NORDS

Product Catalogue 2014

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Business Unit Threaded Fittings in Brief

Nords Fittings has a long history going back to 1904 when Rudolf Nord started the original company in Molkom. A couple of years later in the same village another company named Calamo was founded by Henrik Carlsson and Valdemar Larsson. Both these companies were run independent from each other for many decades most successfully.
However as both had a similar customer base and similar products this led in 1997 to a merger of the 2 companies.
Today in Molkom we proudly look back at more than 70 years of experience in producing fittings in different alloys of stainless steel.

Nords Fittings in Molkom is the Headquarter of the Business Unit Threaded Fittings (BU THF) with its modern and cost efficient production.
The Business Unit Threaded Fittings has also a manufacturing plant in Estonia as well as a sales office in Finland with production focused on fast track orders for standard and tailor made products.

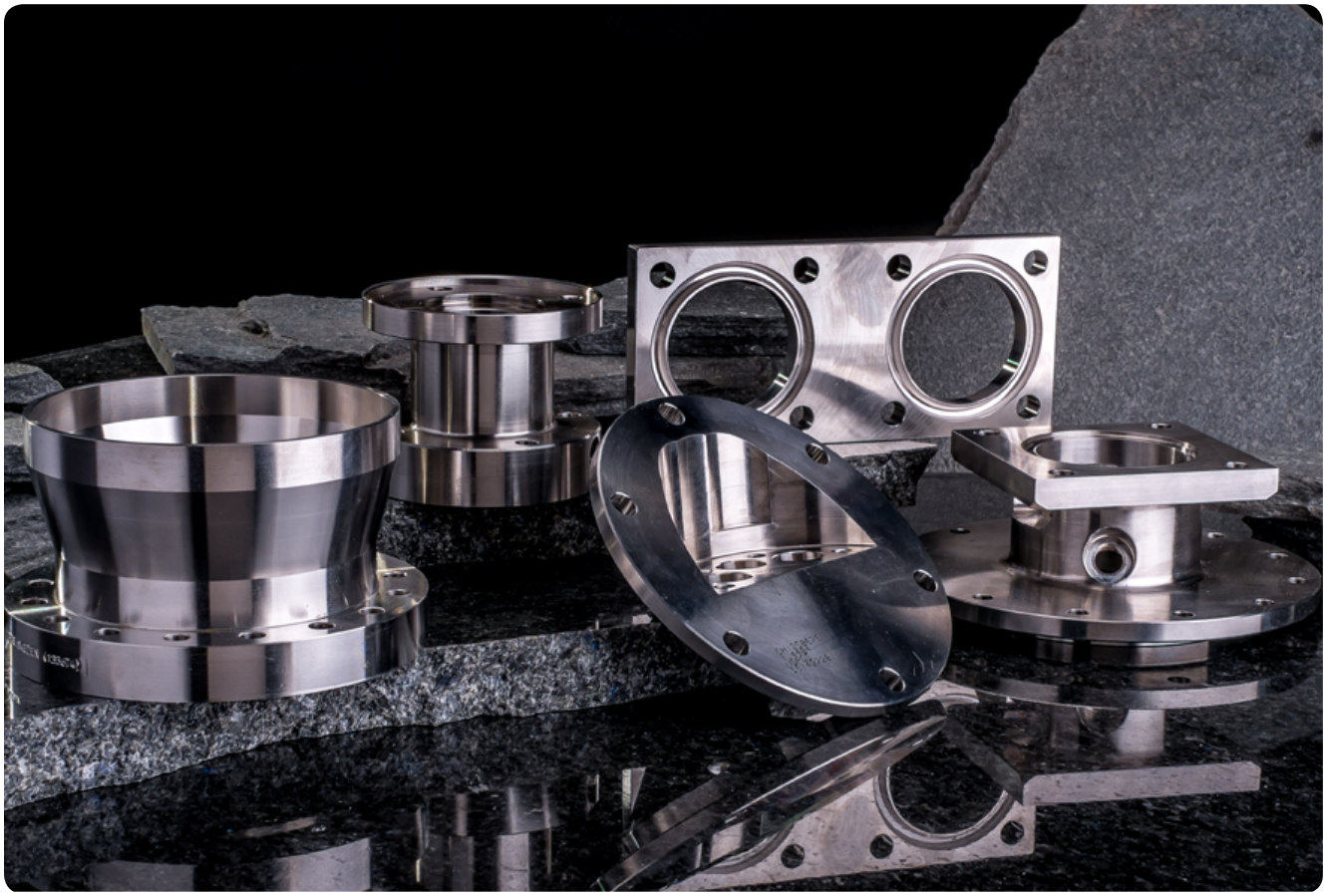
The BU THF produces butt weld fittings (collars & clamps), threaded fittings as well as tailor made products of the highest quality and suitable for use in the most corrosive of environments where total reliability is essential. We can also supply a wide variety of grades, dimensions and surface finishes.
In addition to this, we have technical expertise and experience necessary to satisfy all our customers' needs for both product support and product development.

The BU THF is certified to manufacture products according to 97/23/EC and AD2000-W0. Other certifications are ISO 9001:2008 and ISO 14001:2004.

Today the BU THF is a global player and sells its products worldwide through a network of agents, distributors as well as direct to end-users.

Tailor made products

Our machine park in combination with our CAD system provides the possibility to manufacture not only standard but also tailor made products on customer request.
We have a long experience in producing products in special grades e.g. 904L, 254SMO, Duplex and Super-Duplex grades.
Our customer base for tailor made fittings is worldwide.



Threaded fittings

The base is a comprehensive QS according to EN ISO 9001:2008. All manufactured standard products are approved by a Notified Body to the European Pressure equipment PED 97/23/EC and by TÜV certified to AD 2000 Merkblatt W0. This allows the use of these products in applications according to category IV in the PED Directive.

All products with the design pressure in the tables are calculated according to EN 13480-3.

Technical information

- Benefit: Threaded fittings are produced from tubes and bars for highest quality.
- Application: Anywhere you need a reliable and safe tube connection.
- Calculations: EN 13480 Metallic industrial piping has been used for design pressure calculations.
- Material: See each data sheet for steel grades. Other steel grades upon request.

Threads

Whitworth threads

Threaded fittings have Whitworth pipe threads (BSP) as standard:
- male threads, taper external according to ISO 7/1
- male threads, parallel external according to ISO 228/1
- female threads, parallel internal according to ISO 228/1
- female threads, taper internal according to ISO 7/1

NPT threads

Fittings with NPT threads (American Standard National Pipe Thread) are available upon request. However, certain items - sockets, double nipples and welding nipples - are also available from stock with NPT threads.

Symbols for threads

Pipe threads and their symbols

Pipe threads where pressure-tight joints are made on the threads.

Rp = Parallel internal	ISO 7/1 - Rp 1½”	
Rc = Taper internal	ISO 7/1 - Rc 1½”	
R = Taper external	ISO 7/1 - R 1½”	

ISO 7/2 deals with the inspection of these threads.

Pipe threads where pressure-tight joints are not made on the threads.

G = Parallel internal	ISO 228/1 - G1½”	One tolerance class only
G…A = Parallel external	ISO 228/1 - G1½”A	Tighter class of tolerance
G…B = Parallel external	ISO 228/1 - G1½”B	Wider class of tolerance

ISO 228/2 deals with the inspection of these threads.

Gaskets in our Unions
O-ring and flat sealing

Viton:
High temperature resistance combined with greater chemical resistance than nitril.
Resistant to oils, chlorinated solvents, aliphatic and aromatic hydrocarbons and various heavy inflammable fluids (exception: Acetone).
Temperature area: - 40° - +205 °C.
Main applications: Chemical equipment, vacuum pumps, high temperature hydraulics and pneumatics.

Nitril:
Resistant to mineral and vegetable oils and fats, alkalics, alcohols, gases, water, glycols, salt solutions and food.
Temperature area: - 30° - +100 °C.
Main applications: General engineering, pumps, and hydraulics and pneumatics.

Teflon (PTFE):
Universal chemical resistance in high and low temperatures.
Only for low mechanical stress.
PTFE is only attacked by liquid alkalic metals as well as by some fluorine compounds at elevated temperatures and pressures.
Temperature area: ca - 200° - +260 °C.
Main applications: In high and low temperature environments, chemical engineering, food and medical industry.

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conical sealing
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Couplings
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weld/weld
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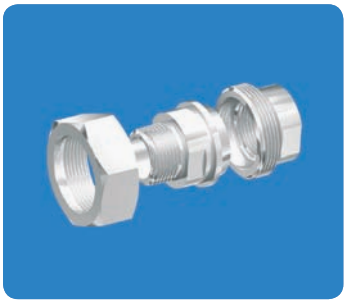

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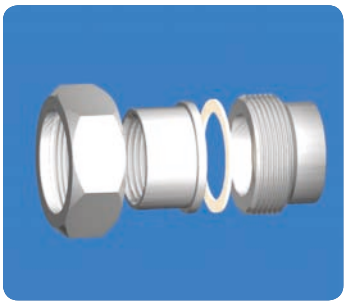

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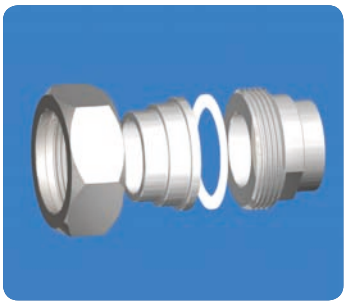

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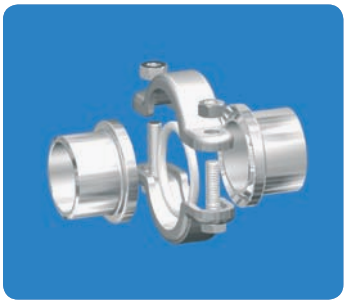

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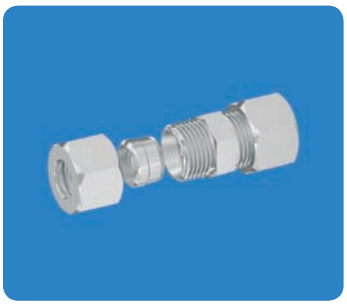

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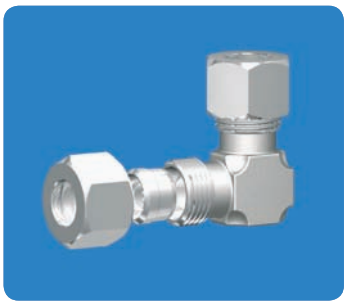

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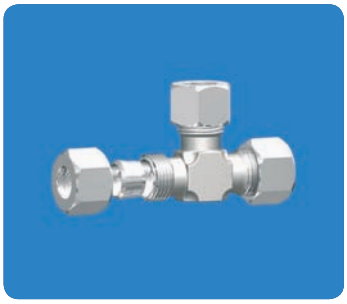

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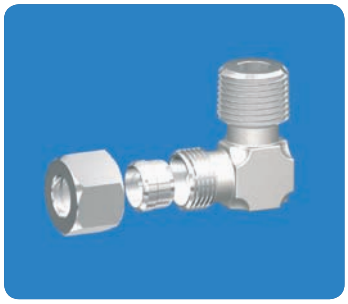

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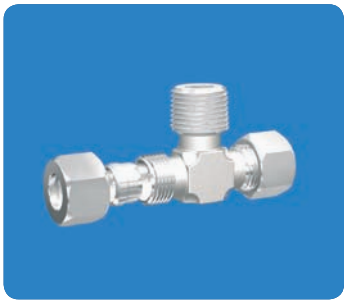

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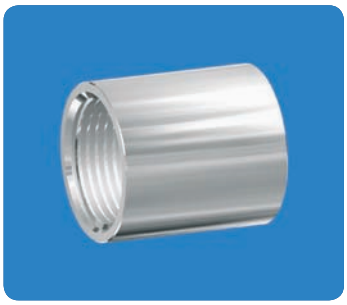

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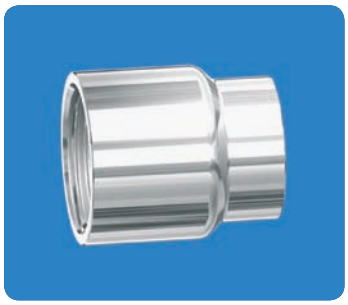

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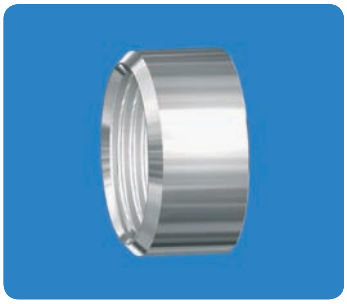

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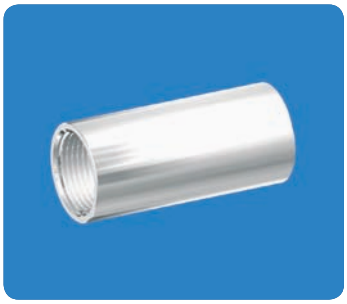

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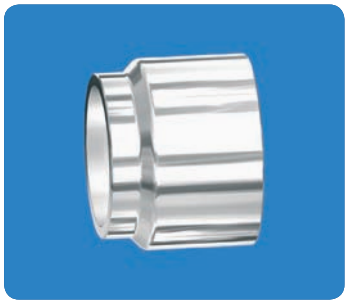

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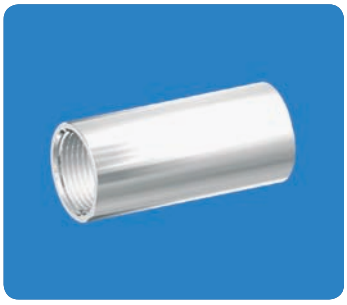

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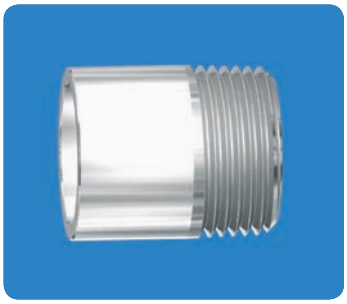

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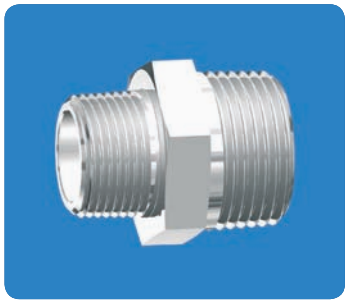

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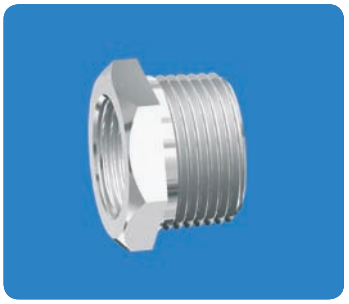

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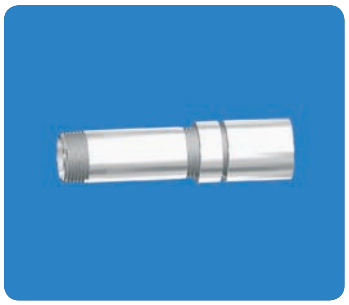

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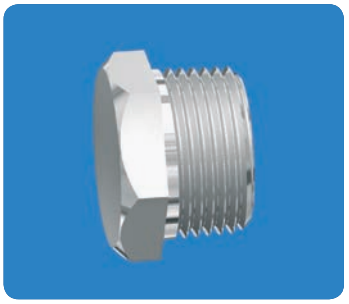

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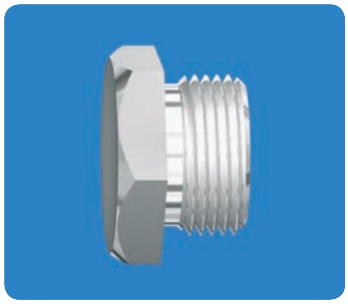

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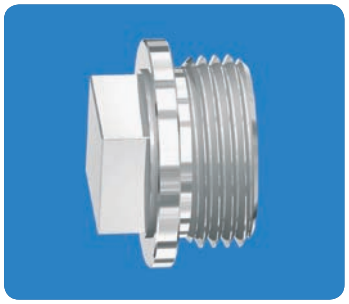

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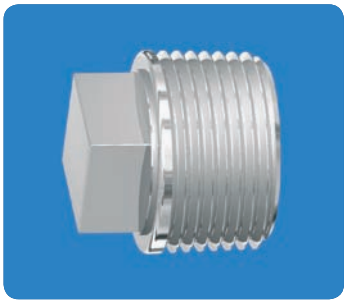

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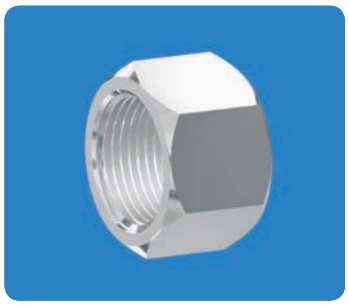

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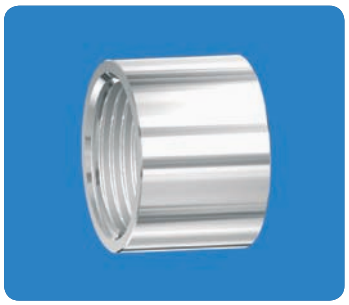

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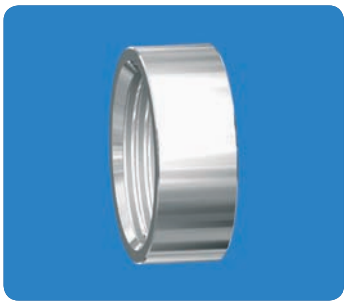

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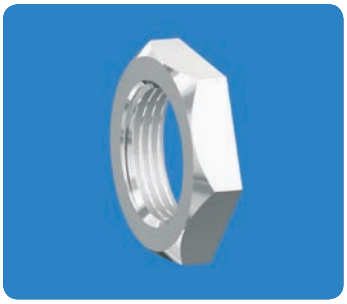

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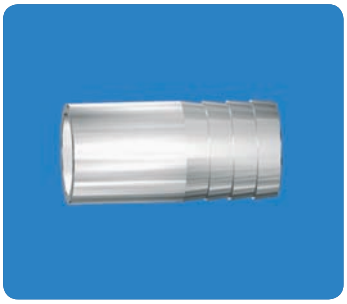

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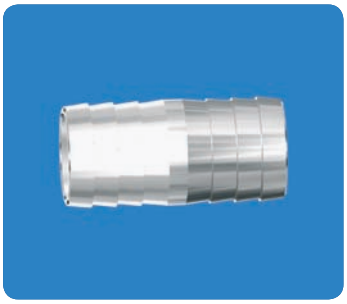

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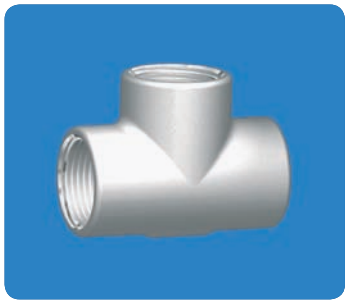

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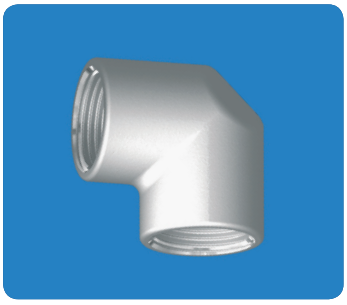

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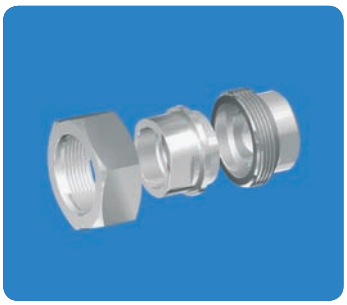

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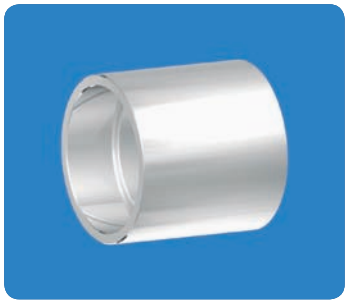

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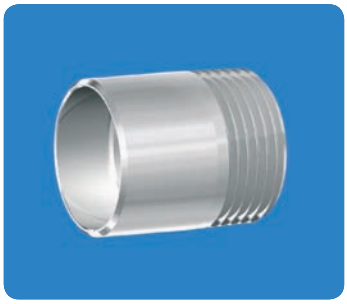

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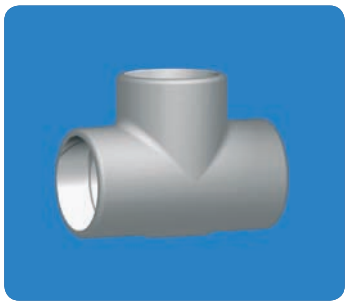

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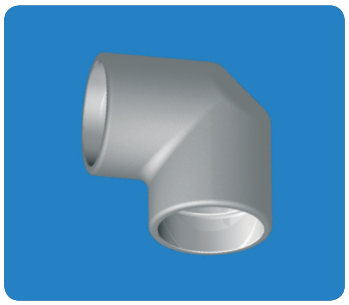

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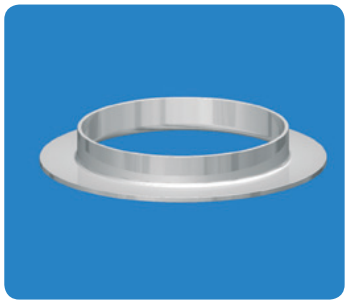

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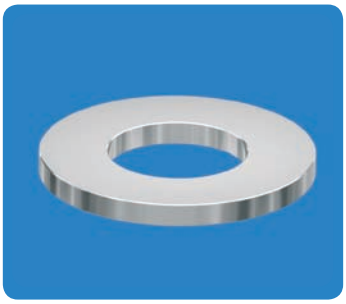

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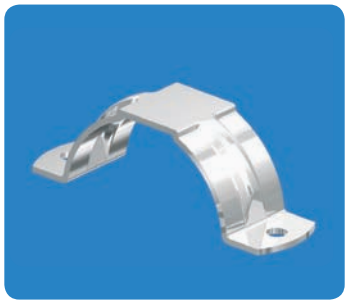

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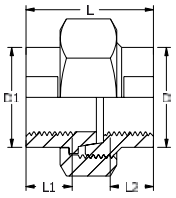

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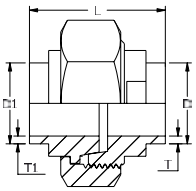
Couplings, Inside/Inside, Conical sealing

DN	Dim.	L	L1 ISO 228/1	L2 ISO 228/1	D	D1	NW	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
6	1/8″	32	12	10.0	15.0	15.0	24	10.0	0.06	11-1131-01	11-1131-51
8	1/4″	38	12	13.0	20.5	20.5	30	10.0	0.11	11-1131-02	11-1131-52
10	3/8″	41	14	14.0	24.0	24.0	38	10.0	0.18	11-1131-03	11-1131-53
15	1/2″	46	17	16.0	29.0	29.0	43	10.0	0.24	11-1131-04	11-1131-54
20	3/4″	50	20	18.0	35.0	35.0	50	10.0	0.35	11-1131-05	11-1131-55
25	1″	56	23	22.0	44.0	44.0	60	10.0	0.56	11-1131-06	11-1131-56
32	1 1/4″	62	25	24.0	52.0	52.0	67	6.4	0.69	11-1131-07	11-1131-57
40	1 1/2″	64	26	25.5	58.0	58.0	73	6.4	0.86	11-1131-08	11-1131-58
50	2″	67	28	26.0	71.5	71.5	87	6.4	1.21	11-1131-09	11-1131-59
65	2 1/2″	70	29	28.0	88.0	88.0	110	4.0	1.84	11-1131-10	_
80	3″	75	31	30.0	102.0	102.0	128	4.0	2.62	11-1131-11	_

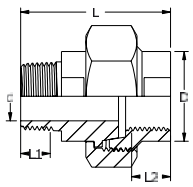


R-131 S
Couplings, Weld/Weld, Conical sealing

Dim.	L	T	T1	D	D1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
14.0/10.0	38	2.0	2.0	14.0	14.0	24	10.0	0.06	11-7131-01
18.0/14.0	40	2.0	2.0	18.0	18.0	38	10.0	0.18	11-7131-02
21.3/16.0	40	2.7	2.7	21.3	21.3	38	10.0	0.18	11-7131-03
25.0/20.0	44	2.5	2.5	25.0	25.0	43	10.0	0.23	11-7131-04
26.9/23.0	44	2.0	2.0	26.9	26.9	43	10.0	0.27	11-7131-05
30.0/25.0	47	2.5	2.5	30.0	30.0	50	10.0	0.34	11-7131-06
33.7/27.2	53	3.3	3.3	33.7	33.7	60	10.0	0.59	11-7131-07
34.0/30.0	53	2.0	2.0	34.0	34.0	60	10.0	0.51	11-7131-08
38.0/34.0	57	2.0	2.0	38.0	38.0	60	6.4	0.48	11-7131-09
42.4/36.0	57	3.2	3.2	42.4	42.4	68	6.4	0.73	11-7131-10
44.5/40.0	57	2.3	2.3	44.5	44.5	68	6.4	0.65	11-7131-11
48.3/43.0	63	2.7	2.7	48.3	48.3	74	6.4	0.87	11-7131-12
51.0/47.0	63	2.0	2.0	51.0	51.0	74	6.4	0.86	11-7131-13
54.0/50.0	69	2.0	2.0	54.0	54.0	88	6.4	1.26	11-7131-14
60.3/55.0	74	2.7	2.7	60.3	60.3	88	6.4	1.21	11-7131-15
77.0/71.0	80	3.0	3.0	77.0	77.0	110	6.4	1.91	11-7131-16
89.0/81.7	83	3.7	3.7	89.0	89.0	128	6.4	2.85	11-7131-17

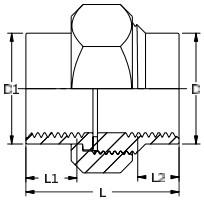
For more information and pressure tables, see www.nordsfittings.com

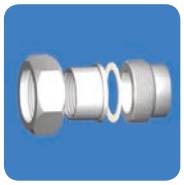
R-131 U
Couplings, Outside/Inside, Conical sealing



DN	Dim.	L	L1 ISO 7/1	L2 ISO 228/1	D	d	NW	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
6	1/8″	40.5	9	10.0	15.0	5.0	24	10.0	0.07	11-2131-01	11-2131-51
8	1/4″	47.0	12	13.0	20.5	7.5	30	10.0	0.12	11-2131-02	11-2131-52
10	3/8″	53.0	14	14.0	24.0	11.0	38	10.0	0.20	11-2131-03	11-2131-53
15	1/2″	62.0	17	16.0	29.0	14.0	43	10.0	0.29	11-2131-04	11-2131-54
20	3/4″	66.0	18	28.0	35.0	19.0	50	10.0	0.42	11-2131-05	11-2131-55
25	1″	74.0	20	22.0	44.0	24.0	60	10.0	0.67	11-2131-06	11-2131-56
32	1 1/4″	81.0	21	24.0	52.0	31.0	67	6.4	0.90	11-2131-07	11-2131-57
40	1 1/2″	84.0	22	25.5	58.0	38.0	73	6.4	1.09	11-2131-08	11-2131-58
50	2″	87.0	23	26.0	71.5	49.0	87	6.4	1.53	11-2131-09	11-2131-59
65	2 1/2″	97.0	25	28.0	88.0	65.0	110	4.0	2.32	11-2131-10	_
80	3″	109.0	33	30.0	102.0	76.0	125	4.0	3.42	11-2131-11	_

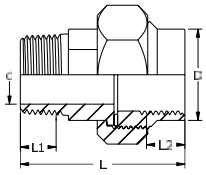
LR-131
Couplings, Inside/Inside, Flat gasket PTFE





DN	Dim.	L	L1 ISO 228/1	L2 ISO 228/1	D	D1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	32	12	12	17.0	17.0	27	10.0	0.08	11-3131-01
8	1/4″	32	12	12	17.0	17.0	27	10.0	0.07	11-3131-02
10	3/8″	38	14	14	20.5	20.5	30	10.0	0.09	11-3131-03
15	1/2″	41	16	16	24.5	24.5	36	10.0	0.13	11-3131-04
20	3/4″	47	17	17	31.0	31.0	43	10.0	0.21	11-3131-05
25	1″	53	20	20	38.0	38.0	50	10.0	0.30	11-3131-06
32	1 1/4″	58	22	22	47.0	47.0	60	6.4	0.43	11-3131-07
40	1 1/2″	63	23	23	54.0	54.0	68	6.4	0.58	11-3131-08
50	2″	72	27	27	66.5	66.5	88	6.4	1.08	11-3131-09
65	2 1/2″	80	31	31	98.0	98.0	128	4.0	3.40	11-3131-10
80	3″	80	31	31	98.0	98.0	128	4.0	2.45	11-3131-11

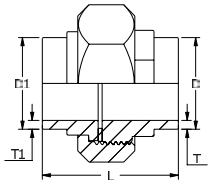
LR-131 U
Couplings, Outside/Inside, Flat gasket PTFE



DN	Dim.	L	L1 ISO 7/1	L2 ISO 228/1	D	d	NW	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404
6	1/8″	42	12	12	17.0	5.0	24	10.0	0.09	11-5131-01
8	1/4″	42	12	12	17.0	7.5	30	10.0	0.92	11-5131-02
10	3/8″	49	14	14	20.5	11.0	38	10.0	0.11	11-5131-03
15	1/2″	56	17	16	24.5	14.5	43	10.0	0.17	11-5131-04
20	3/4″	63	18	17	31.0	19.0	50	10.0	0.26	11-5131-05
25	1″	69	20	20	38.0	24.5	60	10.0	0.39	11-5131-06
32	1 1/4″	74	21	22	47.0	30.0	68	6.4	0.59	11-5131-07
40	1 1/2″	80	22	23	54.0	38.0	74	6.4	0.73	11-5131-08
50	2″	87	23	27	66.5	49.0	88	6.4	1.30	11-5131-09
65	2 1/2″	101	30	31	98.0	65.0	110	4.0	3.57	11-5131-10
80	3″	101	30	31	98.0	75.0	128	4.0	2.91	11-5131-11

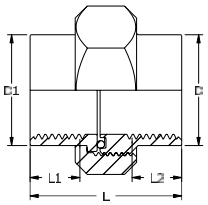
For more information and pressure tables, see www.nordsfittings.com

LR-131 S
Couplings, Weld/Weld, Flat gasket PTFE



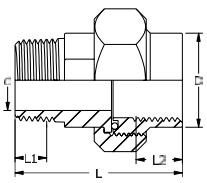
Dim.	L	T	T1	D	D1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
14/10	32.0	2.0	2.0	14.0	14.0	27	10.0	0.07	11-8131-01
18/14	37.0	2.0	2.0	18.0	18.0	30	10.0	0.09	11-8131-02
21.3/16	40.5	2.7	2.7	21.3	21.3	36	10.0	0.15	11-8131-03
25/20	48.0	2.5	2.5	25.0	25.0	43	10.0	0.24	11-8131-04
26.9/23	48.0	2.0	2.0	26.9	26.9	43	10.0	0.22	11-8131-05
30/25	48.0	2.5	2.5	30.0	30.0	43	10.0	0.22	11-8131-06
33.7/27.2	52.0	3.3	2.3	33.7	33.7	50	10.0	0.35	11-8131-08
34/30	52.0	2.0	2.0	34.0	34.0	50	10.0	0.30	11-8131-07
38/34	58.0	2.0	2.0	38.0	38.0	60	6.4	0.32	11-8131-09
42.4/36	58.0	3.2	3.2	42.4	42.4	60	6.4	0.50	11-8131-10
44.5/40	58.0	2.3	2.3	44.5	44.5	60	6.4	0.42	11-8131-11
48.3/43	63.0	2.7	2.7	48.3	48.3	68	6.4	0.62	11-8131-12
51/47	63.0	2.0	2.0	51.0	51.0	68	6.4	0.52	11-8131-13
54/50	63.0	2.0	2.0	54.0	54.0	68	6.4	0.47	11-8131-14
60.3/55	69.0	2.7	2.7	60.3	60.3	88	6.4	1.08	11-8131-15

LR-131 O
Couplings, Inside/Inside, O-ring



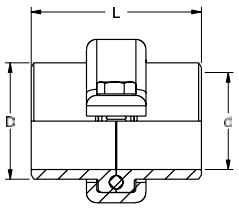
DN	Dim.	L	L1 ISO 228/1	L2 ISO 228/1	D	D1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
8	1/4″	32	12.0	12.0	17.0	17.0	27	10.0	0.07	11-4131-02
10	3/8″	38	14.0	14.0	20.5	20.5	30	10.0	0.08	11-4131-03
15	1/2″	41	16.0	16.0	24.5	24.5	36	10.0	0.13	11-4131-04
20	3/4″	47	17.0	17.0	31.0	31.0	43	10.0	0.21	11-4131-05
25	1″	53	19.5	10.5	38.0	38.0	50	10.0	0.29	11-4131-06
32	1 1/4″	58	22.0	22.0	47.0	47.0	60	6.4	0.43	11-4131-07
40	1 1/2″	63	23.0	23.0	54.0	54.0	68	6.4	0.57	11-4131-08
50	2″	72	27.0	27.0	66.5	66.5	88	6.4	1.08	11-4131-09

LR-131 UO
Couplings, Outside/Inside, O-ring



DN	Dim.	L	L1 ISO 7/1	L2 ISO 228/1	D	d	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
8	1/4″	42	12	12	17.0	7.5	27	10.0	0.08	11-6131-02
10	3/8″	49	14	14	20.5	11.0	30	10.0	0.10	11-6131-03
15	1/2″	56	17	16	24.5	14.5	36	10.0	0.17	11-6131-04
20	3/4″	63	18	17	31.0	19.0	43	10.0	0.26	11-6131-05
25	1″	69	20	20	38.0	24.5	50	10.0	0.38	11-6131-06
32	1 1/4″	74	21	23	47.0	30.0	60	6.4	0.57	11-6131-07
40	1 1/2″	80	22	23	54.0	38.0	68	6.4	0.72	11-6131-08
50	2″	87	23	27	66.5	49.0	88	6.4	1.29	11-6131-09

For more information and pressure tables, see www.nordsfittings.com

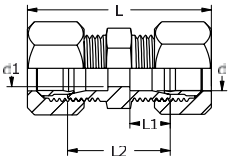


Union-L
Weld/Weld, O-ring - Teflon or Nitril

Dim. mm	L	D	d	Design pressure Mpa	Weight kg/pce	Article code Teflon EN 1.4404	Article code Nitril EN 1.4404
26.9 x 2.3	40	26.9	22.3	10.0	0.19	14-504-310	14-503-310
30.0 x 2.0	40	31.0	26.0	10.0	0.20	14-504-320	14-503-320
33.7 x 2.6	50	34.2	28.5	10.0	0.24	14-504-330	14-503-330
42.4 x 2.6	50	42.4	37.2	10.0	0.37	14-504-340	14-503-340
44.5 x 2.9	50	46.0	38.7	10.0	0.35	14-504-350	14-503-350
48.3 x 2.6	60	49.0	43.1	10.0	0.52	14-504-360	14-503-360
54.0 x 2.0	60	54.0	50.0	10.0	0.66	14-504-370	14-503-370
57.0 x 2.9	60	58.0	51.2	10.0	0.63	14-504-380	14-503-380
60.3 x 2.9	60	60.3	54.5	10.0	0.85	14-504-390	14-503-390
76.1 x 2.9	60	76.1	70.3	4.0	1.00	14-504-400	14-503-400
84.0 x 2.0	60	84.0	80.0	4.0	1.10	14-504-410	14-503-410
88.9 x 3.6	60	89.0	81.7	4.0	1.10	14-504-420	14-503-420
104.0 x 2.0	60	104.0	100.0	4.0	1.60	14-504-430	14-503-430
108.0 x 4.0	60	109.0	100.0	4.0	1.70	14-504-440	14-503-440
114.3 x 3.6	70	114.3	107.1	4.0	2.30	14-504-450	14-503-450
129.0 x 2.0	70	129.0	125.0	4.0	2.40	14-504-460	14-503-460
133.0 x 4.0	70	134.0	125.0	4.0	2.50	14-504-470	14-503-470
139.7 x 3.6	70	141.3	132.5	2.5	2.60	14-504-480	14-503-480
154.0 x 2.0	70	154.0	150.0	2.5	3.00	14-504-490	14-503-490
159.0 x 4.5	70	160.0	150.0	2.5	3.20	14-504-500	14-503-500
168.3 x 4.0	70	170.0	160.3	2.5	3.70	14-504-510	14-503-510
205.0 x 2.5	70	205.0	200.0	1.6	7.10	14-504-520	14-503-520
219.1 x 3.6	80	220.0	211.9	1.6	7.90	14-504-530	14-503-530
255.0 x 2.5	80	255.0	250.0	1.6	11.1	14-504-540	14-503-540

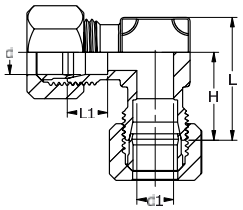
For more information and pressure tables, see www.nordsfittings.com

R-1321
Bite-ring couplings



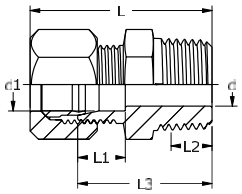
Dim.	L	L1	L2	d	d1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	39	10.5	24	6.1	5	14	10	0.04	11-1321-02
8	40	10.0	25	8.1	6	17	10	0.06	11-1321-03
10	42	11.0	27	10.2	8	19	10	0.07	11-1321-04
10.2	42	11.0	27	10.4	8	19	10	0.07	11-1321-05
12	43	11.0	28	12.2	10	22	10	0.09	11-1321-06
14	46	12.0	30	14.2	12	27	10	0.15	11-1321-07
15	46	12.0	30	15.2	12	27	10	0.15	11-1321-08
16	46	12.0	30	16.2	12	27	10	0.14	11-1321-09
17	51	12.0	31	17.2	15	32	10	0.21	11-1321-10
17.2	51	12.0	31	17.4	15	32	10	0.21	11-1321-11
18	54	11.5	31	18.2	15	32	10	0.21	11-1321-12
20	55	13.8	35	20.2	18	36	10	0.28	11-1321-13
21.3	55	14.0	35	21.5	19	36	10	0.28	11-1321-14
23	55	13.3	35	23.2	19	36	10	0.26	11-1321-15
25	63	14.0	36	25.2	22	38	10	0.30	11-1321-16

R-1323
Bite-ring couplings



Dim.	d	d1	H	L1	L	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4408
6	6.1	5	20	10.5	27.0	14	10	0.05	11-1323-02
8	8.1	6	21	10.0	28.5	17	10	0.06	11-1323-03
10	10.2	8	22	11.0	30.5	19	10	0.09	11-1323-04
10.2	10.4	8	22	11.0	30.5	19	10	0.09	11-1323-05
12	12.2	10	24	11.0	33.5	22	10	0.11	11-1323-06
14	14.3	12	30	12.0	42.0	27	10	0.21	11-1323-07
15	15.2	12	30	12.0	42.0	27	10	0.21	11-1323-08
16	16.2	12	30	12.0	42.0	27	10	0.20	11-1323-09
17	17.2	15	32	12.0	45.5	32	10	0.32	11-1323-10
17.2	17.4	15	32	12.0	45.5	32	10	0.32	11-1323-11
18	18.2	15	32	11.5	45.5	32	10	0.33	11-1323-12
20	20.2	18	35	13.8	51.5	36	10	0.44	11-1323-13
21.3	21.5	19	35	14.0	51.5	36	10	0.44	11-1323-14
23	23.2	19	35	13.3	51.5	36	10	0.44	11-1323-15
25	25.2	22	38	14.0	56.0	38	10	0.55	11-1323-16

For more information and pressure tables, see www.nordsfittings.com

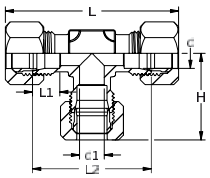


R-1322
Bite-ring couplings

Dim.	L	L1	L2 ISO 7/1	L3	d	d1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6 x 1/8″	31	10.5	7.5	23.5	5	6.1	14	10	0.04	11-1322-03
6 x 1/4″	35	10.5	11.5	27.5	5	6.1	14	10	0.04	11-1322-04
6 x 3/8″	35	10.5	11.5	27.5	5	6.1	14	10	0.05	11-1322-05
6 x 1/2″	37	13.8	15.5	33.5	5	6.1	14	10	0.08	11-1322-31
8 x 1/4″	37	10.0	11.5	29.0	6	8.1	17	10	0.04	11-1322-06
8 x 3/8″	38	14.0	15.5	29.0	6	8.1	17	10	0.05	11-1322-32
10 x 1/4″	38	10.0	11.5	30.0	6	10.2	19	10	0.05	11-1322-07
10 x 3/8″	38	11.0	11.5	30.0	7	10.2	19	10	0.06	11-1322-08
10.2 x 1/4″	38	11.0	11.5	30.0	8	10.2	19	10	0.06	11-1322-09
10.2 x 3/8″	38	11.0	11.5	30.0	7	10.2	19	10	0.06	11-1322-10
12 x 1/4″	39	11.0	11.5	31.5	8	12.2	22	10	0.07	11-1322-11
12 x 3/8″	40	11.0	11.5	31.5	7	12.2	22	10	0.08	11-1322-12
12 x 1/2″	41	11.0	11.5	33.5	10	12.2	22	10	0.09	11-1322-13
14 x 1/2″	44	10.5	13.5	35.0	5	14.2	27	10	0.12	11-1322-14
15 x 3/8″	42	11.0	13.5	33.0	10	15.2	27	10	0.12	11-1322-15
15 x 1/2″	44	12.0	13.5	35.0	12	15.2	27	10	0.12	11-1322-16
15 x 3/4″	45	14.0	15.5	37.0	19	15.2	27	10	0.15	11-1322-34
16 x 1/2″	44	12.0	11.5	35.0	10	16.2	32	10	0.13	11-1322-17
17 x 1/2″	45	12.0	13.5	35.0	12	17.2	32	10	0.15	11-1322-18
17 x 3/4″	47	12.0	15.5	37.0	12	17.2	32	10	0.15	11-1322-19
17.2 x 1/2″	45	12.0	13.5	35.0	12	17.4	32	10	0.16	11-1322-20
17.2 x 3/4″	47	12.0	13.5	37.0	14	17.4	32	10	0.17	11-1322-21
18 x 1/2″	45	12.0	15.5	35.0	15	18.2	32	10	0.18	11-1322-22
18 x 3/8″	43	13.8	13.5	33.0	15	18.2	32	10	0.15	11-1322-30
20 x 1/2″	47	13.3	15.5	37.0	19	20.2	36	10	0.19	11-1322-33
20 x 3/4″	49	12.0	13.5	39.0	14	20.2	36	10	0.20	11-1322-23
21.3 x 3/4″	49	12.0	15.5	39.0	15	21.5	36	10	0.19	11-1322-24
23 x 3/4″	49	11.5	11.5	39.0	10	23.5	36	10	0.18	11-1322-25
25 x 3/4″	49	11.5	13.5	39.0	15	25.2	38	10	0.21	11-1322-26

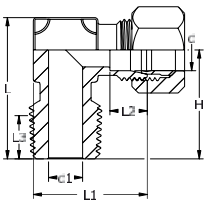
For more information and pressure tables, see www.nordsfittings.com

R-1324
Bite-ring couplings



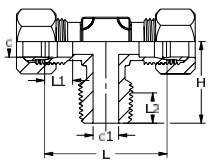
Dim.	L	L1	H	L2	d	d1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4408
6	54	10.5	27	40	6.3	5	14	10	0.06	11-1324-02
8	58	10.0	29	42	8.3	6	17	10	0.09	11-1324-03
10	60	11.0	30	44	10.4	8	19	10	0.12	11-1324-04
10.2	60	11.0	30	44	10.4	8	19	10	0.12	11-1324-05
12	64	11.0	32	48	12.3	10	22	10	0.13	11-1324-06
14	74	12.0	37	60	14.3	12	27	10	0.22	11-1324-07
15	74	12.0	37	60	15.3	12	27	10	0.27	11-1324-08
16	74	12.0	37	60	16.3	12	27	10	0.26	11-1324-09
17	82	12.0	41	64	17.4	15	32	10	0.41	11-1324-10
17.2	82	12.0	41	64	17.4	15	32	10	0.41	11-1324-11
18	82	11.5	41	64	18.4	15	32	10	0.39	11-1324-12
20	90	13.8	45	70	20.4	18	36	10	0.53	11-1324-13
21.3	90	14.0	45	70	21.7	19	36	10	0.51	11-1324-14
23	90	13.3	45	70	23.4	19	36	10	0.50	11-1324-15
25	96	14.0	48	76	25.4	22	38	10	0.47	11-1324-16

R-1325
Bite-ring couplings



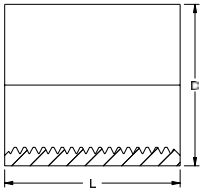
Dim.	L	L1	L2	L3 ISO 7/1	d	d1	H	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4408
6 x 1/8"	31.0	27.0	10.5	6	8.1	5	24.0	14	10	0.04	11-1325-01
6 x 1/4"	31.0	27.0	10.5	9	8.1	5	24.0	14	10	0.04	11-1325-02
8 x 1/4"	33.5	28.5	10.0	9	10.1	6	26.0	17	10	0.05	11-1325-03
8 x 3/8"	34.0	30.5	10.0	9	10.3	8	25.5	19	10	0.08	11-1325-10
10 x 1/4"	36.0	30.5	11.0	9	12.3	8	27.5	19	10	0.07	11-1325-04
10 x 3/8"	36.0	30.5	11.0	9	12.3	8	27.5	19	10	0.07	11-1325-05
12 x 1/4"	41.5	32.5	11.0	9	14.3	8	32.0	22	10	0.09	11-1325-06
12 x 3/8"	41.5	32.5	11.0	9	14.3	10	32.0	22	10	0.09	11-1325-07
12 x 1/2"	41.5	32.5	11.0	12	14.3	10	32.0	22	10	0.10	11-1325-08
14 x 1/2"	47.0	36.0	12.0	12	16.3	12	35.0	27	10	0.20	11-1325-09

R-1326
Bite-ring couplings



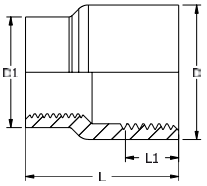
Dim.	L	L1	L2 ISO 7/1	d	d1	H	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4408
6 x 1/8"	40	10.5	14.0	6.2	5	24.0	14	10	0.05	11-1326-01
6 x 1/4"	40	10.5	14.0	6.2	5	24.0	14	10	0.07	11-1326-02
8 x 1/4"	42	10.0	14.0	8.1	6	26.0	17	10	0.07	11-1326-03
10 x 1/4"	44	11.0	14.5	10.2	8	27.5	19	10	0.08	11-1326-04
10 x 3/8"	44	11.0	14.5	10.2	8	27.5	19	10	0.08	11-1326-05
12 x 1/4"	48	11.0	17.0	12.2	8	32.0	22	10	0.09	11-1326-06
12 x 3/8"	48	11.0	17.0	12.2	10	32.0	22	10	0.10	11-1326-07
12 x 1/2"	48	11.0	17.0	12.2	10	32.0	22	10	0.11	11-1326-08

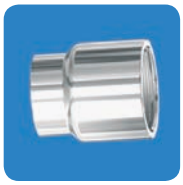
For more information and pressure tables, see www.nordsfittings.com



R-201
Sockets

DN	Dim.	D	L ISO 228/1	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
6	1/8″	14.0	17	10.0	0.02	11-0201-01	11-0201-51
8	1/4″	18.5	25	10.0	0.03	11-0201-02	11-0201-52
10	3/8″	21.5	26	10.0	0.03	11-0201-03	11-0201-53
15	1/2″	26.5	34	10.0	0.07	11-0201-04	11-0201-54
20	3/4″	31.8	36	10.0	0.09	11-0201-05	11-0201-55
25	1″	39.5	43	10.0	0.14	11-0201-06	11-0201-56
32	1 1/4″	48.3	48	6.4	0.21	11-0201-07	11-0201-57
40	1 1/2″	54.5	48	6.4	0.29	11-0201-08	11-0201-58
50	2″	66.3	56	6.4	0.40	11-0201-09	11-0201-59
65	2 1/2″	82.0	65	4.0	0.68	11-0201-10	-
80	3″	95.0	71	4.0	0.97	11-0201-11	-
100	4″	122.0	85	4.0	1.80	11-0201-12	-



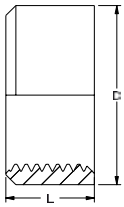


R-202
Reducing sockets

DN	Dim.	L	L1 ISO 228-1	D	D1	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
8 x 6	1/4″x 1/8″	27	12	18.8	14.0	10.0	0.04	11-0202-01	11-0202-51
10 x 8	3/8″x 1/4″	30	12	21.4	19.0	10.0	0.04	11-0202-02	11-0202-52
15 x 8	1/2″x 1/4″	36	16	27.5	19.0	10.0	0.08	11-0202-03	11-0202-53
15 x 10	1/2″x 3/8″	36	16	27.5	23.0	10.0	0.08	11-0202-04	11-0202-54
20 x 10	3/4″x 3/8″	39	17	32.5	23.0	10.0	0.10	11-0202-05	11-0202-55
20 x 15	3/4″x 1/2″	39	17	32.5	28.0	10.0	0.11	11-0202-06	11-0202-56
25 x 15	1″x 1/2″	45	20	39.5	28.0	10.0	0.18	11-0202-07	11-0202-57
25 x 20	1″x 3/4″	45	20	39.5	32.5	10.0	0.15	11-0202-08	11-0202-58
32 x 15	1 1/4″x 1/2″	52	22	49.5	28.0	6.4	0.27	11-0202-19	-
32 x 20	1 1/4″x 3/4″	50	22	49.5	32.5	6.4	0.27	11-0202-09	11-0202-59
32 x 25	1 1/4″x 1″	50	22	49.5	39.5	6.4	0.24	11-0202-10	11-0202-60
40 x 20	1 1/2″x 3/4″	55	22	54.7	32.5	6.4	0.35	11-0202-11	11-0202-61
40 x 25	1 1/2″x 1″	55	22	54.7	39.5	6.4	0.31	11-0202-12	11-0202-62
40 x 32	1 1/2″x 1 1/4″	55	22	54.7	49.5	6.4	0.31	11-0202-13	11-0202-63
50 x 25	2″x 1″	65	27	69.5	39.5	6.4	0.58	11-0202-14	11-0202-64
50 x 32	2″x 1 1/4″	65	27	69.5	49.5	6.4	0.52	11-0202-15	11-0202-65
50 x 40	2″x 1 1/2″	65	27	69.5	55.5	6.4	0.53	11-0202-16	11-0202-66
65 x 50	2 1/2″x 2″	74	32	84.0	69.5	4.0	0.81	11-0202-17	-
80 x 50	3″x 2″	78	35	99.5	69.5	4.0	1.10	11-0202-20	-
80 x 65	3″x 2 1/2″	80	35	99.5	84.0	4.0	1.25	11-0202-18	-

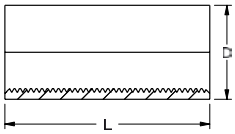
For more information and pressure tables, see www.nordsfittings.com

R-203
Half sockets



DN	Dim.	L ISO 228/1	D	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	10.0	14.0	10.0	0.01	11-0203-01
8	1/4″	10.0	18.5	10.0	0.01	11-0203-02
10	3/8″	12.0	21.5	10.0	0.02	11-0203-03
15	1/2″	15.0	26.5	10.0	0.03	11-0203-04
20	3/4″	17.0	32.5	10.0	0.04	11-0203-05
25	1″	19.5	40.0	10.0	0.06	11-0203-06
32	1 1/4″	22.0	48.3	6.4	0.09	11-0203-07
40	1 1/2″	22.0	54.5	6.4	0.13	11-0203-08
50	2″	26.0	66.3	6.4	0.19	11-0203-09
65	2 1/2″	30.5	82.0	4.0	0.30	11-0203-10
80	3″	34.0	95.0	4.0	0.45	11-0203-11

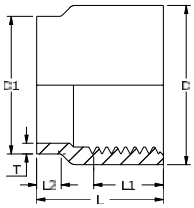
R-402
Long sockets
No stock standard



DN	Dim.	D	L ISO 228/1	Weight kg/pce	Article code BSP-threaded EN 1.4404
6	1/8″	14.0	34	0.03	19-0402-01
		14.0	50	0.03	19-0402-21
		14.0	60	0.04	19-0402-51
8	1/4″	18.5	50	0.06	19-0402-02
		18.5	60	0.07	19-0402-52
10	3/8″	21.5	50	0.06	19-0402-23
		21.5	52	0.07	19-0402-03
		21.5	60	0.08	19-0402-53
		21.5	70	0.09	19-0402-33
		21.5	80	0.10	19-0402-63
15	1/2″	26.3	50	0.10	19-0402-24
		26.3	60	0.12	19-0402-54
		26.3	68	0.13	19-0402-04
		26.3	70	0.13	19-0402-34
		26.3	80	0.15	19-0402-64
		26.3	96	0.18	19-0402-44
20	3/4″	32.6	60	0.15	19-0402-55
		32.6	50	0.12	19-0402-25
		32.6	70	0.18	19-0402-35
		32.6	72	0.18	19-0402-05
		32.6	80	0.21	19-0402-65
		32.6	96	0.25	19-0402-45
25	1″	39.8	60	0.20	19-0402-56
		39.8	70	0.24	19-0402-36
		39.8	80	0.27	19-0402-66
		39.8	86	0.29	19-0402-06
		39.8	96	0.33	19-0402-46
32	1 1/4″	48.3	70	0.30	19-0402-37
		48.3	80	0.36	19-0402-67
		48.3	96	0.42	19-0402-07
40	1 1/2″	55.6	70	0.33	19-0402-38
		55.6	80	0.37	19-0402-68
		55.6	96	0.47	19-0402-08
50	2″	66.3	96	0.58	19-0402-49

Note! Minimum quantity offer on request
For more information and pressure tables, see www.nordsfittings.com

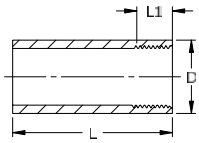
R-404
Welding sockets
No stock standard



DN	Dim.	L	L1 ISO 228-1	L2	D	D1	T	Weight kg/pce	Article code EN 1.4404
8	1/4″	21	12.0	5	18.0	13.5	2.0	0.02	19-0404-02
10	3/8″	23	13.0	5	21.0	17.2	2.0	0.02	19-0404-03
15	1/2″	27	16.0	6	25.0	21.3	2.0	0.03	19-0404-04
20	3/4″	28	17.5	6	32.0	26.9	2.0	0.06	19-0404-05
25	1″	31	20.0	6	39.0	33.7	2.6	0.09	19-0404-06
32	1 1/4″	34	22.5	6	48.0	42.4	2.6	0.13	19-0404-07
40	1 1/2″	36	22.5	8	55.0	48.3	2.6	0.17	19-0404-08
50	2″	40	26.5	8	65.0	60.3	2.6	0.19	19-0404-09

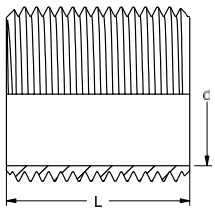
Note! Minimum quantity offer on request

R-408
Welding sockets one side threaded
No stock standard



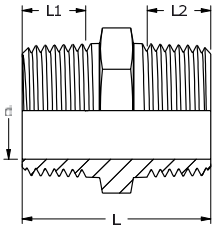
DN	Dim.	D	L	L1 ISO 228/1	Weight kg/pce	Article code BSP-threaded EN 1.4404
8	1/4″	18.5	110.0	11	0.17	19-0408-02
		18.5	100.0	11	0.13	19-0408-22
		18.5	80.0	11	0.75	19-0408-72
10	3/8″	21.5	110.0	12	0.15	19-0408-03
		21.5	100.0	12	0.14	19-0408-33
		21.5	120.0	12	0.16	19-0408-43
		21.5	80.0	12	0.11	19-0408-73
15	1/2″	26.3	115.0	15	0.24	19-0408-04
		26.3	200.0	15	0.43	19-0408-24
		26.3	100.0	15	0.21	19-0408-44
		26.3	120.0	15	0.25	19-0408-54
		26.3	150.0	15	0.31	19-0408-64
		26.3	80.0	15	0.16	19-0408-74
20	3/4″	32.6	115.0	17	0.32	19-0408-05
		32.6	100.0	17	0.28	19-0408-35
		32.6	120.0	17	0.34	19-0408-45
		32.6	150.0	17	0.43	19-0408-55
		32.6	200.0	17	0.58	19-0408-65
		32.6	80.0	17	0.22	19-0408-75
25	1″	39.8	120.0	20	0.46	19-0408-06
		39.8	100.0	20	0.38	19-0408-26
		39.8	150.0	20	0.58	19-0408-46
		39.8	200.0	20	0.78	19-0408-56
		39.8	80.0	20	0.35	19-0408-76
32	1 1/4″	48.3	120.0	22	0.60	19-0408-07
		48.3	100.0	22	0.48	19-0408-27
40	1 1/2″	55.6	120.0	22	0.66	19-0408-08
		55.6	100.0	22	0.55	19-0408-28
50	2″	66.3	120.0	26	0.82	19-0408-09
		66.3	100.0	26	0.68	19-0408-29
65	2 1/2″	82.0	120.0	31	1.10	19-0408-10
80	3″	95.0	120.0	34	1.40	19-0408-11

Note! Minimum quantity offer on request
For more information and pressure tables, see www.nordsfittings.com



R-206
Nipples

DN	Dim.	L ISO 228/1	d	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	16	6.2	10.0	0.01	11-0206-01
8	1/4″	18	8.9	10.0	0.01	11-0206-02
10	3/8″	22	12.6	10.0	0.02	11-0206-03
15	1/2″	25	16.1	10.0	0.02	11-0206-04
20	3/4″	30	21.7	10.0	0.03	11-0206-05
25	1″	35	27.3	10.0	0.06	11-0206-06
32	1 1/4″	38	36.0	6.4	0.07	11-0206-07
40	1 1/2″	38	41.9	6.4	0.08	11-0206-08
50	2″	45	53.1	6.4	0.14	11-0206-09
65	2 1/2″	55	68.9	4.0	0.24	11-0206-10
80	3″	60	80.9	4.0	0.30	11-0206-11

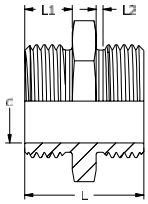


R-207
Hexagonal nipples

DN	Dim.	L	L1 ISO 7/1	L2 ISO 7/1	d	NW	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
6	1/8″	21.0	7.5	7.5	5.0	12	10.0	0.01	11-0207-01	11-0207-51
8	1/4″	28.0	11.0	11.0	7.5	14	10.0	0.02	11-0207-02	11-0207-52
10	3/8″	29.0	11.5	11.5	10.0	19	10.0	0.03	11-0207-03	11-0207-53
15	1/2″	36.0	15.0	15.0	14.0	22	10.0	0.05	11-0207-04	11-0207-54
20	3/4″	41.0	16.5	16.5	19.0	30	10.0	0.09	11-0207-05	11-0207-55
25	1″	46.5	19.0	19.0	24.5	36	10.0	0.13	11-0207-06	11-0207-56
32	1 1/4″	54.0	21.5	21.5	32.0	46	6.4	0.21	11-0207-07	11-0207-57
40	1 1/2″	54.0	21.5	21.5	38.0	50	6.4	0.26	11-0207-08	11-0207-58
50	2″	65.5	25.8	25.8	50.0	65	6.4	0.43	11-0207-09	11-0207-59
65	2 1/2″	76.5	30.3	30.3	65.0	80	4.0	0.63	11-0207-10	-
80	3″	85.0	33.5	33.5	76.0	90	4.0	0.83	11-0207-11	-
100	4″	94.0	34.5	34.5	100.0	126	4.0	2.02	11-0207-12	-

For more information and pressure tables, see www.nordsfittings.com

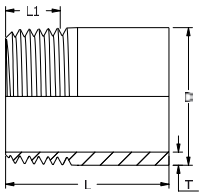
R-207 Z
Hexagonal nipples (parallel thread)
No stock standard



DN	Dim.	L	L1 ISO 228/1	L2 ISO 228/1	d	NW	Weight kg/pce	Article code EN 1.4404
8	1/4″	20.5	6.5	6.5	7.5	17	0.02	19-0207-02
10	3/8″	20.5	6.5	6.5	10.0	22	0.03	19-0207-03
15	1/2″	32.0	11.0	11.0	14.0	27	0.05	19-0207-04
20	3/4″	32.0	11.0	11.0	19.0	32	0.07	19-0207-05
25	1″	35.0	12.0	12.0	24.5	41	0.12	19-0207-06
32	1 1/4″	41.0	14.0	14.0	32.0	50	0.21	19-0207-07
40	1 1/2″	41.0	14.0	14.0	38.0	55	0.23	19-0207-08
50	2″	46.0	16.0	16.0	50.0	65	0.31	19-0207-09

Note! Minimum quantity offer on request

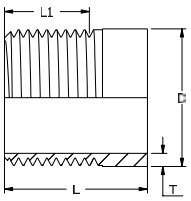
R-208
Welding nipples



DN	Dim.	L	D	L1 ISO 7/1	T	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
6	1/8″	30	10.2	6	2.0	10.0	0.01	11-0208-01	11-0208-51
8	1/4″	30	13.5	9	2.3	10.0	0.02	11-0208-02	11-0208-52
10	3/8″	30	17.2	9	2.3	10.0	0.02	11-0208-03	11-0208-53
15	1/2″	35	21.3	12	2.6	10.0	0.04	11-0208-04	11-0208-54
20	3/4″	40	26.9	13	2.6	10.0	0.05	11-0208-05	11-0208-55
25	1″	40	33.7	15	3.2	10.0	0.08	11-0208-06	11-0208-56
32	1 1/4″	50	42.4	17	3.2	6.4	0.14	11-0208-07	11-0208-57
40	1 1/2″	50	48.3	17	3.2	6.4	0.15	11-0208-08	11-0208-58
50	2″	55	60.3	22	3.6	6.4	0.23	11-0208-09	11-0208-59
65	2 1/2″	60	76.1	24	3.6	4.0	0.32	11-0208-10	-
80	3″	65	88.9	27	4.0	4.0	0.46	11-0208-11	-
100	4″	90	114.3	33	4.0	4.0	0.84	11-0208-12	-

Also available as stock standard in 1.4571

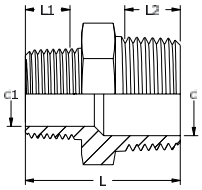
R-208 Z
Welding nipples (parallel thread)
No stock standard



DN	Dim.	L	D	L1 ISO 228/1	T	Weight kg/pce	Article code EN 1.4404
8	1/4″	25	13.5	14	2.3	0.01	19-0208-02
10	3/8″	25	17.2	15	2.3	0.02	19-0208-03
15	1/2″	30	21.3	19	2.6	0.03	19-0208-04
20	3/4″	30	26.9	20	2.6	0.03	19-0208-05
25	1″	35	33.7	24	3.2	0.06	19-0208-06
32	1 1/4″	35	42.4	25	3.2	0.08	19-0208-07
40	1 1/2″	35	48.3	26	3.2	0.08	19-0208-08
50	2″	40	60.3	28	3.6	0.15	19-0208-09

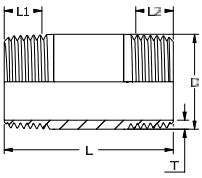
Note! Minimum quantity offer on request

For more information and pressure tables, see www.nordsfittings.com



R-209
Reducing nipples

DN	Dim.	L	L1 ISO 7/1	L2 ISO 7/1	d	d1	NW	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
8 x 6	1/4"x 1/8"	25.0	7.5	11.0	7.5	5.0	14	0.02	11-0209-01	11-0209-51
10 x 6	3/8"x 1/8"	25.5	7.5	11.5	10.0	5.0	19	0.03	11-0209-02	11-0209-52
10 x 8	3/8"x 1/4"	29.0	11.0	11.5	10.0	7.5	19	0.03	11-0209-03	11-0209-53
15 x 6	1/2"x 1/8"	30.0	7.5	15.0	14.0	5.0	22	0.05	11-0209-04	11-0209-54
15 x 8	1/2"x 1/4"	33.0	11.0	15.0	14.0	7.5	22	0.04	11-0209-05	11-0209-55
15 x 10	1/2"x 3/8"	33.5	11.5	15.0	14.0	10.0	22	0.05	11-0209-06	11-0209-56
20 x 8	3/4"x 1/4"	37.0	11.0	16.5	19.0	7.5	30	0.07	11-0209-07	11-0209-57
20 x 10	3/4"x 3/8"	37.0	11.5	16.5	19.0	10.0	30	0.08	11-0209-08	11-0209-58
20 x 15	3/4"x 1/2"	40.5	15.0	16.5	19.0	14.0	30	0.09	11-0209-09	11-0209-59
25 x 8	1"x 1/4"	40.0	11.0	19.0	24.5	7.5	36	0.11	11-0209-10	11-0209-60
25 x 10	1"x 3/8"	40.5	11.5	19.0	24.5	10.0	36	0.13	11-0209-11	11-0209-61
25 x 15	1"x 1/2"	44.0	15.0	19.0	24.5	14.0	36	0.12	11-0209-12	11-0209-62
25 x 20	1"x 3/4"	45.5	16.5	19.0	24.5	19.0	36	0.13	11-0209-13	11-0209-63
32 x 15	1 1/4"x 1/2"	48.0	15.0	21.5	31.0	14.0	46	0.20	11-0209-14	11-0209-64
32 x 20	1 1/4"x 3/4"	49.5	16.5	21.5	31.0	19.0	46	0.25	11-0209-15	11-0209-65
32 x 25	1 1/4"x 1"	52.0	19.0	21.5	31.0	24.5	46	0.26	11-0209-16	11-0209-66
40 x 15	1 1/2"x 1/2"	48.0	15.0	21.5	38.0	14.0	50	0.28	11-0209-17	11-0209-67
40 x 20	1 1/2"x 3/4"	49.0	16.5	21.5	38.0	19.0	50	0.29	11-0209-27	-
40 x 25	1 1/2"x 1"	52.0	19.0	21.5	38.0	24.5	50	0.30	11-0209-18	11-0209-68
40 x 32	1 1/2"x 1 1/4"	54.0	21.5	21.5	38.0	31.0	50	0.29	11-0209-19	11-0209-69
50 x 25	2"x 1"	59.0	19.0	25.8	49.0	24.5	65	0.50	11-0209-20	11-0209-70
50 x 32	2"x 1 1/4"	62.0	21.5	25.8	49.0	31.0	65	0.50	11-0209-21	11-0209-71
50 x 40	2"x 1 1/2"	62.0	21.5	25.8	49.0	38.0	65	0.48	11-0209-22	11-0209-72
65 x 20	2 1/2"x 3/4"	63.0	16.5	30.3	63.0	19.0	80	0.74	11-0209-23	-
65 x 50	2 1/2"x 2"	73.0	25.8	30.3	63.0	49.0	80	0.82	11-0209-24	-
80 x 50	3"x 2"	78.0	25.8	33.5	75.0	49.0	90	1.08	11-0209-25	-
80 x 65	3"x 2 1/2"	82.0	30.3	33.5	75.0	63.0	90	0.93	11-0209-26	-

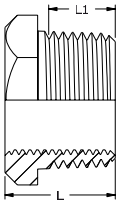


R-210
Barrel nipples

DN	Dim.	L	L1 ISO 7/1	L2 ISO 7/1	D	T	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
6	1/8"	40	6	6	10.2	2.0	10	0.02	11-0210-01	11-0210-51
8	1/4"	40	9	9	13.5	2.3	10	0.02	11-0210-02	11-0210-52
10	3/8"	40	9	9	17.2	2.3	10	0.03	11-0210-03	11-0210-53
15	1/2"	60	12	12	21.3	2.6	10	0.07	11-0210-04	11-0210-54
20	3/4"	60	13	13	26.9	2.6	10	0.07	11-0210-05	11-0210-55
25	1"	60	15	15	33.7	3.2	10	0.12	11-0210-06	11-0210-56
32	1 1/4"	80	17	17	42.4	3.2	6.4	0.21	11-0210-07	11-0210-57
40	1 1/2"	80	17	17	48.3	3.2	6.4	0.24	11-0210-08	11-0210-58
50	2"	100	22	22	60.3	3.6	6.4	0.42	11-0210-09	11-0210-59
65	2 1/2"	100	24	24	76.1	3.6	4	0.53	11-0210-10	-
80	3"	120	27	27	88.9	4.0	4	0.76	11-0210-11	-
100	4"	150	33	33	114.3	4.0	4	1.30	11-0210-12	-

For more information and pressure tables, see www.nordsfittings.com

Also available as stock standard in 1.4571

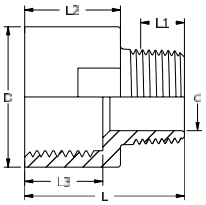


R-211
Bushings

DN	Dim.	L ISO 228/1	L1 ISO 7/1	NW	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
8 x 6	1/4″x 1/8″	17.0	11.0	14	10.0	0.02	11-0211-01	11-0211-51
10 x 6	3/8″x 1/8″	17.5	11.5	19	10.0	0.03	11-0211-02	11-0211-52
10 x 8	3/8″x 1/4″	17.5	11.5	19	10.0	0.02	11-0211-03	11-0211-53
15 x 6	1/2″x 1/8″	21.0	15.0	22	10.0	0.05	11-0211-04	11-0211-54
15 x 8	1/2″x 1/4″	21.0	15.0	22	10.0	0.04	11-0211-05	11-0211-55
15 x 10	1/2″x 3/8″	21.0	15.0	22	10.0	0.02	11-0211-06	11-0211-56
20 x 8	3/4″x 1/4″	24.5	16.5	30	10.0	0.09	11-0211-07	11-0211-57
20 x 10	3/4″x 3/8″	24.5	16.5	30	10.0	0.07	11-0211-08	11-0211-58
20 x 15	3/4″x 1/2″	24.5	16.5	30	10.0	0.05	11-0211-09	11-0211-59
25 x 8	1″x 1/4″	27.0	19.0	36	10.0	0.15	11-0211-10	11-0211-60
25 x 10	1″x 3/8″	27.0	19.0	36	10.0	0.15	11-0211-11	11-0211-61
25 x 15	1″x 1/2″	27.0	19.0	36	10.0	0.12	11-0211-12	11-0211-62
25 x 20	1″x 3/4″	27.0	19.0	36	10.0	0.07	11-0211-13	11-0211-63
32 x 15	1 1/4″x 1/2″	32.5	21.5	46	6.4	0.30	11-0211-26	-
32 x 20	1 1/4″x 3/4″	32.5	21.5	46	6.4	0.19	11-0211-14	11-0211-64
32 x 25	1 1/4″x 1″	32.5	21.5	46	6.4	0.12	11-0211-15	11-0211-65
40 x 15	1 1/2″x 1/2″	32.5	21.5	50	6.4	0.35	11-0211-16	11-0211-66
40 x 20	1 1/2″x 3/4″	32.5	21.5	50	6.4	0.36	11-0211-17	11-0211-67
40 x 25	1 1/2″x 1″	32.5	21.5	50	6.4	0.26	11-0211-18	11-0211-68
40 x 32	1 1/2″x 1 1/4″	32.5	21.5	50	6.4	0.13	11-0211-19	11-0211-69
50 x 25	2″x 1″	40.0	26.0	65	6.4	0.68	11-0211-20	11-0211-70
50 x 32	2″x 1 1/4″	40.0	26.0	65	6.4	0.52	11-0211-21	11-0211-71
50 x 40	2″x 1 1/2″	40.0	26.0	65	6.4	0.40	11-0211-22	11-0211-72
65 x 50	2 1/2″x 2″	46.0	30.0	80	4.0	0.54	11-0211-23	-
80 x 50	3″x 2″	51.5	33.5	90	4.0	1.24	11-0211-24	-
80 x 65	3″x 2 1/2″	51.5	33.5	90	4.0	0.74	11-0211-25	-

For more information and pressure tables, see www.nordsfittings.com

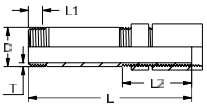
R-212
Reducing sockets - nipples
No stock standard



DN	Dim.	L	L1 ISO 7/1	L2	L3 ISO 228/1	D	d	Weight kg/pce	Article code EN 1.4404
8 x 6	1/4″x 1/8″	28.0	6	20.5	15.5	17.5	5.0	0.03	19-0212-01
10 x 6	3/8″x 1/8″	26.5	6	19.0	14.0	21.5	5.0	0.04	19-0212-24
10 x 8	3/8″x 1/4″	30.0	9	19.0	14.0	21.5	7.5	0.04	19-0212-02
15 x 8	1/2″x 1/4″	32.0	9	21.0	16.0	29.5	7.5	0.08	19-0212-03
15 x 10	1/2″x 3/8″	32.0	9	20.5	15.5	29.5	10.0	0.08	19-0212-04
20 x 10	3/4″x 3/8″	35.0	9	23.5	18.5	34.5	10.0	0.10	19-0212-05
20 x 15	3/4″x 1/2″	37.0	12	22.0	17.0	34.5	14.0	0.11	19-0212-06
25 x 10	1″x 3/8″	40.0	9	28.5	23.5	39.5	10.0	0.13	19-0212-07
25 x 15	1″x 1/2″	42.0	12	27.0	22.0	39.5	14.0	0.13	19-0212-08
25 x 20	1″x 3/4″	45.0	13	28.5	22.0	39.5	19.0	0.14	19-0212-09
32 x 15	1 1/4″x 1/2″	48.0	9	33.0	28.0	49.5	14.0	0.22	19-0212-10
32 x 20	1 1/4″x 3/4″	48.0	13	30.0	25.0	49.5	19.0	0.22	19-0212-11
32 x 25	1 1/4″x 1″	50.0	15	31.0	26.0	49.5	24.5	0.24	19-0212-12
40 x 20	1 1/2″x 3/4″	52.0	13	35.5	30.5	54.5	19.0	0.25	19-0212-13
40 x 25	1 1/2″x 1″	52.0	15	33.0	28.0	54.5	24.5	0.26	19-0212-14
40 x 32	1 1/2″x 1 1/4″	54.0	17	32.5	32.0	54.5	27.5	0.27	19-0212-15
50 x 25	2″x 1″	56.0	15	37.0	32.0	69.5	24.5	0.45	19-0212-16
50 x 32	2″x 1 1/4″	56.0	17	34.5	29.5	69.5	32.0	0.45	19-0212-17
50 x 40	2″x 1 1/2″	58.0	17	36.5	31.5	69.5	38.0	0.47	19-0212-18
65 x 32	2 1/2″x 1 1/4″	60.0	17	38.5	33.5	84.5	32.0	0.60	19-0212-19
65 x 40	2 1/2″x 1 1/2″	60.0	17	38.5	33.5	84.5	38.0	0.62	19-0212-20
65 x 50	2 1/2″x 2″	65.0	22	38.5	34.0	84.5	50.0	0.62	19-0212-21
80 x 50	3″x 2″	68.0	22	42.0	37.0	99.5	50.0	0.88	19-0212-22
80 x 65	3″x 2 1/2″	68.0	24	42.0	37.0	99.5	65.0	0.89	19-0212-23

Note! Minimum quantity offer on request

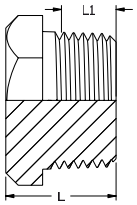
R-228
Long screws



DN	Dim.	L	L1 ISO 7/1	L2 ISO 228/1	D	T	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	75	6	32	10.2	2.0	10.0	0.05	11-0228-01
8	1/4″	80	9	35	13.5	2.3	10.0	0.12	11-0228-02
10	3/8″	100	9	40	17.2	2.3	10.0	0.11	11-0228-03
15	1/2″	100	12	50	21.3	2.6	10.0	0.17	11-0228-04
20	3/4″	120	13	55	26.9	2.6	10.0	0.26	11-0228-05
25	1″	140	15	60	33.7	3.2	10.0	0.46	11-0228-06
32	1 1/4″	150	17	70	42.4	3.2	6.4	0.67	11-0228-07
40	1 1/2″	150	17	70	48.3	3.2	6.4	0.79	11-0228-08
50	2″	170	22	81	60.3	3.6	6.4	1.08	11-0228-09
65	2 1/2″	180	24	92	76.1	3.6	4.0	1.58	11-0228-10
80	3″	200	27	101	88.9	4.0	4.0	1.65	11-0228-11

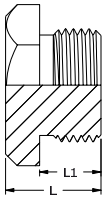
For more information and pressure tables, see www.nordsfittings.com

R-235
Plugs



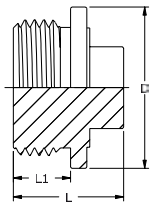
DN	Dim.	L	L1 ISO 7/1	NW	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4404	Article code NPT-threaded EN 1.4404
6	1/8″	14	8.0	13	10.0	0.01	11-0235-01	11-0235-51
8	1/4″	17	11.0	14	10.0	0.02	11-0235-02	11-0235-52
10	3/8″	17	11.0	19	10.0	0.03	11-0235-03	11-0235-53
15	1/2″	21	15.0	22	10.0	0.05	11-0235-04	11-0235-54
20	3/4″	24	16.0	30	10.0	0.11	11-0235-05	11-0235-55
25	1″	27	18.0	36	10.0	0.19	11-0235-06	11-0235-56
32	1 1/4″	32	21.5	46	6.4	0.36	11-0235-07	11-0235-57
40	1 1/2″	33	21.5	50	6.4	0.48	11-0235-08	11-0235-58
50	2″	38	25.5	65	6.4	0.90	11-0235-09	11-0235-59
65	2 1/2″	45	30.5	80	4.0	1.64	11-0235-10	-
80	3″	48	33.5	90	4.0	2.32	11-0235-11	-

R-236
Plugs (parallel thread)



DN	Dim.	L	L1 ISO 228/1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	13	7.0	14	10	0.01	11-0236-01
8	1/4″	16	10.0	19	10	0.02	11-0236-02
10	3/8″	17	11.0	22	10	0.04	11-0236-03
15	1/2″	22	14.0	27	10	0.07	11-0236-04
20	3/4″	24	15.8	32	10	0.12	11-0236-05
25	1″	28	18.0	41	10	0.22	11-0236-06

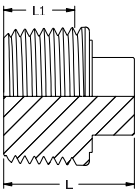
R-237
Plugs (parallel thread)



DN	Dim.	L	L1 ISO 228/1	D	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
25	1″	27	14.0	39.5	20	10.0	0.15	11-0237-06
32	1 1/4″	33	19.0	49.5	22	6.4	0.30	11-0237-07
40	1 1/2″	35	20.5	59.0	25	6.4	0.42	11-0237-08
50	2″	36	21.0	70.0	30	6.4	0.66	11-0237-09
65	2 1/2″	42	25.0	88.0	40	4.0	1.23	11-0237-10
80	3″	42	25.0	100.0	45	4.0	1.65	11-0237-11

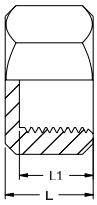
For more information and pressure tables, see www.nordsfittings.com

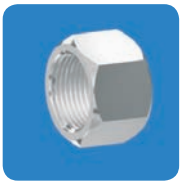
R-238
Plugs



DN	Dim.	L	L1 ISO 7/1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	16	6	7	10.0	0.01	11-0238-01
8	1/4″	18	9	9	10.0	0.02	11-0238-02
10	3/8″	20	9	10	10.0	0.03	11-0238-03
15	1/2″	22	12	11	10.0	0.04	11-0238-04
20	3/4″	27	13	16	10.0	0.09	11-0238-05
25	1″	32	15	19	10.0	0.16	11-0238-06
32	1 1/4″	36	17	22	6.4	0.29	11-0238-07
40	1 1/2″	37	17	22	6.4	0.39	11-0238-08
50	2″	43	22	27	6.4	0.69	11-0238-09
65	2 1/2″	46	24	32	4.0	1.17	11-0238-10
80	3″	50	27	36	4.0	1.74	11-0238-11

R-231
Hexagonal caps

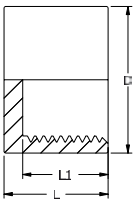




DN	Dim.	L	L1 ISO 228/1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	13	9.5	14	10.0	0.01	11-0231-01
8	1/4″	17	13.5	19	10.0	0.01	11-0231-02
10	3/8″	18	14.5	22	10.0	0.03	11-0231-03
15	1/2″	22	18.5	27	10.0	0.06	11-0231-04
20	3/4″	24	20.0	32	10.0	0.08	11-0231-05
25	1″	28	23.5	41	10.0	0.11	11-0231-06
32	1 1/4″	30	25.0	50	6.4	0.24	11-0231-07
40	1 1/2″	31	25.5	55	6.4	0.25	11-0231-08
50	2″	35	28.0	70	6.4	0.52	11-0231-09
65	2 1/2″	40	33.0	85	4.0	0.74	11-0231-10
80	3″	45	38.0	95	4.0	0.86	11-0231-11
100	4″	45	38.0	126	4.0	1.74	11-0231-12

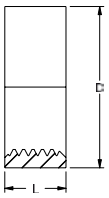
For more information and pressure tables, see www.nordsfittings.com

R-232
Round caps



DN	Dim.	L	L1 ISO 228/1	D	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	13	9.5	14.5	10.0	0.02	11-0232-01
8	1/4″	17	13.5	18.0	10.0	0.03	11-0232-02
10	3/8″	18	14.0	21.5	10.0	0.03	11-0232-03
15	1/2″	22	18.0	27.0	10.0	0.05	11-0232-04
20	3/4″	24	19.5	33.5	10.0	0.09	11-0232-05
25	1″	28	23.0	39.5	10.0	0.14	11-0232-06
32	1 1/4″	31	25.5	50.0	6.4	0.22	11-0232-07
40	1 1/2″	31	25.5	57.0	6.4	0.28	11-0232-08
50	2″	37	30.0	69.5	6.4	0.48	11-0232-09
65	2 1/2″	42	34.5	84.5	4.0	0.75	11-0232-10
80	3″	46	38.0	100.0	4.0	1.13	11-0232-11

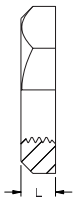
R-216
Round nuts

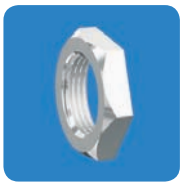


DN	Dim.	L ISO 228/1	D	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	9	14.0	10.0	0.01	11-0216-01
8	1/4″	10	18.5	10.0	0.02	11-0216-02
10	3/8″	10	21.5	10.0	0.02	11-0216-03
15	1/2″	12	26.5	10.0	0.03	11-0216-04
20	3/4″	13	32.5	10.0	0.04	11-0216-05
25	1″	15	40.0	10.0	0.05	11-0216-06
32	1 1/4″	17	48.3	6.4	0.10	11-0216-07
40	1 1/2″	18	54.5	6.4	0.11	11-0216-08
50	2″	19	66.3	6.4	0.15	11-0216-09
65	2 1/2″	23	82.0	4.0	0.26	11-0216-10
80	3″	25	95.0	4.0	0.35	11-0216-11

For more information and pressure tables, see www.nordsfittings.com

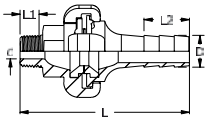
R-217
Hexagonal nuts





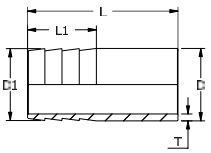
DN	Dim.	L ISO 228/1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	7	17	10.0	0.01	11-0217-01
8	1/4″	8	22	10.0	0.02	11-0217-22
10	3/8″	9	27	10.0	0.03	11-0217-23
15	1/2″	9	32	10.0	0.04	11-0217-24
20	3/4″	10	36	10.0	0.05	11-0217-25
25	1″	11	46	10.0	0.08	11-0217-26
32	1 1/4″	13	55	6.4	0.13	11-0217-07
40	1 1/2″	13	60	6.4	0.13	11-0217-08
50	2″	14	75	6.4	0.22	11-0217-09
65	2 1/2″	16	95	4.0	0.40	11-0217-10
80	3″	19	105	4.0	0.48	11-0217-11

R-140
Claw couplings



DN	Dim.	L	L1 ISO7/1	L2	D	d	Design pressure Mpa	Weight kg/pce	Article code EN 1.4408
10	3/8″	109	15	20	10.5	8	10	0.37	11-0140-03
15	1/2″	109	15	20	14.6	10	10	0.38	11-0140-04
20	3/4″	109	15	30	20.5	15	10	0.40	11-0140-05

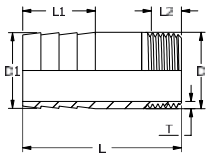
R-141
Hose nipples



DN	Dim.	L	L1	D	D1	T	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
8	1/4″	70	32	13.5	13.3	2.3	10.0	0.04	11-0141-02
10	3/8″	70	32	17.2	17.0	2.3	10.0	0.05	11-0141-03
15	1/2″	70	32	21.3	20.8	2.6	10.0	0.07	11-0141-04
20	3/4″	70	32	26.9	26.7	2.6	10.0	0.10	11-0141-05
25	1″	70	32	33.7	33.4	3.2	10.0	0.15	11-0141-06
32	1 1/4″	70	32	42.4	42.2	3.2	6.4	0.19	11-0141-07
40	1 1/2″	100	32	48.3	48.0	3.2	6.4	0.33	11-0141-08
50	2″	100	32	60.3	60.0	3.6	6.4	0.47	11-0141-09

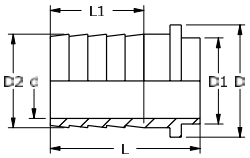
For more information and pressure tables, see www.nordsfittings.com

R-142
Hose nipples



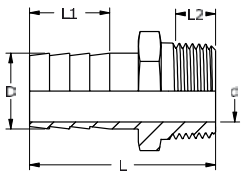
DN	Dim.	L	L1	L2 ISO 7/1	D	D1	T	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
8	1/4″	70	32	9	13.5	13.0	2.3	10.0	0.03	11-0142-02
10	3/8″	70	32	9	17.2	17.0	2.3	10.0	0.05	11-0142-03
15	1/2″	70	32	12	21.3	20.8	2.6	10.0	0.07	11-0142-04
20	3/4″	70	32	13	26.9	26.7	2.6	10.0	0.08	11-0142-05
25	1″	70	32	15	33.7	33.4	3.2	10.0	0.12	11-0142-06
32	1 1/4″	70	32	17	42.4	42.2	3.2	6.4	0.17	11-0142-07
40	1 1/2″	100	32	17	48.3	48.0	3.2	6.4	0.29	11-0142-08
50	2″	100	32	22	60.3	60.0	3.6	6.4	0.41	11-0142-09

R-143
Hose nipples



DN	Dim.	L	L1	D	D1	D2	d	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
8	1/4″	32	25	11.0	6.0	7.5	4.5	10.0	0.01	11-0143-02
10	3/8″	34	25	14.0	10.0	10.5	7.0	10.0	0.01	11-0143-03
15	1/2″	40	25	18.0	13.0	13.5	10.0	10.0	0.02	11-0143-04
20	3/4″	40	25	23.5	18.5	20.0	15.5	10.0	0.04	11-0143-05
25	1″	40	25	30.0	23.0	25.0	20.0	10.0	0.05	11-0143-06
32	1 1/4″	61	35	38.0	30.0	32.0	25.0	6.4	0.14	11-0143-07
40	1 1/2″	61	35	44.0	38.0	39.0	32.0	6.4	0.17	11-0143-08
50	2″	83	50	55.0	47.0	50.0	42.0	6.4	0.35	11-0143-09

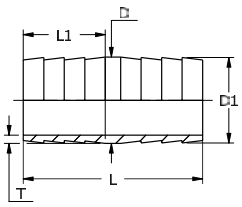
R-144
Hose nipples



DN	Dim.	L	L1	L2 ISO 7/1	D	d	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	36	17.5	10.0	6.5	3.5	14	10.0	0.02	11-0144-01
8	1/4″	40	20.0	11.0	8.5	4.5	14	10.0	0.02	11-0144-02
10	3/8″	42	20.0	12.5	11.0	7.0	19	10.0	0.04	11-0144-03
15	1/2″	48	25.0	15.0	14.0	10.0	22	10.0	0.06	11-0144-04
20	3/4″	56	25.0	16.5	21.0	16.0	30	10.0	0.10	11-0144-05
25	1″	65	35.0	19.0	26.5	21.5	36	10.0	0.16	11-0144-06
32	1 1/4″	75	40.0	23.5	33.0	25.0	46	6.4	0.35	11-0144-07
40	1 1/2″	78	40.0	21.5	41.0	32.0	50	6.4	0.43	11-0144-08
50	2″	96	40.0	25.8	51.0	42.0	65	6.4	0.78	11-0144-09

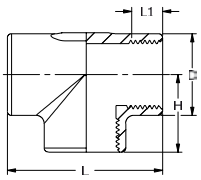
For more information and pressure tables, see www.nordsfittings.com

R-146
Double hose nipples



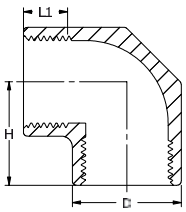
DN	D	L	L1	D1	T	Weight kg/pce	Article code EN 1.4404
8	13.5	70	32	13.3	2.3	0.03	19-0146-02
10	17.2	70	32	17.0	2.3	0.04	19-0146-03
15	21.3	70	32	20.8	2.6	0.06	19-0146-04
20	26.9	70	32	26.7	2.6	0.08	19-0146-05
25	33.7	70	32	33.4	3.2	0.13	19-0146-06
32	42.4	70	32	42.2	3.2	0.16	19-0146-07
40	48.3	70	32	48.0	3.2	0.26	19-0146-08
50	60.3	70	32	60.0	3.6	0.37	19-0146-09

R-221
Tees



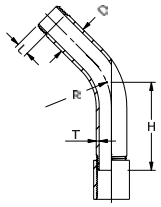
DN	Dim.	L	L1 ISO228/1	H	D	Design pressure Mpa	Weight kg/pce	Article Code BSP-threaded EN 1.4408	Article Code NPT-threaded EN 1.4408
6	1/8″	38.0	12	19	14.0	10.0	0.04	11-0221-01	11-0221-51
8	1/4″	42.0	13	21	17.5	10.0	0.05	11-0221-02	11-0221-52
10	3/8″	50.0	15	25	21.6	10.0	0.08	11-0221-03	11-0221-53
15	1/2″	56.0	16	28	27.0	10.0	0.15	11-0221-04	11-0221-54
20	3/4″	67.5	18	34	33.0	10.0	0.26	11-0221-05	11-0221-55
25	1″	76.0	20	38	40.0	10.0	0.37	11-0221-06	11-0221-56
32	1 1/4″	90.0	22	45	51.0	6.4	0.61	11-0221-07	11-0221-57
40	1 1/2″	100.0	24	50	57.6	6.4	0.91	11-0221-08	11-0221-58
50	2″	116.0	27	58	67.8	6.4	1.18	11-0221-09	11-0221-59
65	2 1/2″	150.0	30	75	84.0	4.0	1.88	11-0221-10	–
80	3″	160.0	34	80	98.0	4.0	3.37	11-0221-11	–

R-222
Elbows



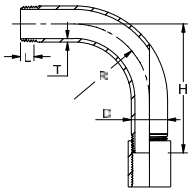
DN	Dim.	H	L1 ISO228/1	D	Design pressure Mpa	Weight kg/pce	Article code BSP-threaded EN 1.4408	Article code NPT-threaded EN 1.4408
6	1/8″	19	12	14.0	10.0	0.03	11-0222-01	11-0222-51
8	1/4″	21	13	17.5	10.0	0.04	11-0222-02	11-0222-52
10	3/8″	25	15	21.6	10.0	0.06	11-0222-03	11-0222-53
15	1/2″	28	16	27.0	10.0	0.11	11-0222-04	11-0222-54
20	3/4″	34	18	33.3	10.0	0.17	11-0222-05	11-0222-55
25	1″	38	20	40.0	10.0	0.29	11-0222-06	11-0222-56
32	1 1/4″	45	22	51.0	6.4	0.46	11-0222-07	11-0222-57
40	1 1/2″	50	24	57.6	6.4	0.52	11-0222-08	11-0222-58
50	2″	58	27	68.0	6.4	0.95	11-0222-09	11-0222-59
65	2 1/2″	75	30	84.0	4.0	1.57	11-0222-10	–
80	3″	85	34	98.0	4.0	2.28	11-0222-11	–

For more information and pressure tables, see www.nordsfittings.com



R-225
Bends 45°

DN	Dim.	D	T	H	L ISO7/1	Radius	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	10.2	2.0	45	9	27.5	10.0	0.05	11-0225-01
8	1/4″	13.5	2.3	50	11	28.5	10.0	0.09	11-0225-02
10	3/8″	17.2	2.3	60	12	35.0	10.0	0.14	11-0225-03
15	1/2″	21.3	2.6	65	15	45.0	10.0	0.22	11-0225-04
20	3/4″	26.9	2.6	85	16	57.5	10.0	0.36	11-0225-05
25	1″	33.7	3.2	100	19	72.5	10.0	0.63	11-0225-06
32	1 1/4″	42.4	3.2	115	21	92.5	6.4	0.94	11-0225-07
40	1 1/2″	48.3	3.2	135	21	107.5	6.4	1.27	11-0225-08
50	2″	60.3	3.6	160	25	135.0	6.4	2.07	11-0225-09
65	2 1/2″	76.1	3.6	200	30	175.0	4.0	3.29	11-0225-10
80	3″	88.9	4.0	240	33	205.0	4.0	5.00	11-0225-11

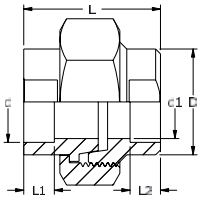


R-226
Bends 90°

DN	Dim.	H	L ISO 7/1	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	50	9	10.0	0.05	11-0226-01
8	1/4″	60	11	10.0	0.10	11-0226-02
10	3/8″	70	12	10.0	0.15	11-0226-03
15	1/2″	80	15	10.0	0.23	11-0226-04
20	3/4″	100	16	10.0	0.35	11-0226-05
25	1″	120	19	10.0	0.61	11-0226-06
32	1 1/4″	140	21	6.4	0.93	11-0226-07
40	1 1/2″	160	21	6.4	1.18	11-0226-08
50	2″	190	25	6.4	1.95	11-0226-09
65	2 1/2″	240	30	4.0	3.27	11-0226-10
80	3″	290	33	4.0	4.91	11-0226-11

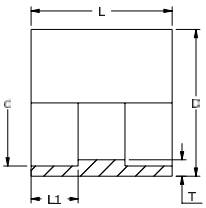
For more information and pressure tables, see www.nordsfittings.com

I-131
Couplings socket welding



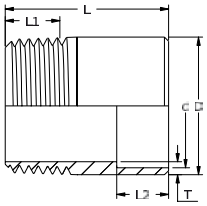
Dim.	L	L1	L2	D	d	d1	NW	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
10.0-10.2	32	8.0	8.0	15.0	10.30	8.5	24	10.0	0.06	12-0131-01
12.0	38	8.0	10.0	20.5	12.10	10.0	30	10.0	0.12	12-0131-02
14.0	38	10.0	10.0	20.5	14.10	12.0	30	10.0	0.11	12-0131-03
17.0-17.2	41	10.0	10.0	24.0	17.40	15.0	38	10.0	0.17	12-0131-04
20.0	46	10.0	10.0	29.0	20.20	18.0	43	10.0	0.24	12-0131-05
21.3	46	10.0	10.0	29.0	21.50	19.3	43	10.0	0.24	12-0131-06
26.9	50	12.7	12.7	35.0	27.10	24.0	50	10.0	0.34	12-0131-07
28.0	50	12.7	12.7	35.0	28.25	25.0	50	10.0	0.33	12-0131-08
33.7	56	12.7	12.7	44.0	33.70	30.5	60	6.4	0.55	12-0131-09
35.0	56	12.7	12.7	44.0	35.25	32.0	60	6.4	0.53	12-0131-10
42.4	62	12.7	12.7	52.0	42.70	39.5	68	6.4	0.69	12-0131-11
43.0	62	12.7	12.7	52.0	43.30	40.0	68	6.4	0.70	12-0131-12
48.3	64	12.7	12.7	58.0	48.60	45.3	74	6.4	0.85	12-0131-13
60.3	67	16.0	16.0	71.5	60.70	57.2	88	6.4	1.17	12-0131-14
76.1	73	16.0	16.0	88.0	76.50	72.1	110	6.4	1.40	12-0131-15

I-201
Sockets socket welding



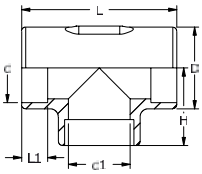
Dim.	L	L1	D	d	T	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
10.0-10.2	25	8.0	13.5	10.3	2.3	10.0	0.01	12-0201-01
12.0	25	10.0	16.0	12.3	3.0	10.0	0.02	12-0201-02
13.5	26	10.0	18.5	13.8	3.4	10.0	0.03	12-0201-03
14.0	26	10.0	18.5	14.3	3.4	10.0	0.03	12-0201-04
17.0-17.2	26	10.0	21.5	17.5	3.1	10.0	0.03	12-0201-05
20.0	30	10.0	26.5	20.3	3.8	10.0	0.07	12-0201-07
21.3	30	10.0	26.5	21.6	3.8	10.0	0.05	12-0201-08
26.9	35	12.7	32.0	27.2	4.1	10.0	0.06	12-0201-09
28.0	35	12.7	32.0	28.3	3.8	10.0	0.07	12-0201-10
33.7	38	12.7	40.0	34.0	4.4	10.0	0.12	12-0201-11
35.0	38	12.7	40.0	35.3	3.8	6.4	0.10	12-0201-12
42.4	38	12.7	48.3	42.7	4.5	6.4	0.10	12-0201-13
43.0	38	12.7	48.3	43.3	4.2	6.4	0.14	12-0201-14
48.3	38	12.7	54.5	48.8	4.7	6.4	0.20	12-0201-15
60.3	47	16.0	66.3	60.8	4.7	6.4	0.32	12-0201-16
76.1	47	16.0	82.0	76.6	5.0	4.0	0.30	12-0201-17

For more information and pressure tables, see www.nordsfittings.com



I-208
Nipples socket welding

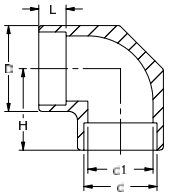
DN	Dim.	L	L1 ISO 7/1	L2	D	d	T	Design pressure Mpa	Weight kg/pce	Article code EN 1.4404
6	1/8″	30	6	8.0	10.2	8.20	2.0	10.0	0.01	12-0208-01
8	1/4″	30	9	8.0	13.5	10.30	2.3	10.0	0.02	12-0208-02
8	1/4″	30	9	10.0	16.0	12.10	3.5	10.0	0.02	12-0208-03
10	3/8″	30	9	10.0	17.2	14.10	2.3	10.0	0.02	12-0208-04
15	1/2″	35	12	10.0	21.5	15.20	4.5	10.0	0.06	12-0208-05
15	1/2″	35	12	10.0	21.5	17.40	3.1	10.0	0.06	12-0208-06
20	3/4″	40	13	10.0	26.5	20.20	3.8	10.0	0.07	12-0208-07
20	3/4″	40	13	12.7	26.5	21.50	3.8	10.0	0.07	12-0208-08
20	3/4″	40	13	12.7	26.5	23.20	3.8	10.0	0.06	12-0208-09
25	1″	40	15	12.7	35.0	25.20	6.0	10.0	0.15	12-0208-10
25	1″	40	15	12.7	35.0	28.25	5.0	10.0	0.13	12-0208-11
25	1″	40	15	12.7	33.7	30.25	3.2	10.0	0.13	12-0208-12
32	1 1/4″	50	17	12.7	45.0	35.25	6.5	6.4	0.25	12-0208-13
32	1 1/4″	50	17	12.7	42.4	38.25	3.2	6.4	0.30	12-0208-14
40	1 1/2″	50	17	12.7	48.3	43.30	4.5	6.4	0.35	12-0208-15
50	2″	50	22	15.7	63.0	53.30	6.5	6.4	0.37	12-0208-16



I-221
Tees socket welding

Dim.	L	L1	D	d	d1	H	Design pressure Mpa	Weight kg/pce	Article code EN 1.4408
10.0-10.2	38.0	10.0	14.0	10.3	8.7	19	10.0	0.03	12-0221-01
12.0	42.0	10.0	17.5	12.1	11.6	21	10.0	0.06	12-0221-02
13.5	42.0	10.0	17.5	13.6	11.6	21	10.0	0.05	12-0221-03
14.0	42.0	10.0	17.5	14.1	11.6	21	10.0	0.05	12-0221-04
17.0-17.2	50.0	10.0	21.6	17.4	15.2	25	10.0	0.08	12-0221-05
20.0	56.0	10.0	27.0	20.2	19.0	28	10.0	0.16	12-0221-06
21.3	56.0	10.0	27.0	21.5	19.0	28	10.0	0.13	12-0221-07
26.9	67.5	12.7	33.0	27.2	24.4	34	10.0	0.21	12-0221-08
28.0	67.5	12.7	33.0	28.3	24.4	34	10.0	0.23	12-0221-09
33.7	76.0	12.7	40.0	34.0	30.2	38	10.0	0.31	12-0221-10
35.0	76.0	12.7	40.0	35.3	30.2	38	6.4	0.35	12-0221-11
42.4	90.0	12.7	51.0	42.7	38.7	45	6.4	0.62	12-0221-12
43.0	90.0	12.7	51.0	43.3	38.7	45	6.4	0.59	12-0221-13
48.3	100.0	12.7	57.0	48.6	44.4	50	6.4	0.88	12-0221-14
60.3	116.0	12.7	68.0	60.5	56.3	58	6.4	1.18	12-0221-15

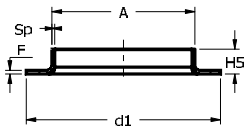
For more information and pressure tables, see www.nordsfittings.com



I-222
Elbows socket welding

Dim.	L	D	d	d1	H	Design pressure Mpa	Weight kg/pce	Article code EN 1.4408
10.0-10.2	10.0	14.0	10.3	8.7	19	10.0	0.02	12-0222-01
12.0	10.0	17.5	12.1	11.6	21	10.0	0.04	12-0222-02
13.5	10.0	17.5	13.6	11.6	21	10.0	0.03	12-0222-03
14.0	10.0	17.5	14.1	11.6	21	10.0	0.04	12-0222-04
17.0-17.2	10.0	21.6	17.4	15.2	25	10.0	0.06	12-0222-05
20.0	10.0	27.0	20.2	19.0	28	10.0	0.12	12-0222-06
21.3	10.0	27.0	21.5	19.0	28	10.0	0.14	12-0222-07
26.9	12.7	33.0	27.2	24.4	34	10.0	0.19	12-0222-08
28.0	12.7	33.0	28.3	24.4	34	10.0	0.17	12-0222-09
33.7	12.7	40.0	34.0	30.2	38	10.0	0.29	12-0222-10
35.0	12.7	40.0	35.3	30.2	38	6.4	0.29	12-0222-11
42.4	12.7	51.0	42.7	38.7	45	6.4	0.46	12-0222-12
43.0	12.7	51.0	43.3	38.7	45	6.4	0.45	12-0222-13
48.3	12.7	57.0	48.6	44.4	50	6.4	0.53	12-0222-14
60.3	12.7	68.0	60.5	56.3	58	6.4	0.89	12-0222-15

For more information and pressure tables, see www.nordsfittings.com

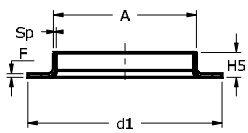


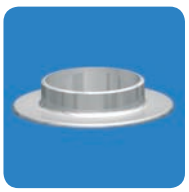
R-154
ISO
Collars pressure acc. to EN 13480 and EN 1092-1 / Type 37

DN	A	Sp	F	d1	H5	Weight kg/pce / Design pressure bar	
						EN 13480 [1]	EN 1092-1 type 37 [2]
10	17.2	2.0	2.5	40	7	0.02/16	0.02/16
15	21.3	2.0	2.5	45	7	0.03/16	0.03/16
20	26.9	2.0	3.0	58	8	0.06/16	0.06/16
		3.0	4.0		8	0.07/16	
25	33.7	2.0	3.0	68	10	0.08/16	0.08/16
		3.2	4.0		10	0.10/16	
32	42.4	2.0	3.0	78	12	0.10/16	0.10/16
		3.2	4.0		12	0.13/16	
40	44.5	2.0	3.0	88	17	0.14/16	0.14/16
	48.3	2.0	3.0	88	15	0.13/16	0.13/16
		3.2	4.0		15	0.17/16	
50	57.0	3.0	4.0	102	18	0.23/16	
	60.3	2.0	3.0	102	20	0.18/16	0.18/16
		3.2	4.0		20	0.23/16	
65	76.1	2.0	3.0	122	20	0.24/16	0.24/16
		3.2	4.0		20	0.32/16	
80	88.9	2.0	3.0	138	25	0.31/16	
		3.2	4.0		25	0.42/16	0.42/16
100	114.3	2.0	2.5	158	25	0.31/10	
		3.2	4.0		25	0.49/16	0.49/16
125	139.7	2.0	2.5	188	25	0.39/10	
		3.2 (3.5)*	4.0		25	0.64/16	0.64/16
150	168.3	2.0	2.5	212	25	0.47/10	
		3.0	3.5		25	0.64/10	
		3.2 (3.5)*	4.0		25	0.73/10	0.73/10
		4.0	5.0		25	0.93/16	
200	219.1	2.0	2.5	268	30	0.67/6	
		3.2	4.0		30	1.06/10	
		3.2 (4.5)*	5.0		30	1.33/10	1.33/10

1) Design pressure is calculated for grade EN 1.4307 at 20 °C and fulfils the requirements in EN 13480, Part 2, Part 3 and Part 5, EN 13445-3. Full face gasket with thickness ≥ 1.0 mm. Gasket factor 3.50 and design seating stress ≥ 45 Mpa. See also appendix H in EN13445-3.
2) Collars according to EN 1092-1 are calculated according to EN 1591-1.
The designation of a EN 1092-1 DN 50 collar is: Collar EN 1092-1/37/60.3x2/PN16/1.4432/LotNo.
*) Corresponds to thickness S acc. to EN 1092-1.

Stock standard: EN 1.4307 and 1.4432



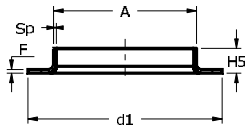


R-154
ISO
Collars welded and pressed

DN	A	F=Sp	d1	H5	Weight kg/pce / Design pressure bar
250	273.00	3	320	31	1.18/6
		4		31	1.58/10
300	323.90	3	378	35	1.50/4
		4		35	1.90/10

The pressures are calculated for grade EN 1.4307 at 20 °C. Full face gasket with thickness ≥ 1.5 mm. Gasket factor 2.85 and design seating stress ≥ 30 Mpa. See also appendix H in EN 13445-3.

Stock standard: EN 1.4307 and 1.4432

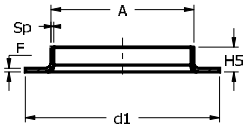


R-154 DH
ISO
Collars welded and pressed (long neck)

DN	A	Sp=F	d1	H5	Weight kg/pce / Design pressure bar
250	273	3	320	70	1.96/10
300	323.9	3	378	68	2.26/10

The pressures are calculated for grade En 1.4307 at 20 °C. Full-face gasket with thickness ≥1.5 mm. Gasket factor 4.94 and design seating stress 90 MPa. Se also Appendix H in EN 13445-3.
Note! To obtain the pressure ratings in the table the collars are dimensioned for special flanges that have less bore diameter and chamfer, and the other measures are at least the same as corresponding EN 1092-1 flanges type 02.

Stock standard: EN 1.4307 and 1.4432

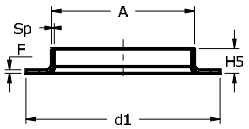


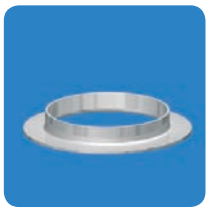
R-154
Metric Tru-Bore®
Collars pressure acc. to EN 13480 and EN 1092-1 / Type 37

DN	A	Sp	F	d1	H5	Weight kg/pce / Design pressure bar	
						EN 13480 [1]	EN 1092-1 type 37 [2]
10	16	2.0	2.5	45	8	0.03/16	0.03/16
15	20	2.0	3.0	45	9	0.04/16	0.04/16
20	25	2.0	3.0	58	10	0.06/16	0.06/16
25	28	2.0	3.0	68	12	0.08/16	0.08/16
	30	2.0	3.0		12	0.08/16	0.08/16
32	38	2.0	3.0	78	14	0.11/16	0.11/16
	40	2.0	3.0		14	0.11/16	0.11/16
50	51	2.0	2.5	102	18	0.15/16	
	54	2.0	3.0		18	0.18/16	0.18/16
65	64	2.0	2.5	102	18	0.14/16	
	69	2.0	3.0		20	0.25/16	0.25/16
	70	2.0	3.0		20	0.25/16	0.25/16
	71	3.0	4.0	124	20	0.35/16	
	74	2.0	3.0		22	0.26/16	0.26/16
	76	3.0	4.0		22	0.34/16	
	79	2.0	3.0	138	23	0.32/16	0.32/16
DN = ID							
80	81	3.2	4.0	138	23	0.42/16	0.42/16
	84	2.0	3.0		24	0.32/16	0.32/16
	86	3.2	4.0		24	0.42/16	0.42/16
100	102	2.0	2.5	158	27	0.33/10	
	104	2.0	2.5		27	0.33/10	
	106	3.2	4.0		27	0.52/16	0.52/16
	108	4.0	5.0		27	0.68/25	
125	129	2.0	2.5	188	27	0.44/6	
	131	3.0	4.0		27	0.69/16	
	133	4.0	5.0		27	0.91/16	
150	154	2.0	2.5	212	27	0.51/4	
	156	3.0	4.0		27	0.80/10	
	158	4.0	5.0		27	1.00/16	
200	204	2.0	2,5	268	26	0.70/4	
	206	3.0	3.0		26	0.83/6	
	208	4.0	4.0		26	1.10/10	

1) Design pressure is calculated for grade EN 1.4307 at 20 °C and fulfils the requirements in EN 13480, Part 2, Part 3 and Part 5, EN 13445-3. Full face gasket with thickness ≥1.0 mm. Gasket factor 3.50 and design seating stress ≥45 Mpa. See also appendix H in EN13445-3.
2) Collars according to EN 1092-1 are calculated according to EN 1591-1.
The designation of a EN 1092-1 DN 50 collar is: Collar EN 1092-1/37/54x2/PN10/1.4432/LotNo.

Stock standard: EN 1.4307 and 1.4432



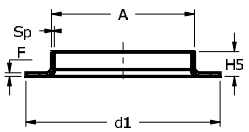


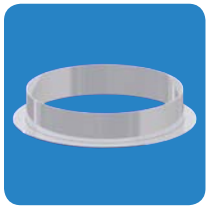
R-154
Metric Tru-Bore®
Collars welded and pressed

DN	A	Sp=F	d1	H5	Weight kg/pce / Design pressure bar
250	255	2.5	320	31	1.00/4
	256	3.0	320	31	1.20/6
300	305	2.5	370	35	1.75/4
	306	3.0	370	35	1.50/4
350	355	2.5	430	43	1.60/4
	356	3.0	430	43	2.20/4
400	406	3.0	482	43	2.50/2
	408	4.0	482	43	3.30/4
450	456	3.0	532	45	2.90/2
	458	4.0	532	45	3.80/4
500	506	3.0	585	45	3.20/2
	508	4.0	585	45	4.20/4
600	606	3.0	685	45	3.70/2
	608	4.0	685	45	4.90/4

The pressures are calculated for grade En 1.4307 at 20 °C.
Full-face gasket with thickness ≥1.5 mm. Gasket factor 4.94 and design seating stress 90 MPa.
Se also Appendix H in EN 13445-3.

Stock standard: EN 1.4307 and 1.4432





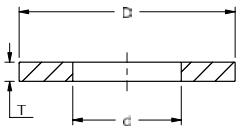
R-154 DH
Metric Tru-Bore®
Collars welded and pressed (long neck)

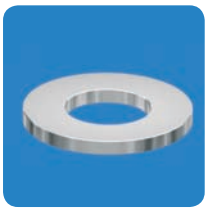
DN	A	Sp=F	d1	H5	Weight kg/pce / Design pressure bar
250	256	3	320	65	1.90/16*
300	306	3	370	55	2.00/16*
350	356	3	430	55	2.50/16*
400	408	4	482	65	4.20/10*
500	508	4	585	75	5.70/10*
600	608	4	685	80	7.20/10*

The pressures are calculated for grade En 1.4307 at 20 °C.
Full-face gasket with thickness 1.5 mm. Gasket factor 4.94 and design seating stress 90 MPa.
Se also Appendix H in EN 13445-3.

Stock standard: EN 1.4307 and 1.4432

R-152
ISO
Weld-on plate collars

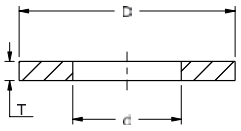


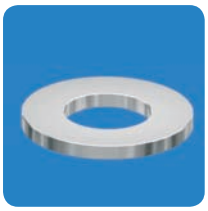


DN	d	D	T	Weight kg/pce
10	17.7	40	6.0	0.05
15	21.8	45	6.0	0.06
20	27.4	58	6.0	0.10
25	34.2	68	6.0	0.14
32	43.0	78	6.0	0.16
40	48.8	88	6.0	0.21
50	60.8	102	8.0	0.35
65	76.6	122	8.0	0.48
80	89.4	138	10	0.70
100	115.5	158	10	0.75
125	140.7	184	10	0.90
150	169.3	212	10	1.04
200	220.1	268	10	1.50

Stock standard: EN 1.4404 ≤ DN 80
EN 1.4432 > DN 80

R-152
Metric Tru-Bore®
Weld-on plate collars

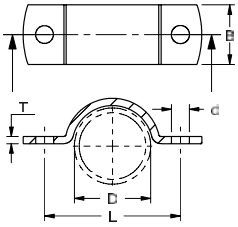




DN	d	D	T	Weight kg/pce
10	15.0	40	6.0	0.05
15	20.5	45	6.0	0.06
20	25.5	58	6.0	0.10
25	30.5	68	6.0	0.14
32	39.0	78	6.0	0.17
40	45.0	88	6.0	0.22
50	55.0	102	8.0	0.38
65	70.0	122	8.0	0.50
70	75.0	122	10	0.59
75	80.0	138	10	0.79
80	85.0	138	10	0.75
100	105.0	158	10	0.88
125	130.0	184	10	1.10
150	155.0	212	10	1.30
200	205.0	268	10	1.90
250	255.0	320	12	2.80
300	306.0	370	12	3.30
350	356.0	430	12	4.40
400	406.0	482	12	5.10
450	456	532	15	7.10
500	508	585	15	8.00

Stock standard: EN 1.4404 ≤ DN 80
EN 1.4432 > DN 80

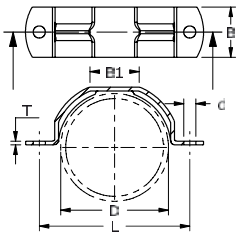
R-171
ISO/Metric
Tube clamps



DN	Tube size D	B	L	d	T	Bolt size
10	14–18	25	40	7.5	2	M6 x 20
15	20–22	25	44	7.5	2	M6 x 20
20	23–24	25	46	7.5	3	M6 x 20
	25–28	25	52	7.5	3	M6 x 20
25	30–33.7	25	57	7.5	3	M6 x 20
32	35–38	25	63	7.5	3	M6 x 20
32-40	42.4–44.5	30	69	7.5	3	M6 x 20
40	48.3	30	73	7.5	3	M6 x 20
350	353–356	50	413	18	4	M16 x 50
400	404–406	50	464	18	4	M16 x 50
450	454–458	50	515	18	4	M16 x 60
500	504–508	50	567	18	4	M16 x 60
600	604–608	50	669	18	4	M16 x 65

Stock standard: EN 1.4404

R-171
ISO/Metric
Tube clamps



DN	Tube size D	B	L	d	T	B1	Bolt size
50	53–54	40	87	9.5	3	20	M8 x 25
	57–60.3	40	91	9.5	3	20	M8 x 25
65	68–70	40	100	9.5	3	22	M8 x 25
70	73–76.1	40	120	9.5	3	22	M8 x 25
80	82–84	40	131	9.5	3	30	M8 x 25
	88.9	40	120	9.5	3	30	M8 x 25
100	102–106	40	148	12	3	30	M10 x 25
	114.3	40	156	12	3	30	M10 x 35
125	127–131	40	177	12	3	30	M10 x 25
	139.7	40	186	12	3	30	M10 x 35
150	152–156	40	198	12	3	30	M10 x 25
	168.3	40	206	12	4	30	M10 x 35
200	202–206	40	244	15	4	30	M12 x 35
	219.1	40	262	15	4	30	M12 x 35
250	252–256	40	298	15	4	30	M12 x 50
	273	40	316	15	4	30	M12 x 50
300	302–306	50	369	18	4	38	M16 x 50
	323.9	50	390	18	4	38	M16 x 50

Stock standard: EN 1.4404

AISI	American Iron and Steel Institute
ANSI	American National Standard Institute
API	American Petroleum Institute
ASME	American Society for Mechanical Engineers
ASTM	American Society for Testing and Materials
AV	Arbetsmiljöverket
BCW	Bead Cold Worked
BE	Bevelled Ends
BS	British Standard
BWG	Birmingham Wire Gauge
CCT	Critical Crevice Temperature
CPT	Critical Pitting Temperature
DIN	Deutsche Institut für Normen
DN	Nominell Diameter, Nenn Weite
DNV	Det Norske Veritas
DR/L	Double Random Lengths (12 m)
EN	Europa Norm
EFW	Electric Fusion Welding
ERW	Electric Resistance Welding (HF)
ET (= EC)	Eddy Current
GTAW	Gas Tungsten Arc Welding (same as TIG and WIG)
HF	High Frequency welding
HT	Heat Treated
IGC-test	Intergranular Corrosion test
ID	Inside Diameter
ISO	International Standardization Organization
JIS	Japanese Standard
LBW	Laser Beam Welding
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
NB	Nominal Bore
NF	Norme Francaise
NHT	Not Heat Treated
NP	Nominal Pressure
NPS	Nominal Pipe Size
NS	Norsk Standard
NDT	Non Destructive Testing
OD	Outside Diameter
PAW	Plasma Arc Welding
PE	Plain Ends
PED	Pressure Equipment Directive
PN	Pressure Number
QA	Quality Assurance
R/L	Random Lengths (6 m)
RN-78	Rörledningsnormer -78
RSEW-HF	High frequency resistance seam welding (same as HF)
SAW	Submerged Arc Welding
Sch	The "Schedule" designation tells you how thick the wall is for any size of pipe with the higher schedule numbers meaning a thicker wall.
SEP	Stahl Eisen Prüfblatt
SEW	Stahl Eisen Werkstoffblatt
SIS	Swedish Standard Institute
SSG	Standard Solutions Group
SW	Seam Welding
SWG	British Standard Wire Gauge
TIG	Tungsten Inert Gas
TÜV	Technische Überwachungs-Verein
UNS	Unified Numbering System
UP	= SAW = Submerged Arc Welding
Vd TÜVWb	Vereinigung der TÜV-Werkstoffblatt
WIG	Wolfram Inert Gas (German TIG)
W.-Nr.	Werkstoffnummer
97/23/EC	Pressure Equipment Directive 97/23/EC of the European Parliament and of the Council of 29 May 1997 on the approximation of the laws of the Member States concerning pressure equipment.

For more information and pressure tables, see www.nordsfittings.com

Standard grades

Nords	EN	ASTM	Typical C	Cr	Minimum Ni	Mo	Others	SS	DIN	Stock standard Pipe/Fittings
4301	1.4301	(304)	0.04	17.0	8.5	-		2333	1.4301	
4307	1.4307	304L	0.02	18.0	8.0	-		(2352)	(1.4306)	ANSI/ISO/Metric
4541	1.4541	321	0.04	17.0	9.0	-	Ti	2337	1.4541	ISO
4306	1.4306	304L	0.02	18.0	10.0	-		2352	1.4306	
4401	1.4401	316	0.04	16.5	10.0	2.0		(2347)	(1.4401)	
4404	1.4404	316L	0.02	16.5	10.0	2.0		(2348)	(1.4404)	ANSI/ISO/Metric
4571	1.4571	316Ti	0.04	16.5	10.5	2.0	Ti	2350	1.4571	ISO/Metric
4436	1.4436	316	0.04	16.5	10.5	2.5		2343	(1.4436)	
4432	1.4432	316L	0.02	16.5	10.5	2.5		2343	(1.4435)	ISO/Metric
4435	1.4435	316L	0.02	17.0	12.5	2.5		2353	1.4435	
4438	1.4438	317L	0.02	18.0	13.0	3.0		2367	1.4438	

The compositions comply with EN, which not always comply exactly with the old national standards.
Old SS and DIN-designations within brackets specifies a slightly higher Ni-content, that is insignificant for the corrosion resistance.

Wet corrosion resistant grades

Nords	EN	ASTM	C	Cr	Typical Ni	Mo	N	Other	SS	DIN	Stockpipe
Duplex											
LDX 2101®	1.4162	S32101	0.03	21.5	1.5	0.3	0.22	5,5 Mn	-		Duralite™
2304	1.4362	S32304	0.02	23.0	4.8	0.3	0.10		2327	1.4362	
LDX 2404™	1.4662	S82441	0.02	24.0	3.6	1.6	0.27	3 Mn			
2205	1.4462	S32205	0.02	22.0	5.7	3.1	0.17		2377	1.4462	ANSI
2507	1.4410	S32750	0.02	25.0	7.0	4.0	0.27		2328	-	
Austenitic											
904L	1.4539	N08904	0.01	20.0	25.0	4.3	0.06		2562	1.4539	
254 SMO®	1.4547	S31254	0.01	20.0	18.0	6.1	0.20		2378	-	ANSI
654 SMO®	1.4652	S32654	0.01	24.0	22.0	7.3	0.50	3 Mn, Cu		-	

Heat and creep resistant grades

Nords	EN	ASTM	C	Cr	Typical Ni	Si	N	SS	DIN
4948	1.4948	304H	0.05	18.1	8.3	-	0.06	2333	1.4948
4878	1.4878	321	0.05	17.3	9.1	-	0.01	2337	1.4878
153 MA™	1.4818	S30415	0.05	18.5	9.5	1.3	0.15	2372	-
253 MA®	1.4835	S30815	0.09	21.0	11.0	1.6	0.17	2368	-
4828	1.4828	-	0.04	20.0	12.0	2.0	0.04	-	1.4828
4833	1.4833	309S	0.06	22.3	12.6	-	0.08	-	1.4833
4845	1.4845	310S	0.05	25.0	20.0	-	0.04	2361	1.4845

These grades are available as heat exchanger tubes in minimum quantities.
For other types of tube and pipe the availability is more limited and each inquiry will be evaluated individually.

Ferritic grade

Nords	EN	ASTM	C	Typical Cr	Mo	Ti	No	DIN
4003	1.4003	S40977	0.02	11.0	-	-	-	1.4003

For more information and pressure tables, see www.nordsfittings.com

Mechanical and physical properties

The stresses are valid for welded tubes and fittings made from welded tubes or hot rolled plate.

Designations			Strength at 20°C EN min values					Strength at high temperatures EN min values N/mm²								Coefficient of linear expansion	Thermal conduct.
			$R_{p0.2}$	$R_{p1.0}$	R_m	A5		$R_{p0.2}$				$R_{p1.0}$				20-100°C	20°C
Outokumpu	EN	ASTM	N/mm²	N/mm²	N/mm²	%	°C*	20°C	100°C	200°C	400°C	20°C	100°C	200°C	400°C	x10⁻⁶/°C	W/m°C
4301	1.4301	304	210	250	520	45		210	157	127	98	250	191	157	125	16	15
4541	1.4541	321	200	240	500	40		200	176	157	125	240	208	186	156	17	15
4307	1.4307	304L	200	240	500	45		200	147	118	89	240	181	147	116	17	15
4306	1.4306	304L	200	240	500	45		200	147	118	89	240	181	147	116	17	15
4401	1.4401	316	220	260	520	45		220	177	147	115	260	211	177	144	16	15
4404	1.4404	316L	220	260	520	45		220	166	137	108	260	199	167	135	16	15
4408	1.4408	316		210	440	30			170	135	105		170	135	105	15.8	15.8
4571	1.4571	316Ti	220	260	520	40		220	185	167	135	260	213	196	164	16	15
4436	1.4436	316	220	260	530	40		220	177	147	115	260	211	177	144	16	15
4432	1.4432	316L	220	260	520	45		220	165	137	108	260	200	165	135	16	15
4435	1.4435	316L	220	260	520	45		220	165	137	108	260	200	165	135	16	15
4438	1.4438	317L	220	260	520	40		220	175	155	125	260	205	185	155	16	14
LDX 2101®	1.4162	S32101	450		650	30	-40	450	380	330						13	15
LDX 2404™			480		680	25	-40	480	385	325						13	15
2304	1.4362	S32304	400		630	25	-40	400	330	280						13	15
2205	1.4462	S32205	460		640	25	-40	460	360	315						13	15
2507	1.4410	S32750	530		730	20	-40	530	450	400						13	15
904L	1.4539	N08904	220	260	520	35		220	205	175	125	260	235	205	155	16	12
254 SMO®	1.4547	S31254	300	340	650	40		300	230	190	160	340	270	225	190	16.5	14
654 SMO®			430	460	750	40		430	350	315	295	470	390	355	330	15	11
								EN–$R_{p1.0}$ 100,000h N/mm²				EN–R_m 100,000h N/mm²					
								600°C	700°C	800°C	900°C	600°C	700°C	800°C	900°C	20-800°C	
4878	1.4878	321	190	230	500	40						65	22	10		19	15
4845	1.4845	310S	210	250	500	35						80	18	7	3	18.5	15
153 MA™	1.4818	S30415	290	330	600	40		80	26	9	3	88	35	14	5	19	15
253 MA®	1.4835	S30815	310	350	650	40		80	26	11	6	88	35	15	8	19	15

* Min allowable temperature.

Proof strength at elevated temperatures in the solution annealed condition.

NOTE! For steel grade EN 1.4162, LDX 2101®, EN 1.4462 (2205) the figures are expressed in R_m.
The figures in the table refer to EN 10217-7, EN 10253-4, except steel grades 1.4408 and 1.4162.

Steel Grade	1.4436	1.4301	1.4307	1.4432	1.4404	1.4541	1.4571	1.4539	1.4408	1.4162	1.4462
T	$R_{p\,1.0}$	$R_{p\,1.0}$	$R_{p\,1.0}$	$R_{p\,1.0}$	$R_{p\,1.0}$	$R_{p\,1.0}$	$R_{p\,1.0}$	$R_{p\,1.0}$	$R_{p\,1.0}$	R_m	R_m
Design	N/mm²	N/mm²	N/mm²	N/mm²	N/mm²	N/mm²	N/mm²	N/mm²	N/mm²	N/mm² *	N/mm²
20 °C	240	230	215	225	225	235	245	250	210	650	640
100 °C	211	191	181	199	199	208	218	235	170	590	590
150 °C	191	172	158	181	181	196	206	220	153	560	570
200 °C	177	157	145	167	167	186	196	205	135	540	550
250 °C	167	145	137	157	157	177	186	190	125	627	540
300 °C	156	135	127	145	145	167	175	175	115		
350 °C	150	129	121	139	139	161	169	165	-		
400 °C	144	125	116	135	135	156	164	155	105		
450 °C	141	122	112	130	130	152	160	145			
500 °C	139	120	109	128	128	149	158	140			
550 °C	137	120	108	127	127	147	157	135			

Sample: OT 100 Process pipe ISO dimension 457 x 3.0 in steelgrade EN 1.4307 according to EN 10217-7.
Design pressure at 20 °C is 1.6 MPa.
Design pressure at 250 °C is then 0.637 x 1.6 = 1.0 Mpa.
*) 1.4162 (LDX 2101®) is not yet included in any EN standard. For pressure purpose PMA is used.
Please contact our R&D or application engineers for more information.

For more information and pressure tables, see www.nordsfittings.com

Selection of a stainless steel grade

Stainless steels are used mainly due to their corrosion resistance, but also thanks to their excellent mechanical properties, formability, weldability and appearance. There are several aspects to consider at material selection before the choice finally can be decided. Earlier experience is an important factor in order to put together a group of candidate materials. The next step is to investigate the availability of the specified product forms, dimensions, standards, minimum quantities etc. when the order is placed, but also the availability for future construction or maintenance. Other factors are cost for material and construction, expected lifetime and approvals.

Corrosion resistance

Stainless steels are resistant thanks to the invisible passive layer consisting of chromium- and iron oxides that forms spontaneously in contact with oxidants. With increasing amounts of Cr the corrosion resistance increases. Molybdenum (Mo) is an alloy that is added because it has a 3.3 times higher effect than Cr, in order to prevent pitting and crevice corrosion. Nitrogen (N) is also added in the modern developed stainless steels, and its effect on corrosion resistance is 16 times that of Cr. A number calculated from the Pitting Resistance Equivalent PRE indicates the pitting corrosion resistance of an alloy. PRE = %Cr+3.3x%Mo+16x%N.

Nords	Cr	Mo	N	PRE
Cr-Ni	18.0	–		18
Cr-Ni-Mo	17.0	2.1		23
Cr-Ni-2.5Mo	17.0	2.6		25
LDX 2101®	21.5	0.3	0.22	26
2304	23.0	0.3	0.10	26
LDX 2404™	24.0	1.6	0.27	33
2205	22.0	3.1	0.17	35
904L	20.0	4.3	0.06	35
2507	25.0	4.0	0.27	43
254 SMO®	20.0	6.1	0.20	43

Factors influencing the corrosivity

The risk for corrosion attack on stainless steels in waters increases when following parameters increase. For decreasing pH-values below 7 the risk for corrosion increase.

- Temperature °C
- Chloride content ppm Cl^-
- Oxygen content ppm O_2
- Chlorination ppm ClO_2
- pH-value

Recommended maximum chloride contents (ppm or mg/l) at different temperatures and normal conditions. pH = 6-8, O_2= 4-8 ppm, chlorination <1 ppm.

Temp, °C	Cr-Ni	Cr-Ni-Mo	904 L 2205	254 SMO® 2507
20	400	1000	14500	35000
30	350	750	11500	28000
40	300	600	9500	22000
50	200	450	7500	18000

Stainless steel grades for different waters at ambient temperatures

Drinking water:	4307, 4404, LDX 2101®
Polluted water:	4432, LDX 2101®
Brackish water:	2205
Deaerated seawater:	2205
Fresh seawater, offshore:	254 SMO®, 2507
Desalination SWRO:	254 SMO®, 2507

Design of dimension and grade

Pipe systems have to be designed according to the valid safety and design regulation. In most European countries the Pressure Equipment Directive 97/23/EC is mandatory, and in many other countries ASME B31.1 or B31.3 are used. The user is however free to select the dimension standard and grade. Using pipe systems with thinner walls and/or grades with higher strength makes significant weight and cost savings. Pipe systems designed with Metric Tru-Bore® and/or ISO are lighter compared to pipe systems designed with ANSI dimensions. By using thin walled pipe made from any of the high strength Duplex stainless steels, as substitute for the Austenitic standard grades, more cost saving is possible.

Pressure calculation tool is available at www.outokumpu.com, select ”Products”, ”Tools” and ”Pressure Calculation”.

Calculation of loss of pressure due to friction

Stainless steels are not sensitive for high water velocity. Water speeds exceeding 20 m/sec are not a problem. The stainless surface is corrosion resistant and durable, and will remain the same through the years. The friction coefficient can be set to 0.04 for standard pipe products, and down to 0.004 for hygienic tubes with a higher surface finish, for fittings the friction coefficient can be set to 0.2-0.4 for a 90° elbow and for a tee to 0.5 - 3.0.

Tools for calculating loss of pressure is available at www.outokumpu.com, select ”Products”, ”Tools” and ”Pressure Drop Calculation”.

Our main certifications and approvals

Nord Fittings is proud of its reputation as a reliable supplier and a manufacturer of high quality products. In addition to satisfied customers, the proof of this can be seen in our quality certifications.

These are our main certifications:

- We deliver according to PED 97/23/EC and have a quality system for the manufacturing of pressure equipment components and for manufacturing components.
- Our Quality Systems are certified in accordance with the EN ISO 9001, Quality Management System Standard and EN ISO 14001, Environmental Management System Standard,
- Nord Fittings is certified according to AD2000-W0 approved by TÜV Nord e.V.


CERTIFICATE

TÜV NORD

Management system as per
SS EN ISO 9001 : 2008 and SS EN ISO 14001 : 2004

OSTP Sweden AB
Prostgårdsvägen 2
660 60 Molkom
Sweden

Manufacturing and marketing of butt weld and threaded stainless s
fittings and special products

Valid until: 2016-08-26

Göteborg, 2013-08-27

TÜV NORD CERT Certification Body
at TÜV NORD CERT GmbH

TÜV NORD CERT GmbH Langemarckstrasse 20, D-45141 Essen www.tuev-nord-cert.com

TÜV NORD

CERTIFICATE

Quality Assurance System
for Material Manufacturer
acc. to Pressure Equipment Directive 97/23/EC

Certificate no.: 07-202- 1326 WZ- 0746/ 12

Name and address of manufacturer: Outokumpu Stainless Tubular Products AB
Prostgårdsvägen 2
SE-660 60 Molkom

This is to certify that the manufacturer has implemented and applies a QA System.
This QA System has been subjected to a specific assessment for material acc. to Directive 97/23/EC with regard to the materials mentioned within the scope of approval.

Approved: QA System acc. to AD 2000-Mbl. W 0 and EN 764-5, section 4.2

Audit report no.: 1326WL26920

Scope of approval: Fittings manufactured from Austenitic and Austenitic-ferritic steel

Details of the scope are mentioned in the annex of the certificate AD2000-Merkblatt W0.

Production site: SE-660 60 Molkom

The manufacturer disposes of the essential procedures and equipments as well as the required qualified personnel to ensure quality of manufacturing and testing the materials and products mentioned in the scope of approval.

Hamburg, 2012-02-16

Certification Body
for Pressure Equipment
of TÜV NORD Systems GmbH & Co. KG

Remark of validity:
Valid until 12.2014

TÜV NORD Systems GmbH & Co. KG
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