

INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings

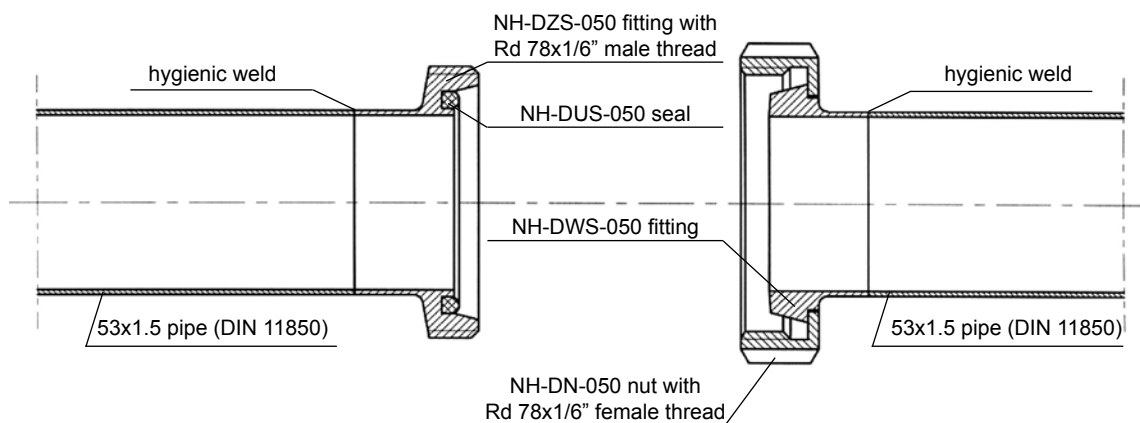


Stainless steel hygienic couplings are intended for food, pharmaceutical, cosmetics and chemical industries as well as for biotechnology. At first the couplings were primarily used in dairy and brewing industry to connect pipe installations using an internal expansion method (a pipe is pressed from the inside out into a fitting). Nowadays they are welded using methods that ensure the highest quality of the weld adequate to the hygienic requirements. The hygienic couplings come in different standards that differ in terms of the type of connection and sealing that further determine different levels of hygiene of the couplings required by various applications. The hygienic design of a coupling is defined by accessible and easy cleaning and sterilization without dismantling (CIP, SIP) and use of adequate materials. The requirements for hygienic couplings are set in several regulations and standards e.g. 3-A (3-A Sanitary Standards Incorporated), EHEDG (European Hygienic Engineering & Design Group), ASME BPE-2009 (Bioprocessing Equipment). In general, the standards require to avoid all kinds of crevices or dead spaces that may cause particles accumulation and growth of microorganisms. Internal surfaces must be smooth and nonporous. The surface roughness must not exceed $Ra = 0.8 \mu\text{m}$ and $Ra = 0.4 \mu\text{m}$ when the requirements for the internal surface roughness are higher. Some surfaces may need electro-polishing. Welds are subject to separate requirements. The internal folds of the surface should be smoothed out by an angle that facilitates cleaning. Seals should be the closest possible to the transferred medium avoiding crevices and the risk of product getting under the seal.

Coupling material

Depending on the medium and level of requirements, hygienic couplings are made of AISI 304 (304L) stainless steel or (e.g. for low pH media and for higher requirements) of AISI 316 (316L) steel or other materials. Seals should be compliant with appropriate standards (e.g. FDA 21 CFR177.2600 and USP Class VI for elastomers, FDA 21 CFR 177.1550 for PTFE).

DIN11851 couplings

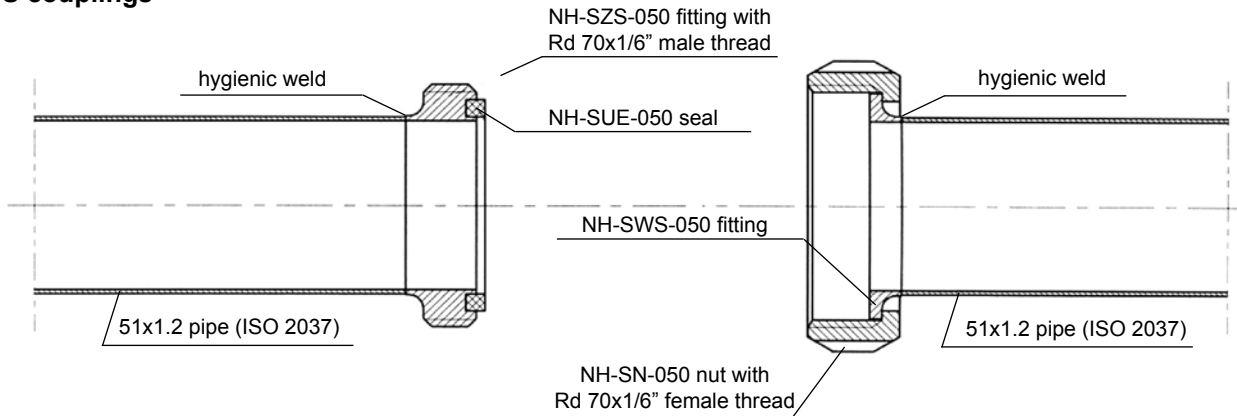


Threaded couplings according to DIN11851 with a rounded thread (marked Rd) are widely used in food and chemical industry. A seal with a D-shaped cross section is a standard. In order to ensure higher level of hygiene a seal with a lip is used which fills the crevice between connected halves. Maximum working pressure (for a coupling according to DIN 11851 itself) is 40 bar (DN 10 ÷ DN 40), 25 bar (DN 50 ÷ DN 100) and 16 bar (DN 125 ÷ DN 150).

INDUSTRIAL FITTINGS - couplings

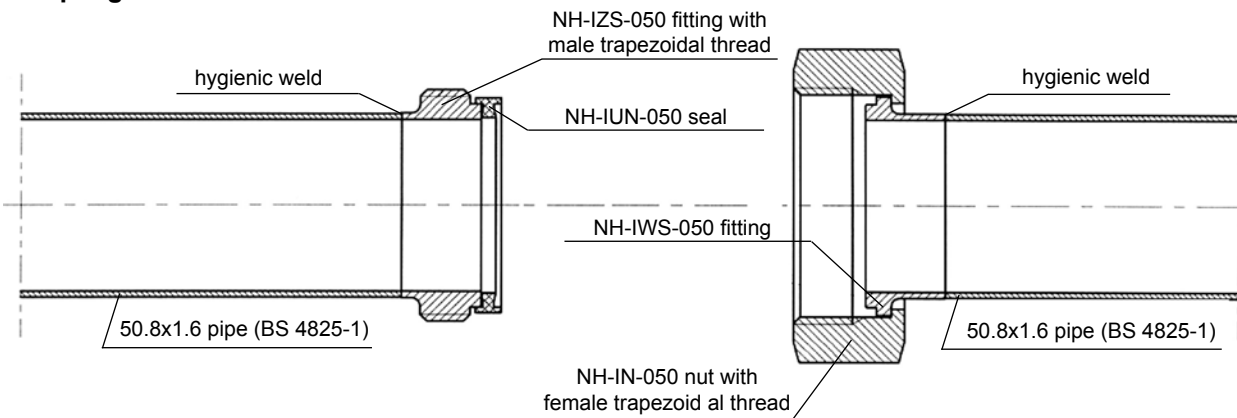
Stainless steel hygienic couplings

SMS couplings



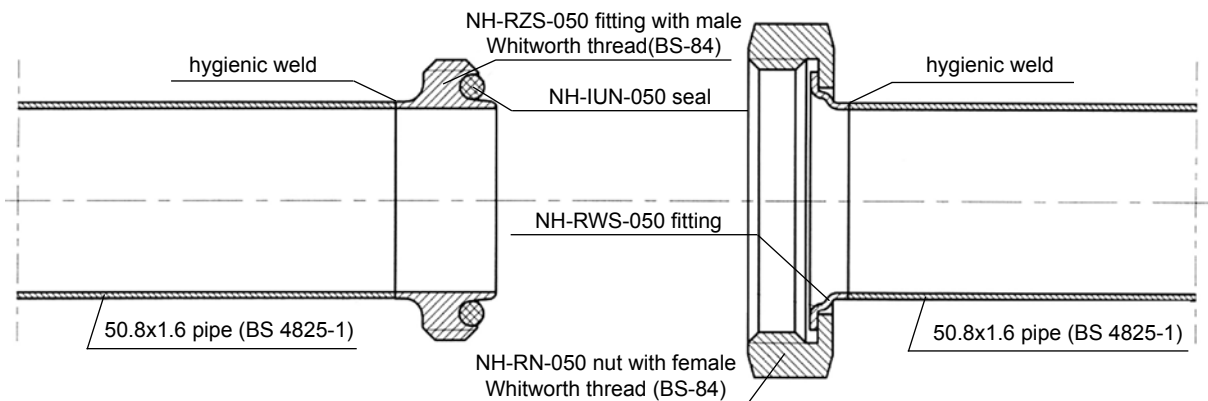
Threaded SMS couplings according to Swedish standard with a rounded thread (marked Rd) are used in food industry. A seal with a rectangular cross section is a standard. The coupling facilitates dismantling of segments of installation. Maximum working pressure (for a coupling itself) is 15 bar.

IDF couplings



Threaded IDF (International Dairy Federation, BS 4825-4 and ISO 2853 standards) couplings with a trapezoidal thread are used in food industry. A seal with a T-shaped cross section as a standard gives a crevice free design and so a high level of hygiene. Maximum working pressure (for a coupling according to BS 4825-4 itself) is 16 bar.

RJT couplings

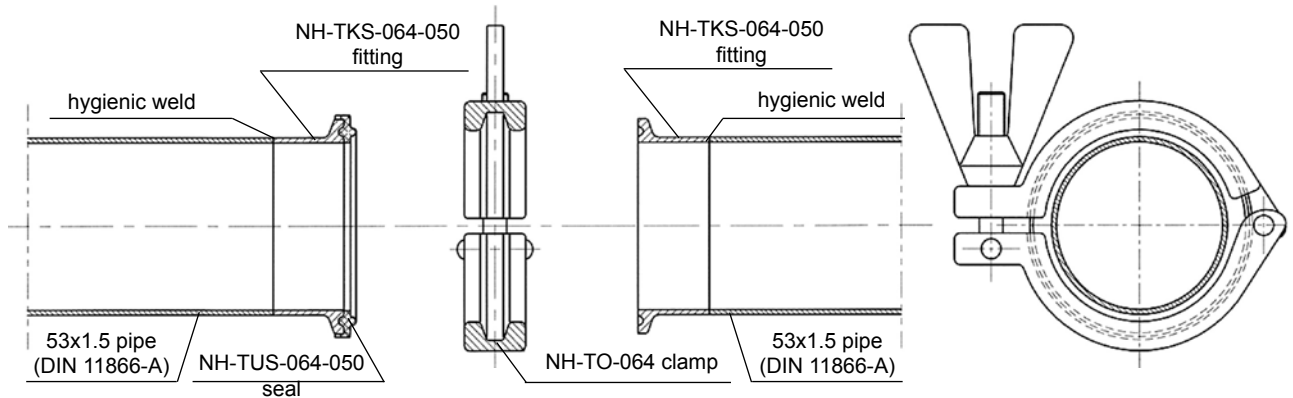


Threaded RJT couplings (Ring Joint Type, BS 4825-5 standard) with Whitworth thread are extensively used in British food industry in particular. Sealed by a thick O-ring. Very easy to dismantle. Due to a large crevice, the couplings are not suitable for cleaning without dismantling (CIP). Maximum working pressure (for a coupling according to BS 4825-5 itself) is 10 bar.

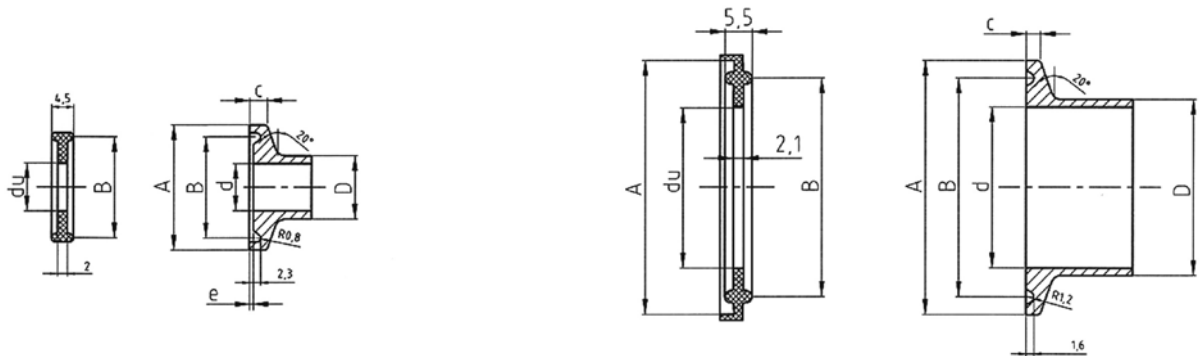
INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings

TRICLOVER (Tri-Clamp) couplings



TRICLOVER couplings consist of two flanges („plates”) with grooves to accommodate a seal, secured by a clamp. The seal fills up the crevice between two flanges so that it ensures high hygiene of the coupling. Used in pharmaceutical, food, cosmetic and chemical industries, in biotechnology, for fluids and high viscosity media. TRICLOVER couplings are manufactured in compliance with such standards as: ISO 2852, DIN 32676, BS 4825-3 and other, which generally define the same basic dimensions of connection (see table). It is typical of TRICLOVER couplings that the diameter of the flange (A) and the internal diameter (d) correspond to the internal diameter of the pipes in the installation. The working pressure of the coupling itself depends on the size of the coupling and type of the clamp applied (at least 16 bar up to 2”, 10 bar - above 2”).



standard			ISO 2852	DIN32676 - A	ISO 1127 DIN 32676 - B	ASME BPE DIN32676 - C	BS 4825-3	size [inch]						
pipe standard			ISO 2037	DIN 11866 - A DIN 11850	ISO 1127 DIN 11866 - B	ASME BPE DIN 11866 - C	BS 4825-1							
A	B	c	e	D	d	D	d	D	d	D	d			
25 (25.4*)	20.2 (20.3*)	3.6 (3.7*)	0.8 (0*)		6**	4**		6.35	4.57			1/4		
					8	6								
					10	8	10.2	7	9.53	7.75				3/8
					12	10	13.5	10.3	12.7	9.4	12.7	9.5		1/2
					14**	12**								
				16**	14**									
				18**	16**	17.2	14	19.05	15.75	19.05	15.85	3/4		
34	27.5	2.85	0	12	10									
				12.7	10.7	13	10							
				17.2	15.2	19	16							
				21.3	19.3	23	20							
50.5	43.5	2.85	0					21.3	18.1					
				25	22.6	29	26	26.9	23.7	25.4	22.1	25.4	22.2	1
				33.7	31.3	35	32	33.7	29.7					
64	56.5	2.85	0	38	35.6	41	38			38.1	34.8	38.1	34.9	1.1/2
				40	37.6			42.4	38.4					
77.5	70.5	2.85	0	51	48.6	53	50	48.3	44.3	50.8	47.5	50.8	47.6	2
				63.5	60.3			60.3	56.3	63.5	60.2	63.5	60.3	2.1/2

Note: * - according to BS 4825-3; ** - utilized, but not listed in a standard.

INDUSTRIAL FITTINGS - couplings

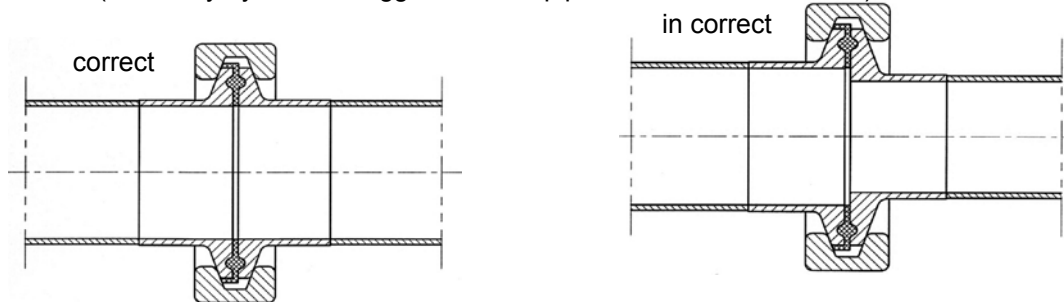
Stainless steel hygienic couplings

TRICLOVER couplings - table follow up

standard				ISO 2852		DIN32676 - A		ISO 1127, DIN 32676 - B		ASME BPE, DIN32676 - C		BS 4825-3		size [inch]	
pipe standard				ISO 2037		DIN 11866 - A, DIN 11850		ISO 1127, DIN 11866 - B		ASME BPE, DIN 11866 - C		BS 4825-1			
A	B	c	e	D	d	D	d	D	d	D	d	D	d		
91	83.5	2.85	0	70	66.8	70	66								
				76.1	72.9				76.1	72.1	76.2	72.9	76.2	73	3
106	97	2.85		88.9	84.9	85	81	88.9	84.3						
119	110	2.85		101.6	97.6	104	100				101.6	97.38	101.6	97.6	4
130	122	2.85		114.3	110.3				114.3	109.7			114.3	110.3	
155	146	5.6		139.7	135.7	129	125	139.7	134.5				139.7	135.7	
167	156.5	5.6									152.4	146.86			6
183	174	5.6			168.3	163.1	154	150	168.3	163.1			168.3	163.1	
233.5	225	5.6			219.1	213.9	204	200	219.1	213.9			219.1	213.9	

Hygiene of TRICLOVER couplings

In order to ensure hygiene of a TRICLOVER coupling, both halves must have the same internal diameter. Otherwise there is a shoulder in the flange bore which creates a dead space where particles can accumulate. As cleaning of such spot requires dismantling, the connection is no longer hygienic. Therefore TRICLOVER couplings must be selected with regard to a flange diameter (A) and to a pipeline internal diameter (d). It applies to fittings that are welded in the installation and flexible hose assemblies as well. The internal diameter of a seal must be also property selected (nominally by 0.2 mm bigger than the pipeline internal diameter d).



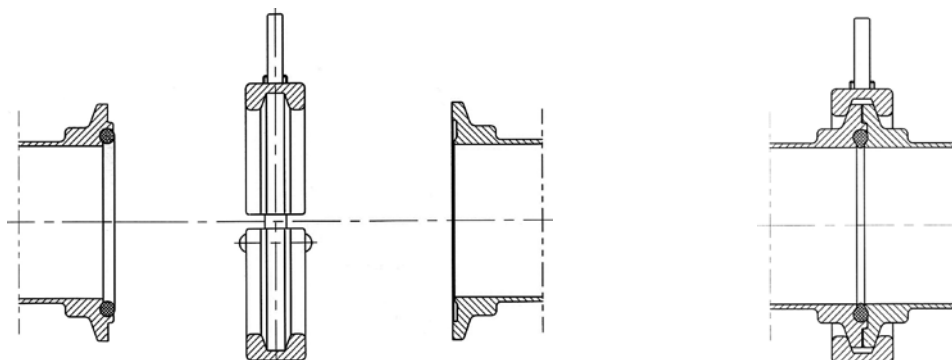
Aseptic couplings

The couplings according to DIN standard were developed to make aseptic DIN11853 and DIN 11864 couplings (compatible, of different length), available in 3 standard options:

- DIN 11853-1 / DIN 11864-1 - screwed Rd thread couplings
- DIN 11853-2 / DIN 11864-2 - flange couplings bolted together
- DIN 11853-3 / DIN 11864-3 - flange couplings clamped together (as TRICLOVER)

All couplings are sealed with an O-ring in a special groove. When both couplings and O-rings are perfectly finished, they can be called aseptic and then provide higher level of transfer cleanliness than regular hygienic couplings.

An example of aseptic DIN 11864-3 connection:



INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings

Fittings for flexible hoses, assembly options

Fittings intended for flexible hoses have an appropriate hygienic connecting part and a hose part („tail”) that matches hose type and size. The biggest problem is the design of a fitting tail which must guarantee the highest level of hygiene but prevent formation of „dead space” or a shoulder at the end of the hose tail - a place where product particles may accumulate.

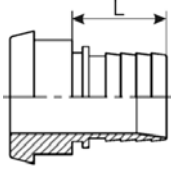
Assembly options:

<p>pipeline with SMS fitting Rd 70 x 1/6" male thread</p> <p>NH-SWK-050 fitting</p> <p>crimping ferrule TI-LDR-064-32SS</p> <p>soft, thick NR rubber layer</p> <p>NH-SN-050 nut with Rd 70 x 1/6" female thread</p> <p>flexible hose IV-SCOT/LL/NR-051</p>	<p>Fittings with a serrated hose tail (NH-DWK, NH-DZK, NH-SWK, NH-SZK, NH-TCK):</p> <ul style="list-style-type: none"> - for rubber and plastic hoses with soft and thick internal layer, - for assembly with TI LDR, TI-LD crimping ferrules.
<p>pipeline with TRICLOVER fitting A = 64 mm, d = 50 mm</p> <p>NH-TO-064 clamp</p> <p>NH-TCR-050-05 fitting</p> <p>crimping ferrule TI-LDR-064-32SS-316</p> <p>MFA polymer layer</p> <p>flexible hose MT-PHARMA-51</p>	<p>Fittings with a smooth hose tail (NH-DWR, NH-DZR, NH-SWR, NH-SZR, NH-TCR):</p> <ul style="list-style-type: none"> - for rubber and plastic hoses, - particularly for hoses with internal layer made of rigid UPE, PTFE, FEP, MFA, PFA etc., the diameter of the hose tail must fully correspond to the internal diameter of the hose, - for assembly with TI LDR, TI-LD crimping ferrules.
<p>pipeline with DIN 11851 fitting Rd 78 x 1/6" male thread</p> <p>NH-DWR-051 fitting</p> <p>RS-636050008020 safety clamp</p> <p>UPE polyethylene layer</p> <p>NH-DN-050 nut with Rd 78 x 1/6" female thread</p> <p>flexible hose IV-SUPPUE/LL-051</p>	<p>Fittings with a smooth hose tail (NH-DWR, NH-DZR, NH-SWR, NH-SZR, NH-TCR):</p> <ul style="list-style-type: none"> - for rubber and plastic hoses, - particularly for hoses with internal layer made of rigid UPE, PTFE, FEP, MFA, PFA etc., the diameter of the hose tail must fully correspond to the internal diameter of the hose, - for assembly with RS safety clamps.
<p>pipeline with TRICLOVER fitting A = 50.5 mm, d = 32 mm</p> <p>NH-TO-050 clamp</p> <p>crimping ferrule AF-PHXT1-025</p> <p>PTFE corrugated outside</p> <p>AF-PHXTC-050-32-025 fitting</p> <p>PTF hose AF-PHGP-25</p>	<p>Hygienic fittings for PTFE hoses (AF-PHXTC):</p> <ul style="list-style-type: none"> - for PHARMALINE, PHARMALEX, CORROFLON, BIOFLEX PTFE hoses, - for assembly with ferrules intended for the hoses above.
<p>pipeline with TRICLOVER fitting A = 50.5 mm, d = 32 mm</p> <p>NH-TO-050 clamp</p> <p>crimping ferrule AF-FXTC-050-32-025</p> <p>PTFE corrugated outside</p> <p>AF-FXTC-050-32-025 fitting</p> <p>PTF hose AF-FXSS-25</p>	<p>Hygienic fittings for PTFE hoses (AF-FXTC):</p> <ul style="list-style-type: none"> - for HYPERLINE FX, HYPERLINE SB PTFE hoses, can be used for thermoplastic and rubber hoses, - for assembly with ferrules intended for the hoses above.

INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings

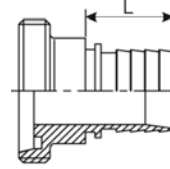
Female coupling (without nut) with serrated hose tail,
AISI 316, Ra (inside) 0.8 µm



DIN 11851

code	DN	for nut	hose I.D. [mm]	L
NH-DWK-025	25	Rd 52x1/6"	25	30.7
NH-DWK-032	32	Rd 58x1/6"	32	39
NH-DWK-038	38	Rd 65x1/6"	38	39.3
NH-DWK-040	40	Rd 65x1/6"	40	39.5
NH-DWK-050	50	Rd 78x1/6"	50	48.9
NH-DWK-063	63	Rd 95x1/6"	63	61
NH-DWK-065	65	Rd 95x1/6"	65	61
NH-DWK-075	75	Rd 110x1/4"	75	67
NH-DWK-080	80	Rd 110x1/4"	80	67
NH-DWK-100	100	Rd 130x1/4"	102	68.5

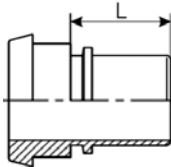
Male coupling with serrated hose tail,
AISI 316, Ra (inside) 0.8 µm



DIN 11851

code	DN	thread size	hose I.D. [mm]	L
NH-DZK-025	25	Rd 52x1/6"	25	30.7
NH-DZK-032	32	Rd 58x1/6"	32	39
NH-DZK-038	38	Rd 65x1/6"	38	39.3
NH-DZK-040	40	Rd 65x1/6"	40	39.5
NH-DZK-050	50	Rd 78x1/6"	50	48.9
NH-DZK-063	63	Rd 95x1/6"	63	61
NH-DZK-065	65	Rd 95x1/6"	65	61
NH-DZK-075	75	Rd 110x1/4"	75	67
NH-DZK-080	80	Rd 110x1/4"	80	67
NH-DZK-100	100	Rd 130x1/4"	102	68.5

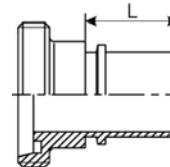
Female coupling (without nut) with hose tail
for RS safety clamp, AISI 316, Ra (inside) 0.8 µm



DIN 11851

code	DN	for nut	hose I.D. [mm]	L
NH-DWR-015	15	Rd 34x1/8"	13	42
NH-DWR-020	20	Rd 44x1/6"	19	42
NH-DWR-025	25	Rd 52x1/6"	25	42
NH-DWR-032	32	Rd 58x1/6"	32	42
NH-DWR-038	38	Rd 65x1/6"	38	42
NH-DWR-040	40	Rd 65x1/6"	40	42
NH-DWR-050	50	Rd 78x1/6"	50	49
NH-DWR-063	63	Rd 95x1/6"	63	63
NH-DWR-065	65	Rd 95x1/6"	65	63
NH-DWR-075	75	Rd 110x1/4"	75	67
NH-DWR-080	80	Rd 110x1/4"	80	67
NH-DWR-100	100	Rd 130x1/4"	102	96

Male coupling with hose tail
for RS safety clamp, AISI 316, Ra (inside) 0.8 µm



DIN 11851

code	DN	thread size	hose I.D. [mm]	L
NH-DZR-015	15	Rd 34x1/8"	13	42
NH-DZR-020	20	Rd 44x1/6"	19	42
NH-DZR-025	25	Rd 52x1/6"	25	42
NH-DZR-032	32	Rd 58x1/6"	32	42
NH-DZR-038	38	Rd 65x1/6"	38	42
NH-DZR-040	40	Rd 65x1/6"	40	42
NH-DZR-050	50	Rd 78x1/6"	50	49
NH-DZR-063	63	Rd 95x1/6"	63	63
NH-DZR-065	65	Rd 95x1/6"	65	63
NH-DZR-075	75	Rd 110x1/4"	75	67
NH-DZR-080	80	Rd 110x1/4"	80	67
NH-DZR-100	100	Rd 130x1/4"	102	96

INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings

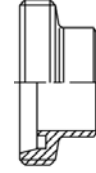
Female coupling (without nut) with butt weld connection,
AISI 316, Ra (inside) 0.8 µm



DIN 11851

code	DN	for nut	butt weld O.D. / I.D. [mm]
NH-DWS-010	10	Rd 28x1/8"	13 / 10
NH-DWS-015	15	Rd 34x1/8"	19 / 16
NH-DWS-020	20	Rd 44x1/6"	23 / 20
NH-DWS-025	25	Rd 52x1/6"	29 / 26
NH-DWS-032	32	Rd 58x1/6"	35 / 32
NH-DWS-040	40	Rd 65x1/6"	41 / 38
NH-DWS-050	50	Rd 78x1/6"	53 / 50
NH-DWS-065	65	Rd 95x1/6"	70 / 66
NH-DWS-080	80	Rd 110x1/4"	85 / 81
NH-DWS-100	100	Rd 130x1/4"	104 / 100
NH-DWS-125	125	Rd 160x1/4"	129 / 125
NH-DWS-150	150	Rd 190x1/4"	154 / 150

Male coupling with butt weld connection,
AISI 316, Ra (inside) 0.8 µm



DIN 11851

code	DN	thread size	butt weld O.D. / I.D. [mm]
NH-DZS-010	10	Rd 28x1/8"	13 / 10
NH-DZS-015	15	Rd 34x1/8"	19 / 16
NH-DZS-020	20	Rd 44x1/6"	23 / 20
NH-DZS-025	25	Rd 52x1/6"	29 / 26
NH-DZS-032	32	Rd 58x1/6"	35 / 32
NH-DZS-040	40	Rd 65x1/6"	41 / 38
NH-DZS-050	50	Rd 78x1/6"	53 / 50
NH-DZS-065	65	Rd 95x1/6"	70 / 66
NH-DZS-080	80	Rd 110x1/4"	85 / 81
NH-DZS-100	100	Rd 130x1/4"	104 / 100
NH-DZS-125	125	Rd 160x1/4"	129 / 125
NH-DZS-150	150	Rd 190x1/4"	154 / 150

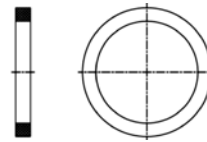
Nut, AISI 304



DIN 11851

code	DN	thread size
NH-DN-010	10	Rd 28x1/8"
NH-DN-015	15	Rd 34x1/8"
NH-DN-020	20	Rd 44x1/6"
NH-DN-025	25	Rd 52x1/6"
NH-DN-032	32	Rd 58x1/6"
NH-DN-040	40	Rd 65x1/6"
NH-DN-050	50	Rd 78x1/6"
NH-DN-065	65	Rd 95x1/6"
NH-DN-080	80	Rd 110x1/4"
NH-DN-100	100	Rd 130x1/4"
NH-DN-125	125	Rd 160x1/4"
NH-DN-150	150	Rd 190x1/4"

Seal



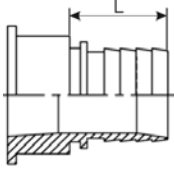
DIN 11851

DN	code (silicone)	code (Viton)	code (EPDM)	code (NBR)
10	NH-DUS-010	NH-DUV-010	NH-DUE-010	NH-DUN-010
15	NH-DUS-015	NH-DUV-015	NH-DUE-015	NH-DUN-015
20	NH-DUS-020	NH-DUV-020	NH-DUE-020	NH-DUN-020
25	NH-DUS-025	NH-DUV-025	NH-DUE-025	NH-DUN-025
32	NH-DUS-032	NH-DUV-032	NH-DUE-032	NH-DUN-032
40	NH-DUS-040	NH-DUV-040	NH-DUE-040	NH-DUN-040
50	NH-DUS-050	NH-DUV-050	NH-DUE-050	NH-DUN-050
65	NH-DUS-065	NH-DUV-065	NH-DUE-065	NH-DUN-065
80	NH-DUS-080	NH-DUV-080	NH-DUE-080	NH-DUN-080
100	NH-DUS-100	NH-DUV-100	NH-DUE-100	NH-DUN-100
125	NH-DUS-125	NH-DUV-125	NH-DUE-125	NH-DUN-125
150	NH-DUS-150	NH-DUV-150	NH-DUE-150	NH-DUN-150

INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings

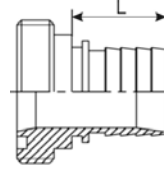
Female coupling (without nut) with serrated hose tail,
AISI 316, Ra (inside) 0.8 µm



SMS

code	DN	for nut	hose I.D. [mm]	L
NH-SWK-025	25	Rd 40x1/6"	25	30.7
NH-SWK-032	32	Rd 48x1/6"	32	39
NH-SWK-038	38	Rd 60x1/6"	38	39.3
NH-SWK-050	50	Rd 70x1/6"	50	48.9
NH-SWK-063	63	Rd 85x1/6"	63	61
NH-SWK-075	75	Rd 98x1/6"	75	67
NH-SWK-100	100	Rd 132x1/6"	102	68.5

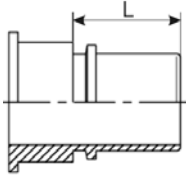
Male coupling with serrated hose tail,
AISI 316, Ra (inside) 0.8 µm



SMS

code	DN	thread size	hose I.D. [mm]	L
NH-SZK-025	25	Rd 40x1/6"	25	30.7
NH-SZK-032	32	Rd 48x1/6"	32	39
NH-SZK-038	38	Rd 60x1/6"	38	39.3
NH-SZK-050	50	Rd 70x1/6"	50	48.9
NH-SZK-063	63	Rd 85x1/6"	63	61
NH-SZK-075	75	Rd 98x1/6"	75	67
NH-SZK-100	100	Rd 132x1/6"	102	68.5

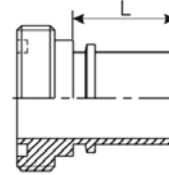
Female coupling (without nut) with hose tail
for RS safety clamp, AISI 316, Ra (inside) 0.8 µm



SMS

code	DN	for nut	hose I.D. [mm]	L
NH-SWR-025	25	Rd 40x1/6"	25	42
NH-SWR-032	32	Rd 48x1/6"	32	42
NH-SWR-038	38	Rd 60x1/6"	38	42
NH-SWR-050	50	Rd 70x1/6"	51	49
NH-SWR-063	63	Rd 85x1/6"	63	63
NH-SWR-075	75	Rd 98x1/6"	75	67
NH-SWR-100	100	Rd 132x1/6"	102	96

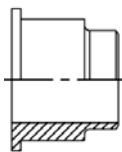
Male coupling with hose tail
for RS safety clamp, AISI 316, Ra (inside) 0.8 µm



SMS

code	DN	thread size	hose I.D. [mm]	L
NH-SZR-025	25	Rd 40x1/6"	25	42
NH-SZR-032	32	Rd 48x1/6"	32	42
NH-SZR-038	38	Rd 60x1/6"	38	42
NH-SZR-050	50	Rd 70x1/6"	51	49
NH-SZR-063	63	Rd 85x1/6"	63	63
NH-SZR-075	75	Rd 98x1/6"	75	67
NH-SZR-100	100	Rd 132x1/6"	102	96

Female coupling with butt weld connection,
AISI 316, Ra (inside) 0.8 µm



SMS

code	DN	for nut	butt weld O.D. / I.D. [mm]
NH-SWS-025	25	Rd 40x1/6"	25.6 / 22.6
NH-SWS-032	32	Rd 48x1/6"	32 / 29.5
NH-SWS-038	38	Rd 60x1/6"	38 / 35.5
NH-SWS-050	50	Rd 70x1/6"	51 / 48.5
NH-SWS-063	63	Rd 85x1/6"	63.5 / 60.5
NH-SWS-075	75	Rd 98x1/6"	76 / 72
NH-SWS-100	100	Rd 132x1/6"	101.6 / 97.6

Male coupling with butt weld connection,
AISI 316, Ra (inside) 0.8 µm

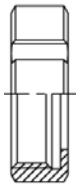


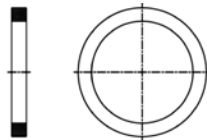
SMS


code	DN	thread size	butt weld O.D. / I.D. [mm]
NH-SZS-025	25	Rd 40x1/6"	25 / 22.5
NH-SZS-032	32	Rd 48x1/6"	32 / 29.5
NH-SZS-038	38	Rd 60x1/6"	38 / 35.5
NH-SZS-050	50	Rd 70x1/6"	51 / 48.5
NH-SZS-063	63	Rd 85x1/6"	63.5 / 60.5
NH-SZS-080	75	Rd 98x1/6"	76 / 72
NH-SZS-100	100	Rd 132x1/6"	101.6 / 97.6


INDUSTRIAL FITTINGS - couplings

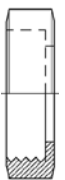
Stainless steel hygienic couplings

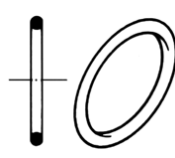
Nut, AISI 304		
		
SMS		
code	DN	thread size
NH-SN-025	25	Rd 40x1/6"
NH-SN-032	32	Rd 48x1/6"
NH-SN-038	38	Rd 60x1/6"
NH-SN-050	50	Rd 70x1/6"
NH-SN-063	63	Rd 85x1/6"
NH-SN-075	75	Rd 98x1/6"
NH-SN-100	100	Rd 132x1/6"

Seal				
				
SMS				
DN	code (PTFE)	code (Viton)	code (EPDM)	code (NBR)
25	NH-SUP-025	NH-SUV-025	NH-SUE-025	NH-SUN-025
32	NH-SUP-032	NH-SUV-032	NH-SUE-032	NH-SUN-032
40	NH-SUP-038	NH-SUV-038	NH-SUE-038	NH-SUN-038
50	NH-SUP-050	NH-SUV-050	NH-SUE-050	NH-SUN-050
65	NH-SUP-063	NH-SUV-063	NH-SUE-063	NH-SUN-063
80	NH-SUP-075	NH-SUV-075	NH-SUE-075	NH-SUN-075
100	NH-SUP-100	NH-SUV-100	NH-SUE-100	NH-SUN-100

Liner according to BS 4825-5 with butt weld connection, AISI 316			
			
RJT			
code	DN	for nut	butt weld O.D. / I.D. [mm]
NH-RWS-025	25	1" RJT	25.4 / 22.2
NH-RWS-040	40	1.1/2" RJT	38.1 / 34.9
NH-RWS-050	50	2" RJT	50.8 / 47.6
NH-RWS-065	65	2.1/2" RJT	63.5 / 60.3
NH-RWS-075	75	3" RJT	76.2 / 73.0
NH-RWS-100	100	4" RJT	101.6 / 97.6

Male coupling according to BS 4825-5 with butt weld connection, AISI 316			
			
RJT			
code	DN	thread size	butt weld O.D. / I.D. [mm]
NH-RZS-025	25	1" RJT	25.4 / 22.2
NH-RZS-040	40	1.1/2" RJT	38.1 / 34.9
NH-RZS-050	50	2" RJT	50.8 / 47.6
NH-RZS-065	65	2.1/2" RJT	63.5 / 60.3
NH-RZS-075	75	3" RJT	76.2 / 73.0
NH-RZS-100	100	4" RJT	101.6 / 97.6

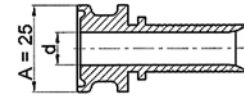
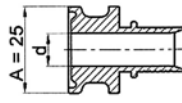
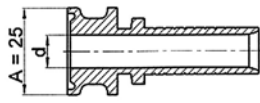
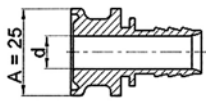
Nut according to BS 4825-5		
		
RJT		
code	DN	thread size
NH-RN-025	25	1" RJT
NH-RN-040	40	1.1/2" RJT
NH-RN-050	50	2" RJT
NH-RN-065	65	2.1/2" RJT
NH-RN-075	75	3" RJT
NH-RN-100	100	4" RJT

Seal according to BS 4825-5		
		
RJT		
DN	code (NBR)	code (EPDM)
25	NH-RUN-025	NH-RUE-025
40	NH-RUN-040	NH-RUE-040
50	NH-RUN-050	NH-RUE-050
65	NH-RUN-063	NH-RUE-063
75	NH-RUN-075	NH-RUE-075
100	NH-RUN-100	NH-RUE-100

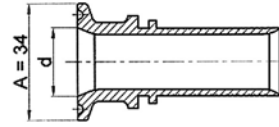
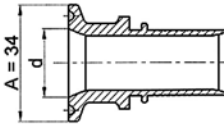
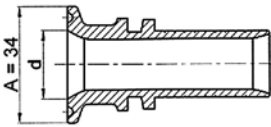
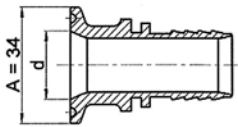
Seals made of PTFE, silicone, Viton also available.

INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings



AISI 316 steel, Ra (inside) 0.4 µm



NH-TCK

NH-TCR

AF-PHXTC

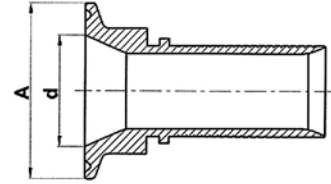
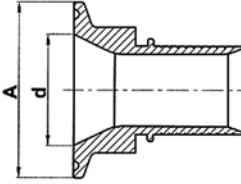
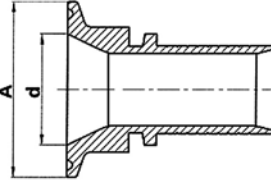
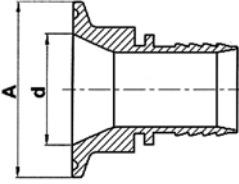
AF-FXXTC

A	d	comply with fittings according standards below: DIN: DIN 32676 BS: BS-4825-3 ISO: ISO 2852	hose DN		NH-TCK	NH-TCR	AF-PHXTC	AF-FXXTC
					hose type			
					rubber hoses	rubber hoses, plastic hoses, rubber hoses with internal layer made of UPE, PTFE, FEP, MFA, PFA	PTFE hoses PHARMALINE, PHARMALEX, CORROFLON, BIOFLEX	PTFE hoses HYPERLINE FX, HYPERLINE SB, thermoplastic hoses, rubber hoses
assembled with				TI-LD, TI-LDR ferrules	TI-LR, TI-LDR ferrules or RS safety clamps	ferrules for above mentioned hoses	AF-THU ferrules for PTFE hoses, TI-L ferrules for rubber hoses, ferrules for thermoplastic hoses.	
[mm]	[mm]	-	[inch]	[mm]	code	code	code	code
25	4	DIN-A*	1/4"	6	-	-	AF-PHXTC-025-04-006	AF-FXXTC-025-04-006
25	4.57	DIN-C	1/4"	6	-	-	AF-PHXTC-025-05-006	AF-FXXTC-025-05-006
25	6	DIN-A	5/16"	8	-	-	-	AF-FXXTC-025-06-008
25	7	DIN-B	3/8"	10	-	-	AF-PHXTC-025-07B-010	AF-FXXTC-025-07B-010
25	7.75	DIN-C	3/8"	10	-	-	AF-PHXTC-025-07-010	AF-FXXTC-025-07-010
25	8	DIN-A	3/8"	10	-	-	AF-PHXTC-025-08-010	AF-FXXTC-025-08-010
25	9.4	BS / DIN-C	1/4"	6	-	-	AF-PHXTC-025-09-006	AF-FXXTC-025-09-006
25	9.4	BS / DIN-C	3/8"	10	-	-	AF-PHXTC-025-09-010	AF-FXXTC-025-09-010
25	9.4	BS / DIN-C	1/2"	13	NH-TCK-025-09-013	NH-TCR-025-09-013	AF-PHXTC-025-09-013	AF-FXXTC-025-09-013
25	10	DIN-A*	1/2"	13	NH-TCK-025-10-013	NH-TCR-025-10-013	AF-PHXTC-025-10-013	AF-FXXTC-025-10-013
25	10.3	DIN-B	1/2"	13	NH-TCK-025-11-013	NH-TCR-025-11-013	AF-PHXTC-025-11-013	AF-FXXTC-025-11-013
25	12	DIN-A*	1/2"	13	NH-TCK-025-12-013	NH-TCR-025-12-013	AF-PHXTC-025-12-013	AF-FXXTC-025-12-013
25	14	DIN-A* / DIN-B	1/2"	13	NH-TCK-025-14-013	NH-TCR-025-14-013	AF-PHXTC-025-14-013	AF-FXXTC-025-14-013
25	15.75	BS / DIN-C	1/2"	13	NH-TCK-025-15-013	NH-TCR-025-15-013	AF-PHXTC-025-15-013	AF-FXXTC-025-15-013
25	15.75	BS / DIN-C	5/8"	16	-NH-TCK-025-15-016	-	AF-PHXTC-025-15-016	AF-FXXTC-025-15-016
25	15.75	BS / DIN-C	3/4"	19	NH-TCK-025-15-019	NH-TCR-025-15-019	AF-PHXTC-025-15-019	AF-FXXTC-025-15-019
25	16	DIN-A*	3/4"	19	NH-TCK-025-16-019	NH-TCR-025-16-019	AF-PHXTC-025-16-019	AF-FXXTC-025-16-019
34	10	ISO / DIN-A	3/8"	10	-	-	AF-PHXTC-034-10-010	AF-FXXTC-034-10-010
34	10	ISO / DIN-A	1/2"	13	NH-TCK-034-10-013	NH-TCR-034-10-013	AF-PHXTC-034-10-013	AF-FXXTC-034-10-013
34	10.3	DIN-B	3/8"	10	-	-	AF-PHXTC-034-10B-010	AF-FXXTC-034-10B-010
34	10.3	DIN-B	1/2"	13	NH-TCK-034-10B-013	NH-TCR-034-10B-013	AF-PHXTC-034-10B-013	AF-FXXTC-034-10B-013
34	10.7	ISO	1/2"	13	NH-TCK-034-11-013	NH-TCR-034-11-013	AF-PHXTC-034-11-013	AF-FXXTC-034-11-013
34	14	DIN-A*	1/2"	13	NH-TCK-034-14-013	NH-TCR-034-14-013	AF-PHXTC-034-14-013	AF-FXXTC-034-14-013
34	14	DIN-A*	5/8"	16	NH-TCK-034-14-016	-	AF-PHXTC-034-14-016	AF-FXXTC-034-14-016
34	15.2	ISO	5/8"	16	NH-TCK-034-15-016	-	AF-PHXTC-034-15-016	AF-FXXTC-034-15-016
34	15.2	ISO	3/4"	19	NH-TCK-034-15-019	NH-TCR-034-15-019	AF-PHXTC-034-15-019	AF-FXXTC-034-15-019
34	16	DIN-A	5/8"	16	NH-TCK-034-16-016	-	AF-PHXTC-034-16-016	AF-FXXTC-034-16-016
34	16	DIN-A	3/4"	19	NH-TCK-034-16-019	NH-TCR-034-16-019	AF-PHXTC-034-16-019	AF-FXXTC-034-16-019
34	18.1	DIN-B	5/8"	16	NH-TCK-034-18-016	-	AF-PHXTC-034-18-016	AF-FXXTC-034-18-016
34	18.1	DIN-B	3/4"	19	NH-TCK-034-18-019	NH-TCR-034-18-019	AF-PHXTC-034-18-019	AF-FXXTC-034-18-019
34	19.3	ISO	5/8"	16	NH-TCK-034-19-016	-	AF-PHXTC-034-19-016	AF-FXXTC-034-19-016
34	19.3	ISO	3/4"	19	NH-TCK-034-19-019	NH-TCR-034-19-019	AF-PHXTC-034-19-019	AF-FXXTC-034-19-019
34	20	DIN-A	5/8"	16	NH-TCK-034-20-016	-	AF-PHXTC-034-20-016	AF-FXXTC-034-20-016
34	20	DIN-A	3/4"	19	NH-TCK-034-20-019	NH-TCR-034-20-019	AF-PHXTC-034-20-019	AF-FXXTC-034-20-019

INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings

AISI 316 steel, Ra (inside) 0.4 µm



NH-TCK

NH-TCR

AF-PHXTC

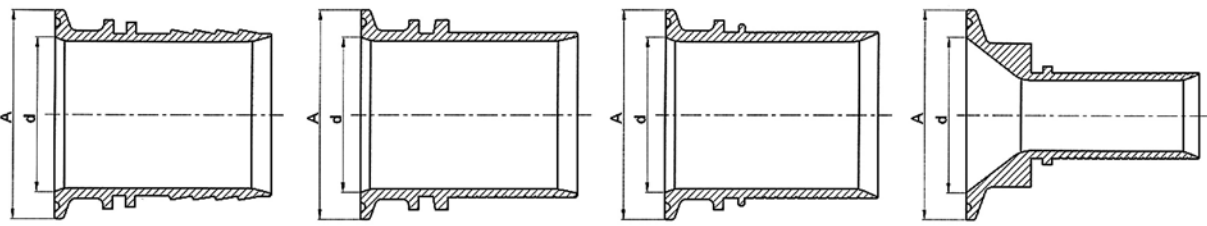
AF-FXXTC

A	d	comply with fittings according standards below: DIN: DIN 32676 BS: BS-4825-3 ISO: ISO 2852	hose DN		NH-TCK	NH-TCR	AF-PHXTC	AF-FXXTC
					hose type			
					rubber hoses	rubber hoses, plastic hoses, rubber hoses with internal layer made of UPE, PTFE, FEP, MFA, PFA	PTFE hoses PHARMALINE, PHARMALEX, CORROFLON, BIOFLEX	PTFE hoses HYPERLINE FX, HYPERLINE SB, thermoplastic hoses, rubber hoses
assembled with				TI-LD, TI-LDR ferrules	TI-LR, TI-LDR ferrules or RS safety clamps	ferrules for above mentioned hoses	AF-THU ferrules for PTFE hoses, TI-L ferrules for rubber hoses, ferrules for thermoplastic hoses.	
[mm]	[mm]	-	[inch]	[mm]	code	code	code	code
50.5	9.4	BS / DIN-C	1/2"	13	NH-TCK-050-09-013	NH-TCR-050-09-013	AF-PHXTC-050-09-013	AF-FXXTC-050-09-013
50.5	15.75	BS / DIN-C	3/4"	19	NH-TCK-050-15-019	NH-TCR-050-15-019	AF-PHXTC-050-15-019	AF-FXXTC-050-15-019
50.5	18.1	DIN-B	3/4"	19	NH-TCK-050-18-019	NH-TCR-050-18-019	AF-PHXTC-050-18-019	AF-FXXTC-050-18-019
50.5	22.1	BS / DIN-C	1/2"	13	NH-TCK-050-22-013	NH-TCR-050-22-013	AF-PHXTC-050-22-013	AF-FXXTC-050-22-013
50.5	22.1	BS / DIN-C	5/8"	16	NH-TCK-050-22-016	-	AF-PHXTC-050-22-016	AF-FXXTC-050-22-016
50.5	22.1	BS / DIN-C	3/4"	19	NH-TCK-050-22-019	NH-TCR-050-22-019	AF-PHXTC-050-22-019	AF-FXXTC-050-22-019
50.5	22.1	BS / DIN-C	1"	25	NH-TCK-050-22-025	NH-TCR-050-22-025	AF-PHXTC-050-22-025	AF-FXXTC-050-22-025
50.5	22.6	ISO	1"	25	NH-TCK-050-23-025	NH-TCR-050-23-025	AF-PHXTC-050-23-025	AF-FXXTC-050-23-025
50.5	23.7	DIN-B	3/4"	19	NH-TCK-050-24-019	NH-TCR-050-24-019	AF-PHXTC-050-24-019	AF-FXXTC-050-24-019
50.5	23.7	DIN-B	1"	25	NH-TCK-050-24-025	NH-TCR-050-24-025	AF-PHXTC-050-24-025	AF-FXXTC-050-24-025
50.5	26	DIN-A	5/8"	16	NH-TCK-050-26-016	-	AF-PHXTC-050-26-016	AF-FXXTC-050-26-016
50.5	26	DIN-A	3/4"	19	NH-TCK-050-26-019	NH-TCR-050-26-019	AF-PHXTC-050-26-019	AF-FXXTC-050-26-019
50.5	26	DIN-A	1"	25	NH-TCK-050-26-025	NH-TCR-050-26-025	AF-PHXTC-050-26-025	AF-FXXTC-050-26-025
50.5	29.7	DIN-B	3/4"	19	NH-TCK-050-30-019	NH-TCR-050-30-019	AF-PHXTC-050-30-019	AF-FXXTC-050-30-019
50.5	29.7	DIN-B	1"	25	NH-TCK-050-30-025	NH-TCR-050-30-025	AF-PHXTC-050-30-025	AF-FXXTC-050-30-025
50.5	29.7	DIN-B	1.1/4"	32	NH-TCK-050-30-032	NH-TCR-050-30-032	AF-PHXTC-050-30-032	-
50.5	31.3	ISO	1"	25	NH-TCK-050-31-025	NH-TCR-050-31-025	AF-PHXTC-050-31-025	AF-FXXTC-050-31-025
50.5	31.3	ISO	1.1/4"	32	NH-TCK-050-31-032	NH-TCR-050-31-032	AF-PHXTC-050-31-032	-
50.5	32	DIN-A	3/4"	19	NH-TCK-050-32-019	NH-TCR-050-32-019	AF-PHXTC-050-32-019	AF-FXXTC-050-32-019
50.5	32	DIN-A	1"	25	NH-TCK-050-32-025	NH-TCR-050-32-025	AF-PHXTC-050-32-025	AF-FXXTC-050-32-025
50.5	32	DIN-A	1.1/4"	32	NH-TCK-050-32-032	NH-TCR-050-32-032	AF-PHXTC-050-32-032	-
50.5	34.8	BS / DIN-C	3/4"	19	NH-TCK-050-35-019	NH-TCR-050-35-019	AF-PHXTC-050-35-019	AF-FXXTC-050-35-019
50.5	34.8	BS / DIN-C	1"	25	NH-TCK-050-35-025	NH-TCR-050-35-025	AF-PHXTC-050-35-025	AF-FXXTC-050-35-025
50.5	34.8	BS / DIN-C	1.1/4"	32	NH-TCK-050-35-032	NH-TCR-050-35-032	AF-PHXTC-050-35-032	-
50.5	34.8	BS / DIN-C	1.1/2"	38	NH-TCK-050-35-038	NH-TCR-050-35-038	AF-PHXTC-050-35-038	-
50.5	34.8	BS / DIN-C	-	40		NH-TCR-050-35-040	-	-
50.5	35.6	ISO	1.1/2"	38	NH-TCK-050-36-038	NH-TCR-050-36-038	AF-PHXTC-050-36-038	-
50.5	38	DIN-A	3/4"	19	NH-TCK-050-38-019	NH-TCR-050-38-019	AF-PHXTC-050-38-019	AF-FXXTC-050-38-019
50.5	38	DIN-A	1"	25	NH-TCK-050-38-025	NH-TCR-050-38-025	AF-PHXTC-050-38-025	AF-FXXTC-050-38-025
50.5	38	DIN-A	1.1/4"	32	NH-TCK-050-38-032	NH-TCR-050-38-032	AF-PHXTC-050-38-032	-
50.5	38	DIN-A	1.1/2"	38	NH-TCK-050-38-038	NH-TCR-050-38-038	AF-PHXTC-050-38-038	-
50.5	38	DIN-A	-	40		NH-TCR-050-38-040	-	-
50.5	38.4	DIN-B	1.1/4"	32	NH-TCK-050-38B-032	NH-TCR-050-38B-032	AF-PHXTC-050-38B-032	-
50.5	38.4	DIN-B	1.1/2"	38	NH-TCK-050-38B-038	NH-TCR-050-38B-038	AF-PHXTC-050-38B-038	-

INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings

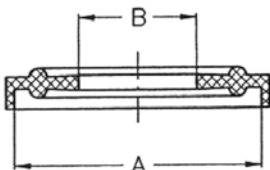
AISI 316 steel, Ra (inside) 0.4 µm




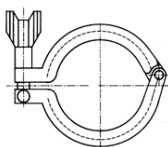
					NH-TCK	NH-TCR	AF-PHXTC	AF-FXXTC
					hose type			
A	d	comply with fittings according standards below: DIN: DIN 32676 BS: BS-4825-3 ISO: ISO 2852			rubber hoses	rubber hoses, plastic hoses, rubber hoses with internal layer made of UPE, PTFE, FEP, MFA, PFA	PTFE hoses PHARMALINE, PHARMALEX, CORROFLON, BIOFLEX	PTFE hoses HYPERLINE FX, HYPERLINE SB, thermoplastic hoses, rubber hoses
					assembled with			
hose DN					TI-LD, TI-LDR ferrules	TI-LR, TI-LDR ferrules or RS safety clamps	ferrules for above mentioned hoses	AF-THU ferrules for PTFE hoses, TI-L ferrules for rubber hoses, ferrules for thermoplastic hoses.
[mm]	[mm]	-	[inch]	[mm]	code	code	code	code
64	37.6	ISO	1.1/2"	38	NH-TCK-064-37-038	NH-TCR-064-37-038	AF-PHXTC-064-37-038	-
64	38.4	DIN-B	1.1/2"	38	NH-TCK-064-38-038	NH-TCR-064-38-038	AF-PHXTC-064-38-038	-
64	44.3	DIN-B	1.1/2"	38	NH-TCK-064-44-038	NH-TCR-064-44-038	AF-PHXTC-064-44-038	-
64	47.5	DIN-C / BS	1"	25	NH-TCK-064-48-025	NH-TCR-064-48-025	AF-PHXTC-064-48-025	AF-FXXTC-064-48-025
64	47.5	DIN-C / BS	1.1/4"	32	NH-TCK-064-48-032	NH-TCR-064-48-032	AF-PHXTC-064-48-032	-
64	47.5	DIN-C / BS	1.1/2"	38	NH-TCK-064-48-038	NH-TCR-064-48-038	AF-PHXTC-064-48-038	-
64	47.5	DIN-C / BS	2"	50	NH-TCK-064-48-050	NH-TCR-064-48-050	-	-
64	47.5	DIN-C / BS	2"	51		NH-TCR-064-48-051	AF-PHXTC-064-48-051	-
64	48.6	ISO	2"	50	NH-TCK-064-49-050	NH-TCR-064-49-050	-	-
64	48.6	ISO	2"	51		NH-TCR-064-49-051	AF-PHXTC-064-49-051	-
64	50	DIN-A	1.1/2"	38	NH-TCK-064-50-038	NH-TCR-064-50-038	AF-PHXTC-064-50-038	-
64	50	DIN-A	-	40	-	NH-TCR-064-50-040	-	-
64	50	DIN-A	2"	50	NH-TCK-064-50-050	NH-TCR-064-50-050	-	-
64	50	DIN-A	2"	51		NH-TCR-064-50-051	AF-PHXTC-064-50-051	-
77.5	56.3	DIN-B	2"	51	NH-TCK-077-56-050	NH-TCR-077-56-051	AF-PHXTC-077-56-051	-
77.5	56.3	DIN-B	2.1/2"	63	NH-TCK-077-56-063	NH-TCR-077-56-063	AF-CFXTC-077-56-063	-
77.5	60.3	BS / DIN-C / ISO	2"	50	NH-TCK-077-60-050	NH-TCR-077-60-050	-	-
77.5	60.3	BS / DIN-C / ISO	2"	51		NH-TCR-077-60-051	AF-PHXTC-077-60-051	-
77.5	60.3	BS / DIN-C / ISO	2.1/2"	63	NH-TCK-077-60-063	NH-TCR-077-60-063	AF-CFXTC-077-60-063	-
77.5	60.3	BS / DIN-C / ISO	2.1/2"	65		NH-TCR-077-60-065	-	-
91	66	DIN-A	2.1/2"	63	NH-TCK-091-66-063	NH-TCR-091-66-063	-	-
91	66.8	ISO	2.1/2"	63	NH-TCK-091-67-063	NH-TCR-091-67-063	AF-CFXTC-091-67-063	-
91	66.8	ISO	2.1/2"	65		NH-TCR-091-67-065	-	-
91	72.1	DIN-B	2.1/2"	63	NH-TCK-091-72-063	NH-TCR-091-72-063	AF-CFXTC-091-72-063	-
91	72.1	DIN-B	3"	75	NH-TCK-091-72-075	NH-TCR-091-72-075	-	-
91	72.1	DIN-B	3"	76		NH-TCR-091-72-076	AF-CFXTC-091-72-076	-
91	73	BS / DIN-C / ISO	2"	51	NH-TCK-091-73-050	NH-TCR-091-73-051	AF-PHXTC-091-73-051	-
91	73	BS / DIN-C / ISO	2.1/2"	63	NH-TCK-091-73-063	NH-TCR-091-73-063	AF-CFXTC-091-73-063	-
91	73	BS / DIN-C / ISO	3"	75	NH-TCK-091-73-075	NH-TCR-091-73-075	-	-
91	73	BS / DIN-C / ISO	3"	76		NH-TCR-091-73-076	AF-CFXTC-091-73-076	-
106	81	DIN-A	3"	76	NH-TCK-106-81-075	NH-TCR-106-81-076	AF-CFXTC-106-81-076	-
106	84.3	DIN-B	3"	76	NH-TCK-106-84-075	NH-TCR-106-84-076	AF-CFXTC-106-84-076	-
106	84.9	ISO	3"	76	NH-TCK-106-85-075	NH-TCR-106-85-076	AF-CFXTC-106-85-076	-
119	97.6	BS / DIN-C / ISO	4"	100	NH-TCK-119-98-100	NH-TCR-119-98-100	-	-
119	97.6	BS / DIN-C / ISO	4"	102		NH-TCR-119-98-102	AF-CFXTC-119-98-102	-
119	100	DIN-A	4"	102	NH-TCK-119-100-100	NH-TCR-119-100-102	AF-CFXTC-119-100-102	-
130	110.3	BS / DIN-C / ISO	4"	102	NH-TCK-130-110-100	NH-TCR-130-110-102	AF-CFXTC-130-110-102	-


INDUSTRIAL FITTINGS - couplings

Stainless steel hygienic couplings

Seal (DIN 32676)							
							
TRICLOVER							
DN	A [mm]	B [mm]	code (PTFE)	code (Viton)	code (EPDM)	code (NBR)	code (silicone)
10	34	10.2	NH-TUP-034-010	NH-TUV-034-010	NH-TUE-034-010	NH-TUN-034-010	NH-TUS-034-010
15	34	16.2	NH-TUP-034-015	NH-TUV-034-015	NH-TUE-034-015	NH-TUN-034-015	NH-TUS-034-015
20	34	20.2	NH-TUP-034-020	NH-TUV-034-020	NH-TUE-034-020	NH-TUN-034-020	NH-TUS-034-020
25	50.5	26.2	NH-TUP-050-025	NH-TUV-050-025	NH-TUE-050-025	NH-TUN-050-025	NH-TUS-050-025
32	50.5	32.2	NH-TUP-050-032	NH-TUV-050-032	NH-TUE-050-032	NH-TUN-050-032	NH-TUS-050-032
38	50.5	38.2	NH-TUP-050-038	NH-TUV-050-038	NH-TUE-050-038	NH-TUN-050-038	NH-TUS-050-038
50	64	50.2	NH-TUP-064-050	NH-TUV-064-050	NH-TUE-064-050	NH-TUN-064-050	NH-TUS-064-050

TC coupling according to DIN 32676 with butt weld connection, AISI 316			
			
TRICLOVER			
code	DN	flange O.D. [mm]	butt weld O.D. / I.D. [mm]
NH-TKS-034-010	10	34	13 / 10
NH-TKS-034-015	15	34	19 / 16
NH-TKS-034-020	20	34	23 / 20
NH-TKS-050-025	25	50.5	29 / 26
NH-TKS-050-032	32	50.5	35 / 32
NH-TKS-050-038	38	50.5	41 / 38
NH-TKS-064-050	50	64	53 / 50

Clamp AISI 304	
	
TRICLOVER	
code	flange O.D. [mm]
NH-TO-025	25
NH-TO-034	34
NH-TO-050	50.5
NH-TO-064	64
NH-TO-077	77.5
NH-TO-091	91
NH-TO-106	106
NH-TO-119	119
NH-TO-130	130

End cap, AISI 316		
		
TRICLOVER		
code	flange O.D. [mm]	thickness [mm]
NH-TZ-025	25	4.75
NH-TZ-034	34	6.35
NH-TZ-050	50.5	6.35
NH-TZ-064	64	6.35
NH-TZ-091	91	6.35
NH-TZ-106	106	6.35
NH-TZ-119	119	8