



KONGSBERG
AUTOMOTIVE

Product Catalogue

Fluid Systems - Complementary Products



Enhancing the driving experience

Valid from 2013

*Kongsberg Automotive has operations in
twenty countries on four continents.
Our customer portfolio comprises more than
fifty vehicle manufactures.*



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OUR BUSINESS

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A lifetime of service and support

The world's commercial vehicle manufacturers require innovative solutions that offer functionality, comfort and safety. Kongsberg Automotive's customers include a broad range of leading manufacturers worldwide.

To meet individual specifications on concept, design and technical issues,

vehicle manufacturers prefer a close co-operation with Kongsberg Automotive.

By focusing on easy installation, cost-effectiveness, and environment-friendly solutions, Kongsberg Automotive provides added value to customers all over the world.



www.kongsbergautomotive.com

Aligned with customers' demands

Close follow-up of deliveries is important to customers' success. Potential deviations are therefore resolved at an early phase or eliminated through product modifications. Kongsberg Automotive follows up after-market sales through close contact with vehicle manufacturers and dealers, as well as end users.

Our manufacturing facilities and sales offices have a global reach, enabling us to optimise production and to be close to our customers.

We provide professional service to our customers within:

- ▶ Sales and logistics
- ▶ Product function training
- ▶ Product installation training
- ▶ Product repair training
- ▶ Warranty handling

Kongsberg Automotive has a global network of distributors to ensure rapid delivery to all corners of the world. See our webpages to find the distributor covering your country.



Our business

Kongsberg Automotive is a global provider of engineering, design, and manufacture for seat comfort, driver and motion control systems, fluid assemblies, and industrial driver interface products.

Our product line includes systems for seat comfort, clutch actuation, cable

actuation, gear shifters, transmission control systems, stabilizing rods, couplings, electronic engine controls, speciality hoses, tubes and fittings.

We target the automotive, commercial vehicle and industrial markets.

Our mission

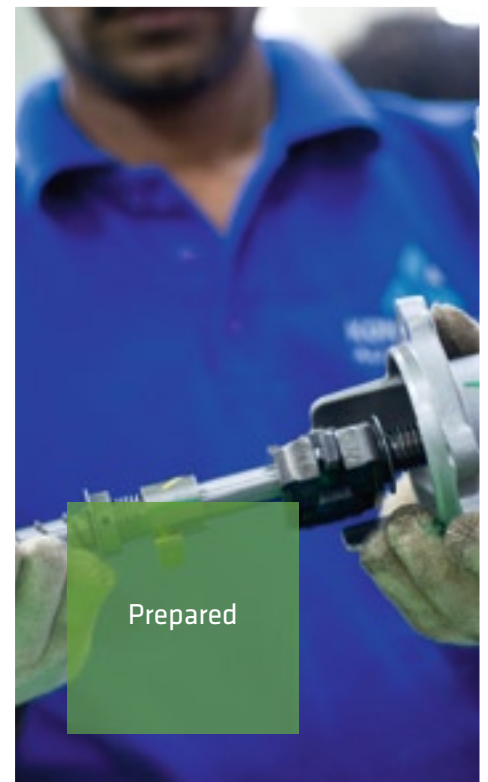
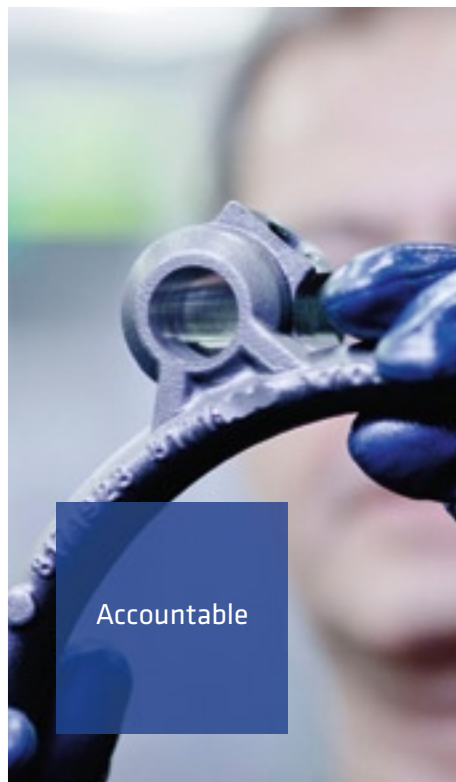
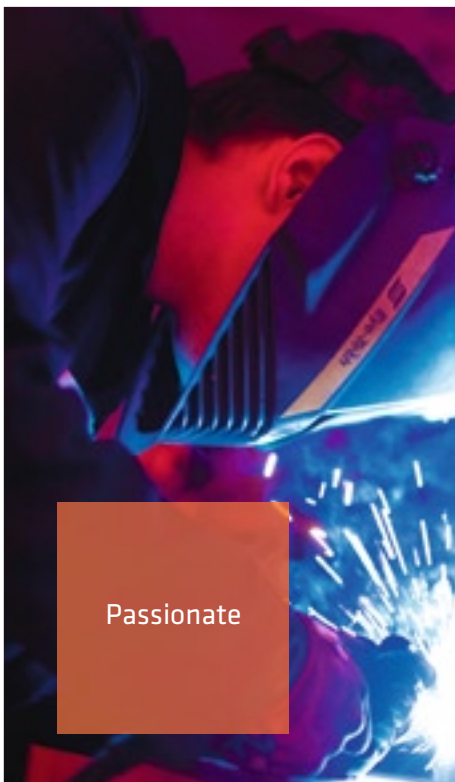
Kongsberg Automotive provides world class products to the global vehicle industry. Our products enhance the driving experience, making it safer, more comfortable and sustainable.

We secure growth and create stakeholder value by:

- Making the health and safety of our employees and the quality of our products a top priority.

- Developing unique solutions for growing market segments, while continuously focusing on improving our processes.

- Having the most passionate, accountable and prepared people, striving to be the best possible partner for our customers and suppliers, creating a company that we're proud to work for.





Enhancing
the driving
experience

Our vision


“Enhancing the driving experience”

Why every day we try to make things better than we did yesterday. No matter what vehicle you drive or operate, it's our vision to enhance your driving experience.

Whatever position, role or work assignment we hold in the KA-team, we all contribute to making your vehicle safer, more comfortable and sustainable. To us this is a never-ending goal, pushing us to look for the better way every day.

Our values

We are Kongsberg Automotive



Passionate
Accountable
Prepared

Raufoss kits

Kits Raufoss

Raufoss Kits

GB

Multibox Raufoss BRK

FR

Multibox Raufoss BRK

DE

Multibox Raufoss BRK



Ref.

260101

Content (175 pieces)

Ref.	Designation	Qty	Ref.	Designation	Qty
6237212	Push-in Coupling M 12x1,5 - T 6x1	5	6237743	Socket joint M 16x1,5	5
6237216	Push-in Coupling M 16x1,5 - T 6x1	5	6237862	90° Elbow 2 Tappings M 16x1,5	5
6237232	Push-in Coupling M 12x1,5 - T 8x1	5	6237864	Union T 3 Tappings M 16x1,5	5
6237236	Push-in Coupling M 16x1,5 - T 8x1	5	6236833	90° Elbow P5 M 16x1,5	10
6237237	Push-in Coupling M 22x1,5 - T 8x1	5	6236835	Union T P5 - M 16x1,5	5
6237336	Push-in Coupling M 16x1,5 - T 10x1,5	5	6236834	Union L P5 - M 16x1,5	5
6237337	Push-in Coupling M 22x1,5 - T 10x1,5	5	6237999	Bulkhead coupling M 16x1,5 - M 22x1,5	5
6237376	Push-in Coupling M 16x1,5 - T 12x1,5	10	6237205	Tube connector 6x1	5
6237377	Push-in Coupling M 22x1,5 - T 12x1,5	5	6237225	Tube connector 8x1	5
6237456	Push-in Coupling M 16x1,5 - T 16x2	5	6237325	Tube connector 10x1,5	5
6237457	Push-in Coupling M 22x1,5 - T 16x2	5	6237365	Tube connector 12x1,5	5
6237476	Push-in Coupling M 16x1,5 - T 18x2	5	6237465	Tube connector 16x2	5
6237477	Push-in Coupling M 22x1,5 - T 18x2	5	6237776	Test point M 16x1,5	5
6237012	Plug-in P5 M 12x1,5	5	6237607	Plug M 16x1,5 with joint	5
6237016	Plug-in P5 M 16x1,5	10	6237608	Plug M 22x1,5 with joint	5
6237017	Plug-in P5 M 22x1,5	5	6237616	Transfer adapter M 22x1,5 - M 16x1,5	5

See detailed product information in our Raufoss Couplings Catalogue.



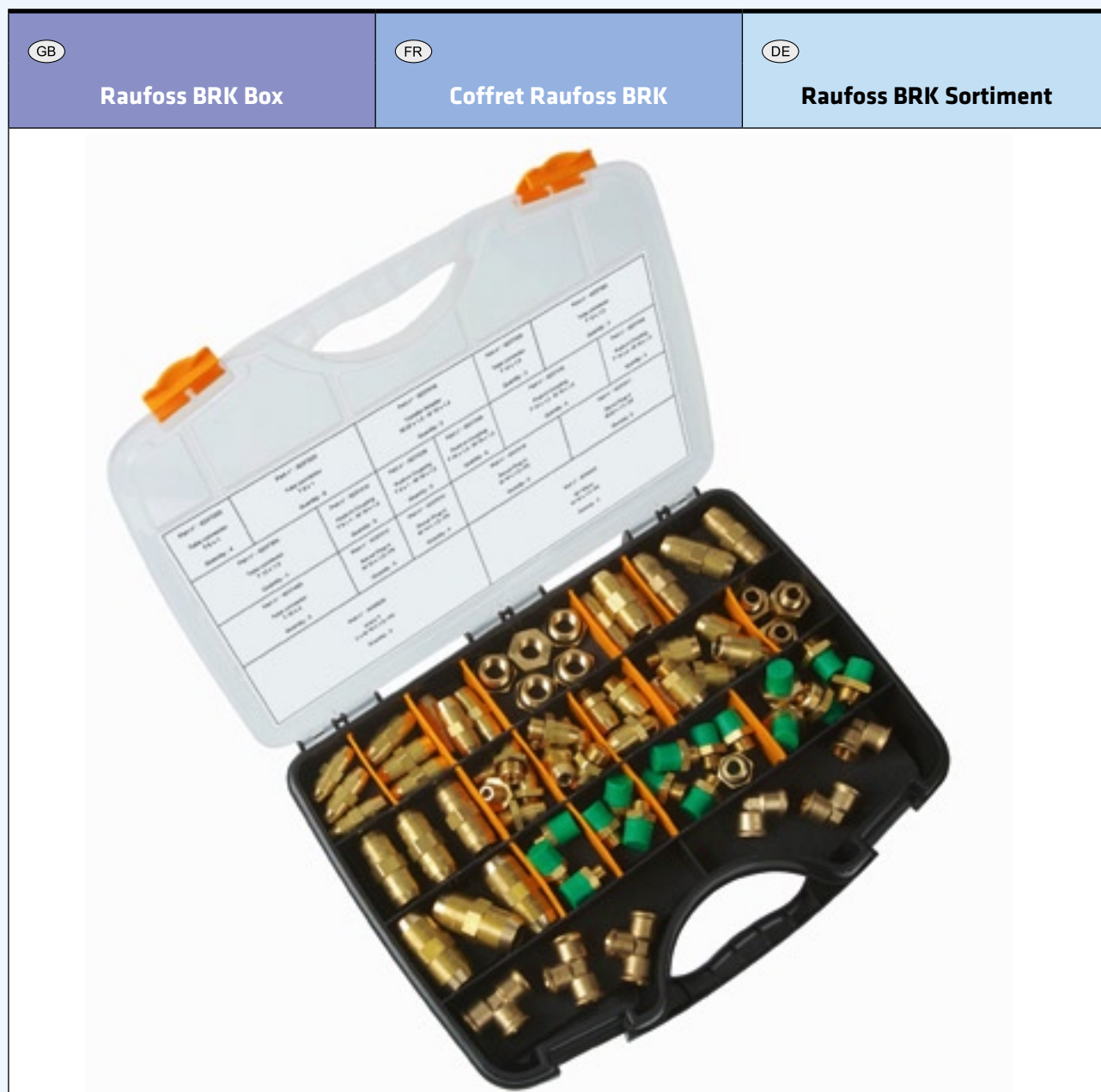
Ref.

260100

Content (188 pieces)


Ref.	Designation	Qty	Ref.	Designation	Qty
6237205	Tube connector 6x1	5	90212005	Push-in Coupling ABC T 12x1,5	10
6237225	Tube connector 8x1	5	92050030	ABC Union Y Regular	3
6237325	Tube connector 10x1,5	5	92050090	ABC 90° Elbow Regular	5
6237365	Tube connector 12x1,5	5	92050010	ABC Union T&L Regular	5
6237465	Tube connector 16x2	3	96150205	ABC Union Female Regular	5
90106012	Push-in Coupling M 12x1,5 T 6x1	3	96050000	ABC Threadless Test point R	3
90106016	Push-in Coupling M 16x1,5 T 6x1	3	96452018	Exagonal Rotolock 18mm	3
90108012	Push-in Coupling M 12x1,5 T 8x1	3	96450022	Exagonal Rotolock 22mm	3
90108016	Push-in Coupling M 16x1,5 T 8x1	5	96452028	Exagonal Rotolock 28mm	3
90108022	Push-in Coupling M 22x1,5 T 8x1	3	96606010	Release Tool Standard T 6x1	5
90112016	Push-in Coupling M 16x1,5 T 12x1,5	8	96608010	Release Tool Standard T 8x1	5
90112022	Push-in Coupling M 22x1,5 T 12x1,5	5	96612710	Release Tool Standard T 12x1,5	5
90116016	Push-in Coupling M 16x1,5 T 16x2	3	96616010	Release Tool Standard T 15x1,5	5
90116022	Push-in Coupling M 22x1,5 T 16x2	3	93160016	ABC Swivel Heavy Duty M 16x1,5	3
96210008	Pusch-in Plug T 8x1	3	93160022	ABC Swivel Heavy Duty M 22x1,5	3
96210012	Pusch-in Plug T 12x1,5	3	96460022	Rotolock Heavy Duty 22mm	3
93150012	ABC Swivel Regular M 12x1,5	3	96462028	Rotolock Heavy Duty 28mm	3
93150014	ABC Swivel Regular M 14x1,5	3	96150106	ABC Reducer HD -> Regular	3
93150016	ABC Swivel Regular M 16x1,5	10	92060090	ABC 90° Elbow Heavy Duty	3
93150022	ABC Swivel Regular M 22x1,5	10	92060010	ABC Union T&L Heavy Duty	3
90206005	Push-in Coupling ABC T 6x1	3	90216006	ABC Threadless Coupling HD T 16x2	3
90208005	Push-in Coupling ABC T 8x1	10			

See detailed product information in our Raufoss Couplings Catalogue.

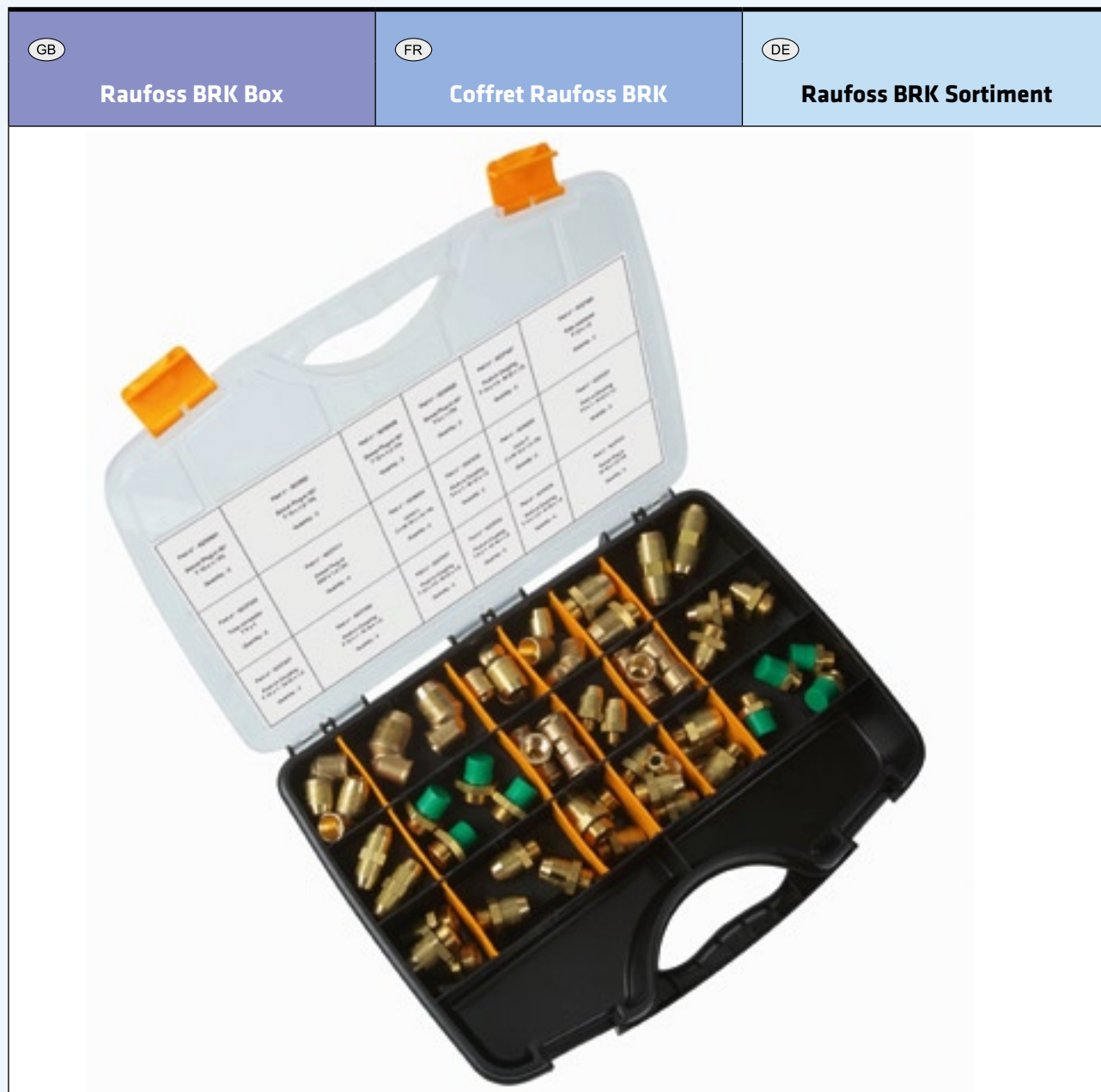


Ref.	Designation				
260096	Raufoss BRK Couplings box				
Content (75 pieces)					
Ref.	Designation	Qty	Ref.	Designation	Qty
6237205	Tube connector 6x1	4	6237456	Push-in Coupling M 16x1,5 - T 16x2	3
6237225	Tube connector 8x1	6	6237012	Swivel Plug-in P5 M 12x1,5	3
6237325	Tube connector 10x1,5	3	6237014	P5 Swivel Plug-in P5 M 14x1,5	3
6237365	Tube connector 12x1,5	6	6237016	P5 Swivel Plug-in P5 M 16x1,5	6
6237465	Tube connector 16x2	3	6237017	P5 Swivel Plug-in P5 M 22x1,5	5
6237216	Push-in Coupling M 16x1,5 - T 6x1	5	6236835	Union T P5 M 16x1,5	3
6237236	Push-in Coupling M 16x1,5 - T 8x1	5	6236833	90° Elbow P5 M 16x1,5	3
6237336	Push-in Coupling M 16x1,5 - T 10x1,5	6	6237616	Transfer adapter M 22x1,5 - M 16x1,5	5
6237376	Push-in Coupling M 16x1,5 - T 12x1,5	6			

See detailed product information in our Raufoss Couplings Catalogue.


GB Raufoss BRK Box	FR Coffret Raufoss BRK	DE Raufoss BRK Sortiment
		
Content (75 pieces)		
Ref.	Designation	
260096B	Same content as in the reference 260096 plus a Tube 15x1,5 M 16 x 1,5 male tube connector	

See detailed product information in our Raufoss Couplings Catalogue.



Ref.	Designation				
260096WI	Raufoss BRK Couplings box				
Content (49 pieces)					
Ref.	Designation	Qty	Ref.	Designation	Qty
6237365	Tube connector 12x1,5	2	90115022	Push-in Coupling M 22x1,5 - T 15x1,5	2
6237225	Tube connector 8x1	2	6236826	90° Elbow P5 - T 8x1	2
6237232	Push-in Coupling M 12x1,5 - T 8x1	2	6236991	90° Elbow P5 - T 10x1	2
6237236	Push-in Coupling M 16x1,5 - T 8x1	4	6236836	90° Elbow P5 - T 12x1,5	3
6237237	Push-in Coupling M 22x1,5 - T 8x1	3	6236992	90° Elbow P5 - T 15x1,5	2
6237307	Push-in Coupling M 22x1,5 - T 10x1	3	6237016	P5 Swivel Plug-in M 16x1,5	4
6237306	Push-in Coupling M 16x1,5 - T 10x1	3	6237017	P5 Swivel Plug-in M 22x1,5	4
6237377	Push-in Coupling M 22x1,5 - T 12x1,5	3	6236834	Union L P5 - M 16x1,5	2
6237376	Push-in Coupling M 16x1,5 - T 12x1,5	4	6236835	Union T P5 - M 16x1,5	2

See detailed product information in our Raufoss Couplings Catalogue.

(GB) Raufoss BRK Box	(FR) Coffret Raufoss BRK	(DE) Raufoss BRK Sortiment			
					
Ref.	Designation				
260093	P5 Building Block System				
Content (49 pieces)					
Ref.	Designation	Qty	Ref.	Designation	Qty
6237012	Swivel P5 - M 12x1,5	3	6236992	W-90-PUSH-IN P5 - T 15x1,5	2
6237014	Swivel P5 - M 14x1,5	1	6236840	W-90-PUSH-IN P5 - T 16x2,0	2
6237016	Swivel P5 - M 16x1,5	3	6236845	F-Union P5 - M 16x1,5	2
6237017	Swivel P5 - M 22x1,5	3	6236832	45° Elbow P5 - M 16x1,5	2
6237036	Swivel with Bulkhead P5 - M 22x1,5 - M 16x1,5	2	6236833	90° Elbow P5 - M 16x1,5	2
6237037	Swivel with Bulkhead P5 - M 18x1,5 - C 24 T12	2	6236834	L-Union P5 - M 16x1,5	3
6236816	90-PUSH-IN P5 - T 6x1,0	2	6236835	T-Union P5 - M 16x1,5	3
6236826	90-PUSH-IN P5 - T 8x1,0	3	6236846	3-Way-Block P5 - M 16x1,5	2
6236991	90-PUSH-IN P5 - T 10x1,0	3	6236838	4-Way-Cross-Block P5 - M 16x1,5	1
6236814	90-PUSH-IN P5 - T 10x1,25	3	6236839	4-Way-Block "L" P5 - M 16x1,5	1
6236836	90-PUSH-IN P5 - T 12x1,5	3	6236837	4-Way-Block "T" P5 - M 16x1,5	1

See detailed product information in our Raufoss Couplings Catalogue.

GB

Raufoss Box ABC

FR

Coffret Raufoss ABC

DE

Raufoss ABC Sortiment



Ref.	Designation				
2600960	Raufoss ABC Couplings box				
Content (101 pieces)					
Ref.	Designation	Qty	Ref.	Designation	Qty
93150012	ABC Swivel Regular M 12x1,5	3	96210012	Push-in Plug T 12x1,5	3
93150014	ABC Swivel Regular M 14x1,5	2	90206005	Push-in Coupling ABC T 6x1	2
93150016	ABC Swivel Regular M 16x1,5	5	90208005	ABC Threadless Coupling Reg T 8x1	5
93150022	ABC Swivel Regular M 22x1,5	3	90212005	Push-in Coupling ABC T 12x1,5	5
90106012	Push-in Coupling M 12x1,5 T 6x1	3	90216006	ABC Threadless Coupling HD T 16x2	2
90106016	Push-in Coupling M 16x1,5 T 6x1	3	96150205	ABC Union Female Regular	5
90108012	Push-in Coupling M 12x1,5 T 8x1	5	92050090	ABC 90° Elbow Regular	5
90108016	Push-in Coupling M 16x1,5 T 8x1	5	92050010	ABC 90° Elbow Regular	3
90108022	Push-in Coupling M 22x1,5 T 8x1	3	92050030	ABC Union Y Regular	2
90112016	Push-in Coupling M 16x1,5 T 12x1,5	5	96150106	ABC Reducer HD -> Regular	2
90112022	Push-in Coupling M 22x1,5 T 12x1,5	3	92060090	ABC 90° Elbow Heavy Duty	2
90116016	Push-in Coupling M 16x1,5 T 16x2	2	92060010	ABC Union T&L Heavy Duty	1
90116022	Push-in Coupling M 22x1,5 T 16x2	3	93160016	ABC Swivel Heavy Duty M 16x1,5	2
96452018	Rotoloc 18mm	1	93160022	ABC Swivel Heavy Duty M 22x1,5	2
96450020	Rotoloc 20mm	2	96606010	Release Tool Standard T 6x1	2
96450022	Rotoloc 22mm	1	96608010	Release Tool Standard T 8x1	2
96452028	Rotoloc 28mm	2	96612710	Release Tool Standard T 12x1,5	2
96210008	Push-in Plug T 8x1	3			

See detailed product information in our Raufoss Couplings Catalogue.

GB

Raufoss Box ABC

FR

Coffret Raufoss ABC

DE

Raufoss ABC Sortiment



Ref.	Designation
2600960B	Same content as in the reference 2600960 plus a 15x1,5 tube connector and a push-in coupling for a 15x1,5

See detailed product information in our Raufoss Couplings Catalogue.

GB

Raufoss Box ABC

FR

Coffret Raufoss ABC

DE

Raufoss ABC Sortiment

Ref.	Designation				
260092	Tube Connector + Push-In				
Content (71 pieces)					
Ref.	Designation	Qty	Ref.	Designation	Qty
6237205	Tube Connector 06x1,0	2	90110016	NewLine Push-In T 10x1 - M 16x1,5	3
6237225	Tube Connector 08x1,0	4	90110022	NewLine Push-In T 10x1 - M 22x1,5	3
6237305	Tube Connector 10x1,0	4	90110116	NewLine Push-In T 10x1,25 - M 16x1,5	3
6237315	Tube Connector 10x1,25	4	90110122	NewLine Push-In T 10x1,25 - M 22x1,5	3
6237365	Tube Connector 12x1,5	4	90112016	NewLine Push-In T 12x1,5 - M 16x1,5	3
6237445	Tube Connector 15x1,5	2	90112022	NewLine Push-In T 12x1,5 - M 22x1,5	3
6237465	Tube Connector 16x2,0	2	90115016	NewLine Push-In T 15x1,5 - M 16x1,5	2
6237475	Tube Connector 18x2	2	90115022	NewLine Push-In T 15x1,5 - M 22x1,5	2
90106012	NewLine Push-In T 06x1 - M 12x1,5	3	90116016	NewLine Push-In T 16x2 - M 16x1,5	2
90106016	NewLine Push-In T 06x1 - M 16x1,5	3	90116022	NewLine Push-In T 16x2 - M 22x1,5	2
90108012	NewLine Push-In T 08x1 - M 12x1,5	3	6237477	PUSH-IN Fitting T 18x2 - M 22x1,5	2
90108016	NewLine Push-In T 08x1 - M 16x1,5	3	6237776	Test point M 16x1,5	2
90108022	NewLine Push-In T 08x1 - M 22x1,5	3	6237777	Test point M 16x1,5	2

See detailed product information in our Raufoss Couplings Catalogue.



Ref.	Designation				
2600967	ABC - Building Bloc system regular				
Content (53 pieces)					
Ref.	Designation	Qty	Ref.	Designation	Qty
93150012	ABC Swivel M 12x1,5 regular	3	90308005	Integral T 8x1 regular	2
93150014	ABC Swivel M 14x1,5 regular	1	90310005	Integral T 10x1 regular	2
93150016	ABC Swivel M 16x1,5 regular	3	90310105	Integral T 10x1,25 regular	2
93150022	ABC Swivel M 22x1,5 regular	3	90312205	Integral T 12x1,5 regular	1
93351622	Swivel bulk regular M 22x1,5 - M 16x1,5	1	92050045	45° elbow regular	2
96450022	Rotoloc regular Hex 22	2	92050090	90° elbow regular	2
96452028	Rotoloc regular Hex 28	3	92050015	Union "F" regular	2
90206005	Threadless Push-In T 6x1 regular	3	92050010	Union "L + T" regular	2
90208005	Threadless Push-In T 8x1 regular	3	92050030	Union "Y" regular	2
90210005	Threadless Push-In T 10x1 regular	3	92052060	3-way Bloc regular	2
90210105	Threadless Push-In T 10x1,25 regular	2	92050070	Cross regular	2
90212005	Threadless Push-In T 12x1,5 regular	2	92050061	4-way bloc regular	1
90306005	Integral T 6x1 regular	2			

See detailed product information in our Rauffoss Couplings Catalogue.

GB

Raufoss Box ABC

FR

Coffret Raufoss ABC

DE

Raufoss ABC Sortiment



Ref.	Designation	Content (20 pieces)			
2600968	ABC - Building Bloc system heavy Duty + additions				
Ref.	Designation	Qty	Ref.	Designation	Qty
93160022	Swivel heavy M 22x1,5	2	92060015	Union "F" heavy	2
96462028	Rotoloc heavy Hex 28	1	96150106	Reducer Heavy regular	2
90215006	Threadless Push-In T 15x1,5 heavy	2	96550005	Threadless adapter regular regular	2
90216006	Threadless Push-In T 16x2 heavy	2	96550006	Threadless adapter regular heavy	1
90315006	Integral T 15x1,5 heavy	2	96050000	Testpoint regular	2
90316006	Integral T 16x2 heavy	2	93150112	Threadless adapter regular M 12x1,5	2
92060010	Union "L + T" heavy	1	93150116	Threadless adapter regular M 16x1,5	2

See detailed product information in our Raufoss Couplings Catalogue.


A white semi-truck is driving on a two-lane highway that curves through a winter landscape. The road is partially covered in snow, with white lane markings. The surrounding area is covered in snow, with several tall, thin, bare trees lining the road. In the background, there are rolling hills or mountains under a clear blue sky. The sun is visible in the upper right corner, creating a bright glow. An orange rectangular box is positioned in the upper right corner of the image, containing the word "Passionate" in white text.


Passionate

Tools


Outillages

Werkzeuge

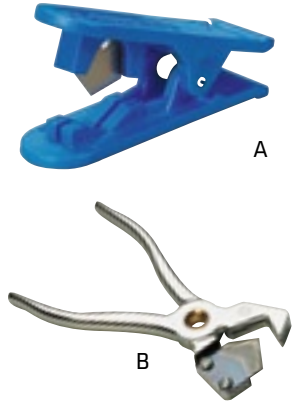
GB	FR	DE	
Circlips pliers	Pinces à circlips	Circlips Zangen	
Ref.	Designation		
892000	90° angled plier for outer circlips		
892001	Straight plier for outer circlips		


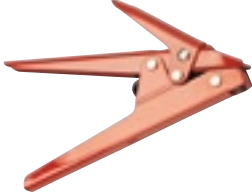
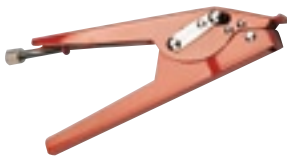
Plastic release tool kit (Content 8 parts)	Kit outils de démontage en plastique (Contenu 8 pièces)	Kunststoff Demontage Werkzeug Kit (Inhalt: 8 Stück)	
Ref.	Ø		
2600962	6-8-10-12		


See detailed product information in our Raufoss Couplings Catalogue.


Aluminium release tool kit	Kit outils de démontage en alu	Aluminium Demontage Werkzeug Kit	
Ref.	Ø		
2600963	6-8-10-12		
2600965	6/8/10/12/15/16		
2600966	8/10/12/15		

See detailed product information in our Raufoss Couplings Catalogue.

Pliers to cut polyamide tubes	Pinces à couper les tubes polyamide	Polyamid Rohr Abschneider	
Ref.	Designation		
209010 (see picture A)	Workshop clamp for polyamide		
209013 (see picture B)	Pocket plier for polyamide		
209028	Spare blade for 209013		

GB Pliers for polyamide clamps	FR Pinces pour colliers polyamide	DE Zange für Polyamid Kabelbinder
Ref.	Designation	
311048	For 2,2 to 4,8 mm width collars.	
311059	For 5 to 9 mm collars. Separated cutting lever.	
311060	For 7,8 to 13 mm collars. Automatic cut.	

Mounting-vice pliers for polyamide	Pinces-étau de montage pour polyamide	Zangen für Polyamid Montage	
Ref.	Ø		
209011	6, 8, 10, 11		
209012	7, 9, 12		
209014	14, 15, 16		

Workshop crimping press	Presse à sertir d'atelier	Eingassungspresse	
Ref.			
209003	Capacity of 10 to 30 mm Six teeth crimping Material suitable for economical production in large and small series. All major mechanical components of this tool have been strengthened to resist against wear.		

Tubes PA12
DIN 74324/DIN73378

Tubes PA12
DIN 74324/DIN73378

Rohre PA12
DIN 74324/DIN73378

GB

Polyamide 12 tubes - black (UV resistant)
DIN 74324/DIN73378 for metrical dimensions.
To complement our range of pneumatic fittings, here are all the tubes you need:
Polyamide 12 has good resistance to chemicals. Under conditions of normal use, it resists against alkalis, alcohols, ethers, hydrocarbons, oils, essences, diesel fuel, detergents, fresh or salt water, etc.. Usable in a wide temperature range and compatible with numerous fluids, these tubes bring significant benefits:

- lightweight
- excellent resistance to dampness
- No corrosion
- very low coefficient of friction
- good dimensional stability.

Besides, the cost price is quite advantageous for a product with a particularly easy implementation.
Operating temperature: - 40° C to 100° C (Max + 105° C)
Color black - stable temperature and light - bracking certified
Dimensions and performances (at 23° C)

FR

Tubes polyamide 12 - Couleur noire (résistant aux ultraviolets)
Normalisés DIN 74324/DIN73378 pour les cotes métriques pour compléter notre gamme de raccords pneumatiques, tous les tubes dont vous avez besoin :

Le polyamide 12 possède une bonne résistance aux produits chimiques. Dans des conditions normales d'utilisation, il résiste aux bases, alcools, éthers, hydrocarbures, lubrifiants, essences, gazole, détergents, eau douce ou salée, etc. Utilisables dans une large plage de températures et compatibles avec de nombreux fluides, les tubes en polyamide 12 apportent à l'utilisateur d'importants avantages :

- légèreté
- excellente tenue à l'humidité
- absence de corrosion
- très faible coefficient de frottement
- bonne stabilité dimensionnelle.

Il s'y ajoute un prix de revient intéressant pour un produit de mise en oeuvre particulièrement facile.
Températures d'utilisation : de - 40° C à 100° C (Maximum + 105° C)
Coloris noir - stabilisé température et lumière - homologué freins
Dimensions et performances (à 23° C)




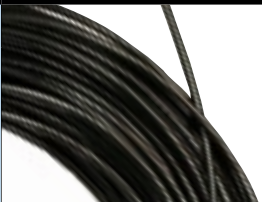
DE


Polyamid 12 Rohren - schwarz (UV-beständig)
DIN 74324/DIN73378 für metrische Anteile
Um unser Angebot von pneumatischen Kupplungen zu ergänzen, hier ist alles was Sie brauchen:
Polyamid 12 hat eine gute Beständigkeit gegen Chemikalien. Bei normalem Gebrauch, widersteht sie Laugen, Alkohol, Ether, Kohlenwasserstoffe, Öle, Essenzen, Dieselmotortreibstoff, Wasch-, Süß- oder Salzwasser usw. Die Rohre sind verwendbar in einem weiten Temperaturbereich und kompatibel mit vielen Flüssigkeiten- Polyamid-Rohre 12 bieten dem Anwender wesentliche Vorteile:


- Leicht
- ausgezeichnete Beständigkeit gegen Feuchtigkeit
- Keine Korrosion
- sehr niedrigen Reibungskoeffizienten
- gute Dimensionsstabilität.

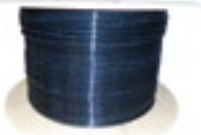
Außerdem ist das Preis-Leistungs-Verhältnis vorteilhaft für ein Produkt, deren Umsetzung besonders einfach ist.
Betriebstemperatur: - 40 ° C bis 100 ° C (Max + 105 ° C)
Farbe schwarz - Hohe Temperatur und Licht Beständigkeits - Für Bremse
Abmessungen und Leistungen (bei 23 ° C)


Correction factor of pressures according to temperature		Facteur de correction des pressions en fonction de la température			Korrekturfaktor des Drucks je nach Temperatur	
- 20° C	0° C	23° C	40° C	60° C	80° C	90° C
1,8	1,4	1,0	0,7	0,5	0,45	0,38


 25 meters rolls		 Rouleaux de 25 mètres		 25 Meter Rollen		
Ref.	Ø tube		Norm			
583052N	4x1		DIN 74324			
583001N	6x1		DIN 74324			
583004N	8x1,5		DIN 73378			
583003N	8x1		DIN 74324			
583013N	9x1,5		DIN 74324			
583008N	10x1,5		DIN 73378			
583057N	10x1,25		DIN 74324			
583005N	10x1		DIN 74324			
583010N	11x1,5		DIN 74324			
583063N	12x2		DIN 73378			
583006N	12x1,5		DIN 74324			
583007N	15x1,5		DIN 74324			
583014N	14x2		DIN 74324			
583009N	12x1		DIN 73378			
583015N	16x2		DIN 74324			
583011N	18x2		DIN 74324			

25 meters cardboard		Cartons dérouleur de 25 mètres		Rolle 25 Meter in Karton		
Ref.	Ø tube		Norm			
673052N	4x1		DIN 74324			
673001N	6x1		DIN 74324			
673004N	8x1,5		DIN 73378			
673003N	8x1		DIN 74324			
673013N	9x1,5		DIN 74324			
673008N	10x1,5		DIN 73378			
673057N	10x1,25		DIN 74324			
673005N	10x1		DIN 74324			
673010N	11x1,5		DIN 74324			
673063N	12x2		DIN 73378			
673006N	12x1,5		DIN 74324			
673009N	12x1		DIN 73378			

(GB) 100 meters rolls	(FR) Rouleaux de 100 mètres	(DE) 100 Meter Rollen	
Ref.	Ø tube	Norm	
672052	4x1	DIN 74324	
672002	6x1,5	DIN 73378	
672001	6x1	DIN 74324	
672003	8x1	DIN 74324	
672013	9x1,5	DIN 74324	
672008	10x1,5	DIN 73378	
672057	10x1,25	DIN 74324	
672005	10x1	DIN 74324	
672010	11x1,5	DIN 74324	
672063	12x2	DIN 73378	
672006	12x1,5	DIN 74324	
672009	12x1	DIN 73378	
672014	14x2	DIN 74324	
672007	15x1,5	DIN 74324	
672015	16x2	DIN 74324	
672011	18x2	DIN 74324	

500 meters bench grinders	Touret de 500 mètres	500 Meter Rohrtrommel	
Ref.	Ø tube	Norm	
586006	12x1,5	DIN 74324	


1000 meters bench grinders	Touret de 1000 mètres	1000 Meter Rohrtrommel	
Ref.	Ø tube	Norm	
585003	8x1	DIN 74324	

400 meters bench grinders	Touret de 400 mètres	400 Meter Rohrtrommel	
Ref.	Ø tube	Norm	
586015	16x2	DIN 74324	

Hoses

Tuyaux


Schläuche

GB Tubes in synthetic rubber reinforced with an external metallic braid DIN 73 379 C	FR Tubes flexibles caoutchouc synthétique renforcés d'une tresse métallique extérieure DIN 73 379 C	DE Kraftstuffschlauch mit Stahldahtumflechtung DIN 73 379 C	
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Use and operating temperatures:

motor oil, hydraulic fluids of mineral origin + 80°C, diesel + 80°C, fuel EL and L oils + 70°C, oils of plant origin + 80°C, super fuels - kerosene + 80 ° C, + 80 ° C antifreeze, water + 80 ° C, air + 80°C. Stability at low temperatures: until -35 ° C

Ref.	outer Ø in mm	inner Ø in mm	Pressure in bars	Pressure test	limit pressure of no-break	Bending Radius in mm
601302	9,5	4,5	20	30	60	25
601304	10,5	5,5	20	30	60	25
601306	12,5	7,5	15	25	50	30
601308	14	9	15	25	50	40
601310	17,7	11	15	25	50	45
601313	21,2	14	15	25	50	50





Tubes in synthetic rubber reinforced with an external textile braid DIN 73 379 B	Tubes flexibles caoutchouc synthétique renforcés d'une tresse textile extérieure DIN 73 379 B	Kraftstuffschlauch mit Textilumflexhtung DIN 73 379 B	
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Flexible tube in black NBR, reinforcement through outer braid


Operating temperature : from - 30°C to + 100°C

Use : diesel - various petroleum products - Oil ...

Ref.	outer Ø in mm	inner Ø in mm	Pressure in bars	limit pressure of no-break	Bending Radius in mm
601500	7	3,2	12	50	20
601502	10,5	5,5	10	42	20
601504	11	6	10	39	20
601506	12,5	7,5	8	32	30
601508	15	9	6	23	40
601510	17,5	11,5	5	20	40

 Tubes for gasoline DIN 73 379 E		 Tubes flexibles pour essence sans plomb DIN 73 379 E		 Schlauch für Benzin mit Textilaulage DIN 73 379 E		
Inner tube in NBR black Reinforcement : textile wool, outer skin in black CSM Operating temperature: - 40°C to + 125°C (peak at 140°C)						
Ref.	outer Ø in mm	inner Ø in mm	Pressure in bars	limit pressure of no-break	Bending Radius in mm	
601705	11	5	12	40	60	
601706	12	6	12	40	72	
601708	14	8	12	40	96	
601710	15,5	9,5	12	40	114	
601712	19	12	12	40	144	


Tubes reinforced with an internal OLN type textile braid		Tubes flexibles renforcés d'une tresse textile intérieure type OLN		Schlauch verstärkt mit innere Textiltresse OLN-artig		
Resistant to ozone and ultraviolet. Operating temperature : - 40°C to + 100°C Use : for motors oil - hydraulic oils- antigel - diesel - fuel oil						
Ref.	outer Ø in mm	inner Ø in mm	Pressure in bars	limit pressure of no-break	Bending Radius in mm	
602002N	10	4	25	75	30	
602004N	12	6	25	75	35	
602006N	14	8	25	75	40	
602008N	16	9,5	25	75	45	
602010N	19,4	11,5	25	75	50	
602013N	22	13	20	70	55	
602016N	25	16	20	70	60	

Inflation hoses		Tubes de gonflage		Luft Schlauch		
In black SBR / NR antistatic 100M ohm with textile inner braid reinforcement. Outer in NBR/PVC blue temperature: - 20°C to + 80°C						
Ref.	outer Ø in mm	inner Ø in mm	Pressure in bars	limit pressure of no-break	Bending Radius in mm	
680100	13	6	20	60	35	
680102	15	8	20	60	45	
680109	16	9	20	60	50	
680010*	18	10	20	65	80	
680014**	18	11	20	60	70	
680112	20	12	20	60	60	
680011**	25	13	20	60	100	
* Approved UTAC **Approved DIN						



(GB) Hoses in polytetra-fluorethylene	(FR) Flexibles en polytetra-fluoréthylène	(DE) Schlauche aus Polytetra-fluorethylene
<p>Flexible POLYTETRA - (PTFE-PFA-TFA) convoluted</p> <p>Special manufacture corrugated and not spiraled for an exceptional flexibility.</p> <p>Type reinforced by fiberglass. Stainless steel outer braid with hydraulic quality.</p> <p>Resistance to temperature from - 70° C to + 260° C.</p> <p>Do not twist the tube and observe the minimum bend radius specified.</p> <p>If the hose must convey steam Maximum allowable pressure: 14 bars at +200° C</p> <p>Crimping hoses convoluted Teflon requires the use of special rings and crimping components, different from those commonly used in hydraulics. Therefore, our warranty does not apply for the use of components from other sources.</p> <p>Cut of the tube</p> <p>As a precaution, «tape» the tube with a roll of transparent adhesive cloth, cut the middle with a teethless disk or with cutting pliers. Do not remove the adhesive tape to avoid the stainless steel braid going off.</p> <p>In addition to their exceptional resistance to high temperatures (+260° C), PTFE hoses differ from the others thanks to a remarkable resistance to most diverse and more aggressive chemicals (steam, solvents, oils, hydrocarbons, acids and bases).</p>	<p>Flexible en polytetra - fluoréthylène (PTFE-PFA-TFA) convoluté</p> <p>Fabrication spéciale annelée et non spiralisée pour une exceptionnelle souplesse.</p> <p>Type renforcé par fibre de verre. Tresse extérieure en inox de qualité hydraulique.</p> <p>Résistance à la température de - 70° C à + 260° C.</p> <p>Ne pas vriller le tube et respecter les rayons de courbure minima indiqués.</p> <p>Si le flexible doit véhiculer de la vapeur Pression maximum admissible : 14 bars à + 200° C</p> <p>Le sertissage des flexibles en téflon convoluté nécessite l'utilisation de bagues et de composants de sertissage spéciaux différents de ceux couramment utilisés en hydraulique. Notre garantie ne saurait donc s'appliquer en cas d'utilisation de composants d'autres provenances.</p> <p>Coupe du flexible</p> <p>Prendre la précaution de "scotcher" le tube avec un rouleau d'adhésif non toilé, couper au milieu avec un disque sans dents ou à défaut avec une pince coupante. Ne pas enlever le papier adhésif pour éviter que la tresse en inox ne se défasse.</p> <p>Outre leur exceptionnelle tenue aux hautes températures (+ 260° C), les flexibles en PTFE se distinguent par une résistance remarquable aux produits chimiques les plus divers et les plus agressifs (vapeur, solvants, huiles, hydrocarbures, acides et bases).</p>	<p>Polytetrafluorethylen Schlauch - (PTFE-PFA-TFA) gewellt</p> <p>Gewellte Sonderanfertigung, nicht spiralgig, für eine außergewöhnliche Flexibilität.</p> <p>Modell verstärkt durch Fiberglas. Edelstahl Umflechtung von hydraulischer Qualität.</p> <p>Temperaturbeständigkeit von - 70° C bis + 260° C.</p> <p>Bitte verdrehen Sie das Rohr nicht und beachten Sie die minimalen angegebenen Biegeradien.</p> <p>Wenn Flüssigkeiten über 200°C durch den Schlauch fließen, darf der Druck maximal 14 Bar sein</p> <p>Das verpressen von Schläuchen aus eingerolltem Teflon erfordert die Verwendung von Ringen und spezielle Fass Press Nippel Komponenten, die sich unterscheiden von denen, die gemeinhin in der Hydraulik eingesetzt werden unsere Garantie erstreckt sich daher nicht bei der Verwendung von Komponenten aus anderen Quellen.</p> <p>Schnitt des Schlauches</p> <p>Kleben Sie sicherheitshalber das Rohr mit einem durchsichtigen Klebeband. Schneiden Sie in der Mitte mit einer Scheiben ohne Zähne oder alternativ mit einem Seitenschneider. Entfernen Sie das Klebeband nicht, um zu verhindern, dass das Abschirmgeflecht aus Edelstahl Seine Form verändert.</p> <p>Neben ihrer außergewöhnlichen Beständigkeit gegen hohe Temperaturen (+260° C), unterscheiden sich PTFE-Schläuche durch eine bemerkenswerte Resistenz gegenüber den verschiedensten und aggressivsten Chemikalien (Dampf, Lösungsmittel, Öle, Kohlenwasserstoffe, Säuren und Basen).</p>

Ref.	outer Ø in mm	inner Ø in mm	Pressure in bars	limit pressure of no-break in bars	Radius of curvature in mm	Space	Weight in grams
616000	22	15,5	55	220	60	55 m bars absolu	330

Crimping ferrules for 616000	Jupes à sertir pour 616000	Pressfassungen für 616000	
Ref. outer Ø in mm 616100 27			

Service Couplings

Raccords
de servitude

Schnellkupplungen

GB

Pressure

- Maximum 15 Bars

Temperature

- Minimum -18° C
- Maximum +70° C

Thread

- Conical, according to ISO 7.1, BS 21, DIN 2999
- Cylindrical, according to ISO-228 Class A
- Metrical, according to ISO-R/262

Tubes to use

- Made of plastic: polyamide 6/11/12, polyethylene, polyurethane, etc...

Fluids

- For compressed air

Seal

The particular shape of the lip seal guarantees a perfect seal on the tube in pressure and in depression. All conical or cylindrical threads are equipped with a sealing device.

Hexagonal interior

All cylindrical or conical threaded straight couplings have also a hexagonal form inside which allows to screw the piece in a reduced space.

FR

Pression

- Maximum 15 Bars

Température

- Minimum -18° C
- Maximum +70° C

Filetage

- Gaz conique selon ISO 7.1, BS 21, DIN 2999
- Gaz cylindrique selon ISO-228 classe A
- Métrique selon ISO-R/262

Tubes à utiliser

- En matière plastique : polyamide 6 - 11 - 12, polyéthylène, polyuréthane, etc...

Fluides

- Pour air comprimé

Étanchéité

La forme particulière du joint à lèvres garantit une parfaite étanchéité sur le tube en pression et dépression. Tous les filetages coniques ou cylindriques sont munis d'un dispositif d'étanchéité.

Six pans intérieurs

Tous les raccords droits à filetage cylindrique ou conique disposent également d'un six pans intérieur rendant possible leur vissage dans un espace réduit.

DE

Druck

- Maximum 15 Bars

Temperatur

- Minimum -18° C
- Maximum +70° C

Gewinde

- Kegelflas gemäß ISO 7.1, BS 21, DIN 2999
- Zylindrisch, gemäß ISO-228 Klasse A
- Metrisch, gemäß ISO-R/262

Rohre zu verwenden

- aus Kunststoff Polyamid 6 - 11 - 12, Polyethylen, Polyurethan, etc...

Flüssigkeiten

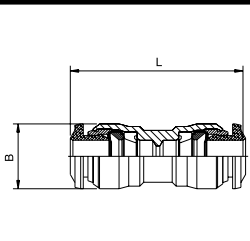

- Für Druck Luft

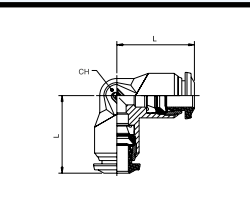

Dichtigkeit

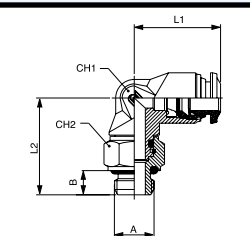

Die besondere Form der Lippendichtung garantiert eine perfekte Abdichtung auf dem Schlauch bei Druck wie bei Unterdruck. Alle konischen oder zylindrischen Gewinde sind mit einem Dichtungsverschluss ausgestattet.

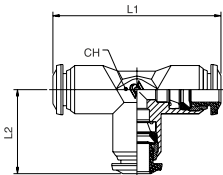

Innensechskant

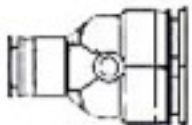

Alle gerade Stutzen mit zylindrischen oder konischen Gewinde verfügen außerdem über ein sechseckiges Innere, das ermöglicht, den Teil in einem engen Raum zu schrauben.



	(GB)	(FR)	(DE)	
	Tube Connector	Union double	Rohr Verbinder	
Ref.	Ø Tube	L	B	
244307	3	27	8	
244308	4	30,5	11,5	
244309	5	33	0,5	
244310	6	34	12,5	
244311	8	36	14,5	
244312	10	42	17,5	
244313	12	47	20,5	
244314	6 - 4	32	12,5	
244315	8 - 6	35	14,5	

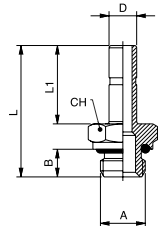

	Elbow equal	Coude égal	Gleichmäßiger Winkel	
	Ref.	Ø Tube	L	
244318	4	17	9	
244319	5	20	11	
244320	6	21	11	
244321	8	22,5	13	
244322	10	26,5	16	
244323	12	30,5	19	

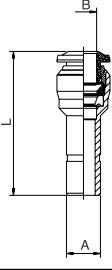

	Male cylindrical elbow adaptor with o-ring	Coude mâle cylindrique orientable avec joint	Zylindrische Schwenkwinkel mit O-Ring				
	Ref.	Ø Tube	A		B	L1	L2
244650	4	G1/8"	6	17	22,5	9	13
244651	6	G1/8"	6	21	24,5	11	13
244652	6	G1/4"	8	21	28	11	16
244653	8	G1/8"	6	22,5	26	13	13
244654	8	G1/4"	8	22,5	29	13	16
244656	10	G1/4"	8	26,5	31	16	16
244658	12	G3/8	9	30,5	36	19	18
244660	4	M5	5	17	20	9	8
244662	5	G1/8"	6	20	24,5	11	13
244664	8	G1/2"	10	22,5	32	13	22
244665	10	G1/2"	10	26,5	34	16	22


	GB	FR	DE	
	Equal T-coupling	Té égal	Gleichmäßiger T-Stück	
Ref.	Ø Tube	L1	L2	CH
244328	4	34	17	9
244329	5	40	20	11
244330	6	42	21	11
244331	8	45	22,5	13
244332	10	53	26,5	16
244333	12	61	30,5	19

	GB	FR	DE	
	Equal Y-coupling	Y égal	Gleichmäßiger Y-Stück	
Ref.	Ø Tube	L1	L2	CH
244408	4	11	32	9
244410	6	13,5	36,5	11
244411	8	15,5	41	13

	GB	FR	DE	
	Cylindrical push-in coupling with o-ring	Union mâle cylindrique avec joint	Zylindrische Steckverbindungen mit O-Ring	
Ref.	Ø Tube	G 1		
2440019	4	G1/8"		
2440029	4	G1/4"		
2440049	6	G1/8"		
2440059	6	G1/4"		
2440079	8	G1/8"		
2440089	8	G1/4"		
2440099	8	G3/8"		
2440129	10	G1/4"		
2440139	10	G3/8"		
2440179	12	G1/2"		
2440159	12	G1/4"		

	GB	FR	DE			
	Cylindrical push-in transfer adapter	Adaptateur mâle gaz cylindrique	Zylindrische Steckverbindungsstück			
Ref.	D	A	B	L	L1	CH
244910	6	G8	6	28,5	17	13
244916	5	G1/4"	8	31	17	16
244918	4	G1/8"	6	26,5	15	13
244920	6	G1/4"	8	31	17	16
244921	8	G1/4"	8	32	18	16
244940	8	G1/8"	6	29,5	18	13

	(GB)	(FR)	(DE)	
	Reducer	Réducteur	Reduzierstück	
Ref.	A	B	L	Ø
244950	5	4	29	5 → 4
244952	8	4	31	8 → 4
244951	6	4	30	6 → 4
244955	8	6	34	8 → 6
244958	10	8	38	10 → 8

Quick release couplings for servitudes	Raccords rapides pour servitudes	Steckverbinder für Baulasten			
					
Ref.					
244998					
Content (50 pieces)					
Ref.	Dimension	Qty	Ref.	Dimension	Qty
244308	Tube connector Ø 4	6	244951	Diameter reducer T 6 --> T 4	4
244310	Tube connector Ø 6	5	244955	Diameter reducer T 8 --> T 6	4
244310	Tube connector Ø 6	5	244910	Male hose adapter T 6 - G 1/8"	2
244311	Tube connector Ø 8	10	244920	Male hose adapter T 6 - G 1/4"	2
244328	Union T 4	2	244940	Male hose adapter T 8 - G 1/8"	2
244330	Union T 6	3	244921	Male hose adapter T 8 - G 1/4"	2
244331	Union T 8	3			

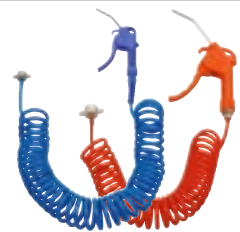
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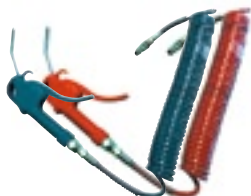


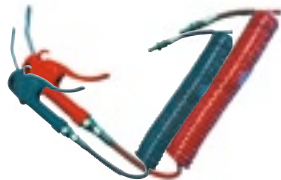
Air blow guns

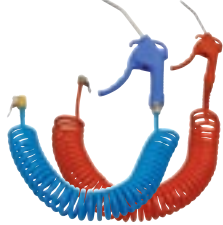
Soufflettes





Druckluftpistole


(GB)	(FR)	(DE)	
Kits to connect to IVECO test point	Kits à raccorder sur prise de pression IVECO	Ausblaseset für IVECO Prüfanschluss	
Ref.	Designation	Length	
678000		4 m	Red
678000B		4 m	Blue


Kits to connect to RVI test point	Kits à raccorder sur prise de pression RVI	Ausblaseset für RVI Prüfanschluss		
Ref.	Designation	Length		Color
679000		2,80 m		Red
679000B		2,80 m	Blue	


Kits to connect to MERCEDES test point	Kits à raccorder sur prise de pression MERCEDES	Ausblaseset für MERCEDES Prüfanschluss		
Ref.	Designation	Length		Color
679001		2,80 m		Red
679001B		2,80 m	Blue	





Kits to connect to SCANIA test point	Kits à raccorder sur prise de pression SCANIA	Ausblaseset für SCANIA Prüfanschluss		
Ref.	Designation	Length		Color
677000		2,80 m		Red
677000B		2,80 m	Blue	


 Universal kits with coupling devices		 Kits universels avec coupleurs		 Ausblasesets Standard			
Ref.	Length	Color					
678050B	8,00 m	Blue					
678050	8,00 m	Red					
678050M	3,60 m	Red					
678050MB	3,60 m	Blue					
<ul style="list-style-type: none"> - Length of 8 m or 3,6 m - Equipped with couplers. - Delivered with the necessary connection (T6). - This kit is the most complete of the range. 							


Installation kits for DIN.B inflation connection		Kits d'installation pour prise de gonflage DIN. B		Montage Kits für Bersblase set DIN. B			
Ref.	Designation						
247951	Snap tee						


Installation kits for inflation connection		Kits d'installation pour prise de gonflage		Montage Kits für Bersblase set			
Ref.	Designation						
247950	Snap tee						


T-coupling with coupling devices for kits 678050 (B,M et MB)		Té avec coupleur pour kits : 678050 (B,M et MB)		T-Schottstutzen Ausblase für Sets: 678050 (B,M und MB)			
Ref.							
248050T							


 Nozzles for pre-equipped vehicles (RVI-MERCEDES)		 Embouts pour véhicules pré-équipés (RVI-MERCEDES)		 Stecknipel für serienmäßig ausgestattete Fahrzeuge (RVI-MERCEDES)			
Ref.	Ø Tube	Designation					
301108	6x1	Mercedes					
301109	6x1	RVI					



Nipples for coil pipes and tubes		Embouts pour serpentins et tubes		Stutzen für Spiralschlauch und Rohre			
Ref.	Ø Tube	Thread					
677051	8x1	G1/4"					
677053	6x1	G1/4"					
677054	10x1,75	G1/4"					
677055	10x1	G1/4"					


Air guns		Soufflettes de cabine		Luft Pistole			
Ref.	Tapping	Color					
678005	G1/4"	Red					
678006	G1/4"	Blue					


Compressed air coils		Serpentins à air comprimé		Druckluft Spiralschlauch		
Ref.	Color	Number of turns	Designation			
674251	red	16	1 fixed male side M 16x1,5 / 1 turning nut side M 18x1,5 cone 24° T12			
674252	yellow	16	1 fixed male side M 16x1,5 / 1 turning nut side M 18x1,5 cone 24° T12			
674253	black	16	1 fixed male side M 16x1,5 / 1 turning nut side M 18x1,5 cone 24° T12			
674201	red	19	1 fixed male side M 16x1,5 / 1 turning nut side M 18x1,5 cone 24° T12			
674202	yellow	19	1 fixed male side M 16x1,5 / 1 turning nut side M 18x1,5 cone 24° T12			
674203	black	19	1 fixed male side M 16x1,5 / 1 turning nut side M 18x1,5 cone 24° T12			
674221	red	19	1 fixed male bulkhead coupling side M 18x1,5 cone 24° T12 / 1 fixed male side M 16x1,5			
674222	yellow	19	1 fixed male bulkhead coupling side M 18x1,5 cone 24° T12 / 1 fixed male side M 16x1,5			
674223	black	19	1 fixed male bulkhead coupling side M 18x1,5 cone 24° T12 / 1 fixed male side M 16x1,5			

Adapters for compressed air coils		Adaptateurs pour serpentins à air comprimé		Adapter für Druckluft Spiralschlauch		
Ref.	Designation	Thread				
820304	Nipple	M 18x1,5 cone 24° T12 / M 16x1,5 flat-bottom				
820704	Nipple with seal	M 18x1,5 cone 24° T12 / M 16x1,5 flat-bottom				
810604	Straight bulkhead coupling	M 18x1,5 cone 24° T12 Special Iveco-Man-Scania				

Hose couplings		Têtes d'accouplements		Kupplungsköpfe		
Ref.	Designation	Tapping				
674204	Trailer side without test point (yellow)	M 16 x 150				
674205	Trailer side without test point (red)	M 16 x 150				
674206	Trailer side with test point (yellow)	M 16 x 150				
674210	Tractor side without test point (yellow)	M 16 x 150				
674211	Tractor side without test point (red)	M 16 x 150				
674204F	Trailer side with filter without test point (red)	M 16 x 150				
674205F	Trailer side with filter without test point (yellow)	M 16 x 150				
674209J	Trailer side with filter without test point (yellow)	M 16x1,5 - M 22x1,5 bulkhead coupling				
674209R	Trailer side with filter without test point (red)	M 16x1,5 - M 22x1,5 bulkhead coupling				

(GB) Seals for trailer side hose couplings	(FR) Joints pour tête d'accouplement	(DE) Dichtungen für Kupplungsköpfe (Anhänger Seite)	A  B 
Ref.	Designation		
674213	Seal for head without filter (see picture A)		
674214	Seal for head with filter (see picture B)		


Air line filters	Filtres de ligne d'air	Luftfilter	
Ref.	Tapping		
674212	M 22x1,5 - M 22x1,5		


Operating handles	Poignées de manœuvre	Handgriffe für Kupplungsköpfe	
Ref.	Tapping		
674215	Delivered in kit of 2 (1 red + 1 yellow)		


Clampings


Colliers

Schellen

(GB) Metallic clamps light range	(FR) Colliers de serrage métalliques Gamme légère à vis sans fin	(DE) Schlauchschelle Stahl Leichte Version
		
Standard clamps 9mm <ul style="list-style-type: none"> • One piece housing without any welding nor riveting, blue painted • full band with raised edges in steel «Aluzink» • profile rack designed to withstand vibrations and high screw torques. 	Colliers standard 9mm <ul style="list-style-type: none"> • carter embouti d'une pièce sans soudure ni rivetage, laqué Bleu • bande pleine à bords relevés en acier "Aluzink" • profil de crémaillère conçu pour résister aux vibrations et aux couples de serrage élevés. 	Standard Rohrschelle 9mm <ul style="list-style-type: none"> • Einteiliges Gehäuse ohne Schweißen weder Nieten, blau lackiert • Volles Band mit erhöhten Rändern in Stahl «Aluzink» • Profil-Rack hergestellt um Vibrationen und hohe Drehmoment auszuhalten.
Ref.	Clamping Ø	Width in mm
310520	8 - 12	9
310530	10 - 16	9
310540	12 - 20	9
310542	16 - 25	9
310543	20 - 32	9
310545	25 - 40	9
310546	32 - 50	9
310547	40 - 60	9
310548	50 - 70	9


GB Heavy range worm screws	FR Gamme lourde à vis sans fin	DE Starke Schellen
		
<p>Clamps for severe use (trucks, public works, industry, etc.).</p> <ul style="list-style-type: none"> • band full of 12 mm steel «Aluzink» with raised edges. • cover embossed blue lacquered • Standard dimensions according to DIN norm. 	<p>Colliers pour des utilisations sévères (poids-lourds, TP, industrie, etc.)</p> <ul style="list-style-type: none"> • bande pleine de 12 mm en acier «Aluzink» à bords relevés. • carter embouti laqué Bleu • dimensions selon norme DIN. 	<p>Rohrschelle für den schwereren Einsatz (LKW, Tiefbau, Industrie, etc.)</p> <ul style="list-style-type: none"> • Volles Band von 12 mm aus Stahl «Aluzink» mit erhöhten Rändern. • Blaue Abdeckung geprägt lackiert • Abmessungen nach DIN- Norm.
Ref.	Clamping Ø	Width in mm
31056212	16 - 25	12
31056312	20 - 32	12
31056512	25 - 40	12
31056612	32-50	12
31056812	40-60	12
31056912	50-70	12
31057012	60-80	12
31057112	70-90	12
31057212	80-100	12
31057312	90-110	12
31057412	100-120	12





GB Reinforced range worm screws	FR Gamme renforcée à vis sans fin	DE Schneckengewinde
		
<p>Clamps 13mm full band for severe use (trucks, public works, industry, etc..) when large clamping forces are required.</p> <ul style="list-style-type: none"> • strip and steel cover galvanized DIN 1.0935, • galvanized steel screws DIN 1.0213 	<p>Colliers bande pleine de 13 mm pour des utilisations sévères (poids-lourds, TP, industrie, etc.) lorsque des forces de serrage importantes sont nécessaires.</p> <ul style="list-style-type: none"> • bande et capot en acier galvanisé DIN 1.0935, • vis acier zingué DIN 1.0213 	<p>Rohrschelle volles Band von 13 mm für den schwereren Einsatz (LKW, Tiefbau, Industrie, etc..), wenn große Spannkraften benötigt sind.</p> <ul style="list-style-type: none"> • Streifen und Stahlabdeckung verzinkt DIN 1,0935, • verzinkte Stahlschrauben DIN 1.0213
Ref.	Clamping Ø	Width in mm
311153	20-32	13
311155	25-40	13
311156	32-50	13
311157	40-60	13
311158	50-70	13
311159	60-80	13
311160	70-90	13
311161	80-100	13
311162	90-110	13
311170	100-120	13
311171	110-130	13
311172	120-140	13
311173	130-150	13
311174	140-160	13
311175	150-170	13
311176	160-180	13
311177	170-190	13
311178	180-200	13
311179	190-210	13
311180	200-220	13
311181	210-230	13
311182	220-240	13


Flexible hexagonal screwdrivers	Tournevis hexagonal flexible	Flexibe mit Schraubendreher	
Ref.	For head of		
311788	7 mm		


Prepared



(GB) Polyamide 6.6 Cable tie Standard range		(FR) Colliers de serrage en polyamide 6.6 Gamme standard		(DE) Kabelbinder aus Polyamid 6.6 Standardproduktpalette	
					
International standard range <ul style="list-style-type: none"> • In polyamide 6.6 self-extinguishing Class UL94V-2 • tensile resistance measured according to specification Mil-S-23190E • excellent resistance to hydrocarbons, salts, sludges and diluted acids • operating range : from -35° C to + 85° C 		Gamme internationale standard <ul style="list-style-type: none"> • en polyamide 6.6 auto extinguable classe UL94V-2 • résistance à la traction mesurée selon la spécification Mil-S-23190E • excellente résistance aux hydrocarbures, aux sels, boues et acides dilués • plage d'utilisation : de -35° C à + 85° C 		Internationale Standard Produktpalette <ul style="list-style-type: none"> • Aus Polyamid 6.6 UL94V-2 Klasse • Zugfestigkeit gemessen gemäß Spezifikation Mil-S-23190E • ausgezeichnete Beständigkeit gegen Kohlenwasserstoffe, Salze, Säuren und Schlamm verdünnt • Verwendungsbereich : von -35° C bis + 85° C 	
Ref.	Length in mm	Width in mm	min. resistance in kg	max. clamping Ø	Color
311400	98	2,5	8	20	white
311401	140	3,6	18	32	white
311402	200	4,8	22	47	white
311403	290	4,8	22	77	white
311404	365	7,5	55	102	white
311405	240	7,8	55	65	white
311406	200	2,6	8	50	white
311407	200	3,6	18	50	white
311408	290	3,6	18	77	white
311409	390	4,8	22	105	white
311410	300	7,8	55	77	white
311411	750	7,8	55	225	white
311424	225	12,6	57	110	white
311412	98	2,5	8	20	black
311413	200	2,6	8	50	black
311414	140	3,6	18	32	black
311415	200	3,6	18	50	black
311416	290	3,6	18	77	black
311417	178	4,8	22	47	black
311418	290	4,8	22	77	black
311419	390	4,8	22	105	black
311420	240	7,8	55	65	black
311421	300	7,8	55	77	black
311422	365	7,5	55	102	black
311423	750	7,8	55	220	black
311425	180	7,6	55	50	black
311426	540	7,8	55	152	black
311428	200	4,8	22	50	black

 Flat heads in polyamide 6.6 range		 Gamme à tête plate en polyamide 6.6		 Polyamid 6.6 Kabelbinder	
					
<ul style="list-style-type: none"> • In polyamide 6.6 self-extinguishing Class UL94V-2 		<ul style="list-style-type: none"> • en polyamide 6.6 auto extinguable classe UL94V-2 		<ul style="list-style-type: none"> • Aus Polyamid 6.6 UL94V-2 Klasse 	
Ref.	Length in mm	Width in mm	min. resistance in kg	max. clamping Ø	Color
311912	200	9	35 single heads	45	black
311913	285	9	35 single heads	65	black
311914	375	9	51 double heads	97	black
311915	530	9	55 reinforced double heads	140	black
311926	780	9	55 reinforced double heads	230	black

Flat heads in polyamide 12		Gamme à tête plate en polyamide 12		Polyamid 12 Kabelbinder	
					
polyamide 12 complying with EDF-HN33S62 norm <ul style="list-style-type: none"> • excellent resistance to low temperatures and U.V. • shelf life by bad weather: 12 to 15 years against 1 to 2 for natural polyamide-6.6 		Polyamide 12 conforme à la norme EDF-HN33S62 <ul style="list-style-type: none"> • excellente résistance aux basses températures et aux U.V. • durée de vie aux intempéries : 12 à 15 ans contre 1 à 2 pour le polyamide-6.6 naturel 		Polyamid 12 Normkonform EDF-HN33S62 <ul style="list-style-type: none"> • ausgezeichnete Beständigkeit gegen niedrigen Temperaturen und U.V. • Lebensdauer bei Unwetter: 12 bis 15 Jahre gegen 1 bis 2 für natürliches -6.6 Polyamid 	
Ref.	Length in mm	Width in mm	min. resistance in kg	max. clamping Ø	Color
311600	115	6	25 single heads	25	black
311601	180	6	25 single heads	45	black
311901	300	9	51 double heads	79	black
311903	265	9	51 single heads	65	black
311904	360	9	51 double heads	93	black
311905	510	9	55 reinforced double heads	140	black
311906	760	9	55 double heads	220	black

Swivel to screw on		Embase à visser		Sockel für Kabelbinder			
Ref.	Designation						
311650	For screw Ø 5 for clamp width 9 mm maximum						

GB

Steel and polyamide clamps

FR

Colliers acier
et polyamide

DE

Rohrschelle aus Stahl und
Polyamid
Kabelbinder Sortiment

Ref.

310500

Content (389 pieces)

Ref.	Dimension	Qty	Ref.	Dimension	Qty
310520	Ø 8-12mm, 9mm width	15	31056612	Ø 32-50 - 12mm width	8
310530	Ø 10-16mm - 9mm width	15	31056812	Ø 40-60 - 12mm width	10
310542	Ø 16-25mm-9mm width	12	311428	200mm - 4,8mm width	100
310543	Ø 20-32mm- 9mm width	10	311418	300mm - 4,8mm width	100
31056312	Ø 20-32 - 12mm width	8	311422	368mm - 7,6mm width	100
31056512	Ø 25-40 - 12mm width	10	311788	for screw width 7 mm	1

GB

Polyamide clamps

FR

Colliers polyamide

DE

Polyamid
Kabelbinder Sortiment

Ref.

311998





Content (1900 pieces)


Ref.	Dimension	Qty	Ref.	Dimension	Qty
311421	292mm length - 7,6mm width	100	311414	140mm length - 3,6mm width	400
311422	368mm length - 7,6mm width	100	311415	200mm length- 3,6mm width	200
311412	100mm length- 2,5mm width	400	311413	200mm length -l 2,5mm width	300
311417	188mm length- 4,8mm width	200			





Joints


Joints

Dichtringe

 Metal-plastic sealed joints DIN 7603		 Joints métallo-plastique fermés DIN 7603		 Metal-plastikdichtringe DIN 7603			
Ref.	Dimensions	Ref.	Dimensions	Ref.	Dimensions	Ref.	Dimensions
100302	6,2 x 10 x 1,5	100309	12 x 16 x 2	100317	16,3 x 22 x 2	100330	24,4 x 32 x 2,5
100305	8,2 x 12 x 1,5	100310	12,3 x 18 x 2	100320	18,3 x 24 x 2	100331	26,4 x 32 x 2,5
100306	8,2 x 14 x 1,5	100313	14,3 x 20 x 2	100324	20,4 x 26 x 2		
100308	10 x 16 x 1,5	100316	16,3 x 20 x 2	100327	22,4 x 29 x 2		

Brass joints DIN 7603		Joints cuivre DIN 7603		Kupfer Dichtringe DIN 7603			
Ref.	Dimensions	Ref.	Dimensions	Ref.	Dimensions	Ref.	Dimensions
100501	4 x 8 x 1	100548	12 x 16 x 1,5	100588	16 x 22 x 1,5	100631	22 x 29 x 1,5
100504	5 x 11 x 1	100551	12 x 17 x 1,5	100591	17 x 21 x 1,5	100641	24 x 29 x 2
100505	6 x 10 x 1	100554	12 x 18 x 1,5	100593	17 x 23 x 1,5	100643	24 x 30 x 2
100506	6 x 12 x 1	100555	12 x 18 x 2	100597	18 x 22 x 1,5	100644	24 x 32 x 2
100514	8 x 12 x 1	100562	13 x 18 x 1	100601	18 x 24 x 1,5	100651	26 x 32 x 2
100517	8 x 14 x 1	100563	13 x 18 x 1,5	100602	18 x 24 x 2	100652	26 x 34 x 2
100518	8 x 14 x 1,5	100564	13 x 18 x 2	100610	20 x 26 x 1,5	100656	27 x 32 x 2
100531	10 x 14 x 1	100568	14 x 18 x 1,5	100611	20 x 26 x 2	100658	28,4 x 34 x 2
100533	10 x 14 x 2	100572	14 x 20 x 1,5	100616	21 x 26 x 1,5	100659	28 x 36 x 1,5
100536	10 x 16 x 1	100573	14 x 20 x 2	100619	21 x 27 x 1,5	100662	30 x 36 x 2
100537	10 x 16 x 1,5	100574	14 x 21 x 1,5	100621	21 x 28 x 1,5	100664	32 x 38 x 2
100541	10 x 18 x 1,5	100580	15 x 20 x 1,5	100627	22 x 27 x 1,5	100671	34 x 40 x 2
100543	10 x 19 x 2	100585	16 x 20 x 1,5	100628	22 x 27 x 2	100672	35 x 41 x 2
100547	12 x 16 x 1	100587	16 x 22 x 1	100629	22 x 28 x 1,5	100673	36 x 42 x 2

 DIN-norm o-rings 3771		 Joints toriques norme DIN 3771		 DIN-Norm O-Ringe 3771			
Ref.	Dimensions	Ref.	Dimensions	Ref.	Dimensions	Ref.	Dimensions
415051	10 x 14	415057	18 x 22	415063	24 x 30	415069	32 x 38
415052	12 x 16	415058	18 x 24	415064	25 x 29	415070	34 x 40
415053	14 x 18	415059	20 x 24	415065	25 x 31	415071	36 x 42
415054	15 x 19	415060	20 x 26	415066	28 x 32	415072	38 x 44
415055	16 x 20	415061	22 x 26	415067	28 x 34	415073	40 x 44
415056	17 x 21	415062	24 x 28	415068	30 x 36	415074	40 x 46

Bonded Seal rings		Bagues BS		BS Dichtringe			
Ref.	Dimensions	Ref.	Dimensions	Ref.	Dimensions	Ref.	Dimensions
431352	6,7 x 11 x 1-M6	431367	14,7 x 22,00 x 1,5 - M 14	431375	21,54 x 28,58 x 2,49 (G1/2")	431375	21,54 x 28,58 x 2,49 (G1/2")
431356	8,7 x 14 x 1-M8	431369	16,7 x 24,00 x 1,5 - M 16	431376	22,70 x 30 x 2 - M 22	431376	22,70 x 30 x 2 - M 22
431361	10,7 x 16 x 1,5-M 10 (G 1/8")	431370	17,28 x 23,8 x 2,03- (3/8")	431377	24,7 x 32 x 2 M 24	431377	24,7 x 32 x 2 M 24
431365	12,7 x 18 x 1,5-M 12	431372	18,7 x 26 x 1,5 - M 18	431379	27,05 x 34,93 x 2,49 - R3/4" M 26	431379	27,05 x 34,93 x 2,49 - R3/4" M 26
431366	13,74 x 20,57 x 2,03 (G 1/4")	431374	20,7 x 28 x 1,5 - M20	431383	33,7 x 42 x 2 - M 33- (G1")	431383	33,7 x 42 x 2 - M 33- (G1")

GB

Break seals

FR

Joints de freinage

DE

Bremsdichtung



Ref.

101199

Content (107 pieces)

Ref.	Dimension	Qty	Ref.	Dimension	Qty
101100	O-ring + bowl Ø 10	5	101115	O-ring Ø 18	3
6239140	O-ring Ø 12 Bowl Ø 12	5	101116	Bowl Ø 18	3
6239141	O-ring Ø 14 Bowl Ø 14	5	6239143	O-ring Ø 22 Bowl Ø 22	20
6239142	O-ring Ø 16 Bowl Ø 16	15	6239149	O-ring Ø 26 Bowl Ø 26	3

(GB)	(FR)	(DE)
Bonded Seal rings	Bagues BS	BS Dichtringe



Ref.

431351

Content (78 pieces)

Ref.	Dimension	Qty	Ref.	Dimension	Qty
431356	8,7 x 14 x 1 - M 8	5	431370	17,28 x 23,8 x 2,03 - G 3/8"	10
431361	10,7 x 16 x 1,5 - M 10 - G 1/8"	5	431372	18,7 x 26 x 1,5 - M 18	5
431366	13,74 x 20,57 x 2,03 - G 1/4"	5	431375	21,54 x 28,58 x 2,49 - G 1/2"	8
431365	12,7 x 18 x 1,5 - M 12	5	431376	22,70 x 30 x 2 - M 22	8
431367	14,7 x 22,00 x 1,5 - M 14	5	431377	24,7 x 32 x 2	7
431369	16,7 x 24,00 x 1,5 - M 16	10	431379	27,05 x 34,93 x 2,49 - G 3/4	5

GB

Copper joints

FR

Joints cuivre

DE

Kupfer Dichtringe



Ref.

100599

Content (355 pieces)

Ref.	Dimension	Qty	Ref.	Dimension	Qty
100505	6,2 x 10 x 1	50	100601	18,3 x 24 x 1,5	15
100514	8,2 x 12 x 1	50	100627	22,4 x 27 x 1,5	15
100531	10,3 x 14 x 1	50	100631	22,4 x 19 x 1,5	15
100548	12,3 x 16 x 1,5	50	100644	24,4 x 32 x 2	10
100568	14,3 x 18 x 1,5	50	100651	26,4 x 32 x 2	10
100588	16,3 x 22 x 1,5	20			
100585	16,3 x 20 x 1,5	20			

(GB) Drain Seals	(FR) Joints metallo fermes	(DE) Entwässerungsringe
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Ref.

100398

Content (185 pieces)

Ref.	Dimension	Qty	Ref.	Dimension	Qty
100302	6,2 x 10 x 1,5	20	100320	18,3 x 24 x 2	15
100306	8,2 x 14 x 1,5	20	100324	20,4 x 26 x 2	15
100308	10 x 16 x 1,5	20	100327	22,4 x 29 x 2	10
100310	12,3 x 18 x 2	20	100327	22,4 x 29 x 2	10
100313	14,3 x 20 x 2	20	100330	24,4 x 32 x 2,5	10
100317	16,3 x 22 x 2	15	100331	26,4 x 32 x 2,5	10

GB

O-rings top deck

FR

Joints toriques
cotes impériales

DE

O-Ring Zölling



Ref.

415001

Content (382 pieces)

Dimension	Position	Dimension	Position	Dimension	Position
2,90 x 1,78	20	13,95 x 2,62	13	28,17 x 3,53	10
3,69 x 1,78	20	15,54 x 2,62	13	29,75 x 3,53	10
4,47 x 1,78	20	17,12 x 2,62	13	31,34 x 3,53	10
5,29 x 1,78	20	18,72 x 2,62	13	32,92 x 3,53	10
6,07 x 1,78	20	18,64 x 3,53	10	34,52 x 3,53	10
7,65 x 1,78	20	20,22 x 3,53	10	36,10 x 3,53	10
9,25 x 1,78	20	21,82 x 3,53	10	37,70 x 3,53	10
9,19 x 2,62	13	23,39 x 3,53	10	37,47 x 5,34	7
10,77 x 2,62	13	25,00 x 3,53	10	40,65 x 5,34	7
12,37 x 2,62	13	26,57 x 3,53	10	43,82 x 5,34	7

GB

O-rings metric dimensions

FR

Joints toriques cotes métriques

DE

Metrische O-Ringe



Ref.

415002

Content (398 pieces)

Dimension	Position	Dimension	Position	Dimension	Position
2,8 x 1,9	20	13,8 x 2,4	14	29,4 x 3,1	10
3,8 x 1,9	20	15,8 x 2,4	14	29,7 x 3,5	10
4,8 x 1,9	20	17,8 x 2,4	14	31,7 x 3,5	10
5,8 x 1,9	20	19,8 x 2,4	14	33,7 x 3,5	10
6,8 x 1,9	20	20 x 3	10	34,4 x 3,1	10
7,8 x 1,9	20	22 x 3	10	35,7 x 3,5	10
8,8 x 1,9	20	22,1 x 3,5	10	39,4 x 3,1	10
9,8 x 2,4	14	24,4 x 3,1	10	39,7 x 3,5	10
10,8 x 2,4	14	24,7 x 3,5	10	44,4 x 3,1	10
11,8 x 2,4	14	25,7 x 3,5	10	47,7 x 3,5	10

GB

**O-ring DIN
Standard**

FR

**Joints toriques
norme DIN**

DE

**O-Ring
DIN-Norm**



Ref.

415049


Content (320 pieces)


Ref.	Dimension	Qty	Ref.	Dimension	Qty
415051	10 x 14	15	415063	24 x 30	10
415052	12 x 16	15	415064	25 x 29	10
415053	14 x 18	15	415065	25 x 31	10
415054	15 x 19	20	415066	28 x 32	10
415055	16 x 20	20	415067	28 x 34	10
415056	17 x 21	20	415068	30 x 36	10
415057	18 x 22	20	415069	32 x 38	10
415058	18 x 24	15	415070	34 x 40	10
415059	20 x 24	15	415071	36 x 42	10
415060	20 x 26	15	415072	38 x 44	10
415061	22 x 26	15	415073	40 x 44	10
415062	24 x 28	15	415074	40 x 46	10


Classical fittings


Raccords classiques

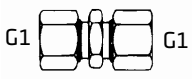

Normale
Verchraubung

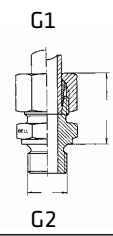

(GB)	(FR)	(DE)	
End fittings with wingnut for test connector opening	Embouts avec écrou à oreilles pour ouverture prise test	Flügelmutter für Prüfanschlüsse	
Ref.	Ø Tube	Tapping	
301105	5	M 16 x 1,5	
301101	6	M 16 x 1,5	
301102	8	M 16 x 1,5	

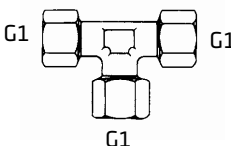

Inflation couplings	Raccords de gonflage	Aufblasens- Stecknippel	
			
Ref.	Ø Tube		
301098	6		
301097	8		

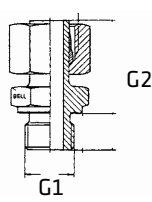

A-Form test points DIN 74326 P.R	Prises de pression forme A DIN 74326 P.R	A-Form Prüfanschlüsse A-Form DIN 74326 P.R	
			
Ref.	Tapping		
821000	M 12 x 1,5		
300801	M 14 x 1,5		
821001	M 16 x 1,5		
300803	M 18 x 1,5		
821002	M 22 x 1,5		
821003	M 16x1,00 Special for RVI		






B-Form male screw DIN 74326 P.R patterns	Modèles à filetage mâle forme B DIN 74326 P.R	B-Form mit Außengewinde DIN 74326 P.R	
			
Ref.	Designation		
301110	Extension for valve (see picture A)		
821011	G 1/8 (see picture B)		

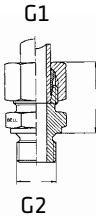

	GB Tube connectors LL serie	FR Unions doubles série LL	DE Rohr Verbinder LL Serie	
Ref.	Ø G1			
860276	4			
860278	5			
860221	6			
860222	8			
860223	10			
860224	12			
307114	14			
307116	16			
307118	18			

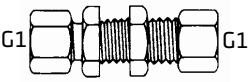

	Push-in couplings LL serie	Unions mâles série LL	Gerade Steckverbinder LL Serie	
Ref.	Ø G1	Thread G2		
870129	12	M 16 x 1,5		
317030	12	M 22 x 1,5		
317032	14	M 22 x 1,5		
317035	16	M 22 x 1,5		

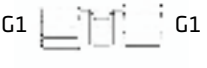




	Equal T-couplings LL serie	Tés égaux série LL	Gleichmäßige T-Verschraubung LL Serie	
Ref.	Ø G1			
860476	4			
860478	5			
860421	6			
860422	8			
860423	10			
860424	12			






	Male swiveling hose adapters LL Serie	Adaptateur mâle orientable série LL	Steckverbinder mit Anschluß LL Serie	
Ref.	Ø G1	G2		
317086	12	M 16 x 1,00		

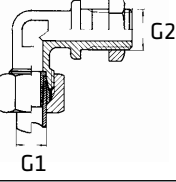




	 Tube connectors L serie	 Unions doubles série L	 Rohr Verbinder L Serie	
Ref.	Ø G1			
860201	6			
860202	8			
304132	9			
860203	10			
304133	11			
860204	12			
860205	15			
860286	16			
860206	18			

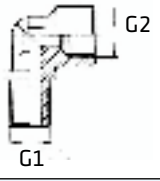




	Push-in couplings L serie	Unions mâles série L	Gerade Steckverbinder L Serie	
Ref.	Ø G1	Thread G2		
870344	6	M 16 x 1,5		
870348	8	M 16 x 1,5		
870356	10	M 16 x 1,5		
870304	12	M 16 x 1,5		
870257	12	1/2		

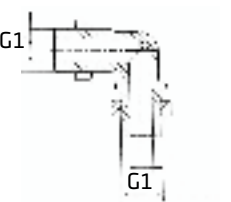

	Straight equal bulkhead couplings L Serie	Passe-cloisons égaux droits série L	Gerade Schottstutzen L Serie	
Ref.	Ø G1			
860601	6			
860602	8			
860603	10			
860604	12			
860605	15			
860621	16			
860606	18			

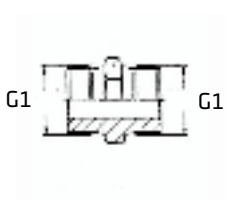

				
	Tube connectors american standards	Unions doubles normes américaines	Rohr Verbinder amerikanische Norm	
Ref.	Ø G1			
393999	3/16" - 4,76			
394000	1/4" - 6,35			

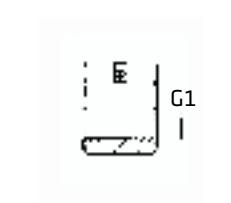

				
Ref.	Ø G1	G2		
860725	12	M 16 x 1,5		
860994	M 22 X 1,5	M 22 X 1,5		

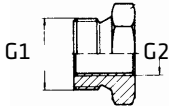




				
Ref.	Ø G1	G2		
860979	12	16 x 1,5		

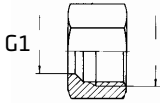

				
Ref.	Thread G1	Tapping G2		
860964	16 x 1,5	16 x 1,5		
860965	22 x 1,5	22 x 1,5		

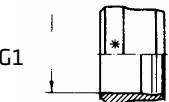

	<p>(GB)</p> <p>Special elbowed bulkhead couplings</p>	<p>(FR)</p> <p>Passe-cloisons spéciaux coudés</p>	<p>(DE)</p> <p>Sonder Winkel-schottstutzen</p>	
Ref. G1				
300432	M 22 x 1,5			

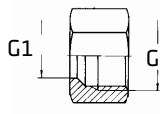

	<p>Nipples</p>	<p>Mamelons</p>	<p>Nippel</p>	
Ref. G1				
820313	M 22x1,5 FLAT BOTTOMS			
820356	M 16x1,5 FLAT BOTTOMS			

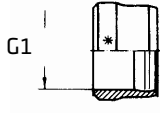

	<p>Socket joints</p>	<p>Manchons</p>	<p>Gewindemuffe</p>	
Ref. G1				
99243	M 22 x 1,5 - M 16 x 1,5			
99245	M 22 x 1,5 - G 3/8"			
821031	M 22 x 1,5			
821033	M 16 x 1,5			

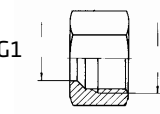

		 Male/female reductions	 Réductions mâle/femelle	 Reduzierstutzen	
Ref.	Ø G1	G2			
99231	M 16 x 1,5	M 22 x 1,5			
99237	G3/8"	M 22 x 1,5			
821046	M 22 x 1,5	M 16 x 1,5			
821048	M 22 x 1,5	G1/4"			
821049	M 22 x 1,5	G3/8"			
821050	M 22 x 1,5	G1/2"			
821053	M 26 x 1,5	M 22 x 1,5			
823504	M 18 x 1,5	M 16 x 1,5			
823520	M 16 x 1,5	M 22 x 1,5			
999952	M 16 x 1,5	G3/8"			
999953	G3/8"	M 16 x 1,5			
999955	M 16 x 1,5	G1/2"			
999956	G1/2"	M 22 x 1,5			

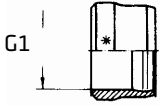

		French thin serie nuts	Ecrous série fine française	Überwurfmutter	
Ref.	G1	G2			
318104	4	M 8 x 1,0			
318106	6	M 10 x 1,0			
318108	8	M 12 x 1,0			
318110	10	M 14 x 1,0			
318112	12	M 16 x 1,0			
318114	14	M 18 x 1,0			
318116	16	M 22 x 1,0			
318118	18	M 24 x 1,0			


		Cutting rings french thin serie	Bagues coupantes série fine française	Schneidringe französische dünne Serie	
Ref.	Ø G1				
318204	4				
318206	6				
318208	8				
318210	10				
318212	12				
318214	14				
318216	16				
318218	18				
318220	20				

	(GB)	(FR)	(DE)	
	Nuts LL serie	Ecrous série LL	Überwurfmutter LL Serie	
Ref.	Ø G1	G2		
850176	4	M 8 x 1		
850178	5	M 10 x 1		
850121	6	M 10 x 1		
850122	8	M 12 x 1		
850123	10	M 14 x 1		
850124	12	M 16 x 1		

				
Ref.	Ø G1			
850276	4			
850278	5			
850221	6			
850222	8			
850223	10			
850224	12			

				
Ref.	Ø G1	G2		
850101	6	M 12 x 1,5		
850102	8	M 14 x 1,5		
850103	10	M 16 x 1,5		
850104	12	M 18 x 1,5		
850105	15	M 22 x 1,5		
850125	16	M 22 x 1,5		
850106	18	M 26 x 1,5		

	GB Cutting rings L serie	FR Bagues coupantes série L	DE Schneidringe L Serie	
Ref.	Ø G1			
850301	6			
850302	8			
850303	10			
850304	12			
850305	15			
850325	16			
850306	18			

Reinforcement sockets for flexible and semi-rigid tubes	Douilles de renfort pour tubes souples et semi-rigides	Stützhülsen für Polyamid Rohr	
Ref.	For tube inner Ø in mm	Tube Ø	
244127	2	4 x 1	
244140	3	6 x 1,5	
244120	4	6 x 1	
244141	5	8 x 1,5	
244121	6	8 x 1	
244142	7	10 x 1,5	
244176	7,5	10 x 1,25	
244122	8	10 x 1	
244143	9	12 x 1,5	
244123	10	12 x 1	
244144	12	15 x 1,5	
244166	14	18 x 2	
244150	15	18 x 1,5	
244170	4,31	6,35 (1/4")	
244171	6,35	9,52 (3/8")	
244172	9,52	12,7 (1/2")	
244173	11,2	15,88 (5/8")	

GB

Reinforcement sockets

FR

Douilles de renfort

DE

Verfestigungshülsen



Ref.

244199

Content (169 pieces)

Ref.	For tube inner Ø	Qty
244127	2	20
244140	3	30
244120	4	20
244141	5	20
244121	6	15
244142	7	10
244176	7,5	15
244122	8	10
244143	9	10
244123	10	10
244144	12	5
244166	14	4

GB

Thin rings
PN 63 norm

FR

Bagues fines
norme PN 63

DE

Schneidring
PN 63 Norm

Ref.

318201

Content (86 pieces)

Ref.	Dimension	Qty	Ref.	Dimension	Qty
318204	4	10	318214	14	4
318206	6	15	318216	16	5
318208	8	20	318218	18	4
318210	10	10	318220	20	3
318212	12	15			

(GB)	(FR)	(DE)
Cutting rings DIN batch	Bagues coupantes serie DIN	Schneidring DIN Serie





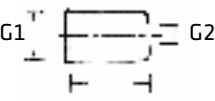

Ref.

432001

Content (91 pieces)

Ref.	Dimension	Qty	Ref.	Dimension	Qty
850276	4 LL	10	850303	10 L	5
850221	6 LL	15	850304	12 L	5
850222	8 LL	10	850305	15 L	4
850223	10 LL	5	850325	16 L	2
850224	12 LL	5	850306	18 L	3
850301	6 L	15	850316	16 S	2
850302	8 L	10			

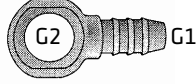




	(GB)	(FR)	(DE)	
	End fittings for brake hoses	Embouts pour flexible de frein	Schlauchstützen für Bremschlauch	
Ref.	Designation	G1	G2	
203998	Ball coupling with nut	10 x 18	M 18 x 1,5 cône 24° OU 60°	



	(GB)			
	Crimp sockets	Douilles de sertissage	Fassenhülsen Preßhülsen	
Ref.	Ø G1	Ø G2	L	
204010	10,5	6,2	15	
204011	11,5	7,3	15	
204012	12,5	7,3	20	
204013	13,5	9,3	20	
204014	14,5	9,3	20	
204015	15,5	11,3	20	
204016	16	11,3	20	
204017	17	11,3	21	
204018	18	13,4	21	
204019	19,5	13,4	21	
204020	20	13,4	20	
204022	22	16,9	31	
204023	23	16,9	32	
204024	24,5	16,9	32	
204026	26,5	16,9	32	
204028	28	19,5	32	
204030	30	23,7	32	
Socket for 680010 (10X18) See page 26				
204050	19,5	14	32	



Miscellaneous

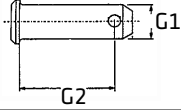

Divers

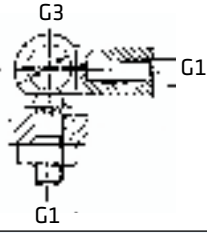




Sonstiges

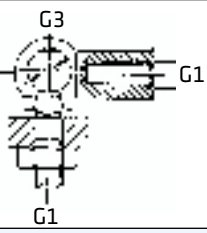

			 Banjo Screws for polyamide tube	 Banjos pour tube polyamide	 Ringnippel für Polyamid Rohr	
Ref.	Ø G1	Eye Ø G2	Ref.	Ø G1	Eye Ø G2	
205525	4	6	205503	4	14	
205509	4	8	205512	6	14	
205513	5	8	205506	8	14	
205518	6	12	205514	10	14	
205504	8	12	205500	9	16	
205517	5	13				

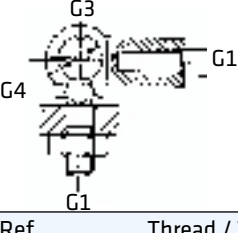

			Simple cored screws	Vis creuses simples	Einfache Hohlschrauben	
Ref.	G1	Eye Ø	Ref.	G1	Eye Ø	
205001	M 6 x 1	6	205006	M 12 x 1,50	12	
205002	M 8 x 1	8	205008	M 14 x 1,50	14	
205003	M 8 x 1,25	8	205009	M 12 x 1,25	12	
205004	M 10 x 1	10	205010	M 16 x 1,50	16	
205005	M 10 x 1,50	10	205013	M 18 x 1,50	18	



			Standardized yokes	Chape normalisée	Rundloch- gabelgelenke	
Ref.	Ø G1	Tapping G2				
222234	14	M 16 x 150				

			Yoke shafts	Axes de chape	Gabelgelenk- bolzen	
Ref.	Ø G1	length under head G2				
222414	14	31,2				
222434	14	40				
222435	14	35				

	 Ball and socket joints DIN 71 802	 Rotules DIN 71 802	 Winkelgelenke Standard DIN 71 802	
Threaded plug-in AS Type, hex nut and safety ring.				
Ref.	Thread / Tapping G1	Ball head Ø G3		
220125	M 5 x 0,8	8		
220126	M 6 x 1	10		
220128	M 8 x 1,25	13		
220130	M 10 x 1,5	16		
220132	M 12 x 1,75	18		
220134	M 14 x 1,5	19		
220135	M 14 x 2	19		

	Reversed thread lead ball and socket joints	Rotules pas à gauche	Winkelgelenke Linksgewinde	
Ref.	Thread / Tapping G1	Ball head Ø G3		
220225	M 5 x 8	8		
220226	M 6 x 1	10		
220228	M 8 x 1,25	13		
220230	M 10 x 1,50	16		

	Ball and socket joints - special patterns	Rotules modèles spéciaux	Winkelgelende Sonderausführung	
Ref.	Thread / Tapping G1	Ball head Ø	Length	Application
220152	M 6 x 1	10	33	81953010001 (Man)
220157	M 8 x 1,25	13	45	0004310667 (Mercedes)

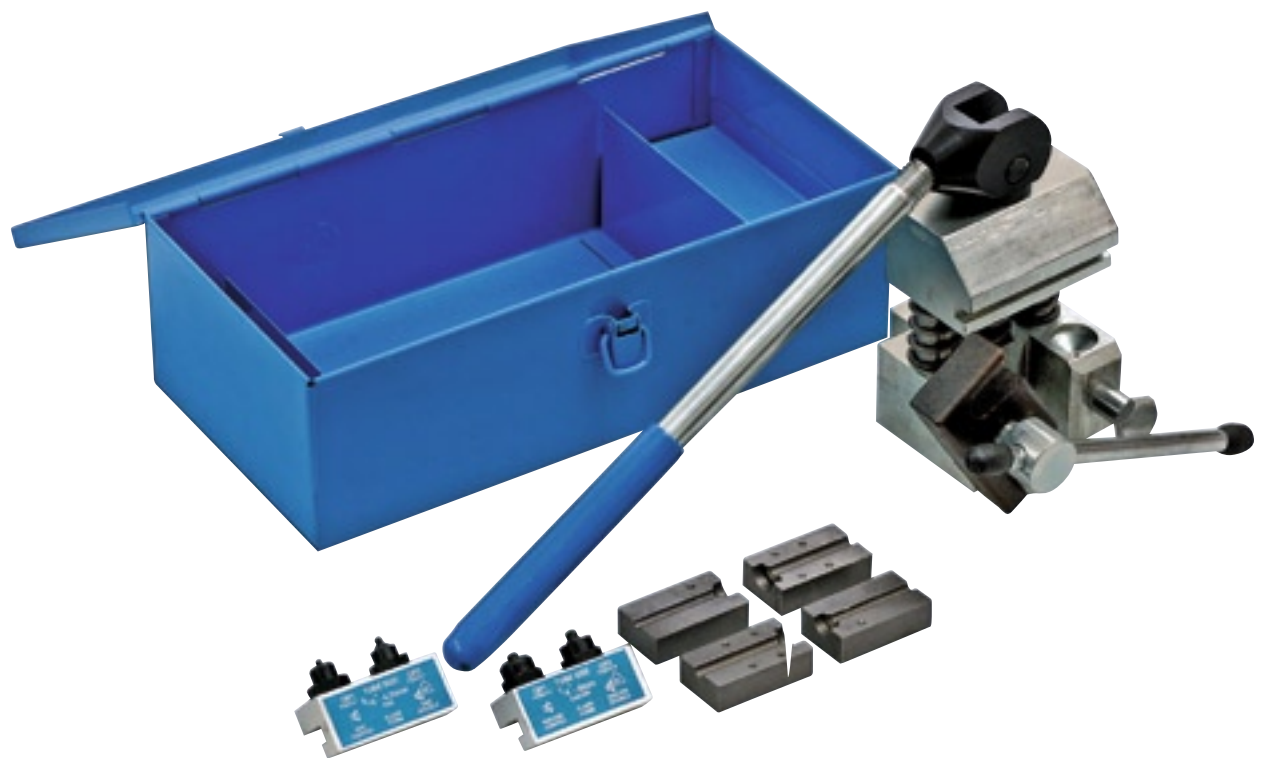
	Plugs with 6 external cap nuts	Bouchons à 6 pans extérieurs	Verschlussmutter	
Ref.	Thread G1			
223008	M 8 x 1			
223010	M 10 x 1			
223012	M 12 x 1,50			
223014	M 14 x 1,50			
223016	M 16 x 1,50			
223018	M 18 x 1,50			
223020	M 20 x 1,50			
223022	M 22 x 1,50			
223024	M 24 x 1,50			
223026	M 26 x 1,50			

Hydraulic Braking





Freinage hydraulique


Hydraulikbremssystem

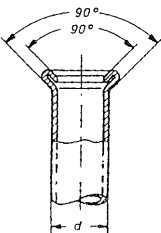

(GB) Flaring tube device	(FR) Presse pour collets battus	(DE) Tubenerweiterungsgerät
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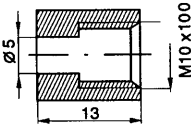



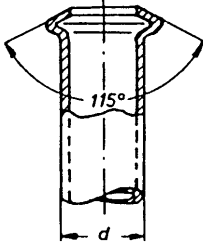

Ref.	T	Designation
209009	4,76 → 6,35	<p>Flaring tube device For collars of precision according to DIN 74234 on copper tubes, aluminum and steel, drawn, weldless with double wall (BUNDY type).</p> <ul style="list-style-type: none"> • Horizontal tightening of the tubes, ideal for an intervention without disassembly • Made of special high quality steel • No risk of losing the tools necessary to the collar and clamping blocks Easy handling • Rapid exchange of tools • Adjustment stop • Suitable for tubes from 0.7 to 1mm thick.
Ref.	Pièces	Designation
209009B	2	Tightening block for T4,76 Klemmblock für T4,76
209009P		Punch for T4,76 beat collar
209007	2	Tightening block for T6 Klemmblock für T6
209008		Punch for T6 beat collar
209015		kit T8 et 10

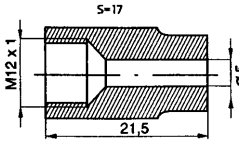

 Copper tubes for brake		 Tubes cuivre pour freins		 Bremsrohre aus Kupfer		
Ref.	Ø extérieur	Épaisseur	Conditionnement			
671199	4,5	0,9	Rouleau de 10 m			Citroën
671200	3,5	0,9	Rouleau de 10 m			Citroën
671201	4,76	0,9	Rouleau de 10 m			
67120150	4,76	0,9	Rouleau de 50 m			
671202	5	0,8	Rouleau de 10 m			
671203	6	0,8	Rouleau de 10 m			
671204	6,35	0,8	Rouleau de 10 m			
671205	8	0,8	Rouleau de 10 m			

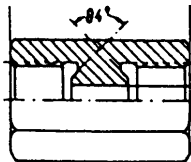

Steel tubes for brake		Tubes acier pour freins		Bremsrohre aus Stahl		
Ref.	Ø extérieur	Épaisseur	Conditionnement			
671101	3/16" - 4,76	0,7	Rouleau de 32 m			
671103	6	0,7	Rouleau de 32 m			
671104	1/4" - 6,35	0,7	Rouleau de 32 m			
671105	8	0,7	Rouleau de 32 m			

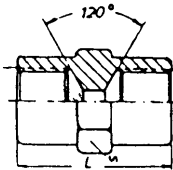

		E shape brake screws with wide mouthed end (DIN 74233)		Vis de freins forme E bout évasé (DIN 74233)		E formige Bremsschraube mit ausgebreiteter Spitze (DIN 74233)		
Ref.	T	Filetage	Longueur en mm					
230001	3/16" - 4,76	M 10x1	16					
230002	3/16" - 4,76	M 10x1	22					
230151	3/16" - 4,76	M 10x1,25	15					
230153	3/16" - 4,76	M 12x1,00	20					
230155	3/16" - 4,76	G 7/16" - 20 UNF	18					
230156	3/16" - 4,76	G 1/2" - 20 UNF	18					
230158	3/16" - 4,76	G 3/8" - 24 UNF	20					
230004	6	M 12x1,00	20					
230154	6	G 7/16" - 20 UNF	21					
230157	6	G 1/2" - 20 UNF	17					
230159	6	G 7/16" - 24 UNF	15,5					
230011	8	M 14x1,5	25					
230012	8	M 14x1,00	18					
230013	8	G 1/2"-20 UNF	16					

		F shape screw nuts with flat end (DIN 74233)		Ecrous forme F bout plat (DIN 74233)		Fförmige Mutter mit flacher Spitze (DIN 74233)		
Ref.	T	Filetage	Longueur en mm					
230262	3/16" - 4,76	M 10x1	13					

	GB	FR	DE	
	F shape brake screws with flat end (DIN 74233)	Vis de freins forme F bout plat (DIN 74233)	F formige Bremsschraube mit flacher Spitze (DIN 74233)	
Ref.	T	Filetage	Longueur en mm	
230250	3,5	M 8	20	Citroën
230101	3/16" - 4,76	M 10x1,00	16	Dessin A
230256	3/16" - 4,76	G 3/8" - 24 UNF	20	Dessin B
230251	3/16" - 4,76	M 10x125	14,2	Dessin B
230252	3/16" - 4,76	M 10x125	19,5	Dessin B
230253	3/16" - 4,76	M 12x1,00	18	Dessin A
230255	3/16" - 4,76	G 7/16" - 20 UNF	21,5	Dessin B
230257	3/16" - 4,76	G 3/8" - 24 UNF	14,4	Dessin B
230258	3/16" - 4,76	G 3/8" - 24 UNF	21	Dessin B
230259	3/16" - 4,76	M 12x1,00	21	Dessin B
230260	6	M 12x1,00	21	Dessin B
230005	6,35 - 1/4"	M12x1,00	18	Dessin C
230248	6,35 - 1/4"	G 1/4"	17,5	Citroën

	E shape screw nuts with wide mouthed end (DIN 74233)	Ecrous forme E bout évasé (DIN 74233)	E förmige Mutter mit ausgebreiteter Spitze (DIN 74233)	
Ref.	T	Filetage	Longueur en mm	
230263	3/16" - 4,76	M 12x1	21,5	
230264	3/16" - 4,76	G 3/8" - 24 UNF	17,5	
230265	3/16" - 4,76	G 3/8" - 24 UNF	16	

	Socket joints E shape (DIN74233)	Manchons forme E (DIN 74233)	Gewindemuffe E förmig (DIN74233)	
Ref.	T	Longueur en mm		
230051	M 12x1	29		
230050	M 10x1	25		
230054	G 1/2" - 20 UNF	18		
230056	G 7/16" - 24 UNF	18		

	Socket joints F shape (DIN74233)	Manchons forme F (DIN 74233)	Gewindemuffe F förmig (DIN74233)	
Ref.	T	Longueur en mm		
230053	G 7/16" - 24 UNF	25		
230055	G 3/8" - 24 UNF	24		
230150	M 10x1	25		
230261	M 14x1,5	40		

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