

SEALS AND COUPLING MATERIALS USING TABLE

NBR (Nitrile)	FPM (Viton)	EPDM	PTFE (Teflon)
<p>Main properties: Resistant to oil and petrol good ageing characteristics, high abrasion resistance.</p> <p>Als Dichtungswerkstoffe stehen folgende Serienqualitäten zur Verfügung: Perbunan, Hauptigenschaften: Beständigkeit gegen Öl und Benzin gute Alterungsbeständigkeit, hoher Schutz gegen Abrieb.</p>	<p>Main properties: Outstanding heat resistant performance, excellent resistance to oils, chemicals, solvent, active oxygen, and weather.</p> <p>Viton, Hauptigenschaften: Überragende Hitzebeständigkeit, ausgezeichnete Beständigkeit gegen Ole, Chemikalien, Lösungsmittel, Ozon, Sauerstoff und Witterung.</p>	<p>Main properties Ethylen Propylene, High mechanical strength, excellent resistance to high and low temperatures and to active oxygen and weather. Good resistance to chemical media.</p> <p>EP-Athylen Propylen, Hauptigenschaften: Hohe mechanische Festigkeit. Ausgezeichnete Wärme- und Kältebeständigkeit. Hervorragende Beständigkeit gegen Ozon- und Witterungseinflüsse. Gute chemische Beständigkeit.</p>	<p>For very aggressive media special constructions with PTFE seals (Teflon) are available. Für sehr aggressive Medien sind Sonderkonstruktionen mit PTFE-Dichtungen (Teflon) verfügbar: Alle Angaben sind unverbindlich und dienen nur zur Orientierung. Sie gelten 1. für reine Stoffe, 2. wenn nicht anders angegeben für Raumtemperatur. 3. bei Säuren, Säuren usw., für wäßrige Lösungen mäßiger Konzentrationen. Teflon-eingetragenes 'Dupont'-Warenzeichen.</p>

Symbols - Korrosionstabelle	Material	Seal Dichtung																				
<ul style="list-style-type: none"> ✓ Fully resistant / beständig D Partly resistant / bedingt — Non-resistant / nicht 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Steel zinc plated</th> <th>Stahl Verzinkt</th> <th>Brass - Messing</th> <th>AISI 316 Ti or similar</th> <th>Edelstahl AISI 316 Ti</th> <th>Polyamide 11/12</th> <th>Polyacetal - Poliasetal</th> <th>NBR Nitrile</th> <th>FPM Viton</th> <th>EPDM</th> </tr> </thead> <tbody> <tr> <td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td><td>X</td></tr> </tbody> </table>	Steel zinc plated	Stahl Verzinkt	Brass - Messing	AISI 316 Ti or similar	Edelstahl AISI 316 Ti	Polyamide 11/12	Polyacetal - Poliasetal	NBR Nitrile	FPM Viton	EPDM	✓	✓	✓	✓	✓	✓				X	
Steel zinc plated	Stahl Verzinkt	Brass - Messing	AISI 316 Ti or similar	Edelstahl AISI 316 Ti	Polyamide 11/12	Polyacetal - Poliasetal	NBR Nitrile	FPM Viton	EPDM													
✓	✓	✓	✓	✓	✓				X													
Acetate (Ethyl Acetate & Amyl Acetate)	✓ ✓ ✓ ✓ ✓	X																				
Acetic acid 10%	— ✓ — — ✓	X																				
Acetone	✓ ✓ ✓ ✓ ✓	X																				
Acetylene	✓ ✓ ✓ ✓ ✓	X X X																				
Aero Engine Fuel BP, Esso Avgas 100/130	✓ ✓ ✓ ✓ D	X X																				
Aero Engine Oil BP : AIRO 1210, Esso: AVIATON-120 Shell: AIRO-120, DERD 2487 DERD 2497, DTD 585	✓ ✓ ✓ ✓ D	X X																				
Skydrol	✓ — ✓ — —	X																				
Oronite	✓ — ✓ — —	X																				
Air, compressed	✓ ✓ ✓ ✓ ✓	X X																				
Air, hot up to 120°C	✓ ✓ ✓ D	X X																				
Air, hot up to 200°C	✓ ✓ ✓ — —	X																				
Alcohol	✓ ✓ ✓ ✓ ✓	X																				
Alum	— ✓ ✓ ✓ ✓	X X X																				
Alkalies	— D ✓ ✓ D	X X																				
Ammonia, Liquid	D — ✓ ✓ —	X																				
Ammonium Sulphate Solution	— — ✓ ✓ D	X X X																				
Amyl Alcohol	✓ ✓ ✓ ✓ ✓	X																				
Aniline	✓ — ✓ D	X																				
Benzole	✓ ✓ ✓ ✓ ✓	X																				
Borax	✓ ✓ ✓	X X																				
Bultane	✓ ✓ ✓ ✓ ✓	X X																				
Bultane	✓ ✓ ✓	X X																				
Butyl Alcohol	— ✓ ✓ ✓ ✓	X																				
Carbon Dioxide	— ✓ ✓ ✓ ✓	X X X																				
Carbon Dioxide, dry	✓ ✓ ✓ ✓	X X X																				
Carbon Dioxide liquid	— ✓ ✓ ✓ D	X X X																				
Carbon Bisulphide	✓ ✓ ✓	X																				
Chloride of Barium	✓ D ✓ ✓	X X X																				
Chromic Acid	— — D D —	X																				
Citric Acid	— D ✓ — D	X X																				
Creosote	✓ ✓ ✓	X																				
Cresol	D ✓ ✓ — —	X																				
Cresol, Cresylic Acid	✓ ✓	X																				
Cupric Chloride	✓ D —	X X X																				
Cyclohexane	✓ ✓ D ✓	X																				
Dimethylamine	✓ ✓	X																				
Emulsion. (Water/Oil)	D ✓ ✓ ✓ ✓	X X																				
Ether	✓ ✓ ✓ ✓ ✓	X																				

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Steel zinc plated	Stahl Verzinkt	Brass - Messing	AISI 316 Ti or similar	Edelstahl AISI 316 Ti	Polyamide 11/12	Polyacetal - Poliasetal	NBR Nitrile	FPM Viton	EPDM													
✓	✓	✓	✓	✓	✓	✓	✓	✓	X X													
Ethyl Alcohol	✓	X X																				
Ethylene	✓ ✓	X																				
Formalin	✓ ✓	X X X																				
Formic Acid	— D	— — X																				
Frigen	✓ ✓ ✓ ✓ ✓	X X																				
Gasoline, Refined	✓	X X																				
Gas, Blast Furnace	D ✓ ✓ — D	X																				
Gas, Coal	D ✓ ✓ ✓ ✓	X																				
Gas, Coke Oven	D ✓ ✓ D D	X																				
Gas, Lighting	✓ ✓ ✓ ✓ ✓	X X																				
Gas, Naphtalene content	✓ ✓ ✓ ✓ D	X X																				
Gas, Natural	✓ ✓ ✓ ✓ ✓	X X																				
Gas, Town	✓ ✓ ✓ ✓ ✓	X																				
Gear Oil	✓ ✓ ✓ ✓ ✓	X X																				
Glucose	✓ ✓ ✓ ✓ ✓	X X X																				
Glycerine	✓ ✓ ✓ ✓ ✓	X X X																				
Glycol	✓ ✓ ✓ ✓ ✓	X X																				
Helium	✓ ✓ ✓ ✓ ✓	X X X																				
Hexane	✓ ✓ ✓ ✓ ✓	D X X																				
Hydrocarbons	✓ ✓ ✓ ✓ ✓	X X																				
Hydrogen	✓ ✓ ✓ ✓ D	X X																				
Hydrogen Gas	✓ ✓	X X																				
Hydrogen Sulphide, Humid	D ✓ ✓	X																				
Hydrogen Sulphide, dry	✓ ✓ ✓	X																				
Hydrogen Peroxide 30%	— — ✓ ✓	X																				
Isopropyl Alcohol	✓ ✓ D ✓	X X X																				
Kerosene, JP 1	✓ ✓ ✓ ✓ ✓	X X																				
Keton, Methyl Ethyl	✓ ✓ ✓ ✓ ✓	X																				
Latex, liquid up to 130°C	✓ ✓ ✓ D D	X																				
Lubricating Oil	✓ ✓ ✓ ✓ ✓	X X																				
Lye, Caustic	— ✓ ✓ ✓ D	X																				
Lye, Hyochorous Acid	— ✓ — D	X																				
Lye, Pickling	— MS60 ✓ D D	X																				
Magnesium Carbonate	✓ ✓ ✓ ✓ ✓	X X X																				
Magnesium Hydroxide	✓ ✓ ✓ ✓ ✓	X X X																				
Magnesium Sulphate. M.Sulfat	— ✓ ✓ ✓ ✓	X X X																				
Mercury	✓ — ✓ ✓ ✓	X X X																				
Methane	✓ ✓ ✓ ✓ ✓	X X																				
Methanol	✓ ✓ ✓ ✓ ✓	X X																				
Methyl Alcohol	✓ ✓ ✓ D ✓	X X																				
Methyl Ethyl Ketone	✓ ✓ ✓ ✓ ✓	X																				

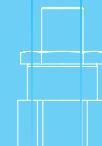
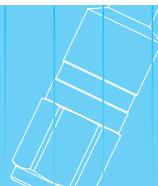
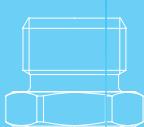
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Symbols - Korrosionstabelle	Material					Seal Dichtung
	Steel zinc plated Stahl Verzinkt	Brass - Messing	AISI 316 Ti or similar Edelstahl AISI 316 Ti	Polyamide 11/12 Polyamid 11/12	Polyacetal - Poliasetal	NBR Nitrile FPM Viton EPDM
✓ Fully resistant / beständig						
D Partly resistant / bedingt						
— Non-resistant / nicht						
Methyl Benzene	✓					X
Milk	✓	—	✓	✓	✓	X
Napta	✓		✓		✓	X X
Naptalene	✓	✓	✓	✓	✓	X
Naptenic. Acid	✓		✓			X X
Nitrate of Ammonium	✓		✓			X X X
Nitric Acid. up to 35°C	—	✓	✓	—	—	X
Nitrogen	✓	✓	✓	✓	✓	X X X
Nitro-Solution (no synthetic resin thinners)	✓	✓	✓	—	✓	X
Oil, Coal Tr	✓		✓	✓	D	X
Oil, Crude	✓	✓	✓	✓	✓	X X
Oil, Diesel	✓	✓	✓	✓	✓	X
Oil, Diesel up to 120°C		✓	✓	D	—	X
Oil, Fuel up to 100°C	✓	✓	✓	D	—	X X
Oil, up to 200°C/ 300°Cup to (special type)	✓	D	✓	—	—	FFKM
Oil, Fuel 5x5	✓	✓	✓	D	✓	X
Oil, Hydraulic Chlorinated	D	D	✓	—	D	X
Oil, Hydraulic up to 120°C	✓	✓	✓	D	D	X X
Oil, Linseed	✓	✓	✓	✓	✓	X X
Oil, Mineral	D	✓	✓	✓	✓	X X
Oil, Transformer	D	D	✓	✓	D	X
Oleic Acid	✓	—	✓	✓	✓	X X
Oxalic Acid	D	D	✓	✓	✓	X X
Oxygen. fat free	—	✓	✓	✓	D	X
Paraffin	✓	✓	✓	✓	✓	X
Paraffin, (Wax)	✓	✓	✓	✓	✓	X
Pentachlorphenole	✓					X
Petrol Ether		✓	✓	✓	✓	X
Petrol	✓	✓	✓	✓	✓	X
Phenol Solution	D	✓	✓	—	—	
Phosphoric Acid 10%			✓	—	—	X X
Potassium Cyanide	✓	—	✓	✓	D	X X
Potassium Dichromate	✓	—	✓	—	D	X X
Potassium Sulphate	✓		✓			X X X
Potassium Hydroxide	✓		✓	✓	D	X
Propane	✓	✓	✓	✓	✓	X X
Prussic Acid	✓	—	✓			X
Salt Solution	—	D	D	✓	D	X
Sea Water	—	D		✓	X	X X X

Symbols - Korrosionstabelle	Material					Seal Dichtung		
	Steel zinc plated Stahl Verzinkt	Brass - Messing	AISI 316 Ti or similar Edelstahl AISI 316 Ti	Polyamide 11/12 Polyamid 11/12	Polyacetal - Poliasetal	NBR Nitrile	FPM Viton	EPDM
✓ Fully resistant / beständig								
D Partly resistant / bedingt								
— Non-resistant / nicht								
Soap Solution	—	✓	✓	✓	✓	X	X	X
Soap Solution	—	D	✓	✓	D	X	X	X
Sodium Acetate			✓	✓	✓	X		X
Sodium Bicarbonate			D	✓	✓		X	X
Sodium Carbonate	✓		✓	✓	✓	X	X	X
Sodium Chloride	✓		✓	✓	✓	X	X	X
Sodium Cyanide	✓		✓	—	D			X
Sodium Sulphide	✓	D	✓				X	X
Steam, up to 150°C	D	D	✓	—	—			X
Steam, up to 250°C	D	D	✓	—	—	PTFE		
Sulphide of barium	✓	D	✓	✓		X	X	X
Sulphur Dixide, Gas			✓	✓				X
Sulphuret of Carbon			✓	✓	—	✓		X
Syntetic Resin Thinners (no nitrosolution)	✓	✓	✓	D	D			X
Tar	✓	✓	✓	✓	✓	X	X	
Tetracholride of Titanium	✓		✓					X
Toluol, dry	D	✓	✓	✓	✓			X
Trichlorethylen	✓	D	✓	✓	—			X
Turbine Fuel, BP: ATK 2494, ES- SO:MIL-F56/16, SHELL:ATF 650	✓	✓	✓	✓	D	X	X	
Turbine Oil, Esso:35	✓	✓	✓	✓	D	X	X	
Turb-oil 1 S (MILL 7808)	D	D	✓	✓	D	X	X	
Vacuum (Strengthened Valve Springs)	✓	✓	✓	✓	✓			
Vegetable Oil	✓		✓	✓	✓	X	X	X
Water, Distilled			✓	✓	✓		X	X
Water, Deionized			✓			X	X	
Water, Demineralised			✓					X
Water, up to 80°C	D	✓	✓	D	D	X	X	X
Water, over 80°C	D	✓	✓	D	—	X	X	
Water, Cooling	D	D	✓	✓	D		X	X
Xylene	✓	✓	✓	✓	✓			X

WATER PNEUMATIC HYDRAULIC ELECTRICAL ACCESORIES



QUICK CONNECT TECHNOLOGY



450.08





Compatible - Kompatibilität

170.08
171.08
173.08
451.08
461.08 / SC-E1

Temperature Range - Temperaturbereich

Nitrile (N)	-20°C + 110°C (- 4°F + 230°F)
FPM (V)	-20°C + 180°C (- 4°F + 356°F)
EPDM (Ethylene Propylene)	-40°C + 150°C (- 40°F + 302°F)

Working Pressure - Betriebsdruck

25 Bar (360 PSI)

Conception / Disconnection Max. Pressure -

Ein- und Auskuppelbar bis Max. Druck
15 Bar (220 PSI)

Flow size - Nennweite

450.08 8mm (3/8")

Standard version - Standardversion

Seals - Dichtung : Nitrile (N)

Material of steel version / Material für die Stahl Version

Socket Body - Kupplungsgrundkörper	Steel tenifer threated Stahl teneferiert
Back Part - Hinterteil	Steel zinc nickel plated Stahl Zink-Nickel beschichtet
Sleeve - Sleeve	Steel zinc-nickel plated and orange painted
Hülse	Stahl Zink-Nickel beschichtet und orange lackiert
Springs - Federn Seals - Dichtungen	Stainless steel - Edelstahl Nitrile (N)
Plug - Nippel	Steel tenifer threated Stahl teneferiert

Advantages

- The system perfectly fits to the ISO 4414, EN 983 safety requirements.
- Plug profile perfectly fits to the ISO 6150-C-14, AFNOR C-14 NF E 49-053
- 2 stage disconnection safety feature
- Negligible Connecting Force
- Smart and Ergonomic features
- Ease of Handling
- Optimised Size

Vorteil

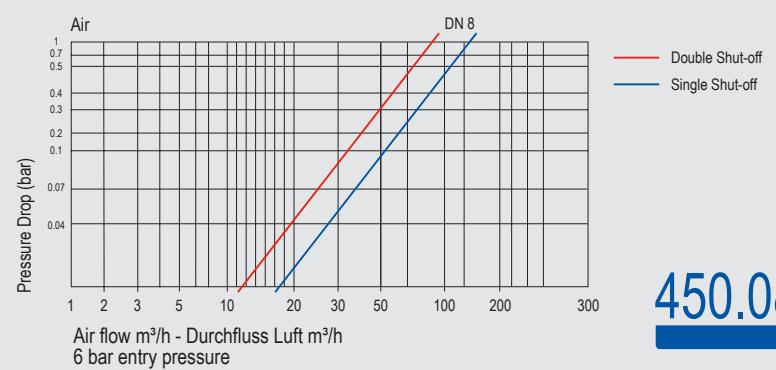
- Sicherheit gemäß ISO 4414, EN 983
- Stecknippel gemäß ISO 6150-C-14, AFNOR C-14 NF E 49-053
- 2 stufen Sicherheitsentriegelung
- Einflache Bedienung, sehr geringe Kuppelkraft
- Kompakte Bauform



Material of stainless steel version

Material für die Edelstahlversion	
Socket Body - Kupplungsgrundkörper	Stainless steel Edelstahl
Back Part - Hinterteil	Stainless steel - Edelstahl
Sleeve - Hülse	Stainless steel - Edelstahl
Springs - Federn	Stainless steel - Edelstahl
Seals - Dichtungen	FPM (V)
Plug - Nippel	Stainless steel - Edelstahl

Flow Rate vs Pressure Drop Graph



450.08

QUICK COUPLINGS FOR PNEUMATIC

450.08 - SV 2-Stage

450.08

Metal sleeve socket with male thread / Kupplung mit Metallhülse und Aussengewinde



Socket / Kupplung	Size / Größe	Alternative Order No Alternative Bestellnr.	Order No / Bestellnr.	$\varnothing d$	$\varnothing d1$	L	L1	HEX.
	8	R203 00 316	H102.2378	BSP 3/8	30	72	62	24
	8	R203 00 318	H102.2379	BSP 1/2	30	74	62	24
	8	-	H102.2380	NPT 3/8	30	74	62	24
	8	-	H102.2381	NPT 1/2	30	79	62	24
	8	R303 00 607	H102.3365	BSP 3/8	30	72	62	24
	8	R303 00 608	H102.3366	BSP 1/2	30	74	62	24
	8	R303 00 609	H102.3369	NPT 3/8	30	74	62	24
	8	R303 00 610	H102.3370	NPT 1/2	30	79	62	24

*SS: Stainless Steel / Edelstahl

TYPE 450.08

Metal sleeve socket with female thread / Kupplung mit Metallhülse und Innengewinde



Socket / Kupplung	Size / Größe	Alternative Order No Alternative Bestellnr.	Order No / Bestellnr.	$\varnothing d$	$\varnothing d1$	L	L1	HEX.
	8	R203 00 307	H102.2386	BSP 1/4	30	72	-	24
	8	R203 00 309	H102.2387	BSP 3/8	30	72	-	24
	8	R203 00 312	H102.2388	BSP 1/2	30	75	-	24
	8	-	H102.2389	NPT 3/8	30	73	-	24
	8	-	H102.2390	NPT 1/2	30	80	-	24
	8	R303 00 300	H102.3357	BSP 1/4	30	72	-	24
	8	R303 00 603	H102.3358	BSP 3/8	30	72	-	24
	8	R303 00 604	H102.3359	BSP 1/2	30	75	-	24
	8	R303 00 605	H102.3367	NPT 3/8	30	73	-	24
	8	R303 00 606	H102.3368	NPT 1/2	30	80	-	24

*SS: Stainless Steel / Edelstahl

TYPE 450.08

Metal sleeve standard hose socket / Kupplung mit Metallhülse und Schlauchanschluss



Socket / Kupplung	Size / Größe	Alternative Order No Alternative Bestellnr.	Order No / Bestellnr.	$\varnothing d$	$\varnothing d1$	L	L1	HEX.
	8	R203 00 322	H102.2396	$\varnothing 8 - 5/16$	30	84	-	-
	8	R203 00 325	H102.2397	$\varnothing 10 - 3/8$	30	87	-	-
	8	R203 00 327	H102.2398	$\varnothing 13 - 1/2$	30	87	-	-
	8	R203 00 330	H102.2399	$\varnothing 16 - 5/8$	30	87	-	-
	8	R303 00 611	H102.3360	$\varnothing 8 - 5/16$	30	84	-	-
	8	R303 00 612	H102.3362	$\varnothing 10 - 3/8$	30	87	-	-
	8	R303 00 613	H102.3363	$\varnothing 13 - 1/2$	30	87	-	-
	8	R303 00 614	H102.3364	$\varnothing 16 - 5/8$	30	87	-	-

*SS: Stainless Steel / Edelstahl

TYPE 450.08

Male thread plug / Nippel mit Aussengewinde



Plug / Nippel	Size / Größe	Alternative Order No Alternative Bestellnr.	Order No / Bestellnr.	$\varnothing d$	$\varnothing d1$	L	L1	HEX.
	8	R255 00 101	H102.3029	BSP 1/4	-	55	44	17
	8	R255 00 102	H102.3030	BSP 3/8	-	57	44.5	19
	8	-	H102.3031	BSP 1/2	-	60	48	24
	8	R255 00 090	H102.3032	NPT 1/4	-	57	44.5	17
	8	R255 00 089	H102.3033	NPT 3/8	-	57	44.5	19
	8	R355 00 090	H102.3785	BSP 1/4	-	55	44	17
	8	R355 00 091	H102.3787	BSP 3/8	-	57	44.5	19
	8	-	H102.3789	BSP 1/2	-	60	48	24
	8	R355 00 092	H102.3801	NPT 1/4	-	57	44.5	17
	8	R355 00 093	H102.3803	NPT 3/8	-	57	44.5	19

*SS: Stainless Steel / Edelstahl