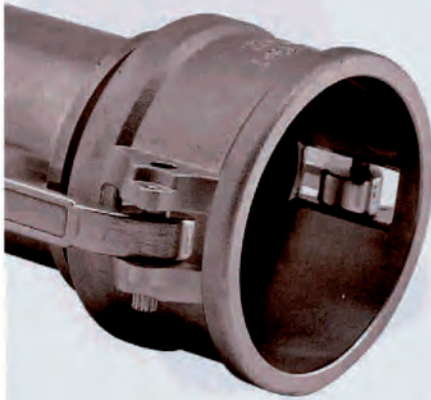


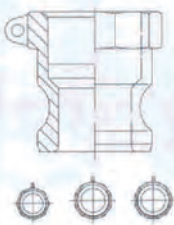
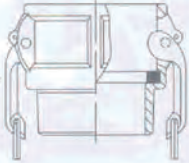
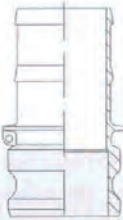
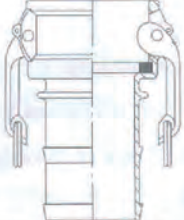
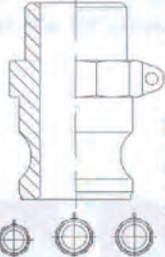
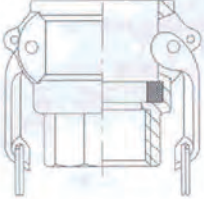
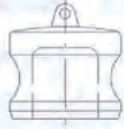
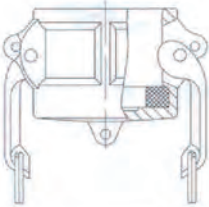
Cam and Groove

A-A-59326



Cam and Groove or Cam-Locking couplings are one of the most recognized types of quick disconnect fittings in industry. They are fast and reliable. They are usually categorized in 2 design and produce systems: a) to interchange with products produced to A-A-59326 which has surpassed **AMERICAN MILITARY SPECIFICATION MIL-C-27487F**, and b) to fit German-origin norm DIN EN 14420-7, formally DIN 2828. As no standard exists for 1/2", 5" or 8" fittings, they generally do not interchange with other manufacturers.

A-A-59326 cam-locking types are quick-disconnect hose coupling halves. They incorporate coupling halves and adapters as follows.

 <p>Type A = male adapters by internal pipe thread (octagon decagon and dodecagon head shapes)</p>	<p>Type B = female couplers by external pipe thread (with no thread seals as to EN 14420-7)</p> 
 <p>Type E = male adapters by hose shank (2-clamp types standard)</p>	<p>Type C = female couplers by hose shank (2-clamp types standard)</p> 
 <p>Type F = male adapters by external pipe thread (octagon decagon and dodecagon head shapes)</p>	<p>Type D = female couplers by internal pipe thread (with no thread seals as to EN 14420-7)</p> 
 <p>Type DP = dust plugs as male adapting halves (chain attachment available)</p>	<p>Type DC = dust caps as female coupling halves (chain attachment available)</p> 



Cam and Groove

For types of industrial hose and assemblies there are options of crimping ferrules, binding clamps, worm-gear clamping, superior clamps and tiger clamps that can be combined. **ASSEMBLED UNITS** can be custom made for desired purposes. 2-clamp type of hose shank are the standard supply that is commonly assembled with binding clamps, worm-gear clamps. Clamping ferrules are optimal for multi-serrated hose shanks. Tiger clamps available for composite hoses and spiral woven PVC hoses.



superior clamps

worm-gear clamps

spiral (tiger) clamps



aluminum castings with standard 2-clamp hose shank



stainless steel in-process sand castings with standard 2-clamp hose shank

In volume production we are leaving sufficient machining space in prototypes (molds) for either castings or forges of all materials aluminum alloy, stainless steel and copper alloy. Therefore we are capable of changing the existing shape of a standard 2-clamp **HOSE SHANK** into any custom requested type. To achieve stronger internal gripping force in hoses, it is commonly required to supply hose shanks of with multiple serrations and barb alike profiles, with or without machining process, with or without one extruded collar so as to be compatible with both crimping and superior / worm-gear types of clamps.



crimping ferrules



unmachined

machined

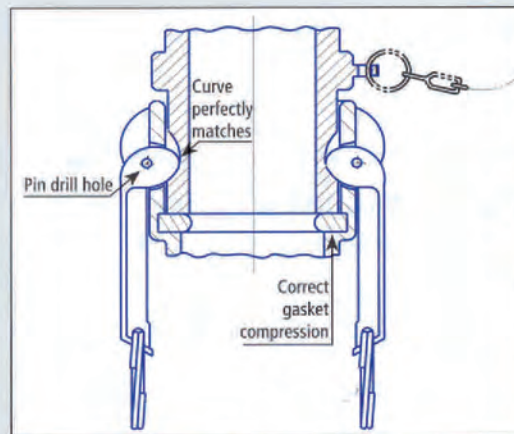
extra-collar

barb alike



The **CAM HANDLE** (or Cam arm) is more than important as it is one of the principle parts for cam-locking the female and male coupling halves. According to standard engineering mechanism, cam and groove couplings are closely connected due to the fact — the Cam handle curve perfect matches the mating groove when scooping in to the position.

In order to make that happen, there are 3 crucial matters that must be controlled and probably vary from manufacturers. Pin drill holes on female couplers must be a) in perfect position and b) of perfect symmetry as on the shoulders so that the set handle curves can scoop right along the adapters' groove lines and finally sit tight in closed positions. And last but not least c) the correct gasket compression ratio as of the suitable hardness fulfills the ultimate sealing purpose.



To achieve the perfect symmetry of drill holes on shoulders, we developed a dual-drilling operator that can work on two holes simultaneously. That proves to highly efficient and dimensionally stabilized.

It is specified in standard that cam-locking arms should be closed by an regular adult force without using additional tooling. We are therefore trying to keep the feeling moderately firm and steady. A compression test is made to identify the firmness of closing two coupling halves that involves all combined factors of Cam handle curves, adapters' groove lines and gaskets compression capabilities. Hardness of gaskets are checked and controlled with Shore A tooling.

Cam and groove couplings are indeed popular worldwide as it is perfectly simple and fast in operation. Variant kinds of minor changes make it adaptable for so many different industries in every country. Locking mechanism has been creatively improved in dozens of esp. **SELF-LATCH** or self locking types to meet requirements of higher level of safe locking.

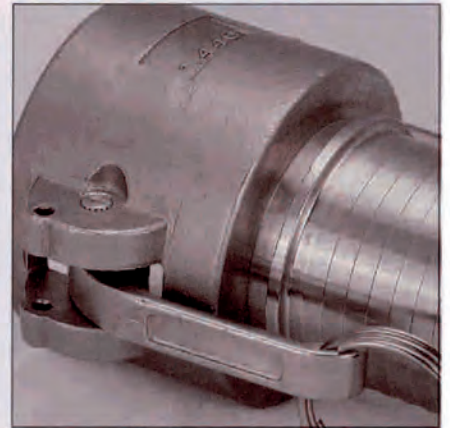
Cam and groove couplings are revised in many directions in order to fit different using situa-

Cam and Groove

tions. Common requests of **VARIANTS** include :

a) Custom shape of joint ends, like changing to be compatible with NPT pipe threads, welding (BW / SW), flanges, or in case of concrete transfer suitability screw drills scattered at desired body positions; b) Custom shape of hose shank other than standard 2-clamp shape as stated previously in order to fit different use of clamping systems; c) Specified sealing combination, like change to open envelope PTFE and core material gasket aside from standard square section NBR and EPDM gaskets so as to be suitable for transferring certain medium at desired pressure and temperature; d) Specified body materials like of Hastalloy #HC276 and handle materials of hot-stamped aluminum alloy for light-weight purpose apart from standard copper alloy for aluminum and brass couplings and stainless steel for SS, PP and nylon couplers; e) Different structure concerning body intensity like for snow working machines, self-latch possible couplers, or with sealing rings at internal thread for double sealing function as complying with EN 14420 / DIN standard.

Cam and groove couplings are used for the transfer of liquids or dry bulk products with the exception of liquid gas and steam. **RATED PRESSURE** and temperature are in most cases decided by its sealing materials for body intensity is usually far stronger. All pressure recommendations are based on mating couplings at ambient temperature (21°C / 70°F). Pressure ratings for polypropylene couplings is valued according to internal test results, which is likely to vary from manufacturers.



Size		Pressure Ratings (psi)				
DN	inch	Aluminum alloys	Brass alloys	Stainless steel	Nylon	Polypropylene
13	1/2	150	150	150	100	75
20	3/4	250	250	250	100	75
25	1	250	250	250	100	75
32	1 1/4	250	250	250	100	75
40	1 1/2	250	250	250	100	75
50	2	250	250	250	100	75
60	2 1/2	150	150	225	-	-
75	3	125	125	200	50	50
100	4	100	100	100	50	50
120	5	75	75	100	-	-
150	6	75	75	100	-	-
200	8	50	50	50	-	-

We use fumigation-free packing materials for shipping the complete program of our products. Set package quantity is made for our standard supplies of cam and groove couplings. Occasionally we are working with custom packages prone to simplifying clients' in-house operation on arrival.



Camlock Type A Adapter × Female Thread



Size (inch)

Cam and Groove	Type A - Adapter × Female Thread A-A-59326 / MIL-C-27487
Standard Materials	5 basic materials aluminum+T6, brass, stainless steel, reinforced polypropylene and nylon fiberglass combination
Sealing Materials	No gasket or thread seal applied
Thread Types	Standard BSP-Parallel, BSP-Tapered or NPT available

Size inch	Aluminum Alloys	Brass Alloys	Stainless Steel	Poly-propylene	Nylon
1/2	061 050	061 250	061 150	☞	☞
3/4	061 051	061 251	061 151	061 351	061 451
3/4 × 1/2	☞	☞	☞	061 350	061 450
1	061 052	061 252	061 152	061 352	061 452
1 ^{1/4}	061 053	061 253	061 153	061 353	061 453
1 ^{1/2}	061 054	061 254	061 154	061 354	061 454
2	061 055	061 255	061 155	061 355	061 455
2 × 1 ^{1/2}	061 605	☞	☞	☞	☞
2 × 3	061 606	☞	☞	☞	☞
2 ^{1/2}	061 056	061 256	061 156	☞	☞
3	061 057	061 257	061 157	061 357	061 457
3 × 2	061 607	☞	☞	☞	☞
3 × 4	061 609	☞	☞	☞	☞
4	061 058	061 258	061 158	061 358	061 458
4 × 3	061 611	☞	☞	☞	☞
4 × 6	061 613	☞	☞	☞	☞
5	061 059	061 259	061 159	☞	☞
6	061 060	061 260	061 160	☞	☞
6 × 4	061 615	☞	☞	☞	☞
8	061 061	☞	☞	☞	☞

Camlock Type B Coupler × Male Thread



Size (inch)

Cam and Groove	Type B - Coupler × Male Thread A-A-59326 / MIL-C-27487
Standard Materials	5 basic materials with brass or stainless steel handles
Sealing Materials	NBR gasket applied for all except EPDM for PP couplings, no thread seal applied
Thread Types	Standard BSP-Tapered, NPT available

Size inch	Aluminum Alloys	Brass Alloys	Stainless Steel	Poly-propylene	Nylon
1/2	062 050	062 250	062 150	☞	☞
3/4	062 051	062 251	062 151	062 351	062 451
3/4 × 1/2	☞	☞	☞	062 350	062 450
1	062 052	062 252	062 152	062 352	062 452
1 ^{1/4}	062 053	062 253	062 153	062 353	062 453
1 ^{1/2}	062 054	062 254	062 154	062 354	062 454
1 ^{1/2} × 1	062 604	☞	☞	☞	☞
2	062 055	062 255	062 155	062 355	062 455
2 × 1 ^{1/2}	062 605	☞	☞	☞	☞
2 ^{1/2}	062 056	062 256	062 156	☞	☞
3	062 057	062 257	062 157	062 357	062 457
3 × 2	062 607	☞	☞	☞	☞
3 × 4	062 609	☞	☞	☞	☞
4	062 058	062 258	062 158	062 358	062 458
4 × 3	062 611	☞	☞	☞	☞
5	062 059	062 259	062 159	☞	☞
6	062 060	062 260	062 160	☞	☞
8	062 061	☞	☞	☞	☞

Cam and Groove

Camlock Type C Coupler × Hose Shank



Cam and Groove Type C - Coupler × Hose Shank
A-A-59326 / MIL-C-27487

Standard Materials 5 basic materials with brass or stainless steel handles

Sealing Materials NBR gasket applied for all except EPDM for PP couplings

Size inch	Aluminum Alloys	Brass Alloys	Stainless Steel	Poly-propylene	Nylon
1/2	063 050	063 250	063 150	☒	☒
3/4	063 051	063 251	063 151	063 351	063 451
3/4 × 1/2	☒	☒	☒	063 350	063 450
1	063 052	063 252	063 152	063 352	063 452
1 ^{1/4}	063 053	063 253	063 153	063 353	063 453
1 ^{1/2}	063 054	063 254	063 154	063 354	063 454
2	063 055	063 255	063 155	063 355	063 455
2 × 1 ^{1/2}	063 605	☒	☒	☒	☒
2 ^{1/2}	063 056	063 256	063 156	☒	☒
3	063 057	063 257	063 157	063 357	063 457
3 × 2	063 607	☒	☒	☒	☒
3 × 2 ^{1/2}	063 608	☒	☒	☒	☒
3 × 4	063 609	☒	☒	☒	☒
4	063 058	063 258	063 158	063 358	063 458
4 × 3	063 611	☒	☒	☒	☒
5	063 059	063 259	063 159	☒	☒
6	063 060	063 260	063 160	☒	☒
8	063 061	☒	☒	☒	☒

Camlock Type D Coupler × Female Thread



Cam and Groove Type D - Coupler × Female Thread
A-A-59326 / MIL-C-27487

Standard Materials 5 basic materials with brass or stainless steel handles

Sealing Materials NBR gasket applied for all except EPDM for PP couplings, no thread seal applied

Thread Types Standard BSP-Parallel, BSP-Tapered or NPT available

Size inch	Aluminum Alloys	Brass Alloys	Stainless Steel	Poly-propylene	Nylon
1/2	064 050	064 250	064 150	☒	☒
3/4	064 051	064 251	064 151	064 351	064 451
3/4 × 1/2	☒	☒	☒	064 350	064 450
1	064 052	064 252	064 152	064 352	064 452
1 ^{1/4}	064 053	064 253	064 153	064 353	064 453
1 ^{1/2}	064 054	064 254	064 154	064 354	064 454
1 ^{1/2} × 1	064 604	☒	☒	☒	☒
2	064 055	064 255	064 155	064 355	064 455
2 × 1 ^{1/2}	064 605	☒	☒	☒	☒
2 ^{1/2}	064 056	064 256	064 156	☒	☒
3	064 057	064 257	064 157	064 357	064 457
3 × 2	064 607	☒	☒	☒	☒
4	064 058	064 258	064 158	064 358	064 458
4 × 3	064 611	☒	☒	☒	☒
5	064 059	064 259	064 159	☒	☒
6	064 060	064 260	064 160	☒	☒
8	064 061	☒	☒	☒	☒

Camlock Type E Adapter × Hose Shank



Cam and Groove

Type E - Adapter × Hose Shank
A-A-59326 / MIL-C-27487

Standard Materials

5 basic materials aluminum+T6, brass, stainless steel, reinforced polypropylene and nylon fiberglass combination

Size inch	Aluminum Alloys	Brass Alloys	Stainless Steel	Poly-propylene	Nylon
1/2	065 050	065 250	065 150	☒	☒
3/4	065 051	065 251	065 151	065 351	065 451
3/4 × 1/2	☒	☒	☒	065 350	065 450
1	065 052	065 252	065 152	065 352	065 452
1 ^{1/4}	065 053	065 253	065 153	065 353	065 453
1 ^{1/2}	065 054	065 254	065 154	065 354	065 454
1 ^{1/2} × 1	065 604	☒	☒	☒	☒
2	065 055	065 255	065 155	065 355	065 455
2 × 1 ^{1/2}	065 605	☒	☒	☒	☒
2 × 3	065 606	☒	☒	☒	☒
2 ^{1/2}	065 056	065 256	065 156	☒	☒
3	065 057	065 257	065 157	065 357	065 457
3 × 2	065 607	☒	☒	☒	☒
3 × 4	065 609	☒	☒	☒	☒
4	065 058	065 258	065 158	065 358	065 458
4 × 2	065 610	☒	☒	☒	☒
4 × 3	065 611	☒	☒	☒	☒
5	065 059	065 259	065 159	☒	☒
6	065 060	065 260	065 160	☒	☒
8	065 061	☒	☒	☒	☒

Camlock Type F Adapter × Male Thread



Cam and Groove

Type F - Adapter × Male Thread
A-A-59326 / MIL-C-27487

Standard Materials

5 basic materials aluminum+T6, brass, stainless steel, reinforced polypropylene and nylon fiberglass combination

Sealing Materials

No gasket or thread seal applied

Thread Types

Standard BSP-Tapered, NPT available

Size inch	Aluminum Alloys	Brass Alloys	Stainless Steel	Poly-propylene	Nylon
1/2	066 050	066 250	066 150	☒	☒
3/4	066 051	066 251	066 151	066 351	066 451
3/4 × 1/2	☒	☒	☒	066 350	066 450
1	066 052	066 252	066 152	066 352	066 452
1 ^{1/4}	066 053	066 253	066 153	066 353	066 453
1 ^{1/2}	066 054	066 254	066 154	066 354	066 454
1 ^{1/2} × 3	066 603	☒	☒	☒	☒
2	066 055	066 255	066 155	066 355	066 455
2 × 1 ^{1/2}	066 605	☒	☒	☒	☒
2 × 3	066 606	☒	☒	☒	☒
2 ^{1/2}	066 056	066 256	066 156	☒	☒
3	066 057	066 257	066 157	066 357	066 457
3 × 1 ^{1/2}	066 607	☒	☒	☒	☒
3 × 2	066 608	☒	☒	☒	☒
3 × 4	066 609	☒	☒	☒	☒

Cam and Groove

Camlock Type DC Dust Caps



Cam and Groove	Type DC - Dust Cap A-A-59326 / MIL-C-27487
Standard Materials	5 basic materials with brass or stainless steel handles
Sealing Materials	NBR gasket applied for all except EPDM for PP couplings
Accessories	Chains plated steel and stainless steel available on request

Size inch	Aluminum Alloys	Brass Alloys	Stainless Steel	Poly-propylene	Nylon
1/2	067 050	067 250	067 150	067 350	067 450
3/4	067 051	067 251	067 151	067 351	067 451
1	067 052	067 252	067 152	067 352	067 452
1 1/4	067 053	067 253	067 153	067 353	067 453
1 1/2	067 054	067 254	067 154	067 354	067 454
2	067 055	067 255	067 155	067 355	067 455
2 1/2	067 056	067 256	067 156	☎	☎
3	067 057	067 257	067 157	067 357	067 457
4	067 058	067 258	067 158	067 358	067 458
5	067 059	067 259	067 159	☎	☎
6	067 060	067 260	067 160	☎	☎
8	067 061	☎	☎	☎	☎

Camlock Type DP Dust Plugs



Cam and Groove	Type DP - Dust Plugs A-A-59326 / MIL-C-27487
Standard Materials	5 basic materials aluminum+T6, brass, stainless steel, reinforced polypropylene and nylon fiberglass combination
Accessories	Chains plated steel and stainless steel available on request

Size inch	Aluminum Alloys	Brass Alloys	Stainless Steel	Poly-propylene	Nylon
1/2	068 050	068 250	068 150	068 350	068 450
3/4	068 051	068 251	068 151	068 351	068 451
1	068 052	068 252	068 152	068 352	068 452
1 1/4	068 053	068 253	068 153	068 353	068 453
1 1/2	068 054	068 254	068 154	068 354	068 454
2	068 055	068 255	068 155	068 355	068 455
2 1/2	068 056	068 256	068 156	☎	☎
3	068 057	068 257	068 157	068 357	068 457
4	068 058	068 258	068 158	068 358	068 458
5	068 059	068 259	068 159	☎	☎
6	068 060	068 260	068 160	☎	☎
8	068 061	☎	☎	☎	☎

Camlock Straight Spool Adapter



Cam and Groove

Straight Connection Adapter by Adapter
A-A-59326 / MIL-C-27487

Standard Materials

2 optional materials aluminum+T6 and steel steel

Pressure & Temp.

Spec. for basic camlock couplings on page 18

Size inch	Aluminum Alloys	Stainless Steel
1	061 003	061 023
1 ^{1/2}	061 004	061 024
1 ^{1/2} × 1	061 005.2	061 025.1
1 ^{1/2}	061 005	061 025
1 ^{1/2} × 2	061 005.1	061 025.2
2	061 006	061 026
2 × 3	061 006.1	061 026.1
3	061 008	061 028
3 × 4	061 008.1	061 028.1
4 × 1 ^{1/2}	061 009.1	☞
4 × 2	061 009.2	☞
4	061 009	061 029
4 × 6	061 009.3	☞
6	061 010	☞

Camlock Straight Coupler × Adapter



Cam and Groove

Straight Connection Coupler by Adapter
A-A-59326 / MIL-C-27487

Standard Materials

2 optional materials aluminum+T6 and stainless steel

Pressure & Temp.

Spec. for basic camlock couplings on page 18

Size inch	Aluminum Alloys	Stainless Steel
1 ^{1/2} × 1	062 002	062 022
1 ^{1/2} × 2	062 003	062 023
2 × 1 ^{1/2}	062 004	062 024
2 × 3	062 005	062 025
2 × 4	062 006	062 026
3 × 1 ^{1/2}	062 008	062 028
3 × 2	062 009	062 029
3 × 4	062 010	062 030
4 × 1 ^{1/2}	062 012	062 032
4 × 2	062 013	062 033
4 × 3	062 014	062 034
4 × 6	062 015	062 035
6 × 4	062 018	☞

Cam and Groove

Camlock Straight Coupler × Coupler



Cam and Groove Straight Connection Coupler by Coupler
A-A-59326 / MIL-C-27487

Standard Materials 2 optional materials aluminum+T6 and brass alloy

Pressure & Temp. Spec. for basic camlock couplings on page 18

Size inch	Aluminum Alloys	Brass Alloys
1 ^{1/2}	064 005	☎
2	064 006	☎
3 × 2	064 008.1	☎
3	064 008	☎
3 × 4	064 008.2	☎
4	064 009	064 639

Camlock Adapter × BW Welding End



Cam and Groove Adapter for Butt Welding (BW) Connection
A-A-59326 / MIL-C-27487

Standard Materials Basic material stainless steel AISI 316

Size inch	Stainless Steel
1/2	066 150.11
3/4	066 151.11
1	066 152.11
1 ^{1/4}	066 153.11
1 ^{1/2}	066 154.11
2	066 155.11
2 ^{1/2}	066 156.11
3	066 157.11
4	066 158.11
5	066 159.11

Camlock Coupler × BW Welding End



Cam and Groove Coupler for Butt Welding (BW) Connection
A-A-59326 / MIL-C-27487

Standard Materials Basic material stainless steel AISI 316 with SS handles

Sealing Materials NBR gasket applied

Size inch	Stainless Steel
1/2	062 150.11
3/4	062 151.11
1	062 152.11
1 ^{1/4}	062 153.11
1 ^{1/2}	062 154.11
2	062 155.11
2 ^{1/2}	062 156.11
3	062 157.11
4	062 158.11
5	062 159.11

Concrete Transfer Adapter with Screw Holes



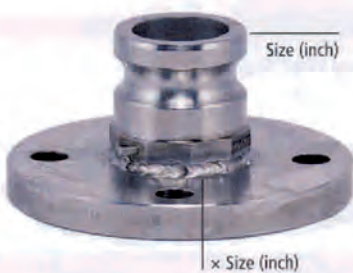
Concrete Transfer Coupler with Screw Holes



Concrete Transfer Coupler with Smooth



Hose Shank Camlock Adapter x Round Flange



Cam and Groove Concrete Transfer Adapter with Screw Drills
A-A-59326 / MIL-C-27487

Standard Materials Basic material aluminum alloy

Size inch	Aluminum Alloys
1 ^{1/2}	061 054S
2	061 055S
2 ^{1/2}	061 056S
3	061 057S

Cam and Groove Concrete Transfer Coupler with Screw Drills
A-A-59326 / MIL-C-27487

Standard Materials Basic material aluminum alloy with brass handles

Sealing Materials NBR gasket applied

Size inch	Aluminum Alloys
1 ^{1/2}	064 054S
2	064 055S
2 ^{1/2}	064 056S

Cam and Groove Concrete Transfer Coupler by Smooth Hose Shank
A-A-59326 / MIL-C-27487

Standard Materials Basic material aluminum alloy with brass handles

Sealing Materials NBR gasket applied

Size inch	Aluminum Alloys
1 ^{1/2}	063 054S
2	063 055S
2 ^{1/2}	063 056S

Cam and Groove Adapter by Round EN 1092-1 / ASA Flange Connection
A-A-59326 / MIL-C-27487

Standard Materials Basic material stainless steel AISI 316

Flange Rated Pressure PN16 / EN 1092-1, 150LB / ASA

Size inch	Flange PR	Stainless Steel
1 x 3/4	PN 16	061 852.12
1	PN 16	061 852.1
1 ^{1/4}	PN 16	061 853.1
1 ^{1/2}	PN 16	061 854.1
2	PN 16	061 855.1
2 ^{1/2}	PN 16	061 856.1
2 ^{1/2} x 3	PN 16	061 856.12
3	PN 16	061 857.1
3	150 LB	061 857.2
4	PN 16	061 858.1
6	PN 16	061 860.1
8	PN 16	061 861.1

Cam and Groove

Camlock Adapter x Square Flange



Cam and Groove Adapter by Square ASA Flange Connection
A-A-59326 / MIL-C-27487

Standard Materials Basic material aluminum alloy

Flange Rated Pressure 150LB / ASA

Size inch	Flange PR	Aluminum Alloys
2	150 LB	061 815
3	150 LB	061 817
4	150 LB	061 818

Camlock Coupler x Round Flange



Cam and Groove Coupler by Round EN 1092-1 Flange Connection
A-A-59326 / MIL-C-27487

Standard Materials Basic material stainless steel AISI 316 with SS handles

Sealing Materials NBR gasket applied

Flange Rated Pressure PN16 / EN 1092-1

Size inch	Flange PR	Stainless Steel
1	PN 16	063 852.1
1 ^{1/4}	PN 16	063 853.1
1 ^{1/2}	PN 16	063 854.1
2	PN 16	063 855.1
2 ^{1/2}	PN 16	063 856.1
3	PN 16	063 857.1
4	PN 16	063 858.1

Camlock Coupler x Square Flange



Cam and Groove Coupler by Square ASA Flange Connection
A-A-59326 / MIL-C-27487

Standard Materials Basic material aluminum alloy with brass handles

Sealing Materials NBR gasket applied

Flange Rated Pressure 150LB / ASA

Size inch	Flange PR	Aluminum Alloys
3	150 LB	062 817
4	150 LB	062 818

Camlock Coupler x Swivelling Hose Shank



Cam and Groove Coupler by Swivelling Hose Shank
A-A-59326 / MIL-C-27487

Standard Materials Basic material aluminum alloy with SS handles

Sealing Materials NBR gasket applied

Size inch	Aluminum Alloys
2	061 815
2 ^{1/2}	061 817
3	061 818
4	061 815
6	061 815

Flat Gaskets



Spare Parts

Flat Shape Gasket for Cam and Groove Female Couplers

Standard Materials

3 basic materials Black NBR, White EPDM and Green FPM

Working Temp.

NBR -10~80°C / EPDM -20~130°C / FPM -20~180°C

Size inch	Ø mm	T mm	NBR	EPDM	FPM
1/2	26	3.5	069 080.1	069 080.2	069 080.3
3/4	35	5.5	069 081.1	069 081.2	069 081.3
1	40	6.4	069 082.1	069 082.2	069 082.3
1 ^{1/4}	50	6.4	069 083.1	069 083.2	069 083.3
1 ^{1/2}	56	6.4	069 084.1	069 084.2	069 084.3
2	67	6.4	069 085.1	069 085.2	069 085.3
2 ^{1/2}	80	6.4	069 086.1	069 086.2	069 086.3
3	95	6.4	069 087.1	069 087.2	069 087.3
4	124	6.4	069 088.1	069 088.2	069 088.3
5	151	6.4	069 089.1	069 089.2	069 089.3
6	180	6.4	069 090.1	069 090.2	069 090.3
8	236	9	069 091.1	☎	☎

PTFE Open Envelope Gaskets



Spare Parts

Open Envelope Gasket for Cam and Groove Female Couplers

Standard Materials

Envelope cover material PTFE with 3 basic core materials Black NBR, White EPDM and Green FPM

Working Temp.

PTFE -30~300°C / NBR -10~80°C / EPDM -20~130°C / FPM -20~180°C

Size inch	Ø mm	T mm	PTFE / NBR	PTFE / EPDM	PTFE / FPM
1/2	26.5	4	069 060.1	☎	069 060.3
3/4	35	5.5	069 061.1	069 061.2	069 061.3
1	40	6.4	069 062.1	069 062.2	069 062.3
1 ^{1/4}	50	6.4	069 063.1	069 063.2	069 063.3
1 ^{1/2}	56	6.4	069 064.1	069 064.2	069 064.3
2	67	6.4	069 065.1	069 065.2	069 065.3
2 ^{1/2}	80	6.4	069 066.1	069 066.2	069 066.3
3	95	6.4	069 067.1	069 067.2	069 067.3
4	124	6.4	069 068.1	069 068.2	069 068.3

Camlock Pulling Arms



Accessories

Pulling Handles for Cam and Groove Female Couplers

Standard Materials

2 optional materials brass and SS 304, stamping aluminum alloyed handles available on request

Range inch	Brass Alloys	Stainless Steel
1/2 - 3/4	069 111	069 121
1	069 112	069 122
1 ^{1/4} - 2 ^{1/2}	069 113	069 123
3 - 5	069 114	069 124
6	069 115	069 125
8	069 116	069 126

Camlock Pulling Rings



Accessories Pulling Rings for Cam and Groove Female Couplers

Standard Materials 2 optional materials plated steel and SS 304

Range inch	Nr. of Wires	Plated Steel	Stainless Steel
1/2 - 2 ^{1/2}	2	069 421.1	069 421.2
3 - 8	3	069 422.1	069 422.2

Camlock Safety Clips



Accessories Safety Clips for Cam and Groove Female Couplers

Standard Materials 2 optional materials plated steel and SS 304

Range inch	Plated Steel	Stainless Steel
1/2 - 1	069 521	069 521.1
1 ^{1/4} - 8	069 522	069 522.1

Camlock Drilling Pins



Accessories Drilling Pins for Cam and Groove Female Couplers

Standard Materials 2 optional materials plated steel and SS 304

Range inch	Plated Steel	Stainless Steel
1/2 - 3/4	069 621.1	069 621.2
1	069 622.1	069 622.2
1 ^{1/4} - 2 ^{1/2}	069 623.1	069 623.2
3 - 5	069 624.1	069 624.2
6 - 8	069 625.1	069 625.2

Camlock Safety Chains



Accessories Safety Chains Preventing Cam and Groove Dust Caps, and Plugs from Accidentally Displacement

Standard Materials 2 optional materials plated steel and SS 304

Size inch	Ring Type	Plated Steel	Stainless Steel	Poly-ester
Universal	Round	069 321	069 322	☒
Universal	S-Hook	069 323.1	069 323	069 324



Note: spare part kit includes 2/ea pins, rings and arms. Available on request.

DIN Camlock couplings are referred to as cam and groove type of quick-disconnect couplings to **GERMAN STANDARD** for Hose Fittings with Clamp Units EN 14420-7 and previous DIN 2828. They feature the possibility of coupling assembly with DIN clamps (in specific EN 14420-3 / DIN 2817).

DIN version couplings are possible to exchange with those to A-A-59326 below size 4", not applicable to thread connection replacement as DIN internal and external pipe threads are parallel types making them flat face thread connected.

Being dimensionally changed DIN Camlock can be distinguished by checking the presence of :

- a) thread seal inserted for internal threads like AF, and DF;
- b) a round collar made on smooth, or in special case, serrated hose tails like CC and EC.



DIN adapters (AF) are inserted with thread seal for flat face thread connection

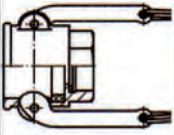

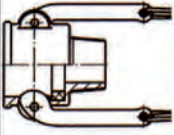

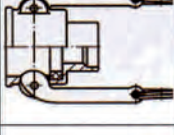

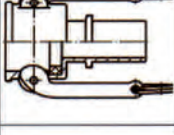

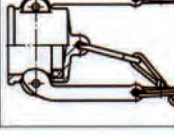



DIN couplers (DF) are thread seal inserted for flat face thread connection



DIN shanks (CC / EC) are made with collar for assembly with DIN safety clamps



Coupler		Adapter		Kind of Connection	DN	Thread
Figure	Naming	Figure	Naming			
	DF		AF	internal thread to EN ISO 228-1 flat sealed with sealing ring to EN 14420-5	20	G 3/4
					25	G 1
					32	G 1 ^{1/4}
					40	G 1 ^{1/2}
					50	G 2
					65	G 2 ^{1/2}
					80	G 3
				100	G 4	
	BF		FF	external thread to EN 10226-1	20	R 3/4
					25	R 1
					32	R 1 ^{1/4}
					40	R 1 ^{1/2}
					50	R 2
					65	R 2 ^{1/2}
					80	R 3
				100	R 4	
	DW		AW	welding connection	20 ~ 100	-
	CC		EC	hose tail	20 ~ 100	-
	DC		DP	dust cap, dust plug	20 ~ 100	-

DIN Camlock Adapter × Female Thread



DIN Camlock	DIN Camlock Adapter × Female Thread EN 14420-7 / DIN 2828
Standard Materials	3 basic materials brass, stainless steel and aluminum+T6
Sealing Materials	Standard brown PU thread seal applied for brass couplings, white PTFE for SS couplings and black NBR for aluminum couplings
Thread Types	Standard BSP-Parallel

Size inch	Ø mm	Thread Seal	Core Material	Article Nr.
1/2	23.8	PU	Brass	061 250.18
3/4	32.1	PU	Brass	061 251.18
1	36.7	PU	Brass	061 252.18
1 ^{1/4}	45.5	PU	Brass	061 253.18
1 ^{1/2}	53.4	PU	Brass	061 254.18
2	63	PU	Brass	061 255.18
2 ^{1/2}	75.8	PU	Brass	061 256.18
3	91.5	PU	Brass	061 257.18
4	119.5	PU	Brass	061 258.18
3/4	32.1	PTFE	St. steel	061 151.18
1	36.7	PTFE	St. steel	061 152.18
1 ^{1/4}	45.5	PTFE	St. steel	061 153.18
1 ^{1/2}	53.4	PTFE	St. steel	061 154.18
2	63	PTFE	St. steel	061 155.18
2 ^{1/2}	75.8	PTFE	St. steel	061 156.18
3	91.5	PTFE	St. steel	061 157.18
4	119.5	PTFE	St. steel	061 158.18
3/4	32.1	NBR	Aluminum	061 051.18
1	36.7	NBR	Aluminum	061 052.18
1 ^{1/4}	45.5	NBR	Aluminum	061 053.18
1 ^{1/2}	53.4	NBR	Aluminum	061 054.18
2	63	NBR	Aluminum	061 055.18
2 ^{1/2}	75.8	NBR	Aluminum	061 056.18
3	91.5	NBR	Aluminum	061 057.18
4	119.5	NBR	Aluminum	061 058.18

DIN Camlock Adapter × Hose Tail



Recommended clamping with DIN safety clamps, refer to pages 192-193.



Also with superior clamping, refer to Hose Clamps on page 200.

DIN Camlock

DIN Camlock Adapter × Smooth / Serrated Hose Shank
EN 14420-7 / DIN 2828, Shank to EN 14420-2 / DIN 2817

Standard Materials

2 optional materials brass and stainless steel

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size inch	ØA mm	ØD mm	Tail Type	Core Material	Article Nr.
1/2	23.8	13.4	Smooth	Brass	065 250.18
3/4	32.1	19.4	Smooth	Brass	065 251.18
1	36.7	25.4	Smooth	Brass	065 252.18
1 ^{1/4}	45.5	32.4	Smooth	Brass	065 253.18
1 ^{1/2}	53.4	38.4	Smooth	Brass	065 254.18
2 ^{1/2}	75.8	63.4	Smooth	Brass	065 256.18
3/4	32.1	19.4	Smooth	St. steel	065 151.18
1	36.7	25.4	Smooth	St. steel	065 152.18
1 ^{1/4}	45.5	32.4	Smooth	St. steel	065 153.18
1 ^{1/2}	53.4	38.4	Smooth	St. steel	065 154.18
2	63	50.4	Smooth	St. steel	065 155.18
2 ^{1/2}	75.8	63.4	Smooth	St. steel	065 156.18
3	91.5	75.4	Smooth	St. steel	065 157.18
4	119.5	100.3	Smooth	St. steel	065 158.18
3/4	32.1	19.4	Serrated	St. steel	065 151.19
1 ^{1/2}	53.4	38.4	Serrated	St. steel	065 154.19
2	63	50.4	Serrated	St. steel	065 155.19
3	91.5	75.4	Serrated	St. steel	065 157.19
4	119.5	100.3	Serrated	St. steel	065 158.19

DIN Camlock Coupler × Female Thread



DIN Camlock	DIN Camlock Coupler × Female Thread EN 14420-7 / DIN 2828
Standard Materials	3 basic materials brass, stainless steel and aluminum+T6
Sealing Materials	NBR gasket applied for all and standard brown PU thread seal for brass couplings, white PTFE for SS and black NBR for aluminum couplings
Thread Types	Standard BSP-Parallel

Size inch	Ø mm	Gasket	Thread Seal	Core Material	Article Nr.
1/2	24.3	NBR	PU	Brass	064 250.18
3/4	32.5	NBR	PU	Brass	064 251.18
1	37.3	NBR	PU	Brass	064 252.18
1 ^{1/4}	46	NBR	PU	Brass	064 253.18
1 ^{1/2}	54	NBR	PU	Brass	064 254.18
2	63.8	NBR	PU	Brass	064 255.18
2 ^{1/2}	76.5	NBR	PU	Brass	064 256.18
3	92.2	NBR	PU	Brass	064 257.18
4	120.2	NBR	PU	Brass	064 258.18
3/4	32.5	NBR	PTFE	St. steel	064 151.18
1	37.3	NBR	PTFE	St. steel	064 152.18
1 ^{1/4}	46	NBR	PTFE	St. steel	064 153.18
1 ^{1/2}	54	NBR	PTFE	St. steel	064 154.18
2	63.8	NBR	PTFE	St. steel	064 155.18
2 ^{1/2}	76.5	NBR	PTFE	St. steel	064 156.18
3	92.2	NBR	PTFE	St. steel	064 157.18
4	120.2	NBR	PTFE	St. steel	064 158.18
3/4	32.5	NBR	NBR	Aluminum	064 051.18
1	37.3	NBR	NBR	Aluminum	064 052.18
1 ^{1/4}	46	NBR	NBR	Aluminum	064 053.18
1 ^{1/2}	54	NBR	NBR	Aluminum	064 054.18
2	63.8	NBR	NBR	Aluminum	064 055.18

DIN Camlock Coupler × Hose Tail



Recommended clamping with DIN safety clamps, refer to pages 192–193.

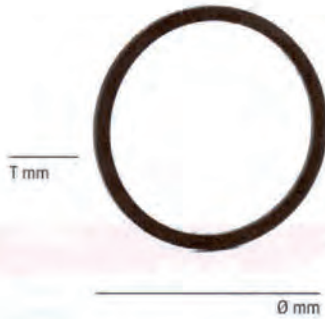


Also with superior clamping, refer to Hose Clamps on page 200.

DIN Camlock	DIN Camlock Coupler × Smooth / Serrated Hose Shank EN 14420-7 / DIN 2828, Shank to EN 14420-2 / DIN 2817
Standard Materials	2 basic material brass and stainless steel
Sealing Materials	NBR gasket applied for all
Hose Clamps	Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size inch	ØA mm	ØD mm	Tail Type	Core Material	Article Nr.
1/2	24.3	15	Smooth	Brass	063 250.18
3/4	32.5	19.4	Smooth	Brass	063 251.18
1	37.3	25.4	Smooth	Brass	063 252.18
1 ^{1/4}	46	32.4	Smooth	Brass	063 253.18
1 ^{1/2}	54	38.4	Smooth	Brass	063 254.18
1 ^{1/2}	54	38.4	Serrated	Brass	063 254.181
2	63.8	50.4	Smooth	Brass	063 255.18
2 ^{1/2}	76.5	63.4	Smooth	Brass	063 256.18
3	92.2	75.4	Smooth	Brass	063 257.18
3/4	32.5	19.4	Smooth	St. steel	063 151.18
1	37.3	25.4	Smooth	St. steel	063 152.18
1 ^{1/4}	46	32.4	Smooth	St. steel	063 153.18
1 ^{1/2}	54	38.4	Smooth	St. steel	063 154.18
2	63.8	50.4	Smooth	St. steel	063 155.18
2 ^{1/2}	76.5	63.4	Smooth	St. steel	063 156.18
3	92.2	75.4	Smooth	St. steel	063 157.18
4	120.2	100.3	Smooth	St. steel	063 158.18
3/4	32.5	19.4	Serrated	St. steel	063 151.19
1	37.3	25.4	Serrated	St. steel	063 252.19
1 ^{1/4}	46	32.4	Serrated	St. steel	063 153.19
1 ^{1/2}	54	38.4	Serrated	St. steel	063 154.19
2	63.8	50.4	Serrated	St. steel	063 155.19
2 ^{1/2}	76.5	63.4	Serrated	St. steel	063 156.19
3	92.2	75.4	Serrated	St. steel	063 157.19
4	120.2	100.3	Serrated	St. steel	063 158.19

Flat Thread Seals



Note: This is a thread seal ring, NOT gasket for coupling use. Please refer to Flat Gaskets for Cam and Groove Couplers for coupling gasket on page 27.

Spare Parts Flat Shape Thread Seals for DIN Camlock Female Threads

Standard Materials 3 basic materials Black NBR, White PTFE and Brown PU

Working Temp. NBR -30~120°C / PTFE -180~200°C / PU -40~82°C

Size inch	Ø mm	T mm	NBR	PTFE	PU
1/2	20	1.5	022 121.3	022 121.2	022 121.2
3/4	26	1.5	022 122.3	022 122.2	022 122.2
1	33	2	022 123.3	022 123.2	022 123.2
1 ^{1/4}	42	2	022 124.3	022 124.2	022 124.2
1 ^{1/2}	48	2	022 125.3	022 125.2	022 125.2
2	60	2	022 126.3	022 126.2	022 126.2
2 ^{1/2}	76	2.5	022 127.3	022 127.2	022 127.2
3	88	3	022 128.3	022 128.2	022 128.2
4	114	3	022 129.3	022 129.2	022 129.2

API Quick Disconnect Couplers



API Products

Cam-locking Couplers × Adapter / Thread / Sight Glass / Valves / for Vapour Recovery / 90° Cap

Thread Types

Standard BSP parallel pipe threads; tapered, NST or NPT available upon request.

More Spec. & Markings

Package - Plastic foams;
Exterior markings, eg. - CVR xx

Size	Inch	Aluminum Alloys
ACP 400	4	100 234
ACP 4030	4 × 3	100 233

Size	Inch	Aluminum Alloys
TCP 400	4	100 124
TCP 4030	4 × 3	100 123

Size	Inch	Aluminum Alloys
AGP 400	4	100 244
AGP 4030	4 × 3	100 243

Size	Inch	Aluminum Alloys
AVP 400	4	100 254
AVP 4030	4 × 3	100 253

Size	Inch	Aluminum Alloys
CVR 300	3	063 547
CVR 400	4	063 548
CVR 4030	4 × 3	063 558

Size	Inch	Aluminum Alloys
DVR 300	3	064 547
DVR 400	4	064 548
DVR 4030	4 × 3	064 558

Size	Inch	Aluminum Alloys
TCC 400	4	100 193
TCC 4030	4 × 3	100 194



Size	Inch	Aluminum Alloys
DPR 300	3	100 203
DPR 400	4	100 204

Size	Inch	Aluminum Alloys
BDM 200	2	102 014
BDM 300	3	102 016
BDM 400	4	102 017

Cam and Groove

API Adapter × Delivery Elbow Couplings



API Products

Cam-locking Adapters / Elbows / for Vapour Recovery / Vent Valves

Thread Types

Standard BSP parallel pipe threads; tapered, NST or NPT available upon request.

More Spec. & Markings

Package - Plastic foams;
Exterior markings, eg. - DN ××

Size	Inch	Aluminum Alloys
VA 400	4	013 035
VA 4030	4 × 3	013 034

Size	Inch	Aluminum Alloys
FA 400	4	013 045
FA 4030	4 × 3	013 044

Size	Inch	Aluminum Alloys
DEA 400	4	013 015
DEN 400	4	013 015.1
DEB 400	4	013 015.2

DEA - Delivery Elbow with Adapter; DEN - for that with External NPT pipe thread;
DEB - for that with External BSP tapered pipe thread.

Size	Inch	Aluminum Alloys
RCE 300	3	013 024
RCE 400	4	013 025

Size	Inch	Aluminum Alloys
VPT 300	3	013 047

Size	Inch	Aluminum Alloys
AIR	-	013 042

Size	Inch	Aluminum Alloys
ADC 400	4	013 140

API Products

Square Flange by Internal and External BSP Pipe Thread

More Spec. & Markings

Package - Plastic foams;
Exterior markings, eg. - DN ××

Internal



External



Size inch	BSP Thread Ext. / Int.	Aluminum Alloys
2	Internal	101 414
3	Internal	101 416
4	Internal	101 417
2	External	101 514
3	External	101 516
4	External	101 517

Dry Break Couplings

API Products

Dry Break Couplers used to prevent excess spillage by instant shut-off



Size inch	Aluminum Alloys
1½	013 112
2	013 113
3	013 114

Size inch	Aluminum Alloys
1½	013 102
2	013 103
3	013 104

Road Tanker Light Weight Valves

API Products

Light Weight Butterfly Valves / Bottom Loading Valves for Road Tankers, Gasoline Tank Trucks, Working Pressure PN6

Standard Materials

Body - Aluminum alloy,
Shaft - Stainless steel AISI 304,
Disc - NBR,
Handle - Carbon steel / Ductile iron / Aluminum on request



Size DN	Weight Kg	Aluminum Alloys
80	3.6	310 547
100	4.5	310 548

Size DN	Weight Kg	Aluminum Alloys
80	5.5	311 080
100	6.0	311 100



Size DN	Weight Kg	Aluminum Alloys
100	5.0	325 210




The background is a detailed technical drawing of a concrete coupling. It shows a cross-section of a curved concrete structure with a central hole. The drawing includes various dimensions such as radii (R20, R10, R2), diameters (Ø10, Ø100), and lengths (181, 110, 132). There are also labels for materials like 'H0-SX21M' and 'H0-SX21H'. A red callout box with rounded corners is positioned in the center, containing the text 'CONCRETE COUPLINGS'.

CONCRETE COUPLINGS

Mortar Couplings *Page 42*

HoleDall® Couplings *Page 48*

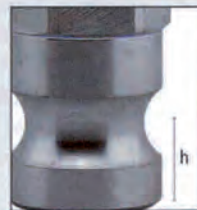
Mortar Couplings



Mortar couplings bear a striking resemblance to cam and groove type of couplings. Connection is made by evenly closing handles to seal two mating couplings without using tools. Therefore they are easy, fast and reliable to operate; plus mortar couplings are structurally reinforced.

Mortar couplings are widely used as the outlet quick-disconnect fitting in mixer and spraying mortar machines, **CONCRETE TRANSPORTATION VEHICLES** and plastering units. The Cam handles are designed and made of robust malleable iron and casting steels so that couplings can undertake the pressure over 25 bars and to maximum 50 at closure.

As dealing with abrasive mass granules as mortar and plaster, hard materials of casting carbon steel and malleable iron are commonly selected. In some cases plastic nylon (red) are required especially as the machine outlet coupling, fitted with strong stainless steel Cam handles and pull rings. The side figure as the coupling half with internal BSP-Parallel pipe thread of DN25 1" of "System 22" made of red nylon compound plus 25~30% acid resistant glass fiber by injection molding production.



System 22 & 23.5



Popular sizing 1~2 inch is commonly divided by its mating distance between lines of groove center and bottoms of adapters. They are referred to as **SYSTEM 22 AND 23.5** which cannot be exchanged.

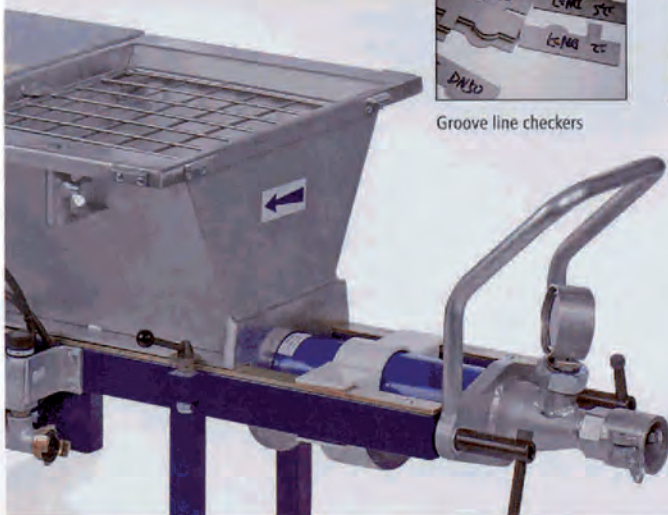


Groove line checkers

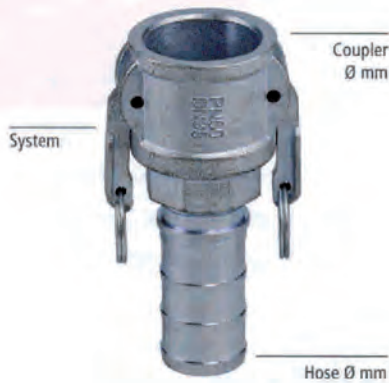


An adapter of "System 22" has practically 22.0 mm high closing distance that must be connected with a 22 system coupling half of its nominal dimension. Same as to "System 23.5" female and male coupling halves with height of 23.5 mm.

A groove line checker is made applicable to all cam and groove types. "System 22" and "23.5" can also be measured and verified when the curve lines perfectly match with each other.



Mortar Couplings by Hose Stem



Mortar Couplings

Mortar Couplings by Hose Stem
Coupling standard of "system 22", for sizes between 1"~2", they can be made to "system 23.5" on request

Standard Materials

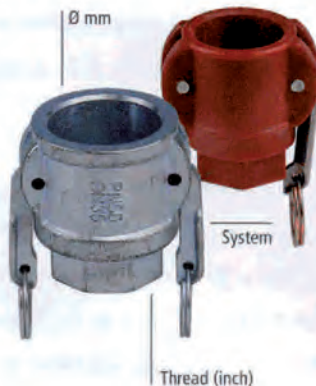
Standard carbon steel body by carbon steel handle, malleable iron or nylon available on request
Bluish or yellow anti-rust plating

Sealing Materials

Standard black NBR gasket without thread seal

System	Size mm	Inch	Coupler Ø mm	Hose Ø mm	Core Material	Article Nr.
22	25	1	35.5	19	Pl. steel	063 551
22	25	1	35.5	25	Pl. steel	063 551.1
22	27	1	42.0	25	Pl. steel	063 552
22	35	1 ^{1/4}	51.0	25	Pl. steel	063 553
22	35	1 ^{1/4}	51.0	35	Pl. steel	063 553.1
22	38	1 ^{1/2}	51.0	38	Pl. steel	063 554
22	42	1 ^{1/2}	54.0	42	Pl. steel	063 555
22	50	2	64.0	35	Pl. steel	063 556
22	50	2	74.0	50	Pl. steel	063 556.1
22	65	2 ^{1/2}	74.0	65	Pl. steel	063 557
23.5	35	1 ^{1/4}	51.0	25	Pl. steel	063 563
23.5	35	1 ^{1/4}	51.0	35	Pl. steel	063 563.1
23.5	42	1 ^{1/2}	54.0	38	Pl. steel	063 564
23.5	50	2	64.0	35	Pl. steel	063 565
23.5	50	2	64.0	50	Pl. steel	063 565.1

Mortar Couplings by Thread



Mortar Couplings

Mortar Couplings by Female Thread
Coupling standard of "system 22", for sizes between 1"~2", they can be made to "system 23.5" on request

Standard Materials

Standard carbon steel body by carbon steel handle, malleable iron or nylon available on request
Bluish or yellow anti-rust plating

Sealing Materials

Standard black NBR gasket

Thread Types

Standard BSP pipe threads

System	Size mm	Thread inch	Coupling Ø mm	Core Material	Article Nr.
22	25	1	35.5	Pl. steel	064 551
22	27	1	42.0	Pl. steel	064 552
22	27	1	42.0	Nylon	064 752
22	35	1 ^{1/4}	51.0	Pl. steel	064 553
22	35	1 ^{1/2}	51.0	Pl. steel	064 553.1
22	42	1 ^{1/2}	54.0	Pl. steel	064 555
22	50	2	64.0	Pl. steel	064 556
22	65	2 ^{1/2}	74.0	Pl. steel	064 557
23.5	35	1 ^{1/4}	51.0	Pl. steel	064 563
23.5	35	1 ^{1/2}	51.0	Pl. steel	064 563.3
23.5	50	2	64.0	Pl. steel	064 566

Mortar Couplings by Outside Thread



Mortar Couplings Mortar Hose Stem of Serration by Male Thread

Standard Materials Standard carbon steel body
Bluish or yellow anti-rust plating

Thread Types Standard BSP pipe threads

Size mm	Thread inch	Hose Ø mm	Core Material	Article Nr.
25	1	19.0	Pl. steel	067 551
25	1	25.5	Pl. steel	067 551.1
35	1 ^{1/4}	35.0	Pl. steel	067 552
35	1 ^{1/4}	38.0	Pl. steel	067 552.1
38	1 ^{1/2}	42.0	Pl. steel	067 553
50	2	35.0	Pl. steel	067 554
50	2	42.0	Pl. steel	067 554.1
50	2	50.0	Pl. steel	067 554.2

Mortar Adapters by Hose Stem



Mortar Couplings Mortar Hose Stem of Serration by Adapter
Coupling standard of "system 22", for sizes between 1"~2", they can be made to "system 23.5" on request

Standard Materials Standard carbon steel, bluish or yellow anti-rust plating

System	Size mm	Inch	Adapter Ø mm	Hose Ø mm	Core Material	Article Nr.
22	25	1	35.0	25	Pl. steel	065 551
22	27	1	41.0	19	Pl. steel	065 552
22	27	1	41.0	25	Pl. steel	065 552.1
22	35	1 ^{1/4}	49.5	25	Pl. steel	065 553
22	35	1 ^{1/4}	49.5	35	Pl. steel	065 553.1
22	38	1 ^{1/2}	49.5	38	Pl. steel	065 554
22	42	1 ^{1/2}	53.0	42	Pl. steel	065 555
22	50	2	63.0	35	Pl. steel	065 556
22	50	2	63.0	42	Pl. steel	065 556.1
22	50	2	63.0	50	Pl. steel	065 556.2
22	65	2 ^{1/2}	73.0	65	Pl. steel	065 557
23.5	35	1 ^{1/4}	49.5	35	Pl. steel	065 563.1
23.5	38	1 ^{1/2}	49.5	38	Pl. steel	065 564
23.5	50	2	73.0	50	Pl. steel	065 566.2

Mortar Adapters by Inside Thread



Mortar Couplings	Mortar Adapter by Female Thread Coupling standard of "system 22", for sizes between 1"~2", they can be made to "system 23.5" on request
Standard Materials	Standard carbon steel, bluish or yellow anti-rust plating
Sealing Materials	With no sealing rings
Thread Types	Standard BSP pipe threads

STD system	Size mm	Thread inch	Adapter Ø mm	Core Material	Article Nr.
22	25	1	35.0	Pl. steel	061 551
22	27	1	41.0	Pl. steel	061 552
22	27	1 ^{1/4}	41.0	Pl. steel	☎
22	35	1	49.5	Pl. steel	061 553.1
22	35	1 ^{1/4}	49.5	Pl. steel	061 553
22	35	1 ^{1/2}	49.5	Pl. steel	061 554
22	35	2	49.5	Pl. steel	061 554.1
22	42	1 ^{1/2}	53.0	Pl. steel	061 555
22	50	1 ^{1/4}	63.0	Pl. steel	061 556
22	50	1 ^{1/2}	63.0	Pl. steel	061 556.1
22	50	2	63.0	Pl. steel	061 556.2
22	50	2 ^{1/2}	63.0	Pl. steel	061 556.3
22	65	2 ^{1/2}	73.0	Pl. steel	061 557
23.5	35	1	49.5	Pl. steel	061 563.1
23.5	35	1 ^{1/4}	49.5	Pl. steel	061 563
23.5	42	1 ^{1/2}	53.0	Pl. steel	061 564
23.5	42	2	53.0	Pl. steel	061 564.1
23.5	50	1 ^{1/4}	63.0	Pl. steel	061 566
23.5	50	1 ^{1/2}	63.0	Pl. steel	061 566.1
23.5	50	2	63.0	Pl. steel	061 566.2
23.5	50	2 ^{1/2}	63.0	Pl. steel	061 566.3

Mortar Adapters by Outside Thread



Mortar Couplings	Mortar Adapter by Male Thread Coupling standard of "system 22", for sizes between 1"~2", they can be made to "system 23.5" on request
Standard Materials	Standard carbon steel, bluish or yellow anti-rust plating
Thread Types	Standard BSP pipe threads

System	Size mm	Thread inch	Adapter Ø mm	Core Material	Article Nr.
22	25	1	35.0	Pl. steel	066 551
22	27	1	41.0	Pl. steel	066 552
22	35	1 ^{1/4}	49.5	Pl. steel	066 553
22	35	1 ^{1/2}	49.5	Pl. steel	066 553.1
22	50	2	63.0	Pl. steel	066 556
23.5	35	1 ^{1/4}	49.5	Pl. steel	066 563
23.5	50	2	63.0	Pl. steel	066 566

Mortar Crimping Ferrules



Crimping Ferrules

Crimping ferrules with inside serration for mortar hose couplings

Standard Materials

Standard carbon steel, bluish or yellow anti-rust plating

Size mm	Core Material	Article Nr.
19 × 6	Pl. steel	068 551
25 × 7	Pl. steel	068 552
35 × 7	Pl. steel	068 553
38 × 7	Pl. steel	068 554
42 × 7	Pl. steel	068 555
50 × 9	Pl. steel	068 556



HoleDall® coupling system was originated from company Dixon Valve & Coupling who is one of the premier manufacturers and suppliers of hose fittings and accessories since 1940 in the United States.

The Holedall® coupling system provides a safe and cost effective method of outstanding strength and durability of attaching couplings to hose. Ease of operation, flexibility and economy make the Holedall method an un-equalled hose assembly system.

With both Internal Expansion and External Swage Couplings, the Holedall® system utilizes a cold worked, draw type progressive swage method which gives a full 360° uninterrupted expansion or compression band around the hose, giving superb coupling retention and end load characteristics.

The Holedall® range of External Crimp Couplings which includes an interlocking groove and collar offers an alternative safe and secure method of producing hose assemblies to 8" nominal bore.

Only quality assured, materials are used in the production of Holedall Couplings, with materials used for swaging having been selected to establish the proof/yield stress to ensure that brittle fracture does not occur. Certification in accordance with EN10204 3.1, is available with all couplings.

The Holedall® system does not stop at couplings. We also manufacture and supply a range of machines for hose assembly including, Internal Expansion Machines, External Swaging Machines, Dual Swaging Machines, External Crimping Machines and Coupling Inserting Machines and Hydrostatic Test Pumps.



Concrete Couplings

Crimping Stem by Sanitary Tri-Clamp End



HoleDall Couplings

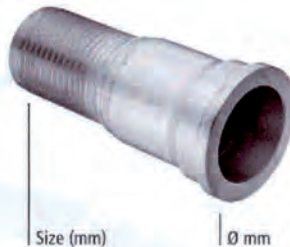
Multi-Crimping Hose Stem by Tri-Clamp Groove End for Sanitary Connections
HoleDall® System Couplings

Standard Materials

Standard stainless steel, carbon steel

Size mm	Inch	Tri-clamp Ø mm	Core Material	Article Nr.
65	2 ^{1/2}	88.9	St. steel	☞
80	3	88.9	St. steel	☞
100	4	114.3	St. steel	☞
100	4	127	St. steel	☞
125	5	142	St. steel	☞
125	5	148	St. steel	☞

Crimping Stem by Victaulic Groove End



HoleDall Couplings

Multi-Crimping Hose Stem by Victaulic Groove End for Piping Connections
HoleDall® System Couplings

Standard Materials

Standard stainless steel, carbon steel

Size mm	Inch	Tri-clamp Ø mm	Core Material	Article Nr.
65	2 ^{1/2}	88.9	St. steel	☞
80	3	88.9	St. steel	☞
100	4	114.3	St. steel	☞
100	4	127	St. steel	☞
125	5	142	St. steel	☞
125	5	148	St. steel	☞

Crimping Stem by Butt Welding End



HoleDall Couplings

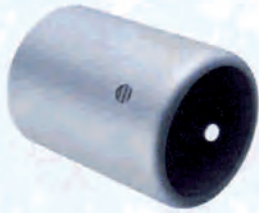
Multi-Crimping Hose Stem by Butt Welding (BW) End for Piping Connections
HoleDall® System Couplings

Standard Materials

Standard stainless steel, carbon steel

Size mm	Inch	Tri-clamp Ø mm	Core Material	Article Nr.
65	2 ^{1/2}	88.9	St. steel	☞
80	3	88.9	St. steel	☞
100	4	114.3	St. steel	☞
100	4	127	St. steel	☞
125	5	142	St. steel	☞
125	5	148	St. steel	☞

Crimping Ferrule Clamping



Crimping Ferrules

Crimping Ferrule with Inside Serration and Fixing Drilling Holes for HoleDall® System Couplings

Standard Materials

Standard stainless steel, carbon steel

Size mm	Inch	Core Material	Article Nr.
65	2 ^{1/2}	St. steel	☞
80	3	St. steel	☞
100	4	St. steel	☞
100	4	St. steel	☞
125	5	St. steel	☞
125	5	St. steel	☞
65	2 ^{1/2}	Ca. steel	☞
80	3	Ca. steel	☞
100	4	Ca. steel	☞
100	4	Ca. steel	☞
125	5	Ca. steel	☞
125	5	Ca. steel	☞



Guillemin Symmetrical Couplings

"Demi-raccord symétrique (Système Guillemin)" is a **FRENCH-ORIGIN** type of coupling for quick disconnection in the transfer of fluids at a pressuring rate PN 6~16. They are symmetrical claw fittings. Two mating parts are closed with soft sealing (rubber-on-rubber and metal-on-rubber) by making the latch (locking ring) a quarter turn that sends the chamfered lugs into the claws.

Guillemin symmetrical types are designed in accordance with NF E29-572. **CLOSE PRODUCT FAMILIES** including DSP / AR 100 to NF S61-704 / S61-705 for fire fighting use, and German normed couplings with DIN hose clamp units to EN 14420-8 are applying such Guillemin type of connection.



EN 14420-8



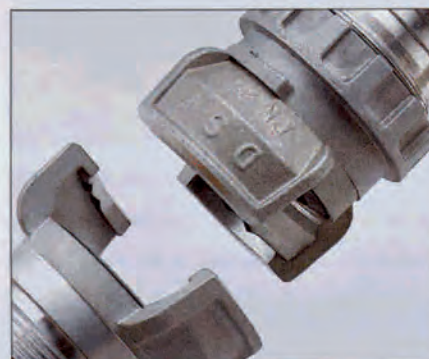
NF S61-704



NF E 29-572

Guillemin couplings can be quick connected and sealed by 2 flat shape rubber gaskets, commonly of materials NBR, EPDM and FPM. Couplings with no latch, on the other hand, must be coupled with a mating coupling with latch that incorporates a rubber sealing, for no-latch Guillemin couplings are designed with metal seal embossment, no gasket groove applied.

For internal threads are designed without sealing rings, it is recommended to wrap the counterpart external pipe threads with **THREAD TAPE**, such as PTFE film tape, multiple times before screwing in place. Nevertheless more and more are requested to put additional thread seals for Guillemin BSP-parallel internal pipe threaded couplings per common sense.



No-latch thread coupling / Latched couplings



Thread tape wrapping for Guillemin internal threads

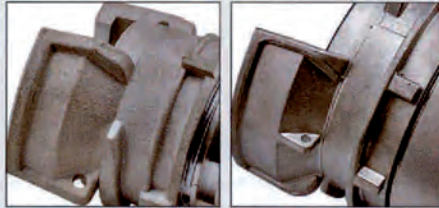
Guillemin Couplings

Guillemin sealing closure is achieved when two Guillemin claws (also referred to as Guillemin ears) are gripping on the latch lugs. Hence it is very important that the guillemin claws and latch lugs can stay intact in case an assembled coupling hits the ground, or the lateral tensile strength keeps rising from the connecting hoses. Breakage at either position will instantly result in massive leakage of the transfer.

Therefore **REINFORCEMENT** must be made. Reinforced ribs either in the middle or along the sides on Guillemin claws are the common approaches for improvement. These methods are proven to be most effective with regard to the increase of mechanical resistance of the claws through testing made with reference to French NF specifications.



Claw torn broken in snatch test on a couple of sealed Guillemin couplings



Reinforced claw ribs mid and side ways with hook and chain attachment hole

Testing is constructed with reference to NF specifications as follows. The tests are intended as type tests that is repeated till breakage for limit verification. In a) **FLARING TEST**, a 45° cone steel made probe is pressed onto the Guillemin head forcing the claws to expand till breakage.

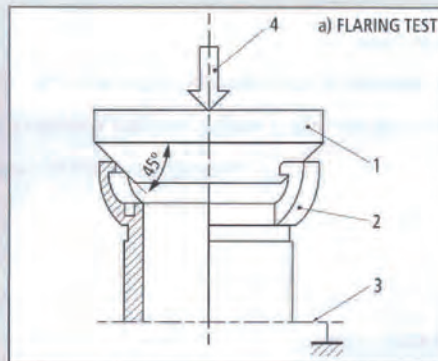
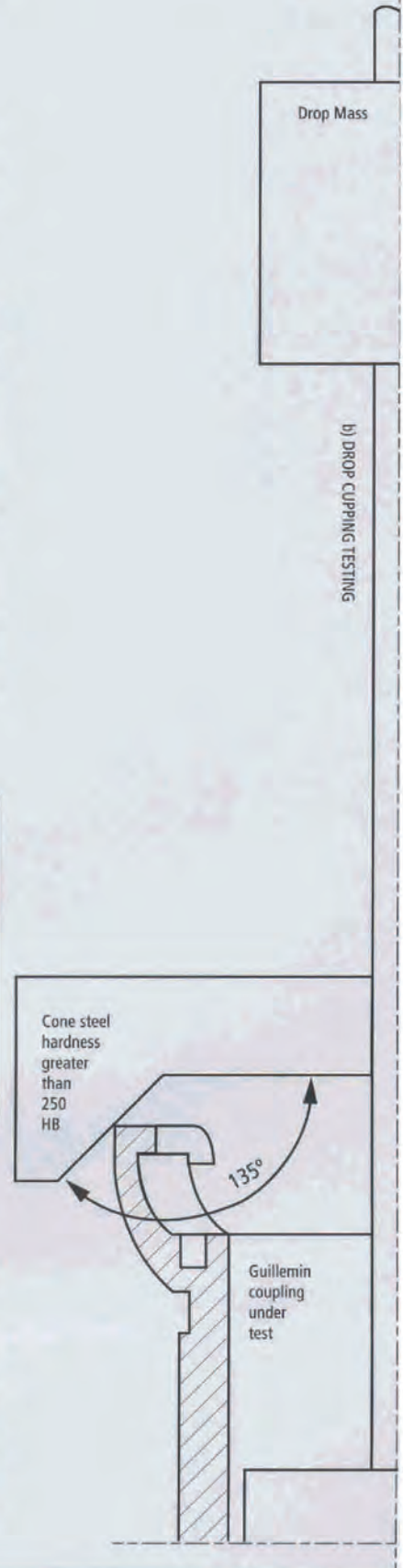


Fig. 1. Cone steel hardness greater than 250 HB
 2. body under test
 3. Base ground, flat and rigid
 4. Force (N) as applied with a maximum speed of 5 mm/s, or in our case a gradual pressing hydraulic force.

In b) **DROP CUPPING TESTING**, a steel made cone cap of a 135° touching angle is designed to cup on the Guillemin head so that impact force from being dropped on ground can be simulated when the mass abovehead drops onto the steel cap. The process needs repeating itself for usually about hundreds of times before the inner diameter of the claws' circle shrinks or in poor cases the cleavage at the claw bottom can be visualized. The mechanical resistance of the Guillemin claws are in above mentioned approaches proved to be reinforced with applied ribs around.





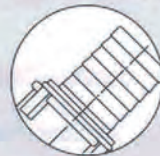
Guillemin dust plug couplings, inclusive of hand held types of cap couplings, are demanded in standard to be used as sealing elements. They shall not be pressurized continuously without being secured additionally, such as by a padlock with chains and hooks that in practice are intended to be capable of supporting at least 10 times the weight of the plug coupling.

Considering safe use of all Guillemin couplings, we are applying **SECURING CHAIN** holes to the complete type and range. As the arrangement of hole eyes can be customized, we are putting them in the reinforced ribs on Guillemin claws for all couplings except caps and plugs as on the top and middle position.

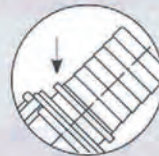


Crimping clamps are standard coupling assembly units on Guillemin hose couplings. **HOSE SHANKS** can be made with multiple serration, with 1-clamp space and DIN type smooth and serrated hose tails with safety collar for assembly by DIN safety clamps to EN 14420-3. The inner port of hose shanks are made commonly reduced for those With Collar, full port for those without.

CRIMPING COLLAR is an option for better suitability with 45° and 90° ferrules. Reference chart with indication of body material, coupling I.D (ØB) and the existence of crimp collar as follows.



with No collar



with Crimp collar

Body	Size	Hose Ø	With Collar
ALU	20	25	no
ALU	25	25	no
ALU	25	30	no
ALU	32	35	no
ALU	40	40	yes
ALU	40	40.5	no
ALU	40	45	no
ALU	50	51	yes
ALU	50	55	no
ALU	65	63	no
ALU	65	65	yes
ALU	65	70	no
ALU	80	76	yes
ALU	80	81	yes
ALU	80	90	no
ALU	100	100	yes
ALU	100	102	yes
ALU	100	110	no
ALU	100	105	no

Body	Size	Hose Ø	With Collar
S/S	15	20	no
S/S	20	25	no
S/S	25	30	no
S/S	32	35	no
S/S	40	40.5	no
S/S	40	45	no
S/S	50	51	yes
S/S	50	55	no
S/S	65	63	no
S/S	65	70	no
S/S	80	76	yes
S/S	80	90	no
S/S	100	102	yes
S/S	100	110	no
Body	Size	Hose Ø	With Collar
BR	20	25	no
BR	25	30	no
BR	32	35	no
BR	40	25	no

Body	Size	Hose Ø	With Collar
BR	40	30	no
BR	40	35	no
BR	40	40	no
BR	40	40	yes
BR	40	45	no
BR	50	51	no
BR	50	55	no
BR	65	63	no
BR	65	65	no
BR	65	70	no
BR	80	76	yes
BR	80	81	yes
BR	80	90	no
BR	100	100	yes
BR	100	102	yes
BR	100	105	no
BR	100	110	no
Body	Size	Hose Ø	With Collar
PP	40	40	no
PP	50	51	yes
PP	50	55	no
PP	80	76	yes

Note: Custom design and structure can be made concerning the thorough / reduced port and collar configuration.

Guillemin Hose Shank



For with / without crimping collar, refer to page 55



Steel made spanner available.
Ref. 084 109 for sizes 20–115;
Ref. 084 102 for 20–65;
Ref. 084 108 for 50–100.

Guillemin Helical Hose Shank



Guillemin Couplings

Guillemin Head by Hose Shank with Multiple Serrations With and Without Crimping Stop Collars
NF E 29-572

Standard Materials

4 basic materials aluminum+T6, brass, stainless steel and polypropylene+30% fiberglass (GF)

Sealing Materials

Standard white and black NBR

Size	ØF mm	ØB mm	Aluminum Alloys	Stainless Steel	Brass Alloys	Poly-propylene
DN 015	19.5	26	☒	031 019	☒	☒
DN 020	25	32	031 010	031 020	031 061	☒
DN 025	25	37.5	031 111	☒	031 062.1	☒
DN 025	30	37.5	031 011	031 021	031 062	☒
DN 032	35	42.5	031 012	031 022	031 063	☒
DN 040	25	55	☒	☒	031 064.4	☒
DN 040	30	55	☒	☒	031 064.3	☒
DN 040	35	55	☒	☒	031 064.2	☒
DN 040	40	55	031 113	031 023	031 064.1	031 083
DN 040	45	55	031 013	031 023.1	031 064	☒
DN 050	51	69	031 114	031 024	031 065.1	031 084
DN 050	55	69	031 014	031 024.1	031 065	031 084.1
DN 065	63	84	031 115	031 025	☒	☒
DN 065	65	84	031 115.2	☒	☒	☒
DN 065	70	84	031 015	031 025.1	031 066	☒
DN 080	76	103	031 116	031 026	031 067.1	031 086
DN 080	80	103	☒	031 026.1	☒	☒
DN 080	81	103	031 116.2	☒	031 067.2	☒
DN 080	90	103	031 016	031 026.2	031 067	☒
DN 100	100	123	031 117	☒	☒	☒
DN 100	102	123	031 117.2	031 027	☒	☒
DN 100	105	123	031 018	☒	031 068.1	☒
DN 100	110	123	031 017	031 027.1	031 068	☒
DN 150	152	192	031 119	☒	☒	☒

Guillemin Couplings

Guillemin Head by Hose Shank with Helical Spiral Lines for Composite Hose Assemblies
NF E 29-572

Standard Materials

3 basic materials aluminum+T6, brass and stainless steel

Sealing Materials

Standard white and black NBR

Size	ØF mm	ØB mm	Aluminum Alloys	Stainless Steel	Brass Alloys
DN 020	23.3	32	☒	031 220	031 261
DN 025	28	37.5	☒	031 221	031 262
DN 032	35.5	42.5	☒	031 222	031 263
DN 040	43.5	55	031 213	031 223	031 264
DN 050	53	69	031 214	031 224	031 265
DN 065	67.5	84	031 215	031 225	031 266
DN 080	83	103	031 216	031 226	031 267
DN 100	106	123	031 217	031 227	031 268

DIN Guillemin Hose Shank



Recommended clamping with DIN safety clamps, refer to pages 192–193.



Also with superior clamping, refer to Hose Clamps on page 200.

Guillemin Couplings

Guillemin Head by Smooth and Serrated Hose Shank with Safety Collar to DIN EN 14420-2 (formally DIN 2817) DIN EN 14420-8

Standard Materials

3 basic materials aluminum+T6, brass and stainless steel

Sealing Materials

Standard white and black NBR

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	ØB mm	ØF mm	Tail Type	Core Material	Article Nr.
DN 020	26	19.5	Smooth	Brass	031 061.18
DN 025	32	25.5	Smooth	Brass	031 062.18
DN 032	42.5	32.5	Smooth	Brass	031 063.18
DN 040	55	40	Smooth	Brass	031 064.18
DN 050	69	50.5	Smooth	Brass	031 065.18
DN 065	84	63.5	Smooth	Brass	031 066.18
DN 080	103	76	Smooth	Brass	031 067.18
DN 100	123	102	Smooth	Brass	031 068.18
DN 020	26	19.5	Serrated	St. steel	031 020.18
DN 025	32	25.5	Serrated	St. steel	031 021.18
DN 032	42.5	32.5	Serrated	St. steel	031 022.18
DN 040	55	38.5	Serrated	St. steel	031 023.18
DN 050	69	50.5	Serrated	St. steel	031 024.18
DN 065	84	63.5	Serrated	St. steel	031 025.18
DN 080	103	75.5	Serrated	St. steel	031 026.18
DN 100	123	101.5	Serrated	St. steel	031 027.18
DN 020	26	19.5	Serrated	Aluminum	031 110.18
DN 025	32	25.5	Serrated	Aluminum	031 111.18
DN 032	42.5	32.5	Serrated	Aluminum	031 112.18
DN 040	55	38.5	Serrated	Aluminum	031 113.18
DN 050	69	50.5	Serrated	Aluminum	031 114.18
DN 065	84	63.5	Serrated	Aluminum	031 115.18
DN 080	103	75.5	Serrated	Aluminum	031 116.18
DN 100	123	101.5	Serrated	Aluminum	031 117.18

Helical Hose Shank by Outside Thread



Guillemin Couplings Helical Hose Shank by Male Thread for Composite Hose Assemblies

Standard Materials 4 basic materials aluminum+T6, brass, stainless steel and polypropylene+30% fiberglass (GF)

Sealing Materials Standard white and black NBR

Thread Types Standard BSP-Parallel pipe thread

Size	Thread inch	ØB mm	Aluminum Alloys	Stainless Steel	Brass Alloys	Polypropylene
DN 020	3/4	32	☞	031 320	☞	☞
DN 025	1	37.5	☞	031 321	☞	☞
DN 032	1 1/4	42.5	☞	031 322	☞	☞
DN 040	1 1/2	55	031 373	031 323	031 363	☞
DN 050	2	69	031 374	031 324	031 364	031 334
DN 065	2 1/2	84	031 375	031 325	☞	☞
DN 080	3	103	031 376	031 326	☞	031 336
DN 100	4	123	031 377	031 327	☞	☞

Guillemin Helical Hose Shank No Claw



Guillemin Couplings Guillemin Head with No Claw by Helical Hose Shank for Composite Hose Assemblies
NF E 29-572

Standard Materials 2 optional materials aluminum+T6 and stainless steel

Sealing Materials Standard white and black NBR

Size	ØB mm	Aluminum Alloys	Stainless Steel
DN 050	69	031 214.1	☞
DN 080	103	031 216.11	031 226.11

Guillemin Reducers



Guillemin Couplings Guillemin Head Reducers
NF E 29-572

Standard Materials 3 basic materials aluminum+T6, stainless steel and polypropylene+30% fiberglass (GF)

Sealing Materials Standard white and black NBR

Size	ØA mm	ØB mm	Aluminum Alloys	Stainless Steel	Polypropylene
DN 40 × 25	37.5	55	031 306	☞	☞
DN 40 × 32	42.5	55	031 307	☞	☞
DN 50 × 25	37.5	69	031 308	☞	☞
DN 50 × 32	42.5	69	031 309	☞	☞
DN 50 × 40	55	69	031 310	031 340	☞
DN 65 × 40	55	84	031 311	031 341	☞
DN 65 × 50	69	84	031 312	☞	☞
DN 80 × 40	55	103	031 313	☞	☞
DN 80 × 50	69	103	031 314	031 344	031 384
DN 80 × 65	84	103	031 315	031 345	☞
DN 100 × 40	55	123	031 316	031 346	☞
DN 100 × 50	69	123	031 317	031 347	☞
DN 100 × 65	84	123	031 318	031 348	☞
DN 100 × 80	103	123	031 319	031 349	☞

Guillemin Inside Thread



Guillemin Couplings Guillemin Head by Inside Thread with Locking Ring
NF E 29-572

Standard Materials 4 basic materials aluminum+T6, brass, stainless steel
and polypropylene+30% fiberglass (GF)

Sealing Materials Standard white and black NBR

Thread Types Standard BSP-Parallel pipe thread

Size	Ø mm	Thread inch	Aluminum Alloys	Stainless Steel	Brass Alloys	Poly- propylene
DN 015	26	1/2	☒	033 021	☒	☒
DN 020	32	3/4	033 052	033 022	033 061	☒
DN 025	37.5	1	033 053	033 023	033 062	☒
DN 032	42.5	1 ^{1/4}	033 054	033 024	033 063	☒
DN 040	55	1 ^{1/2}	033 055	033 025	033 064	033 085
DN 040	55	2	☒	☒	033 064.4	☒
DN 050	69	2	033 056	033 026	033 065	033 086
DN 065	84	2 ^{1/2}	033 057	033 027	033 066	☒
DN 080	103	2	☒	☒	☒	033 088.1
DN 080	103	3	033 058	033 028	033 067	033 088
DN 100	123	4	033 059	033 029	033 068	☒
DN 150	-	6	033 050	☒	☒	☒

Guillemin Inside Thread No Lock Ring



Guillemin Couplings Guillemin Head by Inside Thread without Locking Ring
NF E 29-572

Standard Materials 3 basic materials aluminum+T6, brass and stainless steel

Thread Types Standard BSP-Parallel pipe thread

Size	Ø mm	Thread inch	Aluminum Alloys	Stainless Steel	Brass Alloys
DN 015	26	1/2	☒	035 021	☒
DN 020	32	3/4	035 052	035 022	035 061
DN 025	37.5	1	035 053	035 023	035 062
DN 032	42.5	1 ^{1/4}	035 054	035 024	035 063
DN 040	55	1 ^{1/2}	035 055	035 025	035 064
DN 040	55	2	☒	☒	035 064.1
DN 050	69	2	035 056	035 026	035 065
DN 065	84	2 ^{1/2}	035 057	035 027	035 066
DN 080	103	3	035 058	035 028	035 067
DN 100	123	4	035 059	035 029	035 068

Guillemin Inside Thread No Claw



Guillemin Couplings Guillemin Head by Inside Thread without Gripping Claws
NF E 29-572

Standard Materials Standard material aluminum+T6

Sealing Materials Standard white and black NBR

Size	Ø mm	Thread inch	Aluminum Alloys
DN 080	103	3	033 058.1

Guillemin Outside Thread



Guillemin Couplings

Guillemin Head by Outside Thread with Locking Ring
NF E 29-572

Standard Materials

4 basic materials aluminum+T6, brass, stainless steel and polypropylene+30% fiberglass (GF)

Sealing Materials

Standard white and black NBR

Thread Types

Standard BSP-Parallel pipe thread

Size	Ø mm	Thread	Aluminum Alloys	Stainless Steel	Brass Alloys	Polypropylene
DN 015	26	1/2	☒	032 021	☒	☒
DN 020	32	3/4	032 052	032 022	032 061	☒
DN 025	37.5	1	032 053	032 023	032 062	☒
DN 032	42.5	1 ^{1/4}	032 054	032 024	032 063	☒
DN 040	55	1 ^{1/2}	032 055	032 025	032 064	032 085
DN 050	69	2	032 056	032 026	032 065	032 086
DN 065	84	2 ^{1/2}	032 057	032 027	032 066	☒
DN 080	103	3	032 058	032 028	032 067	032 088
DN 100	123	4	032 059	032 029	032 068	☒
DN 150	-	6	032 050	☒	☒	☒

Guillemin Outside Thread No Lock Ring



Guillemin Couplings

Guillemin Head by Outside Thread without Locking Ring
NF E 29-572

Standard Materials

3 basic materials aluminum+T6, brass and stainless steel

Thread Types

Standard BSP-Parallel pipe thread

Size	Ø mm	Thread inch	Aluminum Alloys	Stainless Steel	Brass Alloys
DN 015	26	1/2	☒	036 021	☒
DN 020	32	3/4	036 052	036 022	036 061
DN 025	37.5	1	036 053	036 023	036 062
DN 032	42.5	1 ^{1/4}	036 054	036 024	036 063
DN 040	55	1 ^{1/2}	036 055	036 025	036 064
DN 040	55	2	☒	☒	036 064.1
DN 050	69	2	036 056	036 026	036 065
DN 065	84	2 ^{1/2}	036 057	036 027	036 066
DN 080	103	3	036 058	036 028	036 067
DN 100	123	4	036 059	036 029	036 068
DN 150	-	6	036 050	☒	☒

Guillemin Outside Thread No Claw



Guillemin Couplings

Guillemin Head by Outside Thread without Gripping Claws
NF E 29-572

Standard Materials

Standard material aluminum+T6

Sealing Materials

Standard white and black NBR

Size	Ø mm	Thread inch	Aluminum Alloys
DN 080	103	3	032 028.5

Guillemin BW Welding End



Guillemin SW Welding End



Guillemin Dust Caps and Plugs



Guillemin Couplings Guillemin Head by Butt Welding (BW) End
With and Without Locking Ring
NF E 29-572

Standard Materials Standard material stainless steel grade AISI 316

Sealing Materials Standard white and black NBR

Size	Ø mm	Locking Ring	Stainless Steel
DN 015	26	yes	032 021.1
DN 020	32	yes	032 022.1
DN 025	37.5	yes	032 023.1
DN 032	42.5	yes	032 024.1
DN 040	55	yes	032 025.1
DN 050	69	yes	032 026.1
DN 065	84	yes	032 027.1
DN 065	84	no	036 027.1
DN 080	103	yes	032 028.1
DN 100	123	yes	032 029.1

Guillemin Couplings Guillemin Head by Socket Welding (SW) End
With and Without Locking Ring
NF E 29-572

Standard Materials Standard material stainless steel grade AISI 316

Size	Ø mm	Stainless Steel
DN 020	32	035 022.1
DN 025	37,5	035 023.1
DN 040	55	035 025.1
DN 050	69	035 026.1
DN 065	84	035 027.1

Guillemin Couplings Guillemin Dust Caps and Plugs
With and Without Locking Ring
NF E 29-572

Standard Materials 4 basic materials aluminum+T6, brass, stainless steel
and polypropylene+30% fiberglass (GF)

Sealing Materials Standard white and black NBR

Size	Ø mm	Lock Ring	Aluminum Alloys	Stainless Steel	Brass Alloys	Polypropylene
DN 015	-	yes	☞	034 021	☞	☞
DN 020	31	yes	034 052	034 022	034 061	☞
DN 025	37	yes	034 053	034 023	034 062	☞
DN 032	41.5	yes	034 054	034 024	034 063	☞
DN 040	54	yes	034 055	034 025	034 064	☞
DN 050	68	yes	034 056	034 026	034 065	☞
DN 065	83	yes	034 057	034 027	034 066	☞
DN 080	101	yes	034 058	034 028	034 067	☞
DN 100	121	yes	034 059	034 029	034 068	☞
DN 150	-	yes	034 050	☞	☞	☞
DN 040	54	no	☞	☞	☞	034 285
DN 050	68	no	☞	☞	☞	034 286
DN 080	101	no	☞	☞	☞	034 288
DN 100	121	no	☞	☞	☞	034 289

Guillemin Couplings

Guillemin Handle Plugs



Guillemin Couplings

Guillemin Dust Caps with Operating Handle On Top
NF E 29-572

Standard Materials

2 basic materials aluminum+T6 and stainless steel
grades AISI 304 or 316

Sealing Materials

Standard white and black NBR

Size	Ø mm	Aluminum Alloys	Stainless Steel 304	Stainless Steel 316
DN 032	48	034 154	☒	☒
DN 040	55	034 155	☒	☒
DN 050	69	034 156	☒	☒
DN 065	84	034 157	☒	☒
DN 080	103	034 158	034 128	039 008
DN 100	123	034 159	☒	☒

Flat Gaskets



Spare Parts

Flat Shape Gasket for Guillemin Couplings

Standard Materials

4 basic materials white or black NBR, EPDM, FPM and PTFE

Working Temp.

NBR -10~80°C / EPDM -20~130°C / FPM -20~180°C / PTFE -30~300°C

Size	Ø mm	T mm	NBR	EPDM	FPM	PTFE
DN 015	26	3.5	039 001.2	039 001.1	039 001.4	039 001.3
DN 020	35	5.5	039 002.2	039 002.1	039 002.4	039 002.3
DN 025	40	6.4	039 003.2	039 003.1	039 003.4	039 003.3
DN 032	50	6.4	039 004.2	039 004.1	039 004.4	039 004.3
DN 040	56	6.4	039 005.2	039 005.1	039 005.4	039 005.3
DN 050	67	6.4	039 006.2	039 006.1	039 006.4	039 006.3
DN 065	80	6.4	039 007.2	039 007.1	039 007.4	039 007.3
DN 080	95	6.4	039 008.2	039 008.1	039 008.4	039 008.3
DN 100	124	6.4	039 009.2	039 009.1	039 009.4	039 009.3

V-Shaped Expansion Gaskets



Spare Parts

Expansion Gaskets of V Shape Fitting with Helical Hose Shank Couplings for Composite Hose Assemblies

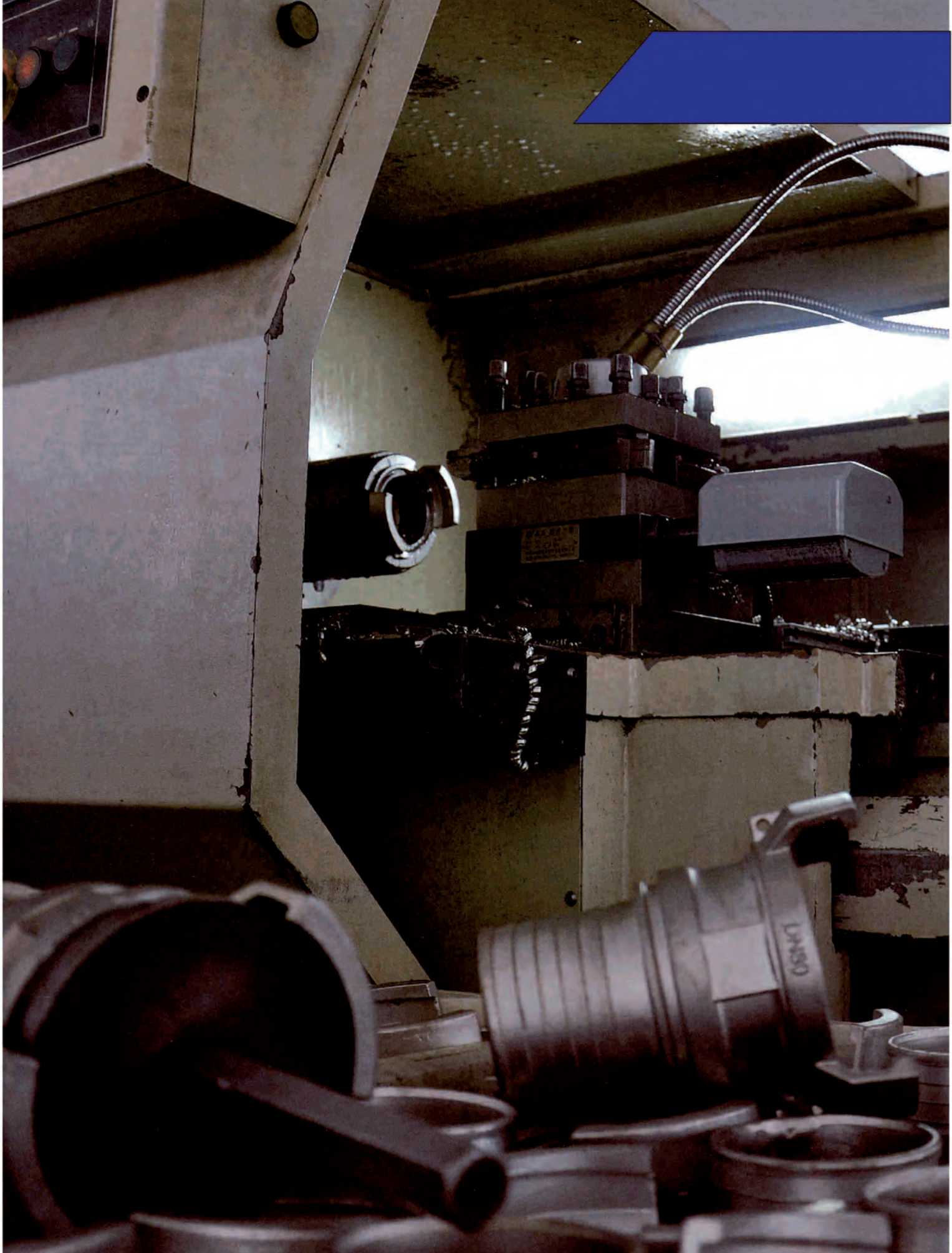
Standard Materials

2 optional materials black NBR and brown FPM

Working Temp.

NBR -10~80°C / FPM -20~180°C

Size	Inch	NBR	FPM
DN 025	1	039 100	☎
DN 032	1 ^{1/4}	039 101	☎
DN 038	1 ^{1/2}	039 102	☎
DN 050	2	039 104	039 104.1
DN 065	2 ^{1/2}	039 105	☎
DN 080	3	039 106	039 106.1
DN 100	4	039 107	☎





HYGIENIC FITTINGS

Sanitary Couplings *Page 68*

Sanitary Valves *Page 84*

Sanitary Couplings

Stainless steel sanitary couplings for screw pipe connections and for expanding and welding are made for use of the transfer of food, beverage, chemical or pharmaceutical particles in food and chemical industry. The couplings, split clamps and crimping ferrules are designed and produced based on DIN 11851, French Macon and SMS 1145, and BS 4825 / DIN 32676 / ISO 2852 for Tri-Clamp connection types.

Male couplings with (RD) thread and female coupling with cone head (liner) are compressed with food-grade sealing material in between and closed by a round screw-on nut.



Hose end types are made for a) butt welding (BW) long and short versions, with and without double internal grooves, and b) for coupling assembly with DIN bolted clamps to EN 14420-3. Dust plugs are available with (RD) thread and cone trimming shapes.

Inner tube **ROUGHNESS**, per DIN 11851 for instance, is made to $Ra \leq 0.8 \mu\text{m}$; outer tube finish to $Ra \leq 1.6 \mu\text{m}$ as on highest-precision machines followed by ultrasonic cleaning process.

Stainless steel AISI 304 (1.4301), AISI 316 (1.4401) and AISI 316L (1.4404) bar stock are sourced and controlled throughout production. Final products are double confirmed using spectrum analyzer before inventory. We are using a handheld Olympus Innov-X Alloys and **METALS ANALYZER** that identifies alloy grades of esp. stainless steel and copper alloys in seconds. With its in-built material database the result is automatically made and instantly read so that we are able to approve the quality beyond eyes right before shipping.



DIN 11851 Female Liner × Smooth Hose Tail



Sanitary Couplings

DIN Female Liner by Smooth Hose Shank to EN 14420-2
DIN 11851

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301),
and AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with
EN 14420-2 are recommended for clamping with bolt
safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	Ø mm	ØA mm	ØB mm	L mm	AISI 304	AISI 316L
DN 010	3/8	22.5	7.5	10.2	59	210 010.23	210 010.24
DN 015	1/2	28.5	10	13.2	60	210 011.23	210 011.24
DN 020	3/4	36.5	15	19.2	61	210 012.23	210 012.24
DN 025	1	44	21	25.2	64.5	210 013.23	210 013.24
DN 032	1 ^{1/4}	50	28	32.2	67	210 014.23	210 014.24
DN 040	1 ^{1/2}	56	33.5	38.2	68	210 015.23	210 015.24
DN 050	2	68.5	45.8	50.2	79	210 016.23	210 016.24
DN 065	2 ^{1/2}	86	58	63.2	96	210 017.23	210 017.24
DN 065	2 ^{1/2}	86	58	65.2	96	210 022.23	210 022.24
DN 080	3	100	70.3	75.2	105	210 018.23	210 018.24
DN 100	4	121	94	100.3	145.5	210 019.23	210 019.24
DN 125	5	-	-	-	-	210 020.23	210 020.24
DN 150	6	-	-	-	-	210 021.23	210 021.24

DIN 11851 Female Liner × Serrated Hose Tail



Sanitary Couplings

DIN Female Liner by Serrated Hose Shank to EN 14420-2
DIN 11851

Standard Materials

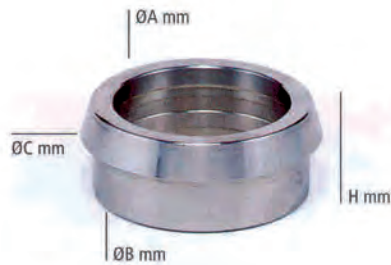
Standard material stainless steel grade AISI 304 (1.4301),
and AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with
EN 14420-2 are recommended for clamping with bolt
safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Size inch	Ø mm	ØA mm	ØB mm	L mm	AISI 304	AISI 316L
DN 010	3/8	22.5	7.5	10.2	59	210 010.25	210 010.26
DN 015	1/2	28.5	10	13.2	60	210 011.25	210 011.26
DN 020	3/4	36.5	15	19.5	61	210 012.25	210 012.26
DN 025	1	44	21	25.2	64.5	210 013.25	210 013.26
DN 032	1 ^{1/4}	50	28	32.2	67	210 014.25	210 014.26
DN 040	1 ^{1/2}	56	33.5	38	68	210 015.25	210 015.26
DN 050	2	68.5	45.8	51	79	210 016.25	210 016.26
DN 065	2 ^{1/2}	86	58	63.5	102	210 017.25	210 017.26
DN 080	3	100	70.3	76.1	120	210 018.25	210 018.26
DN 100	4	121	94	101.6	143	210 019.25	210 019.26
DN 125	5	-	-	-	-	210 020.25	210 020.26
DN 150	6	-	-	-	-	210 021.25	210 021.26

DIN 11851 Female Liner with and without internal groove, double



Sanitary Couplings

DIN Female Liner
DIN 11851 DIN-14

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301), and AISI 316L (1.4404)

Size	Inch	ØB mm	ØC mm	ØA mm	H mm	AISI 304	AISI 316L
DN 010	3/8	15	22.5	10	17	210 010.2	210 010.21
DN 015	1/2	21	28.5	16	17	210 011.2	210 011.21
DN 020	3/4	25	36.5	20	18	210 012.2	210 012.21
DN 025	1	31	44	26	22	210 013.2	210 013.21
DN 032	1 ^{1/4}	37	50	32	25	210 014.2	210 014.21
DN 040	1 ^{1/2}	43	56	38	26	210 015.2	210 015.21
DN 050	2	55	68.5	50	28	210 016.2	210 016.21
DN 065	2 ^{1/2}	72	86	66	32	210 017.2	210 017.21
DN 080	3	87	100	81	37	210 018.2	210 018.21
DN 100	4	106	121	100	44	210 019.2	210 019.21
DN 125	5	132	150	125	34	210 020.2	210 020.21
DN 150	6	157	176	150	37	210 021.2	210 021.21
DN 010	3/8	13	22.5	10	17	☞	210 010.22
DN 015	1/2	19	28.5	16	17	☞	210 011.22
DN 020	3/4	23	36.5	20	18	☞	210 012.22
DN 025	1	29	44	26	22	☞	210 013.22
DN 032	1 ^{1/4}	35	50	32	25	☞	210 014.22
DN 040	1 ^{1/2}	41	56	38	26	☞	210 015.22
DN 050	2	53	68.5	50	28	☞	210 016.22
DN 065	2 ^{1/2}	70	86	66	32	☞	210 017.22
DN 080	3	85	100	81	37	☞	210 018.22
DN 100	4	104	121	100	44	☞	210 019.22
DN 125	5	129	150	125	34	☞	210 020.22
DN 150	6	154	176	150	37	☞	210 021.22

DIN 11851 Male Thread × Smooth Hose Tail



Sanitary Couplings

DIN Male Thread by Smooth Hose Shank to EN 14420-2
DIN 11851

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301), and AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	Thread	ØA mm	ØB mm	L mm	AISI 304	AISI 316L
DN 010	3/8	-	7.5	10.2	59	210 010.33	210 010.34
DN 015	1/2	-	10	13.2	60	210 011.33	210 011.34
DN 020	3/4	-	15	19.2	61	210 012.33	210 012.34
DN 025	1	RD52 × 1/8	21	25.2	64.5	210 013.33	210 013.34
DN 032	1 ^{1/4}	RD58 × 1/8	28	32.2	67	210 014.33	210 014.34
DN 040	1 ^{1/2}	RD65 × 1/8	33.5	38.2	68	210 015.33	210 015.34
DN 050	2	RD78 × 1/8	45.8	50.2	79	210 016.33	210 016.34
DN 065	2 ^{1/2}	RD95 × 1/8	58	63.2	96	210 017.33	210 017.34
DN 065	2 ^{1/2}	RD95 × 1/8	58	65.2	96	210 022.33	210 022.34
DN 080	3	RD110 × 1/8	70.3	75.2	105	210 018.33	210 018.34
DN 100	4	RD130 × 1/8	94	100.3	145.5	210 019.33	210 019.34
DN 125	5	-	-	-	-	210 020.33	210 020.34
DN 150	6	-	-	-	-	210 021.33	210 021.34

Hygienic Fittings

DIN 11851 Male Thread × Serrated Hose Tail



Sanitary Couplings

DIN Male Thread by Serrated Hose Shank to EN 14420-2
DIN 11851

Standard Materials

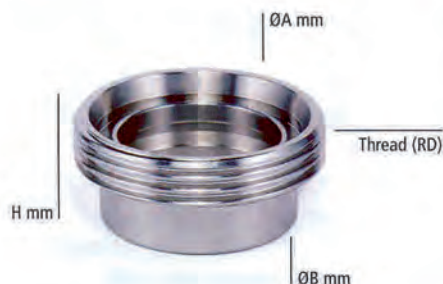
Standard material stainless steel grade AISI 304 (1.4301),
and AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with
EN 14420-2 are recommended for clamping with bolt
safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	Thread	ØA mm	ØB mm	L mm	AISI 304	AISI 316L
DN 010	3/8	-	7.5	10.2	59	210 010.35	210 010.36
DN 015	1/2	-	10	13.2	60	210 011.35	210 011.36
DN 020	3/4	-	15	19.2	61	210 012.35	210 012.36
DN 025	1	RD52 × 1/8	21	25.2	64.5	210 013.35	210 013.36
DN 032	1 ^{1/4}	RD58 × 1/8	28	32.2	67	210 014.35	210 014.36
DN 040	1 ^{1/2}	RD65 × 1/8	33.5	38.2	68	210 015.35	210 015.36
DN 050	2	RD78 × 1/8	45.8	51	79	210 016.35	210 016.36
DN 065	2 ^{1/2}	RD95 × 1/8	58	63.5	102	210 017.35	210 017.36
DN 080	3	RD110 × 1/8	70.3	76.1	120	210 018.35	210 018.36
DN 100	4	RD130 × 1/8	94	101.6	143	210 019.35	210 019.36
DN 125	5	-	-	-	-	210 020.35	210 020.36
DN 150	6	-	-	-	-	210 021.35	210 021.36

DIN 11851 Male Liner with and without internal groove, double



Sanitary Couplings

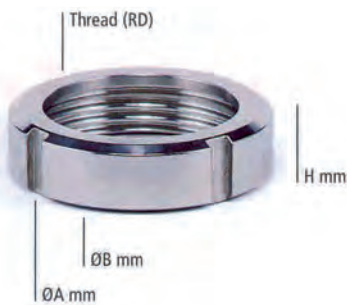
DIN Male Thread Liner
DIN 11851 DIN-15

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301),
and AISI 316L (1.4404)

Size	Inch	ØB mm	Thread	ØA mm	H mm	AISI 304	AISI 316L
DN 010	3/8	15	RD28 × 1/8	10	21	210 010.3	210 010.31
DN 015	1/2	21	RD34 × 1/8	16	21	210 011.3	210 011.31
DN 020	3/4	25	RD44 × 1/6	20	24	210 012.3	210 012.31
DN 025	1	31	RD52 × 1/6	26	29	210 013.3	210 013.31
DN 032	1 ^{1/4}	37	RD58 × 1/6	32	32	210 014.3	210 014.31
DN 040	1 ^{1/2}	43	RD65 × 1/6	38	33	210 015.3	210 015.31
DN 050	2	55	RD78 × 1/6	50	35	210 016.3	210 016.31
DN 065	2 ^{1/2}	72	RD95 × 1/6	66	40	210 017.3	210 017.31
DN 080	3	87	RD110 × 1/4	81	45	210 018.3	210 018.31
DN 100	4	106	RD130 × 1/4	100	54	210 019.3	210 019.31
DN 125	5	132	RD160 × 1/4	125	46	210 020.3	210 020.31
DN 150	6	157	RD190 × 1/4	150	50	210 021.3	210 021.31
DN 010	3/8	13	RD28 × 1/8	10	21	☎	210 010.32
DN 015	1/2	19	RD34 × 1/8	16	21	☎	210 011.32
DN 020	3/4	23	RD44 × 1/6	20	24	☎	210 012.32
DN 025	1	29	RD52 × 1/6	26	29	☎	210 013.32
DN 032	1 ^{1/4}	35	RD58 × 1/6	32	32	☎	210 014.32
DN 040	1 ^{1/2}	41	RD65 × 1/6	38	33	☎	210 015.32
DN 050	2	53	RD78 × 1/6	50	35	☎	210 016.32
DN 065	2 ^{1/2}	70	RD95 × 1/6	66	40	☎	210 017.32
DN 080	3	85	RD110 × 1/4	81	45	☎	210 018.32
DN 100	4	104	RD130 × 1/4	100	54	☎	210 019.32
DN 125	5	129	RD160 × 1/4	125	46	☎	210 020.32
DN 150	6	154	RD190 × 1/4	150	50	☎	210 021.32

DIN 11851 Round Nuts



Sanitary Couplings

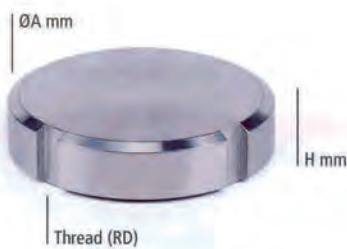
DIN Round Nut with Operating Slots
DIN 11851 DIN-13

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301), and AISI 316L (1.4404)

Size	Inch	Thread	ØA mm	ØB mm	H mm	Slots	AISI 304	AISI 316L
DN 010	3/8	RD28 × 1/8	38	19	18	4	210 010.1	210 010.11
DN 015	1/2	RD34 × 1/8	44	25	18	4	210 011.1	210 011.11
DN 020	3/4	RD44 × 1/6	54	31	20	4	210 012.1	210 012.11
DN 025	1	RD52 × 1/6	63	36	21	4	210 013.1	210 013.11
DN 032	1 ^{1/4}	RD58 × 1/6	70	42	21	4	210 014.1	210 014.11
DN 040	1 ^{1/2}	RD65 × 1/6	78	49	21	4	210 015.1	210 015.11
DN 050	2	RD78 × 1/6	92	62	22	4	210 016.1	210 016.11
DN 065	2 ^{1/2}	RD95 × 1/6	112	80	25	6	210 017.1	210 017.11
DN 080	3	RD110 × 1/4	127	94	29	6	210 018.1	210 018.11
DN 100	4	RD130 × 1/4	148	115	31	6	210 019.1	210 019.11
DN 125	5	RD160 × 1/4	178	138	35	6	210 020.1	210 020.11
DN 150	6	RD190 × 1/4	210	164	40	6	210 021.1	210 021.11

DIN 11851 Blank Nuts



Sanitary Couplings

DIN Blank Nut with Operating Slots
DIN 11851

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301)

Size	Inch	ØA mm	Thread	H mm	Slots	AISI 304
DN 010	3/8	38	RD28 × 1/8	18	4	210 050
DN 015	1/2	44	RD34 × 1/8	18	4	210 051
DN 020	3/4	54	RD44 × 1/6	20	4	210 052
DN 025	1	63	RD52 × 1/6	21	4	210 053
DN 032	1 ^{1/4}	70	RD58 × 1/6	21	4	210 054
DN 040	1 ^{1/2}	78	RD65 × 1/6	21	4	210 055
DN 050	2	92	RD78 × 1/6	22	4	210 056
DN 065	2 ^{1/2}	112	RD95 × 1/6	25	6	210 057
DN 080	3	127	RD110 × 1/4	29	6	210 058
DN 100	4	148	RD130 × 1/4	31	6	210 059

DIN 11851 Blank Nuts with Holding Pin



Sanitary Couplings

DIN Blank Nut with Operating Slots and Holding Pin Attached On Top
DIN 11851

Standard Materials

Standard material stainless steel grade AISI 304(1.4301), and AISI 316L (1.4404)

Size	Inch	ØA mm	Thread	H mm	Slots	AISI 304	AISI 316L
DN 010	3/8	38	RD28 × 1/8	25	4	210 030	210 030.1
DN 015	1/2	44	RD34 × 1/8	25	4	210 031	210 031.1
DN 020	3/4	54	RD44 × 1/6	27	4	210 032	210 032.1
DN 025	1	63	RD52 × 1/6	28	4	210 033	210 033.1
DN 032	1 ^{1/4}	70	RD58 × 1/6	28	4	210 034	210 034.1
DN 040	1 ^{1/2}	78	RD65 × 1/6	28	4	210 035	210 035.1
DN 050	2	92	RD78 × 1/6	29	4	210 036	210 036.1
DN 065	2 ^{1/2}	112	RD95 × 1/6	32	6	210 037	210 037.1
DN 080	3	127	RD110 × 1/4	36	6	210 038	210 038.1
DN 100	4	148	RD130 × 1/4	38	6	210 039	210 039.1
DN 125	5	178	RD160 × 1/4	42	6	210 040	☞
DN 150	6	210	RD190 × 1/4	47	6	210 041	☞

DIN 11851 Male Plugs



Sanitary Couplings

DIN Male Thread Plug
DIN 11851

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301),
and AISI 316L (1.4404)

Size	Inch	ØA mm	Thread	ØB mm	H mm	AISI 304	AISI 316L
DN 015	1/2	25	RD34 × 1/8	22	22	210 071	210 071.1
DN 020	3/4	25	RD44 × 1/6	22	24	210 072	210 073.1
DN 025	1	34	RD52 × 1/6	27	24	210 073	210 073.1
DN 032	1 ^{1/4}	34	RD58 × 1/6	27	24	210 074	210 074.1
DN 040	1 ^{1/2}	34	RD65 × 1/6	27	24	210 075	210 075.1
DN 050	2	34	RD78 × 1/6	27	24	210 076	210 076.1
DN 065	2 ^{1/2}	34	RD95 × 1/6	27	26	210 077	210 077.1
DN 080	3	34	RD110 × 1/4	27	30	210 079	210 079.1
DN 100	4	34	RD130 × 1/4	27	30	210 080	210 080.1
DN 125	5	44	RD160 × 1/4	37	34	210 081	☎
DN 150	6	44	RD190 × 1/4	37	38	210 082	☎

DIN 11851 Swage Ferrules



Spare Parts

U Shape Gaskets Fitting in Sanitary Union Couplings
DIN 11851

Standard Materials

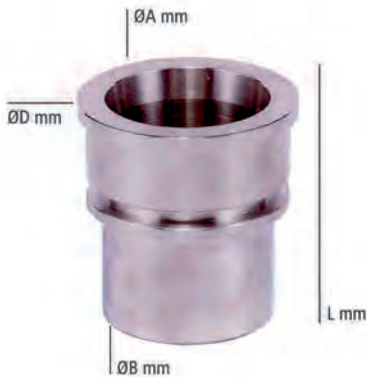
3 basic materials transparent, blue, black and
white Silicone, NBR and EPDM

Working Temp.

NBR -10~80°C / EPDM -20~130°C / Silicone -20~180°C

Size	Ø mm	P mm	S mm	Silicone	EPDM	NBR
DN 010	26	3.5	3.5	210 010.4	210 010.42	210 010.41
DN 015	35	5.5	5.5	210 011.4	210 011.42	210 011.41
DN 020	40	6.4	6.4	210 012.4	210 012.42	210 012.41
DN 025	50	6.4	6.4	210 013.4	210 013.42	210 013.41
DN 032	56	6.4	6.4	210 014.4	210 014.42	210 014.41
DN 040	67	6.4	6.4	210 015.4	210 015.42	210 015.41
DN 050	80	6.4	6.4	210 016.4	210 016.42	210 016.41
DN 065	95	6.4	6.4	210 017.4	210 017.42	210 017.41
DN 080	124	6.4	6.4	210 018.4	210 018.42	210 018.41
DN 100	151	6.4	6.4	210 019.4	210 019.42	210 019.41
DN 125	180	6.4	6.4	210 020.4	210 020.42	210 020.41
DN 150	236	9	9	210 021.4	210 021.42	210 021.41

SMS 1145 Female Liner × Smooth Hose Tail



Sanitary Couplings SMS Female Liner by Smooth Hose Shank to EN 14420-2 SMS 1145

Standard Materials Standard material stainless steel grade AISI 304 (1.4301), and AISI 316L (1.4404)

Hose Clamps Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	ØD mm	ØA mm	ØB mm	L mm	AISI 316L	AISI 304
DN 025	1	35.5	21	25	61	202 011.24	☑
DN 032	1 ^{1/4}	43.5	27.2	32.2	65	202 013.24	☑
DN 038	1 ^{1/2}	55	32.8	38	67	202 014.24	☑
DN 051	2	65	45.8	51	75	202 015.24	☑
DN 063.5	2 ^{1/2}	80	58.3	63.5	98.7	202 016.24	202 012.29
DN 063.5	2 ^{1/2}	80	58.3	65	98.7	202 017.24	☑
DN 076	3	93	70.3	76.1	112.3	202 018.24	☑
DN 080	3	93	70.3	80	112.3	202 019.24	☑
DN 101.6	4	118	94.5	101.6	127	202 021.24	☑
DN 104	4	118	94.5	104	127	202 020.24	☑

SMS 1145 Female Liner × Serrated Hose Tail



Sanitary Couplings SMS Female Liner by Serrated Hose Shank to EN 14420-2 SMS 1145

Standard Materials Standard material stainless steel grade AISI 304 (1.4301), and AISI 316L (1.4404)

Hose Clamps Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	ØD mm	ØA mm	ØB mm	L mm	AISI 316L	AISI 304
DN 025	1	35.5	15	19.4	61.5	202 011.27	☑
DN 025	1	35.5	21	25	61	202 011.23	☑
DN 027	1	35.5	22.5	27	51.7	202 012.23	202 012.29
DN 032	1 ^{1/4}	43.5	27.2	32.2	65	202 013.23	☑
DN 038	1 ^{1/2}	55	32.8	38	67	202 014.23	☑
DN 051	2	65	32.8	38	66	202 015.27	☑
DN 051	2	65	45.8	51	75	202 015.23	☑
DN 63.5	2 ^{1/2}	80	45.8	51	80	202 016.27	☑
DN 63.5	2 ^{1/2}	80	58.3	63.5	98.7	202 016.23	☑
DN 076	3	93	58.3	63.5	98.7	202 018.27	☑
DN 076	3	93	68.5	70	99.5	202 018.28	☑
DN 076	3	93	70.3	76.1	112.3	202 018.23	☑
DN 100	4	118	94.5	100.8	127	202 020.23	☑
DN 101.6	4	118	94.5	101.6	127	202 021.23	☑

SMS 1145 Female Liner



SMS 1145 Male Thread × Smooth Hose Tail



SMS 1145 Male Thread × Serrated Hose Tail



Sanitary Couplings

SMS Female Liner
SMS 1145

Standard Materials

Standard material stainless steel grade AISI 316L (1.4404)

Size	Inch	ØD mm	ØA mm	ØB mm	L mm	AISI 316L
DN 025	1	35.5	22.5	25	15	202 011.21
DN 032	1 ^{1/4}	43.5	29.5	32	15	202 013.21
DN 038	1 ^{1/2}	55	35.5	38	20	202 014.21
DN 051	2	65	48.5	51	20	202 015.21
DN 63.5	2 ^{1/2}	80	60.5	63.5	24	202 016.21
DN 076	3	93	72.9	76.1	24	202 018.21
DN 101.6	4	118	97.6	101.6	30	202 021.21
DN 104	4	118	97.6	104	30	202 020.21

Sanitary Couplings

SMS Male Thread by Smooth Hose Shank to EN 14420-2
SMS 1145

Standard Materials

Standard material stainless steel grade AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	Thread	ØA mm	ØB mm	L mm	AISI 316L
DN 025	1	RD40 × 1/6	21	25	61.5	202 011.34
DN 032	1 ^{1/4}	RD48 × 1/6	27.2	32.2	64.5	202 013.34
DN 038	1 ^{1/2}	RD60 × 1/6	32.8	38	65	202 014.34
DN 051	2	RD70 × 1/6	45.8	51	74	202 015.34
DN 063	2 ^{1/2}	RD85 × 1/6	58.3	63.5	96.8	202 016.34
DN 065	2 ^{1/2}	RD85 × 1/6	58.3	65	96.8	202 017.34
DN 076	3	RD98 × 1/6	70.3	76.1	110.3	202 018.34
DN 080	3	RD98 × 1/6	70.3	80	110.3	202 019.34
DN 101.6	4	RD125 × 1/4	94.5	101.6	126.5	202 021.34
DN 104	4	RD132 × 1/6	94.5	101.6	126.5	202 020.34

Sanitary Couplings

SMS Male Thread by Serrated Hose Shank to EN 14420-2
SMS 1145

Standard Materials

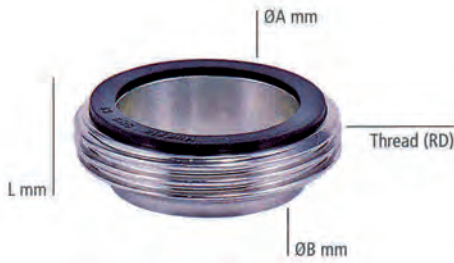
Standard material stainless steel grade AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	Thread	ØA mm	ØB mm	L mm	AISI 316L
DN 025	1	RD40 × 1/6	21	25	61.5	202 011.33
DN 032	1 ^{1/4}	RD48 × 1/6	27.2	32.2	64.5	202 013.33
DN 038	1 ^{1/2}	RD60 × 1/6	32.8	38	65	202 014.33
DN 051	2	RD70 × 1/6	45.8	51	74	202 015.33
DN 063	2 ^{1/2}	RD85 × 1/6	58.3	63.5	96.8	202 016.33
DN 076	3	RD98 × 1/6	70.3	76.1	110.3	202 018.33
DN 101.6	4	RD125 × 1/4	94.5	101.6	126.5	202 021.33
DN 104	4	RD132 × 1/4	94.5	101.6	126.5	202 020.33

SMS 1145 Male Liner



Sanitary Couplings

SMS Male Thread Liner
SMS 1145

Standard Materials

Standard material stainless steel grade AISI 316L (1.4404)

Size	Inch	Thread	ØA mm	ØB mm	L mm	AISI 316L
DN 025	1	RD40 × 1/6	22.5	25	19	202 011.31
DN 032	1 ^{1/4}	RD48 × 1/6	29.5	32	19	202 013.31
DN 038	1 ^{1/2}	RD60 × 1/6	35.5	38	23	202 014.31
DN 051	2	RD70 × 1/6	48.5	51	23	202 015.31
DN 63.5	2 ^{1/2}	RD85 × 1/6	60.5	63.5	27	202 016.31
DN 076	3	RD98 × 1/6	72.9	76.1	27	202 018.31
DN 101.6	4	RD125 × 1/4	97.6	101.6	30	202 021.31
DN 104	4	RD132 × 1/6	97.6	104	30	202 020.31

SMS 1145 Round Nuts



Sanitary Couplings

Round Nuts with Operating Slots
SMS 1145

Standard Materials

Standard material stainless steel grade AISI 304(1.4301)

Size	Inch	Thread	ØA mm	ØB mm	H mm	Slots	AISI 304
DN 025	1	RD40 × 1/6	51	32	20	6	202 011.1
DN 032	1 ^{1/4}	RD48 × 1/6	60	40.5	22	6	202 013.1
DN 038	1 ^{1/2}	RD60 × 1/6	74	48	25	6	202 014.1
DN 051	2	RD70 × 1/6	84	61	26	6	202 015.1
DN 063	2 ^{1/2}	RD85 × 1/6	100	74	30	6	202 016.1
DN 076	3	RD98 × 1/6	114	87	32	6	202 018.1
DN 101.6	4	RD125 × 1/4	140	113	32	6	202 021.1
DN 104	4	RD132 × 1/6	154	117	45	6	202 020.1

Tri Clamp Coupling × Smooth Hose Tail



Sanitary Couplings

Tri-Clamp Female Liner by Smooth Hose Shank to DIN EN 14420-2

Standard Materials

Standard material stainless steel grade AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	ØA mm	ØB mm	L mm	AISI 316L
DN 25.4	1	50.5	25.4	48.7	204 035
DN 32.4	1 ^{1/4}	50.5	32.4	64	204 037
DN 38.4	1 ^{1/2}	50.5	38.4	64	204 038
DN 50.4	2	64	50.4	75.2	204 045
DN 63.4	2 ^{1/2}	77.5	63.4	86	204 055
DN 75.4	3	91	75.4	89	204 065
DN 80.4	3	106	80.4	85	204 076
DN 100.3	4	119	100.3	130	204 077
DN 101.6	4	119	101.6	130	204 077.1

Tri Clamp Coupling × Serrated Hose Tail



Sanitary Couplings

Tri-Clamp Female Liner by Serrated Hose Shank to DIN EN 14420-2

Standard Materials

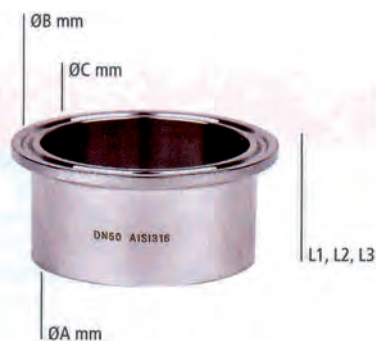
Standard material stainless steel grade AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	ØB mm	ØA mm	L mm	AISI 316L
DN 10 / 25	3/8	10	25.2	48	204 111
DN 12 / 25	1/2	12	25.2	48	204 112
DN 16 / 25	5/8	16	25.2	48	204 113
DN 19 / 25	3/4	19.2	25.2	48	204 114
DN 10 / 34	3/8	10	34	48.8	204 121
DN 12 / 34	1/2	12	34	48.8	204 122
DN 16 / 34	5/8	16	34	48.8	204 123
DN 19 / 34	3/4	19.2	34	48.8	204 124
DN 25 / 34	1	25	34	48.8	204 125
DN 10 / 50	3/8	10	50.5	48.8	204 131
DN 12 / 50	1/2	12	50.5	48.8	204 132
DN 16 / 50	5/8	16	50.5	48.8	204 133
DN 19 / 50	3/4	19.2	50.5	48.8	204 134
DN 25 / 50	1	25	50.5	48.8	204 135
DN 27 / 50	1	27	50.5	48.7	204 136
DN 32 / 50	1 ^{1/4}	32.4	50.5	64	204 137
DN 39 / 50	1 ^{1/2}	39	50.5	64	204 138
DN 39 / 64	2	39	64	60	204 144
DN 51 / 64	2	51	64	75.2	204 145
DN 63 / 77	2 ^{1/2}	63.5	77.5	90.5	204 154
DN 64 / 77	2 ^{1/2}	64	77.5	86	204 155.1
DN 65 / 77	2 ^{1/2}	65	77.5	86	204 155
DN 76 / 91	3	76	91	89	204 165.1
DN 78 / 91	3	78	91	89	204 165
DN 100 / 119	4	100.3	119	130	204 166
DN 101 / 119	4	101.6	119	130	204 166.1

Tri Clamp Welding Coupling



Sanitary Couplings

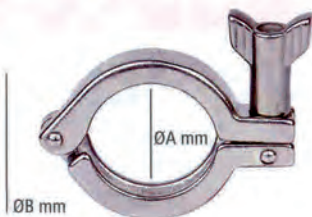
Tri-Clamp Welding Coupling to Standards DIN, SMS / 3A and ISO

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301)

Size inch	Standard	ØB mm	ØC mm	ØA mm	L1 mm	L2 mm	L3 mm
3/8	DIN	12	34	9	21.5	28.6	-
1/2	DIN	18	34	15	21.5	28.6	-
3/4	DIN	22	34	19	21.5	28.6	-
1	DIN	28	50.5	25	21.5	28.6	-
1 ^{1/4}	DIN	34	50.5	31	21.5	28.6	-
1 ^{1/2}	DIN	40	50.5	37	21.5	28.6	-
2	DIN	52	64	49	21.5	28.6	-
2 ^{1/2}	DIN	70	91	66	21.5	28.6	-
3	DIN	85	106	81	21.5	28.6	-
4	DIN	104	119	100	21.5	28.6	-
5	DIN	129	155	125	21.5	28.6	-
6	DIN	154	183	150	21.5	28.6	-
3/8	SMS / 3A	6.35	25.2	3.9	12.7	21.5	28.6
1/2	SMS / 3A	12.7	25.2	9.7	12.7	21.5	28.6
3/4	SMS / 3A	19.1	25.2	16	12.7	21.5	28.6
1	SMS / 3A	25	50.5	22.5	12.7	21.5	28.6
1 ^{1/4}	SMS / 3A	31.8	50.5	28.5	12.7	21.5	28.6
1 ^{1/2}	SMS / 3A	38.1	50.5	35.5	12.7	21.5	28.6
2	SMS / 3A	51	64	48.5	12.7	21.5	28.6
2 ^{1/2}	SMS / 3A	63.5	77.5	60.5	12.7	21.5	28.6
3	SMS / 3A	76.1	91	72.9	12.7	21.5	28.6
4	SMS / 3A	104	119	100	-	21.5	28.6
6	SMS / 3A	152.5	166.9	146.9	-	21.5	28.6
3/8	ISO	17.5	34	14	21.5	28.6	-
1/2	ISO	21.6	34	18.1	21.5	28.6	-
3/4	ISO	26.9	50.5	23.7	21.5	28.6	-
1	ISO	33.7	50.5	30.5	21.5	28.6	-
1 ^{1/4}	ISO	42.4	50.5	39.2	21.5	28.6	-
1 ^{1/2}	ISO	48.3	64	45.1	21.5	28.6	-
2	ISO	60.3	77.5	56.3	21.5	28.6	-
2 ^{1/2}	ISO	76.1	91	72.1	21.5	28.6	-
3	ISO	88.9	106	84.9	21.5	28.6	-
4	ISO	114.3	130	109.1	21.5	28.6	-
5	ISO	139.7	155	133.7	-	28.6	-
6	ISO	168.3	183	162.3	-	28.6	-

Tri Clamp Single Pinned Clamps



Sanitary Couplings

Tri Clamping with Single Joint Pin
For Tri-clamp couplings to 3A, DIN and ISO 1127

Standard Materials

Standard material stainless steel grade AISI 304
(1.4301)

3A inch	Size		ØA mm	ØB mm	AISI 304
	DIN mm	ISO 1127 mm			
1/2	-	-	10	25.4	211 341
3/4	10 - 20	10.2 - 21.3	19	34	211 342
1 ^{1/2}	25 - 40	26.9 - 42.4	38	50.5	211 343
2	50	48.3	51	64	211 344
2 ^{1/2}	63	60.3	63	77.5	211 345
3	65	76.1	76	91	211 346
3 ^{1/2}	80	88.9	89	106	211 347
4	100	-	102	119	211 348
4 ^{1/2}	114	114.3	114	130	211 349
5	125	139.7	125	145	211 350
5 ^{1/2}	133	-	133	155	211 351
6	154	168.3	154	166.7	211 352
6 ^{1/2}	159	-	159	183	211 353
7	168	-	168	191	211 354
8	202	-	202	217	211 355
8 ^{1/2}	219	219.1	219	235	211 356
10	254	202	254	268.5	211 357
11	279	-	279	305	211 358
12	305	-	305	319	211 359

Tri Clamp Double Pinned Clamps



Sanitary Couplings

Tri Clamping with Double Joint Pin
For Tri-clamp couplings to 3A, DIN and ISO 1127

Standard Materials

Standard material stainless steel grade AISI 304
(1.4301)

3A inch	Size		ØA mm	ØB mm	AISI 304
	DIN mm	ISO 1127 mm			
1 ^{1/2}	25 - 40	26.9 - 42.4	38	50.5	211 313
2	50	48.3	51	64	211 314
2 ^{1/2}	63	60.3	63	77.5	211 315
3	65	76.1	76	91	211 316
3 ^{1/2}	80	88.9	89	106	211 317
4	100	-	102	119	211 318
4 ^{1/2}	114	114.3	114	130	211 319
5	125	139.7	125	145	211 320
5 ^{1/2}	133	-	133	155	211 321
6	150	168.3	154	166.7	211 322
6 ^{1/2}	159	-	159	183	211 323
7	168	-	168	191	211 324
8	202	-	202	217.7	211 325
8 ^{1/2}	219	219.1	219	235	211 326

Tri Clamp Triple Pinned Clamps



Sanitary Couplings

Tri Clamping with Triple Joint Pin
For Tri-clamp couplings to 3A, DIN and ISO 1127

Standard Materials

Standard material stainless steel grade AISI 304
(1.4301)

3A inch	Size		ØA mm	ØB mm	AISI 304
	DIN mm	ISO 1127 mm			
1 ^{1/2}	25 - 40	26.9 - 42.4	38	50.5	211 423
2	50	48.3	51	64	211 424
2 ^{1/2}	63	60.3	63	77.5	211 425
3	65	76.1	76	91	211 426
3 ^{1/2}	80	88.9	89	106	211 427
4	100	-	102	119	211 428
4 ^{1/2}	114	114.3	114	130	211 429
5 ^{1/2}	133	-	133	155	211 431
6 ^{1/2}	159	-	159	183	211 433
8 ^{1/2}	219	219.1	219	235	211 436
11	279	-	279	305	211 438

Tri Clamp Heavy Duty Clamps



Sanitary Couplings

Heavy Duty Tri Clamp with Double Screw Bolts
For Tri-clamp couplings to 3A, DIN and ISO 1127

Standard Materials

Standard material stainless steel grade AISI 304
(1.4301)

3A inch	Size		ØA mm	ØB mm	AISI 304
	DIN mm	ISO 1127 mm			
1 ^{1/2}	25 - 40	26.9 - 42.4	38	50.5	211 403
2	50	48.3	51	64	211 404
2 ^{1/2}	63	60.3	63	77.5	211 405
3	65	76.1	76	91	211 406
3 ^{1/2}	80	88.9	89	106	211 407
4	100	-	102	119	211 408
5	125	139.7	125	145	211 410
6	154	168.3	154	166.7	211 412
6 ^{1/2}	159	-	159	183	211 413
8	202	-	202	217.7	211 415
8 ^{1/2}	219	219.1	219	235	211 416

Macon Female Couplings



Sanitary Couplings

Serrated Hose Shank by Female Part of Macon Couplings
MACON

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301)

Size	Inch	ØA mm	ØB mm	L mm	AISI 304
DN 040	1 ^{1/2}	50	40	13	214 104.23
DN 050	2	62.5	50	13	214 105.23
DN 065	2 ^{1/2}	73.5	60	13	214 106.23
DN 070	3	85.5	70	15	214 107.23

Macon Male Couplings



Sanitary Couplings

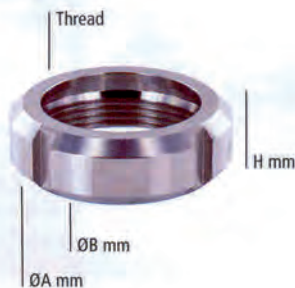
Serrated Hose Shank by Male Part of Macon Couplings
MACON

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301)

Size	Inch	Thread	ØB mm	L mm	AISI 304
DN 040	1 ^{1/2}	M55 × P3.0	40	75	214 104.33
DN 050	2	M67 × P3.0	50	80	214 105.33
DN 065	2 ^{1/2}	M79 × P3.5	60	85	214 106.33
DN 070	3	M90 × P3.5	70	95	214 107.33

Macon Round Nuts



Sanitary Couplings

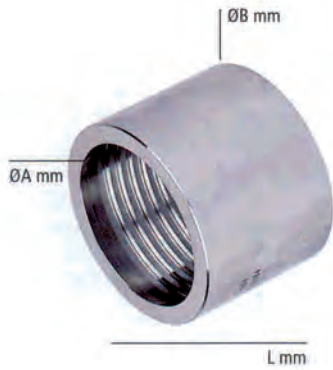
Macon Round Nut with Operating Slots
MACON

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301)

Size	Inch	Thread	ØA mm	ØB mm	H mm	AISI 304
DN 040	1 ^{1/2}	M55 × P3.0	47	47	24	214 104.1
DN 050	2	M67 × P3.0	57	57	24	214 105.1
DN 065	2 ^{1/2}	M79 × P3.5	67	67	24	214 106.1
DN 070	3	M90 × P3.5	77	77	24	214 107.4
DN 070	3	M90 × P4.0	77	77	24	214 107.1

Swage Ferrules



Swage Ferrules

Swage Ferrules with Internal Gripping Profiles for Sanitary Couplings

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301)

Size	ØA mm	ØB mm	L mm	AISI 304
13 × 24.5	19.4	24.5	34	211 011
15 × 27.5	21.9	27.5	38	211 012
19 × 32	25.3	32	42.3	211 013.1
19 × 33	26.5	33	41	211 013
25 × 40	31.5	40	32.7	211 014
25 × 39	32.5	39	41	211 015
25 × 42	31.5	42	32.7	211 015.2
25 × 39	32.5	39	41	211 082
25 × 41	32.5	41	41	211 082.1
25 × 41	32.5	41	46	211 082.2
25 × 39	32.5	39	46	211 082.8
25 × 39	32.5	39	44.5	211 082.9
32 × 47	40	47	41	211 083
32 × 53	40	53	41	211 083.1
32 × 53	40	53	46	211 083.2
32 × 47	40	47	46	211 083.8
32 × 47	40	47	45	211 083.9
38 × 54.5	47	54.5	41.5	211 016
38 × 52.5	45.5	52.5	41	211 017
40 × 52.5	45.5	52.5	41	211 084
40 × 55	45.5	55	41	211 084.1
40 × 55	45.5	55	46	211 084.2
40 × 52.5	45.5	52.5	46	211 084.8
40 × 52.5	45.5	52.5	45	211 084.9
50 × 68	59.3	68	41.6	211 018
50 × 67	60	67	55	211 019
M57 × 71.8	M57	71.8	60	211 019.1
50 × 67	60	67	51.5	211 019.2
50 × 67.5	59.7	67.5	51	211 019.3
50 × 73	59.3	73	51.5	211 020
50 × 67	60	67	55	211 085
50 × 71	60	71	55	211 085.1
50 × 67	60	67	55	211 085.5
50 × 67	60	67	54	211 085.9
65 × 79	72	79	57.7	211 021
65 × 83.5	72	83.5	57.7	211 022
65 × 82	73.5	82	65	211 023
M73 × 90	M73	90	100	211 023.1
65 × 79	73.5	79	65	211 023.2
65 × 91	72	91	57.7	211 024
65 × 82	73.5	82	65	211 086
65 × 82	73.5	82	68	211 086.2
65 × 82	73.5	82	74	211 086.8
65 × 82	73.5	80	66.5	211 086.9
65 × 93.5	72.5	93.5	61	211 086.91
65 × 83.5	73.5	83.5	66.5	211 086.92
70 × 85	74	85	62	211 031
70 × 87	80	87	63	211 031.1

Hygienic Fittings

Size	ØA mm	ØB mm	L mm	AISI 304
75 × 96	84.5	96	58.2	211 025
75 × 93.6	84.5	93.6	83	211 026
M84 × 106	M84	106	111.5	211 027
75 × 105	84.5	105	58.2	211 028
75 × 110	84.5	110	58.2	211 029
75 × 93.6	85.5	93.6	83	211 087
75 × 96	85.5	96	83	211 087.1
75 × 93.6	85.5	93.6	87	211 087.2
75 × 96	85.5	96	87	211 087.3
75 × 93.6	85.5	93.6	72	211 087.8
75 × 93.6	85.5	93.6	70.5	211 087.9
75 × 106.5	85	106.5	66	211 087.91
75 × 94.5	85.5	94.5	70.5	211 087.92
100 × 120	113	120	101	211 029
100 × 120	113	120	101	211 089
100 × 123	113	123	101	211 089.1
100 × 123	113	123	103	211 089.2
100 × 120	113	120	103	211 089.8
100 × 120	113	120	104	211 089.9
100 × 135	112	135	70.5	211 089.91
100 × 123	113	123	104	211 089.92

Sanitary Couplings

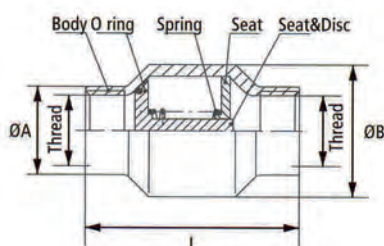
Non-return valves, or Spring check valves are designed to prevent reverse flow. The valve opens once the pressure below the valve seat exceeds the pressure above the valve seat. It closes when the pressure is equalized.

This valve is fully automatic. The pressure of the fluid flowing through the valve holds the plunger in the open position. When the pressure drop across the valve approaches zero, the spring will close the valve. Any reverse flow will firmly seat the plunger. The special angled plunger design and precision open/close operation prevent leaking through the valve in low pressure systems.

Our stainless steel non-return valves are suitable for use with non-dangerous gas and liquids within the pressure limits (PN16). Genuine materials of stainless steel AISI 316L is designed for use in food, pharmaceutical and other industries with sanitary requirements.



Sanitary Non-return Valves by Threads



Sanitary Valves	Non-Return (Spring Check) Valves by Female Thread Connection for Sanitary Transfer
Standard Material	Standard material stainless steel grade AISI 304 (1.4301) and AISI 316 (1.4401 / 1.4408)
O Ring Material	EPDM, FPM and Silicone
Spring, Seat & Disc	Stainless steel AISI 304 and 316
Thread Type	Inside thread BSP-Parallel (ISO 228)
Working Temp.	EPDM -20~130°C / FPM -20~180°C / Silicone -20~180°C
Working Pressure	16 bar

Size inch	ØA mm	ØB mm	L mm	Open PR bar	Stainless AISI 304	Stainless AISI 316
1/4	18	32	66	0.1	242 100	242 130
3/8	22	32	66	0.1	242 101	242 131
1/2	24	32	66	0.1	242 102	242 132
3/4	30	45	72	0.2	242 103	242 133
1	38	55	80	0.2	242 104	242 134
1 1/4	46	70	105	0.3	242 105	242 135
1 1/2	51	76	115	0.4	242 106	242 136
2	64	89	125	0.45	242 107	242 137
2 1/2	80	109	145	0.7	242 108	242 138
3	93	132	162.5	1	242 109	242 139
4	120	168	189.5	1	242 110	242 110



EN DIN STANDARD

Hose Tails *Page 89*

Quick Couplings *Page 93*

TW Couplings *Page 98*

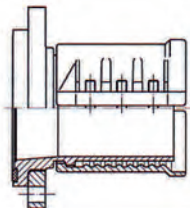
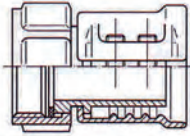
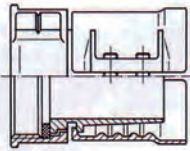
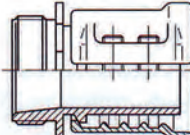
Flange Couplings *Page 102*

Sanitary Fittings *Page 108*

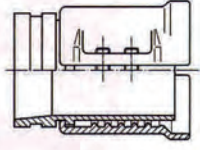
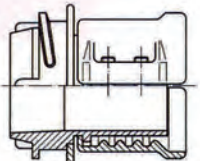
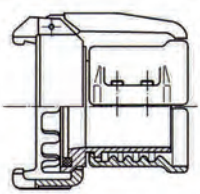
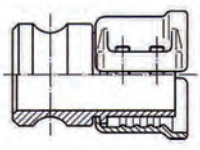
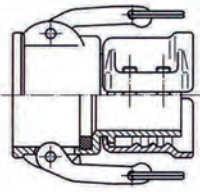
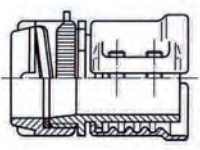
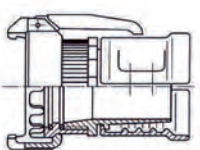
The assembly of quick disconnect couplings and screw-type hose fittings DN 20 to DN 200 is widely used in hose connection for fuelling and pipeline hose assemblies in the field of supply and disposal.

Quick disconnection fittings incorporate DIN EN standard types as — TW tank truck couplings MK-hose and VK-hose to DIN EN 14420-6, Cam locking couplings to DIN EN 14420-7, Guillemain type of quick joint couplings to DIN EN 14420-8 and Storz form of couplings. Screw-type hose fittings are referred to as LNC fittings per DIN EN 14420-5 by internal and external BSP pipe threads. Combined with flange slip-ons, the whole hose coupling program features the

HOSE TAIL SUITABILITY for coupling assembly with bolt-type safety clamps according to DIN EN 14420-3.

ID code	Figure	Standard		Comment
		No.	Title	
A5		VG 85289	Hose fittings with flange, DN 150, PN up to 16	Hose fittings for replenishment at sea. The flange connector dimensions are in accordance with STANAG 1084; they fit together with flanges PN 16 and ASA 150 PSI 6 inch.
C1		VG 95950-2	Hose fittings with Whitworth pipe thread — Part 2: M-hose fittings, DN 20 to DN 80, PN up to 16	Hose fittings for fuel, lubricants and water replenishment of the Bundeswehr (German Armed Forces).
D5 D6		VG 85281-1	Hose fittings with thread — Part 1: Fittings with female thread, DN 65, PN up to 16	Hose fittings for replenishment at sea. Connecting hose assemblies with each other requires double nipples according to VG 85281-2. Fittings with righthand thread for hose assemblies for fuels and lubricants, fittings with left-hand thread for hose assemblies for fresh water.
F1		VG 95950-1	Hose fittings with Whitworth-pipe thread — Part 1: V-hose fittings, DN 20 to DN 150, PN up to 16	Hose fittings for fuel and water replenishment of the Bundeswehr (German Armed Forces).

EN DIN Standard

J2		VG 95954	Hose fittings with grooved end configuration, DN 100 to DN 200, PN up to 25	Hose fittings for pipelines and pipeline equipment.
J3 J7		VG 95952-1	Hose fittings with couplings for tank trucks — Part 1: VK-hose fittings, DN 40 to DN 80, PN up to 10	Hose fittings for supplies/fuel and water replenishment. Hose fittings with ID code J7 and J8 are additionally fitted with dummy couplings and fastening chains. These hose fittings have one-piece hose tails. For hose fittings with screw-on couplings for tank trucks.
J4 J8		VG 95952-2	Hose fittings with couplings for tank trucks - Part 2: MK-hose fittings, DN 40 to DN 80, PN up to 10	
J9		DIN EN 14420-1	Hose fittings with clamp units — Part 1: Requirements, survey, designation and testing	Connector-end of the hose fittings according to MIL-C-27487 or DIN EN 14420-7. Besides DN 50 standardised hose fittings, this connector type is also used with other DN for transportable fuelling facilities.
J0		DIN EN 14420-7	Hose fittings with clamp units — Part 7: Cam locking couplings	
P3 P7		DIN EN 14420-6	Hose fittings with clamp units — Part 6: TW tank truck couplings	Hose fittings with tank truck couplings according to DIN EN 14420-6 screwed onto fittings in accordance with 3.1.4. Hose fittings for replenishment of fuel and water, primarily in hose assemblies for tank trucks and handling equipment and discharging refuelling and discharging equipment. Hose fittings with ID code P7 and P8 are additionally fitted with dummy couplings and fastening chains.
		VG 95950-1	Hose fittings with Whitworth-pipe thread — Part 1: V-hose fittings, DN 20 to DN 150, PN up to 16	
P4 P8		DIN EN 14420-6	Hose fittings with clamp units — Part 6: TW tank truck couplings	
		VG 95950-1	Hose fittings with Whitworth-pipe thread — Part 1: V-hose fittings, DN 20 to DN 150, PN up to 16	

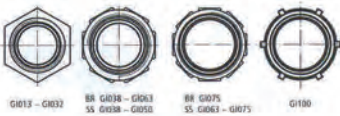
Note: For more information please refer to standard VG 85328-1.



LNC Female Screw × Smooth Hose Tail (GI)



Nut shapes differently for sizes



Recommended clamping with DIN safety clamps, refer to pages 192-193.



Also with superior clamping, refer to Hose Clamps on page 200.

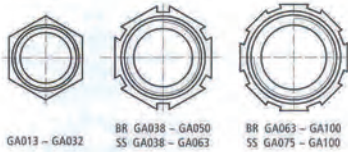
LNC Couplings	Smooth Hose Shank to DIN EN 14420-2 (formally DIN 2817) by Female Pipe Thread (GI) DIN EN 14420-5
Standard Materials	2 optional materials brass alloy and stainless steel
Sealing Materials	Standard brown PU thread seal applied for brass couplings, and white PTFE for SS couplings
Thread Types	Standard BSP-Parallel
Hose Clamps	Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size inch	Ø mm	Thread Seal	Core Material	Article Nr.
1/2	13.4	PU	Brass	022 011
3/4	19.4	PU	Brass	022 012
1	25.4	PU	Brass	022 013
1 1/4	32.4	PU	Brass	022 014
1 1/2	32.4	PU	Brass	022 014.4
1 1/2	35	PU	Brass	022 015.4
1 1/2	38.4	PU	Brass	022 015
2	38.4	PU	Brass	022 015.5
2	50.4	PU	Brass	022 016
2 1/2	63.4	PU	Brass	022 017
3	75.4	PU	Brass	022 018
4	100.3	PU	Brass	022 019
1/2	13.4	PTFE	St. steel	022 021
3/4	19.4	PTFE	St. steel	022 022
1	25.4	PTFE	St. steel	022 023
1 1/4	32.4	PTFE	St. steel	022 024
1 1/2	38.4	PTFE	St. steel	022 025
2	50.4	PTFE	St. steel	022 026
2 1/2	63.4	PTFE	St. steel	022 027
3	75.4	PTFE	St. steel	022 028
4	100.3	PTFE	St. steel	022 029

LNC Male Screw × Smooth Hose Tail (GA)



Hex shapes differently for sizes:



Recommended clamping with DIN safety clamps, refer to pages 192~193.



Also with superior clamping, refer to Hose Clamps on page 200.

LNC Couplings

Smooth Hose Shank to DIN EN 14420-2 (formally DIN 2817) by Male Pipe Thread (GA)
DIN EN 14420-5

Standard Materials

2 optional materials brass alloy and stainless steel

Thread Types

Standard BSP-Parallel

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size inch	Ø mm	Core Material	Article Nr.
1/2	13.4	Brass	021 011
3/4	19.4	Brass	021 012
1	19.4	Brass	021 012.7
1	25.4	Brass	021 013
1 ^{1/4}	32.4	Brass	021 014
1 ^{1/2}	35	Brass	021 015.3
1 ^{1/2}	38.4	Brass	021 015
2	38.4	Brass	021 015.2
2	50.4	Brass	021 016
2 ^{1/2}	63.4	Brass	021 017.1
3	75.4	Brass	021 018
3	80.4	Brass	021 020
4	100.3	Brass	021 019
1/2	13.4	St. steel	021 021
3/4	19.4	St. steel	021 022
1	25.4	St. steel	021 023
1 ^{1/4}	32.4	St. steel	021 024
1 ^{1/2}	38.4	St. steel	021 025
2	38.4	St. steel	021 025.1
2	50.4	St. steel	021 026
2 ^{1/2}	63.4	St. steel	021 027
3	63.4	St. steel	021 027.1
3	75.4	St. steel	021 028
3	80.4	St. steel	021 030
4	100.3	St. steel	021 029

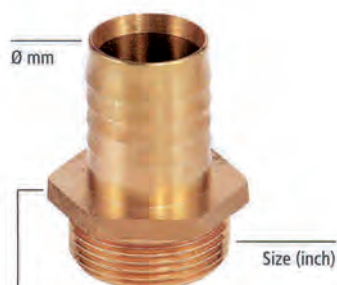
LNC Male Screw × Serrated Hose Tail (GASC)



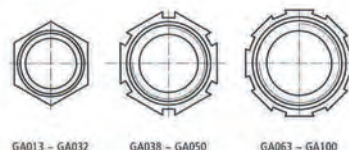
Hex shapes differently for sizes:



LNC Male Screw × Serrated Hose Tail No Collar (GAS)



Hex shapes differently for sizes:



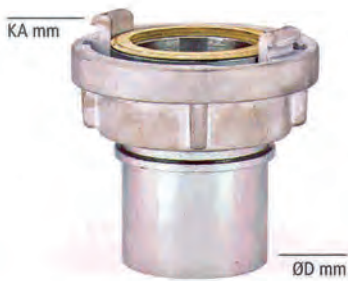
LNC Couplings	Serrated Hose Shank to DIN EN 14420-2 (formally DIN 2817) by Male Pipe Thread (GASC) DIN EN 14420-5
Standard Materials	2 optional materials brass and aluminum alloys
Thread Types	Standard BSP-Parallel
Hose Clamps	Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size inch	Ø mm	Core Material	Article Nr.
1/2	13.4	Brass	021 111.2
3/4	19.4	Brass	021 112.2
1	25.4	Brass	021 113.2
1 ^{1/4}	32.4	Brass	021 114.2
1 ^{1/2}	38.4	Brass	021 115.2
2	50.4	Brass	021 116.2
2 ^{1/2}	63.4	Brass	021 117.2
3	75.4	Brass	021 118.2
4	100.3	Brass	021 119.2
1/2	13.4	Aluminum	021 151.2
3/4	19.4	Aluminum	021 152.2
1	25.4	Aluminum	021 153.2
1 ^{1/4}	32.4	Aluminum	021 154.2
1 ^{1/2}	38.4	Aluminum	021 155.2
2	50.4	Aluminum	021 156.2
2 ^{1/2}	63.4	Aluminum	021 157.2
3	75.4	Aluminum	021 158.2
4	100.3	Aluminum	021 159.2

LNC Couplings	Serrated Hose Shank With No Collar by Male Pipe Thread (GAS) DIN EN 14420-5
Standard Materials	2 optional materials brass alloy and stainless steel
Thread Types	Standard BSP-Parallel
Hose Clamps	Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size inch	Ø mm	Core Material	Article Nr.
1/2	13.4	Brass	021 111
3/4	19.4	Brass	021 112
1	25.4	Brass	021 113
1 ^{1/4}	32.4	Brass	021 114
1 ^{1/2}	38.4	Brass	021 115
2	50.4	Brass	021 116
2 ^{1/2}	63.4	Brass	021 117
3	75.4	Brass	021 118
3	80.4	Brass	021 120
4	100.3	Brass	021 119
1/2	13.4	St. steel	021 121
2	50.4	St. steel	021 126
2 ^{1/2}	63.4	St. steel	021 127
3	75.4	St. steel	021 128

Storz Coupling × Hose Tail



DIN Quick Couplings	Hose Shank to DIN EN 14420-2 (formally DIN 2817) by Storz Coupling Head
Standard Materials	Head by forged aluminum alloy, hose tail by casted alloy
Sealing Materials	Standard white NBR for both suction and delivery use
Hose Clamps	Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	KA mm	ØD mm	Tail Type	Core Material	Article Nr.
52-C	66	50.4	Smooth	Aluminum	051 854.18
75-B	89	75.4	Smooth	Aluminum	051 816
100	115	100	Smooth	Aluminum	051 057.9
100-A	133	100	Smooth	Aluminum	051 878

DIN Camlock Adapter × Female Thread



DIN Camlock	DIN Camlock Adapter × Female Thread EN 14420-7 / DIN 2828
Standard Materials	3 basic materials brass, stainless steel and aluminum+T6
Sealing Materials	Standard brown PU thread seal applied for brass couplings, white PTFE for SS couplings and black NBR for aluminum couplings
Thread Types	Standard BSP-Parallel

Size inch	Ø mm	Thread Seal	Core Material	Article Nr.
1/2	23.8	PU	Brass	061 250.18
3/4	32.1	PU	Brass	061 251.18
1	36.7	PU	Brass	061 252.18
1 ^{1/4}	45.5	PU	Brass	061 253.18
1 ^{1/2}	53.4	PU	Brass	061 254.18
2	63.0	PU	Brass	061 255.18
2 ^{1/2}	75.8	PU	Brass	061 256.18
3	91.5	PU	Brass	061 257.18
4	119.5	PU	Brass	061 258.18
3/4	32.1	PTFE	St. steel	061 151.18
1	36.7	PTFE	St. steel	061 152.18
1 ^{1/4}	45.5	PTFE	St. steel	061 153.18
1 ^{1/2}	53.4	PTFE	St. steel	061 154.18
2	63.0	PTFE	St. steel	061 155.18
2 ^{1/2}	75.8	PTFE	St. steel	061 156.18
3	91.5	PTFE	St. steel	061 157.18
4	119.5	PTFE	St. steel	061 158.18
3/4	32.1	NBR	Aluminum	061 051.18
1	36.7	NBR	Aluminum	061 052.18
1 ^{1/4}	45.5	NBR	Aluminum	061 053.18
1 ^{1/2}	53.4	NBR	Aluminum	061 054.18
2	63.0	NBR	Aluminum	061 055.18
2 ^{1/2}	75.8	NBR	Aluminum	061 056.18
3	91.5	NBR	Aluminum	061 057.18
4	119.5	NBR	Aluminum	061 058.18

DIN Camlock Coupler × Female Thread



DIN Camlock	DIN Camlock Coupler × Female Thread EN 14420-7 / DIN 2828
Standard Materials	3 basic materials brass, stainless steel and aluminum+T6
Sealing Materials	NBR gasket applied for all and standard brown PU thread seal for brass couplings, white PTFE for SS and black NBR for aluminum couplings
Thread Types	Standard BSP-Parallel

Size inch	Ø mm	Gasket	Thread Seal	Core Material	Article Nr.
1/2	24.3	NBR	PU	Brass	064 250.18
3/4	32.5	NBR	PU	Brass	064 251.18
1	37.3	NBR	PU	Brass	064 252.18
1 ^{1/4}	46.0	NBR	PU	Brass	064 253.18
1 ^{1/2}	54.0	NBR	PU	Brass	064 254.18
2	63.8	NBR	PU	Brass	064 255.18
2 ^{1/2}	76.5	NBR	PU	Brass	064 256.18
3	92.2	NBR	PU	Brass	064 257.18
4	120.2	NBR	PU	Brass	064 258.18
3/4	32.5	NBR	PTFE	St. steel	064 151.18
1	37.3	NBR	PTFE	St. steel	064 152.18
1 ^{1/4}	46.0	NBR	PTFE	St. steel	064 153.18
1 ^{1/2}	54.0	NBR	PTFE	St. steel	064 154.18
2	63.8	NBR	PTFE	St. steel	064 155.18
2 ^{1/2}	76.5	NBR	PTFE	St. steel	064 156.18
3	92.2	NBR	PTFE	St. steel	064 157.18
4	120.2	NBR	PTFE	St. steel	064 158.18
3/4	32.5	NBR	NBR	Aluminum	064 051.18
1	37.3	NBR	NBR	Aluminum	064 052.18
1 ^{1/4}	46.0	NBR	NBR	Aluminum	064 053.18
1 ^{1/2}	54.0	NBR	NBR	Aluminum	064 054.18
2	63.8	NBR	NBR	Aluminum	064 055.18

DIN Camlock Adapter × Hose Tail



DIN Camlock DIN Camlock Adapter × Smooth / Serrated Hose Shank
EN 14420-7 / DIN 2828, Shank to EN 14420-2 / DIN 2817

Standard Materials 2 optional materials brass and stainless steel

Hose Clamps Smooth and serrated hose shanks complying with
EN 14420-2 are recommended for clamping with bolt
safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size inch	ØA mm	ØD mm	Tail Type	Core Material	Article Nr.
1/2	23.8	13.4	Smooth	Brass	065 250.18
3/4	32.1	19.4	Smooth	Brass	065 251.18
1	36.7	25.4	Smooth	Brass	065 252.18
1 ^{1/4}	45.5	32.4	Smooth	Brass	065 253.18
1 ^{1/2}	53.4	38.4	Smooth	Brass	065 254.18
2 ^{1/2}	75.8	63.4	Smooth	Brass	065 256.18
3/4	32.1	19.4	Smooth	St. steel	065 151.18
1	36.7	25.4	Smooth	St. steel	065 152.18
1 ^{1/4}	45.5	32.4	Smooth	St. steel	065 153.18
1 ^{1/2}	53.4	38.4	Smooth	St. steel	065 154.18
2	63.0	50.4	Smooth	St. steel	065 155.18
2 ^{1/2}	75.8	63.4	Smooth	St. steel	065 156.18
3	91.5	75.4	Smooth	St. steel	065 157.18
4	119.5	100.3	Smooth	St. steel	065 158.18
3/4	32.1	19.4	Serrated	St. steel	065 151.19
1 ^{1/2}	53.4	38.4	Serrated	St. steel	065 154.19
2	63.0	50.4	Serrated	St. steel	065 155.19
3	91.5	75.4	Serrated	St. steel	065 157.19
4	119.5	100.3	Serrated	St. steel	065 158.19

DIN Camlock Coupler × Hose Tail



DIN Camlock	DIN Camlock Coupler × Smooth / Serrated Hose Shank EN 14420-7 / DIN 2828, Shank to EN 14420-2 / DIN 2817
Standard Materials	2 optional materials brass and stainless steel
Sealing Materials	NBR gasket applied for all
Hose Clamps	Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size inch	ØA mm	ØD mm	Tail Type	Core Material	Article Nr.
1/2	24.3	15	Smooth	Brass	063 250.18
3/4	32.5	19.4	Smooth	Brass	063 251.18
1	37.3	25.4	Smooth	Brass	063 252.18
1 1/4	46.0	32.4	Smooth	Brass	063 253.18
1 1/2	54.0	38.4	Smooth	Brass	063 254.18
1 1/2	54.0	38.4	Serrated	Brass	063 254.181
2	63.8	50.4	Smooth	Brass	063 255.18
2 1/2	76.5	63.4	Smooth	Brass	063 256.18
3	92.2	75.4	Smooth	Brass	063 257.18
3/4	32.5	19.4	Smooth	St. steel	063 151.18
1	37.3	25.4	Smooth	St. steel	063 152.18
1 1/4	46.0	32.4	Smooth	St. steel	063 153.18
1 1/2	54.0	38.4	Smooth	St. steel	063 154.18
2	63.8	50.4	Smooth	St. steel	063 155.18
2 1/2	76.5	63.4	Smooth	St. steel	063 156.18
3	92.2	75.4	Smooth	St. steel	063 157.18
4	120.2	100.3	Smooth	St. steel	063 158.18
3/4	32.5	19.4	Serrated	St. steel	063 151.19
1	37.3	25.4	Serrated	St. steel	063 152.19
1 1/4	46.0	32.4	Serrated	St. steel	063 153.19
1 1/2	54.0	38.4	Serrated	St. steel	063 154.19
2	63.8	50.4	Serrated	St. steel	063 155.19
2 1/2	76.5	63.4	Serrated	St. steel	063 156.19
3	92.2	75.4	Serrated	St. steel	063 157.19
4	120.2	100.3	Serrated	St. steel	063 158.19

Guillemin Coupling x Hose Tail



Guillemin Couplings

Guillemin Head by Smooth and Serrated Hose Shank with Safety Collar to DIN EN 14420-2 (formally DIN 2817) DIN EN 14420-8

Standard Materials

3 basic materials aluminum+T6, brass and stainless steel

Sealing Materials

Standard white and black NBR

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	ØB mm	ØF mm	Tail Type	Core Material	Article Nr.
DN 020	26.0	19.5	Smooth	Brass	031 061.18
DN 025	32.0	25.5	Smooth	Brass	031 062.18
DN 032	42.5	32.5	Smooth	Brass	031 063.18
DN 040	55.0	40	Smooth	Brass	031 064.18
DN 050	69.0	50.5	Smooth	Brass	031 065.18
DN 065	84.0	63.5	Smooth	Brass	031 066.18
DN 080	103.0	76	Smooth	Brass	031 067.18
DN 100	123.0	102	Smooth	Brass	031 068.18
DN 020	26.0	19.5	Serrated	St. steel	031 020.18
DN 025	32.0	25.5	Serrated	St. steel	031 021.18
DN 032	42.5	32.5	Serrated	St. steel	031 022.18
DN 040	55.0	38.5	Serrated	St. steel	031 023.18
DN 050	69.0	50.5	Serrated	St. steel	031 024.18
DN 065	84.0	63.5	Serrated	St. steel	031 025.18
DN 080	103.0	75.5	Serrated	St. steel	031 026.18
DN 100	123.0	101.5	Serrated	St. steel	031 027.18
DN 020	26.0	19.5	Serrated	Aluminum	031 110.18
DN 025	32.0	25.5	Serrated	Aluminum	031 111.18
DN 032	42.5	32.5	Serrated	Aluminum	031 112.18
DN 040	55.0	38.5	Serrated	Aluminum	031 113.18
DN 050	69.0	50.5	Serrated	Aluminum	031 114.18
DN 065	84.0	63.5	Serrated	Aluminum	031 115.18
DN 080	103.0	75.5	Serrated	Aluminum	031 116.18
DN 100	123.0	101.5	Serrated	Aluminum	031 117.18



Recommended clamping with DIN safety clamps, refer to pages 188~189.



Also with superior clamping, refer to Hose Clamps from pages 185~197.

TW Couplings MK + VB



Chrome plated carbon steel made spanner is available Ref. 084 122 for a working span \varnothing 90mm ~ \varnothing 155mm.



The claw spanner can be supplied Ref. 011 403 that is fitted in MK 100 of all materials for thread fixing.

TW Couplings Clamping Ring with Lever and Female Thread (MK)
DIN EN 14420-6 / DIN 28450

Standard Materials 2 optional materials brass and stainless steel

Sealing Materials Standard black NBR gasket with NBR thread seal for brass couplings, green CSM with white PTFE for SS

Thread Types Standard BSP-Parallel

Size	Type	Thread inch	Ø mm	Thread Seal	Profiled Gasket	Core Material	Article Nr.
MK 050	TW 1502-5	2	70.5	NBR	NBR	Brass	011 011
MK 080	TW 502-5	3	102	NBR	NBR	Brass	011 012
MK 100	-	4	128	NBR	NBR	Brass	011 013
MK 050	TW 1502-5	2	70.5	PU	CSM	Brass	011 011.6
MK 080	TW 502-5	3	102	PU	CSM	Brass	011 012.6
MK 100	-	4	128	PU	CSM	Brass	011 013.6
MK 050	TW 1502-5	2	70.5	PU	NBR	Brass	011 011.7
MK 080	TW 502-5	3	102	PU	NBR	Brass	011 012.7
MK 100	-	4	128	PU	NBR	Brass	011 013.7
MK 050	TW 1502-5	2	70.5	PTFE	CSM	St. steel	011 021
MK 080	TW 502-5	3	102	PTFE	CSM	St. steel	011 022
MK 100	-	4	128	PTFE	CSM	St. steel	011 023

TW Couplings Male Dust Plug (VB)
DIN EN 14420-6 / DIN 28450

Standard Materials 4 basic materials brass, stainless steel, aluminum+T6, and polypropylene+30% fiberglass (GF)

Attachments Chains can be attached on request

Size	Type	Thread inch	Ø mm	Core Material	Article Nr.
VB 050	TW 1507	2	67	Brass	013 011
VB 080	TW 507	3	100	Brass	013 012
VB 100	-	4	126	Brass	013 013
VB 050	TW 1507	2	67	St. steel	013 021
VB 080	TW 507	3	100	St. steel	013 022
VB 100	-	4	126	St. steel	013 023
VB 050	TW 1507	2	67	Alumimum	013 051
VB 080	TW 507	3	100	Alumimum	013 052
VB 100	-	4	126	Alumimum	013 053
VB 050	TW 1507	2	67	Poly	013 061
VB 080	TW 507	3	100	Poly	013 062
VB 100	-	4	126	Poly	013 063

TW Couplings MK 90° Bend Handle



TW Couplings Clamping Ring with 90° Bend Lever and Female Thread (MK)
DIN EN 14420-6 / DIN 28450

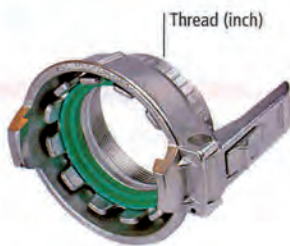
Standard Materials Standard material stainless steel

Sealing Materials Standard green CSM gasket with white PTFE thread seal

Thread Types Standard BSP-Parallel

Size	Type	Thread inch	Thread Seal	Profiled Gasket	Core Material	Article Nr.
MK 100	-	4	PTFE	CSM	St. steel	011 023.5

TW Couplings MK Locking Handle



TW Couplings Clamping Ring with Lockable Lever and Female Thread (MK)
DIN EN 14420-6 / DIN 28450

Standard Materials Standard material stainless steel

Sealing Materials Standard green CSM gasket with white PTFE thread seal

Thread Types Standard BSP-Parallel

Size	Type	Thread inch	Thread Seal	Profiled Gasket	Core Material	Article Nr.
MK 080	TW 502-5	3	PTFE	CSM	St. steel	011 101

TW Couplings VK + MB



TW Couplings Adapter with Female Thread (VK)
DIN EN 14420-6 / DIN 28450

Standard Materials 2 optional materials brass and stainless steel

Sealing Materials Standard brown PU thread seal for brass couplings, and white PTFE for SS couplings

Thread Types Standard BSP-Parallel

Size	Type	Thread inch	Ø mm	Thread Seal	Core Material	Article Nr.
VK 050	-	1 1/2	67	NBR	Brass	012 011.1
VK 050	TW 1501	2	67	NBR	Brass	012 011
VK 080	TW 501	3	100	NBR	Brass	012 012
VK 100	-	4	126	NBR	Brass	012 013
VK 050	TW 1501	2	67	PU	Brass	012 011.6
VK 080	TW 501	3	100	PU	Brass	012 012.6
VK 100	-	4	126	PU	Brass	012 013.6
VK 050	TW 1501	2	67	PTFE	St. steel	012 021
VK 080	TW 501	3	100	PTFE	St. steel	012 022
VK 100	-	4	126	PTFE	St. steel	012 023

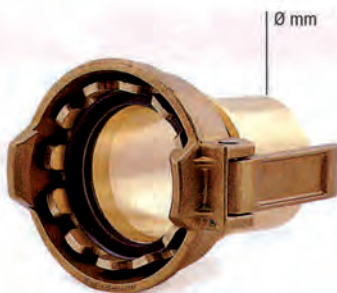
TW Couplings Female Dust Cap (MB)
DIN EN 14420-6 / DIN 28450

Standard Materials 3 basic materials brass, stainless steel and aluminum+T6

Attachments Chains can be attached on request

Size	Type	Thread inch	Ø mm	Flat Gasket	Core Material	Article Nr.
MB 050	TW 1506	2	70.5	NBR	Brass	014 011
MB 080	TW 506	3	102	NBR	Brass	014 012
MB 100	-	4	128	NBR	Brass	014 013
MB 050	TW 1506	2	70.5	CSM	Brass	014 011.1
MB 080	TW 506	3	102	CSM	Brass	014 012.1
MB 100	-	4	128	CSM	Brass	014 013.1
MB 050	TW 1506	2	70.5	CSM	St. steel	014 021
MB 080	TW 506	3	102	CSM	St. steel	014 022
MB 100	-	4	128	CSM	St. steel	014 023
MB 050	TW 1506	2	70.5	NBR	Alumimum	014 051
MB 080	TW 506	3	102	NBR	Alumimum	014 052
MB 100	-	4	128	NBR	Alumimum	014 053

TW Couplings MKS



TW Couplings Hose Shank to DIN EN 14420-2 (formally DIN 2817) by TW Female Coupling Head (MKS)
DIN EN 14420-6 / DIN 28450

Standard Materials 2 optional materials brass and stainless steel

Sealing Materials Standard black NBR for brass couplings, green CSM for stainless steel couplings, FPM available on request

Hose Clamps Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Hose Fitting	Thread inch	Ø mm	Profiled Gasket	Core Material	Article Nr.
MKS 050	50 × 8	2	70.5	NBR	Brass	011 011.9
MKS 080	75 × 8	3	102	NBR	Brass	011 012.9
MKS 050	50 × 8	2	70.5	CSM	St. steel	011 021.9
MKS 080	75 × 8	3	102	CSM	St. steel	011 022.9

TW Couplings VKS



TW Couplings Hose Shank to DIN EN 14420-2 (formally DIN 2817) by TW Male Coupling Head (VKS)
DIN EN 14420-6 / DIN 28450

Standard Materials 2 optional materials brass and stainless steel

Hose Clamps Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Hose Fitting	Thread inch	Ø mm	Core Material	Article Nr.
VKS 050	50 × 8	2	50.4	Brass	012 011.9
VKS 080	75 × 8	3	75.4	Brass	012 012.9
VKS 050	50 × 8	2	50.4	St. steel	012 021.9
VKS 080	75 × 8	3	75.4	St. steel	012 022.9

TW Couplings Profiled Gaskets



Spare Parts Formed Shape Gasket Fitting in TW MK and MKS
DIN EN 14420-6 / DIN 28450

Standard Materials 3 basic materials Black NBR, Green CSM and Black FPM

Working Temp. NBR -10~80°C / CSM -60~204°C / FPM -20~180°C

Size	Inch	Ø mm	T mm	Material	Article Nr.
DN 050	2	61	10	NBR	019 081
DN 050	2	61	10	CSM	019 071
DN 050	2	61	10	FPM	019 061
DN 080	3	91.5	11	NBR	019 082
DN 080	3	91.5	11	CSM	019 072
DN 080	3	91.5	11	FPM	019 062

TW Couplings Flat Gaskets



Spare Parts Formed Shape Gasket Fitting in TW MB
DIN EN 14420-6 / DIN 28450

Standard Materials 2 optional materials Black NBR, Green CSM

Working Temp. NBR -10~80°C / CSM -60~204°C

Size	Inch	Ø mm	T mm	Material	Article Nr.
DN 050	2	61.5	6	NBR	019 051
DN 050	2	61.5	6	CSM	019 041
DN 080	3	92	5	NBR	019 052
DN 080	3	92	5	CSM	019 042

TW Couplings Flat Thread Seals



Spare Parts Flat Shape Thread Seals for TW Couplings

Standard Materials 3 basic materials Black NBR, White PTFE and Brown PU

Working Temp. NBR -30~120°C / PTFE -180~200°C / PU -40~82°C

Size	Inch	Ø mm	T mm	Material	Article Nr.
DN 050	2	60	2	NBR	022 126.3
DN 050	2	60	2	PTFE	022 126.2
DN 050	2	60	2	PU	022 126.1
DN 080	3	88	3	NBR	022 128.3
DN 080	3	88	3	PTFE	022 128.2
DN 080	3	88	3	PU	022 128.1
DN 100	4	114	3	NBR	022 129.3
DN 100	4	114	3	PTFE	022 129.2
DN 100	4	114	3	PU	022 129.1

TW Couplings O-Rings



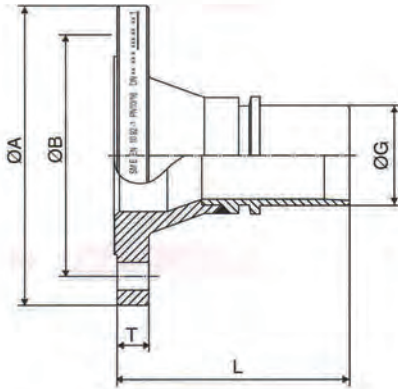
Spare Parts Sealing Rings of O Shape Fitting in TW MK and MB size 4"

Standard Materials 3 basic materials Black NBR, White PTFE and Brown PU

Working Temp. NBR -30~120°C / PTFE -180~200°C / PU -40~82°C

Size	Inch	Ø mm	T mm	Material	Article Nr.
DN 100	4	99	7	NBR	019 083
DN 100	4	99	7	CSM	019 073
DN 100	4	99	7	FPM	019 063

Fixed Flange × Smooth Hose Tail



Recommended clamping with DIN safety clamps, refer to pages 192–193.



Also with superior clamping, refer to Hose Clamps on page 200.

DIN Flange Couplings

Smooth Hose Shank to DIN EN 14420-2 (formally DIN 2817) by Fixed Flanges to EN 1092-1 or ANSI B16.5

Standard Materials

2 optional materials dip plating carbon steel, and stainless steel

Flange Rated Pressure

PN10~40 / EN 1092-1, 150~300LB / ASA

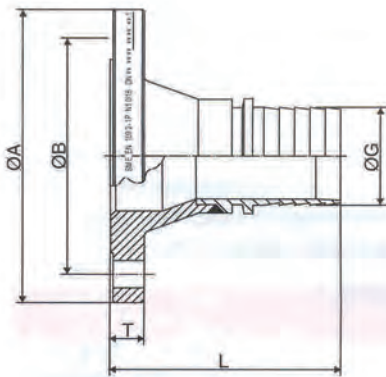
Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size DN	ØA mm	ØB mm	ØG mm	L mm	T mm	Flange Grade	Plated Steel	Stainless Steel
15	95	65	13.4	77	16	PN10/16	026 031	026 231
20	105	75	19.4	82	18	PN10/16	026 032	026 232
25	115	85	25.4	82	18	PN10/16	026 033	026 233
32	140	100	32.4	82	18	PN10/16	026 034	026 234
38	150	110	38.4	91	18	PN10/16	026 035	026 235
40	150	110	40.4	91	18	PN10/16	026 036	026 236
50	165	125	50.4	107	18	PN10/16	026 037	026 237
63	185	145	63.4	120.5	18	PN10/16	026 038	026 238
65	185	145	65.4	120.5	18	PN10/16	026 039	026 239
75	200	160	75.4	129	20	PN10/16	026 040	026 240
80	200	160	80.4	129	20	PN10/16	026 041	026 241
100	220	180	100.3	168.5	20	PN10/16	026 042	026 242
125	250	210	125.4	192	22	PN10/16	026 043	026 243
150	285	240	150.4	231	22	PN10/16	026 044	026 244
200	340	295	200.4	285	24	PN10	026 045	026 245
15	95	65	13.4	77	16	PN25/40	026 031.1	023 231.1
20	105	75	19.4	82	18	PN25/40	026 032.1	026 232.1
25	115	85	25.4	82	18	PN25/40	026 033.1	026 233.1
32	140	100	32.4	82	18	PN25/40	026 034.1	026 234.1
38	150	110	38.4	91	18	PN25/40	026 035.1	026 235.1
40	150	110	40.4	91	18	PN25/40	026 036.1	026 236.1
50	165	125	50.4	107	18	PN25/40	026 037.1	026 237.1
63	185	145	63.4	120.5	18	PN25/40	026 038.1	026 238.1
65	185	145	65.4	120.5	18	PN25/40	026 039.1	026 239.1
75	200	160	75.4	129	20	PN25/40	026 040.1	026 240.1
80	200	160	80.4	129	20	PN25/40	026 041.1	026 241.1
100	220	180	100.3	168.5	20	PN25/40	026 042.1	026 242.1
125	250	210	125.4	192	22	PN25/40	026 043.1	026 243.1
150	285	240	150.4	231	22	PN25/40	026 044.1	026 244.1
200	340	295	200.4	285	24	PN25/40	026 045.1	026 245.1
20	105	75	19.4	82	18	150LB	026 032.2	026 232.2
25	115	85	25.4	82	18	150LB	026 033.2	026 233.2
32	140	100	32.4	82	18	150LB	026 034.2	026 234.2
38	150	110	38.4	91	18	150LB	026 035.2	026 235.2
40	150	110	40.4	91	18	150LB	026 036.2	026 236.2
50	165	125	50.4	107	18	150LB	026 037.2	026 237.2
63	185	145	63.4	120.5	18	150LB	026 038.2	026 238.2
65	185	145	65.4	120.5	18	150LB	026 039.2	026 239.2
75	200	160	75.4	129	20	150LB	026 040.2	026 240.2
80	200	160	80.4	129	20	150LB	026 041.2	026 241.2
100	220	180	100.3	168.5	20	150LB	026 042.2	026 242.2
125	250	210	125.4	192	22	150LB	026 043.2	026 243.2
150	285	240	150.4	231	22	150LB	026 044.2	026 244.2
200	340	295	200.4	285	24	150LB	026 045.2	026 245.2
20	105	75	19.4	82	18	300LB	026 032.3	026 232.3
25	115	85	25.4	82	18	300LB	026 033.3	026 233.3
32	140	100	32.4	82	18	300LB	026 034.3	026 234.3
38	150	110	38.4	91	18	300LB	026 035.3	026 235.3
40	150	110	40.4	91	18	300LB	026 036.3	026 236.3

Size DN	ØA mm	ØB mm	ØG mm	L mm	T mm	Flange Grade	Plated Steel	Stainless Steel
50	165	125	50.4	107	18	300LB	026 037.3	026 237.3
63	185	145	63.4	120.5	18	300LB	026 038.3	026 238.3
65	185	145	65.4	120.5	18	300LB	026 039.3	026 239.3
75	200	160	75.4	129	20	300LB	026 040.3	026 240.3
80	200	160	80.4	129	20	300LB	026 041.3	026 241.3
100	220	180	100.3	168.5	20	300LB	026 042.3	026 242.3
125	250	210	125.4	192	22	300LB	026 043.3	026 243.3
150	285	240	150.4	231	22	300LB	026 044.3	026 244.3
200	340	295	200.4	285	24	300LB	026 045.3	026 245.3

Fixed Flange × Serrated Hose Tail



DIN Flange Couplings

Serrated Hose Shank to DIN EN 14420-2 (formally DIN 2817) by Fixed Flanges to EN 1092-1 or ANSI B16.5

Standard Materials

2 optional materials dip plating carbon steel, and stainless steel

Flange Rated Pressure

PN10~40 / EN 1092-1, 150~300LB / ASA

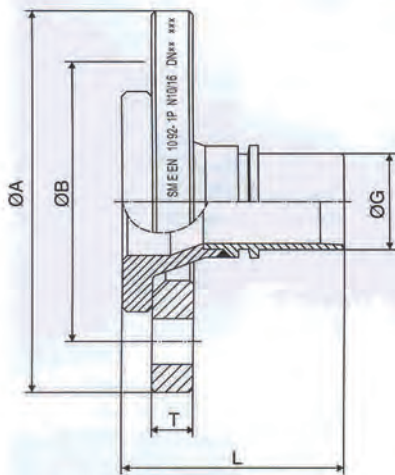
Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size DN	ØA mm	ØB mm	ØG mm	L mm	T mm	Flange Grade	Plated Steel	Stainless Steel
15	95	65	13.4	77	16	PN10/16	028 031	028 231
20	105	75	19.4	82	18	PN10/16	028 032	028 232
25	115	85	25.4	82	18	PN10/16	028 033	028 233
32	140	100	32.4	82	18	PN10/16	028 034	028 234
38	150	110	38.4	91	18	PN10/16	028 035	028 235
40	150	110	40.4	91	18	PN10/16	028 036	028 236
50	165	125	50.4	107	18	PN10/16	028 037	028 237
63	185	145	63.4	120.5	18	PN10/16	028 038	028 238
65	185	145	65.4	120.5	18	PN10/16	028 039	028 239
75	200	160	75.4	129	20	PN10/16	028 040	028 240
80	200	160	80.4	129	20	PN10/16	028 041	028 241
100	220	180	100.3	168.5	20	PN10/16	028 042	028 242
125	250	210	125.4	192	22	PN10/16	028 043	028 243
150	285	240	150.4	231	22	PN10/16	028 044	028 244
200	340	295	200.4	285	24	PN10	028 045	028 245
15	95	65	13.4	77	16	PN25/40	028 031.1	028 231.1
20	105	75	19.4	82	18	PN25/40	028 032.1	028 232.1
25	115	85	25.4	82	18	PN25/40	028 033.1	028 233.1
32	140	100	32.4	82	18	PN25/40	028 034.1	028 234.1
38	150	110	38.4	91	18	PN25/40	028 035.1	028 235.1
40	150	110	40.4	91	18	PN25/40	028 036.1	028 236.1
50	165	125	50.4	107	18	PN25/40	028 037.1	028 237.1
63	185	145	63.4	120.5	18	PN25/40	028 038.1	028 238.1
65	185	145	65.4	120.5	18	PN25/40	028 039.1	028 239.1
75	200	160	75.4	129	20	PN25/40	028 040.1	028 240.1
80	200	160	80.4	129	20	PN25/40	028 041.1	028 241.1
100	220	180	100.3	168.5	20	PN25/40	028 042.1	028 242.1
125	250	210	125.4	192	22	PN25/40	028 043.1	028 243.1
150	285	240	150.4	231	22	PN25/40	028 044.1	028 244.1
200	340	295	200.4	285	24	PN25/40	028 045.1	028 245.1
20	105	75	19.4	82	18	150LB	028 032.2	028 232.2
25	115	85	25.4	82	18	150LB	028 033.2	028 233.2
32	140	100	32.4	82	18	150LB	028 034.2	028 234.2
38	150	110	38.4	91	18	150LB	028 035.2	028 235.2
40	150	110	40.4	91	18	150LB	028 036.2	028 236.2
50	165	125	50.4	107	18	150LB	028 037.2	028 237.2

Size DN	ØA mm	ØB mm	ØG mm	L mm	T mm	Flange Grade	Plated Steel	Stainless Steel
63	185	145	63.4	120.5	18	150LB	028 038.2	028 238.2
65	185	145	65.4	120.5	18	150LB	028 039.2	028 239.2
75	200	160	75.4	129	20	150LB	028 040.2	028 240.2
80	200	160	80.4	129	20	150LB	028 041.2	028 241.2
100	220	180	100.3	168.5	20	150LB	028 042.2	028 242.2
125	250	210	125.4	192	22	150LB	028 043.2	028 243.2
150	285	240	150.4	231	22	150LB	028 044.2	028 244.2
200	340	295	200.4	285	24	150LB	028 045.2	028 245.2
15	95	65	13.4	77	16	300LB	028 031.3	028 231.3
20	105	75	19.4	82	18	300LB	028 032.3	028 232.3
25	115	85	25.4	82	18	300LB	028 033.3	028 233.3
32	140	100	32.4	82	18	300LB	028 034.3	028 234.3
38	150	110	38.4	91	18	300LB	028 035.3	028 235.3
40	150	110	40.4	91	18	300LB	028 036.3	028 236.3
50	165	125	50.4	107	18	300LB	028 037.3	028 237.3
63	185	145	63.4	120.5	18	300LB	028 038.3	028 238.3
65	185	145	65.4	120.5	18	300LB	028 039.3	028 239.3
75	200	160	75.4	129	20	300LB	028 040.3	028 240.3
80	200	160	80.4	129	20	300LB	028 041.3	028 241.3
100	220	180	100.3	168.5	20	300LB	028 042.3	028 242.3
125	250	210	125.4	192	22	300LB	028 043.3	028 243.3
150	285	240	150.4	231	22	300LB	028 044.3	028 244.3
200	340	295	200.4	285	24	300LB	028 045.3	028 245.3

Swivel Flange × Smooth Hose Tail



DIN Flange Couplings

Smooth Hose Shank to DIN EN 14420-2 (formally DIN 2817) by Swivel / Loose Flanges to EN 1092-1 or ANSI B16.5

Standard Materials

2 optional materials dip plating carbon steel, and stainless steel

Flange Rated Pressure

PN10~40 / EN 1092-1, 150~300LB / ASA

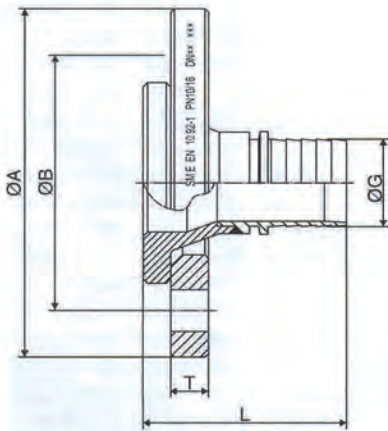
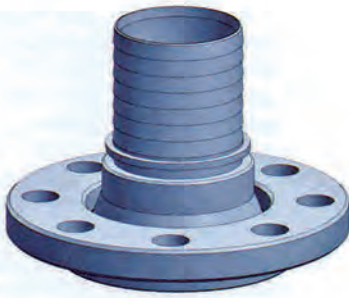
Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size DN	ØA mm	ØB mm	ØG mm	L mm	T mm	Flange Grade	Plated Steel	Stainless Steel
15	95	65	13.4	77	14	PN10/16	025 031	025 231
20	105	75	19.4	82	16	PN10/16	025 032	025 232
25	115	85	25.4	82	16	PN10/16	025 033	025 233
32	140	100	32.4	82	18	PN10/16	025 034	025 234
38	150	110	38.4	91	18	PN10/16	025 035	025 235
40	150	110	40.4	91	18	PN10/16	025 036	025 236
50	165	125	50.4	107	19	PN10/16	025 037	025 237
63	185	145	63.4	120.5	20	PN10/16	025 038	025 238
65	185	145	65.4	120.5	20	PN10/16	025 039	025 239
75	200	160	75.4	129	20	PN10/16	025 040	025 240
80	200	160	80.4	129	20	PN10/16	025 041	025 241
100	220	180	100.3	168.5	22	PN10/16	025 042	025 242
125	250	210	125.4	192	22	PN10/16	025 043	025 243
150	285	240	150.4	231	24	PN10/16	025 044	025 244
200	340	295	200.4	285	24	PN10	025 045	025 245
20	105	75	19.4	82	16	PN25/40	025 032.1	025 232.1
25	115	85	25.4	82	16	PN25/40	025 033.1	025 233.1
32	140	100	32.4	82	18	PN25/40	025 034.1	025 234.1
38	150	110	38.4	91	18	PN25/40	025 035.1	025 235.1
40	150	110	40.4	91	18	PN25/40	025 036.1	025 236.1
50	165	125	50.4	107	19	PN25/40	025 037.1	025 237.1

Size DN	ØA mm	ØB mm	ØG mm	L mm	T mm	Flange Grade	Plated Steel	Stainless Steel
63	185	145	63.4	120.5	20	PN25/40	025 038.1	025 238.1
65	185	145	65.4	120.5	20	PN25/40	025 039.1	025 239.1
75	200	160	75.4	129	20	PN25/40	025 040.1	025 240.1
80	200	160	80.4	129	20	PN25/40	025 041.1	025 241.1
100	220	180	100.3	168.5	22	PN25/40	025 042.1	025 242.1
125	250	210	125.4	192	22	PN25/40	025 043.1	025 243.1
150	285	240	150.4	231	24	PN25/40	025 044.1	025 244.1
200	340	295	200.4	285	24	PN25/40	025 045.1	025 245.1
15	95	65	13.4	77	14	150LB	025 031.2	025 231.2
20	105	75	19.4	82	16	150LB	025 032.2	025 232.2
25	115	85	25.4	82	16	150LB	025 033.2	025 233.2
32	140	100	32.4	82	18	150LB	025 034.2	025 234.2
38	150	110	38.4	91	18	150LB	025 035.2	025 235.2
40	150	110	40.4	91	18	150LB	025 036.2	025 236.2
50	165	125	50.4	107	19	150LB	025 037.2	025 237.2
63	185	145	63.4	120.5	20	150LB	025 038.2	025 238.2
65	185	145	65.4	120.5	20	150LB	025 039.2	025 239.2
75	200	160	75.4	129	20	150LB	025 040.2	025 240.2
80	200	160	80.4	129	20	150LB	025 041.2	025 241.2
100	220	180	100.3	168.5	22	150LB	025 042.2	025 242.2
125	250	210	125.4	192	22	150LB	025 043.2	025 243.2
150	285	240	150.4	231	24	150LB	025 044.2	025 244.2
200	340	295	200.4	285	24	150LB	025 045.2	025 245.2
15	95	65	13.4	77	14	300LB	025 031.3	025 231.3
20	105	75	19.4	82	16	300LB	025 032.3	025 232.3
25	115	85	25.4	82	16	300LB	025 033.3	025 233.3
32	140	100	32.4	82	18	300LB	025 034.3	025 234.3
38	150	110	38.4	91	18	300LB	025 035.3	025 235.3
40	150	110	40.4	91	18	300LB	025 036.3	025 236.3
50	165	125	50.4	107	19	300LB	025 037.3	025 237.3
63	185	145	63.4	120.5	20	300LB	025 038.3	025 238.3
65	185	145	65.4	120.5	20	300LB	025 039.3	025 239.3
75	200	160	75.4	129	20	300LB	025 040.3	025 240.3
80	200	160	80.4	129	20	300LB	025 041.3	025 241.3
100	220	180	100.3	168.5	22	300LB	025 042.3	025 242.3
125	250	210	125.4	192	22	300LB	025 043.3	025 243.3
150	285	240	150.4	231	24	300LB	025 044.3	025 244.3
200	340	295	200.4	285	24	300LB	025 045.3	025 245.3

Swivel Flange × Serrated Hose Tail



DIN Flange Couplings	Serrated Hose Shank to DIN EN 14420-2 (formally DIN 2817) by Swivel / Loose Flanges to EN 1092-1 or ANSI B16.5
Standard Materials	2 optional materials dip plating carbon steel, and stainless steel
Flange Rated Pressure	PN10~40 / EN 1092-1, 150~300LB / ASA
Hose Clamps	Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size DN	ØA mm	ØB mm	ØG mm	L mm	T mm	Flange Grade	Plated Steel	Stainless Steel
15	95	65	13.4	77	14	PN10/16	027 031	027 231
20	105	75	19.4	82	16	PN10/16	027 032	027 232
25	115	85	25.4	82	16	PN10/16	027 033	027 233
32	140	100	32.4	82	18	PN10/16	027 034	027 234
38	150	110	38.4	91	18	PN10/16	027 035	027 235
40	150	110	40.4	91	18	PN10/16	027 036	027 236
50	165	125	50.4	107	19	PN10/16	027 037	027 237
63	185	145	63.4	120.5	20	PN10/16	027 038	027 238
65	185	145	65.4	120.5	20	PN10/16	027 039	027 239
75	200	160	75.4	129	20	PN10/16	027 040	027 240
80	200	160	80.4	129	20	PN10/16	027 041	027 241
100	220	180	100.3	168.5	22	PN10/16	027 042	027 242
125	250	210	125.4	192	22	PN10/16	027 043	027 243
150	285	240	150.4	231	24	PN10/16	027 044	027 244
200	340	295	200.4	285	24	PN10	027 045	027 245
15	95	65	13.4	77	14	PN25/40	027 031.1	027 231.1
20	105	75	19.4	82	16	PN25/40	027 032.1	027 232.1
25	115	85	25.4	82	16	PN25/40	027 033.1	027 233.1
32	140	100	32.4	82	18	PN25/40	027 034.1	027 234.1
38	150	110	38.4	91	18	PN25/40	027 035.1	027 235.1
40	150	110	40.4	91	18	PN25/40	027 036.1	027 236.1
50	165	125	50.4	107	19	PN25/40	027 037.1	027 237.1
63	185	145	63.4	120.5	20	PN25/40	027 038.1	027 238.1
65	185	145	65.4	120.5	20	PN25/40	027 039.1	027 239.1
75	200	160	75.4	129	20	PN25/40	027 040.1	027 240.1
80	200	160	80.4	129	20	PN25/40	027 041.1	027 241.1
100	220	180	100.3	168.5	22	PN25/40	027 042.1	027 242.1
125	250	210	125.4	192	22	PN25/40	027 043.1	027 243.1
150	285	240	150.4	231	24	PN25/40	027 044.1	027 244.1
200	340	295	200.4	285	24	PN25/40	027 045.1	027 245.1
15	95	65	13.4	77	14	150LB	027 031.2	027 231.2
20	105	75	19.4	82	16	150LB	027 032.2	027 232.2
25	115	85	25.4	82	16	150LB	027 033.2	027 233.2
32	140	100	32.4	82	18	150LB	027 034.2	027 234.2
38	150	110	38.4	91	18	150LB	027 035.2	027 235.2
40	150	110	40.4	91	18	150LB	027 036.2	027 236.2
50	165	125	50.4	107	19	150LB	027 037.2	027 237.2
63	185	145	63.4	120.5	20	150LB	027 038.2	027 238.2
65	185	145	65.4	120.5	20	150LB	027 039.2	027 239.2
75	200	160	75.4	129	20	150LB	027 040.2	027 240.2
80	200	160	80.4	129	20	150LB	027 041.2	027 241.2
100	220	180	100.3	168.5	22	150LB	027 042.2	027 242.2
125	250	210	125.4	192	22	150LB	027 043.2	027 243.2
150	285	240	150.4	231	24	150LB	027 044.2	027 244.2
200	340	295	200.4	285	24	150LB	027 045.2	027 245.2

Size DN	ØA mm	ØB mm	ØG mm	L mm	T mm	Flange Grade	Plated Steel	Stainless Steel
20	105	75	19.4	82	16	300LB	027 032.3	027 232.3
25	115	85	25.4	82	16	300LB	027 033.3	027 233.3
32	140	100	32.4	82	18	300LB	027 034.3	027 234.3
38	150	110	38.4	91	18	300LB	027 035.3	027 235.3
40	150	110	40.4	91	18	300LB	027 036.3	027 236.3
50	165	125	50.4	107	19	300LB	027 037.3	027 237.3
63	185	145	63.4	120.5	20	300LB	027 038.3	027 238.3
65	185	145	65.4	120.5	20	300LB	027 039.3	027 239.3
75	200	160	75.4	129	20	300LB	027 040.3	027 240.3
80	200	160	80.4	129	20	300LB	027 041.3	027 241.3
100	220	180	100.3	168.5	22	300LB	027 042.3	027 242.3
125	250	210	125.4	192	22	300LB	027 043.3	027 243.3
150	285	240	150.4	231	24	300LB	027 044.3	027 244.3
200	340	295	200.4	285	24	300LB	027 045.3	027 245.3

Food Grade Female Liner × Smooth Hose Tail



Sanitary Couplings

DIN Female Liner by Smooth Hose Shank to EN 14420-2
DIN 11851

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301),
and AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with
EN 14420-2 are recommended for clamping with bolt
safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	Ø mm	ØA mm	ØB mm	L mm	AISI 304	AISI 316L
DN 010	3/8	22.5	7.5	10.2	59	210 010.23	210 010.24
DN 015	1/2	28.5	10	13.2	60	210 011.23	210 011.24
DN 020	3/4	36.5	15	19.2	61	210 012.23	210 012.24
DN 025	1	44	21	25.2	64.5	210 013.23	210 013.24
DN 032	1 ^{1/4}	50	28	32.2	67	210 014.23	210 014.24
DN 040	1 ^{1/2}	56	33.5	38.2	68	210 015.23	210 015.24
DN 050	2	68.5	45.8	50.2	79	210 016.23	210 016.24
DN 065	2 ^{1/2}	86	58	63.2	96	210 017.23	210 017.24
DN 065	2 ^{1/2}	86	58	65.2	96	210 022.23	210 022.24
DN 080	3	100	70.3	75.2	105	210 018.23	210 018.24
DN 100	4	121	94	100.3	145.5	210 019.23	210 019.24
DN 125	5	-	-	-	-	210 020.23	210 020.24
DN 150	6	-	-	-	-	210 021.23	210 021.24

Food Grade Female Liner × Serrated Hose Tail



Sanitary Couplings

DIN Female Liner by Serrated Hose Shank to EN 14420-2
DIN 11851

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301),
and AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with
EN 14420-2 are recommended for clamping with bolt
safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Size inch	Ø mm	ØA mm	ØB mm	L mm	AISI 304	AISI 316L
DN 010	3/8	22.5	7.5	10.2	59	210 010.25	210 010.26
DN 015	1/2	28.5	10	13.2	60	210 011.25	210 011.26
DN 020	3/4	36.5	15	19.2	61	210 012.25	210 012.26
DN 025	1	44	21	25.2	64.5	210 013.25	210 013.26
DN 032	1 ^{1/4}	50	28	32.2	67	210 014.25	210 014.26
DN 040	1 ^{1/2}	56	33.5	38	68	210 015.25	210 015.26
DN 050	2	68.5	45.8	51	79	210 016.25	210 016.26
DN 065	2 ^{1/2}	86	58	63.5	102	210 017.25	210 017.26
DN 080	3	100	70.3	76.1	120	210 018.25	210 018.26
DN 100	4	121	94	101.6	143	210 019.25	210 019.26
DN 125	5	-	-	-	-	210 020.25	210 020.26
DN 150	6	-	-	-	-	210 021.25	210 021.26

Food Grade Male Thread × Smooth Hose Tail



Sanitary Couplings

DIN Male Thread by Smooth Hose Shank to EN 14420-2 DIN 11851

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301), and AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	Thread	ØA mm	ØB mm	L mm	AISI 304	AISI 316L
DN 010	3/8	RD28 × 1/8	7.5	10.2	59	210 010.33	210 010.34
DN 015	1/2	RD34 × 1/8	10	13.2	60	210 011.33	210 011.34
DN 020	3/4	RD44 × 1/8	15	19.2	61	210 012.33	210 012.34
DN 025	1	RD52 × 1/8	21	25.2	64.5	210 013.33	210 013.34
DN 032	1 ^{1/4}	RD58 × 1/8	28	32.2	67	210 014.33	210 014.34
DN 040	1 ^{1/2}	RD65 × 1/8	33.5	38.2	68	210 015.33	210 015.34
DN 050	2	RD78 × 1/8	45.8	50.2	79	210 016.33	210 016.34
DN 065	2 ^{1/2}	RD95 × 1/8	58	63.2	96	210 017.33	210 017.34
DN 065	2 ^{1/2}	RD95 × 1/8	58	65.2	96	210 022.33	210 022.34
DN 080	3	RD110 × 1/8	70.3	75.2	105	210 018.33	210 018.34
DN 100	4	RD130 × 1/8	94	100.3	145.5	210 019.33	210 019.34
DN 125	5	-	-	-	-	210 020.33	210 020.34
DN 150	6	-	-	-	-	210 021.33	210 021.34

Food Grade Male Thread × Serrated Hose Tail



Sanitary Couplings

DIN Male Thread by Serrated Hose Shank to EN 14420-2 DIN 11851

Standard Materials

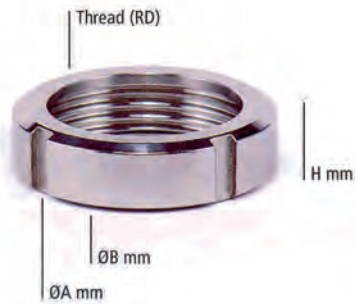
Standard material stainless steel grade AISI 304 (1.4301), and AISI 316L (1.4404)

Hose Clamps

Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	Inch	Thread	ØA mm	ØB mm	L mm	AISI 304	AISI 316L
DN 010	3/8	RD28 × 1/8	7.5	10.2	59	210 010.35	210 010.36
DN 015	1/2	RD34 × 1/8	10	13.2	60	210 011.35	210 011.36
DN 020	3/4	RD44 × 1/8	15	19.2	61	210 012.35	210 012.36
DN 025	1	RD52 × 1/8	21	25.2	64.5	210 013.35	210 013.36
DN 032	1 ^{1/4}	RD58 × 1/8	28	32.2	67	210 014.35	210 014.36
DN 040	1 ^{1/2}	RD65 × 1/8	33.5	38.2	68	210 015.35	210 015.36
DN 050	2	RD78 × 1/8	45.8	51	79	210 016.35	210 016.36
DN 065	2 ^{1/2}	RD95 × 1/8	58	63.5	102	210 017.35	210 017.36
DN 080	3	RD110 × 1/8	70.3	76.1	120	210 018.35	210 018.36
DN 100	4	RD130 × 1/8	94	101.6	143	210 019.35	210 019.36
DN 125	5	-	-	-	-	210 020.35	210 020.36
DN 150	6	-	-	-	-	210 021.35	210 021.36

Food Grade Round Nuts



Sanitary Couplings

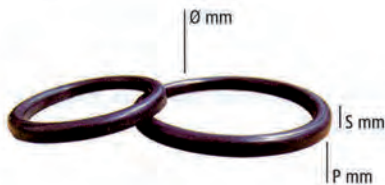
DIN Round Nut with Operating Slots
DIN 11851 DIN-13

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301),
and AISI 316L (1.4404)

Size	Inch	Thread	ØA mm	ØB mm	H mm	Slots	AISI 304	AISI 316L
DN 010	3/8	RD28 × 1/8	38	19	18	4	210 010.1	210 010.11
DN 015	1/2	RD34 × 1/8	44	25	18	4	210 011.1	210 011.11
DN 020	3/4	RD44 × 1/6	54	31	20	4	210 012.1	210 012.11
DN 025	1	RD52 × 1/6	63	36	21	4	210 013.1	210 013.11
DN 032	1 ^{1/4}	RD58 × 1/6	70	42	21	4	210 014.1	210 014.11
DN 040	1 ^{1/2}	RD65 × 1/6	78	49	21	4	210 015.1	210 015.11
DN 050	2	RD78 × 1/6	92	62	22	4	210 016.1	210 016.11
DN 065	2 ^{1/2}	RD95 × 1/6	112	80	25	6	210 017.1	210 017.11
DN 080	3	RD110 × 1/4	127	94	29	6	210 018.1	210 018.11
DN 100	4	RD130 × 1/4	148	115	31	6	210 019.1	210 019.11
DN 125	5	RD160 × 1/4	178	138	35	6	210 020.1	210 020.11
DN 150	6	RD190 × 1/4	210	164	40	6	210 021.1	210 021.11

Food Grade Spare Parts



Spare Parts

U Shape Gaskets Fitting in Sanitary Union Couplings
DIN 11851

Standard Materials

3 basic materials transparent, blue, black and
white Silicone, NBR and EPDM

Working Temp.

NBR -10~80°C / EPDM -20~130°C / Silicone -20~180°C

Size	Ø mm	P mm	S mm	Silicone	EPDM	NBR
DN 010	26	3.5	3.5	210 010.4	210 010.42	210 010.41
DN 015	35	5.5	5.5	210 011.4	210 011.42	210 011.41
DN 020	40	6.4	6.4	210 012.4	210 012.42	210 012.41
DN 025	50	6.4	6.4	210 013.4	210 013.42	210 013.41
DN 032	56	6.4	6.4	210 014.4	210 014.42	210 014.41
DN 040	67	6.4	6.4	210 015.4	210 015.42	210 015.41
DN 050	80	6.4	6.4	210 016.4	210 016.42	210 016.41
DN 065	95	6.4	6.4	210 017.4	210 017.42	210 017.41
DN 080	124	6.4	6.4	210 018.4	210 018.42	210 018.41
DN 100	151	6.4	6.4	210 019.4	210 019.42	210 019.41
DN 125	180	6.4	6.4	210 020.4	210 020.42	210 020.41
DN 150	236	9	9	210 021.4	210 021.42	210 021.41



FIRE FIGHTING

Storz Couplings *Page 115*

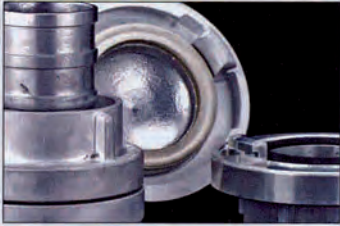
Instantaneous Couplings *Page 121*

DSP Couplings *Page 123*

Barcelona Couplings *Page 126*

Branchpipe Nozzles *Page 129*

Hydrant Fittings & Valves *Page 133*



Quick disconnect flat hose couplings and screw joint hydrant fittings must take the priority to be made as strong while as light as possible. They have to be fast enough and reliable in operation. Therefore, aluminum alloys are the choice material for quick connection. Brass and bronze materials are usually used for hydrant valves, landing valves and fittings for copper alloys can be reliable over time.

STORZ COUPLINGS (German type)

Top of the listed couplings for firefighting is Storz couplings. It is widely used by fire services worldwide and was invented for this purpose by Guido Storz in 1882. It is commonly used on fire hoses to connect to fire hydrants in western Europe, esp. Denmark, Germany, Austria, Switzerland, Sweden and the Netherlands.



A Storz coupling is a quarter turn internal lug coupling, easy to connect to each other by the force of lugs which are on the inside of the coupling. In some industry usage like agriculture and irrigation, it can be casting made for general hose connection and pressure undertake. However, if it is used in firefighting which is rather demanding, a forged art craft is always requested to guarantee the safety and duration of the couplings.

2" ~ 2^{1/2}" couplings are the general sizes which can be made in massive production. The bigger the size heavier machines and more sophisticated engineering capacity is required to produce as big as 6" DN 150 Storz couplings.

INSTANTANEOUS COUPLINGS (British type)

British instantaneous fire couplings are available in both light alloy and gunmetal to cater for requirements as fire brigades, industrial and general users favoring the light alloy fire fittings for their light physical weight and the marine trades favoring the gunmetal and marine brass fire fittings for their salt water corrosion resistance and durability in the most extreme weather conditions.

Coupling are made to standard BS 336 sized 1 1/2 inch to 2 1/2 inch consisting of fire hose couplings, male and female adaptors, blank caps or plugs, washers and spanners.



DsP / Ar co UPlings (French type)

DSP couplings are manufactured in compliance with NF 561-704 for the dimensions DN 40 and DN 65. The DN 100 dimension is manufactured in compliance with NF 561-705.

A DSP coupling is a self-sealing symmetrical coupling which is secured by interconnecting two DSP couplings. The half coupling is closed by turning the locking ring beneath the triangular section of the opposed DSP coupling. Extra closure can be applied by locking the connection with a wrench.

The DSP coupling locking system is similar to that of the Guillemin coupling. There are however differences to the preformed serration on the locking ring and the design of the lugs. The locking ring of DSP couplings can be turned up to 45°.



BARCELONA COUPLINGS (Spanish type)

Spanish Barcelona fire coupling is used by Spanish firefighters designed to norm UNE 23400. It is a sexless coupling with three engaging lugs. Barcelona couplings are best manufactured in forged aluminum alloys covering popular sizes DN 25, 45 and 70.

The Barcelona range consists of hose couplings, male and female adaptors, blank caps and washers.



NAKAJIMA COUPLINGS & MACHINA COUPLINGS

(Japanese type)

Japanese Nakajima fire fighting couplings are quarter-turn, symmetrical couplings designed and produced to Japanese local standards. Machine couplings are available with rubber sealed hose shank couplings and blind caps. They are made of brass alloy and optional bronze material by drop forging technique.



Storz Delivery Hose Couplings



Carbon steel double end spanner available.
Ref. 084 104 for sizes A/B/C.
Ref. 084 104.1 for B/C.

Storz Couplings

Storz Head by Hose Shank for Delivery Operation

Standard Materials

2 optional materials casted aluminum alloy for industrial use, or forged aluminum for firefighting use, and brass alloys

Sealing Materials

Standard Black or White NBR

Size	KA mm	ØD mm	L mm	Casted Aluminum	Forged Aluminum	Brass Alloys	Stainless Steel
25 D	31	25	53	051 150	051 750	051 370	051 040
25 D	31	15	60	☎	051 750.1	051 370.1	☎
25 D	31	19	53	☎	051 750.2	051 370.2	051 040.1
45	59	45	75	051 153	☎	☎	☎
52 C	66	52	55	051 154	051 754	☎	☎
52 C	66	52	75	☎	☎	051 374	☎
52 C	66	52	90	☎	☎	☎	051 044
52 C	66	40	70	051 154.1	051 754.1	☎	☎
52 C	66	42	55	051 154.2	051 754.2	051 374.2	☎
52 C	66	45	70	051 154.3	051 754.3	☎	☎
52 C	66	55	70	051 154.4	051 754.4	☎	☎
65	81	65	60	051 155	051 755	☎	☎
65	81	52	60	☎	051 755.1	☎	☎
65	81	75	65	☎	051 755.2	☎	☎
75 B	89	75	60	051 156	051 756	☎	☎
75 B	89	75	80	☎	051 756.1	☎	☎
75 B	89	75	105	☎	051 756.2	☎	051 046
75 B	89	65	85	051 156.1	051 756.3	051 356	☎
75 B	89	70	75	☎	051 756.4	☎	☎
100	115	100	85	051 157	051 757	☎	☎
110 A	133	110	110	051 158	051 758	☎	☎
110 A	133	100	110	051 158.1	051 758.1	☎	☎

Storz Delivery Hose Couplings Tail Bent



Storz Couplings

Storz Head by 45° Bend Hose Shank for Delivery Use

Standard Materials

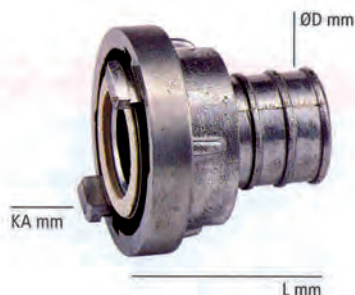
Standard brass alloys

Sealing Materials

Standard Black or White NBR

Size	KA mm	ØD mm	L mm	Brass Alloys
52 C	66	19	90	051 390

Storz Suction Hose Couplings



Carbon steel double end spanner available.
Ref. 084 104 for sizes A/B/C.
Ref. 084 104.1 for B/C.



Handheld wire binder available.
See details on page 128.

Storz Couplings

Storz Head by Hose Shank for Suction Operation

Standard Materials

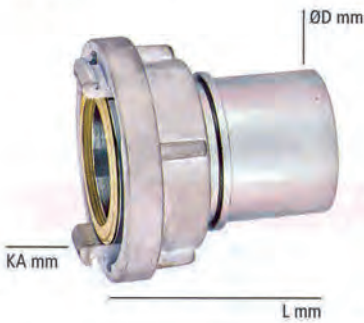
2 optional materials casted aluminum alloy for industrial use, or forged aluminum for firefighting use, and brass alloys

Sealing Materials

Standard Black or White NBR

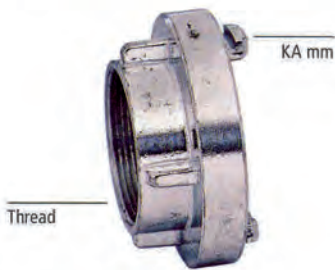
Size	KA mm	ØD mm	L mm	Casted Aluminum	Forged Aluminum	Brass Alloys	Stainless Steel
25 D	31	25	53	051 050	051 850	051 350	051 020
25 D	31	15	60	051 050.1	051 850.1	051 350.1	051 020.1
25 D	31	19	53	051 050.2	051 850.2	051 350.2	051 020.2
32	44	32	70	051 051	☞	☞	☞
32	44	19	70	051 051.1	☞	☞	☞
32	44	25	70	051 051.2	☞	☞	☞
38	51	38	90	051 052	051 852	051 352	051 022
38	51	25	90	051 052.1	051 852.2	051 352.1	☞
38	51	32	90	051 052.2	051 852.3	051 352.2	☞
45	51	45	90	051 053	☞	☞	☞
52 C	66	52	90	051 054	051 854	051 354	051 024
52 C	66	19	90	☞	051 854.1	☞	☞
52 C	66	25	90	☞	051 854.2	051 354.2	051 024.2
52 C	66	28	90	☞	051 854.3	☞	☞
52 C	66	32	90	051 054.4	051 854.4	051 354.4	051 024.4
52 C	66	38	90	051 054.5	051 854.5	051 354.5	051 024.5
52 C	66	40	90	☞	051 854.6	☞	051 024.6
52 C	66	42	90	051 054.7	051 854.7	051 354.7	051 024.7
52 C	66	45	90	051 054.8	051 854.8	051 354.8	051 024.8
52 C	66	50	90	051 054.9	051 854.9	☞	051 024.9
52 C	66	55	90	☞	051 855.10	☞	☞
52 C	66	60	90	051 055.11	051 854.11	☞	☞
65	81	65	95	051 055	051 855	051 355	051 025
65	81	38	90	051 055.1	051 855.1	051 355.1	051 025.1
65	81	52	95	051 055.2	051 855.2	051 355.2	051 025.2
65	81	63	95	051 055.3	051 855.3	051 355.3	051 025.3
65	81	70	95	051 055.4	051 855.4	051 355.4	☞
65	81	75	95	☞	051 855.5	051 355.5	051 025.5
75 B	89	75	125	051 056	051 856	051 356	051 026
75 B	89	52	125	051 056.1	051 856.1	☞	☞
75 B	89	63	125	051 056.2	051 856.2	☞	☞
75 B	89	65	95	☞	☞	051 356.3	051 026.3
75 B	89	65	125	051 056.3	051 856.3	☞	☞
75 B	89	70	125	051 056.4	051 856.4	☞	☞
75 B	89	80	125	051 056.5	051 856.5	☞	☞
100	115	100	150	051 057	051 857	051 357	☞
100	115	100	125	051 057.1	051 857.1	☞	☞
110 A	133	110	170	051 058	051 858	051 358	☞
110 A	133	90	170	☞	051 858.1	☞	☞
110 A	133	100	170	051 058.2	051 858.2	051 358.2	☞
110 A	133	125	180	☞	051 858.3	☞	☞
125	148	125	200	051 059	051 859	☞	☞
150	160	150	180	051 060	☞	☞	☞

Storz Suction Hose Couplings with Security Collar



Recommended clamping with DIN safety clamps, refer to pages 192 ~ 193.

Storz Adapters with Female Thread



Storz Couplings Hose Shank to DIN EN 14420-2 (formerly DIN 2817) by Storz Coupling Head

Standard Materials Optional materials casted aluminum alloy for industrial use, or forged aluminum for firefighting use

Sealing Materials Standard white NBR for both suction and delivery use

Hose Clamps Smooth and serrated hose shanks complying with EN 14420-2 are recommended for clamping with bolt safety clamps acc. to DIN EN 14420-3 / DIN 2817

Size	KA mm	D mm	L mm	Casted Aluminum	Forged Aluminum	Brass Alloys	Stainless Steel
25 D	31	25.4	75	☎	051 850.18	051 350.18	051 020.18
52 C	66	50.4	95	☎	051 854.18	051 554.18	051 024.18
75 B	89	75.4	105	☎	051 856.18	051 356.18	051 026.18
100	115	100.4	145	☎	051 857.18	051 357.18	☎
110 A	133	100.4	145	☎	051 858.18	051 358.18	☎

Storz Couplings Storz Head by Female Thread

Standard Materials Optional materials casted aluminum alloy for industrial use, or forged aluminum for firefighting use

Sealing Materials Standard white NBR for both suction and delivery use

Thread Types Standard BSP, and ISO, NPT and NSW available on request

Size	KA mm	Thread	Casted Aluminum	Forged Aluminum	Brass Alloys	Stainless Steel
25 D	31	1 BSP	052 050	052 850	052 080	052 020
25 D	31	1/2 BSP	052 051.1	052 850.1	052 080.1	052 020.1
25 D	31	3/4 BSP	052 051.2	052 850.2	052 080.2	052 020.2
25 D	31	1 1/4 BSP	052 051.3	☎	☎	☎
38	51	1 1/2 BSP	052 052	052 852	052 082	052 022
38	51	1 BSP	052 052.1	052 852.1	052 082.1	052 022.1
38	51	1 1/4 BSP	052 052.2	052 852.2	052 082.2	052 022.2
38	51	2 BSP	052 052.3	052 852.3	052 082.3	052 022.3
45	59	1 3/4 BSP	052 053	☎	☎	☎
45	59	2 BSP	052 053.1	☎	☎	☎
52 C	66	2 BSP	052 054	052 854	052 084	052 024
52 C	66	3/4 BSP	052 054.1	052 854.1	052 084.1	052 024.1
52 C	66	1 BSP	052 054.2	052 854.2	052 084.2	052 024.2
52 C	66	1 1/4 BSP	052 054.3	052 854.3	052 084.3	052 024.3
52 C	66	1 1/2 BSP	052 054.4	052 854.4	052 084.4	052 024.4
52 C	66	2 1/2 BSP	052 054.5	052 854.5	052 084.5	052 024.5
65	81	2 1/2 BSP	052 055	052 855	052 085	052 025
65	81	1 BSP	052 055.1	052 855.1	☎	☎
65	81	1 1/4 BSP	052 055.2	052 855.2	☎	☎
65	81	1 1/2 BSP	052 055.3	052 855.3	☎	☎
65	81	2 BSP	052 055.4	052 855.4	052 085.4	052 025.4
65	81	3 BSP	052 055.5	052 855.5	052 085.5	☎
65	81	2 1/2 NSW	☎	052 855.6	☎	☎
75 B	89	3 BSP	052 056	052 856	052 086	052 025
75 B	89	2 BSP	052 056.1	052 856.1	052 086.1	052 025.1
75 B	89	2 1/2 BSP	052 056.2	052 856.2	052 086.2	052 025.2
110 A	133	4 BSP	052 058	052 858	052 088	☎
110 A	133	3 BSP	052 058.1	052 858.1	☎	☎
110 A	133	4 1/2 BSP	052 058.2	052 858.2	052 088.2	☎
110 A	133	5 BSP	052 058.3	052 858.3	☎	☎
125	148	5 BSP	052 059	☎	☎	☎
150	160	6 BSP	052 060	☎	☎	☎

Storz Swivelling Adapters with Female Thread



- Storz Couplings** Storz Head by Swivelling Female Thread
- Standard Materials** Optional materials casted aluminum alloy for industrial use, or forged aluminum for firefighting use
- Sealing Materials** Standard white NBR for both suction and delivery use
- Thread Types** Standard BSP, and ISO, NPT and NSW available on request

Size	KA mm	Thread	Casted Aluminum	Forged Aluminum	Brass Alloys	Stainless Steel
25 D	31	1 BSP	☒	052 240	☒	☒
52 C	66	2 BSP	☒	052 244	☒	☒
52 C	66	2 BSP	☒	052 244.1	☒	☒
52 C	66	1 ^{1/4} BSP	☒	052 244.2	☒	☒
65	81	2 ^{1/2} BSP	☒	052 245	☒	☒
65	81	2 BSP	☒	052 245.1	☒	☒
65	81	3 BSP	☒	052 245.2	☒	☒
75 B	89	3 BSP	☒	052 246	☒	☒
75 B	89	2 BSP	☒	052 246.1	☒	☒
75 B	89	2 ^{1/2} BSP	☒	052 246.2	☒	☒
110 A	133	4 BSP	☒	052 248	☒	☒
110 A	133	3 BSP	☒	052 248.1	☒	☒
110 A	133	4 ^{1/2} BSP	☒	052 248.2	☒	☒

Storz Adapters with Male Thread



- Storz Couplings** Storz Head by Swivelling Male Thread
- Standard Materials** Optional materials casted aluminum alloy for industrial use, or forged aluminum for firefighting use
- Sealing Materials** Standard white NBR for both suction and delivery use
- Thread Types** Standard BSP, and ISO, NPT and NSW available on request

Size	KA mm	Thread	Casted Aluminum	Forged Aluminum	Brass Alloys	Stainless Steel
25 D	31	1 BSP	053 050	053 850	053 080	053 020
25 D	31	3/4 BSP	053 050.1	053 850.2	053 080.2	053 020.2
25 D	31	1 ^{1/4} BSP	053 050.2	053 850.3	053 080.3	☒
25 D	31	1 ^{1/2} BSP	053 050.3	☒	☒	☒
32	44	1 ^{1/4} BSP	053 051	☒	☒	☒
38	51	1 ^{1/2} BSP	053 052	053 852	053 082	☒
38	51	1 ^{1/4} BSP	053 052.1	053 852.1	053 082.1	☒
38	51	2 BSP	053 052.2	053 852.2	053 082.2	☒
45	59	1 ^{3/4} BSP	053 053	☒	☒	☒
52 C	66	2 BSP	053 054	053 854	053 084	053 024
52 C	66	1 BSP	053 054.1	☒	☒	☒
52 C	66	1 ^{1/4} BSP	053 054.2	☒	053 084.2	053 024.2
52 C	66	1 ^{1/2} BSP	053 054.3	053 854.3	053 084.3	053 024.3
52 C	66	2 ^{1/2} BSP	053 054.4	053 854.4	053 084.4	053 024.4
65	81	2 ^{1/2} BSP	053 055	053 855	053 085	☒
65	81	1 ^{1/4} BSP	053 055.1	053 855.1	☒	☒
65	81	1 ^{1/2} BSP	053 055.2	053 855.2	☒	☒
65	81	2 BSP	053 055.3	053 855.3	053 085.3	☒
65	81	3 BSP	053 055.4	053 855.4	053 085.4	☒
75 B	89	3 BSP	053 056	053 856	053 086	053 026
75 B	89	2 BSP	053 056.1	053 856.1	053 086.1	053 026.1
75 B	89	2 ^{1/2} BSP	053 056.2	053 856.2	053 086.2	053 026.2
110 A	133	4 BSP	053 058	053 858	053 088	☒
110 A	133	5 BSP	053 058.1	053 858.1	☒	☒
125	148	5 BSP	052 059	☒	☒	☒

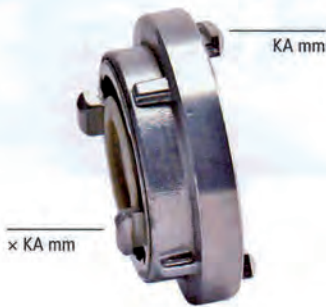
Storz Dust Caps



Storz Couplings	Storz Dust Caps with Chains attachment
Standard Materials	Optional materials casted aluminum alloy for industrial use, or forged aluminum for firefighting use
Sealing Materials	Standard white NBR for both suction and delivery use
Attachments	Plated steel chains available for standard supplies

Size	KA mm	Casted Aluminum	Forged Aluminum	Brass Alloys	Stainless Steel
25 D	31	054 050	054 850	054 080	054 020
32	51	054 051	☎	☎	☎
38	51	054 052	054 852	054 082	☎
45	59	054 053	☎	☎	☎
52 C	66	054 054	054 854	054 084	054 024
65	81	054 055	054 855	054 085	☎
75 B	89	054 056	054 856	054 086	054 026
100	115	054 057	054 857	054 087	☎
110 A	133	054 058	054 858	054 088	☎
125	148	054 059	054 859	☎	☎
150	160	054 060	☎	☎	☎

Reducer Storz to Storz



Storz Couplings	Storz Reducer Couplings
Standard Materials	Optional materials casted aluminum alloy for industrial use, or forged aluminum for firefighting use
Sealing Materials	Standard white NBR for both suction and delivery use

Size	KA mm	Casted Aluminum	Forged Aluminum	Brass Alloys	Stainless Steel
45 × 25 D	59.0 × 31.0	055 050	055 852	☎	☎
52 C × 25 D	66.0 × 31.0	055 051	055 853	☎	☎
52 C × 32	66.0 × 44.0	055 051.1	055 853	☎	☎
52 C × 38	66.0 × 51.0	055 051.2	055 855	☎	☎
65 × 38	81.0 × 51.0	055 052.2	055 856	☎	☎
65 × 45	81.0 × 59.0	055 052.1	☎	☎	☎
65 × 52 C	81.0 × 66.0	055 052	055 858	☎	☎
75 B × 52 C	89.0 × 66.0	055 053	055 859	☎	☎
75 B × 65	89.0 × 81.0	055 053.1	055 860	☎	☎
110 A × 52 C	133.0 × 66.0	055 054	055 861	☎	☎
110 A × 65	133.0 × 81.0	055 054.1	055 862	☎	☎
110 A × 75 B	133.0 × 89.0	055 054.2	055 863	☎	☎
125 × 100	148.0 × 115.0	055 055.1	☎	☎	☎
125 × 110 A	148.0 × 133.0	055 055	☎	☎	☎

Delivery Gaskets



Spare Parts Profiled Gaskets Suitable for Storz Delivery Operation
Not Recommended for Suction Use

Standard Materials Basic material white and black NBR

Working Temp. NBR -10~80°C

Size inch	NBR white	NBR black
1	059 011.2	059 011.1
1 ^{1/2}	059 012.2	059 012.1
1 ^{3/4}	059 013.2	059 013.1
2	059 014.2	059 014.1
2 ^{1/2}	059 015.2	059 015.1
3	059 016.2	059 016.1

Suction and Delivery Gaskets



Spare Parts Profiled Gaskets Suitable for Storz Suction and Delivery
Operation

Standard Materials Basic material white and black NBR

Working Temp. NBR -10~80°C

Size inch	NBR white	NBR black
1	059 011.4	059 011.3
1 ^{1/2}	059 012.4	059 012.3
1 ^{3/4}	059 013.4	059 013.3
2	059 014.4	059 014.3
2 ^{1/2}	059 015.4	059 015.3
3	059 016.4	059 016.3
4	059 017.4	059 017.3
5	059 018.4	059 018.3

Instantaneous Delivery Hose Couplings



BS Couplings British Instantaneous Delivery Hose Shank Couplings

Standard Materials 2 optional materials aluminum and brass alloys

Sealing Materials Standard black NBR for all couplings

Size inch	ØA inch	ØB mm	Aluminum Alloys	Brass Alloys	Bronze Alloys
1 1/2	1 1/2	38	054 320	054 360	054 370
2	2	50	054 321	☎	☎
2 1/2	2 1/2	38	054 322	054 362	054 372
2 1/2	2 1/2	45	054 323	054 363	054 373
2 1/2	2 1/2	52	054 324	054 364	054 374
2 1/2	2 1/2	64	054 325	054 365	054 375
2 1/2	2 1/2	70	054 326	054 366	054 376
2 1/2	2 1/2	75	054 327	☎	☎

Instantaneous Female Adapters with Inside Thread



BS Couplings British Instantaneous Female Adapter with Inside Thread

Standard Materials 2 optional materials aluminum and brass alloys

Sealing Materials Standard black NBR for all couplings

Thread Type BSP-Parallel Pipe Threads

Size inch	ØB inch	ØA mm	Aluminum Alloys	Brass Alloys
1 1/2	1 1/2	1 1/2	054 400	054 440
1 1/2	2	1 1/2	054 401	054 441
2	2	2	054 402	☎
2 1/2	1 1/2	2 1/2	054 403	054 443
2 1/2	2	2 1/2	054 404	054 444
2 1/2	2 1/2	2 1/2	054 405	054 445
2 1/2	3	2 1/2	054 406	☎

Instantaneous Female Adapters with Outside Thread



BS Couplings British Instantaneous Female Adapter with Outside Thread

Standard Materials 2 optional materials aluminum and brass alloys

Sealing Materials Standard black NBR for all couplings

Thread Type BSP-Parallel Pipe Threads

Size inch	ØB inch	ØA mm	Aluminum Alloys	Brass Alloys
1 1/2	1 1/2	1 1/2	054 420	054 430
1 1/2	2	1 1/2	054 421	054 431
2	2	2	054 422	☎
2 1/2	1	2 1/2	054 423	☎
2 1/2	1 1/2	2 1/2	054 424	054 434
2 1/2	2	2 1/2	054 425	054 435
2 1/2	2 1/2	2 1/2	054 426	054 436
2 1/2	2 1/2	3	☎	☎

Instantaneous Male Adapters with Inside Thread



BS Couplings	British Instantaneous Male Adapter with Inside Thread
Standard Materials	2 optional materials aluminum and brass alloys
Sealing Materials	Standard black NBR for all couplings
Thread Type	BSP-Parallel Pipe Threads

Size inch	ØB inch	ØA mm	Aluminum Alloys	Brass Alloys
1 1/2	1 1/2	1 1/2	054 240	054 270
1 1/2	2	1 1/2	054 241	054 271
2	2	2	054 242	054 272
2 1/2	1 1/2	2 1/2	054 243	054 273
2 1/2	2	2 1/2	054 244	054 274
2 1/2	2 1/2	2 1/2	054 245	054 275

Instantaneous Male Adapters with Outside Thread



BS Couplings	British Instantaneous Male Adapter with Outside Thread
Standard Materials	2 optional materials aluminum and brass alloys
Thread Type	BSP-Parallel Pipe Threads

Size inch	ØB inch	ØA mm	Aluminum Alloys	Brass Alloys
1 1/2	1 1/2	1 1/2	054 250	054 260
1 1/2	2	1 1/2	054 251	054 261
2	2	2	054 252	054 262
2 1/2	1 1/2	2 1/2	054 253	054 263
2 1/2	2	2 1/2	054 254	054 264
2 1/2	2 1/2	2 1/2	054 255	054 265

Instantaneous Plugs Chains Attached



BS Couplings	British Instantaneous Plugs with Chains attachment
Standard Materials	3 optional materials aluminum, brass alloys and PVC plastics
Attachments	Plated steel available for standard supplies

Size inch	ØA mm	Aluminum Alloys	Brass Alloys	Plastic PVC
1 1/2	1 1/2	054 473	054 476	054 470
2	2	054 474	054 477	054 471
2 1/2	2 1/2	054 475	054 478	054 472

DSP Delivery Hose Couplings



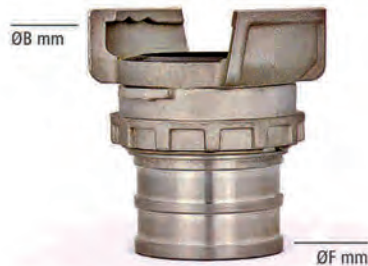
DSP Couplings French DSP Delivery Shank Couplings with Locking Ring
NF S61-701 S61-704 for DN40 & 65, S61-705 for DN100

Standard Materials Standard casted aluminum alloys

Sealing Materials Standard Black or White NBR gaskets

Size mm	ØF inch	ØB mm	Aluminum Alloys
40	35	55	☎
40	38	55	031 410.1
40	45	55	031 411.1
65	65	84	☎
65	70	84	031 413.1
100	110	123	031 414.1

DSP Delivery Hose Couplings 1 Clamp



DSP Couplings French DSP Delivery Shank Couplings with Locking Ring for 1 Clamp Space
NF S61-701 S61-704 for DN40 & 65, S61-705 for DN100

Standard Materials Standard casted aluminum alloys

Sealing Materials Standard Black or White NBR gaskets

Size mm	ØF inch	ØB mm	Aluminum Alloys
40	45	55	031 411
65	70	84	031 413
100	110	123	031 414

DSP by Inside Thread



DSP Couplings French DSP Head by Inside Thread with Locking Ring
NF S61-701 S61-704 for DN40 & 65, S61-705 for DN100

Standard Materials Standard casted aluminum alloys

Sealing Materials Standard Black or White NBR gaskets without sealing ring

Thread Types Standard BSP-Parallel pipe threads

Size mm	Thread inch	Ø mm	Aluminum Alloys
40	1 ¹ / ₂	55	031 431
40	2	55	031 432
65	2	84	031 435
65	2 ¹ / ₂	84	031 436
100	4	123	031 437

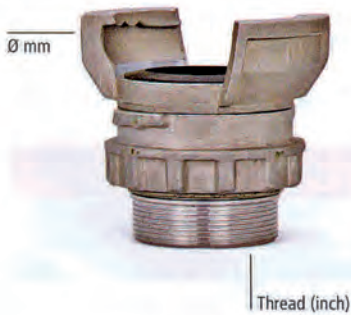
DSP by Inside Thread No Lock Ring



DSP Couplings	French DSP Head by Inside Thread with No Locking Ring NF S61-701 S61-704 for DN40 & 65, S61-705 for DN100
Standard Materials	Standard casted aluminum alloys
Sealing Materials	Standard Black or White NBR gaskets without sealing ring
Thread Types	Standard BSP-Parallel pipe threads

Size mm	Thread inch	Ø mm	Aluminum Alloys
40	1 ^{1/2}	55	031 451
40	2	55	031 452
65	2	84	031 455
65	2 ^{1/2}	84	031 456
100	4	123	031 457

DSP by Outside Thread



DSP Couplings	French DSP Head by Outside Thread with Locking Ring NF S61-701 S61-704 for DN40 & 65, S61-705 for DN100
Standard Materials	Standard casted aluminum alloys
Sealing Materials	Standard Black or White NBR gaskets
Thread Types	Standard BSP-Parallel pipe threads

Size mm	Thread inch	Ø mm	Aluminum Alloys
40	1 ^{1/2}	55	031 421
40	2	55	031 422
65	2	84	031 425
65	2 ^{1/2}	84	031 426
100	4	123	031 427

DSP by Outside Thread No Lock Ring



DSP Couplings	French DSP Head by Outside Thread without Locking Ring NF S61-701 S61-704 for DN40 & 65, S61-705 for DN100
Standard Materials	Standard casted aluminum alloys
Sealing Materials	Standard Black or White NBR gaskets
Thread Types	Standard BSP-Parallel pipe threads

Size mm	Thread inch	Ø mm	Aluminum Alloys
40	1 ^{1/2}	55	031 441
40	2	55	031 442
65	2	84	031 445
65	2 ^{1/2}	84	031 446
100	4	123	031 447

DSP Plugs



DSP Couplings

French DSP Dust Plugs with Locking Ring and Chains
NF S61-701 S61-704 for DN40 & 65, S61-705 for DN100

Standard Materials

Standard casted aluminum alloys

Sealing Materials

Standard Black or White NBR gaskets

Size mm	Thread inch	Ø mm	Aluminum Alloys
40	1 ^{1/2}	55	031 461
65	2 ^{1/2}	84	031 463
100	4	123	031 464

Fire Fighting

Barcelona Delivery Hose Couplings



Barcelona Couplings Spanish Barcelona Delivery Shank Couplings
UNE 23400

Standard Materials Standard forged aluminum alloys

Size mm	Aluminum Alloys
25	057 103
45	057 105
70	057 107

Barcelona Inside Thread



Barcelona Couplings Spanish Barcelona Couplings by Inside Thread
UNE 23400

Standard Materials Standard forged aluminum alloys

Sealing Materials Standard Black NBR gaskets with NBR seals

Thread Types Standard BSP-Parallel pipe threads

Size mm	Thread inch	Aluminum Alloys
25	3/4	057 122
25	1	057 123
45	1 ^{1/2}	057 125
70	2 ^{1/2}	057 127

Barcelona Outside Thread



Barcelona Couplings Spanish Barcelona Couplings by Outside Thread
UNE 23400

Standard Materials Standard forged aluminum alloys

Sealing Materials Standard Black NBR gaskets

Thread Types Standard BSP-Parallel pipe threads

Size mm	Thread inch	Aluminum Alloys
25	3/4	057 112
25	1	057 113
45	1 ^{1/2}	057 115
70	2 ^{1/2}	057 117

Barcelona Dust Caps



Barcelona Couplings Spanish Barcelona Dust Caps with Chains Attachment
UNE 23400

Standard Materials Standard casted aluminum alloys

Sealing Materials Standard Black NBR gaskets

Size	Aluminum Alloys
25	057 043
45	057 046
70	057 048
100	

Barcelona Reducers



Barcelona Couplings Spanish Barcelona Reducer Couplings
UNE 23400

Standard Materials Standard forged aluminum alloys

Sealing Materials Standard Black NBR gaskets

Size mm	Aluminum Alloys
40 × 25	057 232
70 × 40	057 234

Wire Binding Fixer



Binding Tools Fixer to Hold Flat Hoses For Wire Binding Work

Standard Materials Standard stainless steel

Size mm	Core Material	Article Nr.
50	Stainless Steel	084 112

Hand Held Wire Binder

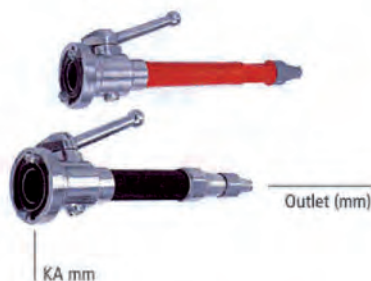


Binding Tools Wire Binder for Fire Fighting Flat Hoses

Standard Materials Standard aluminum alloy by yellow coating

Size mm	Core Material	Article Nr.
50	Aluminum alloys	084 110

Branchpipe Tip to Storz Couplings



Branchpipe Nozzles

Branchpipes Jet Shooting Tip to Storz Quick Couplings

Standard Materials

2 optional materials aluminum alloys, and corrugated red polyamide covered combination

Size inch	KA mm	Outlet mm	Length mm	Cover Color	Poly-amide	Aluminum Alloys
1 1/2	51	9	405	red	☑	☑
1 1/2	51	9	375	black	☑	☑
1 1/2	51	9	395	black	☑	☑
1 1/2	51	9	420	red	☑	☑
1 3/4	59	9	405	red	☑	☑
1 3/4	59	9	425	red	☑	☑
1 3/4	59	12	350	black	☑	☑
1 3/4	59	12	375	black	☑	☑
1 3/4	59	12	400	black	☑	☑
1 3/4	59	12	405	black	☑	☑
2	66	9	410	red	☑	☑
2	66	9	430	red	☑	☑
2	66	12	350	black	☑	☑
2	66	12	375	black	☑	☑
2	66	12	380	black	☑	☑
2	66	12	405	black	☑	☑
2 1/2	81	9	350	black	☑	☑
2 1/2	81	9	410	red	☑	☑
2 1/2	81	9	420	red	☑	☑
2 1/2	81	12	380	black	☑	☑
2 1/2	81	12	410	black	☑	☑
3	89	9	430	red	☑	☑
3	89	12	405	black	☑	☑
3	89	13	410	black	☑	☑

Branchpipe Wash Curtain Tip to Storz Couplings



Branchpipe Nozzles

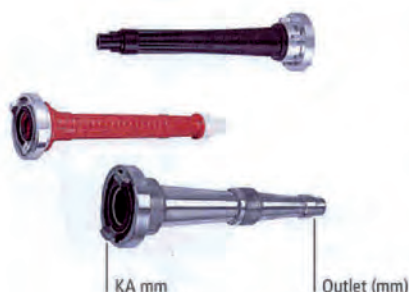
Branchpipes Wash Curtain Tip to Storz Quick Couplings

Standard Materials

Standard material aluminum alloys

Size inch	KA mm	Outlet mm	Length mm	Cover Color	Aluminum Alloys
1 1/2	51	9	425	black	☑
1 3/4	59	12	425	black	☑
2	66	12	425	black	☑

Branchpipe Tip to Storz Couplings No Shut-off



Branchpipe Nozzles

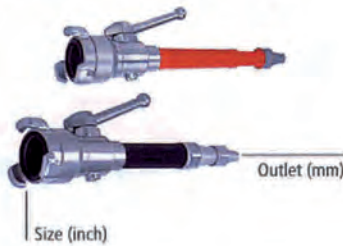
Branchpipes Jet Shooting Tip to Storz Quick Couplings With No Shut-Off Latch

Standard Materials

2 optional materials aluminum alloys, and corrugated red polyamide covered combination

Size inch	KA mm	Outlet mm	Length mm	Cover Color	Poly-amide	Aluminum Alloys
2	66	9	370	red	☑	☑
2	66	12	370	red	☑	☑
2	66	12	350	black	☑	☑
2	66	12	375	red	☑	☑
2	66	16	295	-	☑	☑

Branchpipe Tip to Barcelona Couplings



Branchpipe Nozzles

Branchpipes Jet Shooting Tip to Barcelona Quick Couplings

Standard Materials

2 optional materials aluminum alloys, and corrugated red polyamide covered combination

Size inch	Outlet mm	Length mm	Cover Color	Poly-amide	Aluminum Alloys
1	4	315	red	☑	☑
1 ^{3/4}	12	405	black	☑	☑
1 ^{3/4}	12	450	red	☑	☑
2 ^{3/4}	12	420	black	☑	☑
2 ^{3/4}	12	455	red	☑	☑

Branchpipe Wash Curtain Tip to Barcelona Couplings



Branchpipe Nozzles

Branchpipes Wash Curtain Tip to Barcelona Quick Couplings

Standard Materials

Standard material aluminum alloys

Size inch	Outlet mm	Length mm	Cover Color	Aluminum Alloys
1	4	315	black	☑
1 ^{3/4}	12	405	black	☑
2 ^{3/4}	12	420	black	☑

Branchpipe Tip to Barcelona Couplings No Shut-off



Branchpipe Nozzles

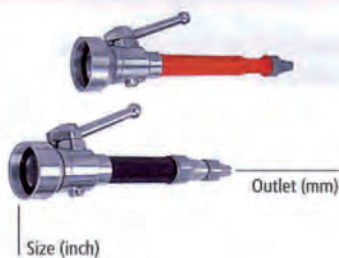
Branchpipes Jet Shooting Tip to Barcelona Quick Couplings With No Shut-Off Latch

Standard Materials

2 optional materials aluminum alloys, and corrugated red polyamide covered combination

Size inch	Outlet mm	Length mm	Cover Color	Aluminum Alloys
1	4	315	black	☑
1 ^{1/4}	12	405	black	☑
2 ^{1/4}	12	420	black	☑

Branchpipe Tip to British Inside Thread Couplings



Branchpipe Nozzles

Branchpipes Jet Shooting Tip to British Inside Thread Couplings

Standard Materials

2 optional materials aluminum alloys, and corrugated red polyamide covered combination

Size inch	Outlet mm	Length mm	Cover Color	Poly-amide	Aluminum Alloys
1 ^{1/2}	9	350	black	☑	☑
1 ^{1/2}	9	370	black	☑	☑
1 ^{1/2}	9	405	red	☑	☑
1 ^{3/4}	9	405	red	☑	☑
1 ^{3/4}	12	350	black	☑	☑
1 ^{3/4}	12	370	black	☑	☑
2	9	410	red	☑	☑
2	12	350	black	☑	☑
2	12	375	black	☑	☑
M56 × 4	9	405	red	☑	☑
M56 × 4	12	350	black	☑	☑
M56 × 4	12	370	black	☑	☑
2 ^{1/2}	9	410	red	☑	☑
2 ^{1/2}	12	375	black	☑	☑
2 ^{1/2}	16	455	black	☑	☑
M85 × 6	9	430	red	☑	☑
M85 × 6	12	395	black	☑	☑
M85 × 6	12	495	black	☑	☑
M85 × 6	16	455	black	☑	☑

Branchpipe Wash Curtain Tip to British Inside Thread Couplings



Branchpipe Nozzles

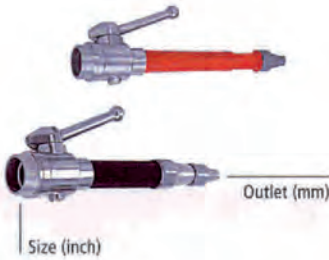
Branchpipes Wash Curtain Tip to British Inside Thread Couplings

Standard Materials

Standard material aluminum alloys

Size inch	Outlet mm	Length mm	Cover Color	Aluminum Alloys
1 ^{1/2}	9	415	black	☞
1 ^{3/4}	12	425	black	☞
2	12	425	black	☞
M56 × 4	12	430	black	☞
2 ^{1/2}	12	420	black	☞
M85 × 6	12	450	black	☞

Branchpipe Tip to British Outside Thread Couplings



Branchpipe Nozzles

Branchpipes Jet Shooting Tip to British Outside Thread Couplings

Standard Materials

2 optional materials aluminum alloys, and corrugated red polyamide covered combination

Size inch	Outlet mm	Length mm	Cover Color	Poly-amide	Aluminum Alloys
1 ^{1/2}	9	370	black	☞	☞
1 ^{1/2}	9	405	red	☞	☞
1 ^{3/4}	9	405	red	☞	☞
1 ^{3/4}	12	370	black	☞	☞
2	9	405	red	☞	☞
2	12	370	black	☞	☞
2 ^{1/2}	9	410	red	☞	☞
2 ^{1/2}	12	375	black	☞	☞

Branchpipe Wash Curtain Tip to British Outside Thread Couplings



Branchpipe Nozzles

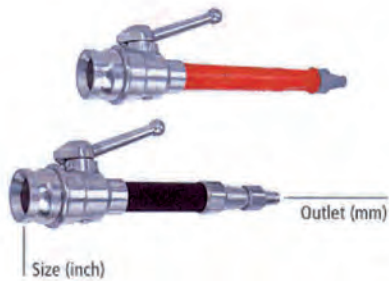
Branchpipes Wash Curtain Tip to British Outside Thread Couplings

Standard Materials

Standard material aluminum alloys

Size inch	Outlet mm	Length mm	Cover Color	Aluminum Alloys
1 ^{1/2}	9	420	black	☞
1 ^{3/4}	12	420	black	☞
2	12	425	black	☞
2 ^{1/2}	12	430	black	☞

Branchpipe Tip to British Adapters



Branchpipe Nozzles

Branchpipes Jet Shooting Tip to British Adapters

Standard Materials

2 optional materials aluminum alloys, and corrugated red polyamide covered combination

Size inch	Outlet mm	Length mm	Cover Color	Poly-amide	Aluminum Alloys
1 ^{1/2}	9	360	black	☑	☑
1 ^{1/2}	9	380	black	☑	☑
1 ^{1/2}	9	415	red	☑	☑
1 ^{1/2}	12	375	black	☑	☑
2	9	425	red	☑	☑
2	12	360	black	☑	☑
2	12	385	black	☑	☑
2	12	390	black	☑	☑
2 ^{1/2}	9	430	red	☑	☑
2 ^{1/2}	12	360	black	☑	☑
2 ^{1/2}	12	395	black	☑	☑
2 ^{1/2}	16	305	black	☑	☑
2 ^{1/2}	16	470	black	☑	☑

Branchpipe Wash Curtain Tip to British Adapters



Branchpipe Nozzles

Branchpipes Wash Curtain Tip to British Adapters Couplings

Standard Materials

Standard material aluminum alloys

Size inch	Outlet mm	Length mm	Cover Color	Aluminum Alloys
1 ^{1/2}	9	435	black	☑
2	12	440	black	☑
2 ^{1/2}	12	450	black	☑

Branchpipe Wash Curtain Tip to British Adapters No Shut-off



Branchpipe Nozzles

Branchpipes Wash Curtain or Jet Shoot Tip to British Adapters with No Shut-Off Latch

Standard Materials

Standard material aluminum alloys

Size inch	Outlet mm	Length mm	Cover Color	Aluminum Alloys
1 ^{1/2}	9	435	black	☑
2	12	440	black	☑
2 ^{1/2}	12	450	black	☑

Right Angle Globe Valves by Flange



Hydrant Valves	Fire Hydrant Globe Pattern Valves Shaped Right Angle by Flange Inlet BS 5154
Standard Materials	Standard copper alloy, gun metal, bronze
Pressure	Maximum working pressure 16 bar
Size	2 ^{1/2} inch
Outlet	Female British instantaneous couplings to BS 336
Inlet	Flange to ASTM standards upon request
Article number	

Oblique Globe Valves by Flange



Hydrant Valves	Fire Hydrant Globe Pattern Valves Shaped Oblique by Flange Inlet BS 5154
Standard Materials	Standard copper alloy, gun metal, bronze
Pressure	Maximum working pressure 16 bar
Size	2 ^{1/2} inch
Outlet	Female British instantaneous couplings to BS 336
Inlet	Flange to ASTM standards upon request
Article number	

Horizontal Globe Valves by Flange



Hydrant Valves	Fire Hydrant Globe Pattern Valves Shaped Horizontal by Flange Inlet BS 5154
Standard Materials	Standard copper alloy, gun metal, bronze
Pressure	Maximum working pressure 16 bar
Size	2 ^{1/2} inch
Outlet	Female British instantaneous couplings to BS 336
Inlet	Flange to ASTM standards upon request
Article number	


Bib Nose Globe Valves by Flange



Hydrant Valves	Fire Hydrant Globe Pattern Valves Shaped Bib Nose by Flange Inlet BS 5154
Standard Materials	Standard copper alloy, gun metal, bronze
Pressure	Maximum working pressure 16 bar
Size	2 ^{1/2} inch
Outlet	Female British instantaneous couplings to BS 336
Inlet	Flange to ASTM standards upon request
Article number	


Dry Riser Landing Valves by Flange



Hydrant Valves	Fire Hydrant Dry Riser Landing Valves by Flange Inlet BS 5154
Standard Materials	Standard copper alloy, gun metal, bronze
Pressure	Maximum working pressure 16 bar
Size	2 ^{1/2} inch
Outlet	Female British instantaneous couplings to BS 336
Inlet	Flange to ASTM standards upon request
Article number	

Dry Riser Landing Valves by Inside Thread



Hydrant Valves	Fire Hydrant Dry Riser Landing Valves by Female Thread Inlet BS 5154
Standard Materials	Standard copper alloy, gun metal, bronze
Pressure	Maximum working pressure 16 bar
Size	2 ^{1/2} inch
Outlet	Female British instantaneous couplings to BS 336
Inlet	Flange to ASTM standards upon request
Article number	

Dry Riser Landing Valves by Outside Thread



Hydrant Valves	Fire Hydrant Dry Riser Landing Valves by Male Thread Inlet BS 5154
Standard Materials	Standard copper alloy, gun metal, bronze
Pressure	Maximum working pressure 16 bar
Size	2 ¹ / ₂ inch
Outlet	Female British instantaneous couplings to BS 336
Inlet	Flange to ASTM standards upon request
Article number	☎

Bib Nose Regulating Valves by Flange



Hydrant Valves	Fire Hydrant Regulating Valves Shaped Bib Nose by Flange Inlet BS 5154
Standard Materials	Standard copper alloy, gun metal, bronze
Pressure	Maximum working pressure 16 bar
Size	2 ¹ / ₂ inch
Outlet	Female British instantaneous couplings to BS 336
Inlet	Flange to ASTM standards upon request
Article number	☎

Coupling 90° Bends Serrated Hose Tail



Hydrant Bends	3/4" and 2 ¹ / ₂ " Hose Coupling 90° Bends with Hose Tail
Standard Materials	Brass alloy with chrome plating
Pressure	Maximum working pressure 10 bar
In- and Out-let	Serrated hose tail
Article number	☎

Coupling 90° Bend Socket Ends



Hydrant Bends	3/4" and 2 ¹ / ₂ " Hose Coupling 90° Bends with Socket Joints
Standard Materials	Brass alloy with chrome plating
Pressure	Maximum working pressure 10 bar
Article number	☎

Hydrant Bars without Keys



Hydrant Bars	Extended Hydrant Bars with No Key Attached
Standard Materials	Standard aluminum alloys
Total Length	1040 mm
Article number	050 995

Hydrant Bars without Keys



Hydrant Bars	Extended Hydrant Bars with No Key Attached
Standard Materials	Standard aluminum alloys
Total Length	1040 mm
Article number	050 995.1



AIR CLAW COUPLINGS

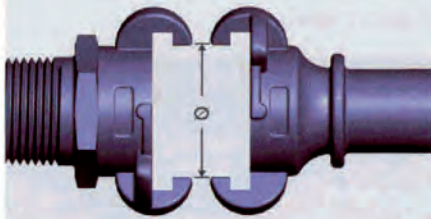
European Air Compressor Page 140

Air King Couplings Page 146

Sand Blast Couplings Page 149

Safety Cables Page 150

Air Claw Couplings



Air Claw Couplings are the part of universal hose couplings with unified claws that provide quick, safe and reliable connections. The program consists of similar types of European compressor couplings, "Minsup" European couplings, American air king fittings, or Chicago couplings, sand blast and protective hose cables.

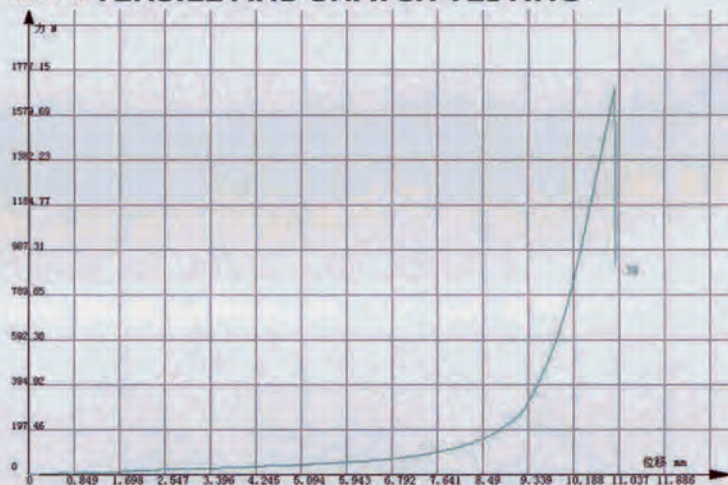
Claw couplings are designed with a common or **UNIVERSAL CLAW DISTANCE** which enables differing hose sizes and nominal sizes to be connected. They are most commonly used for conveying air and water, and are NOT to be used for steam applications. Dimension of connection for air claw couplings is unified regardless of sizes of hose shank, thread for sizes or core material combinations.

Program	Unified Claw Distance
European compressor couplings	Ø 42 mm
Minsup European couplings	Ø 42 mm
Air king couplings	Ø 41 mm
Geka plus couplings (water couplings)	Ø 40 mm
Raccords express (water couplings)	Ø 49 mm



Safety cables or whip check cables help prevent hose whip in case of accidental separation of couplings or clamp device. King cable reaches across the hose fittings to provide stand-by safety for hose. Spring-loaded loops in the cable ends open easily to pass over the couplings for a firm grip on the hose.

Our whip check hose-to-hose cables 1/8" are tested to be capable of 10 ~ 13 kN; 1/4" capable of 33 ~ 38 kN in **TENSILE AND SNATCH TESTING**.



Hose-to-hose cables 1/4" snatch testing

Air Claw Couplings

EA Hose Collar



EA Air Couplings

EA Coupling Head by Hose Shank with Multi-Serrations, and with Crimping Collar
EN DIN 3489

Standard Materials

2 optional materials bluish or yellow plating carbon steel and stainless steel

Sealing Materials

Standard Black NBR for plated steel couplings, and Green FPM for stainless steel ones

Size	Inch	Ø mm	Gasket	Core Material	Article Nr.
10	3/8	11.5	NBR	Pl. steel	071 611.1
13	1/2	14.5	NBR	Pl. steel	071 612.1
15	5/8	16.5	NBR	Pl. steel	071 618.1
19	3/4	20.5	NBR	Pl. steel	071 613.1
25	1	26.5	NBR	Pl. steel	071 614.1
10	3/8	11.5	FPM	St. steel	071 511
13	1/2	14.5	FPM	St. steel	071 512
19	3/4	20.5	FPM	St. steel	071 513
25	1	26.5	FPM	St. steel	071 514

EA Hose Shank



EA Air Couplings

EA Coupling Head by Hose Shank with Multi-Serrations, and with No Collar
EN DIN 3489

Standard Materials

2 optional materials bluish or yellow plating carbon steel and stainless steel

Sealing Materials

Standard Black NBR for plated steel couplings, and Green FPM for stainless steel ones

Size	Inch	Ø mm	Gasket	Core Material	Article Nr.
10	3/8	11.5	NBR	Pl. steel	071 611.2
13	1/2	14.5	NBR	Pl. steel	071 612.2
15	5/8	16.5	NBR	Pl. steel	071 618.2
19	3/4	20.5	NBR	Pl. steel	071 613.2
25	1	26.5	NBR	Pl. steel	071 514.2
32	1 1/4	34.5	NBR	Pl. steel	071 515.2

EA Inside Thread



EA Air Couplings	EA Coupling Head by Female Thread EN DIN 3489
Standard Materials	2 optional materials bluish or yellow plating carbon steel and stainless steel
Sealing Materials	Standard Black NBR for plated steel couplings, and Green FPM for stainless steel ones without sealing rings
Thread Types	Standard G pipe thread for plated steel, and BSP-Parallel thread for stainless steel couplings

Size	Thread	Gasket	Core Material	Article Nr.
6	G 1/4	NBR	Pl. steel	073 611
10	G 3/8	NBR	Pl. steel	073 612
15	G 1/2	NBR	Pl. steel	073 613
19	G 3/4	NBR	Pl. steel	073 614
25	G 1	NBR	Pl. steel	073 615
32	G 1 1/4	NBR	Pl. steel	073 616
15	1/2 BSPP	FPM	St. steel	073 513
19	3/4 BSPP	FPM	St. steel	073 514
25	1 BSPP	FPM	St. steel	073 515
15	1/2 BSPP	NBR	St. steel	073 513.2
19	3/4 BSPP	NBR	St. steel	073 514.2
25	1 BSPP	NBR	St. steel	073 515.2

EA Outside Thread



EA Air Couplings	EA Coupling Head by Male Thread EN DIN 3489
Standard Materials	2 optional materials bluish or yellow plating carbon steel and stainless steel
Sealing Materials	Standard Black NBR for plated steel couplings, and Green FPM for stainless steel ones
Thread Types	Standard G pipe thread for plated steel, and BSP-Tapered thread for stainless steel couplings

Size	Thread	Gasket	Core Material	Article Nr.
6	G 1/4	NBR	Pl. steel	072 611
10	G 3/8	NBR	Pl. steel	072 612
15	G 1/2	NBR	Pl. steel	072 613
19	G 3/4	NBR	Pl. steel	072 614
25	G 1	NBR	Pl. steel	072 615
32	G 1 1/4	NBR	Pl. steel	072 616
15	1/2 BSPT	FPM	St. steel	072 513
19	3/4 BSPT	FPM	St. steel	072 514
25	1 BSPT	FPM	St. steel	072 515
15	1/2 BSPT	NBR	St. steel	072 513.2
19	3/4 BSPT	NBR	St. steel	072 514.2
25	1 BSPT	NBR	St. steel	072 515.2

Air Claw Couplings

EA Caps



EA Air Couplings

EA Coupling Blind Caps
EN DIN 3489

Standard Materials

2 optional materials bluish or yellow plating carbon steel and stainless steel

Sealing Materials

Standard Black NBR for plated steel couplings, and Green FPM for stainless steel ones

Attachments

Steel and SS chains available upon request

Size	Gasket	Core Material	Article Nr.
Universal	NBR	Pl. steel	074 600
Universal	FPM	St. steel	074 500
Universal	NBR	St. steel	074 500.2

Minsup Hose Shank



Minsup Air Couplings

Minsup Coupling Head by Hose Shank with 1 Clamp Space, and with 2 Securing Holes
AS 2554, AS 2660

Standard Materials

Standard material bluish or yellow plating carbon steel

Sealing Materials

Standard Black NBR for plated steel couplings, and Green FPM for stainless steel ones

Size	Inch	Ø mm	Gasket	Core Material	Article Nr.
13	1/2	14.5	NBR	Pl. steel	072 803
19	3/4	20.5	NBR	Pl. steel	072 804
25	1	26.5	NBR	Pl. steel	072 805

Minsup Inside Thread



Minsup Air Couplings

Minsup Coupling Head by Female Thread, and with 2 Securing Holes
AS 2554, AS 2660

Standard Materials

Standard material bluish or yellow plating carbon steel

Sealing Materials

Standard Black NBR for plated steel couplings, and Green FPM for stainless steel ones without sealing rings

Thread Types

G pipe thread

Size	Thread	Gasket	Core Material	Article Nr.
15	G 1/2	NBR	Pl. steel	072 823
19	G 3/4	NBR	Pl. steel	072 824
25	G 1	NBR	Pl. steel	072 825

Minsup Outside Thread



Minsup Air Couplings	Minsup Coupling Head by Male Thread, and with 2 Securing Holes AS 2554, AS 2660
Standard Materials	Standard material bluish or yellow plating carbon steel
Sealing Materials	Standard Black NBR for plated steel couplings, and Green FPM for stainless steel ones
Thread Types	G pipe thread

Size	Thread	Gasket	Core Material	Article Nr.
15	G 1/2	NBR	Pl. steel	072 813
19	G 3/4	NBR	Pl. steel	072 814
25	G 1	NBR	Pl. steel	072 815

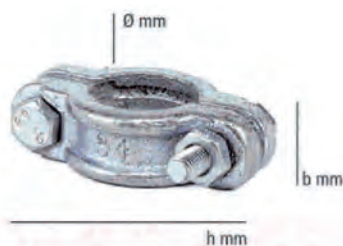
EA Washers



Spare Parts	Square Washers fitting in EA Air Couplings
Standard Materials	3 basic materials Black NBR, White EPDM and Green FPM
Working Temp.	NBR -10~80°C / EPDM -20~130°C / FPM -20~180°C

Size	Weight g	Material	Article Nr.
Universal	5	NBR	071 901.1
Universal	5	EPDM	071 901.2
Universal	8	CSM	071 901.3

Saddle Clamps



Saddle Clamps

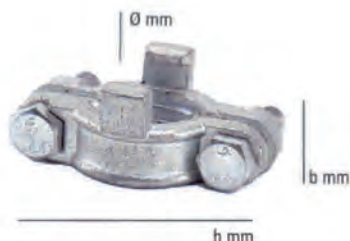
Saddle Clamps Recommended for EA Coupling Assemblies
EN DIN 20039 A

Standard Materials

2 optional materials bluish or yellow plating malleable iron
and carbon steel, with bolts and nuts of grade 4.8

Size	inch	h mm	Ø mm	b mm	Weight g	Core Material	Article Nr.
SL - 22	3/8	60	17 - 22	15	100	Mbl. iron	081 001
SL - 29	1/2	63	22 - 29	18	128	Mbl. iron	081 002
SL - 34	3/4	71	28 - 34	18	134	Mbl. iron	081 003
SL - 40	1	81	32 - 40	18	188	Mbl. iron	081 004
SL - 49	1 ^{1/4}	91	39 - 49	20	244	Mbl. iron	081 005
SL - 60	1 ^{1/2}	108	48 - 60	24	297	Mbl. iron	081 006
SL - 76	2	127	60 - 76	25	405	Mbl. iron	081 007
SL - 94	2 ^{1/2}	146	77 - 94	30	556	Mbl. iron	081 008
SL - 115	3	176	94 - 115	35	739	Mbl. iron	081 009
SL - 400	3	140	89 - 101	25	815	Mbl. iron	081 010
SL - 463	3	155	96 - 103	25	875	Mbl. iron	081 011
SL - 525	3 ^{1/2}	170	113 - 127	27	890	Mbl. iron	081 012
SL - 550	4	178	127 - 140	28	972	Mbl. iron	081 013
SL - 600	4	194	135 - 155	27	984	Mbl. iron	081 014
SL - 675	5	217	155 - 175	30	1130	Mbl. iron	081 015
SL - 769	6	244	175 - 195	30	1445	Mbl. iron	081 016
SL - 818	6	255	195 - 208	34	2545	Mbl. iron	081 017
SL - 875	7	280	210 - 225	35	2163	Mbl. iron	081 018
SL - 988	8	312	227 - 250	35	2610	Mbl. iron	081 019
SL - 22	3/8	60	17 - 22	15	100	Ca. steel	081 041
SL - 29	1/2	63	22 - 29	18	128	Ca. steel	081 042
SL - 34	3/4	71	28 - 34	18	134	Ca. steel	081 043
SL - 40	1	81	32 - 40	18	188	Ca. steel	081 044
SL - 49	1 ^{1/4}	91	39 - 49	20	244	Ca. steel	081 045
SL - 60	1 ^{1/2}	108	48 - 60	24	297	Ca. steel	081 046
SL - 76	2	127	60 - 76	25	405	Ca. steel	081 047
SL - 94	2 ^{1/2}	146	77 - 94	30	556	Ca. steel	081 048
SL - 115	3	176	94 - 115	35	739	Ca. steel	081 049
SL - 400	3	140	89 - 101	25	815	Ca. steel	081 050
SL - 463	3	155	96 - 103	25	875	Ca. steel	081 051
SL - 525	3 ^{1/2}	170	113 - 127	27	890	Ca. steel	081 052
SL - 550	4	178	127 - 140	28	972	Ca. steel	081 053
SL - 600	4	194	135 - 155	27	984	Ca. steel	081 054
SL - 675	5	217	155 - 175	30	1130	Ca. steel	081 055
SL - 769	6	244	175 - 195	30	1445	Ca. steel	081 056
SL - 818	6	255	195 - 208	34	2545	Ca. steel	081 057
SL - 875	7	280	210 - 225	35	2163	Ca. steel	081 058
SL - 988	8	312	227 - 250	35	2610	Ca. steel	081 059

Saddle Claw Clamps



Saddle Clamps

Saddle Clamps with Gripping Claws Recommended for
EA Coupling Assemblies
EN DIN 20039 B

Standard Materials

Standard material bluish or yellow plating carbon steel
with bolts and nuts of grade 4.8

Size	inch	h mm	Ø mm	b mm	Weight g	Core Material	Article Nr.
SK - 29	1/2	63	22 - 29	18	142	Ca. steel	079 221
SK - 34	3/4	77	28 - 34	21	220	Ca. steel	079 222
SK - 40	1	90	32 - 40	22	272	Ca. steel	079 223
SK - 49	1 ^{1/4}	92	39 - 49	22	280	Ca. steel	079 224
SK - 60	1 ^{1/2}	119	48 - 60	26	416	Ca. steel	079 225
SK - 76	2	119	60 - 76	26	485	Ca. steel	079 226
SK - 94	2 ^{1/2}	143	77 - 94	28	820	Ca. steel	079 227

Crimping Sleeves



Crimping Sleeves

Crimping Sleeves for Minsup Coupling Assemblies

Standard Materials

2 optional materials plating steel and aluminum alloys

Size DN	Plated Steel	Aluminum Alloys
25	212 104	044 051
32	212 105	☎
40	212 106	044 052
50	212 107	044 053
65	212 108	044 054
80	212 109	044 055
100	212 110	044 056
125	212 111	☎
150	212 112	☎

Air Claw Couplings

UA Hose Shank



UA Air Couplings

UA Coupling Head by Hose Shank with Multi-Serrations, and with Crimping Collar

Standard Materials

3 optional materials bluish or yellow plating carbon steel, stainless steel and brass alloy

Sealing Materials

Standard Black NBR for plated steel and brass couplings, and Green FPM for stainless steel ones

Size	Inch	Ø mm	Gasket	Core Material	Article Nr.
6	1/4	-	NBR	Pl. steel	071 311
10	3/8	7.3	NBR	Pl. steel	071 312
13	1/2	11	NBR	Pl. steel	071 313
19	3/4	20	NBR	Pl. steel	071 314
25	1	26	NBR	Pl. steel	071 315
32	1 ^{1/4}	33	NBR	Pl. steel	071 316
40	1 ^{1/2}	39.5	NBR	Pl. steel	071 317
50	2	52	NBR	Pl. steel	071 318
10	3/8	7.3	FPM	St. steel	071 312.1
13	1/2	11	FPM	St. steel	071 313.1
19	3/4	20	FPM	St. steel	071 314.1
25	1	26	FPM	St. steel	071 315.1
13	1/2	11	NBR	Brass	071 323
19	3/4	20	NBR	Brass	071 324
25	1	26	NBR	Brass	071 325

UA Inside Thread



UA Air Couplings

UA Coupling Head by Female Thread

Standard Materials

3 optional materials bluish or yellow plating carbon steel, stainless steel and brass alloy

Sealing Materials

Standard Black NBR for plated steel and brass couplings, and Green FPM for stainless steel ones without seals

Thread Types

Standard NPT pipe thread

Size	Thread	Gasket	Core Material	Article Nr.
10	3/8	NBR	Pl. steel	073 312
13	1/2	NBR	Pl. steel	073 313
19	3/4	NBR	Pl. steel	073 314
25	1	NBR	Pl. steel	073 315
32	1 ^{1/4}	NBR	Pl. steel	073 316
40	1 ^{1/2}	NBR	Pl. steel	073 317
50	2	NBR	Pl. steel	073 318
10	3/8	FPM	St. steel	073 312.1
13	1/2	FPM	St. steel	073 313.1
19	3/4	FPM	St. steel	073 314.1
25	1	FPM	St. steel	073 315.1
13	1/2	NBR	Brass	073 323
19	3/4	NBR	Brass	073 324
25	1	NBR	Brass	073 325

UA Outside Thread



UA Air Couplings

UA Coupling Head by Male Thread

Standard Materials

3 optional materials bluish or yellow plating carbon steel, stainless steel and brass alloy

Sealing Materials

Standard Black NBR for plated steel and brass couplings, and Green FPM for stainless steel ones

Thread Types

Standard NPT pipe thread

Size	Thread	Gasket	Core Material	Article Nr.
6	1/4	NBR	Pl. steel	072 311
10	3/8	NBR	Pl. steel	072 312
13	1/2	NBR	Pl. steel	072 313
19	3/4	NBR	Pl. steel	072 314
25	1	NBR	Pl. steel	072 315
10	3/8	FPM	St. steel	072 312.1
13	1/2	FPM	St. steel	072 313.1
19	3/4	FPM	St. steel	072 314.1
25	1	FPM	St. steel	072 315.1
13	1/2	NBR	Brass	072 323

UA Caps



UA Air Couplings

UA Coupling Blind Caps

Standard Materials

3 optional materials bluish or yellow plating carbon steel, stainless steel and brass alloy

Sealing Materials

Standard Black NBR for plated steel and brass couplings, and Green FPM for stainless steel ones

Size	Gasket	Core Material	Article Nr.
Universal	NBR	Pl. steel	074 300
Universal	FPM	St. steel	074 300.1
Universal	NBR	Brass	074 320

UA Three-Way



UA Air Couplings

UA Coupling Three-Way Connector

Standard Materials

Standard bluish or yellow plating carbon steel

Sealing Materials

Standard Black NBR for plated steel couplings

Size	Gasket	Core Material	Article Nr.
Universal	NBR	Pl. steel	074 310

Air Claw Couplings

UA Washers



Spare Parts	Square Washers fitting in UA Air Couplings
Standard Materials	3 basic materials Black NBR, White EPDM and Green FPM
Working Temp.	NBR -10~80°C / EPDM -20~130°C / FPM -20~180°C

Size	Gasket	Core Material	Article Nr.
Universal	5	NBR	071 901.1
Universal	5	EPDM	071 901.2
Universal	8	FPM	071 901.3

Safety Clips



Accessories	Safety Clips for UA Air Couplings
Standard Materials	2 optional materials plated steel and SS 304

Size	Inch	Core Material	Article Nr.
13 - 50	1/2 - 1	Pl. steel	069 521
13 - 50	1/2 - 1	St. steel	069 521.1

Worm Gear Clamps



Hose Clamps	Worm-Gear Clamps German Style
Standard Materials	2 optional materials plated steel (W1), and stainless steel (W4)
Band Width	9 mm
Band Thickness	0.7 mm

Range mm	Band Width	Band Thickness	Plated Steel	Stainless Steel
8 - 12	9 mm	0.7 mm	081 901	081 951
10 - 16	9 mm	0.7 mm	081 902	081 952
12 - 22	9 mm	0.7 mm	081 903	081 953
16 - 27	9 mm	0.7 mm	081 904	081 954
23 - 35	9 mm	0.7 mm	081 905	081 955
25 - 40	9 mm	0.7 mm	081 906	081 956
30 - 45	9 mm	0.7 mm	081 907	081 957
32 - 50	9 mm	0.7 mm	081 908	081 958
40 - 60	9 mm	0.7 mm	081 909	081 959
50 - 70	9 mm	0.7 mm	081 910	081 960
60 - 80	9 mm	0.7 mm	081 911	081 961
70 - 90	9 mm	0.7 mm	081 912	081 962
80 - 100	9 mm	0.7 mm	081 913	081 963
90 - 110	9 mm	0.7 mm	081 914	081 964
100 - 120	9 mm	0.7 mm	081 915	081 965
110 - 130	9 mm	0.7 mm	081 916	081 966
120 - 140	9 mm	0.7 mm	081 917	081 967
130 - 150	9 mm	0.7 mm	081 918	081 968
140 - 160	9 mm	0.7 mm	081 919	081 969
150 - 170	9 mm	0.7 mm	081 920	081 970
160 - 180	9 mm	0.7 mm	081 921	081 971
170 - 190	9 mm	0.7 mm	081 922	081 972
180 - 200	9 mm	0.7 mm	081 923	081 973

Sand Blast Hose Couplings



Sand Blast Couplings Sand Blast Hose Couplings Inclusive of Screws

Standard Materials 4 optional materials malleable iron, aluminum and brass alloy, and nylon compound

Sealing Materials Standard Black NBR

Size	Malleable Iron	Aluminum Alloy	Brass Alloy	Nylon
3/4	071 202	071 202.1	071 202.2	071 202.3
1	071 203	071 203.1	071 203.2	071 203.3
1 ^{1/4}	071 204	071 204.1	071 204.2	071 204.3
1 ^{1/2}	071 205	071 205.1	071 205.2	071 205.3

Sand Blast Thread Couplings



Sand Blast Couplings Sand Blast Hose Couplings by Female Thread

Standard Materials 4 optional materials malleable iron, aluminum and brass alloy, and nylon compound

Sealing Materials Standard Black NBR

Thread Types Coarse Thread

Size	Malleable Iron	Aluminum Alloy	Brass Alloy	Nylon
3/4	☒	☒	☒	☒
1	☒	☒	☒	☒
1 ^{1/4}	071 404	071 404.1	071 404.2	071 404.3
1 ^{1/2}	071 405	071 405.1	071 405.2	071 405.3

Sand Blast Nozzle Holders



Sand Blast Couplings Sand Blast Nozzle Holders by Female Thread

Standard Materials 4 optional materials malleable iron, aluminum and brass alloy, and nylon compound

Sealing Materials Standard Black NBR

Thread Types Coarse Thread

Size	Malleable Iron	Aluminum Alloy	Brass Alloy	Nylon
3/4	071 302	071 302.1	071 302.2	071 302.3
1	071 303	071 303.1	071 303.2	071 303.3
1 ^{1/4}	071 304	071 304.1	071 304.2	071 304.3
1 ^{1/2}	071 305	071 305.1	071 305.2	071 305.3

Steam Couplings

Hose-To-Hose Safety Cables



Safety Cables

Safety Cables for Hose-to-Hose Service

Standard Materials

Standard carbon steel with aluminum buckles

Size inch	Range inch	Length mm	Core Material	Article Nr.
1/8	1/2 - 1 ^{1/8}	550	Pl. steel	242 001
1/8	1/2 - 1 ^{1/4}	450	Pl. steel	242 001.1
1/8	1/2 - 1 ^{1/2}	500	Pl. steel	242 001.2
1/8	1/2 - 1 ^{3/4}	600	Pl. steel	242 001.3
1/4	1 ^{1/2} - 3	956	Pl. steel	242 002
3/8	-	1118	Pl. steel	242 004

Hose-To-Tool Safety Cables



Safety Cables

Safety Cables for Hose-to-Tool Service

Standard Materials

Standard carbon steel with aluminum buckles

Size inch	Range inch	Length inch	Core Material	Article Nr.
1/8	1/2 - 1 ^{1/4}	20 ^{1/4}	Pl. steel	242 011
1/4	1 ^{1/2} - 3	38	Pl. steel	242 012



Note: Our whip check hose-to-hose cables 1/8" are tested to be capable of 10 ~ 13 kN; 1/4" capable of 33 ~ 38 kN in tensile and snatch testing. Refer to testing graph on page 139.



STEAM COUPLINGS

Boss Ground Joint Seal *Page 154*

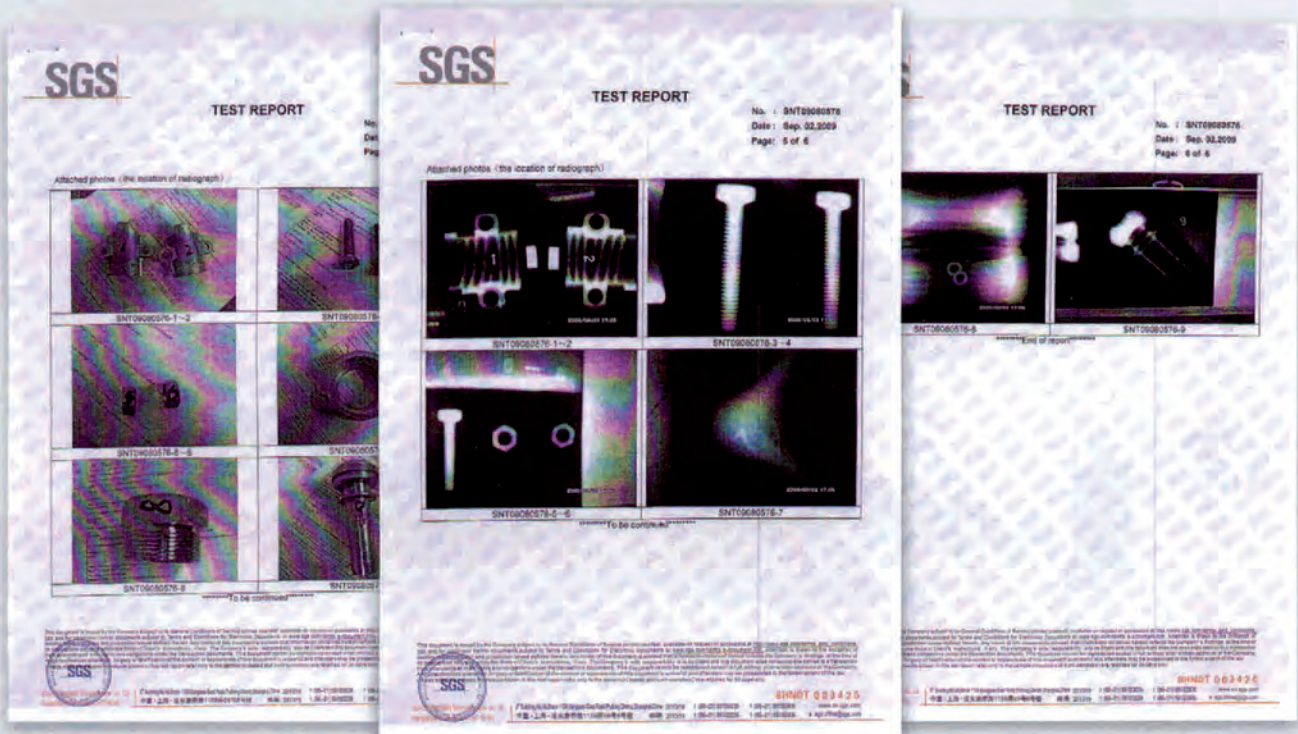
DIN Steam Fittings *Page 157*

Steam Couplings

Our steam couplings consist of "Boss" ground joint seal couplings and "DIN" steam hose fittings to BS EN 14423 made of plated or stainless steel and brass alloys. They are supplied with corresponding "Boss" clamps with gripping fingers and safety clamps.

Steam couplings are sealed with metal-to-metal face or rubber sealing rings. Maximum working temperature +120°C (248°F) for hot water and +210°C (410°F) for steam.

Sand holes are deadly to pressure steam applications. We produce our "Boss" couplings by investment casting for great **MECHANICAL INTENSITY**. So less chances of poor productions with sand holes are achieved. Our "Boss" stem couplings and clamps have been proven through X-ray penetration tests from batches.



Steam Couplings

Boss Complete Coupling



Ø mm

Boss Steam Couplings Complete Boss Steam Couplings with Hose Stem, Wing Nut Thread and Spud Adapter

Standard Materials Standard materials bluish plating carbon steel

Thread Types Standard NPT and BSP-Parallel pipe threads

Working Temp. Recommended for steam service up to 232°C

Size inch	Ø mm	Thread Type	Core Material	Article Nr.
1/2	8	BSP-P	Pl. steel	081 113
3/4	10	BSP-P	Pl. steel	081 114
1	13	BSP-P	Pl. steel	081 115
1 ^{1/4}	19	BSP-P	Pl. steel	081 116
1 ^{1/2}	25	BSP-P	Pl. steel	081 117
2	-	BSP-P	Pl. steel	081 118
1/2	8	NPT	Pl. steel	081 113.3
3/4	10	NPT	Pl. steel	081 114.3
1	13	NPT	Pl. steel	081 115.3
1 ^{1/4}	19	NPT	Pl. steel	081 116.3
2	-	NPT	Pl. steel	081 118.3

Boss Hose Stem



Ø mm

Boss Steam Couplings Boss Hose Stem by Round Metal-to-Metal Sealing Face

Standard Materials Standard materials bluish plating carbon steel

Working Temp. Recommended for steam service up to 232°C

Size inch	Ø mm	Core Material	Article Nr.
1/2	8	Pl. steel	081 123
3/4	10	Pl. steel	081 124
1	13	Pl. steel	081 125
1 ^{1/4}	19	Pl. steel	081 126
1 ^{1/2}	25	Pl. steel	081 127
2	-	Pl. steel	081 128

Boss Male Stem



Ø mm

Thread

Boss Steam Couplings Boss Hose Stem by Male Thread, and with Crimping Collar

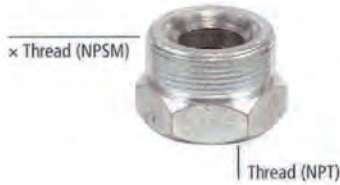
Standard Materials Standard materials bluish plating carbon steel

Thread Types Standard NPT and BSP-Tapered pipe threads

Working Temp. Recommended for steam service up to 232°C

Size inch	Ø mm	Thread Type	Core Material	Article Nr.
3/8	-	BSP-T	Pl. steel	081 212
1/2	8	BSP-T	Pl. steel	081 213
3/4	10	BSP-T	Pl. steel	081 214
1	13	BSP-T	Pl. steel	081 215
1 ^{1/4}	19	BSP-T	Pl. steel	081 216
1 ^{1/2}	25	BSP-T	Pl. steel	081 217
2	-	BSP-T	Pl. steel	081 218
3/8	-	NPT	Pl. steel	081 213.5
1/2	8	NPT	Pl. steel	081 213.5
3/4	10	NPT	Pl. steel	081 214.5
1	13	NPT	Pl. steel	081 215.5
1 ^{1/4}	19	NPT	Pl. steel	081 216.5
1 ^{1/2}	25	NPT	Pl. steel	081 217.5
2	-	NPT	Pl. steel	081 218.5

Boss Female Spud



Boss Steam Couplings Boss Spud with Screw-On Male Thread, and by Female Thread Outlet

Standard Materials Standard materials bluish plating carbon steel

Thread Types Male NPT pipe thread by female NPSM thread type

Working Temp. Recommended for steam service up to 232°C

Size inch	Core Material	Article Nr.
1/2 NPT x 1 NPSM	Pl. steel	081 133
3/4 NPT x 1 1/2 NPSM	Pl. steel	081 134
1 NPT x 1 1/2 NPSM	Pl. steel	081 135
1 1/4 NPT x 2 NPSM	Pl. steel	081 136
1 1/2 NPT x 2 NPSM	Pl. steel	081 137
2 NPT x 2 1/2 NPSM	Pl. steel	081 138

Boss Male Spud



Boss Steam Couplings Boss Spud with Screw-On Male Thread, and by Male Thread Outlet

Standard Materials Standard materials bluish plating carbon steel

Thread Types Male NPT pipe thread by male NPT thread type

Working Temp. Recommended for steam service up to 232°C

Size inch	Core Material	Article Nr.
3/4 NPT	Pl. steel	081 153
1 NPT	Pl. steel	081 154
1 1/4 NPT	Pl. steel	081 155
1 1/2 NPT	Pl. steel	081 156
2 NPT	Pl. steel	081 157

Boss Wing Nut Thread



Boss Steam Couplings Boss Wing Nut by Female Thread

Standard Materials Standard materials bluish plating carbon steel

Thread Types Female NPSM thread type

Working Temp. Recommended for steam service up to 232°C

Size inch	Thread	Core Material	Article Nr.
1/2	1 NPSM	Pl. steel	081 143
3/4	1 1/2 NPSM	Pl. steel	081 144
1	1 1/2 NPSM	Pl. steel	081 145
1 1/4	2 NPSM	Pl. steel	081 146
1 1/2	2 NPSM	Pl. steel	081 147
2	2 1/2 NPSM	Pl. steel	081 148

Boss Interlocking Clamps



Hose Clamps

Boss Interlocking Clamps with Gripping fingers, with 2 or 4 Bolts Attached

Standard Materials

Standard materials bluish plating carbon steel, and with plated steel bolts and nuts of grade 4.8 and 8.8

Working Temp.

Recommended for steam service up to 232°C

Size inch	Range inch	Bolts set	Core Material	Article Nr.
1/2	15/16 - 1 1/16	2 x 4.8	Pl. steel	082 004
3/4	1 1/2 - 1 11/16	2 x 4.8	Pl. steel	082 007
1	1 11/16 - 1 15/16	4 x 4.8	Pl. steel	082 012
1 1/4	2 1/8 - 2 3/8	4 x 4.8	Pl. steel	082 019
1 1/2	2 1/4 - 2 5/16	4 x 4.8	Pl. steel	082 024
2	2 3/4 - 2 7/16	4 x 4.8	Pl. steel	082 030
3	-	4 x 4.8	Pl. steel	082 040
4	2 5/16 - 2 5/8	4 x 4.8	Pl. steel	082 047
1/2	15/16 - 1 1/16	2 x 8.8	Pl. steel	082 004.1
3/4	1 1/2 - 1 11/16	2 x 8.8	Pl. steel	082 007.1
1	1 11/16 - 1 15/16	4 x 8.8	Pl. steel	082 012.1
1 1/4	2 1/8 - 2 3/8	4 x 8.8	Pl. steel	082 019.1
1 1/2	2 1/4 - 2 5/16	4 x 8.8	Pl. steel	082 024.1
2	2 3/4 - 2 7/16	4 x 8.8	Pl. steel	082 030.1

Steam Fittings by Inside Thread



DIN Steam Couplings DIN Steam Hose Fittings with Clamping Collar by Inside Thread
BS EN 14423

Standard Materials 3 basic materials brass, stainless steel and plated steel

Sealing Materials Standard Brown Frenzolit® for brass and steel couplings, White PTFE for SS couplings

Thread Types Standard BSP-Parallel pipe threads

Working Temp. Recommended for steam service up to 210°C, or hot water 120°C

Size	Thread inch	Ø mm	Stainless Steel	Plated Steel	Brass Alloys
DN 015	1/2	15	023 311	023 331	023 321
DN 020	3/4	21	023 312	023 332	023 322
DN 025	1	27	023 313	023 333	023 323
DN 032	1 ^{1/4}	34	023 314	023 334	023 324
DN 040	1 ^{1/2}	40.5	023 315	023 335	023 325
DN 050	2	52.5	023 316	023 336	023 326

Steam Fittings by Outside Thread



DIN Steam Couplings DIN Steam Hose Fittings with Clamping Collar by Outside Thread
BS EN 14423

Standard Materials 3 basic materials brass, stainless steel and plated steel

Thread Types Standard BSP-Tapered pipe threads

Working Temp. Recommended for steam service up to 210°C, or hot water 120°C

Size	Thread inch	Ø mm	Stainless Steel	Plated Steel	Brass Alloys
DN 015	1/2	15	023 211	023 231	023 221
DN 020	3/4	21	023 212	023 232	023 222
DN 025	1	27	023 213	023 233	023 223
DN 032	1 ^{1/8}	34	023 214	023 234	023 224
DN 040	1 ^{1/2}	40.5	023 215	023 235	023 225
DN 050	2	52.5	023 216	023 236	023 226

Steam Couplings

Steam Fittings Safety Bolt Clamps



- DIN Steam Couplings** DIN Safety Clamps fitted for DIN Steam Coupling Assemblies
BS EN 14423
- Standard Materials** 2 optional materials brass and stainless steel, and with 2 sets of plated steel or SS bolts and nuts
- Working Temp.** Recommended for steam service up to 210°C, or hot water 120°C

Size	Range	Stainless Steel	Brass Alloys
DN 015	13 × 6	023 201	023 101
DN 020	19 × 7	023 202	023 102
DN 025	25 × 7,5	023 203	023 103
DN 032	32 × 8	023 204	023 104
DN 040	38 × 8	023 205	023 105
DN 050	50 × 9	023 206	023 106

Flat Thread Seals



- Spare Parts** Flat Shape Thread Seals for DIN Steam Couplings
- Standard Materials** 2 optional materials Brown Frenzelit® and White PTFE
- Working Temp.** Frenzelit® up to 320°C / PTFE -30~300°C

Size	Inch	Material	Article Nr.
DN 015	1/2	Frenzelit®	023 301
DN 020	3/4	Frenzelit®	023 302
DN 025	1	Frenzelit®	023 303
DN 032	1 1/4	Frenzelit®	023 304
DN 040	1 1/2	Frenzelit®	023 305
DN 050	2	Frenzelit®	023 306
DN 015	1/2	PTFE	023 401
DN 020	3/4	PTFE	023 402
DN 025	1	PTFE	023 403
DN 032	1 1/4	PTFE	023 404
DN 040	1 1/2	PTFE	023 405
DN 050	2	PTFE	023 406



WATER AND GARDENING

Geka Plus Couplings Page 162

Raccords Express Page 166

King Combination Nipples Page 169

Double Nipples Page 176

Victaulic Couplings Page 179

Bauer Perrot Miller Page 180

Washdown Guns Page 184



"Geka Plus" originated from Germany, or "Geka couplings", is in general part of the family of couplings with unified claws. Symmetric couplings with claws are light-weighted, easy to operate and cost-saving to replace. They are ideal for connecting and disconnecting water hoses swiftly and safely so that they are widely used in applications like agriculture, gardening or constructions.

Dimension of connection for "Geka Plus" is unified to 40mm regardless of sizes of hose shank, thread for sizes or core material combinations.



Shanked claw couplings are armed with multi-serrations that bites into hoses just tight. No slippery from assembled hoses. Multi-serration inclusive of barb alike entry gives perfect connections for all shanked claw couplings. The profiled surface is either processed by metal powder grounding or lathe machining for different hose compatibilities.

Surface colors can be processed with shiny colors as by chrome treating for brass or electro-polishing for stainless steel. Dim colors can be achieved also by sand blasting the complete units. Both of those treatments are supposed to give extended lifetime against oxidation in use.



Core sealing gaskets made from NBR (Acrylonitrile Butadiene), FPM (Fluorocarbon), CR (Polychloroprene), EPDM (Ethylene Propylene) compounds are commonly requested for transferring liquids, gasses or mixture from plain water to chemicals.

Durable clamps for "Geka Plus" as of bolted, worm gear, band-it, superior and custom-made-for structures.



Geka Hose Shank



Geka Couplings Geka Coupling Head by Hose Shank with Multi-Serration

Standard Materials 2 optional materials brass alloy and stainless steel

Sealing Materials Standard Black NBR for brass couplings, and Green FPM for SS couplings

Size	Inch	Ø mm	Gasket	Core Material	Article Nr.
6	1/4	8.3	NBR	Brass	071 111
10	3/8	11.5	NBR	Brass	071 112
13	1/2	13.5	NBR	Brass	071 113
13	1/2	14.5	NBR	Brass	071 113.5
17	5/8	17.5	NBR	Brass	071 118
20	3/4	20.5	NBR	Brass	071 114
25	1	26.5	NBR	Brass	071 115
32	1 1/4	33.5	NBR	Brass	071 116
38	1 1/2	40.7	NBR	Brass	071 117
13	1/2	13.5	FPM	St. steel	071 213
20	3/4	20.5	FPM	St. steel	071 214
25	1	26.5	FPM	St. steel	071 215

Geka Locker



Geka Couplings Geka Coupling Head by Hose Shank with Turning Lock Device

Standard Materials Standard material brass alloy

Sealing Materials Standard Black NBR for brass couplings

Size	Inch	Ø mm	Gasket	Core Material	Article Nr.
13	1/2	14.5	NBR	Brass	071 113.1
20	3/4	20.5	NBR	Brass	071 114.1
25	1	26.5	NBR	Brass	071 115.1
32	1 1/4	33.5	NBR	Brass	071 116.1

Geka Sprayer



Geka Couplings Geka Coupling Head by Sprayer

Standard Materials Standard material brass alloy

Sealing Materials Standard Black NBR for brass couplings

Size	Inch	Gasket	Core Material	Article Nr.
13	1/2	NBR	Brass	075 131
20	3/4	NBR	Brass	075 132
25	1	NBR	Brass	075 133

Sprayer Head



Thread (inch)

Geka Couplings	Sprayer by Hose Shank with No Geka Coupling Head
Standard Materials	Standard material brass alloy
Sealing Materials	Standard Black NBR for brass couplings

Size	Inch	Gasket	Core Material	Article Nr.
13	1/2	NBR	Brass	075 141
20	3/4	NBR	Brass	075 142
25	1	NBR	Brass	075 143

Geka Inside Thread



40 mm

Thread (inch)

Geka Couplings	Geka Coupling Head by Female Thread
Standard Materials	2 optional materials brass alloy and stainless steel
Sealing Materials	Standard Black NBR for brass couplings, and Green FPM for SS couplings with NBR or PTFE thread seals

Thread Type G Thread

Size	Thread inch	Gasket	Thread Seal	Core Material	Article Nr.
6	G 1/4	NBR	NBR	Brass	073 111
10	G 3/8	NBR	NBR	Brass	073 112
13	G 1/2	NBR	NBR	Brass	073 113
20	G 3/4	NBR	NBR	Brass	073 114
25	G 1	NBR	NBR	Brass	073 115
32	G 1 ^{1/4}	NBR	NBR	Brass	073 116
38	G 1 ^{1/2}	NBR	NBR	Brass	073 117
13	G 1/2	NBR	NBR	St. steel	073 213
20	G 3/4	NBR	NBR	St. steel	073 214
25	G 1	NBR	NBR	St. steel	073 215
13	G 1/2	FPM	PTFE	St. steel	073 213.1
20	G 3/4	FPM	PTFE	St. steel	073 214.1
25	G 1	FPM	PTFE	St. steel	073 215.1
13	G 1/2	FPM	FPM	St. steel	073 213.2
20	G 3/4	FPM	FPM	St. steel	073 214.2
25	G 1	FPM	FPM	St. steel	073 215.2

Geka Outside Thread



Geka Couplings	Geka Coupling Head by Male Thread
Standard Materials	2 optional materials brass alloy and stainless steel
Sealing Materials	Standard Black NBR for brass couplings, and Green FPM for SS couplings
Thread Type	G Thread

Size	Thread inch	Gasket	Core Material	Article Nr.
6	G 1/4	NBR	Brass	072 111
10	G 3/8	NBR	Brass	072 112
13	G 1/2	NBR	Brass	072 113
20	G 3/4	NBR	Brass	072 114
25	G 1	NBR	Brass	072 115
32	G 1 1/4	NBR	Brass	072 116
38	G 1 1/2	NBR	Brass	072 117
13	G 1/2	NBR	St. steel	072 213
20	G 3/4	NBR	St. steel	072 214
25	G 1	NBR	St. steel	072 215
13	G 1/2	FPM	St. steel	072 213.1
20	G 3/4	FPM	St. steel	072 214.1
25	G 1	FPM	St. steel	072 215.1

Geka Caps



Geka Couplings	Geka Coupling Blind Caps
Standard Materials	2 optional materials brass alloy and stainless steel
Sealing Materials	Standard Black NBR for brass couplings, and Green FPM for SS couplings
Attachments	Chains can be attached upon request

Size	Gasket	Core Material	Article Nr.
Universal	NBR	Brass	074 100
Universal	NBR	St. steel	074 200
Universal	FPM	St. steel	074 200.1

Geka Three-Way



Geka Couplings	Geka Coupling Three-Way Connector
Standard Materials	Standard material brass alloy
Sealing Materials	Standard Black NBR for brass couplings

Size	Gasket	Core Material	Article Nr.
Universal	NBR	Brass	075 101

Geka Washers



Spare Parts Shaped Washers for Geka Couplings

Standard Materials 2 optional materials Black NBR and Green FPM

Working Temp. NBR -10~80°C / FPM -20~180°C

Form	Weight g	Material	Article Nr.
A	5	NBR	079 011.1
A	8	CSM	079 011.5
B	5	FPM	079 011.2
B	8	NBR	079 011.4

Geka Clamps



Hose Clamps Bolted Clamps fitted for Geka Couplings

Standard Materials Standard material brass alloy, with 2 plated steel bolts and nuts

Size	Inch	Material	Article Nr.
19 × 3.5	3/8	Brass	074 401
25 × 3.5	1	Brass	074 402
32 × 3.5	1 1/4	Brass	074 403

Express Hose Shank with Stopping Bridges



Express Couplings Express Coupling Head by Hose Shank with 2 Stop Bridges

Standard Materials Standard material brass alloy

Sealing Materials Standard Black NBR for brass couplings

Size	Inch	Ø mm	Gasket	Core Material	Article Nr.
7 - 9	1/4	8	NBR	Brass	071 011.4
8 - 10	1/4	9	NBR	Brass	071 010.4
9 - 11	3/8	10	NBR	Brass	071 012.4
11 - 13	3/8	12	NBR	Brass	071 013.4
13 - 16	1/2	14	NBR	Brass	071 014.4
16 - 18	1/2	17	NBR	Brass	071 015.4
19 - 21	3/4	20	NBR	Brass	071 016.4
22 - 24	3/4	23	NBR	Brass	071 017.4
25 - 27	1	26	NBR	Brass	071 018.4
30 - 32	1 1/4	31	NBR	Brass	071 019.4

Express Hose Shank



Express Couplings Express Coupling Head by Hose Shank with No Stop Bridge

Standard Materials Standard material brass alloy

Sealing Materials Standard Black NBR for brass couplings

Size	Inch	Ø mm	Gasket	Core Material	Article Nr.
7 - 9	1/4	8	NBR	Brass	071 011
8 - 10	1/4	9	NBR	Brass	071 010
9 - 11	3/8	10	NBR	Brass	071 012
11 - 13	1/2	12	NBR	Brass	071 013
13 - 16	1/2	14	NBR	Brass	071 014
16 - 18	1/2	17	NBR	Brass	071 015
19 - 21	3/4	20	NBR	Brass	071 016
22 - 24	3/4	23	NBR	Brass	071 017
25 - 27	1	26	NBR	Brass	071 018
30 - 32	1 1/4	31	NBR	Brass	071 019
13 - 16	1/2	14	FPM	St. steel	071 014.1
16 - 18	1/2	17	FPM	St. steel	071 015.1
25 - 27	1	26	FPM	St. steel	071 018.1
30 - 32	1 1/4	31	FPM	St. steel	071 019.1

Express Inside Thread



Express Couplings	Express Coupling Head by Female Thread
Standard Materials	2 optional materials brass alloy and stainless steel
Sealing Materials	Standard Black NBR or red CR for brass couplings, and Green FPM for SS couplings without thread seals
Thread Type	Standard BSP-Parallel pipe threads

Size	Thread inch	Gasket	Core Material	Article Nr.
6	1/4	NBR	Brass	073 011
10	3/8	NBR	Brass	073 012
13	1/2	NBR	Brass	073 013
20	3/4	NBR	Brass	073 014
25	1	NBR	Brass	073 015
32	1 ^{1/4}	NBR	Brass	073 016
38	1 ^{1/2}	NBR	Brass	073 017
50	2	NBR	Brass	073 018
13	1/2	FPM	St. steel	073 013.1
20	3/4	FPM	St. steel	073 014.1
25	1	FPM	St. steel	073 015.1

Express Outside Thread



Express Couplings	Express Coupling Head by Male Thread
Standard Materials	2 optional materials brass alloy and stainless steel
Sealing Materials	Standard Black NBR or red CR for brass couplings, and Green FPM for SS couplings
Thread Type	Standard BSP-Parallel pipe threads

Size	Thread inch	Gasket	Core Material	Article Nr.
6	1/4	NBR	Brass	072 011
10	3/8	NBR	Brass	072 012
13	1/2	NBR	Brass	072 013
20	3/4	NBR	Brass	072 014
25	1	NBR	Brass	072 015
32	1 ^{1/4}	NBR	Brass	072 016
38	1 ^{1/2}	NBR	Brass	072 017
50	2	NBR	Brass	072 018
13	1/2	FPM	St. steel	072 013.1
20	3/4	FPM	St. steel	072 014.1
25	1	FPM	St. steel	072 015.1

Express Caps



Express Couplings	Express Coupling Blind Caps
Standard Materials	2 optional materials brass alloy and stainless steel
Sealing Materials	Standard Black NBR or red CR for brass couplings, and Green FPM for SS couplings
Attachments	Chains can be attached upon request

Size	Gasket	Core Material	Article Nr.
Universal	NBR	Brass	074 000
Universal	FPM	St. steel	074 000.1

Express Washers



Spare Parts Shaped Washers for Express Couplings

Standard Materials 3 optional materials Black NBR, Green FPM and red CR

Working Temp. NBR -10~80°C / FPM -20~180°C / CR -30~120°C

Form	Weight g	Material	Article Nr.
L	5	NBR	079 001.1
L	8	FPM	079 001.0
L	5	CR	079 001.2
W	5	NBR	079 001.3
W	8	FPM	079 001.5
W	5	CR	079 001.6

Express Clamps



Hose Clamps Bolted Clamps fitted for Express Couplings

Standard Materials Carbon steel with nickle plating

Size	Ø mm	Article Nr.
17	16 - 18	079 121
20	19 - 21	079 122
23	22 - 24	079 123
26	25 - 27	079 124
29	28 - 30	079 125
32	31 - 33	079 126
36	34 - 36	079 127
38	37 - 39	079 128
42	41 - 43	079 129

KC Nipples BSP-T



KC Nipples

King Combination Nipples by Male BSP-Tapered Threads

Standard Materials

4 basic materials bluish or yellow zinc plating carbon steel, stainless steel, aluminum and brass alloys

Size inch	Plated Steel	St. Steel AISI 304 /316	Aluminum Alloys	Brass Alloys
1/2	041 010	041 010.1 /,2	041 010.4	041 010.3
3/4	041 011	041 011.1 /,2	041 011.4	041 011.3
1	041 012	041 012.1 /,2	041 012.4	041 012.3
1 1/4	041 013	041 013.1 /,2	041 013.4	041 013.3
1 1/2	041 014	041 014.1 /,2	041 014.4	041 014.3
2	041 015	041 015.1 /,2	041 015.4	041 015.3
2 1/2	041 016	041 016.1 /,2	041 016.4	041 016.3
3	041 017	041 017.1 /,2	041 017.4	041 017.3
4	041 018	041 018.1 /,2	041 018.4	☎
5	041 019	041 019.1 /,2	☎	☎
6	041 020	041 020.1 /,2	☎	☎
8	041 021	041 021.1 /,2	☎	☎
10	041 022	☎	☎	☎
12	041 023	☎	☎	☎

KC Nipples NPT



KC Nipples

King Combination Nipples by Male NPT Pipe Threads

Standard Materials

4 basic materials bluish or yellow zinc plating carbon steel, stainless steel, aluminum and brass alloys

Size inch	Plated Steel	St. Steel AISI 316	Aluminum Alloys	Brass Alloys
1/2	041 010.6	041 010.26	041 010.46	041 010.36
3/4	041 011.6	041 011.26	041 011.46	041 011.36
1	041 012.6	041 012.26	041 012.46	041 012.36
1 1/4	041 013.6	041 013.26	041 013.46	041 013.36
1 1/2	041 014.6	041 014.26	041 014.46	041 014.36
2	041 015.6	041 015.26	041 015.46	041 015.36
2 1/2	041 016.6	041 016.26	041 016.46	041 016.36
3	041 017.6	041 017.26	041 017.46	041 017.36
4	041 018.6	041 018.26	041 018.46	☎
5	041 019.6	041 019.26	☎	☎
6	041 020.6	041 020.26	☎	☎
8	041 021.6	041 021.26	☎	☎
10	041 022.6	☎	☎	☎

KC Nipples Bevelled Holding BSP-T



KC Nipples

King Combination Nipples with Bevelled Holding in Between, and by Male BSP-Tapered Pipe Threads

Standard Materials

Standard material bluish or yellow zinc plating carbon steel

Size inch	Core Material	Article Nr.
1/2	Pl. steel	041 010.7
3/4	Pl. steel	041 011.7
1	Pl. steel	041 012.7
1 1/4	Pl. steel	041 013.7
1 1/2	Pl. steel	041 014.7
2	Pl. steel	041 015.7
2 1/2	Pl. steel	041 016.7
3	Pl. steel	041 017.7
4	Pl. steel	041 018.7
5	Pl. steel	041 019.7
6	Pl. steel	041 020.7
8	Pl. steel	041 021.7

KC Nipples Bevelled Holding NPT



KC Nipples

King Combination Nipples with Bevelled Holding in Between, and by Male NPT Pipe Threads

Standard Materials

Standard material bluish or yellow zinc plating carbon steel

Size inch	Core Material	Article Nr.
1/2	Pl. steel	041 010.76
3/4	Pl. steel	041 011.76
1	Pl. steel	041 012.76
1 ^{1/4}	Pl. steel	041 013.76
1 ^{1/2}	Pl. steel	041 014.76
2	Pl. steel	041 015.76
2 ^{1/2}	Pl. steel	041 016.76
3	Pl. steel	041 017.76
4	Pl. steel	041 018.76
5	Pl. steel	041 019.76
6	Pl. steel	041 020.76
8	Pl. steel	041 021.76

KC Nipples Grooved End



KC Nipples

King Combination Nipples by Grooved End

Standard Materials

Standard material bluish or yellow zinc plating carbon steel

Size inch	Core Material	Article Nr.
1/2	Pl. steel	☎
3/4	Pl. steel	☎
1	Pl. steel	☎
1 ^{1/4}	Pl. steel	☎
1 ^{1/2}	Pl. steel	☎
2	Pl. steel	☎
2 ^{1/2}	Pl. steel	☎
3	Pl. steel	☎
4	Pl. steel	☎
5	Pl. steel	☎
6	Pl. steel	☎
8	Pl. steel	☎

KC Nipples Welding End



KC Nipples

King Combination Nipples by Butt Welding (BW) End

Standard Materials

2 optional materials bluish or yellow zinc plating carbon steel, and stainless steel

Size inch	Plated Steel	St. Steel AISI 316
1/2	041 010.5	041 010.27
3/4	041 011.5	041 011.27
1	041 012.5	041 011.27
1 ^{1/4}	041 013.5	041 011.27
1 ^{1/2}	041 014.5	041 011.27
2	041 015.5	041 010.27
2 ^{1/2}	041 016.5	041 011.27
3	041 017.5	041 011.27
4	041 018.5	041 011.27
5	041 019.5	041 011.27
6	041 020.5	071 116.27
8	041 021.5	071 117.27

Flanged Hose Spigot



KC Nipples

King Combination Nipples by Fixed Flange End

Standard Materials

2 optional materials bluish or yellow zinc plating carbon steel, and stainless steel

Size inch	Plated Steel	St. Steel AISI 316
1/2	☒	☒
3/4	☒	☒
1	☒	☒
1 ^{1/4}	☒	☒
1 ^{1/2}	☒	☒
2	☒	☒
2 ^{1/2}	☒	☒
3	☒	☒
4	☒	☒
5	☒	☒
6	☒	☒
8	☒	☒

Hose Menders



Hose Menders

King Combination Hose Menders

Standard Materials

3 basic materials bluish or yellow zinc plating carbon steel, stainless steel and aluminum alloy

Size inch	Plated Steel	St. Steel AISI 304 /316	Aluminum Alloys
1/2	042 010	042 010.1 /,2	041 010.3
3/4	042 011	042 011.1 /,2	041 011.3
1	042 012	042 012.1 /,2	041 012.3
1 ^{1/4}	042 013	042 013.1 /,2	041 013.3
1 ^{1/2}	042 014	042 014.1 /,2	041 014.3
2	042 015	042 015.1 /,2	041 015.3
2 ^{1/2}	042 016	042 016.1 /,2	041 016.3
3	042 017	042 017.1 /,2	041 017.3
4	042 018	042 018.1 /,2	041 018.3
5	042 019	042 019.1 /,2	☎
6	042 020	042 020.1 /,2	☎
8	042 021	042 021.1 /,2	☎
10	042 022	☎	☎
12	042 023	☎	☎

Brass King Menders



Hose Menders

Light-Duty King Combination Hose Menders

Standard Materials

Standard brass alloy

Size	Inch	Core Material	Article Nr.
6	1/4	Brass	045 521
8	1/3	Brass	045 522
10	3/8	Brass	045 523
13	1/2	Brass	045 524
15	5/8	Brass	045 525
19	3/4	Brass	045 526
25	1	Brass	045 527

Female Lugged Shank



Pin Lug Couplings

Pin Lug Water Shank Couplings by Female Thread

Standard Materials

3 optional materials polypropylene compound, aluminum, and brass alloys

Thread Types

Standard BSP-Parallel pipe threads

Size inch	Poly-propylene	Brass Alloys	Aluminum Alloys
3/4	045 062.2	☎	☎
1	045 063.2	☎	☎
1 1/4	045 064.2	☎	☎
1 1/2	045 065.2	045 110.2	045 010.2
2	045 066.2	045 112.2	045 012.2
2 1/2	045 067.2	045 113.2	045 013.2
3	045 068.2	045 115.2	045 015.2
4	☎	045 116.2	045 016.2
6	☎	045 117.2	045 017.2

Male Lugged Shank



Pin Lug Couplings

Pin Lug Water Shank Couplings by Male Thread

Standard Materials

3 optional materials polypropylene compound, aluminum, and brass alloys

Thread Types

Standard BSP-Parallel pipe threads

Size inch	Poly-propylene	Brass Alloys	Aluminum Alloys
3/4	045 062.3	☎	☎
1	045 063.3	☎	☎
1 1/4	045 064.3	☎	☎
1 1/2	045 065.3	045 110.3	045 010.3
2	045 066.3	045 112.3	045 012.3
2 1/2	045 067.3	045 113.3	045 013.3
3	045 068.3	045 115.3	045 015.3
4	☎	045 116.3	045 016.3
6	☎	045 117.3	045 017.3

Water Couplings Brass Female



Water Couplings	Light-Duty Water Shank Couplings by Female Thread, with Pin Lug Nut
Standard Materials	Standard brass alloy
Sealing Materials	Standard Black NBR for brass couplings
Thread Types	Standard BSP-Parallel pipe threads

Size	Inch	Core Material	Article Nr.
10	3/8	Brass	045 502.2
13	1/2	Brass	045 503.2
13	3/4	Brass	045 504.2
19	3/4	Brass	045 505.2
25	1	Brass	045 506.2
32	1 ^{1/8}	Brass	045 507.2
38	1 ^{1/2}	Brass	045 508.2
51	2	Brass	045 509.2

Water Couplings Brass Female No Swivel



Water Couplings	Light-Duty Water Shank Couplings by Female Thread, with Hexagon No Swivelling Nut
Standard Materials	Standard brass alloy
Sealing Materials	Standard Black NBR for brass couplings
Thread Types	Standard BSP-Parallel pipe threads

Size	Inch	Core Material	Article Nr.
10	3/8	Brass	045 502.3
13	1/2	Brass	045 503.3
13	3/4	Brass	045 504.3
19	3/4	Brass	045 505.3
25	1	Brass	045 506.3
32	1 ^{1/4}	Brass	045 507.3
38	1 ^{1/2}	Brass	045 508.3
51	2	Brass	045 509.3

Water Couplings Brass Male Round



Water Couplings	Light-Duty Water Shank Couplings by Male Thread, with No Hexagon Holding
Standard Materials	Standard brass alloy
Thread Types	Standard BSP-Parallel pipe threads

Size	Inch	Core Material	Article Nr.
10	3/8	Brass	☎
13	1/2	Brass	☎
13	3/4	Brass	☎
19	3/4	Brass	☎
25	1	Brass	☎
32	1 ^{1/8}	Brass	☎
38	1 ^{1/2}	Brass	☎
51	2	Brass	☎

Water Couplings Brass Male Hexagon



Water Couplings	Light-Duty Water Shank Couplings by Male Thread, with Hexagon Holding
Standard Materials	Standard brass alloy
Thread Types	Standard BSP-Parallel pipe threads

Size	Inch	Core Material	Article Nr.
10	3/8	Brass	045 502.1
13	1/2	Brass	045 503.1
13	3/4	Brass	045 504.1
19	3/4	Brass	045 505.1
25	1	Brass	045 506.1
32	1 ^{1/4}	Brass	045 507.1
38	1 ^{1/2}	Brass	045 508.1
51	2	Brass	045 509.1

Water Couplings Heavy Duty Brass Male Hexagon



Water Couplings	Heavy-Duty Water Shank Couplings by Male Thread, with Hexagon Holding
Standard Materials	Standard brass alloy
Thread Types	Standard BSP-Parallel pipe threads

Size	Inch	Core Material	Article Nr.
13	1/2	Brass	021 111
19	3/4	Brass	021 112
25	1	Brass	021 113
32	1 ^{1/4}	Brass	021 114
38	1 ^{1/2}	Brass	021 115
50	2	Brass	021 116
63	2 ^{1/2}	Brass	021 117
75	3	Brass	021 118
80	3	Brass	021 120
100	4	Brass	021 119

Double Nipples (BSP, NST & NPT Pipe Threads)

Double Nipples	Internal Thread × Internal Thread, made by Brass alloy and Stainless steel
Thread Types	Standard BSP parallel pipe threads; tapered, NST or NPT available upon request.
More Spec. & Markings	Package - Plastic foams, small quantity box package; Exterior markings, eg. - DN ××



Size inch	Brass Alloys	Stainless Steel
1/8	☎	080 501
1/4	☎	080 502
1/4 × 1/8	☎	080 521
3/8	☎	080 503
3/8 × 1/4	☎	080 521
1/2	080 085	080 504
1/2 × 1/4	☎	080 523
1/2 × 3/8	☎	080 524
3/4	080 086	080 505
3/4 × 3/8	☎	080 525
3/4 × 1/2	☎	080 526
1	080 087	080 506
1 × 1/2	☎	080 527
1 × 3/4	☎	080 528
1 1/4	080 088	080 507
1 1/4 × 3/4	☎	080 529
1 1/4 × 1	☎	080 530
1 1/2	080 089	080 508
1 1/2 × 1	☎	080 531
1 1/2 × 1 1/4	☎	080 532
2	080 090	080 509
2 × 1 1/4	☎	080 453
2 × 1 1/2	☎	080 534
2 1/2	☎	080 510
2 1/2 × 1 1/2	☎	080 535
2 1/2 × 2	☎	080 536
3	☎	080 511
3 × 2	☎	080 537
3 × 2 1/2	☎	080 538
4	☎	080 512
4 × 2 1/2	☎	080 539
4 × 3	☎	080 540

Size inch	Brass Alloys
1 1/2	080 095
2 1/2	080 097



Size inch	Brass Alloys
1 1/2	080 130
2 1/2	080 132



Size inch	Brass Alloys
3/8	080 211
1/2	080 212
3/4	080 213
1	080 214
1 1/4	080 215
1 1/2	080 216
2	080 217

Size inch	Brass Alloys	Stainless Steel
1/8	☎	080 831
1/4	☎	080 832
3/8	☎	080 833
1/2	080 251	080 834
3/4	080 252	080 835
1	082 253	080 836
1 1/4	080 254	080 837
1 1/2	082 255	080 838
2	082 256	080 839
2 1/2	☎	080 840
3	☎	080 841
4	☎	080 842



Double Nipples (BSP, NST & NPT Pipe Threads)

Double Nipples	External Thread × External Thread, made by Brass alloy and Stainless steel
Thread Types	Standard BSP parallel pipe threads; tapered, NST or NPT available upon request.
More Spec. & Markings	Package - Plastic foams, small quantity box package; Exterior markings, eg. - DN ××



Size inch	Brass Alloys	Stainless Steel
1/8	☎	080 401
1/4	☎	080 402
1/4 × 1/8	☎	080 421
3/8	080 012	080 403
3/8 × 1/4	080 022	080 422
1/2	080 013	080404
1/2 × 1/4	☎	080 423
1/2 × 3/8	080 023	080 424
3/4	080 014	080 405
3/4 × 3/8	☎	080 425
3/4 × 1/2	080 024	080 426
1	080 015	080 406
1 × 1/2	080 025	080 427
1 × 3/4	080 026	080 428
1 1/4	080 016	080 407
1 1/4 × 1/2	080 027	☎
1 1/4 × 3/4	080 028	080 429
1 1/4 × 1/2	080 029	☎
1 1/4 × 1	☎	080 430
1 1/2	080 017	080 408
1 1/2 × 1/2	080 030	☎
1 1/2 × 3/4	080 031	☎
1 1/2 × 1	080 032	080 431
1 1/2 × 1 1/4	080 033	080 432
2	080 018	080 409
2 × 1/2	080 034	☎
2 × 3/4	080 035	☎
2 × 1	080 036	☎
2 × 1 1/4	080 037	080 433
2 × 1 1/2	080 038	080 434
2 1/2	080 019	080 410
2 1/2 × 1/2	080 039	☎
2 1/2 × 3/4	080 040	☎
2 1/2 × 1/2	080 041	☎
2 1/2 × 1 1/4	080 042	☎
2 1/2 × 1 1/2	080 043	080 435
2 1/2 × 2	080 044	080 436
3	080 020	080 411
3 × 1/2	080 045	☎
3 × 3/4	080 046	☎
3 × 1/2	080 047	☎
3 × 1 1/4	080 048	☎
3 × 1 1/2	080 049	☎
3 × 2	080 050	080 437
3 × 2 1/2	080 051	080438

Size inch	Brass Alloys
1 1/2	080 138
2 1/2	080 139



Size inch	Brass Alloys
1/2	080 235
3/4	080 236
1	080 237
1 1/4	080 238
1 1/2	080 239
2	080 240

Double Nipples (BSP, NST & NPT Pipe Threads)

Double Nipples

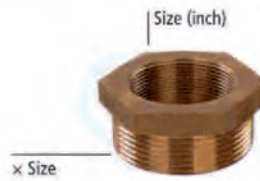
Internal Thread × External Thread, made by Brass alloy and Stainless steel

Thread Types

Standard BSP parallel pipe threads; tapered, NST or NPT available upon request.

More Spec. & Markings

Package - Plastic foams, small quantity box package; Exterior markings, eg. - DN ××



Size inch	Brass Alloys	Stainless Steel
1/4 × 1/8	☎	080 461
3/8 × 1/4	☎	080 462
1/2 × 1/4	☎	080 463
1/2 × 3/8	☎	080 464
1/2 × 3/4	080 065	☎
3/4 × 3/8	☎	080 465
3/4 × 1/2	☎	080 466
3/4 × 1	080 066	☎
1 × 1/2	☎	080 467
1 × 3/4	☎	080 468
1 × 1 1/4	080 067	☎
1 1/4 × 3/4	☎	080 449
1 1/4 × 1	☎	080 450
1 1/4 × 1 1/2	080 068	☎
1 1/2 × 1	☎	080 451
1 1/2 × 1 1/4	☎	080 452
1 1/2 × 2	080 069	☎
1 1/2 × 2 1/2	080 070	☎
2 × 1 1/4	☎	080 453
2 × 1 1/2	☎	080 454
2 × 2 1/2	080 071	☎
2 1/2 × 1 1/2	☎	080 455
2 1/2 × 2	☎	080 456
2 1/2 × 3	080 072	☎
3 × 2	☎	080 457
3 × 2 1/2	☎	080 458
3 × 4	080 073	☎
4 × 2 1/2	☎	080 459
4 × 3	☎	080 460
4 × 4 1/2	080 074	☎

Size inch	Brass Alloys	Stainless Steel
3/4 × 1	080 105	☎
1 × 3/4	080 106	☎
1 1/2 × 1	080 107	☎
1 1/2 × 1 1/2	080 108	☎
2 1/2 × 1 1/2	080 109	☎
2 1/2 × 2	080 110	☎
2 1/2 × 2 1/2	080 111	☎
3 × 2 1/2	080 112	☎
4 × 2 1/2	080 113	☎
4 1/2 × 2 1/2	080 114	☎

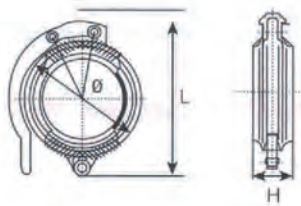


Size inch	Brass Alloys	Stainless Steel
1/8	☎	080 581
1/4	☎	080 582
3/8	☎	080 583
1/2	☎	080 584
1/2 × 3/4	080 225	☎
3/4	☎	080 585
3/4 × 1	080 226	☎
1	☎	080 586
1 × 1 1/4	080 227	☎
1 1/4	☎	080 571
1 1/4 × 2	080 228	☎
1 1/2	☎	080 588
2	☎	080 589
2 1/2	☎	080 590
3	☎	080 591
4	☎	080592

Size inch	Swivelling Nut	Brass Alloys
1 1/2	yes	080 120
2 1/2	yes	080 121
2 1/2 × 2	yes	080 122
2 1/2 × 3	yes	080 123
1 1/2 × 3/4	no swivel	080 145
1 1/2 × 1	no swivel	080 146
2 1/2 × 3/4	no swivel	080 147
2 1/2 × 1	no swivel	080 148
2 1/2 × 1 1/2	no swivel	080 149
2 1/2 × 2	no swivel	080 150
3 × 2 1/2	no swivel	080 151



Victaulic Clamps



Victaulic Clamps

Clamps with Groove Gaskets for Victaulic Coupling Assemblies, with Spring-Load Safety Pins

Standard Materials

Standard zinc plating steel of grade ASTM 1040

Size inch	PIPE O.D. mm	MAX.W.P. psi	H mm	L mm	Ø mm	Weight kg	Article Nr.
1 ^{1/2}	48.3	550	16	128	78	1.2	045 996
1 ^{1/2}	50.5	550	16	138	88	1.6	045 997
2	60.3	530	16	146	91	1.6	046 000
2	66.5	530	16	146	91	1.6	045 999
2 ^{1/2}	73.0	480	16	161	106	1.5	046 001
2 ^{1/2}	76.1	480	16	161	106	1.5	046 002
3	88.9	480	16	175	120	1.9	046 003
3 ^{1/4}	97.0	480	17	186	131	2.4	046 004
4	114.3	385	17	216	151	3.2	046 005
4 ^{1/2}	122.0	385	17	219	160	3.3	046 007
4 ^{1/2}	127.0	385	17	236	167	4	046 008
5	141.3	385	17	245	181	4.2	046 009
5 ^{1/2}	148.0	385	17	156	190	4.7	046 010
6	168.3	360	17	276	211	5.4	046 011
6	168.3	360	22	291	219	9.3	046 012
6 ^{1/2}	175.0	360	17	270	210	7	046 013
8	219.1	315	19	330	256	8	046 014

Victaulic Groove Couplings



Victaulic Couplings

Victaulic Groove End by Crimping Type Couplings, with Safety Collars for Coupling Assemblies to EN 14420-3

Standard Materials

Standard zinc plating carbon steel

Size inch	Ø A mm	Ø B mm	L mm	Weight kg	Article Nr.
1	33.7	25.4	69	0.18	046 301
1 ^{1/4}	42.4	32.4	69	0.25	046 302
1 ^{1/2}	48.3	38.4	69	0.32	046 303
2	60.3	50.4	78	0.5	046 304
2 ^{1/2}	73	63.4	92	0.7	046 306
3	88.9	75.4	98	1	046 309
3	88.9	80.4	98	1	046 310
4	114	100.6	135	2	046 315
4 ^{1/2}	127	100.3	136	2.6	046 317
5	141	125.4	179	3.3	046 321
5 ^{1/2}	148	125.4	180	3.8	046 322
6	168	152	205	5.8	046 325
8	219	203	275	9.2	046 326



Recommended clamping with DIN safety clamps, refer to pages 192~193.



Also with superior clamping, refer to Hose Clamps on page 200.

Bauer Couplings



Bauer Couplings Complete Set of Bauer Couplings, Male and Female Hose Shank Coupled by Long-Handled Lever Ring

Standard Materials Standard bluish hot-dip plating carbon steel

Sealing Materials Standard black round NBR O-ring for steel couplings

Size inch	Core Material	Article Nr. Complete	Female Part	Male Part	Lever Ring
2	Pl. steel	083 001	083 001.2	083 001.1	083 001.3
2 ^{1/2}	Pl. steel	083 002	083 002.2	083 002.1	083 002.3
3	Pl. steel	083 003	083 003.2	083 003.1	083 003.3
3 ^{1/2}	Pl. steel	083 004	083 004.2	083 004.1	083 004.3
4	Pl. steel	083 005	083 005.2	083 005.1	083 005.3
5	Pl. steel	083 006	083 006.2	083 006.1	083 006.3
6	Pl. steel	083 007	083 007.2	083 007.1	083 007.3
8	Pl. steel	083 008	083 008.2	083 008.1	083 008.3

Welding Bauer Couplings



Bauer Couplings Complete Set of Welding Bauer Couplings, Male and Female Welding Ends by Long-Handled Lever Ring

Standard Materials Standard bluish hot-dip plating carbon steel

Sealing Materials Standard black round NBR O-ring for steel couplings

Size inch	Core Material	Article Nr. Complete	Female Part	Male Part	Lever Ring
2	Pl. steel	083 131	083 131.2	083 131.1	083 001.3
2 ^{1/2}	Pl. steel	083 132	083 132.2	083 132.1	083 002.3
3	Pl. steel	083 133	083 133.2	083 133.1	083 003.3
3 ^{1/2}	Pl. steel	083 134	083 134.2	083 134.1	083 004.3
4	Pl. steel	083 135	083 135.2	083 135.1	083 005.3
5	Pl. steel	083 136	083 136.2	083 136.1	083 006.3
6	Pl. steel	083 137	083 137.2	083 137.1	083 007.3
8	Pl. steel	083 138	083 138.2	083 138.1	083 008.3

Bauer Blind Caps and Dust Plugs



Bauer Couplings Bauer Blind Caps and Plugs

Standard Materials Standard bluish hot-dip plating carbon steel

Sealing Materials Standard black round NBR O-ring for steel couplings

Size inch	Core Material	Blind Caps	Dust Plugs	Lever Ring
2	Pl. steel	083 131.4	083 131.3	083 001.3
2 ^{1/2}	Pl. steel	083 132.4	083 132.3	083 002.3
3	Pl. steel	083 133.4	083 133.3	083 003.3
3 ^{1/2}	Pl. steel	083 134.4	083 134.3	083 004.3
4	Pl. steel	083 135.4	083 135.3	083 005.3
5	Pl. steel	083 136.4	083 136.3	083 006.3
6	Pl. steel	083 137.4	083 137.3	083 007.3
8	Pl. steel	083 138.4	083 138.3	083 008.3

Bauer O Ring Washers



Spare Parts O-Ring Washer fitting in Bauer Female Parts and Dust Caps

Standard Materials Standard black NBR

Working Temp. NBR -30~120°C

Size inch	Core Material	Article Nr.
2	NBR	083 401
2 ^{1/2}	NBR	083 402
3	NBR	083 403
3 ^{1/2}	NBR	083 404
4	NBR	083 405
5	NBR	083 406
6	NBR	083 407
8	NBR	083 408

Perrot Couplings



Perrot Couplings Complete Set of Perrot Couplings, Male and Female Hose Shank Coupled by Long-Handled Lever Ring

Standard Materials Standard bluish hot-dip plating carbon steel

Sealing Materials Standard black round NBR O-ring for steel couplings

Size inch	Core Material	Article Nr. Complete	Female & Lever	Male Part
2	Pl. steel	083 011	083 011.2	083 011.1
2 ^{1/2}	Pl. steel	083 012	083 012.2	083 012.1
3	Pl. steel	083 013	083 013.2	083 013.1
3 ^{1/2}	Pl. steel	083 014	083 014.2	083 014.1
4	Pl. steel	083 015	083 015.2	083 015.1
5	Pl. steel	083 016	083 016.2	083 016.1
6	Pl. steel	083 017	083 017.2	083 017.1
8	Pl. steel	083 018	083 018.2	083 018.1

Miller Couplings



Miller Couplings Complete Set of French Miller Couplings, Male and Female Hose Shank Coupled by Long-Handled Lever Ring

Standard Materials Standard bluish hot-dip plating carbon steel

Sealing Materials Standard black round NBR O-ring for steel couplings

Size inch	Core Material	Article Nr. Complete	Female & Lever	Male Part
2	Pl. steel	083 201	083 201.2	083 201.1
2 ^{1/2}	Pl. steel	083 202	083 202.2	083 202.1
3	Pl. steel	083 203	083 203.2	083 203.1
3 ^{1/2}	Pl. steel	083 204	083 204.2	083 204.1
4	Pl. steel	083 205	083 205.2	083 205.1
5	Pl. steel	083 206	083 206.2	083 206.1
6	Pl. steel	083 207	083 207.2	083 207.1
8	Pl. steel	083 208	083 208.2	083 208.1

Water and Gardening

Heavy duty washdown guns for water dispensing, cleaning and sanitation uses, lower pressure recommended.

Dual function by cone shooting and spraying in one model. Core materials of material brass alloys and stainless steel. Scuff resistant rubber / insulation cover.



Brass Washdown Guns



Blue protective anti-slippery rubber covers for handle Ref. 590 001.5 and sleeve 590 001.1 are available on request.

Chrome Plated Brass Washdown Guns



Black handle cover Ref. 590 001.7 + sleeve rubber Ref. 590 001.3 .

White handle cover Ref. 590 001.6 + sleeve rubber Ref. 590 001.2 .

Stainless Steel Washdown Guns




Thread Type	1/2" BSP Female
Standard Materials	Standard brass alloy with blue rubber insulation cover, scuff resistant, anti slippery
Pressure	Maximum working pressure 24 bar / 350 psi
Temperature	Maximum working temperature 50°C / 122°F
Delivery Rate	25 L/min at 5 bar
Repetition of Proper Use	6 months at fair frequency advised
Article number	590 004

Thread Type	1/2" BSP Female
Standard Materials	Chrome plated brass alloy with black rubber insulation cover, scuff resistant, anti slippery
Pressure	Maximum working pressure 24 bar / 350 psi
Temperature	Maximum working temperature 50°C / 122°F
Delivery Rate	25 L/min at 5 bar
Repetition of Proper Use	6 months at fair frequency advised
Article number	590 003

Thread Type	1/2" BSP Female
Standard Materials	Standard stainless steel with blue rubber insulation cover, scuff resistant, anti slippery
Pressure	Maximum working pressure 24 bar / 350 psi
Temperature	Maximum working temperature 50°C / 122°F
Delivery Rate	25 L/min at 5 bar
Repetition of Proper Use	6 months at fair frequency advised
Article number	590 002

Car Wash High Pressure Spray Nozzles



Thread Type	1/2" BSP Female
Standard Materials	Standard brass alloy by black plastic cover
Article number	



Swivel adapter fittings made of brass alloy and stainless steel are available.

Ref. 590 011 for 13 mm hose tail by 1/2" thread connection.

Ref. 590 012 for 19 mm hose tail by 1/2" thread connection.







HOSE CLAMPS

Safety Clamps *Page 192*

Ferrules and Sleeves *Page 194*

Gasoline Ferrule Couplings *Page 199*

Superior Clamps *Page 200*

Spiral Clamps *Page 201*

Choosing the right clamps for hoses requires more than dimensional measurements, it is in many cases based on technical parameters of the hoses applied like thickness, working values of pressure rating or temperature. And people are likely to choose clamps according to the habitual practice of its industry.



We have the inventory of hose clamps of bolt-and-nut system for re-useable purpose; or with worm-tightening for extra torque demands; and of crimping and swaging ferrules and sleeves that are always an option for many industries.

FERRULES & SLEEVES (Crimping and Swage)

Our ferrules are crimped onto the ends of hoses to provide a solid and reliable combined connection. Because of all-round closeness of hoses within the ferrule, they cannot come loose or slip one side out. With a crimping tool or large-sized crimping machines, ferrules are easy to apply, and help to ensure a good connection is made.

We have crimping ferrules with or without inside serration, the latter of which go mostly with crimping-typed hose shank couplings. For sizing the correct ferrule for hoses, please feel free to contact our sales for support.



GASOLINE FERRULE COUPLINGS

(Thread ferrule clamping for petrol dispensing)

Gasoline couplings complying with EN 14424 are hose fittings with screwed ferrules for use with rubber and thermoplastic hoses carrying flammable and non-flammable liquids or gases.

The hose is fully inserted into the threaded ferrule. The hose can be accurately positioned using the inspection hole in the ferrule. The male or female hose shank is inserted into the hose and screwed into the ferrule. The inside of the hose shank consists of two opposing grooves. When male or female hose shanks are screwed into the ferrule, the assembly is tightened using a specially-designed petrol hose wrench, which slides over the two opposing grooves. When the petrol hose coupling is tightened, the threaded ferrule is pressed up to the hose.

Hose Clamps

SUPERIOR HOSE CLAMPS (One bolt screw tightening clamping)

Superior hose clamps are ideal for fitting couplings to hose where extra torque is required. They are simple to operate but highly effective.

Our superior clamps consist of two solid or hollow retaining screw bolts made from galvanized carbon steel or stainless steel.



SPIRAL HOSE CLAMPS

(Clockwise and un-clockwise clamping for composite hoses)

Spiral hose clamps, or tiger clamps are used on convoluted cover hoses. To determine which style clamp is needed for your hose look at the end of the hose; if the helix spirals in a clockwise direction away from you (along the hose), a right hand clamp is needed. If the helix spirals in a counter clockwise direction away from you, a left hand clamp is needed.

Our spiral clamps are therefore available with clockwise and un-clockwise types made of carbon steel.



BOLT SAFETY HOSE CLAMPS

(DIN standard reusable clamping DIN EN 14420-3)

The assembly of quick disconnect couplings and screw-type hose fittings DN 20 to DN 200 is widely used in hose connection for fuelling and pipeline hose assemblies in the field of supply and disposal.

Quick disconnection fittings incorporate DIN EN standard types as — TW tank truck couplings MK-hose and VK-hose to DIN EN 14420-6, Cam locking couplings to DIN EN 14420-7, Guillemin type of quick joint couplings to DIN EN 14420-8 and Storz form of couplings.

Screw-type hose fittings are referred to as LNC fittings per DIN EN 14420-5 by internal and external BSP pipe threads.

Combined with flange slip-ons, the whole hose coupling program features the hose tail suitability for coupling assembly with bolt-type safety clamps according to DIN EN 14420-3.



BOLT STEAM HOSE CLAMPS (DIN standard reusable clamping for steam application EN 14423)

Ref. to details on page 158.



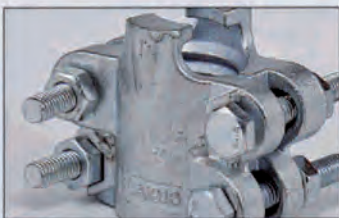
The clamps designed and made to be compatible with steam hose fittings according to BS EN 14423. Working pressure recommended 18 bar, for steam serve up to 210°C (410°F) or hot water 120°C (248°F). Materials of brass alloy and stainless steel available with plated steel screws as attachment.



SADDLE CLAMPS (Two-bolt clamping with saddle fixer for air couplings EN DIN 20039 A & B)

Ref. to details on page 144.

Made of malleable iron and carbon steel, saddle clamps with and without gripping claws are designed and made in compliance with standard EN DIN 20039 A and EN DIN 20039 B. Wide coverage from 3/8" ~ 12". They are produced by casting technique. Anti rust yellowish and blue plating are commonly applied. Maximum working pressure recommended 16 bar.



INTERLOCKING HOSE CLAMPS (Two / four -bolt clamping for "Boss" steam couplings)

Ref. to details on page 156.

Recommended for steam service up to 232°C (450°F), interlocking clamps are designed and produced to be compatible with "Boss" steam hose couplings and hose stems. They are produced by investment casting technique. Anti rust yellowish and blue plating are commonly applied. Maximum working pressure as recommended to 16 bar. Two sets of bolts and nuts graded 4.8 and 8.8 are attached for sizes 1/2" ~ 3/4". Four boltings applied for 1" ~ 4".



GEKA HOSE CLAMPS (Two-bolt clamping for Geka Plus couplings)

Ref. to details on page 165.

Made of material brass alloy, the Geka clamp is designed and produced to be compatible with Geka hose couplings and hose shanks. Maximum working pressure recommended up to 16 bar.



CLAW HOSE CLAMPS (Two-bolt clamping for Raccords Express)

Ref. to details on page 168.

Made of material carbon steel with nickel plating, the claw clamp is designed and produced exclusively for NF standard Express hose couplings. The claws takes a 90° bend gripping on the hose collar rings. Maximum working pressure to 16 bar.



Bolt Safety Clamps



Tooling avail. on request

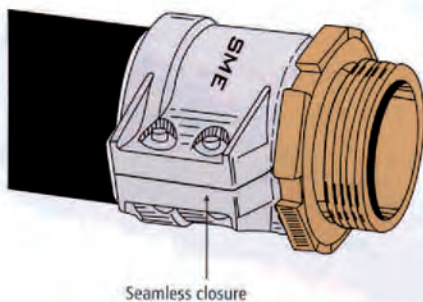


Refer to EN DIN Standard Products from pages 85-110 for suitable hose couplings.



Choosing the right clamp is important for hose assembly. That makes it looking perfect when two halves can close almost seamlessly. And because of that the pressure is evened, the assembled stability will be secured. The max working pressure is 16 bar accordingly.

We may help for choosing the right sizing on request.



Safety Clamps

Reusable Safety Clamps with Bolts and Nuts
DIN EN 14420-3 / DIN 2817

Standard Materials

3 basic materials aluminum, brass alloy and stainless steel. Steel boltings grade #10.9 are included for aluminum and brass alloys, SS304 for stainless steel clamps.

Hose End

Assembled with hose tails / shanks made to EN 14420-2, usually with quick coupling or thread type at the other end

Markings

Markings are made on external and internal surface, for example — EN AW-6082 EN14420-3 DN x x PN 25

Hose Inside Ø mm	Hose Outside Ø mm	L mm	X mm	Bolts Grade #	Aluminum Alloys	Stainless Steel	Brass Alloys
13 x 5	22 - 24	50	51	4 x 10.9 / SS304	023 051	023 021	☞
19 x 6	30 - 33	50	63	4 x 10.9 / SS304	023 052	023 022	023 152
25 x 5	34 - 37	50	-	4 x 10.9 / SS304	023 053	☞	☞
25 x 6	36 - 39	50	69	4 x 10.9 / SS304	023 054	023 023	☞
25 x 8	40 - 43	50	76	4 x 10.9 / SS304	023 055	☞	☞
32 x 5	41 - 44	50	-	4 x 10.9 / SS304	023 056	☞	☞
32 x 6	43 - 46	50	76	4 x 10.9 / SS304	023 057	023 025	☞
32 x 8	47 - 50	50	76	4 x 10.9 / SS304	023 058	☞	☞
38 x 5	47 - 51	50	-	4 x 10.9 / SS304	023 059	☞	☞
38 x 6.5	50 - 53	50	83	4 x 10.9 / SS304	023 060	023 027	☞
38 x 8	53 - 56	50	85	4 x 10.9 / SS304	023 061	☞	☞
38 x 10	57 - 60	50	85	4 x 10.9 / SS304	023 062	☞	☞
40 x 7	53 - 56	50	85	4 x 10.9 / SS304	023 063	☞	☞
40 x 10	58 - 61	50	90	4 x 10.9 / SS304	023 064	☞	023 154
45 x 7	58 - 61	57	98	4 x 10.9 / SS304	023 065	☞	☞
50 x 2	53 - 56	56	-	4 x 10.9 / SS304	023 066	☞	☞
50 x 5	59 - 62	56	-	4 x 10.9 / SS304	023 067	☞	☞
50 x 5.5	60 - 64	56	-	4 x 10.9 / SS304	023 068	☞	☞
50 x 6	61 - 65	56	-	4 x 10.9 / SS304	023 069	023 033	☞
50 x 8	63 - 67	56	102	4 x 10.9 / SS304	023 070	023 034	☞
50 x 10	69 - 71	56	106	4 x 10.9 / SS304	023 071	023 035	☞
63 x 6	74 - 77	74	-	4 x 10.9 / SS304	023 073	023 032	☞
63 x 8	78 - 82	74	120	4 x 10.9 / SS304	023 074	023 036	☞
65 x 7	78 - 82	74	120	4 x 10.9 / SS304	023 074	023 036	☞
65 x 10	84 - 87	74	124	4 x 10.9 / SS304	023 075	☞	☞
75 x 6	87 - 90	76	-	4 x 10.9 / SS304	023 076	☞	☞
75 x 6.5	-	-	-	4 x 10.9 / SS304	☞	023 037	☞
75 x 7.5	89 - 92	76	-	4 x 10.9 / SS304	023 077	☞	☞
75 x 8	89 - 94	76	132	4 x 10.9 / SS304	023 078	023 038	☞
75 x 10	94 - 97	76	136	4 x 10.9 / SS304	023 079	☞	☞
75 x 12	99 - 102	77	148	4 x 10.9 / SS304	023 081	☞	☞
80 x 8	94 - 97	76	137	4 x 10.9 / SS304	023 080	023 040	☞
80 x 10	99 - 102	77	141	4 x 10.9 / SS304	023 081	☞	☞
90 x 6.5	101 - 105	76	-	4 x 10.9 / SS304	023 083	☞	☞
100 x 6.5	111 - 115	120	-	4 x 10.9 / SS304	023 084	☞	☞
100 x 8	114 - 119	120	166	4 x 10.9 / SS304	023 085	023 039	☞
100 x 10	118 - 122	120	170	4 x 10.9 / SS304	023 086	☞	☞
100 x 12	122 - 126	120	174	4 x 10.9 / SS304	023 087	☞	☞
100 x 14	126 - 130	120	185	4 x 10.9 / SS304	023 088	☞	☞
100 x 16	130 - 134	120	185	4 x 10.9 / SS304	023 089	☞	☞
125 x 10	143 - 148	147	192	6 x 10.9 / SS304	023 091	☞	☞
150 x 10	167 - 173	180	227	6 x 10.9 / SS304	023 093	☞	☞
150 x 13	174 - 180	182	233	6 x 10.9 / SS304	023 094	☞	☞
200 x 12	222 - 229	240	284	8 x 10.9 / SS304	023 096	☞	☞

Pin Safety Clamps



NOT reusable after assembly

Safety Clamps

Pin Safety Clamps, Not Reuseable
DIN EN 14420-3 / DIN 2817

Standard Materials

2 optional materials aluminum and stainless steel. Steel boltings grade #10.9 are included for aluminum alloy, SS 304 pin for stainless steel clamps.

Hose End

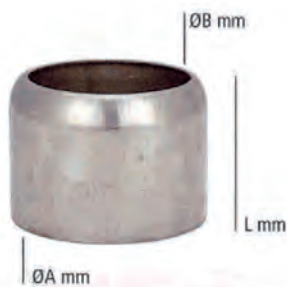
Assembled with hose tails / shanks made to EN 14420-2, usually with quick coupling or thread type at the other end

Markings

Markings are made on external and internal surface, for example — EN AW-6082 EN14420-3 DN xx PN 25

Hose Inside Ø mm	Hose Outside Ø mm	Aluminum Alloys	Stainless Steel
25 × 6	36 - 39	023 501	023 521
32 × 6	43 - 46	023 502	023 522
38 × 6.5	50 - 53	023 503	023 523
50 × 8	63 - 67	023 504	023 524
63 × 8	78 - 82	023 505	023 525
75 × 8	89 - 94	023 506	023 526
100 × 8	114 - 119	023 507	023 527

Stainless Steel Ferrules



Crimping Ferrules

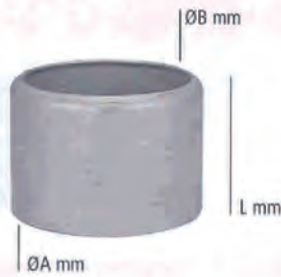
Crimping Ferrule 45° Closure

Standard Materials

Standard stainless steel, seamed and seamless available

Size mm	Inch	ØA mm	ØB mm	L mm	Stainless Steel
25	1	40	30	58	043 021.1
25	1	42	27.5	42	043 021
25	1	45	31	47	043 021.3
25	1	45	33	50	043 021.2
32	1 ^{1/4}	47	40	58	043 027.1
32	1 ^{1/4}	50	36	45	043 027
40	1 ^{1/2}	54.5	43	65	043 022.4
40	1 ^{1/2}	57	41	56	043 022.3
40	1 ^{1/2}	57	43.5	52	043 022
40	1 ^{1/2}	57	45.5	52	043 022.1
50	2	66	56	63	043 023.5
50	2	67	55	63	043 023
50	2	67	55.0	73	043 023.1
50	2	67	55.6	62.7	043 023.4
50	2	71	57.5	66	043 023.2
50	2	72	55	66.5	043 023.6
65	2 ^{1/2}	81.5	68	83	043 024.1
65	2 ^{1/2}	82	68	73	043 024.8
65	2 ^{1/2}	83	68.0	73.0	043 024
65	2 ^{1/2}	85	68.3	71	043 024.2
65	2 ^{1/2}	85	71	55	043 024.3
80	3	94.5	81	91	☎
80	3	96	77	75	☎
80	3	96.5	83.5	75	☎
80	3	98	83	85	☎
80	3	98	84	75	☎
80	3	98.4	83.3	53.5	043 025.1
80	3	98.5	83.5	75.0	043 025
100	4	118.3	118.7	85	☎
100	4	119	105.5	100	☎
100	4	120	107	87	043 026
100	4	122.5	107	87	043 026.3
100	4	122.5	113	87	043 026.2
100	4	123	107	106.5	043 026.1
100	4	124	106	105	☎
100	4	124	107	87.0	☎
100	4	126	107	87	☎
100	4	127	107	120	043 026.4
100	4	127	111	87	☎
150	6	186	162	200	☎
200	8	239.6	213	245	☎

Aluminium Ferrules



Crimping Ferrules

Crimping Ferrule 45° Closure

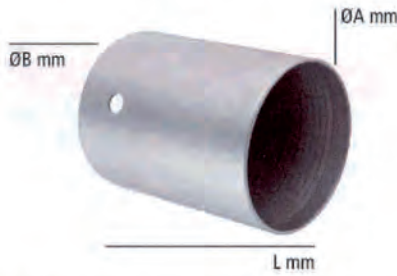
Standard Materials

Standard aluminum alloy, seamless piping

Size mm	Inch	ØA mm	ØB mm	L mm	Aluminum Alloys
25	1	28	21	30	043 050.3
25	1	31	27	30	043 050.2
25	1	37	33	35	043 050.4
25	1	40	27.5	42	043 051
25	1	40	30	58	043 051.1
25	1	41	27	44	043 051.3
25	1	42	27.5	42	☞
25	1	45	31	47	☞
32	1	47	36.0	45.0	043 057
32	1 ^{1/4}	47.5	40	58	☞
32	1 ^{1/4}	50	36.2	45	☞
40	1 ^{1/2}	54.5	43	65	043 052.2
40	1 ^{1/2}	56	41	62	043 052.1
40	1 ^{1/2}	57	43.5	52.0	043 052
40	1 ^{1/2}	57	41	56	043 052.3
50	2	66.5	55.6	63.5	☞
50	2	67	55.0	45.0	☞
50	2	67	55.0	63.0	043 053.1
50	2	67	55.0	73.0	043 053.3
50	2	67	59	63	043 053.2
50	2	70	55	63	043 054
50	2	72	55	66.5	043 053
65	2 ^{1/2}	81.5	68	71	☞
65	2 ^{1/2}	82	68	83	043 054.2
65	2 ^{1/2}	83	68.0	73	☞
65	2 ^{1/2}	84	68	74	☞
65	2 ^{1/2}	85	68.3	71	043 054.3
65	2 ^{1/2}	86	71	57	☞
65	2 ^{1/2}	89	72	55	043 054.8
80	3	94.5	81	91	☞
80	3	96	91	74	043 055.6
80	3	98	83	85	☞
80	3	98	84	75	☞
80	3	98.5	83.5	75.0	043 055
80	3	102	91.0	76	043 055.8
80	3	104	91	76	043 055.1
80	3	101.5	86	75	043 055.2
80	3	102	87	75	043 055.7
100	4	122.5	107.0	87.0	043 056
100	4	123	105.5	100	☞
100	4	123	107	106.5	043 056.1
100	4	123	107	106.5	☞
100	4	123	107.2	85.9	☞
100	4	124	106	105	☞
100	4	124	111	86.0	043 056.8
100	4	126	107	87	043 056.2
100	4	126.5	111	87	043 056.4
100	4	132	115	87	043 056.3

Hose Clamps

Aluminium Ferrules with Drilling Holes



Crimping Ferrules

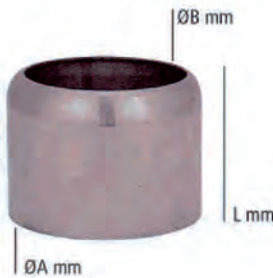
Crimping Ferrule 45° Closure, with 2 Drilling Holes

Standard Materials

Standard aluminum alloy, seamless piping

Size mm	Inch	ØA mm	ØB mm	L mm	Aluminum Alloys
25	1	44	34	54	☞
40	1 ^{1/2}	57	43	57	☞
50	2	69	57	70	☞
65	2 ^{1/2}	73	74	90	☞
80	3	95.5	84	91	☞
100	4	123	111.5	107	☞

Carbon Steel Ferrules



Crimping Ferrules

Crimping Ferrule 45° Closure

Standard Materials

Standard zinc plating carbon steel, seamed and seamless

Size mm	Inch	ØA mm	ØB mm	L mm	Carbon Steel
25	1	40.5	30	58	☞
25	1	45	30	50	☞
25	1	45	31	47	☞
32	1 ^{1/4}	47.5	40	58	☞
40	1 ^{1/2}	54.5	43	65	☞
40	1 ^{1/2}	57	41	56	☞
40	1 ^{1/2}	57	44	56	☞
50	2	67	55	73	043 073
50	2	72	54	66	☞
50	2	72	55	66.5	☞
65	2 ^{1/2}	82.5	68	83	☞
65	2 ^{1/2}	83	68	75	☞
65	2 ^{1/2}	85	68.3	71	☞
80	3	94.5	81	91	☞
80	3	96	81	91	043 075
80	3	97	83	86	☞
80	3	98	83	85	☞
80	3	99	83	86	043 075.1
100	4	123	105.5	100	☞
100	4	124	106	105	043 076
100	4	124	106	115	043 076.1
150	6	186	162	200	☞
150	6	187	165	195	☞
200	8	239.6	213	245	☞

Stainless Steel Crimping Sleeves



Crimping Sleeves

Cylindrical Crimping Sleeves

Standard Materials

Standard stainless steel, seamed and seamless available

Size mm	Inch	Ø mm	L mm	Stainless Steel
25	1	35	20	044 021
25	1	42	25	044 021.1
40	1 ^{1/2}	50	25	044 022
40	1 ^{1/2}	50	50	044 022.1
50	2	57	30	044 023
50	2	67	50	044 023.1
50	2	67	63	044 023.2
65	2 ^{1/2}	85.5	55	044 024
80	3	111	70	044 025
150	6	157.2	152.4	044 027

Aluminium Crimping Sleeves



Crimping Sleeves

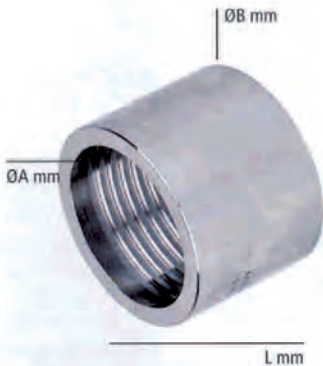
Cylindrical Crimping Sleeves

Standard Materials

Standard aluminum alloy, seamless piping

Size mm	Inch	Ø mm	L mm	Aluminum Alloys
25	1	35	20	044 051
25	1	36	30	044 051.1
25	1	36	38	044 051.2
40	1 ^{1/2}	46	25	044 052
40	1 ^{1/2}	50	25	044 052.1
50	2	50	30	044 053
50	2	50	44	044 053.1
50	2	56	25	044 053.2
65	2 ^{1/2}	79	38	044 054
65	2 ^{1/2}	80	30	044 054.1
65	2 ^{1/2}	84	50	044 054.2
65	2 ^{1/2}	80	45	044 054.3
65	2 ^{1/2}	80	50	044 054.4
80	3	101	75	044 055
100	4	122.5	60	044 056
150	6	122.5	85	044 056.1

Swage Ferrules



Swage Ferrules

Swage Ferrules with Internal Gripping Profiles for Sanitary Couplings

Standard Materials

Standard material stainless steel grade AISI 304 (1.4301)

Size	ØA mm	ØB mm	L mm	AISI 304
13 × 24.5	19.4	24.5	34	211 011
15 × 27.5	21.9	27.5	38	211 012
19 × 33	25.3	33	42.3	211 013.1
19 × 32	26.5	32	41	211 013
25 × 40	31.5	40	32.7	211 014
25 × 39	32.5	39	41	211 015
25 × 42	31.5	42	32.7	211 015.2
25 × 39	32.5	39	41	211 082
25 × 41	32.5	41	41	211 082.1
25 × 41	32.5	41	46	211 082.2
25 × 39	32.5	39	46	211 082.8
25 × 39	32.5	39	44.5	211 082.9
32 × 47	40	47	41	211 083
32 × 53	40	53	41	211 083.1
32 × 53	40	53	46	211 083.2
32 × 47	40	47	46	211 083.8
32 × 47	40	47	45	211 083.9
38 × 54.5	47	54.5	41.5	211 016
38 × 52.5	45.5	52.5	41	211 017
40 × 52.5	45.5	52.5	41	211 084
40 × 55	45.5	55	41	211 084.1
40 × 55	45.5	55	46	211 084.2
40 × 52.5	45.5	52.5	46	211 084.8
40 × 52.5	45.5	52.5	45	211 084.9

Hose Clamps


Size	ØA mm	ØB mm	L mm	AISI 304
50 × 68	59.3	68	41.6	211 018
50 × 67	60	67	55	211 019
M57 × 71.8	M57	71.8	60	211 019.1
50 × 67	60	67	51.5	211 019.2
50 × 67.5	59.7	67.5	51	211 019.3
50 × 73	59.3	73	51.5	211 020
50 × 67	60	67	55	211 085
50 × 71	60	71	55	211 085.1
50 × 67	60	67	55	211 085.5
50 × 67	60	67	54	211 085.9
65 × 79	72	79	57.7	211 021
65 × 83.5	72	83.5	57.7	211 022
65 × 82	73.5	82	65	211 023
M73 × 90	M73	90	100	211 023.1
65 × 79	73.5	79	65	211 023.2
65 × 91	72	91	57.7	211 024
65 × 82	73.5	82	65	211 086
65 × 82	73.5	82	68	211 086.2
65 × 82	73.5	82	74	211 086.8
65 × 82	73.5	80	66.5	211 086.9
65 × 93.5	72.5	93.5	61	211 086.91
65 × 83.5	73.5	83.5	66.5	211 086.92
70 × 85	74	85	62	211 031
70 × 87	80	87	63	211 031.1
75 × 96	84.5	96	58.2	211 025
75 × 93.6	84.5	93.6	83	211 026
M84 × 106	M84	106	111.5	211 027
75 × 105	84.5	105	58.2	211 028
75 × 110	84.5	110	58.2	211 029
75 × 93.6	85.5	93.6	83	211 087
75 × 96	85.5	96	83	211 087.1
75 × 93.6	85.5	93.6	87	211 087.2
75 × 96	85.5	96	87	211 087.3
75 × 93.6	85.5	93.6	72	211 087.8
75 × 93.6	85.5	93.6	70.5	211 087.9
75 × 106.5	85	106.5	66	211 087.91
75 × 94.5	85.5	94.5	70.5	211 087.92
100 × 120	113	120	101	211 029
100 × 120	113	120	101	211 089
100 × 123	113	123	101	211 089.1
100 × 123	113	123	103	211 089.2
100 × 120	113	120	103	211 089.8
100 × 120	113	120	104	211 089.9
100 × 135	112	135	70.5	211 089.91
100 × 123	113	123	104	211 089.92

Female Gasoline Ferrule Couplings



Male Gasoline Ferrule Couplings



 Ref. 029 000 Screw Key available by carbon steel with anti-rust plating.

Gasoline Couplings

Gasoline Crimping Ferrules by Swivelling Inside Thread
EN 14424

Standard Materials

Brass alloy with and without nickle plating

Thread Types

Standard BSP-Parallel

Size mm	Inch	Hose mm	Plain Brass	Nickel Brass
13 × 4	1/2 BSP-P	M 16 × 1.0	029 009.47	029 009.1
13 × 5	1/2 BSP-P	M 16 × 1.0		029 009
15 × 5	3/4 BSP-P	M 19 × 1.0		029 001
19 × 4	3/4 BSP-P	M 22 × 1.5		029 002.1
19 × 5	3/4 BSP-P	M 22 × 1.5	029 002.47	
19 × 5	1 BSP-P	M 22 × 1.5	029 002.5	029 002
19 × 6	3/4 BSP-P	M 22 × 1.5	029 002.2	
19 × 6	1 BSP-P	M 22 × 1.5		029 002.3
25 × 5	1 BSP-P	M 28 × 1.5		029 004
25 × 6	1 BSP-P	M 28 × 1.5		029 004.2

Gasoline Couplings



































Gasoline Crimping Ferrules by Swivelling Outside Thread
EN 14424

Standard Materials

Brass alloy with and without nickle plating

Thread Types

Standard BSP-Parallel, BSP-Tapered and NPT pipe threads

Size mm	Inch	Hose mm	Plain Brass	Nickel Brass
13 × 4	1/2 BSP-P	M 16 × 1.0		029 109.1
13 × 5	1/2 BSP-P	M 16 × 1.0		029 109
15 × 5	3/4 BSP-P	M 19 × 1.0		029 101.4
15 × 5	1 BSP-P	M 19 × 1.0		029 101
19 × 4	3/4 BSP-P	M 22 × 1.5		029 102.14
19 × 4	1 BSP-P	M 22 × 1.5		029 102.1
19 × 5	3/4 BSP-P	M 22 × 1.5	029 102.47	029 102.4
19 × 5	1 BSP-P	M 22 × 1.5		029 102
19 × 6	3/4 BSP-P	M 22 × 1.5		029 102.24
19 × 6	1 BSP-P	M 22 × 1.5		029 102.2
25 × 5	1 BSP-P	M 28 × 1.5		029 104
25 × 6	1 BSP-P	M 28 × 1.5	029 104.27	029 104.2
13 × 4	1/2 BSP-T	M 16 × 1.0		029 129.1
13 × 5	1/2 BSP-T	M 16 × 1.0		029 129
15 × 5	3/4 BSP-T	M 19 × 1.0		029 121.4
15 × 5	1 BSP-T	M 19 × 1.0		029 121
19 × 4	3/4 BSP-T	M 22 × 1.5		029 122.14
19 × 4	1 BSP-T	M 22 × 1.5		029 122.1
19 × 5	3/4 BSP-T	M 22 × 1.5		29122.4
19 × 5	1 BSP-T	M 22 × 1.5		029 122
19 × 6	3/4 BSP-T	M 22 × 1.5		029 122.24
19 × 6	1 BSP-T	M 22 × 1.5		029 122.2
25 × 5	1 BSP-T	M 28 × 1.5		029 124
25 × 6	1 BSP-T	M 28 × 1.5		029 124.2
13 × 4	1/2 NPT	M 16 × 1.0		029 149.1
13 × 5	1/2 NPT	M 16 × 1.0		029 149
15 × 5	3/4 NPT	M 19 × 1.0		029 141.4
15 × 5	1 NPT	M 19 × 1.0		029 141
19 × 4	3/4 NPT	M 22 × 1.5		029 142.14
19 × 4	1 NPT	M 22 × 1.5		029 142.1
19 × 5	3/4 NPT	M 22 × 1.5		029 142.4
19 × 5	1 NPT	M 22 × 1.5		029 142
19 × 6	3/4 NPT	M 22 × 1.5		029 142.24
19 × 6	1 NPT	M 22 × 1.5		029 142.2
25 × 5	1 NPT	M 28 × 1.5		029 144
25 × 6	1 NPT	M 28 × 1.5		029 144.2

Hose Clamps

Superior Hose Clamps Solid Type



Superior Clamps

Superior Clamps with Solid Retaining Screw Bolts

Standard Materials

2 optional materials galvanised carbon steel, and stainless steel

Size mm	H mm	Carbon Steel	Stainless Steel
17 - 19	18	081 401.21	081 501.21
20 - 22	18	081 403.21	081 503.21
23 - 25	18	081 404.21	081 504.21
26 - 28	18	081 405.21	081 505.21
29 - 31	20	081 406.21	081 506.21
32 - 35	20	081 407.21	081 507.21
36 - 39	20	081 408.21	081 508.21
40 - 43	20	081 409.21	081 509.21
44 - 47	22	081 410.21	081 510.21
48 - 51	22	081 411.21	081 511.21
52 - 55	22	081 412.21	081 512.21
56 - 59	22	081 413.21	081 513.21
60 - 63	22	081 414.21	081 514.21
64 - 67	22	081 415.21	081 515.21
68 - 73	24	081 416.21	081 516.21
74 - 79	24	081 417.21	081 517.21
80 - 85	24	081 418.21	081 518.21
86 - 91	24	081 419.21	081 519.21
92 - 97	24	081 420.21	081 520.21
98 - 103	24	081 421.21	081 521.21
104 - 112	24	081 422.21	081 522.21
113 - 121	24	081 423.21	081 523.21
122 - 130	24	081 424.21	081 524.21
131 - 139	26	081 425.21	081 525.21
140 - 148	26	081 426.21	081 526.21
149 - 161	26	081 427.21	081 527.21
162 - 174	26	081 428.21	081 528.21
175 - 187	26	081 429.21	081 529.21
188 - 200	26	081 430.21	081 530.21
201 - 213	26	081 431.21	081 531.21
214 - 226	26	081 432.21	081 532.21
227 - 239	26	081 433.21	081 533.21
240 - 252	26	081 434.21	081 534.21

Spiral Hose Clamps



Spiral Clamps

Spiral Clamps Wireing Clockwise and Unclockwise

Standard Materials

Galvanised carbon steel

Size inch	Type	Carbon Steel
1 ^{1/2}	Clockwise	081 705
2	Clockwise	081 706
2 ^{1/2}	Clockwise	081 707
3	Clockwise	081 708
4	Clockwise	081 709
5	Clockwise	081 710
6	Clockwise	081 711
8	Clockwise	081 712
1 ^{1/2}	Un-Clockwise	081 735
2	Un-Clockwise	081 736
2 ^{1/2}	Un-Clockwise	081 737
3	Un-Clockwise	081 738
4	Un-Clockwise	081 739
5	Un-Clockwise	081 740
6	Un-Clockwise	081 741
8	Un-Clockwise	081 742





APPENDICES

Sealing Materials *Page 205*

Pipe Schedule & Materials *Page 208*

Thread Measurements *Page 213*

Word Index *Page 214*

Appendix 1 — Sealing Materials

Sealing materials are crucial parts in almost every aspect. They are most likely made from rubber materials and function properly within a certain range of both temperature and pressure when the hardness is set to theoretical optimism. Sealants between two mating couplings are usually referred to as "gaskets"; those at the bottom of inside or female thread as "seals".

Table 1.1 shows the names for our major sealing materials for coupling programs.

Term	Chemical Name	Trade Name	Registered trade mark of company
NBR	Acrylonitrile Butadiene	Pervunan N [®] , Buna N [®]	Bayer Corporation
EPDM	Ethylene Propylene	Nordel [®]	DuPont Dow Elastomers
FPM	Fluorocarbon	Viton [®]	DuPont Dow Elastomers
CSM	Chlorosulfonated Polyethylene	Hypalon [®]	DuPont Dow Elastomers
PTFE	Poly Tetrafluorethylene	Teflon [®]	DuPont Dow Elastomers
PU (AU or EU)	Polyurethane	Vulkolan [®]	Bayer Corporation
CR	Polychloroprene	Neoprene [®]	DuPont Dow Elastomers
MVQ	Silicone	Silastic [®]	Dow Corning Corp.

Table 1.1

Hardness of sealants is defined as a material's resistance to permanent indentation. We are using Shore A durometer scale hardness testers to verify the correctness specified in standards or required by customers.

Tests are made randomly on 5 pieces of thickness of no less than 6 mm and minimum width of 15 mm at room temperature of $23 \pm 5^{\circ}\text{C}$. In case of form shaped gaskets when thickness is less than required we do checks on big flat plates of satisfactory thickness that are made of compound from the same production.

Table 1.2 shows the applying hardness (Shore A avg. tolerance $\pm 5\text{HA}$) is recommended with reference to relevant standards and our experience throughout the years.



Term	Chemical Name	Trade Name	Hardness
NBR	Acrylonitrile Butadiene	Pervunan N [®] , Buna N [®]	60 ± 5 Shore A
CSM	Chlorosulfonated Polyethylene	Hypalon [®]	70 ± 5 Shore A
EPDM	Ethylene Propylene	Nordel [®]	70 ± 5 Shore A
FPM	Fluorocarbon	Viton [®]	70 ± 5 Shore A
PTFE	Poly Tetrafluorethylene	Teflon [®]	90 ± 5 Shore A
CR	Polychloroprene	Neoprene [®]	60 ± 5 Shore A
PU (AU/EU)	Polyurethane	Vulkolan [®]	90 ± 5 Shore A
MVQ	Silicone	Silastic [®]	40 ± 5 Shore A

Table 1.2

By simulating two mating couplings under pressure water, referred to as hydrostatic testing, we check and confirm the suitability of each design (of both body structures and sealing durability) when dimensions are perfectly made to norms or to practical purposes.

Pressure testing on sealing functions are like yet different from hydrostatic test in producing process which is applied on every single piece prior to machining as Table 1.3 .



Testing	on Sealing materials	on Bodies
Type of Test	Hydrostatic under water at room temperature	
Type of Connection	Sealants compressed or sealed by usually connecting a pair of mating couplings blinded at both ends 	Blind one coupling at both ends with no sealants insert by blind flanges where air can be pumped through 
Test Objects	End products after production esp. in stage of engineering development	Casts or forges during production prior to body machining
Test Pieces	No less than 5 pcs	Every single piece
Passed vs. Failed	Passed when a) no bubble observed at rated pressure; and b) no visible deformation of flared sealants observed during testing	Passed when no bubble observed at rated pressure
Blast Test Requirement	Optional subject to engineering requirement	Optional

Table 1.3

Working temperatures of our couplings are in most cases (except for plastic or poly-material bodies like of polypropylene and nylon) decided by the sealing materials. See below property chart of reference according to industry dominant companies.

Term	Trade Name	Working Temperature			
		°C		°F	
NBR	Pervunan N [®] , Buna N [®]	-10	~ +80	+14	~ +176
CSM	Hypalon [®]	-60	~ +204	-76	~ +399
EPDM	Nordel [®]	-20	~ +130	-4	~ +266
FPM	Viton [®]	-20	~ +180	-4	~ +356
PTFE	Teflon [®]	-30	~ +300	-22	~ +572
CR	Neoprene [®]	-30	~ +120	-22	~ +248
PU (AU/EU)	Vulkolan [®]	-40	~ +82	-40	~ +180
MVQ	Silastic [®]				

Table 1.4



STAINLESS STEEL PIPING ASME B36.19

Welded and seamless piping of stainless steels are at options for ASME flanges Class 600 and 900 according to specs in Table 2.2 .

Nominal Piping		Outside	Inside	Sch	Sch	Sch	Sch
		Ø	Ø	5S	10S	40S	80S
		mm	mm				
inch	mm		Wall				
			Thickness				
			mm				
1/8	6	10.3	I.D	-	7.8	6.8	5.5
1/8	6	10.3	W.T	-	1.2	1.7	2.4
1/4	8	13.7	I.D	-	10.4	9.2	7.7
1/4	8	13.7	W.T	-	1.7	2.2	3
3/8	10	17.1	I.D	-	13.8	12.5	10.7
3/8	10	17.1	W.T	-	1.7	2.3	3.2
1/2	15	21.3	I.D	18	17.1	15.8	13.8
1/2	15	21.3	W.T	1.7	2.1	2.8	3.7
3/4	20	26.7	I.D	23.4	22.5	21	18.9
3/4	20	26.7	W.T	1.7	2.1	2.9	3.9
1	25	33.4	I.D	30.1	27.9	26.6	24.3
1	25	33.4	W.T	1.7	2.8	3.4	4.6
1 ^{1/4}	32	42.2	I.D	38.9	36.7	35.4	32.5
1 ^{1/4}	32	42.2	W.T	1.7	2.8	3.6	4.9
1 ^{1/2}	40	48.3	I.D	45	42.8	40.9	38.1
1 ^{1/2}	40	48.3	W.T	1.7	2.8	3.7	5.1
2	50	60.3	I.D	57	54.8	52.5	49.2
2	50	60.3	W.T	1.7	2.8	3.9	5.5
2 ^{1/2}	65	73	I.D	68.8	66.9	62.7	59
2 ^{1/2}	65	73	W.T	2.1	3.4	5.2	7
3	80	88.9	I.D	84.7	82.8	77.9	73.7
3	80	88.9	W.T	2.1	3.1	5.5	7.6
3 ^{1/2}	90	101.6	I.D	97.4	95.5	90.1	85.4
3 ^{1/2}	90	101.6	W.T	2.1	3.1	5.7	8.1
4	100	114.3	I.D	110.1	108.2	102.3	97.2
4	100	114.3	W.T	2.1	3.1	6	8.6
5	125	141.3	I.D	135.8	134.5	128.2	122.2
5	125	141.3	W.T	2.8	3.4	6.6	9.5
6	150	168.3	I.D	162.8	161.5	154.1	146.4
6	150	168.3	W.T	2.8	3.4	7.1	11
8	200	219.1	I.D	213.6	211.6	202.7	193.7
8	200	219.1	W.T	2.8	3.8	8.2	12.7
10	250	273	I.D	266.2	264.7	254.6	247.7
10	250	273	W.T	3.4	4.2	9.3	12.7
12	300	323.8	I.D	315.9	378.8	304.8	298.5
12	300	323.8	W.T	4	4.6	9.5	12.7
14	350	355.6	I.D	347.7	346	-	-
14	350	355.6	W.T	4	4.8	-	-
16	400	406.4	I.D	398	396.8	-	-
16	400	406.4	W.T	4.2	4.8	-	-
18	450	457	I.D	448.6	447.4	-	-
18	450	457	W.T	4.2	4.8	-	-
20	500	508	I.D	498.4	496.9	-	-
20	500	508	W.T	4.8	5.5	-	-
22	550	559	I.D	549.4	547.9	-	-
22	550	559	W.T	4.8	5.5	-	-
24	600	610	I.D	598.9	597.3	-	-
24	600	610	W.T	5.5	6.35	-	-

Table 2.2

FLANGES MATERIALS ASTM

Flanges per ASME B16.5 are basically formed by forging techniques according to ASTM specs, grade or code of which are supposed to be visually identified on bodies in all cases.

ASTM	Grade	Chem	Chemical Composition (%)								Mechanical Properties				
			C	Mn	P	S	Si	Ni	Cr	Mo	T.S psi	Y.S psi	EL %	Red %	HB
					Max	Max					Min	Min	Min	Min	
A105	-	Carbon Steel	Max 0.35	1.16-1.05	0.04	0.05	Max 0.35	Max 0.4	Max 0.3	Max 0.12	70 -49.2	36 -25.3	22	30	Max 187
A181	60	Carbon Steel	Max 0.35	Max 0.9	0.05	0.05	Max 0.35	-	-	-	60 -42.2	30 -21.1	22	35	Max 187
A181	70	Carbon Steel	Max 0.35	Max 0.9	0.05	0.05	Max 0.35	-	-	-	70 -49.2	36 -25.3	18	24	Max 187
A182	F1	1/2Mo	Max 0.28	0.60-0.9	0.045	0.045	0.15-0.35	-	-	0.44-0.65	70 -49.2	40 -28.1	20	30	143-192
A182	F5	5Cr-1/2Mo	Max 0.15	0.30-0.6	0.03	0.03	Max 0.5	Max 0.5	4.00-6	0.44-0.65	70 -49.2	40 -28.1	20	35	143-217
A182	F5a	5Cr-1/2Mo	Max 0.25	Max 0.6	0.04	0.03	Max 0.5	Max 0.5	4.00-6	0.44-0.65	90 -63.3	65 -45.7	22	50	187-248
A182	F11-1	1 ^{1/4} Cr-1/2Mo	0.05-0.15	0.30-0.6	0.03	0.03	0.50-1	-	1.00-1.5	0.44-0.65	60 -42.2	30 -21.1	20	45	121-174
A182	F11-2	1 ^{1/4} Cr-1/2Mo	0.10-0.2	0.30-0.8	0.04	0.04	0.50-1	-	1.00-1.5	0.44-0.65	70 -49.2	40 -28.1	20	30	143-207
A182	F11-3	1 ^{1/4} Cr-1/2Mo	0.10-0.2	0.30-0.8	0.04	0.04	0.50-1	-	1.00-1.5	0.44-0.65	75 -52.7	45 -31.6	20	30	156-207
A182	F12-1	1Cr-1/2Mo	0.05-0.15	0.30-0.6	0.045	0.045	Max 0.5	-	0.80-1.25	0.44-0.65	60 -42.2	30 -21.1	20	45	121-174
A182	F12-2	1Cr-1/2Mo	0.10-0.2	0.30-0.8	0.04	0.04	0.10-0.6	-	0.80-1.25	0.44-0.65	70 -49.2	40 -28.1	20	30	143-207
A182	F11	1 ^{1/4} Cr-1/2Mo	0.10-0.2	0.30-0.6	0.04	0.04	0.50-1	-	1.00-1.5	0.44-0.65	70 -49.2	40 -28.1	20	30	143-207
A182	F12	1Cr-1/2Mo	0.10-0.2	0.30-0.8	0.04	0.04	0.10-0.6	-	0.80-1.25	0.44-0.65	70 -49.2	40 -28.1	20	30	143-207
A182	F22	2 ^{1/4} Cr-1/2Mo	Max 0.15	0.30-0.6	0.04	0.04	Max 0.5	-	2.00-2.5	0.87-1.13	75 -52.7	45 -31.6	20	30	156-207
A182	F304	18Cr-8Ni	Max 0.08	Max 2	0.04	0.03	Max 1	8.00-11	18.00-20	-	75 -52.7	30 -21.1	30	50	-
A182	F304L	18Cr-8Ni Low	Max 0.035	Max 2	0.04	0.03	Max 1	8.00-13	18.00-20	-	70 -49.2	25 -17.6	30	50	-
A182	F316	18Cr-8Ni Mo	Max 0.08	Max 2	0.04	0.03	Max 1	10.00-14	16.00-18	2.00-3	75 -52.7	30 -21.7	30	50	-
A182	F316L	18Cr-8Ni Mo Low	Max 0.035	Max 2	0.04	0.03	Max 1	10.00-15	16.00-18	2.00-3	65 -45.7	25 -17.6	30	50	-
A182	F321	18Cr-8Ni Ti	Max 0.08	Max 2	0.03	0.03	Max 1	9.00-12	Min 17	-	75 -52.7	30 -21.1	30	50	-
A182	F347	18Cr-8Ni Cb	Max 0.08	Max 2	0.03	0.03	Max 1	9.00-13	17.00-20	-	75 -52.7	30 -21.1	30	50	-
A350	LF1	Carbon Steel	Max 0.3	0.75-1.05	0.035	0.04	0.15-0.3	Max 0.4	Max 0.3	Max 0.12	60.000-85 (42.2-59.7)	30 -21.1	25	38	-
A350	LF2	Carbon Steel	Max 0.3	Max 1.35	0.035	0.04	0.15-0.3	Max 0.4	Max 0.3	Max 0.12	70.000-95 (49.2-66.8)	36 -25.3	22	30	-
A350	LF3	3 ^{1/2} Ni	Max 0.2	Max 0.9	0.035	0.04	0.20-0.35	3.25-3.75	Max 0.3	Max 0.12	70.000-95 (49.2-66.8)	37.5 -26.4	22	35	-

Table 2.3

FLANGES MATERIALS DIN

Crosscheck chemical compositions of common materials for DIN flanges, grade or code of which are supposed to be visually identified on bodies in all cases.

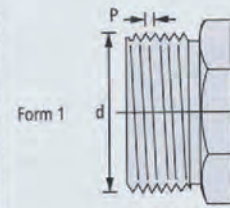
MTL	Grade	Chemical Composition (%)									
		C	Mn	P	S	Si	Cr	Mo	Ni	Cu	Rest
A234	WPB	0.3	0.29-1.06	0.05	0.058	≥0.10	0.4	0.15	0.4	0.4	V 0.06 Nb 0.02
A234	WPC	0.35	0.29-1.06	0.05	0.058	≥0.10	0.4	0.15	0.4	0.4	V 0.06 Nb 0.02
A234	WP1	0.28	0.30-0.90	0.045	0.045	0.10-0.50	-	0.44-0.65	-	-	-
A234	WP12	0.05-0.20	0.30-0.80	0.045	0.045	0.6	0.80-1.25	0.44-0.65	-	-	-
	CL1										
A234	WP12	0.05-0.20	0.30-0.80	0.045	0.045	0.6	0.80-1.25	0.44-0.65	-	-	-
	CL2										
A234	WP11	0.05-0.15	0.30-0.60	0.03	0.03	0.50-1.00	1.00-1.50	0.44-0.65	-	-	-
	CL1										
A234	WP11	0.05-0.20	0.30-0.80	0.04	0.04	0.50-1.00	1.00-1.50	0.44-0.65	-	-	-
	CL2										
A234	WP11	0.05-0.20	0.30-0.80	0.04	0.04	0.50-1.00	1.00-1.50	0.44-0.65	-	-	-
	CL3										
A234	WP22	0.05-0.15	0.30-0.60	0.04	0.04	0.5	1.90-2.60	0.87-1.13	-	-	-
	CL1										
A234	WP22	0.05-0.15	0.30-0.60	0.04	0.04	0.5	1.90-2.60	0.87-1.13	-	-	-
	CL3										
A234	WP5	0.15	0.30-0.60	0.04	0.03	0.5	4.0-6.0	0.44-0.65	-	-	-
	CL1										
A234	WP5	0.15	0.30-0.60	0.04	0.03	0.5	4.0-6.0	0.44-0.65	-	-	-
	CL3										
A234	WP9	0.15	0.30-0.60	0.03	0.03	1	8.0-10.0	0.90-1.10	-	-	-
	CL1										
A234	WP9	0.15	0.30-0.60	0.03	0.03	1	8.0-10.0	0.90-1.10	-	-	-
	CL3										
A234	WPR	0.2	0.40-1.06	0.045	0.05	-	-	-	1.60-2.24	0.75-1.25	-
A234	WP91	0.08-0.12	0.30-0.60	0.02	0.01	0.20-0.50	8.0-9.5	0.85-1.05	0.4	-	-
A234	WP911	0.09-0.13	0.30-0.60	0.02	0.01	0.10-0.50	8.5-10.5	0.90-1.10	0.4	-	-
A403	WP304	0.08	2	0.045	0.03	1	18.0-20.0	-	8.0-11.0	-	-
A403	WP304H	0.04-0.10	2	0.045	0.03	1	18.0-20.0	-	8.0-11.0	-	-
A403	WP304L	0.035	2	0.045	0.03	1	18.0-20.0	-	8.0-13.0	-	-
A403	WP304LN	0.03	2	0.045	0.03	0.75	18.0-20.0	-	8.0-10.5	-	N2 0.10-0.16
A403	WP304N	0.08	2	0.045	0.03	0.75	18.0-20.0	-	8.0-11.0	-	N2 0.10-0.16
A403	WP309	0.15	2	0.045	0.03	1	22.0-24.0	-	12.0-15.0	-	-
A403	WP310	0.15	2	0.045	0.03	1.5	24.0-26.0	-	19.0-22.0	-	-
A403	WP316	0.08	2	0.045	0.03	1	16.0-18.0	2.00-3.00	10.0-14.0	-	-
A403	WP316H	0.04-0.10	2	0.045	0.03	1	16.0-18.0	2.00-3.00	10.0-14.0	-	-
A403	WP316LN	0.03	2	0.045	0.03	0.75	16.0-18.0	2.00-3.00	11.0-14.0	-	N2 0.10-0.16
A403	WP316L	0.035	2	0.045	0.03	1	16.0-18.0	2.00-3.00	10.0-16.0	-	-
A403	WP316N	0.08	2	0.045	0.03	0.75	16.0-18.0	2.00-3.00	11.0-14.0	-	N2 0.10-0.16
A403	WP317	0.08	2	0.045	0.03	1	18.0-20.0	3.0-4.0	11.0-15.0	-	-
A403	WP317L	0.03	2	0.045	0.03	1	18.0-20.0	3.0-4.0	11.0-15.0	-	-
A403	WP321	0.08	2	0.045	0.03	1	17.0-20.0	-	9.0-13.0	-	Ti 5C-0.7
A403	WP321H	0.04-0.10	2	0.045	0.03	1	17.0-20.2	-	9.0-13.0	-	Ti 5C-0.7
A403	WP347	0.08	2	0.045	0.03	1	17.0-20.0	-	9.0-13.0	-	Nb+Ta 10C-1.10
A403	WP347H	0.04-0.10	2	0.045	0.03	1	17.0-20.0	-	9.0-13.0	-	Nb+Ta 8C-1.00
A403	WP348	0.08	2	0.045	0.03	1	17.0-20.0	-	9.0-13.0	-	Ta 0.10
A403	WP348H	0.04-0.10	2	0.045	0.03	1	17.0-20.0	-	9.0-13.0	-	Ta 0.10

MTL	Grade	Chemical Composition (%)									
		C	Mn	P	S	Si	Cr	Mo	Ni	Cu	Rest
A420	WPL6	0.3	0.60-1.35	0.035	0.04	0.15-0.30	0.3	0.12	0.4	0.4	Cb 0.02 V 0.08
A420	WPL9	0.2	0.40-1.06	0.03	0.03	-	-	-	1.60-2.24	0.75-1.25	-
A420	WPL3	0.2	0.31-0.64	0.05	0.05	0.13-0.37	-	-	3.2-3.8	-	-
A420	WPL8	0.13	0.9	0.03	0.03	0.13-0.37	-	-	8.4-9.6	-	-
A815	UNS	0.03	2	0.03	0.02	0.1	21.0-23.0	2.50-3.50	4.50-6.50	-	N 0.08-0.20
	S31803										
A105	A105	0.35	0.60-1.05	0.035	0.04	0.10-0.35	0.3	0.12	0.4	0.4	V 0.05 Nb 0.02
A182	F11	0.05	0.30-0.60	0.03	0.03	0.50-1.00	1.00-1.50	0.44-0.65	-	-	-
	CL1										
A182	F11	0.15	0.30-0.80	0.04	0.04	0.50-1.00	1.00-1.50	0.44-0.65	-	-	-
	CL2										
A182	F11	0.10-0.20	0.30-0.80	0.04	0.04	0.50-1.00	1.00-1.50	0.44-0.65	-	-	-
	CL3										
A182	F12	0.10-0.20	0.30-0.60	0.045	0.045	0.5	0.80-1.25	0.44-0.65	-	-	-
	CL1										
A182	F12	0.05-0.15	0.30-0.80	0.04	0.04	0.10-0.60	0.80-1.25	0.44-0.65	-	-	-
	CL2										
A182	F304	0.08	2	0.045	0.03	1	18.0-20.0	-	8.0-11.0	-	N 0.10
A182	F304H	0.04-0.10	2	0.045	0.03	1	18.0-20.0	-	8.0-11.0	-	-
A182	F304L	0.035	2	0.045	0.03	1	18.2-20.0	-	8.0-13.0	-	N 0.10
A182	F316L	0.035	2	0.045	0.03	1	16.8-18.0	2.00-3.00	10.0-15.0	-	N 0.10
A182	F317	0.08	2	0.045	0.03	1	18.0-20.0	3.0-4.0	11.0-15.0	-	-
A182	F321	0.08	2	0.045	0.03	1	17.0-19.0	-	9.0-12.0	-	Ti 5C-0.7
A182	F347	0.08	2	0.045	0.03	1	17.0-20.0	-	9.0-13.0	-	Ti 10C-1.10
A53	B	0.3	1.2	0.05	0.045	-	0.4	0.15	0.4	0.4	V 0.08
A106	B	0.3	0.29-1.06	0.035	0.035	≥0.10	0.4	0.15	0.4	0.4	V 0.08
A106	C	0.35	0.29-1.06	0.035	0.035	≥0.10	0.4	0.15	0.4	0.4	V 0.08
A312	TP304	0.08	2	0.04	0.03	0.75	18.0-20.0	-	8.0-11.0	-	-
A312	TP304H	0.04-0.10	2	0.04	0.03	0.75	18.0-20.0	-	8.0-11.0	-	-
A312	TP304L	0.035	2	0.04	0.03	0.75	18.0-20.0	-	8.0-13.0	-	-
A312	TP316L	0.035	2	0.04	0.03	0.75	16.0-18.0	2.00-3.00	10.0-15.0	-	-
A312	TP321	0.08	2	0.04	0.03	0.75	17.0-20.0	-	9.0-13.0	-	Ti 5C-0.7
A335	P5	0.15	0.30-0.60	0.025	0.025	0.5	4.00-6.00	0.45-0.65	-	-	-
A335	P5b	0.15	0.30-0.60	0.025	0.025	1.00-2.00	4.00-6.00	0.45-0.65	-	-	-
A335	P5c	0.12	0.30-0.60	0.025	0.025	0.5	4.00-6.00	0.45-0.65	-	-	Ti 4C-0.7
A335	P9	0.15	0.30-0.60	0.025	0.025	0.50-1.00	8.00-10.00	0.90-1.10	-	-	-
A335	P11	0.05-0.15	0.30-0.60	0.025	0.025	0.50-1.00	1.00-1.15	0.44-0.65	-	-	-
A335	P12	0.05-0.15	0.30-0.61	0.025	0.025	0.5	0.80-1.25	0.44-0.65	-	-	-
A335	P22	0.05-0.15	0.30-0.60	0.025	0.025	0.5	1.90-2.60	0.87-1.13	-	-	-
A335	P91	0.08-0.12	0.30-0.60	0.02	0.01	0.20-0.50	8.00-9.50	0.85-1.05	0.4	-	-
A515	60	0.24	0.98	0.035	0.035	0.13-0.45	-	-	-	-	-
A515	65	0.28	0.98	0.035	0.035	0.13-0.45	-	-	-	-	-
A515	70	0.31	1.3	0.035	0.035	0.13-0.45	-	-	-	-	-

Table 2.4

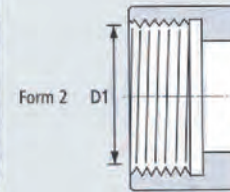
Appendix 3 — Commonly Used Thread Measurements

Outer Diameter		Pitch	Inner Diameter		Type / Size	Standard
d mm	Form	P mm	D1 mm	Form		
18.9	1	1.6	17.5	2	3/4 - 16 UNF	CSA B 1
20.6	3	1.8	18.3	4	1/2 NPT	ANSI B 1.20.1
20.9	1	1.8	18.8	2	G 1/2 (BSP)	DIN ISO 228
21.8	1	1.8	19.7	2	W 21.8 × 1/4 links	DIN 477
22.9	1	1.8	20.8	2	G 5/8 (BSP)	DIN ISO 228
25.9	3	1.8	24.2	2	3/4 BSPT	DIN 2999 / BS 21
26	3	1.8	23.6	4	3/4 NPT	ANSI B 1.20.1
26.4	1	1.8	24.2	2	G 3/4 (BSP)	DIN ISO 228
30	1	3.5	26.2	2	M 30 × 1.5	DIN 13
32.5	3	2.2	29.7	4	1 NPT	ANSI B 1.20.1
32.7	3	2.3	30.4	2	1 BSPT	DIN 2999 / BS 21
33.2	1	2.3	30.4	2	G 1 (BSP)	DIN ISO 228
41.2	3	2.3	39.1	2	1 1/4 BSPT	DIN 2999 / BS 21
41.2	3	2.2	38.4	4	1 1/4 NPT	ANSI B 1.20.1
41.9	1	2.3	39.1	2	G 1 1/4 (BSP)	DIN ISO 228
44	5	6	40.2	6	RD 44 × 1/6	DIN 405
44.4	7	6.4	38.2	8	1 3/4 ACME	ASA B 1.5
45	1	4.5	40.2	2	M 45 × 1.5	DIN 13
47.1	3	2.3	45	2	1 1/2 BSPT	DIN 2999 / BS 21
47.2	3	2.2	44.5	4	1 1/2 NPT	ANSI B 1.20.1
47.8	1	2.3	45	2	G 1 1/2 (BSP)	DIN ISO 228
52	5	4.2	48.2	6	RD 52 × 1/6	DIN 405
53.5	1	2.3	51	2	G 1 3/4 (BSP)	DIN ISO 228
57	7	8.5	48.7	8	2 1/4 ACME	ASA B 1.5
58	5	4.2	54.2	6	RD 58 × 1/6	DIN 405
58.8	3	2.3	56.8	2	2 BSPT	DIN 2999 / BS 21
59.2	3	2.2	56.6	4	2 NPT	ANSI B 1.20.1
59.5	1	2.3	56.8	2	G 2 (BSP)	DIN ISO 228
59.7	1	2.2	57.6	2	2 NPSH/NPSM	ANSI B 1.20.1
65	5	4.2	61.2	6	RD 65 × 1/6	DIN 405
65.7	1	2.3	63	2	G 2 1/4 (BSP)	DIN ISO 228
71.4	3	3.2	67.6	4	2 1/2 NPT	ANSI B 1.20.1
72.1	1	3.2	69	2	2 1/2 NPSH/NPSM	ANSI B 1.20.1
72.8	1	4.2	68.7	2	Haltermann	-
74.2	3	2.3	72.4	2	2 1/2 BSPT	DIN 2999 / BS 21
75	1	2.3	72.4	2	G 2 1/2 (BSP)	DIN ISO 228
76	1	2.3	73.8	2	SK 4	Shell - NL
78	5	4.2	74.2	6	RD 78 × 1/6	DIN 405
80	1	3	76.1	2	M 80 × 3	DIN 13
81.5	1	2.3	78.7	2	G 2 3/4 (BSP)	DIN ISO 228
81.9	1	4.2	77	2	W 82 × 1/6 links	VG 85 280
82.5	7	12.7	78.4	8	3 1/4 ACME	ASA B 1.5
84.5	1	3.2	81.5	2	85 × 1/8	Esso
86.7	3	2.3	85	2	3 BSPT	DIN 2999 / BS 21
87.2	3	3.2	83.5	4	3 NPT	ANSI B 1.20.1
88	1	2.3	85	2	G 3 (BSP)	DIN ISO 228
88	1	3.2	84.9	2	3 NPSH / NPSM	ANSI B 1.20.1
95	5	4.2	91.2	6	RD 95 × 1/6	DIN 405
100	5	4.2	96.2	6	RD 100 × 1/6	DIN 405
100.2	1	2.3	97.5	2	G 3 1/2 (BSP)	DIN ISO 228
107	5	8	100	6	Filet rond 80	NF E 29 - 579
110	5	6.4	104.3	6	RD 110 × 1/4	DIN 405
111.6	3	2.3	110.1	2	4 BSPT	DIN 2999 / BS 21
112.4	3	3.2	108.8	4	4 NPT	ANSI B 1.20.1
113	1	2.3	110.1	2	G 4 (BSP)	DIN ISO 228
113.4	1	3.2	110.2	2	4 NPSH / NPSM	ANSI B 1.20.1
114.3	1	8.8	103	2	4 1/2	DIN 11
130	5	6.4	124.3	2	RD 130 × 1/4	DIN 405
131	5	10	122	6	Filet rond 100	NF E 29 - 579
138.4	1	3.2	135.5	2	G 5 (BSP)	DIN ISO 228
139.7	1	9.7	127.5	2	5 1/2	DIN 11

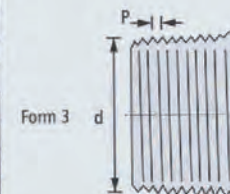


Form 1

Pipe thread (BSP-Parallel), rail car - and fine thread, with flat sealing surface, not thread sealing

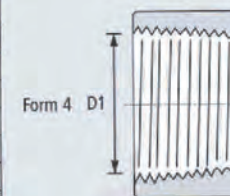


Form 2

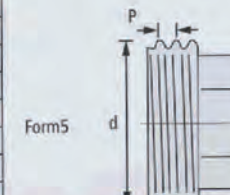


Form 3

Tapered pipe thread, thread sealing e.g. with PTFE tape, therefore not available with swiveling nut - only as fixed female thread

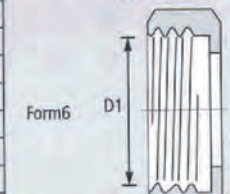


Form 4

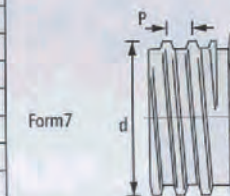


Form 5

Knuckle thread acc. to DIN 405

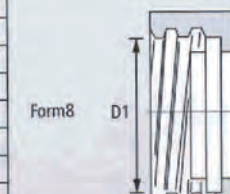


Form 6



Form 7

American thread ACME (trapezoidal) for LP-gas



Form 8

Appendix 4 — Key Words

A			europaean air	140	mb	100	
a-a-59326	15		express	166	mil-c-28487	15	
air king	146		F				
ar	123		ferrule	194	millier	182	
B			flange	102	minsup	142	
barcelona	126		forge	5	mk	98	
bauer	180		form shaped fasket	101	mks	100	
bic	121		G				
boss	154		ga	89	mortar	41	
branchpipe	129		gasket	205	N		
bs 336	121		gasoline	199	nf e29-572	53	
bs 4825	76		geka	161	nf e29-573	166	
C			gi	89	nf s61-701	123	
cable	150		gravity casting	3	nf s61-704	123	
cam and groove	15		ground joint	154	non-return valve	83	
claw clamp	168		guillemin	53	P		
crimping ferrule	194		H				
crimping sleeve	196		helical shank	56	perrot	182	
D			holedall	47	profile gasket	101	
din 11851	68		hose mender	172	pulling ring	28	
din 20039a	144		hose tail	16	raccord symetriques guillemin	53	
din 20039b	144		hydrant bar	136	raccords express	166	
din 2817	192		hydrant valve	133	S		
din 2826	157		I				
din 28450	98		instantaneous	121	saddle clamp	144	
din 3489	140		interlock clamp	156	safety cable	150	
din camlock	29		investment casting	4	safety clamp	192	
din hose clamp	192		K				
dsp	123		kc nipple	169	safety clip	28	
E			king cable	150	sand blast	149	
ea	140		king combination nipple	169	sanitary	67	
en 14420-3	192		L				
en 14420-7	29		lnc	89	scroll tail	56	
en 14420-8	97		M				
en 14423	157		macon	80	sealing ring	205	
en 14424	199		S				
			sms				73
			sms 1145				73
			spiral clamp				201
			steam coupling				153
			storz				115
			supeior clamp				200
			swage ferrule				197
			swiveling				118
			symmetrical				53

T

tankwagon	98
thread seal	205
tiger clamp	201
tri clamp	76
trigger	184
tw	98

U

ua	146
universal	146

V

vb	98
vg 85328-1	87
victaulic	179
victaulic clamp	179
vk	99
vks	100

W

washdown gun	183
whipcheck cable	150
wire binder	128
worm gear clamp	148