 4 |
| Only on request | 18 ± 0.1 | 15 | 1.5 ± 0.07 | 74 | 200 | 8 | 4 |
| Only on request | 20 ± 0.1 | 16 | 2 ± 0.07 | 107.7 | 180 | 10 | 4 |

Ordering example code: 9991024-25 = Ø6/4 (code: 999102), Natural (■ colour = 4), 25 (▲ Length = 25 m)

PUR ON POLYETHER BASIS - TRANSLUCENT



"THE" PUR TUBING WITH OPTIMUM MECHANICAL PROPERTIES



Polyether-polyurethane (PUR) tubing offers the following properties, in addition to the excellent mechanical values typical of PUR, e.g. high flexibility, optimum resilience, high elongation at break or good abrasion resistance:

- **resistance to hydrolysis, i.e. enables applications in/with water**
- **resistance to microbes, i.e. ideal for outdoor applications**
- **material is suitable for food and medical applications; separate tests necessary**
- **suitable for energy- or drag chains**
- **appropriate for using in cable bundles, especially together with flame retarded cable sheaths**

These special product properties open up completely new applications for polyether-PUR tubing, e.g. approvals for use in medical technology or outdoor applications.

We manufacture our polyether-PUR tubing in standard Shore grade of 98A out of Polyurethanes from leading Producers, which are only manufactured in Germany. Harder or softer material grades can be provided for special applications.



The production process we have developed enables us to calibrate both the outside diameter and the wall thickness. That makes our tubing simple to use with the plug-ins or screw unions of all leading manufacturers. Moreover, we ensure that the ovality of our tubing remains within narrow limits compatible with plug-ins. This dimensional accuracy gives our tubing constant compressive strength at comparatively large inside diameters and makes it suitable for a wider range of practical uses.

By optimizing the throughput speed in combination with the optimal temperature during production, we also ensure that maximum benefit is derived from the specific material properties of PUR, giving our tubing the best possible properties in permanent service. All these measures are in line with our principle »Every inch a quality product«.

The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outside-Ø in mm | "Wall thickness in mm" | Inside-Ø in mm | Weight g / m * | Minimal bend radius in mm | "Minimum burst pressure (bar)" |
|-----------------|-------------|-------------------|-----------------|------------------------|----------------|----------------|---------------------------|--------------------------------|
| 999340 __ | ■ | ▲ | 4,00 | 0,75 | 2,5 | 8,88 | 12 | 40 |
| 999342 __ | ■ | ▲ | 6,00 | 1,05 | 3,90 | 18,84 | 15 | 34 |
| 999343 __ | ■ | ▲ | 8,00 | 1,25 | 5,50 | 30,75 | 25 | 31 |
| 999344 __ | ■ | ▲ | 10,00 | 1,50 | 7,00 | 46,46 | 40 | 27 |
| 999345 __ | ■ | ▲ | 12,00 | 2,00 | 8,00 | 72,88 | 35 | 32 |
| Only on request | ■ | ▲ | 14,00 | 2,0 | 10,00 | 87,46 | 55 | 22 |
| Only on request | ■ | ▲ | 16,00 | 2,50 | 11,00 | 122,99 | 55 | 27 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Translucent-blue / 3 = Translucent-black / 4 = Translucent-natural / 5 = Translucent-green / 6 = Translucent-yellow / 7 = Translucentred

Other colours on request.

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

Ordering example code: 9993404-25 = Ø4/2,5 (code: 999340), Natural (■ colour = 4), 25 (▲ Length = 25 m)

PUR ON POLYESTER BASIS

DISTRIBUTED BY

 P N E U M A T I C



"THE" PUR TUBING WITH OPTIMUM MECHANICAL PROPERTIES



We manufacture our standard product range made from polyester-polyurethane (PUR) for all classical pneumatic applications exclusively from German polyurethane manufacturers. Our tubes offer optimum mechanical properties and very high compressive strength over a wide temperature range. Even at higher temperatures and/or greater mechanical stress, this tubing still offers an adequate safety margin to ensure completely safe operation. The characteristic feature of this material grade is the opaqueness of uncoloured tubing. Additional properties are:

- high flexibility combined with optimum resilience
- plasticiser-free
- high flexibility at low temperatures (can be used up to -35°C)
- high elongation at break
- good abrasion resistance
- suitable for vacuum applications
- suitable for drag chains

The production process we have developed enables us to calibrate both the outside diameter and the wall thickness. That makes our tubing simple to use with the plug-ins or screw unions of all leading manufacturers. Moreover, we ensure that the ovality of our tubing remains within narrow limits compatible with plug-ins. This dimensional accuracy gives our tubing constant compressive strength at comparatively large inside diameters and makes it suitable for a wider range of practical uses.

By optimizing the throughput speed in combination with the optimal temperature during production, we also ensure that maximum benefit is derived from the specific material properties of PUR, giving our tubing the best possible properties in permanent service. All these measures are in line with our principle »Every inch a quality product« .



The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outside-Ø in mm | "Wall thickness in mm" | Inside-Ø in mm | Weight g / m * | Minimal bend radius in mm | "Minimum burst pressure (bar)" |
|-----------------|-------------|-------------------|-----------------|------------------------|----------------|----------------|---------------------------|--------------------------------|
| Only on request | ■ | ▲ | 3,00 | 0,600 | 1,80 | 5,52 | 10 | 45 |
| 999300 __ | ■ | ▲ | 4,00 | 0,750 | 2,50 | 9,33 | 12 | 38 |
| 999301 __ | ■ | ▲ | 5,00 | 0,950 | 3,10 | 14,75 | 13 | 40 |
| 999302 __ | ■ | ▲ | 6,00 | 1,050 | 3,90 | 19,92 | 18 | 34 |
| 999303 __ | ■ | ▲ | 8,00 | 1,150 | 5,70 | 30,19 | 30 | 32 |
| 999304 __ | ■ | ▲ | 10,00 | 1,2 | 7,50 | 41,92 | 45 | 26 |
| 999305 __ | ■ | ▲ | 120 | 1,500 | 9,00 | 60,37 | 55 | 27 |
| 999306 __ | ■ | ▲ | 14,00 | 1,500 | 11,00 | 71,86 | 60 | 23 |
| 999307 __ | ■ | ▲ | 16,00 | 2,500 | 11,00 | 129,36 | 65 | 39 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours: (Free of heavy metals)

2 = Blue / 3 = Black / 4 = Natural / 5 = Green / 6 = Yellow / 7 = Red

Other colours on request.

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

Ordering example code: 9993002-25 = Ø6/4 (code: 999300), Blue (■ colour = 2), 25 (▲ Length = 25 m)

PUR ON POLYETHER BASIS - FULL COLOR



PUR TUBING WITH OPTIMUM MECHANICAL PROPERTIES



Polyether-polyurethane (PUR) tubing offers the following properties, in addition to the excellent mechanical values typical of PUR, e.g. high flexibility, optimum resilience, high elongation at break or good abrasion resistance:

- resistance to hydrolysis, i.e. enables applications in/with water
- resistance to microbes, i.e. ideal for outdoor applications
- material is suitable for food and medical applications; separate tests necessary
- suitable for energy- or drag chains
- appropriate for using in cable bundles, especially together with flame retarded cable sheaths

These special product properties open up completely new applications for polyether-PUR tubing, e.g. approvals for use in medical technology or outdoor applications.



The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outside-Ø in mm | "Wall thickness in mm" | Inside-Ø in mm | Weight g / m * | Minimal bend radius in mm | "Minimum burst pressure (bar)" |
|-----------------|-------------|-------------------|-----------------|------------------------|----------------|----------------|---------------------------|--------------------------------|
| 908200 ■ - ▲ | ■ | ▲ | 4,00 | 0,75 | 2,5 | 8,88 | 12 | 40 |
| 908202 ■ - ▲ | ■ | ▲ | 6,00 | 1,05 | 3,90 | 18,84 | 15 | 34 |
| 908203 ■ - ▲ | ■ | ▲ | 8,00 | 1,25 | 5,50 | 30,75 | 25 | 31 |
| 908204 ■ - ▲ | ■ | ▲ | 10,00 | 1,50 | 7,00 | 46,46 | 40 | 27 |
| 908205 ■ - ▲ | ■ | ▲ | 12,00 | 2,00 | 8,00 | 72,88 | 35 | 32 |
| Only on request | ■ | ▲ | 14,00 | 2,0 | 10,00 | 87,46 | 55 | 22 |
| Only on request | ■ | ▲ | 16,00 | 2,50 | 11,00 | 122,99 | 55 | 27 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours: (Free of heavy metals)

2 = Blue / 3 = Black / 5 = Green / 6 = Yellow / 7 = Red

Other colours on request.

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

Ordering example code: 9082004-25 = Ø4/2,5 (code: 908200), Natural (■ colour = 4), 25 (▲ Length = 25 m)

We manufacture our polyether-PUR tubing in standard Shore grade of 98A out of Polyurethanes from leading Producers, which are only manufactured in Germany. Harder or softer material grades can be provided for special applications.

The production process we have developed enables us to calibrate both the outside diameter and the wall thickness. That makes our tubing simple to use with the plugins or screw unions of all leading manufacturers. Moreover, we ensure that the quality of our tubing remains within narrow limits compatible with plugins. This dimensional accuracy gives our tubing constant compressive strength at comparatively large inside diameters and makes it suitable for a wider range of practical uses.

By optimizing the throughput speed in combination with the optimal temperature during production, we also ensure that maximum benefit is derived from the specific material properties of PUR, giving our tubing the best possible properties in permanent service. All these measures are in line with our principle »Every inch a quality product«.

FLAMEX HYBRID® -A- (AIR)

DISTRIBUTED BY

 P N E U M A T I C



FLAMEX HYBRID - WHEREVER THERE ARE WELDING CHIPS AND FLYING SPARKS, IT IS THE FLAMEX HYBRID® ELEMENT



As the leading manufacturer in the field of flame retardant pneumatic hoses we developed the new flamex® due to market requirements.

flamex hybrid® is a further development our product line flamex® which is in use under heavy conditions for many years.

flamex hybrid®-a- is the special tube out of polyurethane (PUR) for all applications with gaseous medium in the field of welding machines, welding guns or flying sparks e.g. near grinder.

flamex hybrid®-a- stand out for good flexibility with a raised pressure resistance in addition to the well known flamex®-attributes.

flamex hybrid®-a- is high tech »Made in Germany« which is manufactured under highest quality standards due to a DIN EN ISO 9001:2000 certified Quality Management system.

Usable for air and other gaseous medium Working pressure: -0,9 - 16 bar (depending on temperature).



The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outer/inner diameter mm |
|-----------------|-------------|-------------------|-------------------------|
| 908370 ■ - ▲ | ■ | ▲ | 4 x 2 |
| 908373 ■ - ▲ | ■ | ▲ | 8 x 4 |
| 908374 ■ - ▲ | ■ | ▲ | 10 x 6 |
| 908375 ■ - ▲ | ■ | ▲ | 12 x 8 |
| 908376 ■ - ▲ | ■ | ▲ | 14 x 10 |
| Only on request | ■ | ▲ | 16 x 11 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 4 = Natural

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

The tubes can be ordered as single or multi tubes as well as spiral tubes.

Ordering example code: Ordering example code: 9083702-25 = Ø4/2 (code: 908370), Blue (■ colour = 2), 25 (▲ Length = 25 m)

- Extremely resistant against all kind of weld chips and flying sparks
- Maintenance rates could be extended in most cases
- Flame retarded without halogen, self-extinguishing in case of fire. Fire classification by Underwriters Laboratories Inc.®: listed UL 94 from V2 to V0
- Lower costs due to long durability
- Easy, quick and therefore cheap installation because there is no need for time-consuming dismantling of double-walled tube. No extra costs arise for special screw connectors.
- Suitable for all common instant plug-in connectors made out of metal or suitable plastics
- Resistant against microbes
- High chemical resistance (most detergents, solvents and other contact media)
- Small bend radius
- Excellent UV-resistance
- Top resistance to abrasion and scrubbing (suitable for drag chains)
- Free of substances retarding lacquer coverage
- High burst pressures
- Suitable for vacuum applications
- Recyclable (basic material could be reused), disposal permission as industrial waste similar to domestic waste
- Release to German automotive industry

FLAMEX HYBRID® -HD- (HEAVY DUTY)



FLAMEX HYBRID® - WHEREVER THERE ARE WELDING CHIPS AND FLYING SPARKS, IT IS THE FLAMEX HYBRID® ELEMENT



As the leading manufacturer in the field of flame retardant pneumatic hoses we developed the new flamex® due to market requirements.

flamex hybrid® is a further development our product line flamex® which is in use under heavy conditions for many years.

flamex hybrid®-hd- is the special tube out of polyurethane (PUR) for all applications with gaseous medium in the field of welding machines, welding guns or flying sparks e.g. near grinder.

flamex hybrid®-hd- stand out for good flexibility with a raised pressure resistance in addition to the well known flamex®-attribute.

flamex hybrid®-hd- is high tech »Made in Germany« which is manufactured under highest quality standards due to a DIN EN ISO 9001:2000 certified Quality Management system.

Suitable for air, water and other liquid or gaseous medium Working pressure: -0,9 - 25 bar (depending on temperature)



The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outer/inner diameter mm |
|-----------------|-------------|-------------------|-------------------------|
| 9011841 ■ - ▲ | ■ | ▲ | 4 x 2 |
| 9011844 ■ - ▲ | ■ | ▲ | 8 x 4 |
| 9011845 ■ - ▲ | ■ | ▲ | 10 x 6 |
| 9011846 ■ - ▲ | ■ | ▲ | 12 x 8 |
| 9011847 ■ - ▲ | ■ | ▲ | 14 x 10 |
| Only on request | ■ | ▲ | 16 x 11 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

3 = Black

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

The tubes can be ordered as single or multi tubes as well as spiral tubes.

Ordering example code: 90118413-25 = Ø4/2 (code: 9011841), Black (■ colour = 3), 25 (▲ Length = 25 m)

- Extremely resistant against all kind of weld chips and flying sparks
- Maintenance rates could be extended in most cases
- Flame retarded without halogen, self-extinguishing in case of fire. Fire classification by Underwriters Laboratories Inc.®: listed UL 94 from V2 to V0
- Lower costs due to long durability
- Easy, quick and therefore cheap installation because there is no need for time-consuming dismantling of double-walled tube. No extra costs arise for special screw connectors.
- Suitable for all common instant plug-in connectors made out of metal or suitable plastics
- Resistant against microbes
- High chemical resistance (most detergents, solvents and other contact media)
- Small bend radius
- Excellent UV-resistance
- Top resistance to abrasion and scrubbing (suitable for drag chains)
- Free of substances retarding lacquer coverage
- High burst pressures
- Suitable for vacuum applications
- Recyclable (basic material could be reused), disposal permission as industrial waste similar to domestic waste
- Release to German automotive industry

FLAMEX HYBRID® -W- (WATER)

DISTRIBUTED BY

 P N E U M A T I C



FLAMEX HYBRID® - WHEREVER THERE ARE WELDING CHIPS AND FLYING SPARKS, IT IS THE FLAMEX HYBRID® ELEMENT



As the leading manufacturer in the field of flame retardant pneumatic hoses we developed the new flamex® due to market requirements.

flamex hybrid® is a further development our product line flamex® which is in use under heavy conditions for many years.

flamex hybrid®-w- the special tube out of polyurethane (PUR) for all applications with liquid medium in the field of welding machines, welding guns or flying sparks e.g. near grinder.

flamex hybrid®-w- stand out for extreme flexibility, comparable to rubber, in addition to the excellent characteristics of polyurethane and the well known flamex attributes.

flamex hybrid®-w- is high tech »Made in Germany« which is manufactured under highest quality standards due to a DIN EN ISO 9001:2000 certified Quality Management system.

Suitable for water and other liquid medium: Working pressure: 8 bar up to 90 °C



The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outer/inner diameter mm |
|-----------------|-------------|-------------------|-------------------------|
| 908364 ■ - ▲ | ■ | ▲ | 10 x 6 |
| 908365 ■ - ▲ | ■ | ▲ | 12 x 8 |
| 908366 ■ - ▲ | ■ | ▲ | 14 x 10 |
| Only on request | ■ | ▲ | 16 x 11 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

5 = Green / 7 = Red

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

The tubes can be ordered as single or multi tubes as well as spiral tubes.

Ordering example code: 9083645-25 = Ø 10/6 (code : 9083645), Green (■ colour = 5), 25 (▲ Length = 25 m)

- Extremely resistant against all kind of weld chips and flying sparks
- Maintenance rates could be extended in most cases
- Flame retarded without halogen, self-extinguishing in case of fire. Fire classification by Underwriters Laboratories Inc.®: listed UL 94 from V2 to V0
- Lower costs due to long durability
- Easy, quick and therefore cheap installation because there is no need for time-consuming dismantling of double-walled tube. No extra costs arise for special screw connectors.
- Suitable for all common instant plug-in connectors made out of metal or suitable plastics
- Resistant against microbes
- High chemical resistance (most detergents, solvents and other contact media)
- Small bend radius
- Excellent UV-resistance
- Top resistance to abrasion and scrubbing (suitable for drag chains)
- Free of substances retarding lacquer coverage
- High burst pressures
- Suitable for vacuum applications
- Recyclable (basic material could be reused), disposal permission as industrial waste similar to domestic waste
- Release to German automotive industry

KKS-NEO



The optimal solution for the application in areas which have to prioritise flame protection – complies as the only polyurethane pneumatic tubing with the norms of the new European Railway Regulation EN 45545!

PAPUREX, as the leading manufacturer of flame retarding polyurethane tubing (PUR), managed to improve the KKS-family one more time – the outcome is named **KKS- neo** and fulfils highest flame protection standards.

KKS- neo provides best characteristics for the usage in high-risk environments such as building technology, aircrafts and railway vehicles, where excellent flame-protection qualities are:
compulsor
special tu

KKS- neo guarantees quick and easy usage because of its compatibility to quick connectors of all leading manufacturers.

KKS- neo is high tech »Made in Germany«, manufactured under a certified Quality management system according to ISO 9001.

Suitable for air, water and other liquid or gaseous media Working pressure: -0.95 - 8 bar (depending on temperature).



- Meets the high requirements of the new European Railway Regulation EN 45545 and is released for the international railway construction
- Improved flame protection properties due to optimized material composition.
- Flame-retarding without halogen, self-extinguishing in case of fire
- Suitable for all common quick plug connectors made out of metal or appropriate plastic plug-in connectors
- Cost efficient due to long durability
- Resistant against microbes and hydrolysis
- Small bending radius
- Excellent UV-resistance
- Top resistance to abrasion and scrubbing (suitable for drag chains)
- Suitable for vacuum applications
- Recyclable (basic material ready to be reused), disposal permission as industrial waste similar to domestic waste

The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outer/inner diameter mm |
|----------------|-------------|-------------------|-------------------------|
| 999662 ■ - ▲ | ■ | ▲ | 6 x 4 |
| 999663 ■ - ▲ | ■ | ▲ | 8 x 5,7 |
| 999664 ■ - ▲ | ■ | ▲ | 10 x 7,5 |
| 999665 ■ - ▲ | ■ | ▲ | 12 x 9 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:

2 = Blue / 3 = Black

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

The tubes can be ordered as single or multi tubes as well as spiral tubes.

Ordering example code: 999662-25 = Ø6/4 (code: 999662), Blue (■ colour = 2), 25 (▲ Length = 25 m)

A:S:S® - WHERE THE ATEX DIRECTIVE 94/9/EG IS MANDATORY OR IN CASE OF ELECTROSTATIC CHARGE THE A:S:S® IS THE RIGHT DECISION!



As one of the leading manufacturers of pneumatic hoses for push-in fittings we aligned our A:S:S® tube for the above mentioned applications.

A:S:S® is the special tube out of polyurethane (PUR) for all applications in the area where antistatic material is mandatory, e.g. production of electronically components, in the surface refinement industry or in the area where explosion-proof is necessary.

A:S:S® is conform to the ATEX guideline 94/9/EG which is tested by TÜV Product Services GmbH, Eschborn on a voluntary basis.

A:S:S® is usable with the established push-in fittings of the leading manufacturer. This ensures an easy and quick installation.

A:S:S® is high tech »Made in Germany« which is manufactured under highest quality standards due to a DIN EN ISO 9001:2000 certified Quality Management system.

Suitable for air, water and other liquid or gaseous medium Working pressure: -0,95 - 8 bar (depending on temperature)

- High antistatic protection with surface resistance between 10 and 1000 kΩ
- Favourable costs due to long life expectancy
- Calibrated outside diameter, fits all conventional plug-ins made of metal
- Resistant to hydrolysis
- Resistance to microbes
- High compressive strength
- Enables very narrow bending radii
- Very good UV resistant
- Suitable for vacuum applications
- Appropriate as conveyer or supply unit hose, e.g. Powder coating in the surface refinement



The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outer/inner diameter mm |
|----------------|-------------|-------------------|-------------------------|
| 999630 ■ - ▲ | ■ | ▲ | 4 x 2,5 |
| 999632 ■ - ▲ | ■ | ▲ | 6 x 3,9 |
| 999633 ■ - ▲ | ■ | ▲ | 8 x 5,7 |
| 999634 ■ - ▲ | ■ | ▲ | 10 x 7,5 |
| 999635 ■ - ▲ | ■ | ▲ | 12 x 9 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours: 3 = Black

Other colours on request.

▲ In code represent length. Insert the desired length in the place of ▲

Standard length:
25-50-100 m (NB: Standard length in stock varies from country to country)

The tubes can be ordered as single or multi tubes as well as spiral tubes.

Ordering example code: 9996302-25 = Ø6/4 (code: 999630), Blue (colour = 2), 25 (Length = 25 m)

AGRARPUR®



AGRARPUR® THE SPECIAL TUBE OUT OF POLYURETHANE FOR THE AGRICULTURAL MARKET ALL OVER THE WORLD



As the leading manufacturer for pneumatic hoses in the agricultural market we developed, due to market needs, this brand new special tubing:

AgrarPur® is a consequent further development of our agricultural line which worked under heavy duty use in the past.

AgrarPur® is the name for the new standard in the pneumatic field of agriculture. This tubing is developed for the special circumstances in the daily agricultural work. It is extremely robust and pressure resistant in combination with a very long life cycle. It is adapted to working pressure up to 16 bars.

AgrarPur® is high technology »Made in Germany« which is manufactured under highest quality standards due to a DIN EN ISO 9001:2008 certified Quality Management system.

Working pressure: -0,9 - 16 bar (depending on temperature)



AgrarPur® is characterized by very good flexibility with higher working pressure in combination with all famous attributes of Polyurethane:

- Extreme high burst pressure more than 40 bar
- high working pressure up to 16 bar
- Very good temperature resistance up to 80° C
- High flexibility with excellent resilience
- Plasticizer free
- High cross-breaking resistance
- Good abrasion resistance
- High elongation at break
- Very good ultraviolet resistance

The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outer/inner diameter mm |
|----------------|-------------|-------------------|-------------------------|
| 908352 ■ - ▲ | ■ | ▲ | 6 x 3,9 |
| 908353 ■ - ▲ | ■ | ▲ | 8 x 5,5 |
| 908354 ■ - ▲ | ■ | ▲ | 10 x 7 |
| 908355 ■ - ▲ | ■ | ▲ | 12 x 8 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours: (Free of heavy metals)

2 = Blue / 3 = Black / 6 = Yellow / 7 = Red

Other colours on request.

▲ In code represent length. Insert the desired length in the place of ▲

Standard length:

25-50-100 m (NB: Standard length in stock varies from country to country)

The tubes can be ordered as single or multi tubes as well as spiral tubes.

Ordering example code: 9083522-25 = Ø6/3,9 (code: 908352), Blue (■ colour = 2), 25 (▲ Length = 25 m)

PUR DUO SPIRAL ON POLYETHER BASIS

DISTRIBUTED BY

 P N E U M A T I C



PUR TUBING WITH OPTIMUM MECHANICAL PROPERTIES



We manufacture our standard product range made from polyether-polyurethane (PUR) for all classical pneumatic applications exclusively from German polyurethane manufacturers. Our tubes offer optimum mechanical properties and very high compressive strength over a wide temperature range. Even at higher temperatures and/or greater mechanical stress, this tubing still offers an adequate safety margin to ensure completely safe operation. The characteristic feature of this material grade is the opaqueness of uncoloured tubing. Additional properties are:

- High flexibility combined with optimum resilience
- Plasticise-free
- High flexibility at low temperatures (can be used up to -35°C)
- High elongation at break
- Good abrasion resistance
- Suitable for vacuum applications
- Suitable for drag chains

The production process we have developed enables us to calibrate both the outside diameter and the wall thickness. That makes our tubing simple to use with the plug-ins or screw unions of all leading manufacturers. Moreover, we ensure that the quality of our tubing remains within narrow limits compatible with plug-ins. This dimensional accuracy gives our tubing constant compressive strength at comparatively large inside diameters and makes it suitable for a wider range of practical uses.

By optimizing the throughput speed in combination with the optimal temperature during production, we also ensure that maximum benefit is derived from the specific material properties of PUR, giving our tubing the best possible properties in permanent service. All these measures are in line with our principle »Every inch a quality product«.



The standard range comprises the following sizes:

| Material code: | Colour code | Coil length meter | Outer/inner diameter mm | Wall thickness mm | Inner diameter mm | Weight g/m* | Minimal bend radius mm |
|----------------|-------------|-------------------|-------------------------|-------------------|-------------------|-------------|------------------------|
| 999354 ■ - ▲ | ■ | ▲ | 2 x 4 x 2,5 | 0,750 | 2 x 2,50 | 9,33 | 12 |
| 999355 ■ - ▲ | ■ | ▲ | 2 x 6 x 3,9 | 1,050 | 2 x 3,90 | 19,92 | 18 |
| 999356 ■ - ▲ | ■ | ▲ | 2 x 8 x 5,5 | 1,150 | 2 x 5,70 | 30,19 | 30 |
| 999357 ■ - ▲ | ■ | ▲ | 2 x 10 x 7 | 1,200 | 2 x 7,50 | 41,92 | 45 |
| 999358 ■ - ▲ | ■ | ▲ | 2 x 12 x 8 | 1,500 | 2 x 9,00 | 60,37 | 55 |

* values are calculated | other dimensions available

■ In code represent color. Insert the desired color code in the place of ■

Standard colours: (Free of heavy metals)

2 = Blue / 3 = Black / 4 = Natural / 5 = Green / 6 = Yellow / 7 = Red

Other colours on request.

▲ In code represent length. Insert the desired length in the place of ▲

Standard length:

25-50-100 m (NB: Standard length in stock varies from country to country)

The tubes can be ordered as single or multi tubes as well as spiral tubes.

Ordering example code: 9993542-25 = Ø 2x4x2,5 (code: 999354), Blue (■ colour = 2), 25 (▲ Length = 25m)

PUR DUO SPIRAL ON POLYETHER BASIS



"THE" PUR TUBING WITH OPTIMUM MECHANICAL PROPERTIES



We manufacture our standard product range made from polyether-polyurethane (PUR) for all classical pneumatic applications exclusively from German polyurethane manufacturers. Our tubes offer optimum mechanical properties and very high compressive strength over a wide temperature range. Even at higher temperatures and/or greater mechanical stress, this tubing still offers an adequate safety margin to ensure completely safe operation. The characteristic feature of this material grade is the opaqueness of uncoloured tubing. Additional properties are:

- high flexibility combined with optimum resilience
- plasticise-free
- high flexibility at low temperatures (can be used up to -35°C)
- high elongation at break
- good abrasion resistance
- suitable for vacuum applications
- suitable for drag chains

The production process we have developed enables us to calibrate both the outside diameter and the wall thickness. That makes our tubing simple to use with the plug-ins or screw unions of all leading manufacturers. Moreover, we ensure that the ovality of our tubing remains within narrow limits compatible with plug-ins. This dimensional accuracy gives our tubing constant compressive strength at comparatively large inside diameters and makes it suitable for a wider range of practical uses.

By optimizing the throughput speed in combination with the optimal temperature during production, we also ensure that maximum benefit is derived from the specific material properties of PUR, giving our tubing the best possible properties in permanent service. All these measures are in line with our principle »Every inch a quality product«.



The standard range comprises the following sizes:

| Material code: | Colour code: | Coil length code: | Outside-Ø in mm | Wall thickness in mm | Inside-Ø in mm | Weight g / m * | Minimal bend radius in mm |
|----------------|--------------|-------------------|-----------------|----------------------|----------------|----------------|---------------------------|
| 908390 ■ - ▲ | ■ | ▲ | 2 x 4 x 2,5 | 0,750 | 2 x 2,50 | 9,33 | 12 |
| 908392 ■ - ▲ | ■ | ▲ | 2 x 6 x 3,9 | 1,050 | 2 x 3,90 | 19,92 | 18 |
| 908393 ■ - ▲ | ■ | ▲ | 2 x 8 x 5,5 | 1,150 | 2 x 5,70 | 30,19 | 30 |
| 908394 ■ - ▲ | ■ | ▲ | 2 x 10 x 7 | 1,200 | 2 x 7,50 | 41,92 | 45 |
| 908395 ■ - ▲ | ■ | ▲ | 2 x 12 x 8 | 1,500 | 2 x 9,00 | 60,37 | 55 |

* values are calculated | other dimensions possible

■ In code represent color. Insert the desired color code in the place of ■

Standard colours: (Free of heavy metals)

2 = Blue /Black

Other colours on request.

▲ In code represent length. Insert the desired length in the place of ▲

Standard length:

2,5-5-10 m (NB: Standard length in stock varies from country to country)

The tubes can be ordered as single or multi tubes as well as spiral tubes.

Ordering example code: 9083902-2.5 = 2 X Ø 4/2,5 (code: 908390), Blue (■ colour = 2), 2,5 (▲ Length = 2,5 m)

NOTES

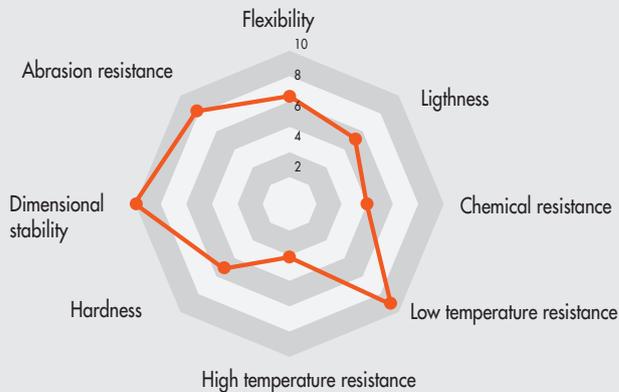
NOTES

Area for handwritten notes, consisting of a grid of alternating light and dark gray horizontal lines.

POLYURETHANE FABUTHANE® 54 Flexible



TECHNICAL FEATURES Polyurethan FABUTHANE® 54



(CE) Reg. 10/2011 - (CE) Reg. 1935/2004 -D.M.
21/03/73 - FDA Titolo 21 CFR 177.1680 - RESIN FEATURES

- Flexible ether-based polyurethane tube
- Stabilized to lighth
- Hardness 54 Shore D

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:
4 = Natural

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲
25-50-100 m (NB: Standard length in stock varies from country to country)

PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +60°C)



APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool



Robotics



Food transfer



Drinkable water



Hydrolysis resistance

| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------|-------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| 999900 ■ - ▲ | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 8.9 | 15 | 12 | 4 |
| Only on request | 4.3 ± 0.07 | 2.7 | 0.8 ± 0.07 | 10.2 | 20 | 12 | 4 |
| 999902 ■ - ▲ | 6 ± 0.07 | 3.8 | 1.1 ± 0.07 | 19.6 | 25 | 11 | 4 |
| 999903 ■ - ▲ | 8 ± 0.07 | 5.5 | 1.25 ± 0.07 | 30.8 | 40 | 9 | 4 |
| 999904 ■ - ▲ | 10 ± 0.07 | 7.5 | 1.25 ± 0.07 | 39.9 | 60 | 7 | 4 |
| 999905 ■ - ▲ | 12 ± 0.1 | 8 | 2 ± 0.07 | 73 | 50 | 10 | 4 |
| Only on request | 12 ± 0.1 | 9 | 1.5 ± 0.07 | 57.5 | 70 | 7 | 4 |
| Only on request | 16 ± 0.1 | 11 | 2.5 ± 0.07 | 123.2 | 75 | 9 | 4 |

Ordering example code: 9999024-25 = Ø 6/3,8 (code: 999902), Natural (■ colour = 4), 25 (▲ Length = 25 m)

POLYURETHANE FABUTHANE® 54 - Flexible

FOOD & BEVERAGE HOSE

KYNARFLEX® 2800

Linear flexible hose

DISTRIBUTED BY

 PNEUMATIC



TECHNICAL FEATURES Kynarflex® 2800



(CE) Reg. 10/2011 - (CE) Reg. 1935/2004 -D.M. 21/03/73
RESIN FEATURES

- KYNARFLEX® 2800 tube, vinylidene polyfluoride (PDVF), flexible copolymer with improved cold impact resistance
- Material intrinsically resistant to light, heat and aging
- UL94 V0 intrinsically self-extinguishing material with excellent chemical resistance

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■
 Standard colours: 4 = Natural
 Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲
 25-50-100 m (NB: Standard length in stock varies from country to country)

GRADE ALTERNATIVES

For food grade tubing, at the end of the standard code, "FA" must be added (eg TK4X6T100 for industrial applications not in contact with food; TK4X6T100FA for tubes suitable for contact with food).

APPLICATIONS



Industrial automation



Vacuum equipment



Chemical resistance



Low permeability



Pest control lines



Petroleum based chemical transfer



Food transfer

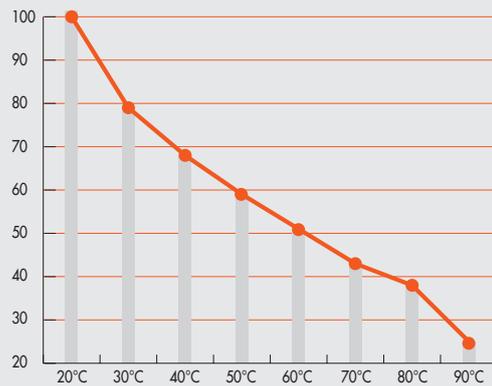


Self-extinguishing rate



UV resistance

PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +90°C)



| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------|--------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| Only on request | 2 ± 0.07 | 1 | 0.5 ± 0.07 | 4.2 | 10 | 55 | 4 |
| Only on request | 3 ± 0.07 | 2 | 0.5 ± 0.07 | 7.1 | 20 | 33 | 4 |
| 908310 ■ - ▲ | 4 ± 0.07 | 2 | 1 ± 0.07 | 17.1 | 15 | 55 | 4 |
| Only on request | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 13.9 | 25 | 38 | 4 |
| 908312 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 28.5 | 40 | 33 | 4 |
| 908313 ■ - ▲ | 8 ± 0.07 | 6 | 1 ± 0.07 | 39.9 | 70 | 23 | 4 |
| Only on request | 9.52 ± 0.07 | 6.35 | 1.585 ± 0.07 | 71.7 | 60 | 33 | 4 |
| 908314 ■ - ▲ | 10 ± 0.07 | 8 | 1 ± 0.07 | 51.3 | 110 | 18 | 4 |
| 908315 ■ - ▲ | 12 ± 0.1 | 10 | 1 ± 0.07 | 62.7 | 160 | 15 | 4 |
| Only on request | 16 ± 0.1 | 13 | 1.5 ± 0.07 | 124 | 185 | 17 | 4 |
| Only on request | 22 ± 0.1 | 18 | 2 ± 0.07 | 228.1 | 260 | 16 | 4 |

Ordering example code: 9083124-25 = Ø 6/4 (code: 9083122), Natural (■ colour = 4), 25 (▲ Length = 25 m)

PTFE Linear flexible hose

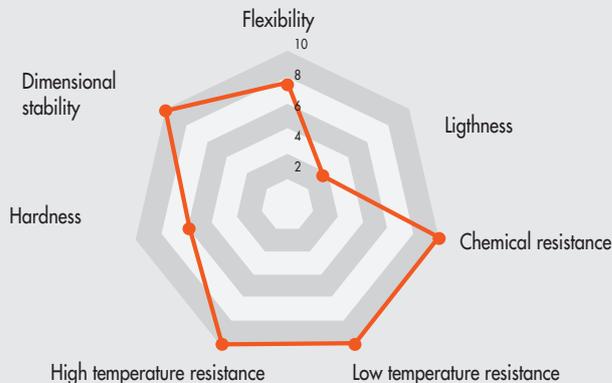


PTFE - Linear flexible hose

FOOD & BEVERAGE HOSE



TECHNICAL FEATURES PTFE linear flexible hose



RESIN FEATURES

- Flexible Polytetrafluoroethylene (PTFE) tube
- Material intrinsically resistant to light, heat and aging
- UL94 V0 intrinsically self-extinguishing material with excellent chemical resistance

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours: 4 = Natural
Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲
25-50-100 m (NB: Standard length in stock varies from country to country)

PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +200°C)



APPLICATIONS



Vacuum equipment



Chemical resistance



Low permeability



Food transfer



Steam



High temp above 150°C



Low temp below -60°C



Self-extinguishing rate



UV resistance

| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------------|--------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| Only on request | 3.17 | 1.6 ± 0.16 | 0.785 ± 0.15 | 12.6 | 15 | 25 | 4 |
| 999020 ■ - ▲ | 4 | 2 ± 0.16 | 1 ± 0.15 | 20.2 | 15 | 25 | 4 |
| Only on request | 4 | 2.5 ± 0.16 | 0.75 ± 0.15 | 16.4 | 25 | 17 | 4 |
| Only on request | 5 | 3 ± 0.2 | 1 ± 0.15 | 27 | 25 | 19 | 4 |
| Only on request | 6.35 | 3.18 ± 0.2 | 1.585 | 51 | 25 | 25 | 4 |
| 999040 ■ - ▲ | 6 | 4 ± 0.2 | 1 ± 0.15 | 33.7 | 40 | 15 | 4 |
| Only on request | 8 | 5 ± 0.2 | 1.5 ± 0.17 | 65.8 | 45 | 17 | 4 |
| 999060 ■ - ▲ | 8 | 6 ± 0.25 | 1 ± 0.15 | 47.2 | 70 | 10 | 4 |
| Only on request | 10 | 6 ± 0.25 | 2 ± 0.2 | 108 | 50 | 19 | 4 |
| Only on request | 9.52 | 6.35 ± 0.25 | 1.585 | 84.9 | 60 | 15 | 4 |
| 999080 ■ - ▲ | 10 | 8 ± 0.3 | 1 ± 0.15 | 60.7 | 115 | 8 | 4 |
| Only on request | 12 | 9 ± 0.3 | 1.5 ± 0.17 | 106.3 | 105 | 10 | 4 |
| 999090 ■ - ▲ | 12 | 10 ± 0.3 | 1 ± 0.15 | 74.2 | 165 | 6 | 4 |
| Only on request | 14 | 12 ± 0.35 | 1 ± 0.15 | 87.8 | 230 | 5 | 4 |
| 999091 ■ - ▲ | 15 | 12.5 ± 0.35 | 1.25 ± 0.17 | 116 | 210 | 6 | 4 |
| Only on request | 18 | 15 ± 0.35 | 1.5 ± 0.17 | 167.1 | 250 | 6 | 4 |

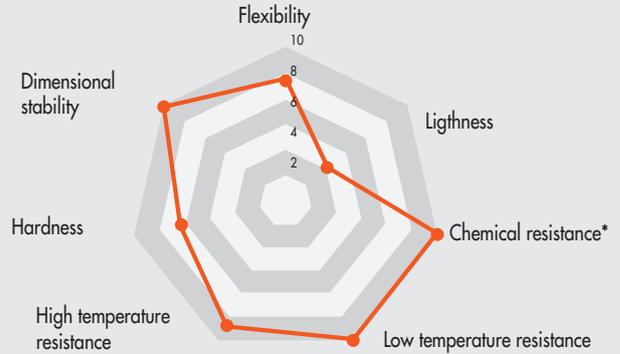
Ordering example code: 9990404-25 = Ø6/4 (code: 999040), Natural (■ colour = 4), 25 (▲ Length = 25 m)

F E P Linear flexible hose



DISTRIBUTED BY
**METAL
WORK**[®]
P N E U M A T I C

TECHNICAL FEATURES AT A GLANCE F E P



* End of catalog reference

(CE) Reg. 10/2011 - (CE) Reg. 1935/2004 -D.M. 21/03/73
RESIN FEATURES

- Flexible (FEP) tube
- Material intrinsically resistant to light, heat and aging
- UL94 V0 intrinsically self-extinguishing material with excellent chemical resistance

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:
4 = Natural

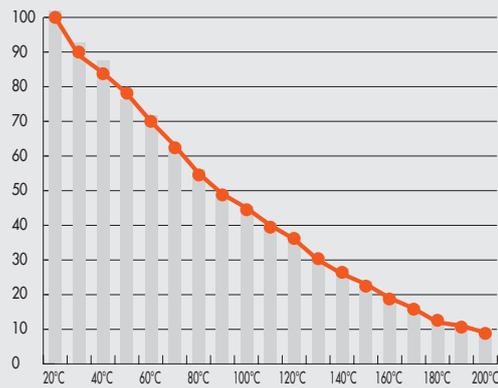
Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -40°C TO +200°C)



APPLICATIONS



Industrial automation



Vacuum equipment



Chemical resistance



Low permeability



Food transfer



High temp above 150°C



Low temp below -60°C



Steam



Self-extinguishing rate



UV resistance

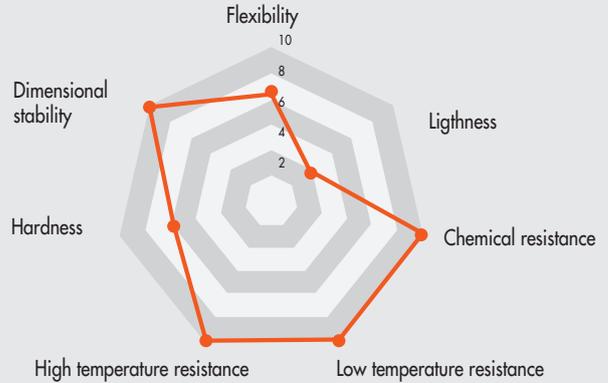
| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|--------------|----------------------|-------|-------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| 908300 ■ - ▲ | 4 ± 0.07 | 2 | 1 ± 0.07 | 20.6 | 15 | 30 | 4 |
| 908302 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 34.4 | 40 | 18 | 4 |
| 908303 ■ - ▲ | 8 ± 0.07 | 6 | 1 ± 0.07 | 48.2 | 70 | 12 | 4 |
| 908304 ■ - ▲ | 10 ± 0.07 | 8 | 1 ± 0.07 | 62 | 110 | 10 | 4 |
| 908305 ■ - ▲ | 12 ± 0.1 | 10 | 1 ± 0.07 | 75.7 | 160 | 8 | 4 |

Ordering example code: 9083024-25 = Ø6/4 (code: 908302), Natural (■ colour = 4), 25 (▲ Length = 25 m)

P F A Linear flexible hose



TECHNICAL FEATURES AT A GLANCE P F A



(CE) Reg. 10/2011 - (CE) Reg. 1935/2004 -D.M. 21/03/73
RESIN FEATURES

- Flexible perfluoroalkoxy (PFA) tube
- Material intrinsically resistant to light, heat and aging
- UL94 V0 intrinsically self-extinguishing material with excellent chemical resistance

WORKING PRESSURE

Safety factor 3:1

COLORS

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:
4 = Natural

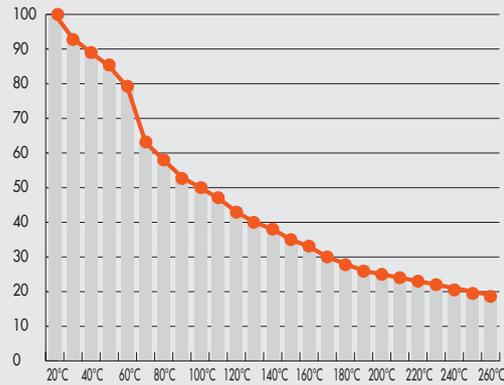
Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -60°C TO +260°C)



P F A - Linear flexible hose

FOOD & BEVERAGE HOSE

APPLICATIONS



Industrial automation



Chemical resistance



Vacuum equipment



Steam



Low permeability



Petroleum based chemical transfer



Food transfer



High temp above 150°C



Low temp below -60°C



Self-extinguishing rate



UV resistance

| Code | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------|--------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| Only on request | 4 ± 0.07 | 2 | 1 ± 0.07 | 20.6 | 15 | 30 | 4 |
| 999090 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 34.4 | 30 | 18 | 4 |
| Only on request | 6.35 ± 0.07 | 3.17 | 1.59 ± 0.07 | 52.1 | 30 | 22 | 4 |
| Only on request | 8 ± 0.07 | 6 | 1 ± 0.07 | 48.2 | 50 | 12 | 4 |
| Only on request | 9.52 ± 0.07 | 6.35 | 1.585 ± 0.07 | 86.6 | 45 | 13 | 4 |
| Only on request | 10 ± 0.07 | 8 | 1 ± 0.07 | 62 | 80 | 10 | 4 |
| Only on request | 12 ± 0.1 | 10 | 1 ± 0.07 | 75.7 | 115 | 8 | 4 |

Ordering example code: 9990904-25 = Ø6/4 (code: 999090), Natural (■ colour = 4), 25 (▲ Length = 25 m)

LINEAR LOW DENSITY POLYETHYLENE

Food grade linear low density polyethylene

DISTRIBUTED BY

 P N E U M A T I C



Reg.10/2011 D.M. 21-03-1973 FDA CFR 177.1520
RESIN FEATURES

- Low Density Polyethylene Linerary Tube (LLDPE), food grade, semi-flexible, light stabilized

WORKING PRESSURE

Safety factor 3:1

COLORS LEGEND*

■ In code represent color. Insert the desired color code in the place of ■

Standard colours:
 4 = Natural

Other colours on request.

STANDARD LENGTH

▲ In code represent length. Insert the desired length in the place of ▲

25-50-100 m (NB: Standard length in stock varies from country to country)

APPLICATIONS



Industrial automation



Vacuum equipment



Machine tool

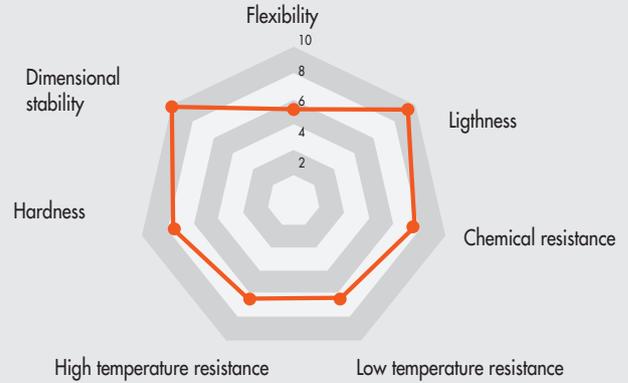


Chemical resistance

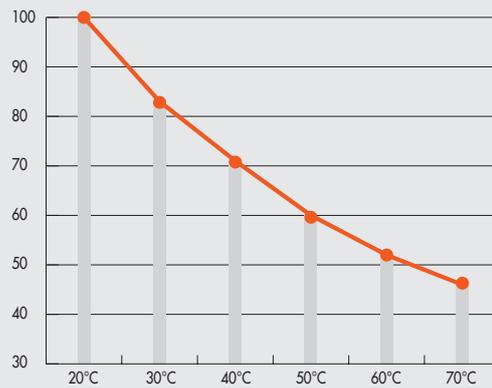


Food transfer

TECHNICAL FEATURES LINEAR LOW DENSITY POLYETHYLENE



PRESSURE VALUES EXPRESSED AS A % IN RELATION TO TEMPERATURE (FROM -20°C TO +70°C)



| Cod. | Hose dimensions (mm) | | | Weight g/m | Bending radius mm | Working pressure (23°C) BAR | Colors ■ |
|-----------------|----------------------|-------|--------------|---------------|----------------------|--------------------------------|-------------|
| | o Ø e | i Ø i | Wall thick. | | | | |
| Only on request | 3 ± 0.07 | 1.5 | 0.75 ± 0.07 | 5 | 10 | 30 | 3-4 |
| Only on request | 4 ± 0.07 | 2 | 1 ± 0.07 | 8.9 | 15 | 30 | 4 |
| 999100 ■ - ▲ | 4 ± 0.07 | 2.5 | 0.75 ± 0.07 | 7.2 | 20 | 20 | 3-4 |
| 999102 ■ - ▲ | 6 ± 0.07 | 4 | 1 ± 0.07 | 14.9 | 30 | 18 | 3-4 |
| Only on request | 6.35 ± 0.07 | 4.35 | 1 ± 0.07 | 16 | 35 | 16 | 4 |
| Only on request | 8 ± 0.07 | 5 | 1.5 ± 0.07 | 29.1 | 35 | 20 | 3-4 |
| 999103 ■ - ▲ | 8 ± 0.07 | 6 | 1 ± 0.07 | 20.9 | 60 | 12 | 3-4 |
| Only on request | 9.52 ± 0.07 | 6.35 | 1.585 ± 0.07 | 37.6 | 50 | 17 | 3-4 |
| 999104 ■ - ▲ | 10 ± 0.07 | 8 | 1 ± 0.07 | 26.9 | 90 | 10 | 3-4 |
| 999105 ■ - ▲ | 12 ± 0.1 | 9 | 1.5 ± 0.07 | 47.1 | 85 | 12 | 2-3-4 |
| Only on request | 12.7 ± 0.1 | 9.52 | 1.59 ± 0.07 | 52.8 | 90 | 12 | 3-4 |
| 999106 ■ - ▲ | 12 ± 0.1 | 10 | 1 ± 0.07 | 32.9 | 135 | 8 | 3-4 |
| Only on request | 14 ± 0.1 | 12 | 1 ± 0.07 | 38.9 | 185 | 6 | 3-4 |
| 999107 ■ - ▲ | 16 ± 0.1 | 12 | 2 ± 0.07 | 83.8 | 115 | 12 | 4 |
| Only on request | 16 ± 0.1 | 14 | 1 ± 0.07 | 44.8 | 240 | 6 | 4 |
| Only on request | 18 ± 0.1 | 15 | 1.5 ± 0.07 | 74 | 200 | 8 | 4 |
| Only on request | 20 ± 0.1 | 16 | 2 ± 0.07 | 107.7 | 180 | 10 | 4 |

Ordering example code: 9991024-25 = Ø6/4 (code: 999102), Natural (■ colour = 4), 25 (▲ Length = 25 m)

HOSE ACCESSORIES

For other products outside the catalogue please visit www.metalwork.it or contact us:

Metal Work Denmark
Metal Work Sverige
Metal Work Finland

tel. 0045 70 22 23 11
tel. 0046 040 42 07 00
tel. 00358 10 836 5700

metalwork@metalwork.dk
metalwork@metalwork.se
metalwork@metalwork.fi

STANDARD CUTTER

Plastic Cutter Code number = 9999992

Max cutting diameter \varnothing 12 mm



STANDARD CUTTER

Standard Cutter Code number = 9999998
Standard Blade Code number = 9999995

Max cutting diameter \varnothing 14 mm



BIG CUTTER

Big Cutter Code number = 9999990
Big Blade Code number = 9999991

Max cutting diameter \varnothing 24 mm



MULTIPLE HOSE RACK



| Cod. | Description | \varnothing Outside | Numbers of racks | L | B | H | L1 | a | b | c |
|-----------|-------------|-----------------------|------------------|-------|----|------|-----|-----|-----|------|
| 8305 ■ 51 | KK 4-10 | 4-5 | 10 | 100,4 | 14 | 9 | 5,2 | 6 | 2,4 | 10 |
| 8305 ■ 54 | KK 6-10 | 6 | 10 | 110 | 14 | 9 | 5,5 | 5,5 | 3 | 11 |
| 8305 ■ 57 | KK 8-10 | 8 | 10 | 140,4 | 15 | 12,5 | 6,4 | 7,5 | 2,8 | 14,2 |
| 8305 ■ 60 | KK 10-6 | 10 | 6 | 119,2 | 18 | 15 | 8,6 | 9 | 2,8 | 20,4 |
| 8305 ■ 63 | KK 12-6 | 12 | 6 | 118,5 | 18 | 16 | 8,6 | 10 | 2,8 | 20,4 |

■ Standard colours: 2 = Blue / 4 = Black

Ordering example code: KK 4-10, \varnothing outside 4-5, colour blue (2) = code 8305251

NOTES

Lined area for notes.

FOOD & BEVERAGE HOSE

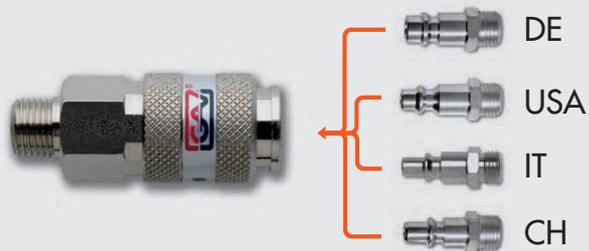
NOTES

Area with horizontal lines for notes.

NOTES

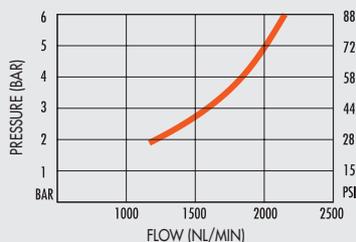
Lined area for notes.

SERIES UNI UNIVERSAL RAPID BALL TAPS

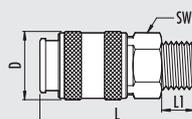


Operating temperature: -15 °C - +80 °C
Pressure: 0-16 Bar

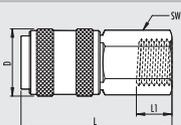
Universal tap with six balls (stainless steel) suitable for different profiles with very high air flow.



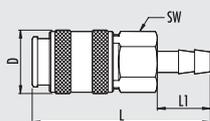
Also teflon-coated, available on request



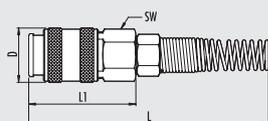
| Code | MIS. | L | D | L1 | SW | Quantity |
|-------|-------|------|----|------|----|----------|
| EUNI1 | R 1/4 | 58 | 24 | 11 | 20 | 100 |
| EUNI2 | R 3/8 | 54 | 24 | 11,5 | 20 | 100 |
| EUNI3 | R 1/2 | 56.5 | 24 | 14 | 22 | 100 |



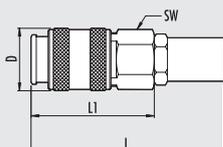
| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|-------|----|----|----|----|----------|
| EUNIA1 | G 1/4 | 55 | 24 | 11 | 20 | 100 |
| EUNIA2 | G 3/8 | 55 | 24 | 12 | 20 | 100 |
| EUNIA3 | G 1/2 | 55 | 28 | 14 | 25 | 100 |



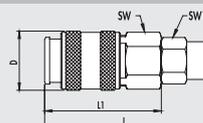
| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|------|----|----|----|----|----------|
| EUNIC1 | 6 | 67 | 24 | 20 | 20 | 100 |
| EUNIC2 | 8 | 67 | 24 | 20 | 20 | 100 |
| EUNIC3 | 10 | 67 | 24 | 20 | 20 | 100 |
| EUNIC4 | 12 | 71 | 24 | 24 | 20 | 100 |



| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|--------|-----|----|----|----|----------|
| EUNID1 | 5x8 | 148 | 24 | 47 | 20 | 100 |
| EUNID2 | 6x8 | 148 | 24 | 47 | 20 | 100 |
| EUNID3 | 8x10 | 148 | 24 | 47 | 20 | 100 |
| EUNID4 | 6.5x10 | 148 | 24 | 47 | 20 | 100 |
| EUNID5 | 8x12 | 155 | 24 | 38 | 20 | 50 |
| EUNID6 | 10x12 | 155 | 24 | 38 | 20 | 50 |



| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|---------|------|----|----|----|----------|
| EUNIB0 | 6x10 | 73 | 24 | 47 | 20 | 100 |
| EUNIB1 | 6x12 | 73 | 24 | 47 | 20 | 100 |
| EUNIB2 | 8x12 | 73 | 24 | 47 | 20 | 100 |
| EUNIB3 | 10x14.5 | 73.5 | 24 | 47 | 20 | 100 |
| EUNIB4 | 6x14 | 73.5 | 24 | 47 | 20 | 100 |
| EUNIB5 | 8x14 | 73.5 | 24 | 47 | 20 | 100 |
| EUNIB6 | 8x17 | 73.5 | 24 | 47 | 20 | 100 |
| EUNIB7 | 10x17 | 73.5 | 24 | 47 | 20 | 100 |
| EUNIB8 | 10x19 | 77 | 24 | 47 | 20 | 100 |



| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|---------|------|----|----|----|----------|
| EUNIF1 | 5x8 | 64.5 | 24 | 47 | 20 | 50 |
| EUNIF2 | 6.5x10 | 65 | 24 | 47 | 20 | 50 |
| EUNIF3 | 8x12 | 59 | 24 | 38 | 20 | 50 |
| EUNIF4 | 10x14.5 | 61 | 24 | 38 | 20 | 50 |

SERIES MAGNUM UNIVERSAL RAPID BALL TAPS

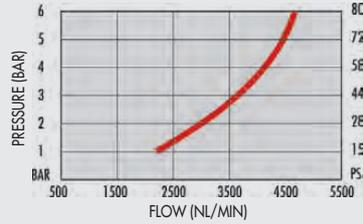


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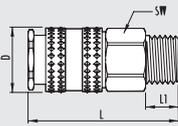


Operating temperature: -15 °C - +80 °C
Pressure: 0-20 Bar

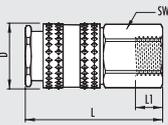
Universal tap with six balls (stainless steel) suitable for different profiles with very high air flow.



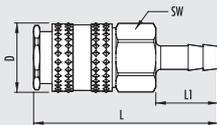
Also teflon-coated, available on request



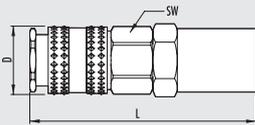
| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|-------|------|----|------|----|----------|
| E40001 | R 3/8 | 61.5 | 28 | 11.5 | 24 | 50 |
| E40002 | R 1/2 | 64 | 28 | 14 | 24 | 50 |
| E40003 | R 3/4 | 68 | | 18 | 27 | 50 |



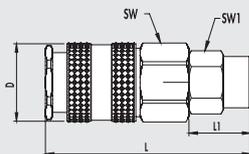
| Code | MIS. | L | D | L1 | SW | Quantity |
|---------|-------|----|----|------|----|----------|
| E4000A1 | G 3/8 | 58 | 28 | 11.5 | 24 | 50 |
| E4000A2 | G 1/2 | 65 | 28 | 14 | 27 | 50 |



| Code | MIS. | L | D | L1 | SW | Quantity |
|---------|------|----|----|----|----|----------|
| E4000C1 | 9 | 74 | 28 | 25 | 24 | 50 |
| E4000C2 | 13 | 74 | 28 | 25 | 24 | 50 |



| Code | MIS. | L | D | SW | Quantity |
|---------|-------|----|----|----|----------|
| E4000B1 | 10X19 | 85 | 85 | 24 | 50 |
| E4000B2 | 13X23 | 92 | 92 | 24 | 50 |

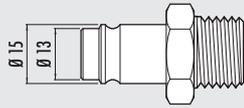


| Code | MIS. | L | D | L1 | SW | Quantity |
|---------|---------|------|----|------|----|----------|
| E4000F1 | 10x14.5 | 86.5 | 28 | 23.5 | 24 | 50 |
| E4000F2 | 13x19 | 90.5 | 28 | 25.5 | 27 | 50 |
| E4000F3 | 11x16 | 95.5 | 28 | 23.5 | 27 | 50 |

SERIES MAGNUM UNIVERSAL RAPID BALL TAPS - RAPID COUPLINGS

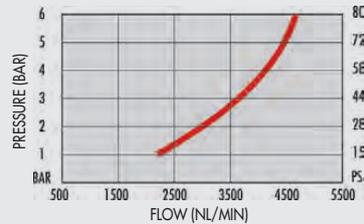


SERIE MAGNUM UNIVERSAL RAPID BALL TAPS - RAPID COUPLINGS

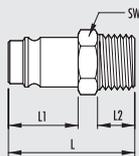


Operating temperature: -15 °C - +80 °C
Pressure: 0-20 Bar

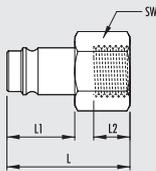
Universal tap with six balls (stainless steel) suitable for different profiles with very high air flow.



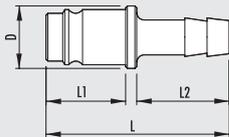
Also teflon-coated, available on request



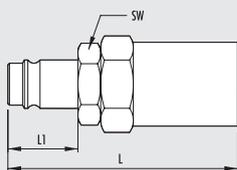
| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|-------|------|------|------|----|----------|
| E41001 | G 3/8 | 39 | 21.5 | 11.5 | 17 | 100 |
| E41002 | G 1/2 | 42.5 | 21.5 | 14 | 22 | 100 |
| E41003 | G 3/4 | 48.5 | 21.5 | 18 | 27 | 100 |



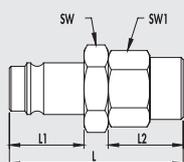
| Code | MIS. | L | D | L1 | SW | Quantity |
|---------|-------|----|------|----|----|----------|
| E4100A1 | G 3/8 | 39 | 21.5 | 11 | 22 | 100 |
| E4100A2 | G 1/2 | 42 | 21.5 | 13 | 27 | 100 |



| Code | MIS. | L | D | L1 | SW | Quantity |
|---------|------|------|----|------|----|----------|
| E4100C1 | 9 | 49.5 | 17 | 21.5 | 25 | 100 |
| E4100C2 | 13 | 49.5 | 19 | 21.5 | 25 | 100 |



| Code | MIS. | L | L1 | SW | Quantity |
|---------|-------|------|------|----|----------|
| E4100B1 | 10x19 | 67,5 | 21.5 | 22 | 100 |
| E4100B2 | 13x23 | 70.5 | 21.5 | 22 | 100 |



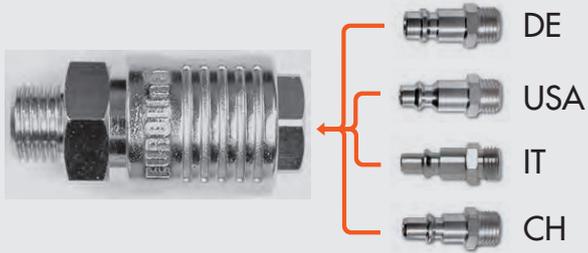
| Code | MIS. | L | D | L1 | SW | Quantity |
|---------|---------|----|------|------|----|----------|
| E4100F1 | 10x14.5 | 52 | 21.5 | 23.5 | 22 | 50 |
| E4100F2 | 13x19 | 54 | 21.5 | 25.5 | 22 | 50 |
| E4100F3 | 11x16 | 51 | 21.5 | 23.5 | 22 | 50 |

SERIE EUROLINE UNIVERSAL RAPID BALL TAPS



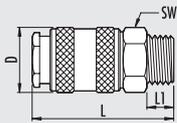
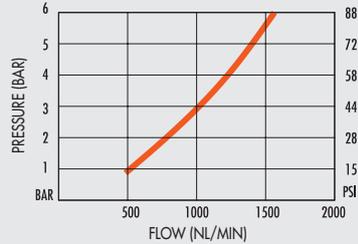
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P N E U M A T I C

SERIE EUROLINE UNIVERSAL RAPID BALL TAPS

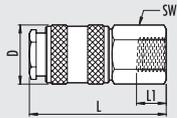


Operating temperature: -15 °C - +80 °C
Pressure: 0-16 Bar

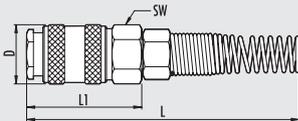
Universal tap with six balls (stainless steel) suitable for different profiles with very high air flow.



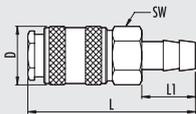
| Code | MIS. | L | D | L1 | SW | Quantity |
|-------|-------|------|----|------|----|----------|
| E1121 | G 1/4 | 46 | 22 | 9 | 19 | 100 |
| E1122 | G 3/8 | 47.5 | 22 | 9 | 19 | 100 |
| E1123 | G 1/2 | 48.5 | 22 | 10.5 | 22 | 100 |



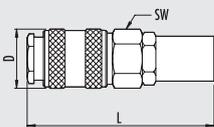
| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|-------|------|----|----|----|----------|
| E112A1 | G 1/4 | 52.5 | 22 | 11 | 19 | 100 |
| E112A2 | G 3/8 | 52.5 | 22 | 12 | 19 | 100 |



| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|------|-----|----|----|----|----------|
| E112D1 | 4x6 | 128 | 22 | 44 | 19 | 100 |
| E112D2 | 6x8 | 145 | 22 | 44 | 19 | 100 |
| E112D3 | 8x10 | 145 | 22 | 44 | 19 | 100 |

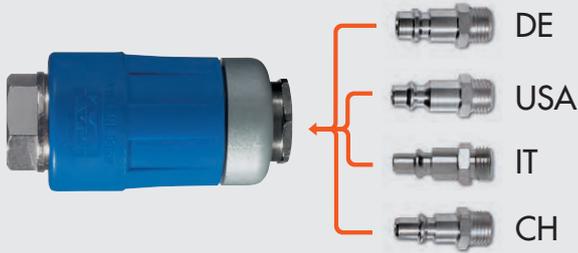


| Code | MIS. | L | D | L1 | SW | Quantity |
|--------|------|----|----|----|----|----------|
| E112C1 | 6 | 64 | 22 | 20 | 19 | 100 |
| E112C2 | 8 | 64 | 22 | 20 | 19 | 100 |
| E112C3 | 10 | 64 | 22 | 20 | 19 | 100 |



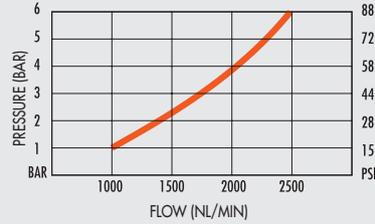
| Code | MIS. | L | D | SW | Quantity |
|--------|---------|------|----|----|----------|
| E112B1 | 6x10 | 70 | 22 | 19 | 100 |
| E112B2 | 6x12 | 70 | 22 | 19 | 100 |
| E112B3 | 6x14 | 70.5 | 22 | 19 | 100 |
| E112B4 | 8x12 | 70 | 22 | 19 | 100 |
| E112B5 | 8x14 | 70.5 | 22 | 19 | 100 |
| E112B6 | 8x17 | 70.5 | 22 | 19 | 100 |
| E112B7 | 10x14.5 | 70.5 | 22 | 19 | 100 |
| E112B8 | 10x17 | 70.5 | 22 | 19 | 100 |
| E112B9 | 10x19 | 74 | 22 | 19 | 100 |

SERIES AIRBLOCK UNIVERSAL SAFETY QUICK BALL COCKS



Operating temperature: -15 °C - +80 °C
Pressure: 0-20 Bar

Universal tap with six balls (stainless steel) suitable for different profiles with very high air flow.

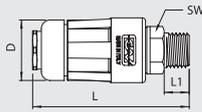


Also teflon-coated, available on request

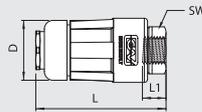
CONSTRUCTION STANDARDS

AIRBLOCK couplings comply with:

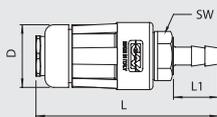
- the European Pressure Equipment Directive (PED) 97/23/CE
- the safety requirements of the ISO 4414 STANDARD



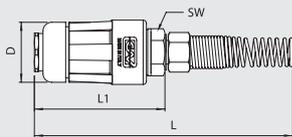
| Code | MIS. | L | D | L1 | SW | Quantity |
|------|-------|------|----|------|----|----------|
| EAB1 | R 1/4 | 71.5 | 28 | 11 | 19 | 25 |
| EAB2 | R 3/8 | 72 | 28 | 11,5 | 19 | 25 |
| EAB3 | R 1/2 | 74.5 | 28 | 14 | 22 | 25 |



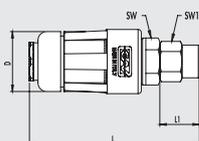
| Code | MIS. | L | D | L1 | SW | Quantity |
|-------|-------|------|----|----|----|----------|
| EABA1 | G 1/4 | 60.5 | 28 | 10 | 19 | 25 |
| EABA2 | G 3/8 | 60.5 | 28 | 10 | 19 | 25 |
| EABA3 | G 1/2 | 72 | 28 | 14 | 27 | 25 |



| Code | MIS. | L | D | L1 | SW | Quantity |
|-------|------|------|----|----|----|----------|
| EABC1 | 6 | 80.5 | 28 | 20 | 19 | 25 |
| EABC2 | 8 | 80.5 | 28 | 20 | 19 | 25 |
| EABC3 | 10 | 80.5 | 28 | 20 | 19 | 25 |



| Code | MIS. | L | D | L1 | SW | Quantity |
|-------|--------|-----|----|------|----|----------|
| EABD1 | 5x8 | 162 | 28 | 60.5 | 19 | 25 |
| EABD2 | 6x8 | 162 | 28 | 60.5 | 19 | 25 |
| EABD3 | 6.5x10 | 163 | 28 | 60.5 | 19 | 25 |
| EABD4 | 8x10 | 163 | 28 | 60.5 | 19 | 25 |
| EABD5 | 8x12 | 179 | 28 | 60.5 | 19 | 25 |
| EABD6 | 10x12 | 179 | 28 | 60.5 | 19 | 25 |



| Code | MIS. | L | D | L1 | SW | Quantity |
|-------|---------|------|----|------|----|----------|
| EABF1 | 5x8 | 78 | 28 | 17.5 | 19 | 25 |
| EABF2 | 6.5x10 | 78.5 | 28 | 18 | 19 | 25 |
| EABF3 | 8x12 | 81.5 | 28 | 21 | 19 | 25 |
| EABF4 | 10x14.5 | 83.5 | 28 | 23 | 19 | 25 |

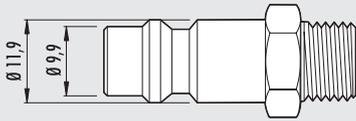
RAPID COUPLINGS



DISTRIBUTED BY

RAPID COUPLINGS

DE



Also teflon-coated, available on request

MALE CONNECTOR



| Code | Thread | Quantity |
|-------|--------|----------|
| E1131 | 1/4 M | 100 |
| E1132 | 3/8 M | 100 |
| E1133 | 1/2 M | 100 |

FEMALE CONNECTOR



| Code | Thread | Quantity |
|--------|--------|----------|
| E113A1 | 1/4 F | 100 |
| E113A2 | 3/8 F | 100 |
| E113A3 | 1/2 F | 100 |

FITTING FOR RILSAN RUBBER AND POLYURETHANE PIPE



| Code | Ø Pipe | Quantity |
|--------|--------|----------|
| E113D1 | 4x6 | 100 |
| E113D2 | 5x8 | 100 |
| E113D3 | 6x8 | 100 |
| E113D4 | 8x10 | 100 |
| E113D5 | 6,5x10 | 100 |
| E113D6 | 8x12 | 100 |
| E113D7 | 10x12 | 100 |

PIPE CONNECTOR



| Code | Ø Pipe | Quantity |
|--------|--------|----------|
| E113C1 | 6 | 100 |
| E113C2 | 8 | 100 |
| E113C3 | 10 | 100 |
| E113C4 | 12 | 100 |

FITTING FOR REINFORCED RUBBER AND POLYURETHANE PIPE



| Code | Ø Pipe | Quantity |
|--------|---------|----------|
| E113B1 | 6x10 | 100 |
| E113B2 | 6x12 | 100 |
| E113B3 | 6x14 | 100 |
| E113B4 | 8x12 | 100 |
| E113B5 | 8x14 | 100 |
| E113B6 | 8x17 | 100 |
| E113B7 | 10x14,5 | 100 |
| E113B8 | 10x17 | 100 |
| E113B9 | 10x19 | 100 |

MALE CONNECTOR



| Code | Thread | Quantity |
|-------|--------|----------|
| E113E | | 100 |

AIR GUNS - 5000 SERIES

PROFESSIONAL AIR SAFETY BLOWING GUN



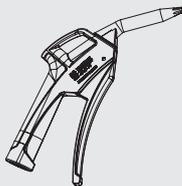
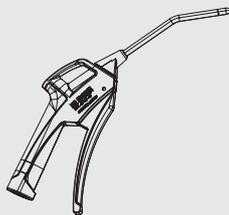
5000 SERIES PROFESSIONAL AIR SAFETY BLOWING GUN



The 5000 series professional blow guns are made from the highest quality material. Easy to handle thanks to the ergonomic grip and soft touch material inserts, allowing to get less tired and a reduction of hand injuries caused by repetitive movements. The full range of 5000 series blowguns has a progressive adjustment that enables a precise flow achieved. The series is used for several industrial application and suitable for cleaning surfaces with compressed air.

FEATURES AND TECHNICAL DATA

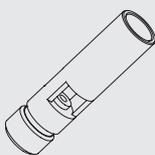
- High impact resistant composite material body gun.
- Soft touch rubber handle and inserts.
- Trigger with progressive air flow adjustment.
- Stainless steel nozzle according to **OSHA safety** standards.
- **Brass insert** 1/4 female gas connection.
- Working pressure: 6-8 bar.
- Maximum operating pressure: 16 bar.
- Operating temperature: -20°+70° C.



| Code | Connection | Nozzle | Regulations |
|--------|-------------------------|--------|--------------------------------|
| E50001 | 1/4 gas in ottone/brass | mm 150 | OSHA safety standar complained |
| E50002 | 1/4 gas in ottone/brass | mm 300 | OSHA safety standar complained |
| E50003 | 1/4 gas in ottone/brass | mm 500 | OSHA safety standar complained |
| E50004 | 1/4 gas in ottone/brass | mm 800 | OSHA safety standar complained |

| | | | |
|--------|-------------------------|-------|--------------------------------|
| E50005 | 1/4 gas in ottone/brass | mm 80 | OSHA safety standar complained |
|--------|-------------------------|-------|--------------------------------|

ACCESSORIES



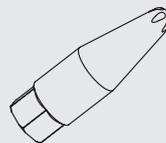
UV60AP

Air flow to 6 bars: 600 l/min



D60AP

Protezione. disk



S60AP

Abrasion-resistant and sound-absorbing rubber nozzle.



AT0143

1/4 nickel plated brass flow regulator for tools and guns with lock ring adjustment.

AIR GUNS - 60AP SERIES

Professional blowing gun provided with lever for adjustment of the air flow



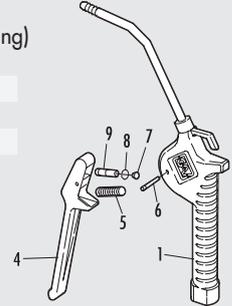
DISTRIBUTED BY

60AP150



- Air flow to 12 bars: 270 l/min
- Extension: 150 mm (Specify the kind of coupling)

| Code | Connection |
|----------|--------------------------|
| E60AP150 | Air-guns - 60AP - 300 mm |



60AP300



- Extension: 300 mm

| Code | Connection |
|----------|--------------------------|
| E60AP300 | Air-guns - 60AP - 300 mm |

60AP500



- Extension: 500 mm

| Code | Connection |
|----------|--------------------------|
| E60AP500 | Air-guns - 60AP - 500 mm |

60AP800



- Extension: 800 mm

| Code | Connection |
|----------|--------------------------|
| E60AP800 | Air-guns - 60AP - 800 mm |

AIR GUNS - 60AP SERIES - Professional blowing gun provided with lever for adjustment of the air flow

QUICK CONNECTORS & ACCESSORIES

AIR HOSE AND HOSE CLAMPS



RUBBER PIPE



| Code | Ø Measure | Length mt |
|---------|-----------|-----------|
| E30007 | 6 x 12 | 100 |
| E30008 | 6 x 14 | 100 |
| E30009 | 8 x 14 | 100 |
| E300010 | 8 x 17 | 100 |
| E300011 | 10 x 17 | 100 |
| E300012 | 10 x 19 | 50 |

Operating temperature: -40°C +80°C
Pressure: 20 bars

POLYURETHANE PIPE



FEATURES

- Colour blue
- Temperature range: -40°C +80°C
- Flexible polyurethane hose with polyester threads reinforcement
- Very flexible even at low temperature
- Extremely resistant to abrasion and torsion
- High safety guaranteed by tight connection on fitting
- Applications fields: compressed air, pneumatic tools and lines, spray and painting guns, sandblast and abrasion resistant applications in general.

| Code | Ø Inside | Ø Outside | Weight gr/mt | Working press. kg/cm ² | Press. bursting kg/cm ² | Roll length mt | Volume |
|--------|----------|-----------|--------------|-----------------------------------|------------------------------------|----------------|--------|
| E30101 | 6 1/4" | 10 | 60 | 20 | 70 | 50 | 0.022 |
| E30102 | 8 5/16" | 12 | 75 | 20 | 75 | 50 | 0.026 |
| E30103 | 10 3/8" | 14-5 | 100 | 20 | 70 | 50 | 0.042 |

HOSE CLAMPS WIT



| Code | Ø Min/Max | Width | Quantity |
|--------|-----------|-------|----------|
| E12691 | 8/11 | 6.5 | 100 |
| E12692 | 11/13 | 7 | 100 |
| E12693 | 13/15 | 7 | 100 |
| E12694 | 14/17 | 7 | 100 |
| E12695 | 15/18 | 7 | 100 |
| E12696 | 17/20 | 7 | 100 |

ACCESSORIES

DISTRIBUTED BY

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metalwork@metalwork.dk
 metalwork@metalwork.se
 metalwork@metalwork.fi

ABM SERIES - AIRBLOCK SECURITY MAGNUM COUPLERS



RRP SERIES - THERMOPLASTIC COUPLERS



"CRISTAL" WIRED TRANSPARENT PVC HOSE



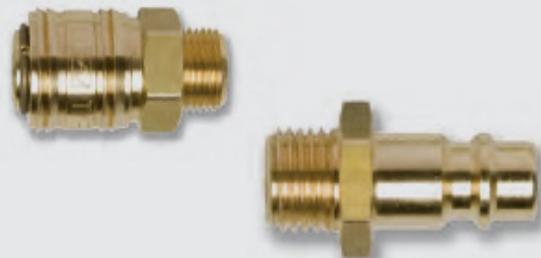
"CRISTAL " WIRED PVC HOSE WITH QUICK COUPLINGS



WIRED RUBBER HOSE WITH BAYONET COUPLINGS



AIR COMPRESSED CONNECTORS SERIES OT.58



BLOWING GUN PROVIDED WITH SAFETY NOZZLE EXTREMELY EFFICIENT



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AUTOMATIC FITTINGS - AISI 316L STAINLESS STEEL



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FITTINGS - BANJO D SERIES



FITTINGS - STAINLESS STEEL (AISI 316L)



NOTES

Area for handwritten notes, consisting of a grid of alternating light and dark gray horizontal lines.

NOTES

Lined area for notes, consisting of a series of horizontal lines on a light gray background.

NOTES

Area for handwritten notes with horizontal lines.

NOTES

Lined area for notes, consisting of a series of horizontal lines on a light gray background.

NOTES

NOTES

Lined area for notes, consisting of a series of horizontal lines on a light gray background.



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