

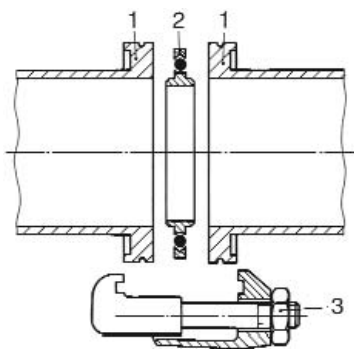


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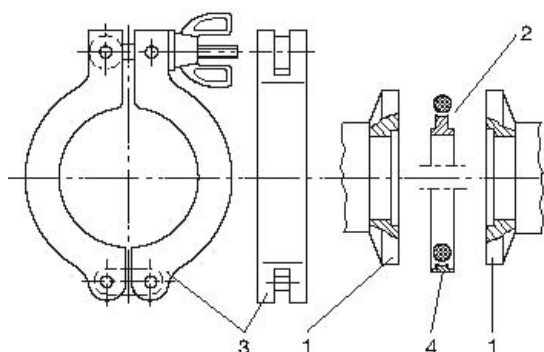
CONEXÕES PARA VÁCUO

MONTAGEM FLANGE ISO K



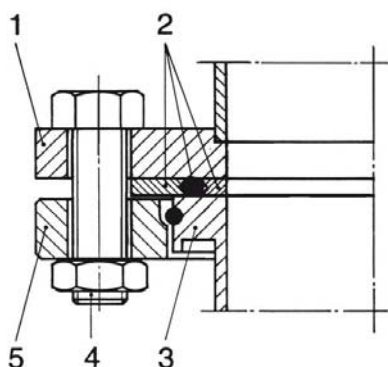
- 1 – Flange ISO K
- 2 – Anel de centralização e vedação
- 3 – Grampo de aperto

MONTAGEM FLANGE ISO KF



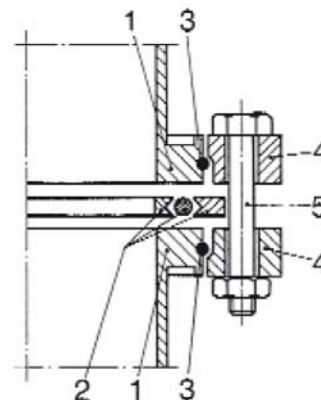
- 1 – Flange ISO KF
- 2 – Anel de centralização e vedação
- 3 – Abraçadeira
- 4 – Anel externo

MONTAGEM FLANGE DIN 2501 COM FLANGE ISO K + FLANGE COLAR ISO F



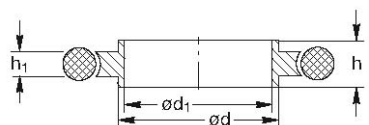
- 1 – Flange DIN 2501
- 2 – Anel de centralização
- 3 – Flange ISO K
- 4 – Parafuso e porca de fixação
- 5 – Flange colar ISO F

MONTAGEM FLANGE ISO K COM FLANGE COLAR ISO F



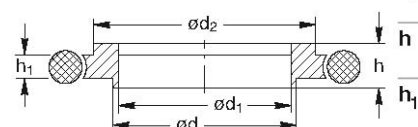
- 1 – Flange ISO K
- 2 – Anel de centralização
- 3 – Anel de retenção
- 4 – Flange colar ISO F
- 5 – Parafuso e porca de fixação

ANEL DE CENTRAGEM – AÇO INOXIDÁVEL / ALUMÍNIO – FPM / NBR



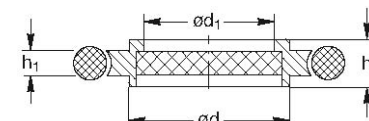
DN	ISO-KF	10	16	20	25	32	40	50
d	mm	12	17	22	26	34	41	52
	in.	0.47	0.67	0.87	1.02	1.34	1.61	2.05
d ₁	mm	10	16	20	25	32	40	50
	in.	0.40	0.63	0.79	0.98	1.26	1.57	1.97
h	mm	8	8	8	8	8	8	8
	in.	0.31	0.31	0.31	0.31	0.31	0.31	0.31
h ₁	mm	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	in.	0.15	0.15	0.15	0.15	0.15	0.15	0.15

ANEL DE CENTRAGEM ADAPTADOR – AÇO INOXIDÁVEL / ALUMÍNIO – FPM / NBR



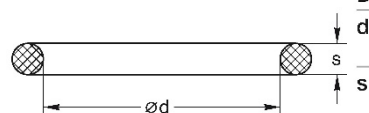
DN	ISO-KF	10/16	20/25	32/40
d	mm	12	22	34
	in.	0.47	0.87	1.34
d ₁	mm	10	20	32
	in.	0.40	0.79	1.26
d ₂	mm	17	26	41
	in.	0.67	1.02	1.61
h	mm	8	8	8
	in.	0.31	0.31	0.31
h ₁	mm	3.9	3.9	3.9
	in.	0.15	0.15	0.15

ANEL DE CENTRAGEM COM FILTRO SINTERIZADO – AÇO INOXIDÁVEL / ALUMÍNIO – FPM / NBR



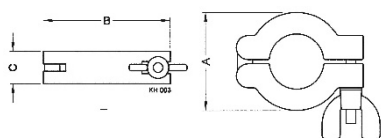
DN	ISO-KF	10	16	25	40	50
d	mm	12	17	26	41	52
	in.	0.47	0.67	1.02	1.61	2.05
d ₁	mm	8	14	23	38.0	48
	in.	0.31	0.55	0.91	1.50	1.89
h	mm	8	8	8	8	8
	in.	0.31	0.31	0.31	0.31	0.31
h ₁	mm	3.9	3.9	3.9	3.9	3.9
	in.	0.15	0.15	0.15	0.15	0.15

ANEL O-RING PARA FLANGE KF – FPM / NBR



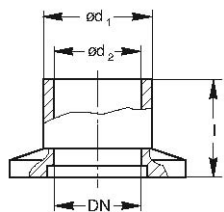
DN	ISO-KF	10	16 ¹⁾	20	25 ¹⁾	32	40 ¹⁾	50
d	mm	15	18	25	28	40	42	55
	in.	0.59	0.71	0.98	1.10	1.57	1.65	2.17
s	mm	5	5	5	5	5	5	5
	in.	0.20	0.20	0.20	0.20	0.20	0.20	0.20

ABRAÇADEIRA – ALUMÍNIO



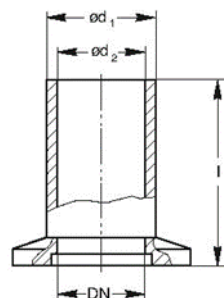
DN	ISO-KF	10/16	20/25	32/40	50
A	mm	45	55	70	95
	in.	1.77	2.17	2.76	3.74
B	mm	61	72	90	123
	in.	2.40	2.83	3.54	4.84
C	mm	16	16	18	25
	in.	0.63	0.63	0.71	0.98

FLANGE KF TUBO CURTO – AÇO INOXIDÁVEL / AÇO CARBONO / ALUMÍNIO



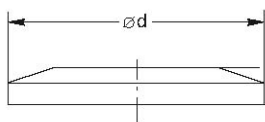
DN	ISO-KF	10	16	25	40	50
d_1	mm	16	20	30	45	55
	in.	0.63	0.79	1.18	1.77	2.17
d_2	mm	12	16	26	41	51
	in.	0.47	0.63	1.02	1.61	2.01
l	mm	20	20	20	20	20
	in.	0.79	0.79	0.79	0.79	0.79

FLANGE KF TUBO LONGO – AÇO INOXIDÁVEL / AÇO CARBONO / ALUMÍNIO



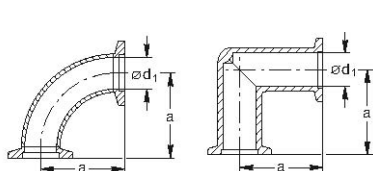
DN	ISO-KF	10	16	25	40	50
d_1	mm	16	20	30	45	55
	in.	0.63	0.79	1.18	1.77	2.17
d_2	mm	12	16	26	41	51
	in.	0.47	0.63	1.02	1.61	2.01
l	mm	70	70	70	70	70
	in.	2.76	2.76	2.76	2.76	2.76

FLANGE KF CEGO - AÇO INOXIDÁVEL / AÇO CARBONO / ALUMÍNIO



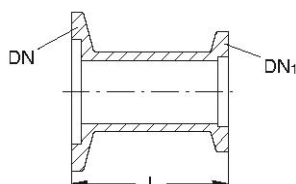
DN	ISO-KF	10	16	25	40	50
d	mm	30	30	40	55	75
	in.	1.18	1.18	1.57	2.17	2.95
h	mm	5	5	5	5	6
	in.	0.20	0.20	0.20	0.20	0.24

CURVA 90° – AÇO INOXIDÁVEL / AÇO CARBONO



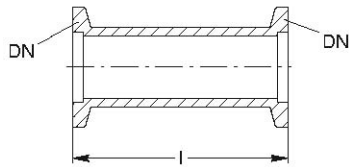
DN	ISO-KF	16	25	40	50
a	mm	40	50	65	70
	in.	1.57	1.97	2.56	2.76
d ₁	mm	16	15	25	39
	in.	0.63	0.59	0.98	1.34
Conductance	l/s	6.5	—	18.9	—

FLANGE DE REDUÇÃO – AÇO INOXIDÁVEL / AÇO CARBONO / ALUMÍNIO



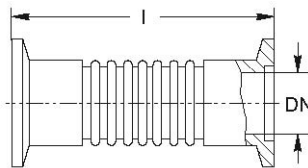
DN/DN ₁	ISO-KF	25/16	40/16	40/25	50/40
l	mm	40	40	40	40
	in.	1.57	1.57	1.57	1.57

FLANGE KF EXTENDIDO – AÇO INOXIDÁVEL / AÇO CARBONO / ALUMÍNIO



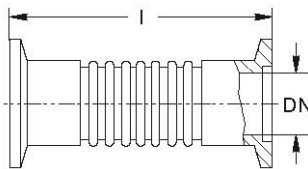
DN	ISO-KF	16	25	40
L	mm	80	100	130
	in.	3.15	3.94	5.12

TUBO FLEXÍVEL CURTO – AÇO INOXIDÁVEL



DN	ISO-KF	16	25	40	50
L	mm	70	80	100	100
	in.	2.76	3.15	3.94	3.94
Wall thickness	mm	0.13	0.13	0.15	0.2
	in.	0.005	0.005	0.005	0.008
Compression	mm	6.5	8	11	10
	in.	0.26	0.31	0.43	0.39
Tension	mm	4	5	7	6
	in.	0.16	0.20	0.28	0.24
max. angle	degrees ¹⁾	±21	±17	±15	±15
Lateral motion	mm	±4	±3.5	±7	±8
	in.	±0.16	±0.14	±0.28	±0.31

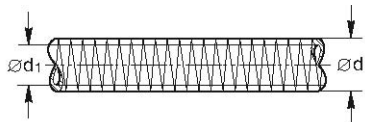
TUBO FLEXÍVEL KF LONGO – AÇO INOXIDÁVEL



DN	ISO-KF	16	25	40	50
Max. bending radius (inside) with multiple bending	mm	68.5	103.0	129.0	198.0
	in.	2.70	4.06	5.08	7.80
with single bend	mm	50.0	63.0	100.0	130.0
	in.	1.97	2.48	3.94	5.12
Wall thickness	mm	0.2	0.2	0.2	0.3
	in.	0.008	0.008	0.008	0.012

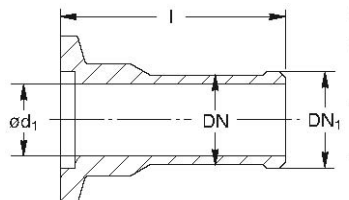
L= 250, 500, 750, 1000 (mm)

MANGUEIRA PARA VÁCUO



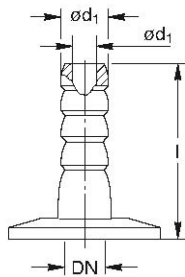
DN	ISO-KF	16	25	40
d	mm	23	33	53
	in.	0.91	1.30	2.09
d ₁	mm	16	25	40
	in.	0.63	0.98	1.57
Length	m	by the metre	by the metre	by the metre

FLANGE KF PARA MANGUEIRA DE VÁCUO – AÇO INOXIDÁVEL / ALUMÍNIO



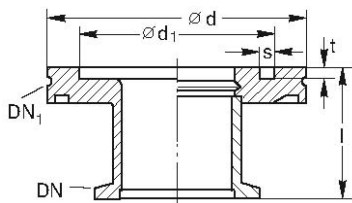
DN	ISO-KF	16	25	40
DN ₁ (tube)	mm	17	26	41
	in.	0.67	1.02	1.61
L	mm	40	40	40
	in.	1.57	1.57	1.57
d ₁	mm	13	22	37
	in.	0.51	0.87	1.46

FALNGE KF PARA MANGUEIRA DE VÁCUO – AÇO INOXIDÁVEL / ALUMÍNIO



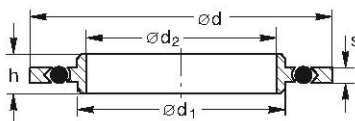
DN	ISO-KF	16	25	40
d	mm	12	12	12
	in.	0.47	0.47	0.47
d ₁ ¹⁾	mm	7	7	7
	in.	0.26	0.26	0.26
l	mm	40	40	40
	in.	1.57	1.57	1.57

REDUÇÃO ISO K PARA ISO KF – AÇO INOXIDÁVEL / AÇO CARBONO



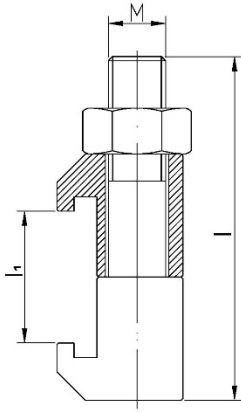
DN	ISO-KF	40	50	40
DN ₁	ISO-K	63	63	100
d ₁	mm	70	70	102
	in.	2.76	2.76	4.02
l	mm	40	45	40
	in.	1.57	1.77	1.57
s	mm	5	5	5
	in.	0.2	0.2	0.2
t	mm	4.5	4.5	4.5
	in.	0.18	0.18	0.18
Weight	kg	0.5	0.6	0.8
	lbs	1.10	1.32	1.77

ANEL DE CENTRALIZAÇÃO ISO K – AÇO INOXIDÁVEL / ALUMÍNIO – FPM / NBR



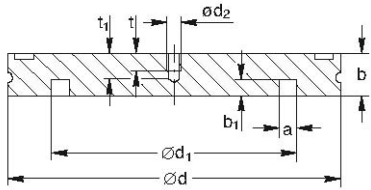
DN	ISO-K	63	100	160	200	250
d	mm	96	128	179	239	287
	in.	3.78	5.04	7.05	9.41	11.30
d ₁	mm	70	102	153	213	261
	in.	2.76	4.02	6.02	8.39	10.28
d ₂	mm	67	99	150	210	258
	in.	2.64	3.90	5.91	8.27	10.16
h	mm	8	8	8	8	8
	in.	0.31	0.31	0.31	0.31	0.31
s	mm	3.9	3.9	3.9	3.9	3.9
	in.	0.15	0.15	0.15	0.15	0.15

GRAMPO ISO K – AÇO GALVANIZADO



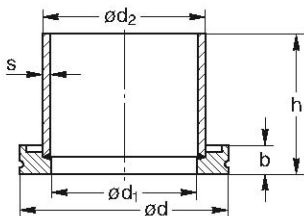
DN	ISO-K	63 / 250	63 / 250	320 / 500	630	320 / 630
Number of required clamps per connection		4 / 6	4 / 6	8 / 12	12	8 / 12
M	thread	M 10	M 10	M 12	M 12	M 12
l	mm	60.0	68.0	78.0	88.0	82.5
	in.	2.36	2.68	3.07	3.46	3.25
l ₁	mm	17 to 27	25 to 35	27 to 39	31 to 49	29 to 47
	in.	0.67 to 1.06	0.98 to 1.38	1.06 to 1.54	1.22 to 1.93	1.14 to 1.85

FLANGE CEGO ISO K – AÇO INOXIDÁVEL / ALUMÍNIO



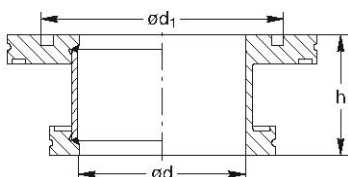
DN	ISO-K	63	100	160	200	250	320	400	500	630
a	mm	5	5	5	5	5	5	5	5	5
	in.	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
b	mm	12	12	12	12	12	17	17	17	22
	in.	0.47	0.47	0.47	0.47	0.47	0.67	0.67	0.67	0.87
b ₁	mm	4.5	4.5	4.5	4.5	4.5	6.5	6.5	6.5	6.5
	in.	0.18	0.18	0.18	0.18	0.18	0.26	0.26	0.26	0.26
d	mm	95	130	180	240	290	370	450	550	690
	in.	3.74	5.12	7.09	9.45	11.42	14.57	17.72	21.65	27.17
d ₁	mm	70	102	153	213	261	318	400	501	651
	in.	2.76	4.02	6.02	8.39	10.28	12.52	15.75	19.72	25.63
d ₂	thread	–	–	–	–	–	–	–	M 8	M 8
t	mm	8	8	8	8	8	8	8	8	8
	in.	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
t ₁	mm	12	12	12	12	12	12	12	12	12
	in.	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47

FLANGE ISO K COM PESÇO – AÇO INOXIDÁVEL / AÇO CARBONO



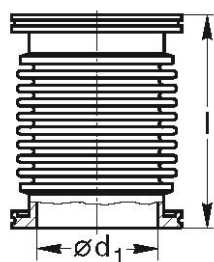
DN	ISO-K	63	100	160	200	250	320	400	500	630
d	mm	95	130	180	240	290	370	450	550	690
	in.	3.74	5.12	7.09	9.45	11.42	14.57	17.72	21.65	27.17
d ₁	mm	70	102	153	213	261	318	400	501	651
	in.	2.76	4.02	6.02	8.39	10.28	12.52	15.75	19.72	25.63
d ₂	mm	76.1	108	159	219.1	267	324	406	508	660
	in.	3.00	4.25	6.26	8.63	10.51	12.76	15.98	20.00	25.98
h	mm	100	100	100	100	100	100	100	100	100
	in.	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
s (steel)	mm	2.9	2.9	2.9	–	3	3	3	4	5
	in.	0.11	0.11	0.11	–	0.12	0.12	0.12	0.16	0.20
s (stainless steel)	mm	2.3	2	2	3	3	3	3	4	5
	in.	0.09	0.08	0.08	0.12	0.12	0.12	0.12	0.16	0.20
b	mm	12	12	12	12	12	17	17	17	22
	in.	0.47	0.47	0.47	0.47	0.47	0.67	0.67	0.67	0.87

FLANGE DE REDUÇÃO ISO K – AÇO INOXIDÁVEL / ALUMÍNIO



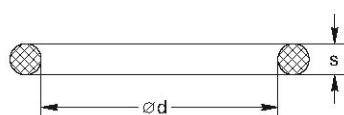
DN	ISO-K	100/63	250/200
d	mm	70	213
	in.	2.76	8.39
d ₁	mm	102	261
	in.	4.02	10.28
h	mm	50	50
	in.	1.97	1.97

TUBO FLEXÍVEL ISO K CURTO – AÇO INOXIDÁVEL



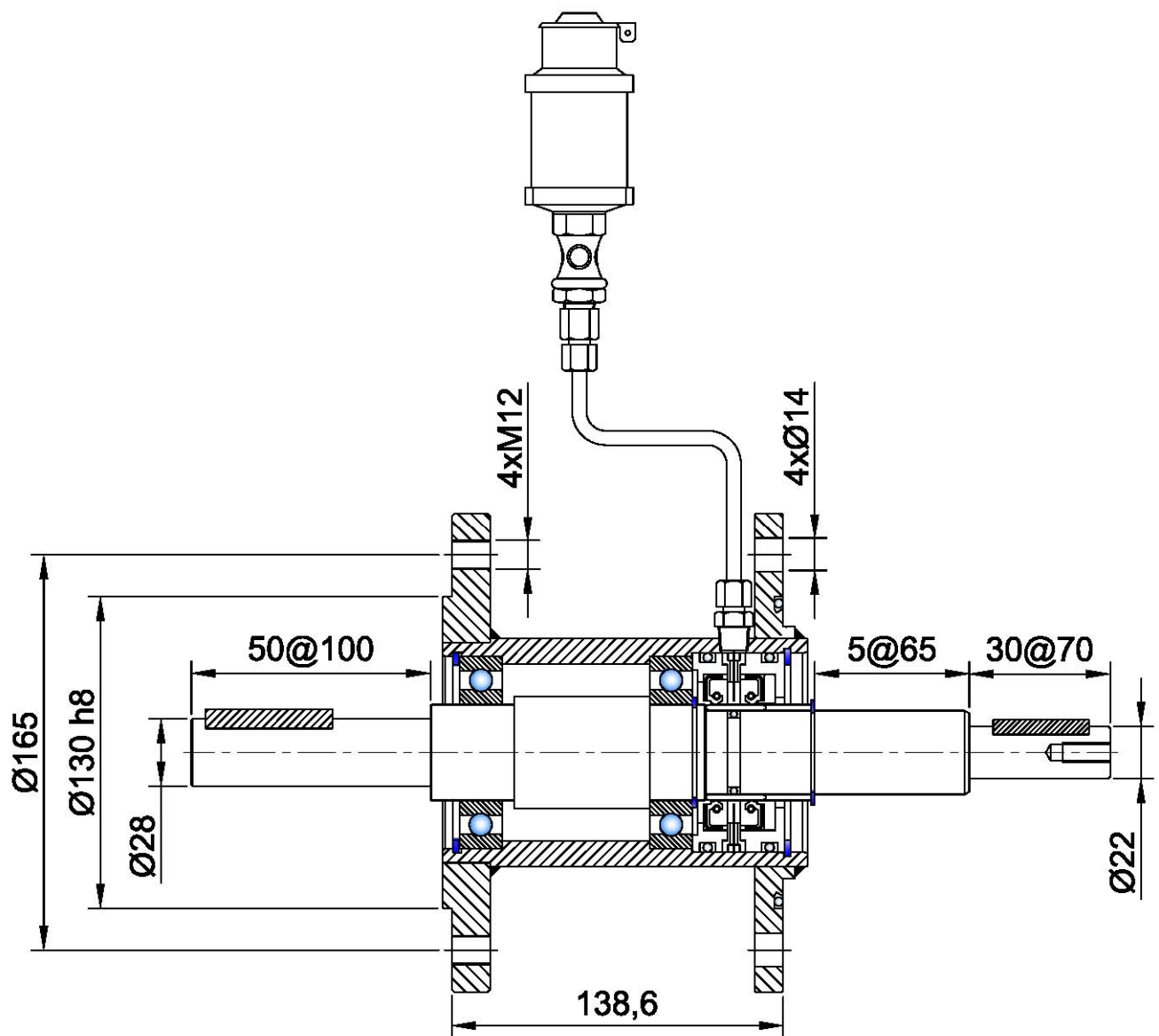
DN	ISO-K	63	100	160	250
d_1	mm	70	102	153	261
	in.	2.76	4.02	6.02	10.78
l	mm	132	132	150	200
	in.	5.20	5.20	5.91	7.87
Weight	kg	1.0	3.9	6.2	9.3
	lbs	2.21	8.61	13.69	20.53
Compression	mm	20	28	22	30
	in.	0.79	1.10	0.87	1.18
Tension	mm	20	28	22	30
	in.	0.79	1.10	0.87	1.18
Max. bending angle	degrees ¹⁾	$\pm 30^\circ$	$\pm 30^\circ$	$\pm 14^\circ$	$\pm 13^\circ$
Lateral displacement	mm	7.5	9.0	3.5	4.5
	in.	0.28	0.35	0.14	0.18

ANEL O-RING PARA FLANGE ISO K – FPM / NBR



DN	ISO-K	63	100	160	200	250	320
d	mm	75	107	158	208	253	329
	in.	2.95	4.21	6.22	8.19	9.96	12.95
s	mm	5	5	5	5	5	7
	in.	0.20	0.20	0.20	0.20	0.20	0.28

PASSADOR DE ROTAÇÃO A VÁCUO



LADO ATMOSFERA

LADO VÁCUO