STANDARD

Flange hose couplings are used to connect rubber, pvc and thermoplastic hoses.

OPERATION

A flange coupling is fitted to a rubber, pvc or thermoplastic hose using a hose shank coupling, which is inserted into the hose. The hose shank may be smooth in compliance with EN 14420-2 / DIN 2817, or serrated with collar.

1. Flange couplings with smooth hose shanks complying with EN 14420-2 / DIN 2817 are developed to comply with EN 14420-4, which makes them suitable for assembly using RK and RKP safety clamps complying with EN 14220-3 / DIN 2817 or FLEXOLINE® safety clamps for thin wall hoses.

2. Serrated hose shanks with collars are recommended for assembly using HRRK swage ferrules, worm drive, band or bolt clamps.

The hose shank can be assembled with a fixed or swivel flange. A flange-to-hose connection should preferably be fitted with at least one swivel flange. During assembly, the connection with the fixed flange is fitted to the piping system first, followed by the swivel flange. The swivel flange prevents twisting of the hose during assembly.

APPLICATION

To connect rubber, pvc and thermoplastic hoses.

WORKING PRESSURE

EN-DIN FLANGES	ANSI FLANGES
PN 10/16 standard	150 lbs
PN 25	300 lbs*
PN 40	600 lbs*

* on request

TEMPERATURE

-20°C / -40°F up to 65°C / 149°F

Hose, coupling, assembly method and seal must be chosen in relation with the desired application and temperature.

MATERIAL

- Swivel flange coupling

HOSE SHANK	FLANGE
Galvanized steel	Galvanized steel
Stainless steel AISI 316 / 1.4401	Stainless steel AISI 316 / 1.4401
Polypropylene	Galvanized steel
Stainless steel AISI 316 / 1.4401	Galvanized steel

LMC's steel and stainless steel hose shanks consist of a monoblock version.

- Swivel flange coupling

  Galvanized steel
  Stainless steel AISI 316 / 1.4401
  Polypropylene available on request

- Flange gasket

  - novatec® PREMIUM II, RF for flanges complying with EN / DIN / ANSI
  - GORE™ Universal Pipe Seal (UPG) Style 800, RF for flanges complying with EN / DIN / ANSI

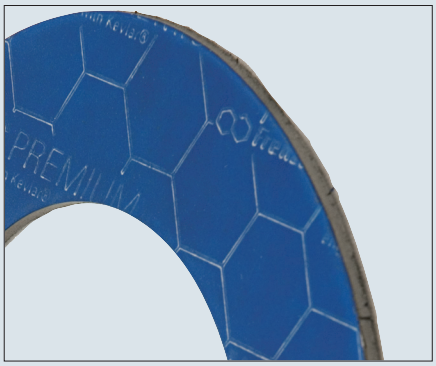
  Raised-face flange gaskets are used in applications where the gasket is seated directly on the contact face of the flange, between the flange holes.

  - GORE™ Universal Pipe Seal (UPG) Style 800 is 100% expanded PTFE. Their multidirectional fibre structure and unique (envelope) profile enables GORE™ UPG Style 800 gaskets to be used in a wide range of chemical industry applications.

    Features:
    - chemically inert and temperature resistant
    - seals at low bolt loadings
    - high dimensional stability
    - high resistance to creep and cold flow
    - seals all types of standard piping
    - resistant to all media in the 0-14 pH range, with the exception of alkalis and fluorine, particularly at high temperatures and pressures
    - temperature range: -210°C / -346°F up to 260 °C / 500°F
    - dimensions comply with EN-DIN and ANSI

  - novatec® PREMIUM II is a flange seal for general and chemical industry applications. The combination of graphite, paramide fibres (KEVLAR®) and low binder content, allows the flange gasket to be resistant to 80% of all common chemical industry media.

    Features:
    - good stress relief
    - resistant to high temperatures
    - good ductility
    - non-stick coating
    - excellent torque retention
    - temperature : 320°C / 608°F
    - resistant to a wide range of chemicals and steam applications
    - dimensions comply with EN-DIN and ANSI



novatec® PREMIUM II is a registered trademark of Frenzelit
KEVLAR® is a registered trademark of Dupont Dow Elastomers
GORE™ Universal Pipe Seal Style 800 is a registered trademark of W.L. Gore & Associates, Inc.

ASSEMBLY

RK and RKP safety clamps in compliance with EN 14420-3 / DIN 2817
FLEXOLINE® safety clamps
HRRK swage ferrules
HRP swage ferrules
Worm drive, band or bolted clamps

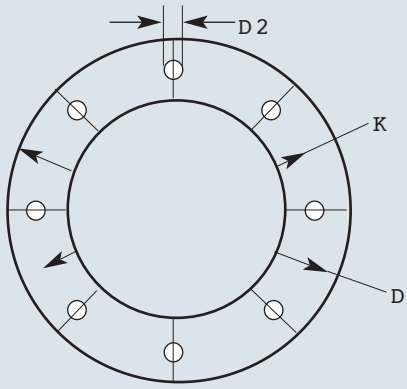
FLANGE DIMENSIONS

EN-DIN PN 6

"	ND	D	K	N	D2
1/2"	15	80	55	4	11
3/4"	20	90	65	4	11
1"	25	100	75	4	11
1.1/4"	32	120	90	4	14
1.1/2"	40	130	100	4	14
2"	50	140	110	4	14
2.1/2"	65	160	130	4	14
3"	80	190	150	4	18
4"	100	210	170	4	18
5"	125	240	200	8	18
6"	150	265	225	8	18
8"	200	320	280	8	18
10"	250	375	335	12	18
12"	300	440	395	12	22

EN-DIN PN 10

ND	D	K	N	D2
15	95	65	4	14
20	105	75	4	14
25	115	85	4	14
32	140	100	4	18
40	150	110	4	18
50	165	125	4	18
65	185	145	4/8	18
80	200	160	8	18
100	220	180	8	18
125	250	210	8	18
150	285	240	8	22
200	340	295	8	22
250	395	350	12	22
300	445	400	12	22



N= number of bolts

EN-DIN PN 16

"	ND	D	K	N	D2
1/2"	15	95	65	4	14
3/4"	20	105	75	4	14
1"	25	115	85	4	14
1.1/4"	32	140	100	4	18
1.1/2"	40	150	110	4	18
2"	50	165	125	4	18
2.1/2"	65	185	145	4	18
3"	80	200	160	8	18
4"	100	220	180	8	18
5"	125	250	210	8	18
6"	150	285	240	8	22
8"	200	340	295	12	22
10"	250	405	355	12	26
12"	300	460	410	12	26

EN-DIN PN 25

ND	D	K	N	D2
15	95	65	4	14
20	105	75	4	14
25	115	85	4	14
32	140	100	4	18
40	150	110	4	18
50	165	125	4	18
65	185	145	8	18
80	200	160	8	18
100	235	190	8	22
125	270	220	8	26
150	300	250	8	26
200	360	310	12	26
250	425	370	12	30
300	485	430	16	30

EN-DIN PN 40

ND	D	K	N	D2
15	95	65	4	14
20	105	75	4	14
25	115	85	4	14
32	140	100	4	18
40	150	110	4	18
50	165	125	4	18
65	185	145	8	18
80	200	160	8	18
100	235	190	8	22
125	270	220	8	26
150	300	250	8	26
200	375	320	12	30
250	450	385	12	33
300	515	450	16	33

ASTM 150 lbs

"	D	K	N	D2
1/2"	88.9	60.3	4	15.9
3/4"	98.4	69.8	4	15.9
1"	107.9	79.4	4	15.9
1.1/4"	117.5	88.9	4	15.9
1.1/2"	127.0	98.4	4	15.9
2"	152.4	120.6	4	19.0
2.1/2"	177.8	139.7	4	19.0
3"	190.5	152.4	4	19.0
4"	228.6	190.5	8	19.0
5"	254.0	215.9	8	22.2
6"	279.4	241.3	8	22.2
8"	342.9	298.4	8	22.2
10"	406.4	361.9	12	25.4
12"	482.6	431.8	12	25.4

ASTM 300 lbs

"	D	K	N	D2
1/2"	95.2	66.7	4	15.9
3/4"	117.5	82.5	4	19.1
1"	123.8	88.9	4	19.1
1.1/4"	133.3	98.4	4	19.1
1.1/2"	155.6	114.3	4	22.2
2"	165.1	127.0	8	19.1
2.1/2"	190.5	149.2	8	22.2
3"	209.5	168.3	8	22.2
4"	254.0	200.0	8	22.2
5"	279.4	234.9	8	22.2
6"	317.5	269.9	12	22.2
8"	381.0	330.2	12	25.4
10"	444.5	387.3	16	28.6
12"	520.7	450.8	16	31.7

ASTM 600 lbs

"	D	K	N	D2
1/2"	95.2	66.7	4	15.9
3/4"	117.5	82.5	4	19.1
1"	123.8	88.9	4	19.1
1.1/4"	133.3	98.4	4	19.1
1.1/2"	155.6	114.3	4	22.2
2"	165.1	127.0	8	19.1
2.1/2"	190.5	149.2	8	22.2
3"	209.5	168.3	8	22.2
4"	273.0	184.1	8	25.4
5"	330.2	266.7	8	28.6
6"	355.6	292.1	12	28.6
8"	419.1	349.2	12	31.7
10"	508.0	431.8	16	34.9
12"	558.8	488.9	20	34.9