ISO KF & LF FLANGES



ISO-KF (Klein Flange) and LF (Large Flange) flanges are part of the same family of ISO standard elastomer sealed vacuum components. LewVac ISO flanges and fittings are manufactured in accordance with ISO (International Standard Organization) 2861 standards and tolerances. These flanges are an economical, convenient and simplified means of constructing custom vacuum systems.

ISO flanges provide a complete range of fittings to mount with tubing sized 12.7mm (1/2") up to 508mm (20") diameter. The flange system consists of two sexless, 360° rotatable flanges, a centring ring for alignment and support of the sealing ring and a fastener to compress the seal between the two flanges. ISO-KF and LF sealing components are similar, however their fastening methods differ. LewVac offers a broad range of flanges, fittings, valves, traps and accessories with ISO connections that can be used to create a complete vacuum system or pumping line.

Specifications

- Vacuum rated to $1x10^{-8}$ Torr.
- Leak rating < $1x10^{-9}$ std. cc/s helium.
- Temperature range: -20°C to 150°C (*200°C)
- Standard materials: Flanges and fittings: 304L stainless steel,6061 T6 aluminium. Seals: Viton®, nitrile & silicone.
- Other materials available.

* - Increased upper limit for intermittent use.

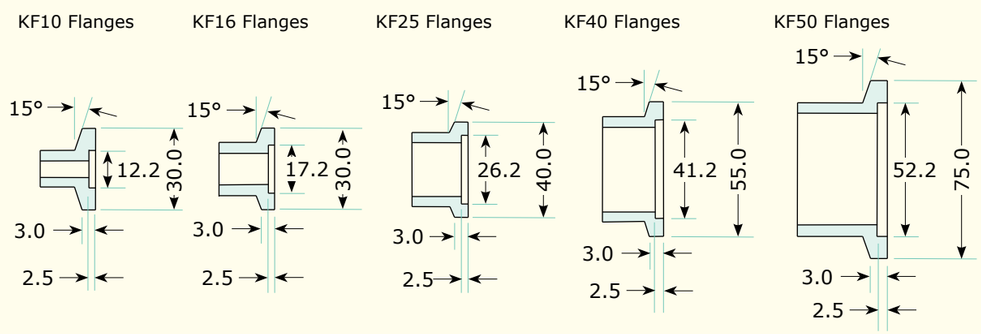
Features

- Quickly connect & disconnect.
- Reusable flanges.
- 360° rotatable.
- Sexless flanges.
- Adapters to other flange systems available.
- Compatible with metric and U.S. (imperial) measurements.

All dimensions are nominal in millimetres unless otherwise specified

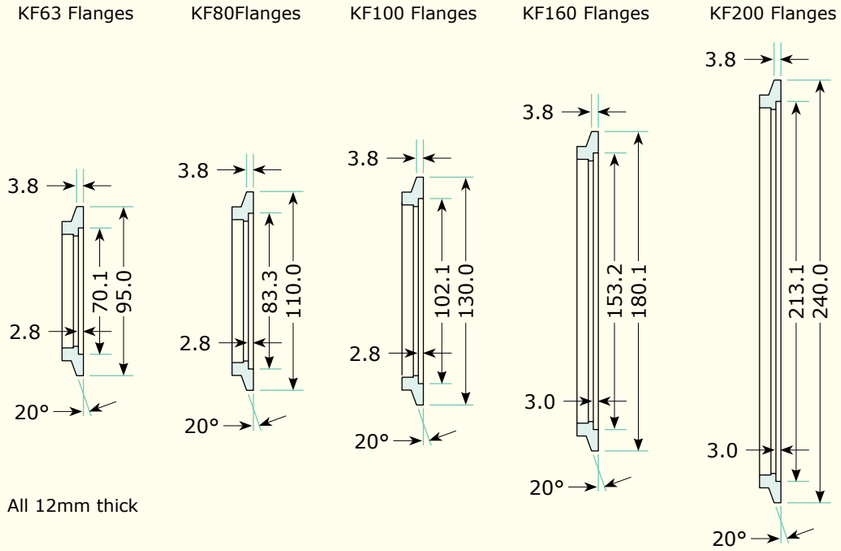
ISO KF & LF Flange Dimensions

Standard ISO KF Flange Dimensions



The ISO standard flange interface dimensions are shown on these two pages and are not repeated throughout the catalogue. Fittings (tees, crosses, elbows, etc.) and adapters, however, have no universal standards. These dimensions are shown throughout the catalogue.

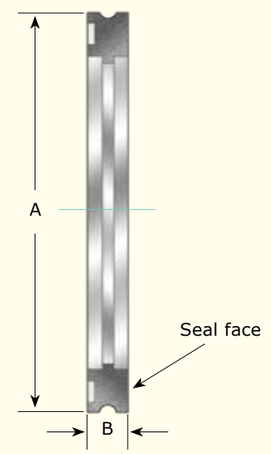
Large Size ISO KF Flange Dimensions



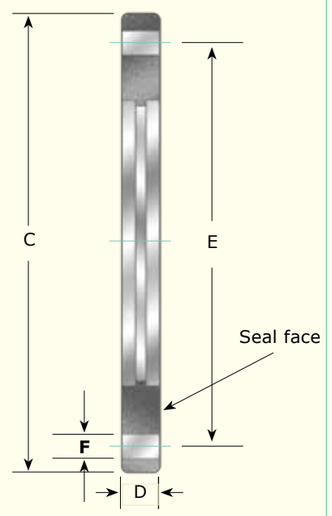
All 12mm thick

In addition to the standard range (top) of KF flanges, LewVac can now offer KF flanges up to size KF200 (8" / 203.2mm tube outer diameter). ISO standards only apply to KF flanges up to size NW50 (2" / 50.8mm tubing outer diameter). The sizes listed above were developed by vacuum component manufacturers within the United States. KF clamps for these flanges are available in a variety of materials and designs. Adaptive fasteners are also available to allow users to seal directly from an LF or LFB style ISO flange to these more convenient large KF style flanges.

ISO Claw Clamp Flange



ISO Bolted Flange



ISO LF Flange Dimensions
Clamp style (ISO-K)

Flange size	Compatible tube OD	A	B	No. clamps required
LF63	63.5	95	12	3 - 4
LF80	76.2	110	12	4 - 8
LF100	101.6	130	12	4 - 8
LF160	152.4	180	12	4 - 8
LF200	203.2	240	12	6 - 12
LF250	254	290	12	6 - 12
LF320	304.8 / 323.9	370	17	8 - 12
LF400	406.4	450	17	8 - 16
LF500	508	550	17	12 - 16

ISO LFB Flange Dimensions
Bolt style (ISO-F)

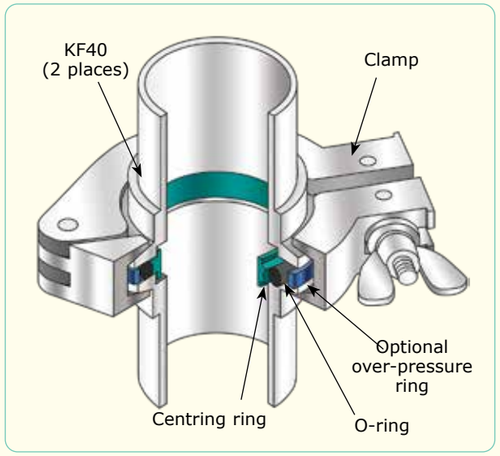
Flange size	Compatible tube OD	C	D	E	F	No. of holes
LFB63	63.5	130	12	110	9	4
LFB80	76.2	145	12	125	9	8
LFB100	101.6	165	12	145	9	8
LFB160	152.4	225	16	200	11	8
LFB200	203.2	285	16	260	11	12
LFB250	254	335	16	310	11	12
LFB320	304.8 / 323.9	425	20	395	14	12
LFB400	406.4	510	20	480	14	16
LFB500	508	610	20	580	14	16

ISO Standard Sealing Assemblies

An ISO seal assembly consists of 3 types of sub-component, two sexless, 360° rotatable flanges, a centring ring for alignment and support of the sealing ring and a fastener to compress the seal between the two flanges. ISO-KF and LF sealing components are similar, however their fastening methods differ. Because of this there are some differences in flange appearance depending on which fastening method you employ. See the illustrations below and on the following pages for quick reference.

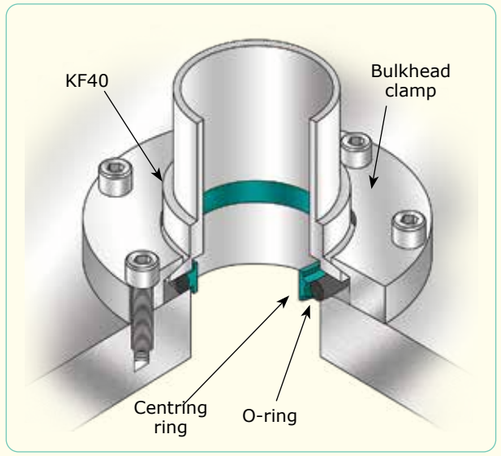
ISO-KF Quick Clamp Assembly

This is the commonly preferred method for fastening ISO flange connections due to the fact that the KF Clamp offers the fastest and easiest fastening method for creating a reliable ISO vacuum seal. Traditionally these clamps have been limited to use with ISO flanges KF10 to KF50 but LewVac now offers KF clamps and compatible flanges up to size KF200. KF clamps are available in a variety of materials and designs.



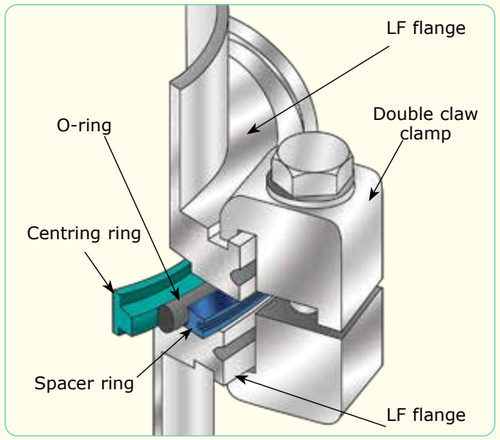
ISO-KF Bulkhead Clamp Assembly

Bulkhead clamps are used to fasten ISO-KF style flanges directly to valves, chamber walls or baseplates. The object to which the flange is sealing must have a compatible bolt hole pattern and sealing groove machined into the sealing surface.



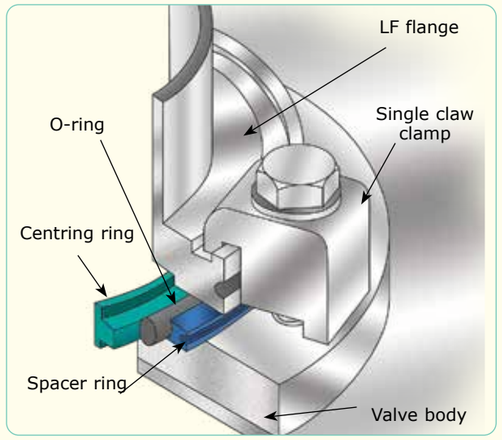
ISO-LF Double Claw Clamp Assembly

This is traditionally the most popular clamp fastening system for ISO sizes LF63 and larger. This fastening system requires the use of more than one clamp per flange connection. They require more work per seal assembly but they offer greater strength than the quick clamp if the seal assembly must bear a lateral load.



ISO-LF Single Claw Clamp Assembly

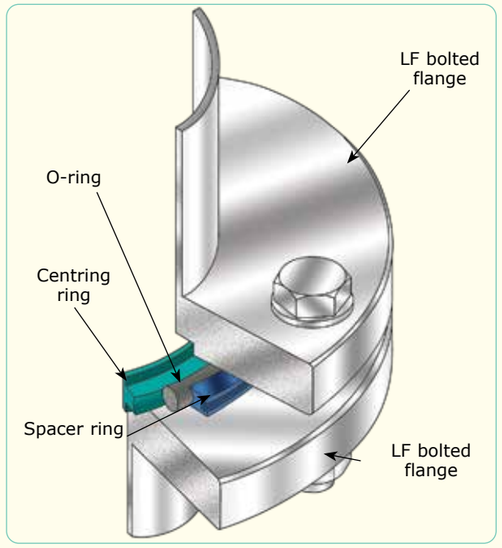
Single claw clamps are used to fasten ISO-LF style clamps directly to LFB flanges with tapped bolt holes, valves, chamber walls or baseplates. The object to which the flange is sealing must have a compatible bolt hole pattern and sealing groove machined into the sealing surface.



ISO-LFB Assembly

The original means of fastening ISO flange connections offers good lateral load strength like the claw clamp but also requires more than one bolt set per flange connection like the claw clamp. One great disadvantage to using this fastening system is that the user loses the ability to have infinitely rotatable flanges. Great care must be taken to achieve bolt-hole alignment through careful design and installation or the use of rotatable and non-rotatable flanges within your system.

Note: To create a rotatable LFB flange a rotatable bolt ring is added to a standard LF style flange.

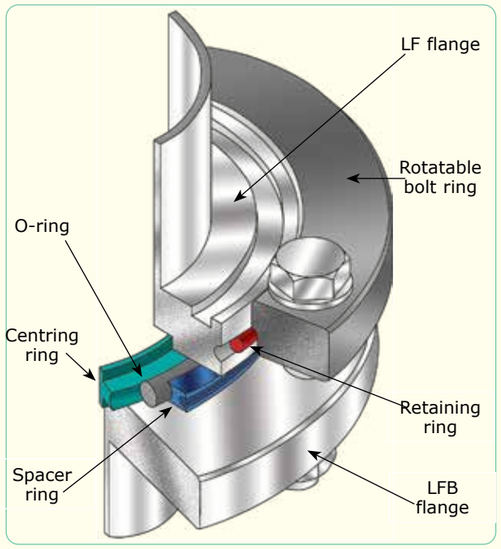


ISO Adaptive Sealing Assemblies

The ISO vacuum flange system accommodates the need to connect different styles of ISO flanges and fasteners through adaptive subcomponents. These adaptive components fit around the outer diameter of the flange and allow the direct connection of two different types of ISO flange.

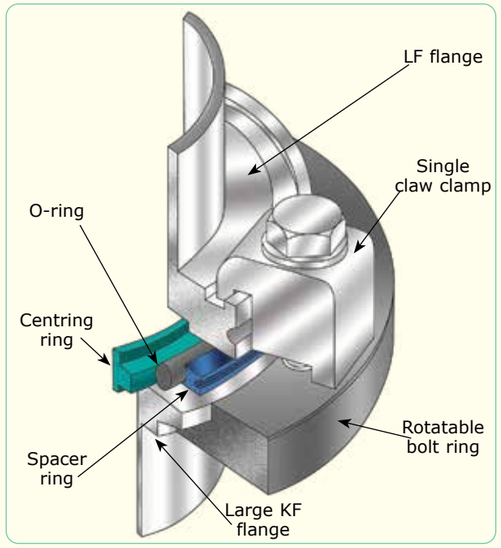
ISO-LF to ISO-LFB Adaptive Assembly

This fastener sub-component fits around the outer diameter of a claw clamp style LF flange. This allows the flange to behave as a rotatable bolted style LFB flange to ease bolt-hole alignment issues when assembling the vacuum system. This assembly also has the advantage of having a low profile as compared to claw clamp fasteners. After the rotatable bolt ring is mounted to the LF flange a bolt kit is used to fasten the two flanges together.



ISO-LF to ISO-KF Adaptive Assembly

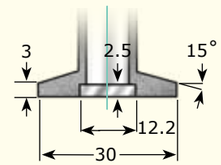
Adaptive fasteners allow vacuum users to convert directly from one style of ISO fastening flanges to another without the purchase of an adaptive nipple fitting. This saves money and reduces the space needed to accomplish the flange adaptation within your system. The LewVac adaptive ISO fastener can convert a bolted or claw clamp style flange directly to a KF flange for the same tubing diameter.



International & US Sizes & Dimensions

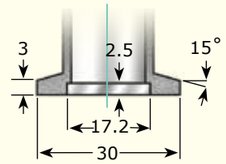
ISO KF10

- Mates with ISO KF16



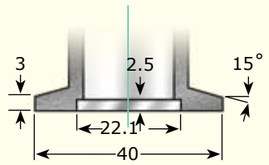
ISO KF16

- Standard LewVac KF Flange



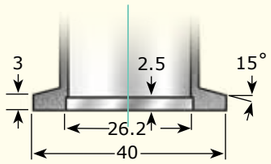
ISO KF20

- Mates with ISO KF25



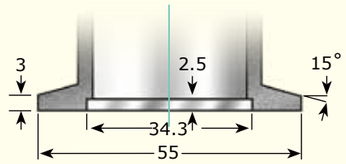
ISO KF25

- Standard LewVac KF Flange



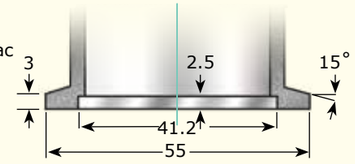
ISO KF32

- Mates with ISO KF40



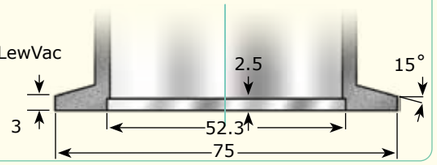
ISO KF40

- Standard LewVac KF Flange



ISO KF50

- Standard LewVac KF Flange



All manufacturers of ISO components machine these flanges to measurements determined by the ISO standards referenced on the first page of this introduction, and as such, are interchangeable. It is worth noting that two of the flange sizes detailed on this page, namely the KF20 and KF32 are rarely used by modern vacuum equipment manufacturers and as such are not kept in stock by LewVac. These can be manufactured upon request, but a better option is to use our adaptive centring ring. With our adaptive centring ring, you can adapt directly from a KF10 to a KF16, KF20 to KF25 or KF32 to KF40. The connections can then be fastened with a standard clamp that corresponds with the larger of the two sizes.
The ISO standard flange interface dimensions are shown on pages 3.60 & 3.61 and are not repeated throughout the catalogue. Fittings (tees, crosses, elbows, etc.) and adapters, however, have no universal standards. These dimensions are shown throughout the catalogue.

ISO KF & LF Clamps & Fasteners



The ISO flange system has 3 traditional choices with which to fasten together your flanges and create a seal. These are the hinged or band clamp connection, claw clamp connection and bolt kits. In addition to these fasteners there are adaptation bolt rings and bulk head fasteners for special applications. All of these fasteners have advantages for different applications and are described in detail below.

KF Clamps



This is the commonly preferred method for fastening ISO flange connections due to the fact that they offer the fastest and easiest fastening method for creating a reliable ISO vacuum seal. Traditionally these clamps have been limited to use with ISO flange sizes KF10 to KF50 but LewVac now offers KF clamps and compatible flanges up to size KF200. KF clamps are available in a variety of materials and designs, see later pages for details.

Bulkhead Clamps



Bulkhead clamps are used to fasten ISO-KF style flanges and components directly to valves, chamber walls, baseplates or bulkheads. The object to which the flange is sealing must have a compatible bolt hole pattern and sealing groove machined into the sealing surface.

Wall Clamps



Wall clamps are used to fasten ISO-KF style flanges and components directly to valves, chamber walls, baseplates or bulkheads, where space around the fitting is limited. The object to which the flange is sealing must have suitable bolt holes, although these can be positioned at the users discretion to best suit the particular application and location of the joint.

Claw Clamps





These clamps require the use of more than one clamp per flange connection. These are traditionally the most popular clamps for ISO sizes LF63 and larger. These clamps are the only clamps capable of sealing sizes LF250 to LF500. Aluminium and stainless steel versions are available

Bolt Kits



The original means of fastening ISO flange connections offers good lateral load strength like the claw clamp but also requires more than one bolt set per flange connection like the claw clamp. One great disadvantage to using this fastening system is that the user loses the ability to have infinitely rotatable flanges. Great care must be taken to achieve bolt-hole alignment through careful design and installation or the use of rotatable and non-rotatable flanges within your system.

Rotatable Bolt Ring & Adaptive Bolt Ring



Rotatable bolt rings are a sub-component that fits around the outer diameter of a claw clamp style LF flange. This allows the flange to behave as a rotatable bolted style LFB flange to ease bolt-hole alignment issues when assembling the vacuum system. This assembly also has the advantage of having a low profile as compared to claw clamp fasteners. After the rotatable bolt ring is mounted to the LF flange a bolt kit is used to fasten the two flanges together.

Adaptive bolt rings allow vacuum users to convert directly from one style of ISO fastening flanges to another without the purchase of an adaptive nipple fitting. This saves money and reduces the space needed to accomplish the flange adaptation within your system. The LewVac adaptive ISO fastener can convert a bolted or claw clamp style flange directly to a KF clamp flange for the same tubing diameter.

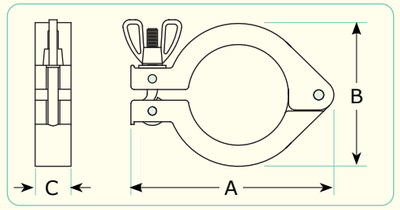
KF Flange Clamps

Hinged Clamps - Aluminium



Features:

- Quick assembly and removal.
- Aluminium clamp.
- Carbon steel bolt
- Ni plated Zn alloy wing nut.



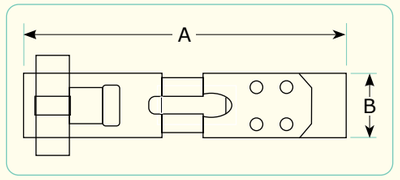
Use With Flange Size	A	B	C	Part Code	Price £	Price €
DN10KF	61	45	16	FL-C16KF	£2	€3
DN16KF	61	45	16	FL-C16KF	£2	€3
DN25KF	72	55	16	FL-C25KF	£2	€3
DN40KF	90	70	16	FL-C40KF	£3	€4
DN50KF	113	90	20	FL-C50KF	£4	€5

Band Clamps - Stainless Steel



Features:

- Quick assembly and removal.
- Stainless steel construction.



For use with large KF flanges as shown on pages 3.116-117. Call sales office for more details.

Use With Flange Size	A	B	Part Code	Price £	Price €
DN63KF	99	24	FL-BC63KF	£24	€28
DN80KF	121	24	FL-BC80KF	POA	POA
DN100KF	137	24	FL-BC100KF	£32	€37
DN160KF	184	24	FL-BC160KF	£37	€43
DN200KF	243	24	FL-BC200KF	£41	€48

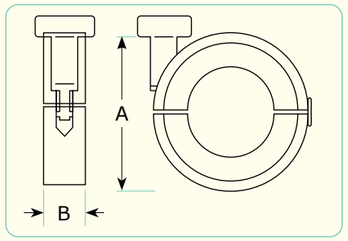
PLEASE NOTE :- Minimum order quantities may apply.

CNC Clamps - Aluminium



Features:

- Quick assembly and removal.
- Machined aluminium clamp for increased strength.
- Stainless steel bolt & "T" nut.



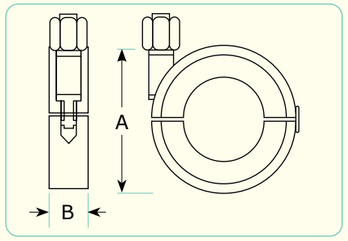
Use With Flange Size	A	B	Part Code	Price £	Price €
DN10KF	49	16	FL-CNC16KF	£14	€17
DN16KF	49	16	FL-CNC16KF	£14	€17
DN25KF	62	16	FL-CNC25KF	£14	€17
DN40KF	75	16	FL-CNC40KF	£19	€22
DN50KF	100	16	FL-CNC50KF	£24	€28

CNC Clamps - Stainless Steel



Features:

- Quick assembly and removal.
- Machined stainless steel clamp for increased strength.
- Stainless steel bolt & hex nut.



Use With Flange Size	A	B	Part Code	Price £	Price €
DN10KF	49	16	FL-CNCS16KF	£46	€53
DN16KF	49	16	FL-CNCS16KF	£46	€53
DN25KF	62	16	FL-CNCS25KF	£58	€67
DN40KF	75	16	FL-CNCS40KF	£95	€110
DN50KF	100	16	FL-CNCS50KF	£79	€91

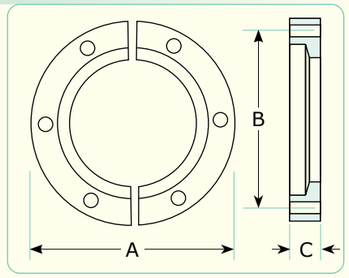
KF Flange Clamps

Bulkhead Clamps - Aluminium



Features:

- Aluminium clamp.
- Stainless steel bolts.
- Supplied with bolts & washers.



Use With Flange Size	No. Of Bolts	Bolt Size	A	B	C	Part Code	Price £	Price €
DN10KF	6	M5x20	51	38.1	9	FL-BC16KF	£14	€17
DN16KF	6	M5x20	51	38.1	9	FL-BC16KF	£14	€17
DN25KF	6	M5x20	60	48.0	10	FL-BC25KF	£14	€17
DN40KF	6	M5x20	75	62.0	10	FL-BC40KF	£16	€19
DN50KF	8	M5x20	95	82.5	10	FL-BC50KF	£18	€21

Wall Clamps - Aluminium



Features:

- Aluminium clamp.
- Supplied without bolts & washers.

Use With Flange Size	Hole Dia.	Pack Qty.	Part Code	Price £	Price €
All KF	6.4	1	FL-WALLKF	£2	€3

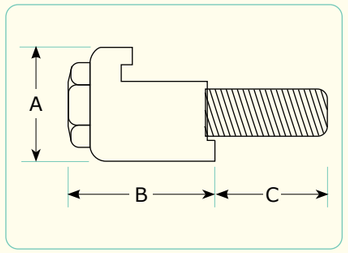
LF Flange Clamps

Single Claw Clamps - Aluminium



Features:

- Aluminium body, stainless steel bolt.



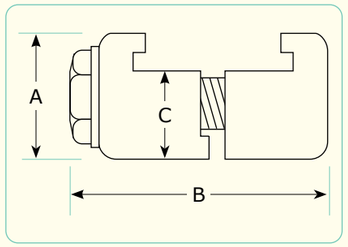
Use With Flange Size	Bolt size	A	B	C	Part Code	Price £	Price €
DN63 - 100LF	M8	25	30	10	FL-SCC63-100LF	£3	€4
DN160 - 250LF	M10	28	32	8	FL-SCC160-250LF	£3	€4
DN320 - 500LF	M12	35	39	16	FL-SCC320-500LF	£3	€4

Double Claw Clamps - Aluminium



Features:

- Aluminium body, stainless steel bolt.



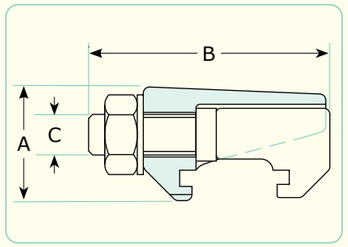
Use With Flange Size	Bolt size	A	B	C	Part Code	Price £	Price €
DN63 - 100LF	M8	25	50	17	FL-DCC63-100LF	£3	€4
DN160 - 250LF	M10	28	51	21	FL-DCC160-250LF	£3	€4
DN320 - 500LF	M12	35	67	27	FL-DCC320-500LF	£4	€5

Double Sliding Claw Clamps - Stainless Steel



Features:

- Stainless steel construction.
- Zinc plated mild steel also available.



Use With Flange Size	A	B	C	Part Code	Price £	Price €
DN63 -250LF	28	62	M10	FL-DCC63-250SS	£9	€11
DN320 - 500LF	30	76	M12	FL-DCC320-500SS	£10	€12

LF Flange Bolts

Double Flange Bolts



Features:

- Stainless steel.
- Includes nuts & washers.

Use With Flange Size	Bolt Size	Pack Qty.	Part Code	Price £	Price €
LF63 - 100	M8x40	25	M8-40	POA	POA
LF160 - 250	M10x50	25	M10-50	POA	POA
LF320 - 500	M12x60	25	M12-60	POA	POA

Tapped Flange Bolts



Features:

- Stainless steel.
- Includes washers.

Use With Flange Size	Bolt Size	Pack Qty.	Part Code	Price £	Price €
LF63 - 100	M8x20	25	M8-20	POA	POA
LF160 - 250	M10x30	25	M10-30	POA	POA
LF320 - 500	M12x40	25	M12-40	POA	POA

LF Rotatable Bolt Rings

Rotatable Bolt Ring





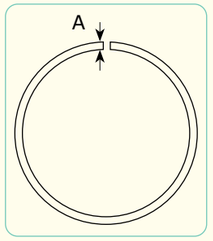
Features:

- Stainless steel.
- Split retainer ring must be purchased separately.
- Aluminium also available.

Use With Flange Size	Material	OD	Part Code	Price £	Price €
DN63LF	St.St.	130	FL-RBR63LF	£27	€32
DN80LF	St.St.	145	FL-RBR80LF	£31	€36
DN100LF	St.St.	165	FL-RBR100LF	£42	€49
DN160LF	St.St.	225	FL-RBR160LF	£100	€115
DN200LF	St.St.	285	FL-RBR200LF	£117	€135
DN250LF	St.St.	335	FL-RBR250LF	£148	€171
DN320LF	St.St.	425	FL-RBR320LF	POA	POA
DN400LF	St.St.	510	FL-RBR400LF	POA	POA
DN500LF	St.St.	610	FL-RBR500LF	POA	POA

Split Retainer Ring





Features:

- Stainless steel.

Use With Flange Size	Material	A	Part Code	Price £	Price €
DN63LF	St.St.	3	FL-SRR63LF	£4	€5
DN80LF	St.St.	3	FL-SRR80LF	£4	€5
DN100LF	St.St.	3	FL-SRR100LF	£7	€9
DN160LF	St.St.	5	FL-SRR160LF	£10	€12
DN200LF	St.St.	5	FL-SRR200LF	£14	€17
DN250LF	St.St.	5	FL-SRR250LF	£15	€18
DN320LF	St.St.	5	FL-SRR320LF	POA	POA
DN400LF	St.St.	8	FL-SRR400LF	POA	POA
DN500LF	St.St.	8	FL-SRR500LF	POA	POA

ISO KF & LF Seals & Centring Rings



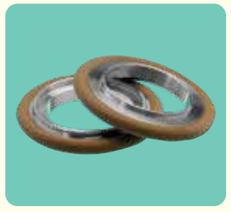
LewVac provides high vacuum seals and sealing assemblies for all standard ISO KF & LF sizes. Various different elastomers are available for the sealing ring. Viton® and nitrile are standard, with other materials being available upon request.

Centring Ring Assemblies



The basic seal for the ISO flange system includes a supportive inner metallic ring and an elastomer outer ring (o-ring) which is compressed between the ISO flanges to create a vacuum tight seal. LewVac offer a choice of stainless steel or aluminium for the supporting ring and various different elastomers for the sealing ring. Viton® and nitrile are available as standard, with other materials being available upon request.

Adaptive Centring Ring Assemblies



These sealing assemblies allow you to adapt directly from the rarely used ISO-KF sizes (KF10, KF20 and KF32) to commonly available ISO-KF sizes (KF16, KF25 and KF40). The adapter assembly can then be fastened with a standard clamp that corresponds with the larger of the two sizes.

Screen Mesh Centring Ring Assemblies



These sealing assemblies are useful in many situations in which a vacuum system or instrument needs to be protected from contamination by particulate generated from outside the system, or from within. These seal assemblies are made of the same sub-components as the standard centring ring assemblies. The difference being that the supportive metallic ring for these seals has a screen mesh insert covering the inner aperture.

Replacement O Rings



The elastomer sealing rings (o-ring) for the ISO seal assembly must be used in conjunction with a metallic supportive ring. The elastomer component of this sealing assembly is a consumable item. When the o-ring no longer provides consistent vacuum tight seals, replacement elastomer o-rings can be purchased separately from the supportive metallic ring to decrease cost of system maintenance. LewVac offer various different elastomers for the sealing ring. Viton® and nitrile are available as standard, with other materials being available upon request.

Over Pressure Rings



This centring ring accessory creates a barrier on the outer diameter of the elastomer sealing ring to prevent "blow out" due to the presence of pressures greater than 1 standard atmosphere within a system. A centring ring assembly with over pressure ring can withstand up to 100psi of pressure, depending on the size of the flange you are using. LewVac CNC machined clamps have a built-in over-pressure ring design. With the use of these clamps there is no need for the added expense of an over pressure ring in addition to the centring ring assembly.

ISO KF & LF Stainless Steel Centring Rings



Specifications:

Material

Centring ring	304 St.St. or aluminium
Spacer ring (LF only)	aluminium

Temperature Range

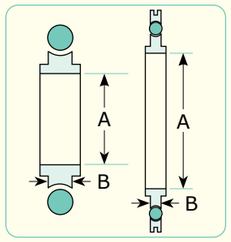
Using Viton® o-rings	-20°C to 150°C (200°C*)
Using nitrile o-rings	-20°C to 80°C (100°C*)

* - Increased upper limit for intermittant use.

KF centring rings with outer trap ring are available, please contact sales office for details.

Stainless Steel With Viton® O-Ring





Use With Flange Size	A	B	Part Code	Price £	Price €
DN10KF	10	3.9	FL-CRSV10KF	£3	€4
DN16KF	16	3.9	FL-CRSV16KF	£3	€4
DN25KF	25	3.9	FL-CRSV25KF	£3	€4
DN40KF	40	3.9	FL-CRSV40KF	£3	€4
DN50KF	50	3.9	FL-CRSV50KF	£5	€6
DN63LF	67	3.9	FL-CRSV63LF	£8	€10
DN80LF	80	3.9	FL-CRSV80LF	£15	€18
DN100LF	100	3.9	FL-CRSV100LF	£11	€13
DN160LF	150	3.9	FL-CRSV160LF	£20	€23
DN200LF	210	3.9	FL-CRSV200LF	£42	€49
DN250LF	257.5	3.9	FL-CRSV250LF	£61	€71
DN320LF	312	5.6	FL-CRSV320LF	£138	€159
DN400LF	394	5.6	FL-CRSV400LF	POA	POA
DN500LF	494	5.6	FL-CRSV500LF	POA	POA

Stainless Steel With Nitrile O-Ring

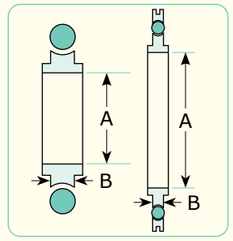
Use With Flange Size	A	B	Part Code	Price £	Price €
DN10KF	10	3.9	FL-CRSN10KF	£3	€4
DN16KF	16	3.9	FL-CRSN16KF	£2	€3
DN25KF	25	3.9	FL-CRSN25KF	£3	€4
DN40KF	40	3.9	FL-CRSN40KF	£3	€4
DN50KF	50	3.9	FL-CRSN50KF	£4	€5
DN63LF	67	3.9	FL-CRSN63LF	£7	€9
DN80LF	80	3.9	FL-CRSN80LF	£10	€12
DN100LF	100	3.9	FL-CRSN100LF	£11	€13
DN160LF	150	3.9	FL-CRSN160LF	£17	€20
DN200LF	210	3.9	FL-CRSN200LF	£37	€43
DN250LF	257.5	3.9	FL-CRSN250LF	£53	€61
DN320LF	312	5.6	FL-CRSN320LF	POA	POA
DN400LF	394	5.6	FL-CRSN400LF	POA	POA
DN500LF	494	5.6	FL-CRSN500LF	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

ISO KF & LF Aluminium Centring Rings

Aluminium With Viton® O-Ring

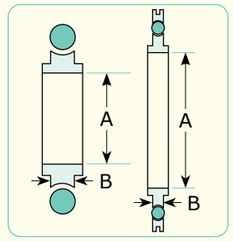




Use With Flange Size	A	B	Part Code	Price £	Price €
DN10KF	10	3.9	FL-CRAV10KF	£3	€4
DN16KF	16	3.9	FL-CRAV16KF	£2	€3
DN25KF	25	3.9	FL-CRAV25KF	£3	€4
DN40KF	40	3.9	FL-CRAV40KF	£3	€4
DN50KF	50	3.9	FL-CRAV50KF	£5	€6
DN63LF	67	3.9	FL-CRAV63LF	£8	€10
DN80LF	80	3.9	FL-CRAV80LF	£9	€11
DN100LF	100	3.9	FL-CRAV100LF	£12	€14
DN160LF	150	3.9	FL-CRAV160LF	£21	€25
DN200LF	210	3.9	FL-CRAV200LF	£32	€37
DN250LF	257.5	3.9	FL-CRAV250LF	£53	€61
DN320LF	312	5.6	FL-CRAV320LF	POA	POA
DN400LF	394	5.6	FL-CRAV400LF	POA	POA
DN500LF	494	5.6	FL-CRAV500LF	POA	POA

Aluminium With Nitrile O-Ring

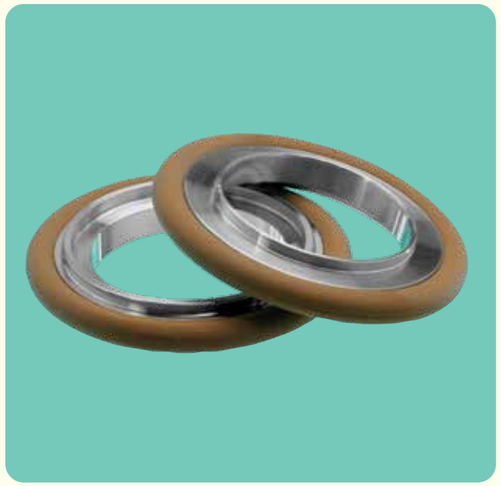




Use With Flange Size	A	B	Part Code	Price £	Price €
DN10KF	10	3.9	FL-CRAN10KF	£3	€4
DN16KF	16	3.9	FL-CRAN16KF	£2	€3
DN25KF	25	3.9	FL-CRAN25KF	£3	€4
DN40KF	40	3.9	FL-CRAN40KF	£3	€4
DN50KF	50	3.9	FL-CRAN50KF	£3	€4
DN63LF	67	3.9	FL-CRAN63LF	£7	€9
DN80LF	80	3.9	FL-CRAN80LF	£8	€10
DN100LF	100	3.9	FL-CRAN100LF	£11	€13
DN160LF	150	3.9	FL-CRAN160LF	£19	€22
DN200LF	210	3.9	FL-CRAN200LF	£31	€36
DN250LF	257.5	3.9	FL-CRAN250LF	£53	€61
DN320LF	312	5.6	FL-CRAN320LF	POA	POA
DN400LF	394	5.6	FL-CRAN400LF	POA	POA
DN500LF	494	5.6	FL-CRAN500LF	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

ISO KF Adaptive Centring Rings



With our adaptive centring ring you can adapt directly from KF10 to KF16, KF20 to KF25 and KF32 to KF40 flanges. The connections can then be fastened with a standard clamp that corresponds with the larger of the two sizes. Adaptation to these standard sizes will greatly expand the number of components that have standard dimensions compatible with your vacuum system. This may ease your system assembly, decrease product delivery time and reduce cost.

Specifications:

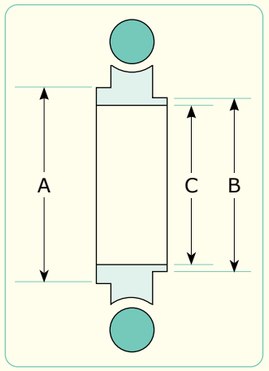
Material

Centring ring	304 St.St. or aluminium

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

* - Increased upper limit for intermittant use.



Stainless Steel With Viton® O-Ring

Use With Flange Size	A	B	C	Part Code	Price £	Price €
DN10/16KF	17	12	10	FL-CRSV10-16KF	£3	€4
DN20/25KF	26	22	20	FL-CRSV25-20KF	£4	€5
DN32/40KF	41	34	32	FL-CRSV40-32KF	£5	€6

Aluminium With Viton® O-Ring

Use With Flange Size	A	B	C	Part Code	Price £	Price €
DN10/16KF	17	12	10	FL-CRAV10-16KF	£3	€4
DN20/25KF	26	22	20	FL-CRAV25-20KF	£4	€5
DN32/40KF	41	34	32	FL-CRAV40-32KF	£5	€6

Stainless Steel With Nitrile O-Ring

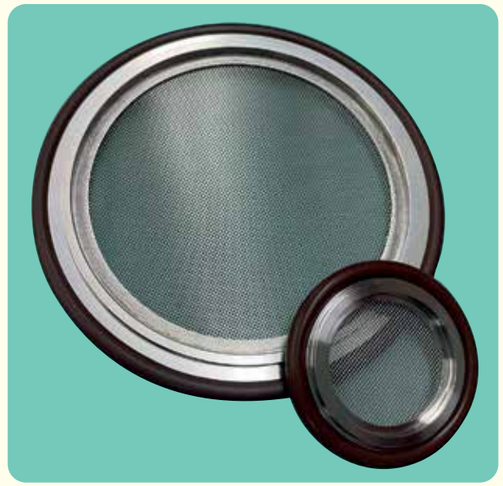
Use With Flange Size	A	B	C	Part Code	Price £	Price €
DN10/16KF	17	12	10	FL-CRSN10-16KF	£3	€4
DN20/25KF	26	22	20	FL-CRSN25-20KF	£4	€5
DN32/40KF	41	34	32	FL-CRSN40-32KF	£5	€6

Aluminium With Nitrile O-Ring

Use With Flange Size	A	B	C	Part Code	Price £	Price €
DN10/16KF	17	12	10	FL-CRAN10-16KF	£3	€4
DN20/25KF	26	22	20	FL-CRAN25-20KF	£4	€5
DN32/40KF	41	34	32	FL-CRAN40-32KF	£5	€6

All dimensions are nominal in millimetres unless otherwise specified

ISO KF & LF Centring Rings With Screen



Screen mesh centring ring assemblies are useful in many situations in which a vacuum system or instrument needs to be protected from contamination by particulate generated from outside the system or from within. The supportive metallic ring for these seals has a screen mesh insert covering the inner aperture. LewVac supplies assemblies as standard with a stainless steel 30 mesh screen. Other mesh sizes (24, 48 & 72) are available on request.

Specifications:

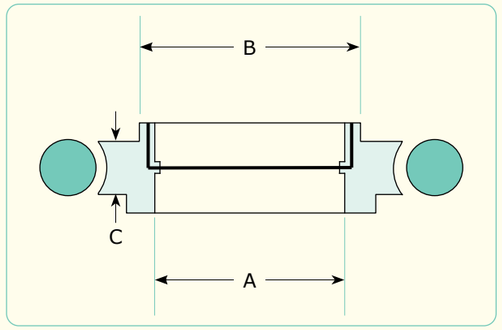
Material

Centring ring	304 St.St.
Mesh	304 St.St.

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

* - Increased upper limit for intermittant use.



Stainless Steel With Viton® O-Ring

Use With Flange Size	A	B	C	Part Code	Price £	Price €
DN16KF	12.0	17	3.9	FL-CRSVM16KF	£16	€19
DN25KF	20.5	26	3.9	FL-CRSVM25KF	£20	€23
DN40KF	35.8	41	3.9	FL-CRSVM40KF	£19	€22
DN50KF	46.3	52	3.9	FL-CRSVM50KF	£24	€28
DN63LF	60.5	69.6	3.9	FL-CRSVM63LF	£41	€48
DN80LF	73.6	82.6	3.9	FL-CRSVM80LF	£58	€67
DN100LF	91.8	101.6	3.9	FL-CRSVM100LF	£80	€92
DN160LF	143.5	152.6	3.9	FL-CRSVM160LF	£150	€173

Stainless Steel With Nitrile O-Ring

Use With Flange Size	A	B	C	Part Code	Price £	Price €
DN16KF	12.0	17	3.9	FL-CRSNM16KF	£15	€18
DN25KF	20.5	26	3.9	FL-CRSNM25KF	£23	€27
DN40KF	35.8	41	3.9	FL-CRSNM40KF	£18	€21
DN50KF	46.3	52	3.9	FL-CRSNM50KF	£21	€25
DN63LF	60.5	69.6	3.9	FL-CRSNM63LF	£38	€44
DN80LF	73.6	82.6	3.9	FL-CRSNM80LF	£56	€65
DN100LF	91.8	101.6	3.9	FL-CRSNM100LF	£60	€69
DN160LF	143.5	152.6	3.9	FL-CRSNM160LF	£104	€120

All dimensions are nominal in millimetres unless otherwise specified

ISO KF Over-Pressure Rings



Over-pressure rings create a barrier on the outer diameter of the elastomer sealing ring to prevent "blow out" due to the presence of pressures greater than 1 standard atmosphere within a system. A centring ring assembly with an over-pressure ring can withstand up to 100psi of pressure depending on the size of the flange you are using.

LewVac CNC machined clamps have a built-in over- pressure ring design. With the use of these clamps there is no need for the added expense of an over pressure ring addition to the centring ring assembly.

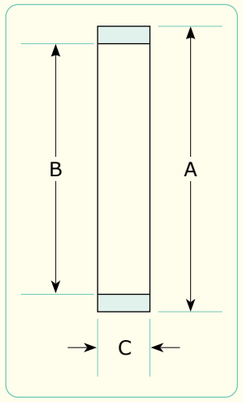
Specifications:

Material

Ring	304 St.St.

Temperature Range

As per o-ring used within assembly



Over-Pressure Ring

Use With Flange Size	A	B	C	Part Code	Price £	Price €
DN10KF	28.0	23.5	3.7	FL-OPR10KF	£2	€3
DN16KF	31.8	29.1	3.7	FL-OPR16KF	£2	€3
DN25KF	40.4	38.9	3.7	FL-OPR25KF	£2	€3
DN40KF	57.2	54.0	3.7	FL-OPR40KF	£2	€3
DN50KF	69.9	66.6	3.7	FL-OPR50KF	£4	€5

All dimensions are nominal in millimetres unless otherwise specified

ISO KF & LF Replacement O-Rings



Specifications:

Material

	Viton® or nitrile

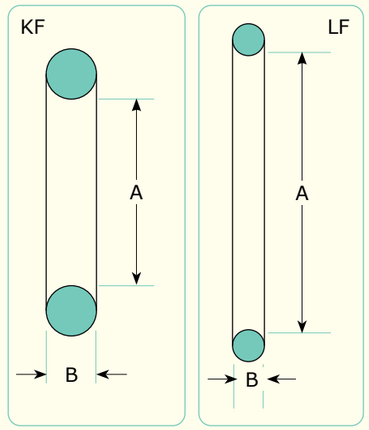
Temperature Range

Viton®	-20°C to 150°C (200°C*)
Nitrile	-20°C to 80°C (100°C*)

* - Increased upper limit for intermittant use.

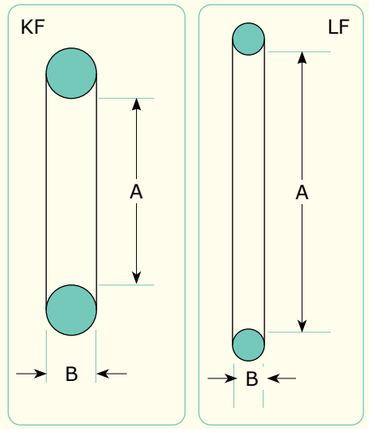
Other materials available upon request.

Replacement Viton® O-Ring



Use With Flange Size	A	B	Part Code	Price £	Price €
DN10KF	13.6	5.3	FL-10KF-OV	£1	€2
DN16KF	18.4	5.3	FL-16KF-OV	£1	€2
DN25KF	27.9	5.3	FL-25KF-OV	£1	€2
DN40KF	40.7	5.3	FL-40KF-OV	£1	€2
DN50KF	53.3	5.3	FL-50KF-OV	£1	€2
DN63LF	75.6	5.3	FL-63LF-OV	£2	€3
DN80LF	88.3	5.3	FL-80LF-OV	£4	€5
DN100LF	107.3	5.3	FL-100LF-OV	£4	€5
DN160LF	158.1	5.3	FL-160LF-OV	£12	€14
DN200LF	215.3	5.3	FL-200LF-OV	£7	€9
DN250LF	266.1	5.3	FL-250LF-OV	£9	€11
DN320LF	316.9	7.0	FL-320LF-OV	POA	POA
DN400LF	405.3	7.0	FL-400LF-OV	POA	POA
DN500LF	506.9	7.0	FL-500LF-OV	POA	POA

Replacement Nitrile O-Ring



Use With Flange Size	A	B	Part Code	Price £	Price €
DN10KF	13.6	5.3	FL-10KF-ON	£1	€2
DN16KF	18.4	5.3	FL-16KF-ON	£1	€2
DN25KF	27.9	5.3	FL-25KF-ON	£1	€2
DN40KF	40.7	5.3	FL-40KF-ON	£1	€2
DN50KF	53.3	5.3	FL-50KF-ON	£1	€2
DN63LF	75.6	5.3	FL-63LF-ON	£2	€3
DN80LF	88.3	5.3	FL-80LF-ON	£3	€4
DN100LF	107.3	5.3	FL-100LF-ON	£3	€4
DN160LF	158.1	5.3	FL-160LF-ON	£4	€5
DN200LF	215.3	5.3	FL-200LF-ON	£4	€5
DN250LF	266.1	5.3	FL-250LF-ON	£4	€5
DN320LF	316.9	7.0	FL-320LF-ON	POA	POA
DN400LF	405.3	7.0	FL-400LF-ON	POA	POA
DN500LF	506.9	7.0	FL-500LF-ON	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

ISO KF & LF Flanges



Specifications:

Material

Flanges & fittings	304 St.St.

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

* - Increased upper limit for intermittant use.

Features:

- Reusable flanges.
- 304 stainless steel or aluminium as standard.
- Other materials also available on request.
- Sexless flanges.
- Infinitely rotatable.
- Quick sealing and disassembly.
- Easy installation.
- Variety of fastening options.
- Self centring supportive ring.

Blank Flanges



These flanges are manufactured with no weld prep or tubing bore. They are commonly used to close unused ports or they are altered by customers with their own custom machining capability for a special use. LewVac offers blank flanges in 304 stainless steel or aluminium as standard. Other materials are available to special order, please contact our sales office for further details.

Unbored Stub Flanges



These flanges are manufactured with no weld prep or tubing bore. They are commonly altered by customers with their own custom machining capability for a special use. LewVac offers unbored stub flanges in 304 stainless steel or aluminium as standard. Other materials are available to special order, please contact sales office for further details.

Weld Flanges



These flanges are manufactured with a weld prep and tubing bore for immediate installation on to your system with no additional alteration. LewVac offers weld flanges in 304 stainless steel or aluminium as standard. Other materials are available to special order, please contact our sales office for further details.

DN10KF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp fastening.

Fig. 1.

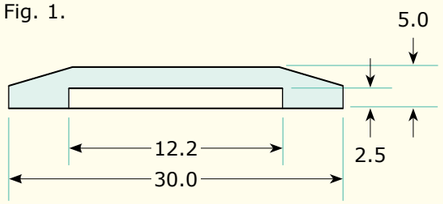


Fig. 2.

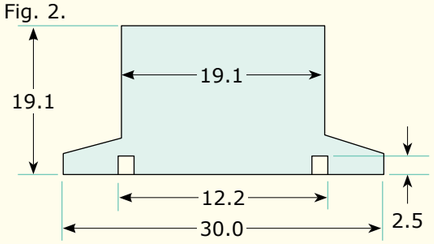


Fig. 3.

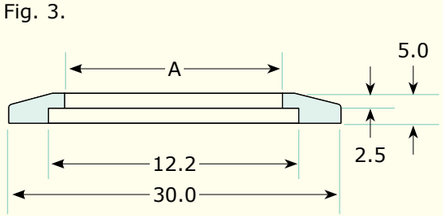


Fig. 4.

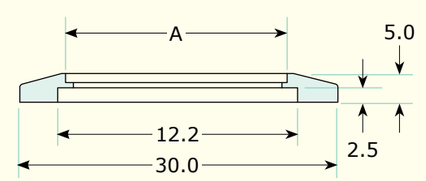
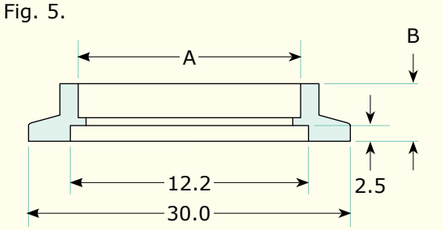
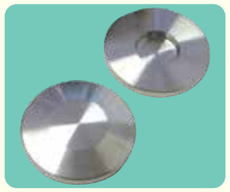


Fig. 5.



All dimensions are nominal in millimetres unless otherwise specified

DN10KF Blank Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	1	FL-10KF	£3	€4
Aluminium	1	FL-A10KF	£3	€4

DN10KF Unbored Stub Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	2	FL-10KFUS	£11	€13
Aluminium.	2	FL-A10KFUS	£14	€17

DN10KF Bored Flanges



Material	Fig.	A	Part Code	Price £	Price €
St.St.	3	6.4	FL-10KF-6W	£10	€12
St.St.	4	12.9	FL-10KF-12W	£3	€4

DN10KF Socket Weld Flanges



Material	Fig.	A	Part Code	Price £	Price €
St.St.	5	12.9	FL-10KF-12SW	£4	€5

For Longer tubulations, see page 3.141

DN10KF Accessories



Description	Part Code	Price £	Price €
DN10KF St.St. centring ring Viton® O-ring	FL-CRSV10KF	£3	€4
DN10KF aluminium centring ring Viton® O-ring	FL-CRAV10KF	£3	€4
DN10KF St.St. centring ring nitrile O-ring	FL-CRSN10KF	£3	€4
DN10KF aluminium centring ring nitrile O-ring	FL-CRAN10KF	£3	€4
DN10KF to DN16KF St.St. adapter centring ring viton® O-Ring	FL-CRSV10-16KF	£3	€4
DN10KF to DN16KF aluminium adapter centring ring Viton® O-ring	FL-CRAV10-16KF	£3	€4
DN10KF to DN16KF St.St. adapter centring ring nitrile O-ring	FL-CRSN10-16KF	£3	€4
DN10KF to DN16KF aluminium adapter centring ring nitrile O-ring	FL-CRAN10-16KF	£3	€4
DN10KF over pressure ring	FL-OPR10KF	£2	€3
DN10-16KF hinged clamp	FL-C16KF	£2	€3
DN10-16KF CNC machined clamp aluminium	FL-CNC16KF	£14	€17
DN10-16KF CNC Machined clamp St.St.	FL-CNCS16KF	£50	€58
DN10-16KF bulkhead clamp	FL-BC16KF	£14	€17
Aluminium wall clamp to suit all KF flanges	FL-WALLKF	£2	€3
DN10-16KF plastic flange cap	FL-CP16KF	£1	€2

All dimensions are nominal in millimetres unless otherwise specified

DN16KF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp fastening.

Fig. 1.

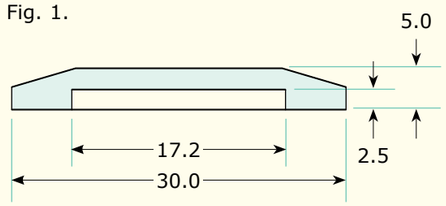


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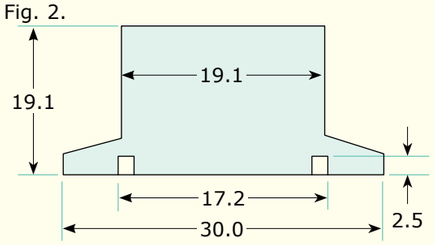


Fig. 3.

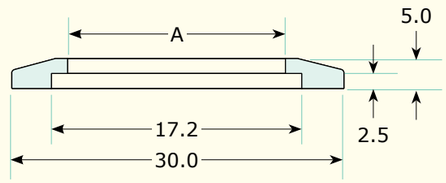


Fig. 4.

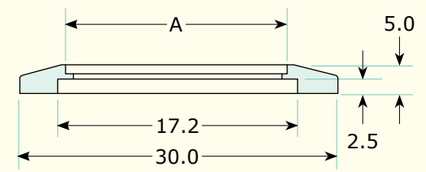


Fig. 5.

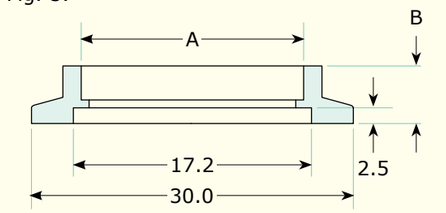
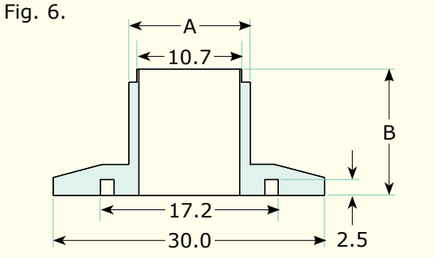
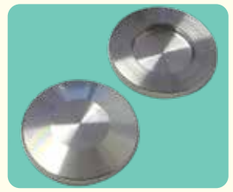


Fig. 6.



All dimensions are nominal in millimetres unless otherwise specified

DN16KF Blank Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	1	FL-16KF	£2	€3
Aluminium	1	FL-A16KF	£3	€4

DN16KF Unbored Stub Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	2	FL-16KFUS	£8	€10
Aluminium	2	FL-A16KFUS	£6	€7

DN16KF Bored Flanges



Material	Fig.	A	Part Code	Price £	Price €
St.St.	3	9.7	FL-16KF-10W	£9	€11
St.St.	3	12.9	FL-16KF-12W	£10	€12
St.St.	4	19.3	FL-16KF-19W	£4	€5

DN16KF Stub/Socket Weld Flanges



Material	Fig.	A	B	Part Code	Price £	Price €
St.St.	5	12.7	12.7	FL-16KF-12SW	£6	€7
St.St.	6	12.7	14.2	FL-16KF-12STW	£14	€17
St.St.	5	19.3	12.7	FL-16KF-19SW	£4	€5

For Longer tubulations, see page 3.141

DN16KF Accessories



Description	Part Code	Price £	Price €
DN16KF St.St. centring ring Viton® O-ring	FL-CRSV16KF	£3	€4
DN16KF aluminium centring ring Viton® O-ring	FL-CRAV16KF	£2	€3
DN16KF St.St. centring ring nitrile O-ring	FL-CRSN16KF	£2	€3
DN16KF aluminium centring ring nitrile O-ring	FL-CRAN16KF	£2	€3
DN10KF to DN16KF St.St. adapter centring ring Viton® O-Ring	FL-CRSV10-16KF	£3	€4
DN10KF to DN16KF aluminium adapter centring ring Viton® O-ring	FL-CRAV10-16KF	£3	€4
DN10KF to DN16KF St.St. adapter centring ring nitrile O-ring	FL-CRSN10-16KF	£3	€4
DN10KF to DN16KF aluminium adapter centring ring nitrile O-ring	FL-CRAN10-16KF	£3	€4
DN16KF St.St. mesh centring ring Viton® O-ring (30 mesh)	FL-CRSVM16KF	£16	€19
DN16KF St.St. mesh centring ring nitrile O-ring (30 MESH)	FL-CRSNM16KF	£15	€18
DN16KF over pressure ring	FL-OPR16KF	£2	€3
DN10-16KF hinged clamp	FL-C16KF	£2	€3
DN10-16KF CNC machined clamp aluminium	FL-CNC16KF	£14	€17
DN10-16KF CNC Machined clamp St.St.	FL-CNCS16KF	£50	€58
DN10-16KF bulkhead clamp	FL-BC16KF	£14	€17
Aluminium wall clamp to suit all KF flanges	FL-WALLKF	£2	€3
DN10-16KF plastic flange cap	FL-CP16KF	£1	€2

All dimensions are nominal in millimetres unless otherwise specified

DN25KF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp fastening.

Fig. 1.

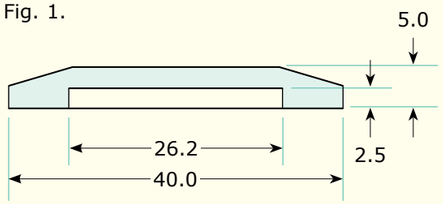


Fig. 2.

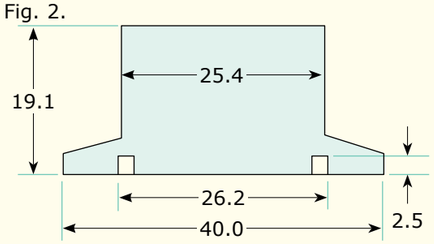


Fig. 3.

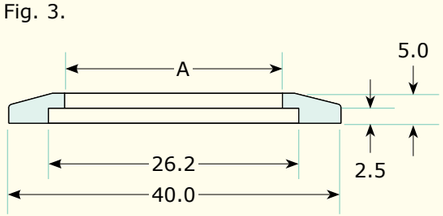


Fig. 4.

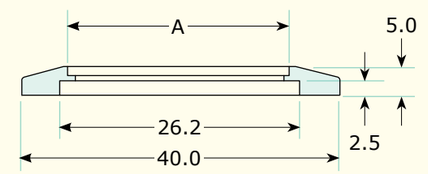
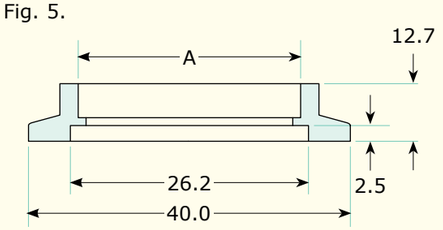


Fig. 5.



All dimensions are nominal in millimetres unless otherwise specified

DN25KF Blank Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	1	FL-25KF	£2	€3
Aluminium	1	FL-A25KF	£3	€4

DN25KF Unbored Stub Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	2	FL-25KFUS	£12	€14
Aluminium	2	FL-A25KFUS	£10	€12

DN25KF Bored Flanges



Material	Fig.	A	Part Code	Price £	Price €
St.St.	3	9.7	FL-25KF-10W	£11	€13
St.St.	4	12.9	FL-25KF-12W	£11	€13
St.St.	4	19.3	FL-25KF-19W	£11	€13
St.St.	4	25.7	FL-25KF-25W	£5	€6

DN25KF Socket Weld Flanges



Material	Fig.	A	Part Code	Price £	Price €
St.St.	5	25.7	FL-25KF-25SW	£5	€6

For Longer tubulations, see page 3.141

DN25KF Accessories



Description	Part Code	Price £	Price €
DN25KF St.St. centring ring Viton® O-ring	FL-CRSV25KF	£3	€4
DN25KF aluminium centring ring Viton® O-ring	FL-CRAV25KF	£3	€4
DN25KF St.St. centring ring nitrile O-ring	FL-CRSN25KF	£3	€4
DN25KF aluminium centring ring nitrile O-ring	FL-CRAN25KF	£2	€3
DN25KF to DN20KF St.St adapter centring ring Viton® O-ring	FL-CRSV25-20KF	£4	€5
DN25KF to DN20KF Aluminium adapter centring ring Viton® O-RING	FL-CRAV25-20KF	£4	€5
DN25KF to DN20KF St.St adapter centring ring nitrile O-ring	FL-CRSN25-20KF	£4	€5
DN25KF to DN20KF Aluminium adapter centring ring nitrile O-RING	FL-CRAN25-20KF	£4	€5
DN25KF St.St. mesh centring ring Viton® O-ring (30 mesh)	FL-CRSVM25KF	£20	€23
DN25KF St.St. mesh centring ring nitrile O-ring (30 mesh)	FL-CRSNM25KF	£23	€27
DN25KF over pressure ring	FL-OPR25KF	£2	€3
DN25KF hinged clamp	FL-C25KF	£2	€3
DN25KF CNC machined clamp aluminium	FL-CNC25KF	£14	€17
DN25KF CNC machined clamp St.St.	FL-CNCS25KF	£62	€72
DN25KF bulkhead clamp	FL-BC25KF	£14	€17
Aluminium wall clamp to suit all KF flanges	FL-WALLKF	£2	€3
DN25KF plastic flange cap	FL-CP25KF	£1	€2

All dimensions are nominal in millimetres unless otherwise specified

DN40KF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp fastening.

Fig. 1.

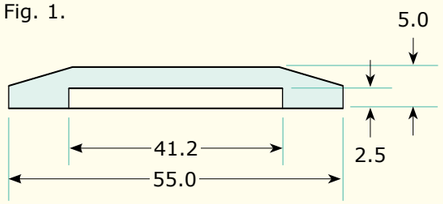


Fig. 2.

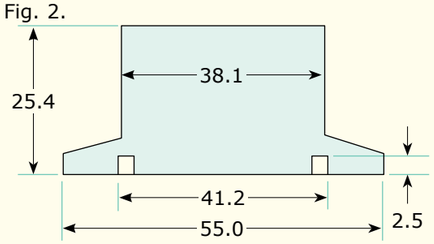


Fig. 3.

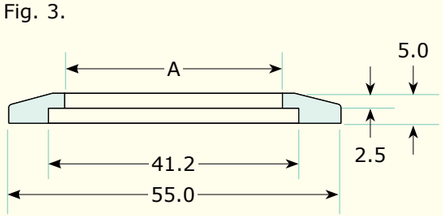


Fig. 4.

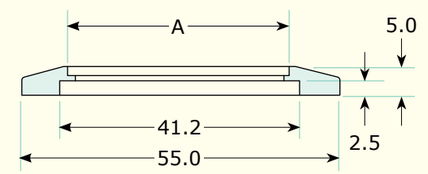
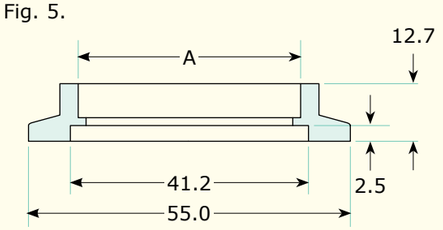


Fig. 5.



All dimensions are nominal in millimetres unless otherwise specified

DN40KF Blank Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	1	FL-40KF	£3	€4
Aluminium	1	FL-A40KF	£4	€5

DN40KF Unbored Stub Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	2	FL-40KFUS	£14	€17
Aluminium	2	FL-A40KFUS	£12	€14

DN40KF Bored Flanges



Material	Fig.	A	Part Code	Price £	Price €
St.St.	3	9.7	FL-40KF-10W	£16	€19
St.St.	4	12.9	FL-40KF-12W	£16	€19
St.St.	4	19.3	FL-40KF-19W	£16	€19
St.St.	4	25.7	FL-40KF-25W	£16	€19
St.St.	4	38.4	FL-40KF-38W	£8	€10

DN40KF Socket Weld Flanges



Material	Fig.	A	Part Code	Price £	Price €
St.St.	5	38.4	FL-40KF-38SW	£7	€9

For Longer tubulations, see page 3.141

DN40KF Accessories



Description	Part Code	Price £	Price €
DN40KF St.St. centring ring Viton® O-ring	FL-CRSV40KF	£3	€4
DN40KF aluminium centring ring Viton® O-ring	FL-CRAV40KF	£3	€4
DN40KF St.St. centring ring nitrile O-ring	FL-CRSN40KF	£3	€4
DN40KF aluminium centring ring nitrile O-ring	FL-CRAN40KF	£3	€4
DN40KF to DN32KF St.St adapter centring ring Viton® O-ring	FL-CRSV40-32KF	£5	€6
DN40KF to DN32KF aluminium adapter centring ring Viton® O-ring	FL-CRAV40-32KF	£5	€6
DN40KF to DN32KF St.St adapter centring ring nitrile O-ring	FL-CRSN40-32KF	£5	€6
DN40KF to DN32KF aluminium adapter centring ring nitrileO-ring	FL-CRAN40-32KF	£5	€6
DN40KF St.St mesh centring ring Viton® O-ring (30 mesh)	FL-CRSVM40KF	£19	€22
DN40KF St.St mesh centring ring nitrile O-ring (30 mesh)	FL-CRSNM40KF	£18	€21
DN40KF over pressure ring	FL-OPR40KF	£2	€3
DN40KF hinged clamp	FL-C40KF	£3	€4
DN40KF CNC machined clamp aluminium	FL-CNC40KF	£19	€22
DN40KF CNC machined clamp St.St.	FL-CNCS40KF	£95	€110
DN40KF bulkhead clamp	FL-BC40KF	£16	€19
Aluminium wall clamp to suit all KF flanges	FL-WALLKF	£2	€3
DN40KF plastic flange cap	FL-CP40KF	£1	€2

All dimensions are nominal in millimetres unless otherwise specified

DN50KF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp fastening.

Fig. 1.

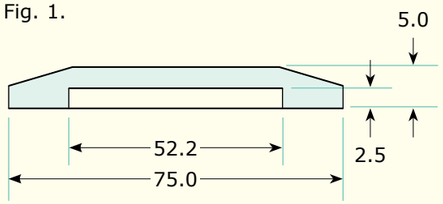


Fig. 2.

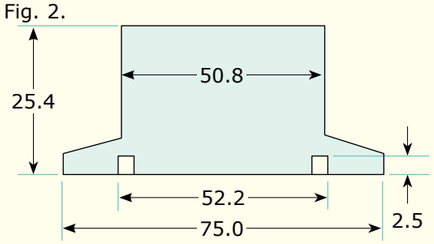


Fig. 3.

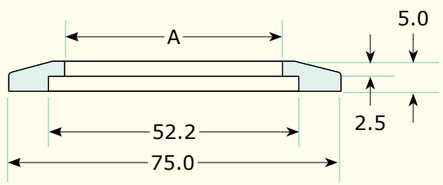


Fig. 4.

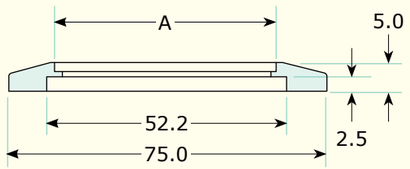
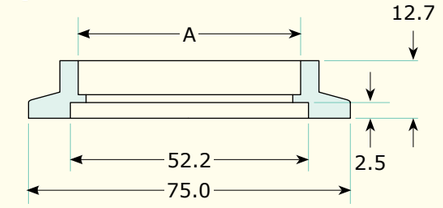


Fig. 5.



All dimensions are nominal in millimetres unless otherwise specified

DN50KF Blank Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	1	FL-50KF	£6	€7
Aluminium	1	FL-A50KF	£5	€6

DN50KF Unbored Stub Flanges



Material	Fig.	Part Code	Price £	Price €
St.St.	2	FL-50KFUS	£28	€33
Aluminium	2	FL-A50KFUS	£20	€23

DN50KF Bored Flanges



Material	Fig.	A	Part Code	Price £	Price €
St.St.	3	9.7	FL-50KF-10W	£23	€27
St.St.	4	12.9	FL-50KF-12W	£23	€27
St.St.	4	19.3	FL-50KF-19W	£23	€27
St.St.	4	25.7	FL-50KF-25W	£23	€27
St.St.	4	38.4	FL-50KF-38W	£14	€17
St.St.	4	51	FL-50KF-51W	£8	€10

DN50KF Socket Weld Flanges



Material	Fig.	A	Part Code	Price £	Price €
St.St.	5	51	FL-50KF-51SW	£10	€12

For Longer tubulations, see page 3.141

DN50KF Accessories



Description	Part Code	Price £	Price €
DN50KF St.St. centring ring Viton® O-ring	FL-CRSV50KF	£5	€6
DN50KF aluminium centring ring Viton® O-ring	FL-CRAV50KF	£5	€6
DN50KF St.St. centring ring nitrile O-ring	FL-CRSN50KF	£4	€5
DN50KF aluminium centring ring nitrile O-ring	FL-CRAN50KF	£3	€4
DN50KF St.St mesh centring ring Viton® O-ring (30 mesh)	FL-CRSVM50KF	£24	€28
DN50KF SSt.St mesh centring ring nitrile O-ring (30 mesh)	FL-CRSNM50KF	£21	€25
DN50KF over pressure ring	FL-OPR50KF	£4	€5
DN50KF hinged clamp	FL-C50KF	£4	€5
DN50KF CNCmachined clamp aluminium	FL-CNC50KF	£24	€28
DN50KF CNC machined clamp St.St.	FL-CNCS50KF	£86	€99
DN50KF bulkhead clamp	FL-BC50KF	£18	€21
Aluminium wall clamp to suit all KF flanges	FL-WALLKF	£2	€3
DN50KF plastic flange cap	FL-CP50KF	£1	€2

All dimensions are nominal in millimetres unless otherwise specified

Large Size KF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

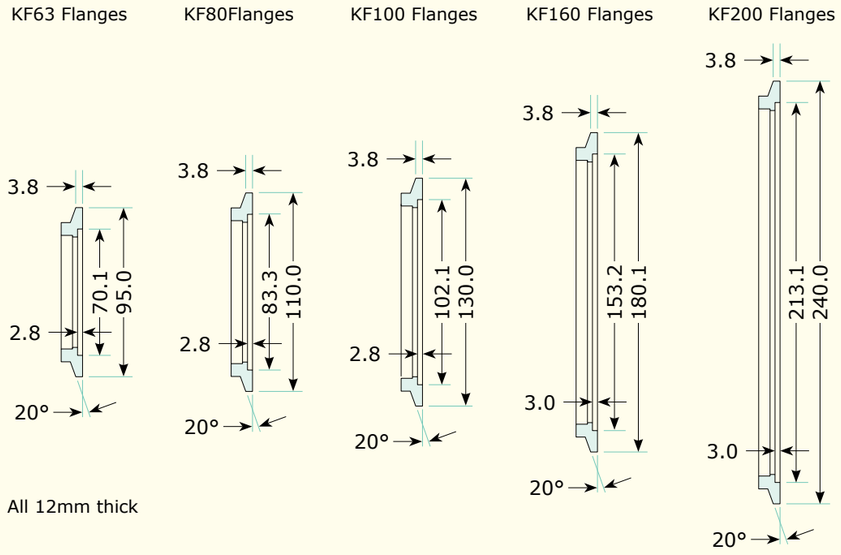
Vacuum Range To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel flanges as standard.
- Viton® or nitrile seals as per LF equivalent size as standard.
- Other materials available on request.
- Clamp fastening.

Large Size ISO KF Flange Dimensions



All 12mm thick

Blank Flanges



Description	Part Code	Price £	Price €
DN63KF blank flange	FL-63KF	£63	€73
DN80KF blank flange	FL-80KF	£63	€73
DN100KF blank flange	FL-100KF	POA	POA
DN160KF blank flange	FL-160KF	£111	€128
DN200KF blank flange	FL-200KF	£205	€236

Socket Weld Flanges



Description	Part Code	Price £	Price €
DN63KF socket weld flange to suit 63.5mm OD tube	FL-63KF-63	£75	€87
DN80KF socket weld flange to suit 76.2mm OD tube	FL-80KF-76	£87	€101
DN100KF socket weld flange to suit 101.6mm OD tube	FL-100KF-102	POA	POA
DN160KF socket weld flange to suit 152.4mm OD tube	FL-160KF-153	£121	€140
DN200KF socket weld flange to suit 203.2mm OD tube	FL-200KF-203	£216	€249

Large Size KF Accessories

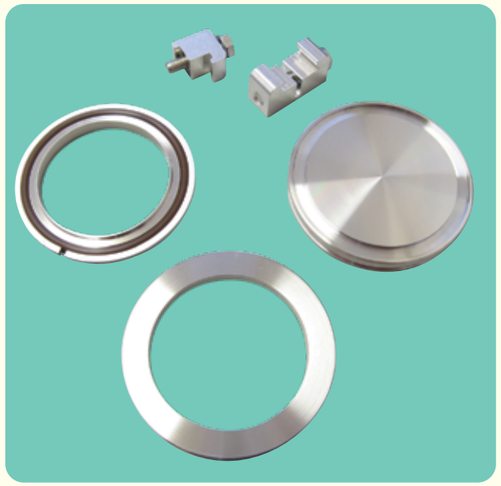


Description	Part Code	Price £	Price €
DN63KF band clamp	FL-BC63KF	£23	€27
DN80KF band clamp	FL-BC80KF	£28	€33
DN100KF band clamp	FL-BC100KF	£31	€36
DN160KF band clamp	FL-BC160KF	£35	€41
DN200KF band clamp	FL-BC200KF	£39	€45

The above clamps are the only clamps suitable for use with large size KF flanges.
The above clamps are not suitable for use with LF style flanges.

For Centring rings, please refer to the equivalent LF flange size, as the same centring rings are used.
e.g. For DN100KF use DN100LF Ccentring ring.

DN63LF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp or bolt fastening.

Fig. 1.

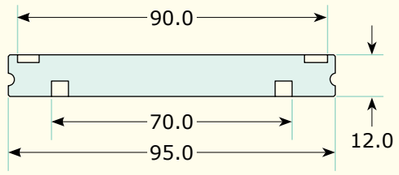


Fig. 2.

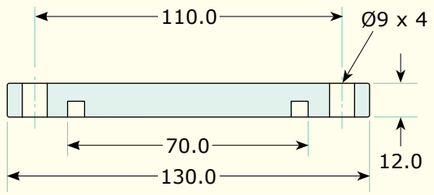


Fig. 3.

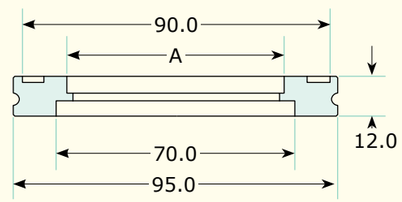


Fig. 4.

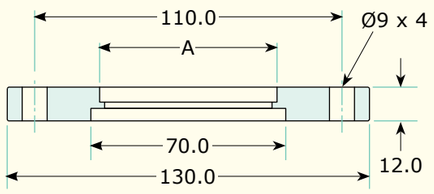
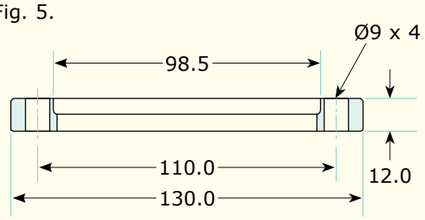
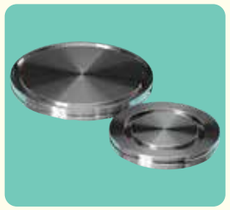


Fig. 5.

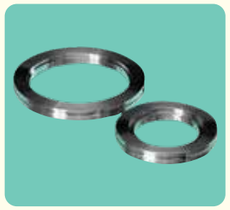


DN63LF Blank Flanges



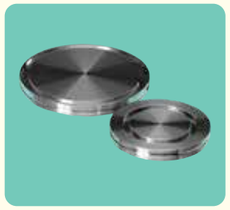
Material	Fastening	Fig.	Part Code	Price £	Price €
St.St.	Claw clamp	1	FL-63LF	£16	€19
Aluminium	Claw camp	1	FL-A63LF	£15	€18
St.St.	Bolt	2	FL-63LFB	£429	€494
Aluminium	Bolt	2	FL-A63LFB	£64	€74

DN63LF Bored Flanges



Material	Fastening	Fig.	A	Part Code	Price £	Price €
St.St.	Claw clamp	3	63.7	FL-63LF-W	£16	€19
St.St.	Claw clamp	3	76.4	FL-63LF-W76	£16	€19
St.St.	Bolt	4	63.7	FL-63LFB-W	£30	€35
St.St.	Bolt	4	76.4	FL-63LFB-W76	£35	€41

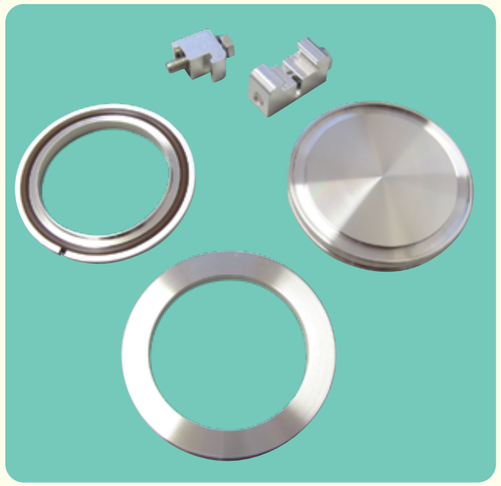
DN63LF Accessories



Description	Part Code	Price £	Price €
DN63LF St.St. centring ring Viton® O-ring	FL-CRSV63LF	£8	€10
DN63LF aluminium centring ring Viton® O-ring	FL-CRAV63LF	£8	€10
DN63LF St.St. centring ring nitrile O-ring	FL-CRSN63KF	£7	€9
DN63LF aluminium centring ring nitrile O-ring	FL-CRAN63LF	£7	€9
DN63-100LF single claw clamp	FL-SCC63-100LF	£2	€3
DN63-100LF double claw clamp	FL-DCC63-100LF	£3	€4
DN63-250LF double claw clamp sliding type	FL-DCC63-250SS	£9	€11
DN63LF St.St. rotatable bolt ring (Fig. 5.)	FL-RBR63LF	£27	€32
DN63LF St.St. split retaining ring	FL-SRR63LF	£4	€5
DN63LF plastic flange cap	FL-CP63LF	£1	€2

The bolt ring / split ring assembly allows the addition of bolt holes to a standard claw clamp flange. The split retaining ring, which fits into the groove around the claw clamp flange holds the bolt ring in position.

DN80LF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp or bolt fastening.

Fig. 1.

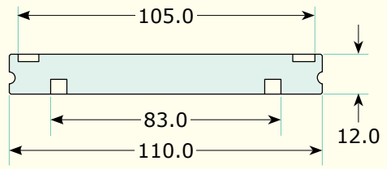


Fig. 2.

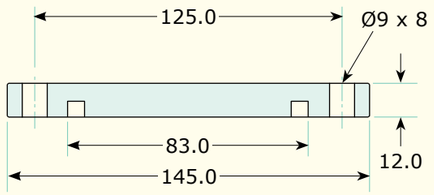


Fig. 3.

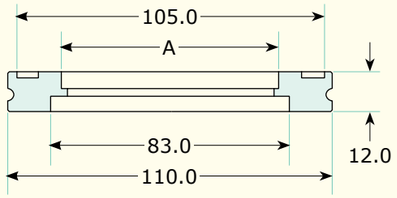


Fig. 4.

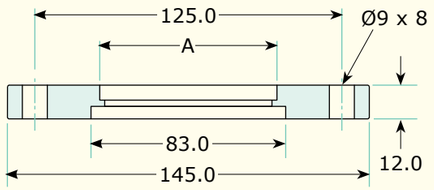
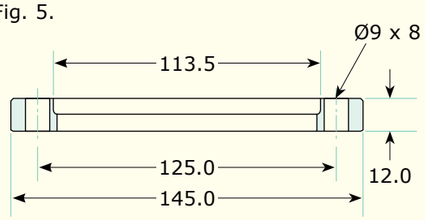
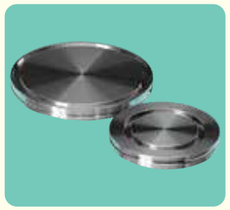


Fig. 5.

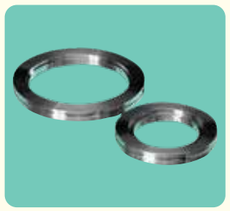


DN80LF Blank Flanges



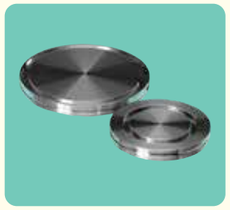
Material	Fastening	Fig.	Part Code	Price £	Price €
St.St.	Claw clamp	1	FL-80LF	£19	€22
Aluminium	Claw camp	1	FL-A80LF	£26	€30
St.St.	Bolt	2	FL-80LFB	£54	€63
Aluminium	Bolt	2	FL-A80LFB	£54	€63

DN80LF Bored Flanges



Material	Fastening	Fig.	A	Part Code	Price £	Price €
St.St.	Claw clamp	3	76.4	FL-80LF-W	£20	€23
St.St.	Bolt	4	76.4	FL-80LFB-W	£44	€51

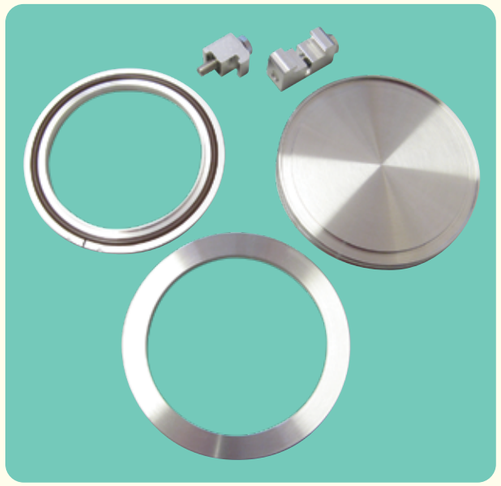
DN80LF Accessories



Description	Part Code	Price £	Price €
DN80LF St.St. centring ring Viton® O-ring	FL-CRSV80LF	£15	€18
DN80LF aluminium centring ring Viton® O-ring	FL-CRAV80LF	£9	€11
DN80LF St.St. centring ring nitrile O-ring	FL-CRSN80KF	£10	€12
DN80LF aluminium centring ring nitrile O-ring	FL-CRAN80LF	£8	€10
DN63-100LF single claw clamp	FL-SCC63-100LF	£3	€4
DN63-100LF double claw clamp	FL-DCC63-100LF	£3	€4
DN63-250LF double claw clamp sliding type	FL-DCC63-250SS	£9	€11
DN80LF St.St. rotatable bolt ring (Fig. 5.)	FL-RBR80LF	£31	€36
DN80LF St.St. split retaining ring	FL-SRR80LF	£4	€5
DN80LF plastic flange cap	FL-CP80LF	£1	€2

The bolt ring / split ring assembly allows the addition of bolt holes to a standard claw clamp flange. The split retaining ring, which fits into the groove around the claw clamp flange holds the bolt ring in position.

DN100LF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp or bolt fastening.

Fig. 1.

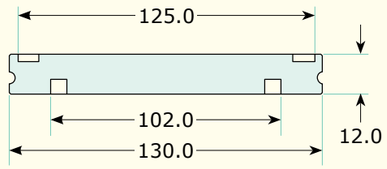


Fig. 2.

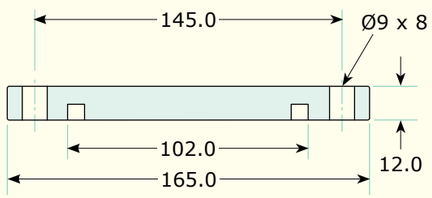


Fig. 3.

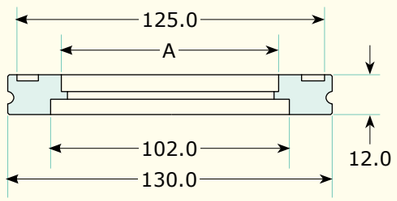


Fig. 4.

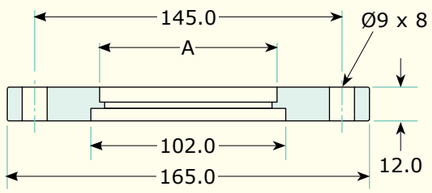
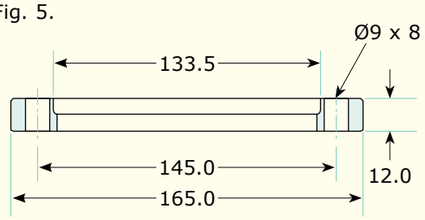
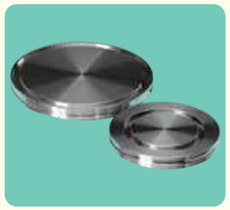


Fig. 5.



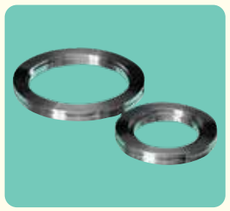
All dimensions are nominal in millimetres unless otherwise specified

DN100LF Blank Flanges



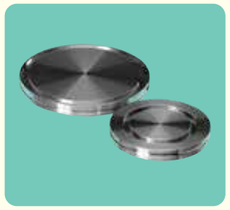
Material	Fastening	Fig.	Part Code	Price £	Price €
St.St.	Claw clamp	1	FL-100LF	£24	€28
Aluminium	Claw camp	1	FL-A100LF	£25	€29
St.St.	Bolt	2	FL-100LFB	£68	€79
Aluminium	Bolt	2	FL-A100LFB	£72	€83

DN100LF Bored Flanges



Material	Fastening	Fig.	A	Part Code	Price £	Price €
St.St.	Claw clamp	3	102.0	FL-100LF-W	£25	€29
St.St.	Claw clamp	3	108.4	FL-100LF-W108	£34	€40
St.St.	Bolt	4	102.0	FL-100LFB-W	£53	€61
St.St.	Bolt	4	108.4	FL-100LFB-W108	£48	€56

DN100LF Accessories



Description	Part Code	Price £	Price €
DN100LF St.St. centring ring Viton® O-ring	FL-CRSV100LF	£11	€13
DN100LF aluminium centring ring Viton® O-ring	FL-CRAV100LF	£12	€14
DN100LF St.St. centring ring nitrile O-ring	FL-CRSN100KF	£11	€13
DN100LF aluminium centring ring nitrile O-ring	FL-CRAN100LF	£11	€13
DN63-100LF single claw clamp	FL-SCC63-100LF	£2	€3
DN63-100LF double claw clamp	FL-DCC63-100LF	£3	€4
DN63-250LF double claw clamp sliding type	FL-DCC63-250SS	£9	€11
DN100LF St.St. rotatable bolt ring (Fig. 5.)	FL-RBR100LF	£48	€56
DN100LF St.St. split retaining ring	FL-SRR100LF	£7	€9
DN100LF plastic flange cap	FL-CP100LF	£1	€2

The bolt ring / split ring assembly allows the addition of bolt holes to a standard claw clamp flange. The split retaining ring, which fits into the groove around the claw clamp flange holds the bolt ring in position.

All dimensions are nominal in millimetres unless otherwise specified

FLANGES & FITTINGS

DN160LF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp or bolt fastening.

Fig. 1.

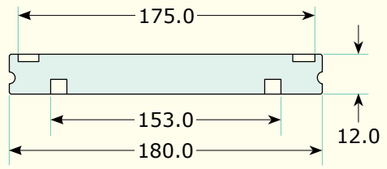


Fig. 2.

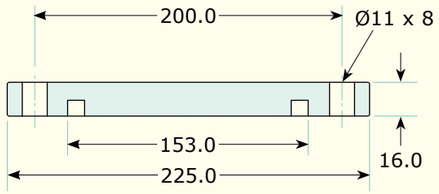


Fig. 3.

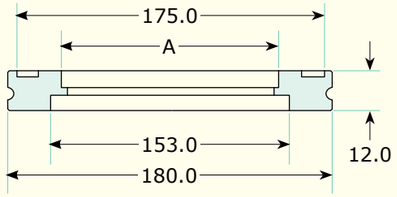


Fig. 4.

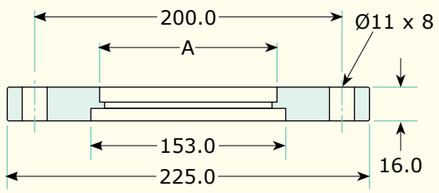
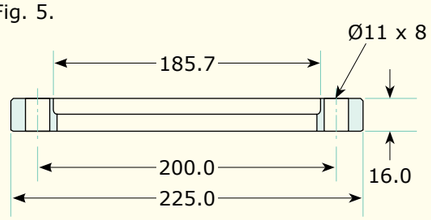
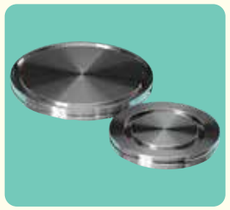


Fig. 5.



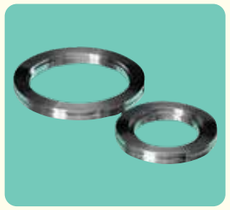
All dimensions are nominal in millimetres unless otherwise specified

DN160LF Blank Flanges



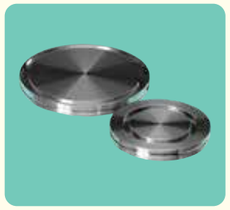
Material	Fastening	Fig.	Part Code	Price £	Price €
St.St.	Claw clamp	1	FL-160LF	£48	€56
Aluminium	Claw camp	1	FL-A160LF	£39	€45
St.St.	Bolt	2	FL-160LFB	£119	€137
Aluminium	Bolt	2	FL-A160LFB	£114	€132

DN160LF Bored Flanges



Material	Fastening	Fig.	A	Part Code	Price £	Price €
St.St.	Claw clamp	3	153.0	FL-160LF-W	£41	€48
St.St.	Claw clamp	3	160.0	FL-160LF-W159	£39	€45
St.St.	Bolt	4	153.0	FL-160LFB-W	£97	€112
St.St.	Bolt	4	160.0	FL-160LFB-W159	£108	€125

DN160LF Accessories



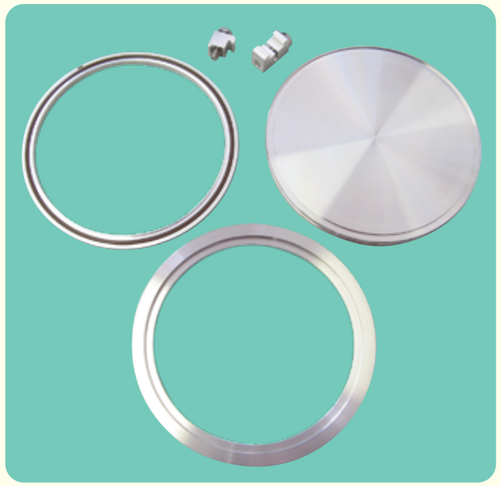
Description	Part Code	Price £	Price €
DN160LF St.St. centring ring Viton® O-ring	FL-CRSV160LF	£20	€23
DN160LF aluminium centring ring Viton® O-ring	FL-CRAV160LF	£21	€25
DN160LF St.St. centring ring nitrile O-ring	FL-CRSN160KF	£17	€20
DN160LF aluminium centring ring nitrile O-ring	FL-CRAN160LF	£19	€22
DN160-250LF single claw clamp	FL-SCC160-250LF	£3	€4
DN160-250LF double claw clamp	FL-DCC160-250LF	£3	€4
DN63-250LF double claw clamp sliding type	FL-DCC63-250SS	£9	€11
DN160LF St.St. rotatable bolt ring (Fig. 5.)	FL-RBR160LF	£113	€130
DN100LF St.St. split retaining ring	FL-SRR160LF	£11	€13
DN160LF plastic flange cap	FL-CP160LF	£1	€2

The bolt ring / split ring assembly allows the addition of bolt holes to a standard claw clamp flange. The split retaining ring, which fits into the groove around the claw clamp flange holds the bolt ring in position.

All dimensions are nominal in millimetres unless otherwise specified

Email : sales@lewvac.co.uk - Tel : +44 (0)1444 233372 - Website : www.lewvac.co.uk

DN200LF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp or bolt fastening.

Fig. 1.

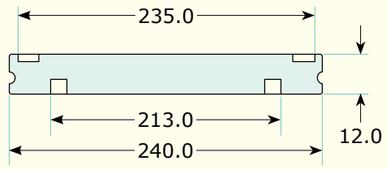


Fig. 2.

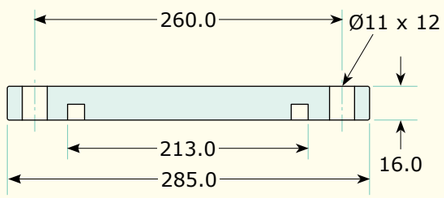


Fig. 3.

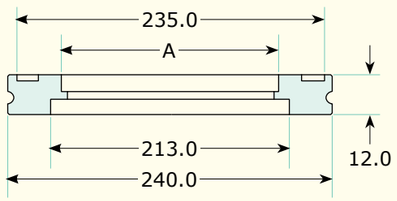


Fig. 4.

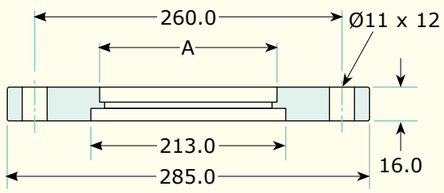
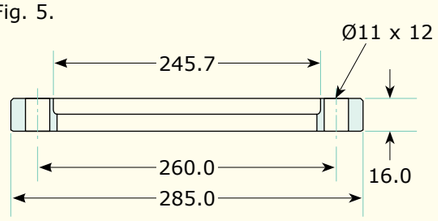
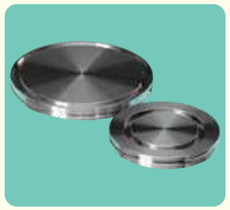


Fig. 5.



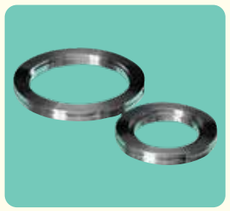
All dimensions are nominal in millimetres unless otherwise specified

DN200LF Blank Flanges



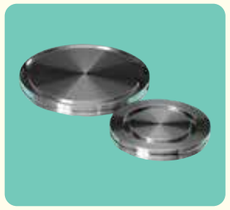
Material	Fastening	Fig.	Part Code	Price £	Price €
St.St.	Claw clamp	1	FL-200LF	£106	€122
Aluminium	Claw camp	1	FL-A200LF	£85	€98
St.St.	Bolt	2	FL-200LFB	£174	€201
Aluminium	Bolt	2	FL-A200LFB	£135	€156

DN200LF Bored Flanges



Material	Fastening	Fig.	A	Part Code	Price £	Price €
St.St.	Claw clamp	3	204.0	FL-200LF-W	£77	€89
St.St.	Claw clamp	3	219.5	FL-200LF-W219	£78	€90
St.St.	Bolt	4	204.0	FL-200LFB-W	£151	€174
St.St.	Bolt	4	219.5	FL-200LFB-W219	£140	€161

DN200LF Accessories

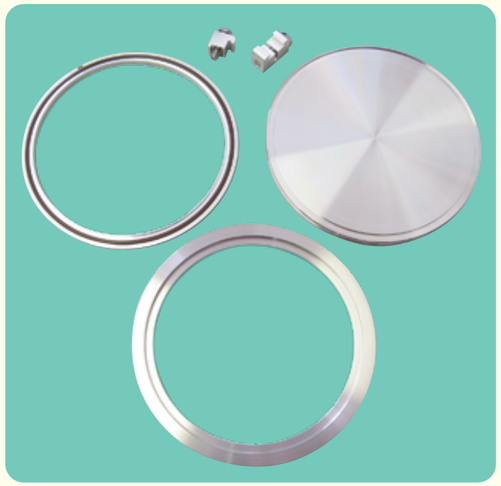


Description	Part Code	Price £	Price €
DN200LF St.St. centring ring Viton® O-ring	FL-CRSV200LF	£42	€49
DN200LF aluminium centring ring Viton® O-ring	FL-CRAV200LF	£32	€37
DN200LF St.St. centring ring nitrile O-ring	FL-CRSN200KF	£37	€43
DN200LF aluminium centring ring nitrile O-ring	FL-CRAN200LF	£31	€36
DN160-250LF single claw clamp	FL-SCC160-250LF	£3	€4
DN160-250LF double claw clamp	FL-DCC160-250LF	£3	€4
DN63-250LF double claw clamp sliding type	FL-DCC63-250SS	£9	€11
DN200LF St.St. rotatable bolt ring (Fig. 5.)	FL-RBR200LF	£117	€135
DN200LF St.St. split retaining ring	FL-SRR200LF	£14	€17
DN200LF plastic flange cap	FL-CP200LF	POA	POA

The bolt ring / split ring assembly allows the addition of bolt holes to a standard claw clamp flange. The split retaining ring, which fits into the groove around the claw clamp flange holds the bolt ring in position.

All dimensions are nominal in millimetres unless otherwise specified

DN250LF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp or bolt fastening.

Fig. 1.

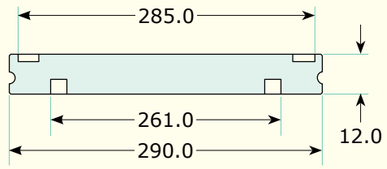


Fig. 2.

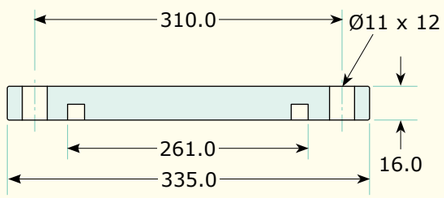


Fig. 3.

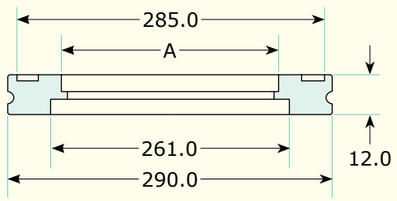


Fig. 4.

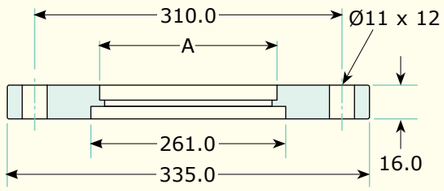
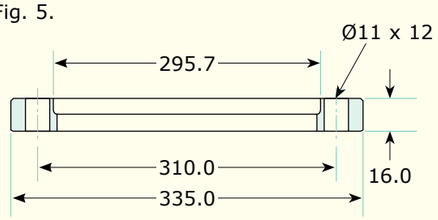
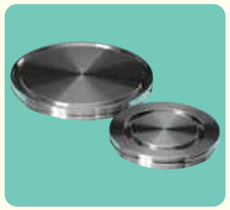


Fig. 5.



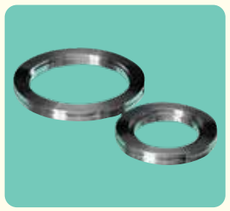
All dimensions are nominal in millimetres unless otherwise specified

DN250LF Blank Flanges



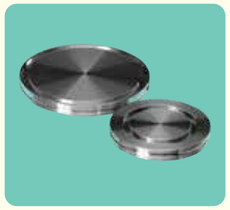
Material	Fastening	Fig.	Part Code	Price £	Price €
St.St.	Claw clamp	1	FL-250LF	£161	€186
Aluminium	Claw camp	1	FL-A250LF	£96	€111
St.St.	Bolt	2	FL-250LFB	£260	€299
Aluminium	Bolt	2	FL-A250LFB	£196	€226

DN250LF Bored Flanges



Material	Fastening	Fig.	A	Part Code	Price £	Price €
St.St.	Claw clamp	3	255.0	FL-250LF-W	£108	€125
St.St.	Claw clamp	3	268.0	FL-250LF-W267	£104	€120
St.St.	Bolt	4	255.0	FL-250LFB-W	£245	€282
St.St.	Bolt	4	268.0	FL-250LFB-W267	£209	€241

DN250LF Accessories

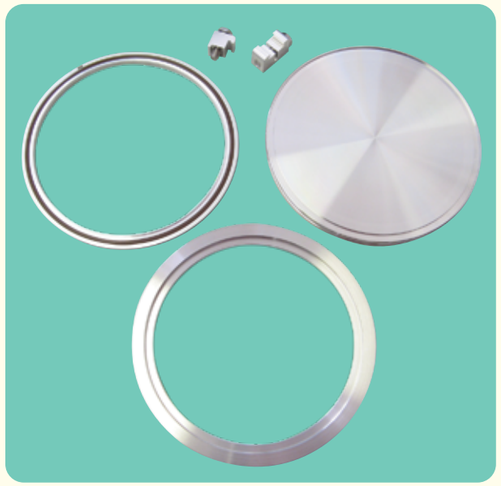


Description	Part Code	Price £	Price €
DN250LF St.St. centring ring Viton® O-ring	FL-CRSV250LF	£61	€71
DN250LF aluminium centring ring Viton® O-ring	FL-CRAV250LF	£53	€61
DN250LF St.St. centring ring nitrile O-ring	FL-CRSN250KF	£53	€61
DN250LF aluminium centring ring nitrile O-ring	FL-CRAN250LF	£53	€61
DN160-250LF single claw clamp	FL-SCC160-250LF	£3	€4
DN160-250LF double claw clamp	FL-DCC160-250LF	£3	€4
DN63-250LF double claw clamp sliding type	FL-DCC63-250SS	£9	€11
DN250LF St.St. rotatable bolt ring (Fig. 5.)	FL-RBR250LF	£182	€210
DN250LF St.St. split retaining ring	FL-SRR250LF	£18	€21

The bolt ring / split ring assembly allows the addition of bolt holes to a standard claw clamp flange. The split retaining ring, which fits into the groove around the claw clamp flange holds the bolt ring in position.

All dimensions are nominal in millimetres unless otherwise specified

DN320LF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp or bolt fastening.

Fig. 1.

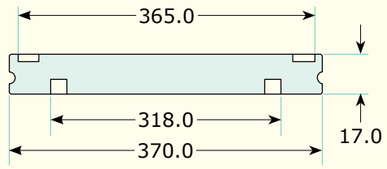


Fig. 2.

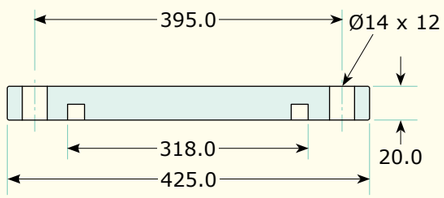


Fig. 3.

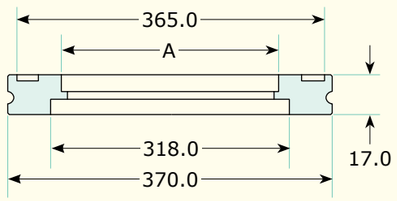


Fig. 4.

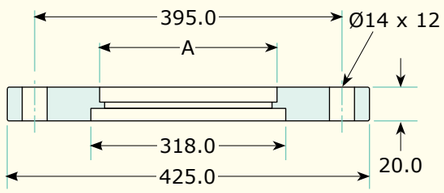
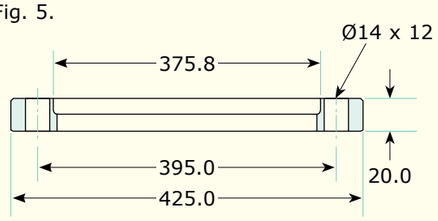
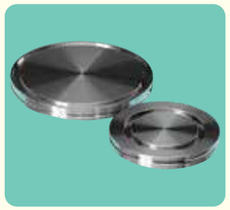


Fig. 5.

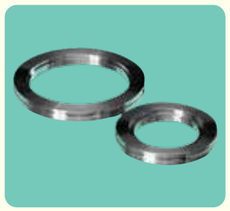


DN320LF Blank Flanges



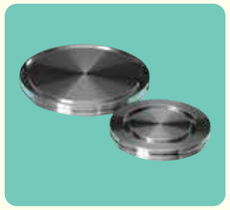
Material	Fastening	Fig.	Part Code	Price £	Price €
St.St.	Claw clamp	1	FL-320LF	£312	€359
Aluminium	Claw camp	1	FL-A320LF	POA	POA
St.St.	Bolt	2	FL-320LFB	£509	€586
Aluminium	Bolt	2	FL-A320LFB	POA	POA

DN320LF Bored Flanges



Material	Fastening	Fig.	A	Part Code	Price £	Price €
St.St.	Claw clamp	3	305.0	FL-320LF-W	POA	POA
St.St.	Claw clamp	3	325.0	FL-320LF-W324	POA	POA
St.St.	Bolt	4	305.0	FL-320LFB-W	POA	POA

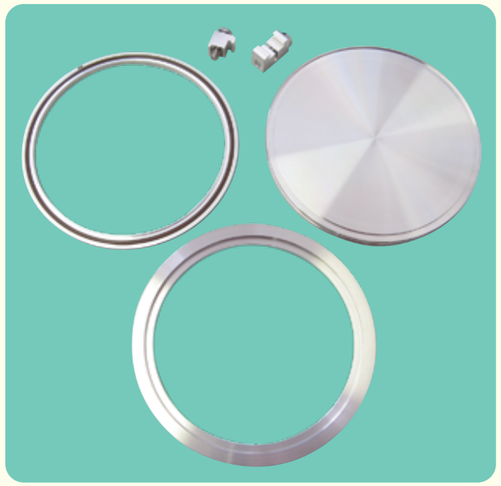
DN320LF Accessories



Description	Part Code	Price £	Price €
DN320LF St.St. centring ring Viton® O-ring	FL-CRSV320LF	POA	POA
DN320LF aluminium centring ring Viton® O-ring	FL-CRAV320LF	POA	POA
DN320LF St.St. centring ring nitrile O-ring	FL-CRSN320KF	POA	POA
DN320LF aluminium centring ring nitrile O-ring	FL-CRAN320LF	POA	POA
DN320-500LF single claw clamp	FL-SCC320-500LF	£3	€4
DN320-500LF double claw clamp	FL-DCC320-500LF	£4	€5
DN320-500LF double claw clamp sliding type	FL-DCC320-500SS	£10	€12
DN320LF St.St. rotatable bolt ring (Fig. 5.)	FL-RBR320LF	POA	POA
DN320LF St.St. split retaining ring	FL-SRR320LF	POA	POA

The bolt ring / split ring assembly allows the addition of bolt holes to a standard claw clamp flange. The split retaining ring, which fits into the groove around the claw clamp flange holds the bolt ring in position.

DN400LF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp or bolt fastening.

Fig. 1.

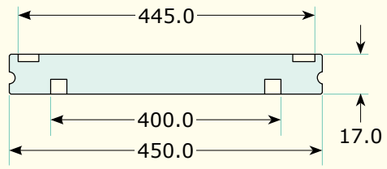


Fig. 2.

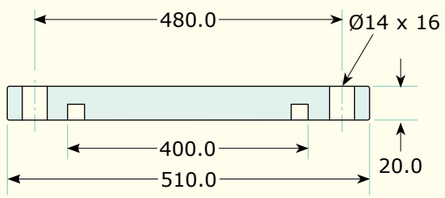


Fig. 3.

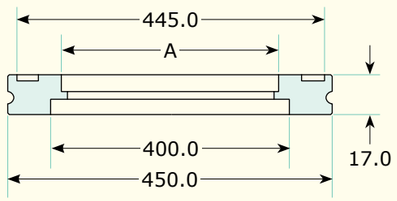


Fig. 4.

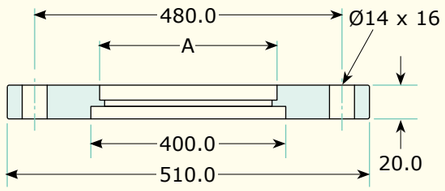
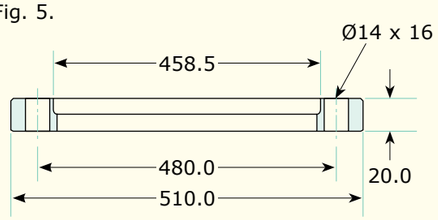
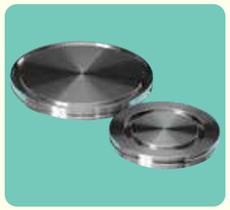


Fig. 5.

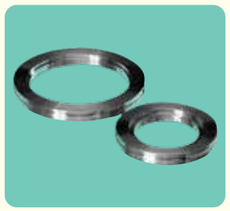


DN400LF Blank Flanges



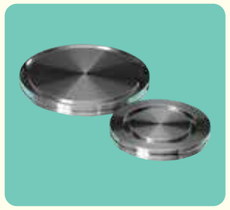
Material	Fastening	Fig.	Part Code	Price £	Price €
St.St.	Claw clamp	1	FL-400LF	POA	POA
Aluminium	Claw camp	1	FL-A400LF	POA	POA
St.St.	Bolt	2	FL-400LFB	POA	POA
Aluminium	Bolt	2	FL-A400LFB	POA	POA

DN400LF Bored Flanges



Material	Fastening	Fig.	A	Part Code	Price £	Price €
St.St.	Claw clamp	3	407.0	FL-400LF-W	POA	POA
St.St.	Bolt	4	407.0	FL-400LFB-W	POA	POA

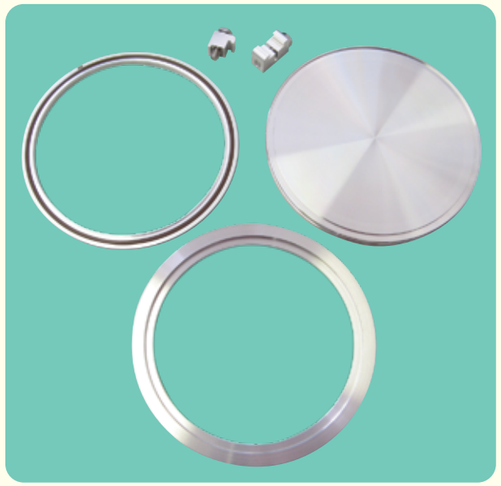
DN400LF Accessories



Description	Part Code	Price £	Price €
DN400LF St.St. centring ring Viton® O-ring	FL-CRSV400LF	POA	POA
DN400LF aluminium centring ring Viton® O-ring	FL-CRAV400LF	POA	POA
DN400LF St.St. centring ring nitrile O-ring	FL-CRSN400KF	POA	POA
DN400LF aluminium centring ring nitrile O-ring	FL-CRAN400LF	POA	POA
DN320-500LF single claw clamp	FL-SCC320-500LF	£3	€4
DN320-500LF double claw clamp	FL-DCC320-500LF	£4	€5
DN320-500LF double claw clamp sliding type	FL-DCC320-500SS	£10	€12
DN400LF St.St. rotatable bolt ring (Fig. 5.)	FL-RBR400LF	POA	POA
DN400LF St.St. split retaining ring	FL-SRR400LF	POA	POA

The bolt ring / split ring assembly allows the addition of bolt holes to a standard claw clamp flange. The split retaining ring, which fits into the groove around the claw clamp flange holds the bolt ring in position.

DN500LF Flanges



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel or aluminium flanges as standard.
- Viton® or nitrile seals as standard.
- Other materials available on request.
- Clamp or bolt fastening.

Fig. 1.

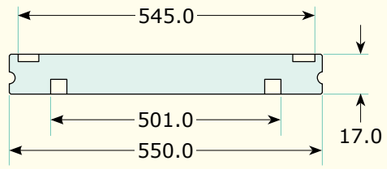


Fig. 2.

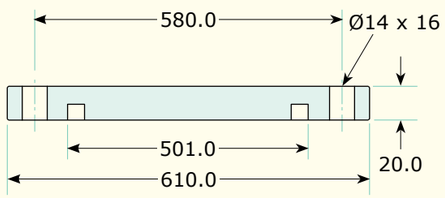


Fig. 3.

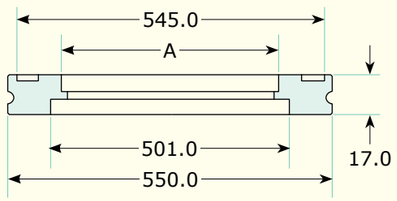


Fig. 4.

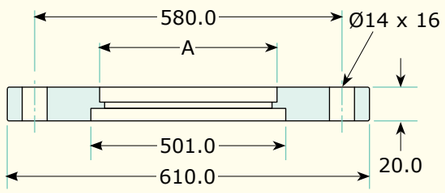
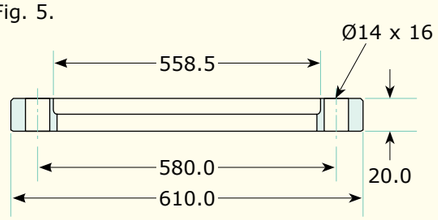
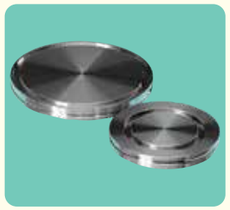


Fig. 5.

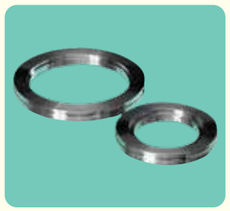


DN500LF Blank Flanges



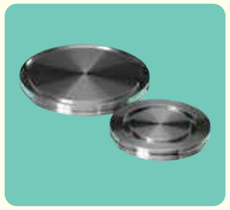
Material	Fastening	Fig.	Part Code	Price £	Price €
St.St.	Claw clamp	1	FL-500LF	POA	POA
Aluminium	Claw camp	1	FL-A500LF	POA	POA
St.St.	Bolt	2	FL-500LFB	POA	POA
Aluminium	Bolt	2	FL-A500LFB	POA	POA

DN500LF Bored Flanges



Material	Fastening	Fig.	A	Part Code	Price £	Price €
St.St.	Claw clamp	3	509.0	FL-500LF-W	POA	POA
St.St.	Bolt	4	509.0	FL-500LFB-W	POA	POA

DN500LF Accessories



Description	Part Code	Price £	Price €
DN500LF St.St. centring ring Viton® O-ring	FL-CRSV500LF	POA	POA
DN500LF aluminium centring ring Viton® O-ring	FL-CRAV500LF	POA	POA
DN500LF St.St. centring ring nitrile O-ring	FL-CRSN500KF	POA	POA
DN500LF aluminium centring ring nitrile O-ring	FL-CRAN500LF	POA	POA
DN320-500LF single claw clamp	FL-SCC320-500LF	£3	€4
DN320-500LF double claw clamp	FL-DCC320-500LF	£4	€5
DN320-500LF double claw clamp sliding type	FL-DCC320-500SS	£10	€12
DN500LF St.St. rotatable bolt ring (Fig. 5.)	FL-RBR500LF	POA	POA
DN500LF St.St. split retaining ring	FL-SRR500LF	POA	POA

The bolt ring / split ring assembly allows the addition of bolt holes to a standard claw clamp flange. The split retaining ring, which fits into the groove around the claw clamp flange holds the bolt ring in position.

ISO KF & LF Fittings



Specifications:

Material

Flanges & fittings	304 St.St. or aluminium

Temperature Range

Using Viton® o-rings	-20°C to 150°C (200°C*)
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- Reusable flanges.
- 304 stainless steel as standard.
- Other materials also available on request.
- Sexless flanges.
- Infinitely rotatable.
- Quick sealing and disassembly.
- Easy installation.
- Variety of fastening options.
- Self centring supportive ring.

Half Nipples (Tubulated Flanges)



These fittings are manufactured with a flange on one end and plain tubing on the other. Half nipples are often welded onto a custom vacuum system or instrument by a customer with in-house welding capabilities. These fittings can also be used with quick disconnect compression fittings to make a vacuum tight connection without welding. LewVac supplies vacuum half nipples in 304 stainless steel as standard with other materials available on request.

Full Nipples (Straight / Conical Connectors)



These fittings are manufactured with an ISO flange on each end of a straight section of tubing. Nipples are used to create a weld free straight connection within a vacuum system. Nipples are also used as adapters between different tubing sizes or flange types. These fittings are available with straight or conical tubes in all ISO sizes and flange types. LewVac supplies vacuum nipples in 304 stainless steel as standard with other materials available on request.

All dimensions are nominal in millimetres unless otherwise specified

Elbows



These fittings are manufactured with a flange on each end of a curved section of tubing. Elbows accommodate turns or alignment considerations for vacuum system design. Elbows are offered in 5 designs; 45° radius elbow, 90° radius elbow, 90° mitred elbow, 90° tangent radius elbow and 180° radius elbow to accommodate a wide variety of system configurations. LewVac supplies vacuum elbows in 304 stainless steel as standard with other materials available on request.

Tees



These fittings are manufactured with a flange on each end of a "T" shaped section of tubing. Tees accommodate junctions or alignment considerations for vacuum system design. Tees are also used as junction adapters between different tubing sizes or flange types. These fittings are available in all ISO sizes and flange types. LewVac supplies vacuum tees in 304 stainless steel as standard with other materials available on request.

Crosses



These fittings are manufactured with a flange on each end of an "X" shaped section of tubing. Crosses accommodate junctions or alignment considerations for vacuum system design. Crosses are also used as junction adapters between different tubing sizes or flange types. These fittings are available in all ISO sizes and flange types. LewVac supplies vacuum crosses in 304 stainless steel as standard with other materials available on request.

5-Way Crosses, 6-Way Crosses & Cubes



These fittings are manufactured with a flange on each end of a 5 or 6 sided tubing junction. These crosses accommodate complex junctions or alignment considerations for vacuum system design. Larger sizes are sometimes used as the starting point of a simple vacuum chamber design. LewVac supplies 5 and 6-way vacuum crosses in 304 stainless steel as standard with other materials available on request.

All dimensions are nominal in millimetres unless otherwise specified

KF Half Nipples (Tubulated Flanges)



Specifications:

Material

Flanges	304 St.St. or aluminium
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

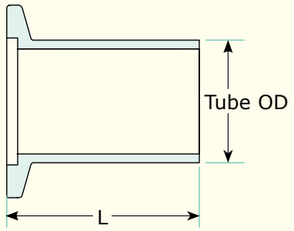
To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

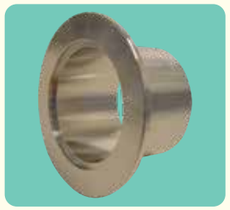
Features:

- 304 stainless steel as standard.
- Other materials available on request.
- Custom lengths available upon request.

Fig. 1.

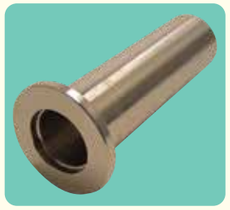


KF Half Nipple - Short



Flange	Material	Fig.	Tube OD	L	Part Code	Price £	Price €
DN10KF	St.St.	1	12.7	12.7	FL-SHN10KF-13	£4	€5
DN10KF	St.St.	1	14.0	30.0	FL-SHN10KF-14	£5	€6
DN16KF	St.St.	1	12.7	40.0	FL-SHN16KF-13	£19	€22
DN16KF	St.St.	1	19.1	12.7	FL-SHN16KF-19	£4	€5
DN16KF	St.St.	1	20.0	30.0	FL-SHN16KF-20	£6	€7
DN25KF	St.St.	1	25.4	12.7	FL-SHN25KF-25	£4	€5
DN25KF	St.St.	1	28.0	30.0	FL-SHN25KF-28	£7	€9
DN40KF	St.St.	1	38.1	19.1	FL-SHN40KF-38	£8	€10
DN40KF	St.St.	1	45.0	30.0	FL-SHN40KF-45	£12	€14
DN50KF	St.St.	1	50.8	19.1	FL-SHN50KF-51	£12	€14
DN50KF	St.St.	1	57.0	30.0	FL-SHN50KF-57	£18	€21

KF Half Nipple - Long

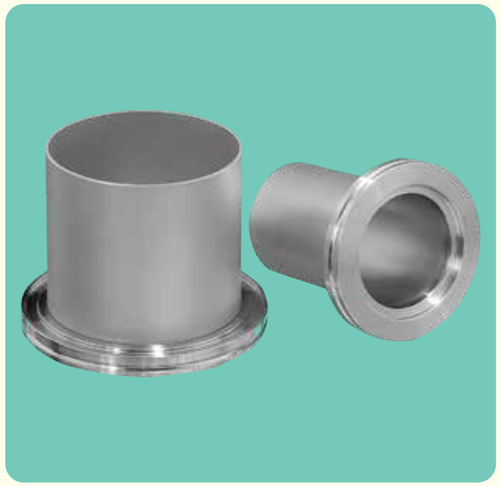


Flange	Material	Fig.	Tube OD	L	Part Code	Price £	Price €
DN10KF	St.St.	1	12.7	40.0	FL-LHN10KF-13	£6	€7
DN10KF	St.St.	1	14.0	70.0	FL-LHN10KF-14	£10	€12
DN10KF	Aluminium	1	12.7	40.0	FL-ALHN10KF-13	POA	POA
DN16KF	St.St.	1	19.1	40.0	FL-LHN16KF-19	£5	€6
DN16KF	St.St.	1	20.0	70.0	FL-LHN16KF-20	£10	€12
DN16KF	Aluminium	1	19.1	40.0	FL-ALHN16KF-19	£5	€6
DN25KF	St.St.	1	25.4	40.0	FL-LHN25KF-25	£7	€9
DN25KF	St.St.	1	28.0	70.0	FL-LHN25KF-28	£11	€13
DN25KF	Aluminium	1	25.4	40.0	FL-ALHN25KF-25	POA	POA
DN40KF	St.St.	1	38.1	40.0	FL-LHN40KF-38	£9	€11
DN40KF	St.St.	1	45.0	70.0	FL-LHN40KF-45	£18	€21
DN40KF	Aluminium	1	38.1	40.0	FL-ALHN40KF-38	POA	POA
DN50KF	St.St.	1	50.8	40.0	FL-LHN50KF-51	£17	€20
DN50KF	St.St.	1	57.0	70.0	FL-LHN50KF-57	£31	€36
DN50KF	Aluminium	1	50.8	40.0	FL-ALHN50KF-51	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

Email : sales@lewvac.co.uk - Tel : +44 (0)1444 233372 - Website : www.lewvac.co.uk

LF Half Nipples (Tubulated Flanges)



Specifications:

Material

Flanges	304 St.St.
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel as standard.
- Other materials available on request.
- Custom lengths available upon request.

Fig. 1.

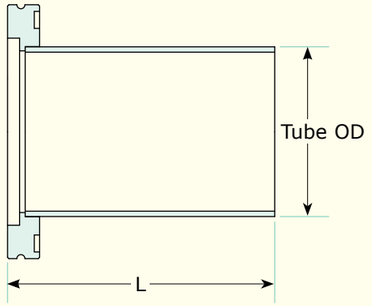
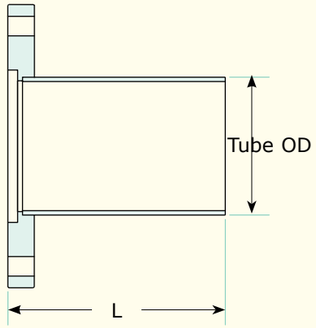


Fig. 2.



All dimensions are nominal in millimetres unless otherwise specified

LF Half Nipple - Claw Clamp



Flange	Material	Fig.	Tube OD	L	Part Code	Price £	Price €
DN63LF	St.St.	1	63.5	100	FL-HN63LF	£35	€41
DN80LF	St.St.	1	76.2	100	FL-HN80LF	£44	€51
DN100LF	St.St.	1	101.6	100	FL-HN100LF	£57	€66
DN160LF	St.St.	1	152.4	100	FL-HN160LF	£121	€140
DN200LF	St.St.	1	204.0	100	FL-HN200LF	POA	POA
DN250LF	St.St.	1	254.0	100	FL-HN250LF	£275	€317
DN320LF	St.St.	1	304.8	100	FL-HN320LF	£455	€524
DN400LF	St.St.	1	406.8	100	FL-HN400LF	£712	€819
DN500LF	St.St.	1	508.0	100	FL-HN500LF	£962	€1107

LF Half Nipple - Bolt



Flange	Material	Fig.	Tube OD	L	Part Code	Price £	Price €
DN63LFB	St.St.	2	63.5	100	FL-HN63LFB	POA	POA
DN80LFB	St.St.	2	76.5	100	FL-HN80LFB	POA	POA
DN100LFB	St.St.	2	101.6	100	FL-HN100LFB	POA	POA
DN160LFB	St.St.	2	152.4	100	FL-HN160LFB	POA	POA
DN200LFB	St.St.	2	204.0	100	FL-HN200LFB	POA	POA
DN250LFB	St.St.	2	254.0	100	FL-HN250LFB	POA	POA
DN320LFB	St.St.	2	304.8	100	FL-HN320LFB	POA	POA
DN400LFB	St.St.	2	406.4	100	FL-HN400LFB	POA	POA
DN500LFB	St.St.	2	508.0	100	FL-HN500LFB	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

Nipples (Straight Connectors)



Specifications:

Material

Flanges	304 St.St.
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel as standard.
- Other materials available on request.
- Custom lengths available upon request.

Fig. 1.

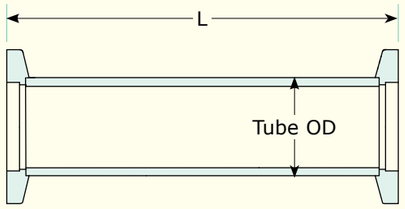


Fig. 2.

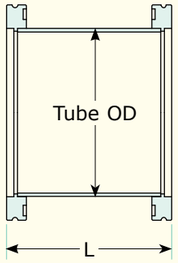


Fig. 3.

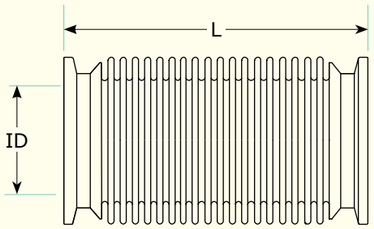
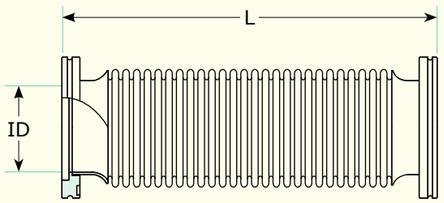
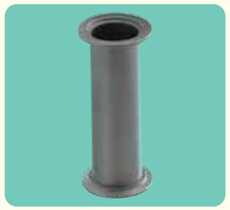


Fig. 4.



KF Nipple



Flange	Fig.	Tube OD	L	Part Code	Price £	Price €
DN16KF	1	19.1	80.0	FL-SC16KF	£25	€29
DN16KF	1	19.1	320.0	FL-SCL16KF	£30	€35
DN25KF	1	25.4	100.0	FL-SC25KF	£36	€42
DN25KF	1	25.4	320.0	FL-SCL25KF	£34	€40
DN40KF	1	38.1	130.0	FL-SC40KF	£38	€44
DN40KF	1	38.1	320.0	FL-SCL40KF	£42	€49
DN50KF	1	50.8	140.0	FL-SC50KF	£50	€58
DN50KF	1	50.8	320.0	FL-SCL50KF	£49	€57

LF Nipple



Flange	Fig.	Tube OD	L	Part Code	Price £	Price €
DN63LF	2	63.5	100	FL-SC63LF	£63	€73
DN80LF	2	76.2	100	FL-SC80LF	£71	€82
DN100LF	2	101.6	100	FL-SC100LF	£108	€125
DN160LF	2	152.4	100	FL-SC160LF	£151	€174
DN200LF	2	203.2	100	FL-SC200LF	£278	€320
DN250LF	2	254.0	100	FL-SC250LF	£495	€570
DN320LF	2	304.8	200	FL-SC320LF	POA	POA
DN400LF	2	406.4	200	FL-SC400LF	POA	POA
DN500LF	2	508.0	200	FL-SC500LF	POA	POA

KF Flexible Nipple



Flange	Fig.	ID	L	Part Code	Price £	Price €
DN16KF	3	16.0	100	FL-H100-16KF	£25	€29
DN25KF	3	25.0	100	FL-H100-25KF	£30	€35
DN40KF	3	38.0	100	FL-H100-40KF	£35	€41
DN50KF	3	50.0	100	FL-H100-50KF	£45	€52

LF Flexible Nipple



Flange	Fig.	ID	L	Part Code	Price £	Price €
DN63LF	4	60.5	150	FL-H150-63LF	£70	€81
DN80LF	4	76.5	150	FL-H150-80LF	£79	€91
DN100LF	4	101.0	150	FL-H150-100LF	£198	€228
DN160LF	4	148.0	150	FL-H150-160LF	£245	€282

Straight Reducing Nipples



Specifications:

Material	
Flanges	304 St.St.
Seals	Viton® or nitrile
Temperature Range	
Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)
Vacuum Range	To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel as standard.
- Other materials available on request.
- Custom lengths available upon request.

Fig. 1.

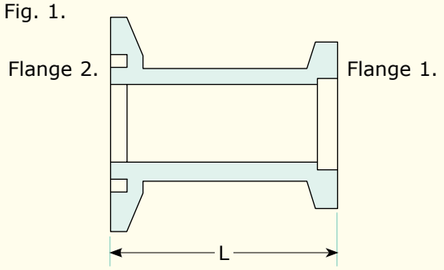


Fig. 2.

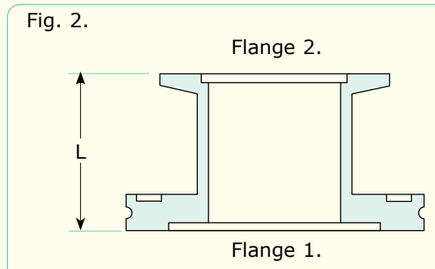
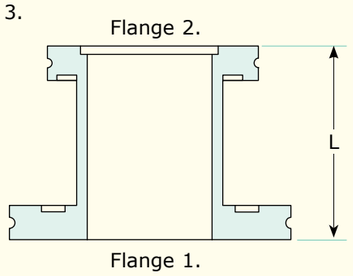


Fig. 3.



All dimensions are nominal in millimetres unless otherwise specified

KF to KF Straight Reducing Nipples



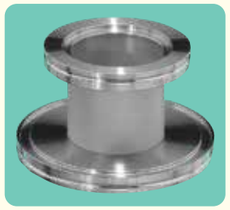
Flange 1	Flange 2	Fig.	L	Part Code	Price £	Price €
DN16KF	DN10KF	1	28.0	FL-SR16-10KF	£17	€20
DN25KF	DN10KF	1	28.0	FL-SR25-10KF	£26	€30
DN25KF	DN16KF	1	28.0	FL-SR25-16KF	£16	€19
DN40KF	DN10KF	1	28.0	FL-SR40-10KF	£23	€27
DN40KF	DN16KF	1	28.0	FL-SR40-16KF	£20	€23
DN40KF	DN25KF	1	28.0	FL-SR40-25KF	£19	€22
DN50KF	DN16KF	1	28.0	FL-SR50-16KF	£34	€40
DN50KF	DN25KF	1	28.0	FL-SR50-25KF	£32	€37
DN50KF	DN40KF	1	28.0	FL-SR50-40KF	£37	€43

LF to KF Straight Reducing Nipples



Flange 1	Flange 2	Fig.	L	Part Code	Price £	Price €
DN63LF	DN16KF	2	50.0	FL-SR63LF-16KF	£44	€51
DN63LF	DN25KF	2	42.0	FL-SR63LF-25KF	£46	€53
DN63LF	DN40KF	2	42.0	FL-SR63LF-40KF	£59	€68
DN63LF	DN50KF	2	42.0	FL-SR63LF-50KF	£67	€78
DN80LF	DN40KF	2	42.0	FL-SR80LF-40KF	£65	€75
DN80LF	DN50KF	2	42.0	FL-SR80LF-50KF	£77	€89
DN100LF	DN25KF	2	42.0	FL-SR100LF-25KF	£74	€86
DN100LF	DN40KF	2	42.0	FL-SR100LF-40KF	£75	€87
DN100LF	DN50KF	2	42.0	FL-SR100LF-50KF	£106	€122
DN160LF	DN40KF	2	42.0	FL-SR160LF-40KF	£110	€127

LF to LF Straight Reducing Nipples



Flange 1	Flange 2	Fig.	L	Part Code	Price £	Price €
DN80LF	DN63LF	3	76.2	FL-SR80-63LF	£97	€112
DN100LF	DN63LF	3	75.0	FL-SR100-63LF	£99	€114
DN160LF	DN63LF	3	75.0	FL-SR160-63LF	£174	€201
DN160LF	DN100LF	3	75.0	FL-SR160-100LF	£209	€241
DN200LF	DN160LF	3	75.0	FL-SR200-160LF	POA	POA
DN250LF	DN160LF	3	75.0	FL-SR250-160LF	POA	POA
DN250LF	DN200LF	3	75.0	FL-SR250-200LF	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

Conical Reducing Nipples



Specifications:

Material

Flanges	304 St.St.
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)
Vacuum Range	To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel as standard.
- Other materials available on request.
- Custom lengths available upon request.

Fig. 1.

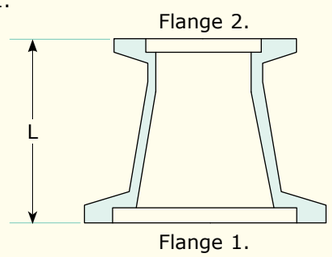


Fig. 2.

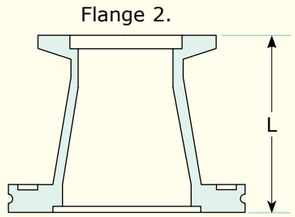
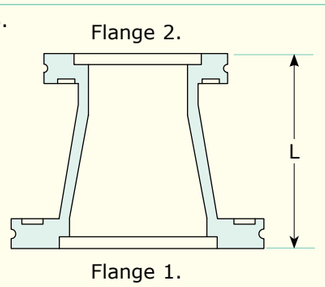


Fig. 3.



All dimensions are nominal in millimetres unless otherwise specified

KF to KF Conical Reducing Nipples



Flange 1	Flange 2	Fig.	L	Part Code	Price £	Price €
DN25KF	DN16KF	1	40.0	FL-CR25-16KF	£16	€19
DN40KF	DN16KF	1	40.0	FL-CR40-16KF	£18	€21
DN40KF	DN25KF	1	40.0	FL-CR40-25KF	£19	€22
DN50KF	DN16KF	1	40.0	FL-CR50-16KF	£24	€28
DN50KF	DN25KF	1	40.0	FL-CR50-25KF	£30	€35
DN50KF	DN40KF	1	40.0	FL-CR50-40KF	£28	€33

LF to KF Conical Reducing Nipples



Flange 1	Flange 2	Fig.	L	Part Code	Price £	Price €
DN63LF	DN25KF	2	63.0	FL-CR63LF-25KF	£89	€103
DN63LF	DN40KF	2	63.0	FL-CR63LF-40KF	£93	€107
DN63LF	DN50KF	2	63.0	FL-CR63LF-50KF	£102	€118
DN80LF	DN40KF	2	63.0	FL-CR80LF-40KF	£60	€69
DN80LF	DN50KF	2	63.0	FL-CR80LF-50KF	£62	€72
DN100LF	DN40KF	2	63.0	FL-CR100LF-40KF	£95	€110
DN100LF	DN50KF	2	63.0	FL-CR100LF-50KF	£95	€110

LF to LF Conical Reducing Nipples



Flange 1	Flange 2	Fig.	L	Part Code	Price £	Price €
DN80LF	DN63LF	3	63.0	FL-CR80-63LF	£76	€88
DN100LF	DN63LF	3	63.0	FL-CR100-63LF	£115	€133
DN100LF	DN80LF	3	63.0	FL-CR100-80LF	£97	€112
DN160LF	DN63LF	3	63.0	FL-CR160-63LF	£195	€225
DN160LF	DN100LF	3	63.0	FL-CR160-100LF	£195	€225

All dimensions are nominal in millimetres unless otherwise specified

Elbows



Specifications:

Material

Flanges	304 St.St.
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel as standard.
- Other materials available on request.
- Custom lengths / sizes available upon request.

Fig. 1.

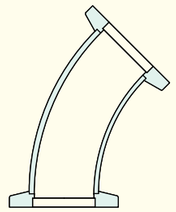


Fig. 2.

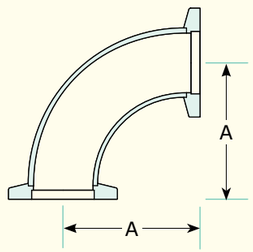


Fig. 3.

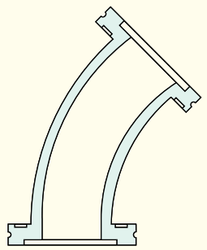


Fig. 4.

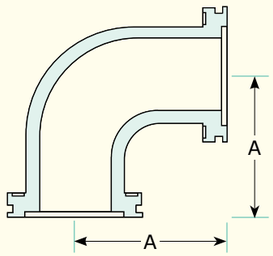
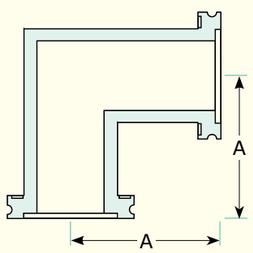


Fig. 5.



All dimensions are nominal in millimetres unless otherwise specified

KF 45° Elbow



Flange	Fig.	Part Code	Price £	Price €
DN16KF	1	FL-EL45-16KF	£23	€27
DN25KF	1	FL-EL45-25KF	£25	€29
DN40KF	1	FL-EL45-40KF	£31	€36
DN50KF	1	FL-EL45-50KF	£50	€58

KF 90° Elbow



Flange	Fig.	A	Part Code	Price £	Price €
DN10KF	2	29.5	FL-E10KF-29	£31	€36
DN16KF	2	40.0	FL-E16KF-40	£21	€25
DN25KF	2	50.0	FL-E25KF-50	£21	€25
DN40KF	2	65.0	FL-E40KF-65	£36	€42
DN50KF	2	80.0	FL-E50KF-80	£53	€61

LF 45° Elbow



Flange	Fig.	Part Code	Price £	Price €
DN63LF	3	FL-E45-63LF	£71	€82
DN80LF	3	FL-E45-80LF	£91	€105
DN100LF	3	FL-E45-100LF	£125	€144
DN160LF	3	FL-E45-160LF	£185	€213

LF 90° Elbow



Flange	Fig.	A	Part Code	Price £	Price €
DN63LF	4	138.4	FL-E63LF-138	£75	€87
DN63LF	4	101.6	FL-E63LF-101	£95	€110
DN80LF	4	141.5	FL-E80LF-142	£105	€121
DN100LF	4	158.7	FL-E100LF-158	£135	€156
DN100LF	4	108.0	FL-E100LF-108	£149	€172
DN160LF	4	235.2	FL-E160LF-235	£265	€305
DN200LF	4	311.2	FL-E200LF-311	POA	POA
DN250LF	4	387.4	FL-E250LF-387	POA	POA

LF 90° Elbow - Mitred



Flange	Fig.	A	Part Code	Price £	Price €
DN63LF	5	82.6	FL-EM63LF-83	£100	€115
DN63LF	5	87.9	FL-EM63LF-88	£92	€106
DN80LF	5	88.9	FL-ME80LF-89	£115	€133
DN80LF	5	108.0	FL-EM80LF-108	£114	€132
DN100LF	5	104.9	FL-EM100LF-105	£153	€176
DN100LF	5	108.0	FL-EM100LF-108	£149	€172
DN160LF	5	138	FL-EM160LF-138	£318	€366
DN160LF	5	160	FL-EM160LF-160	£316	€364
DN200LF	5	167.9	FL-EM200LF-168	POA	POA
DN250LF	5	208.0	FL-EM250LF-208	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

Tees



Specifications:

Material

Flanges	304 St.St.
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel as standard.
- Other materials available on request.
- Custom lengths available upon request.

Fig. 1.

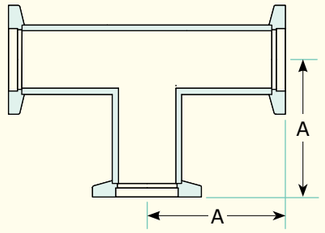


Fig. 2.

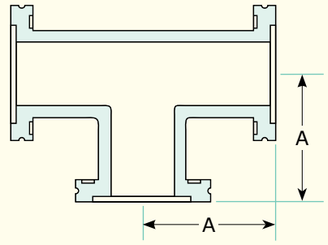


Fig. 3.

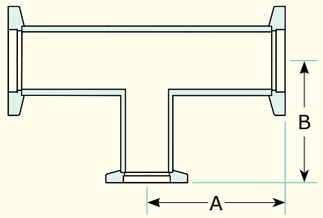


Fig. 4.

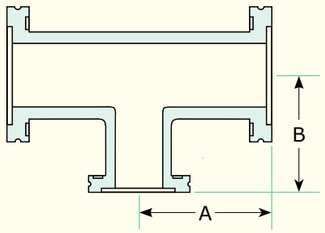
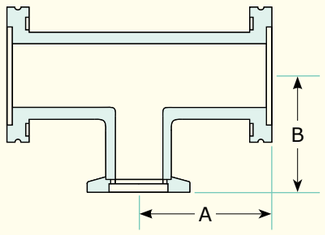


Fig. 5.



All dimensions are nominal in millimetres unless otherwise specified

KF Tee



Flange	Fig.	Tube OD	A	Part Code	Price £	Price €
DN10KF	1	12.7	30.0	FL-T10KF	£43	€50
DN16KF	1	19.1	38.3	FL-T16KF	£27	€32
DN16KF	1	19.1	40.0	FL-T16KF40	£27	€32
DN25KF	1	25.4	51.4	FL-T25KF	£29	€34
DN25KF	1	25.4	50.0	FL-T25KF50	£29	€34
DN40KF	1	38.1	61	FL-T40KF	£31	€36
DN40KF	1	38.1	65.0	FL-T40KF65	£34	€40
DN50KF	1	50.8	80	FL-T50KF	£56	€65
DN50KF	1	50.8	70.0	FL-T50KF70	£67	€78

LF Tee



Flange	Fig.	Tube OD	A	Part Code	Price £	Price €
DN63LF	2	63.5	82.8	FL-T63LF	£88	€102
DN80LF	2	88.9	89.2	FL-T80LF	£111	€128
DN100LF	2	108.0	108.0	FL-T100LF	£204	€235
DN160LF	2	152.4	133.0	FL-T160LF	£299	€344
DN160LF	2	152.4	138.0	FL-t160LF-138	£255	€294
DN200LF	2	203.2	184.2	FL-T200LF	£609	€701
DN250LF	2	254.0	247.7	FL-T250LF	£945	€1087

KF Reducing Tee



Flange 1 & 2	Tube OD	Flange 3	Tube OD	Fig.	A	B	Part Code	Price £	Price €
DN25KF	25.4	DN10KF	12.7	3	52.0	37.5	FL-RT25-10KF	£66	€76
DN25KF	25.4	DN16KF	19.1	3	52.0	37.5	FL-RT25-16KF	£28	€33
DN40KF	38.1	DN16KF	19.1	3	61.0	52.0	FL-RT40-16KF	£39	€45
DN40KF	38.1	DN25KF	25.4	3	61.0	57.8	FL-RT40-25KF	£43	€50
DN50KF	50.8	DN16KF	19.1	3	80.0	58.2	FL-RT50-16KF	£59	€68
DN50KF	50.8	DN25KF	25.4	3	80.0	64.1	FL-RT50-25KF	£55	€64
DN50KF	50.8	DN40KF	38.1	3	80.0	67.3	FL-RT50-40KF	POA	POA

LF Reducing Tee



Flange 1 & 2	Tube OD	Flange 3	Tube OD	Fig.	A	B	Part Code	Price £	Price €
DN80LF	76.2	DN63LF	63.5	4	88.9	88.9	FL-RT80-63LF	£118	€136
DN100LF	101.6	DN63LF	63.5	4	104.9	101.6	FL-RT100-63LF	£150	€173
DN100LF	101.6	DN80LF	76.2	4	104.9	101.6	FL-RT100-80LF	£160	€184
DN160LF	152.4	DN63LF	63.5	4	133.3	126.9	FL-RT160-63LF	£304	€350
DN160LF	152.4	DN80LF	76.2	4	133.3	126.9	FL-RT160-80LF	£315	€363
DN160LF	152.4	DN100LF	101.6	4	133.3	130.3	FL-RT160-100LF	£356	€410
DN200LF	203.2	DN160LF	152.4	4	184.2	158.8	FL-RT200-160LF	£552	€635

LF To KF Reducing Tee



Flange 1 & 2	Tube OD	Flange 3	Tube OD	Fig.	A	B	Part Code	Price £	Price €
DN63LF	63.5	DN40KF	38.1	5	82.6	73.7	FL-RT63LF-40KF	£136	€157
DN63LF	63.5	DN50KF	50.8	5	82.6	86.4	FL-RT63LF-50KF	£221	€255
DN80LF	76.2	DN40KF	38.1	5	88.9	80.0	FL-RT80LF-40KF	£247	€285
DN80LF	76.2	DN50KF	50.8	5	88.9	92.7	FL-RT80LF-50KF	£258	€297
DN100LF	101.6	DN40KF	38.1	5	104.9	92.7	FL-RT100LF-40KF	£211	€243
DN100LF	101.6	DN50KF	50.8	5	104.9	105.4	FL-RT100LF-50KF	£478	€550

All dimensions are nominal in millimetres unless otherwise specified

4-Way Crosses



Specifications:

Material

Flanges	304 St.St.
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel as standard.
- Other materials available on request.
- Custom lengths available upon request.

Fig. 1.

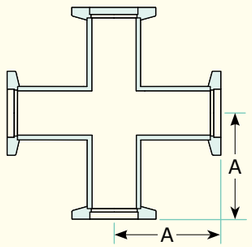


Fig. 2.

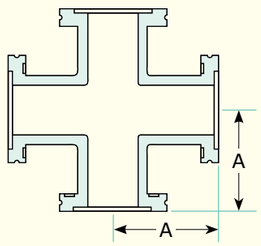


Fig. 3.

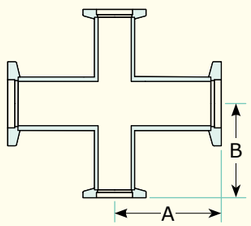


Fig. 4.

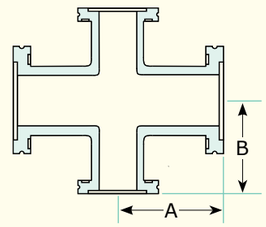
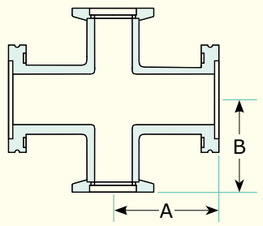


Fig. 5.



All dimensions are nominal in millimetres unless otherwise specified

KF 4-Way Cross



Flange	Tube OD	Fig.	A	Part Code	Price £	Price €
DN10KF	12.7	1	30.0	FL-4X10KF	£62	€72
DN16KF	19.1	1	40.0	FL-4X16KF	£49	€57
DN25KF	25.4	1	50.0	FL-4X25KF	£56	€65
DN40KF	38.1	1	65.0	FL-4X40KF	£74	€86
DN50KF	50.8	1	70.0	FL-4X50KF	£97	€112

LF 4-Way Cross



Flange	Tube OD	Fig.	A	Part Code	Price £	Price €
DN63LF	63.5	2	82.8	FL-4X63LF	£185	€213
DN80LF	76.2	2	89.2	FL-4X80LF	£232	€267
DN100LF	108.0	2	108.0	FL-4X100LF	£265	€305
DN160LF	152.4	2	138.0	FL-4X160LF	£339	€390
DN200LF	203.2	2	184.4	FL-4X200LF	POA	POA
DN250LF	254.0	2	247.7	FL-4X250LF	POA	POA

KF 4-Way Reducing Cross



Flange 1 & 2	Tube OD	Flange 3 & 4	Tube OD	Fig.	A	B	Part Code	Price £	Price €
DN25KF	25.4	DN10KF	12.7	3	52	31.5	FL-R4X25-10KF	£90	€104
DN25KF	25.4	DN16KF	19.1	3	50	43.2	FL-R4X25-16KF	£78	€90
DN40KF	38.1	DN16KF	19.1	3	61	40.0	FL-R4X40-16KF	£81	€94
DN40KF	38.1	DN25KF	25.4	3	61	57.8	FL-R4X40-25KF	£84	€97
DN50KF	50.8	DN16KF	19.1	3	70	55.9	FL-R4X50-16KF	£121	€140
DN50KF	50.8	DN25KF	25.4	3	70	50.0	FL-R4X50-25KF	£95	€110
DN50KF	50.8	DN40KF	38.1	3	80	67.3	FL-R4X50-40KF	£100	€115

LF 4-Way Reducing Cross



Flange 1 & 2	Tube OD	Flange 3 & 4	Tube OD	Fig.	A	B	Part Code	Price £	Price €
DN80LF	76.2	DN63LF	63.5	4	88.9	88.9	FL-R4X80-63LF	POA	POA
DN100LF	101.6	DN63LF	63.5	4	104.9	101.6	FL-R4X100-63LF	POA	POA
DN100LF	101.6	DN80LF	76.2	4	104.9	101.6	FL-R4X100-80LF	POA	POA
DN160LF	152.4	DN63LF	63.5	4	136.7	127.0	FL-R4X160-63LF	POA	POA
DN160LF	152.4	DN80LF	76.2	4	136.7	127.0	FL-R4X160-80LF	POA	POA
DN160LF	152.4	DN100LF	101.6	4	133.6	130.4	FL-R4X160-100LF	POA	POA
DN200LF	203.2	DN160LF	152.4	4	187.5	162.1	FL-R4X200-160LF	POA	POA

LF To KF 4-Way Reducing Cross



Flange 1 & 2	Tube OD	Flange 3 & 4	Tube OD	Fig.	A	B	Part Code	Price £	Price €
DN63LF	63.5	DN40KF	38.1	5	82.8	70.3	FL-R4X63LF-40KF	£217	€250
DN63LF	63.5	DN50KF	50.8	5	82.8	86.4	FL-R4X63LF-50KF	£248	€286
DN80LF	76.2	DN40KF	38.1	5	88.9	80.0	FL-R4X80LF-40KF	POA	POA
DN80LF	76.2	DN50KF	50.8	5	88.9	92.7	FL-R4X80LF-50KF	POA	POA
DN100LF	101.6	DN40KF	38.1	5	104.9	92.7	FL-R4X100LF-40KF	£239	€275
DN100LF	101.6	DN50KF	50.8	5	104.9	105.4	FL-R4X100LF-50KF	£269	€310

All dimensions are nominal in millimetres unless otherwise specified

5-Way & 6-Way Crosses



Specifications:

Material

Flanges	304 St.St.
Seals	Viton® or nitrile

Temperature Range

Using Viton® o-rings (200°C*)	-20°C to 150°C
Using nitrile o-rings	-20°C to 80°C (100°C*)

Vacuum Range

To below 1 x 10^{-8} Torr

* - Increased upper limit for intermittant use.

Features:

- 304 stainless steel as standard.
- Other materials available on request.
- Custom lengths available upon request.

Fig. 1.

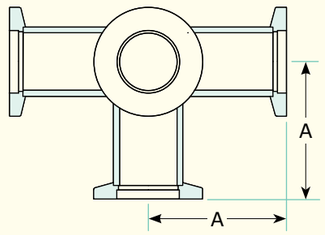


Fig. 2.

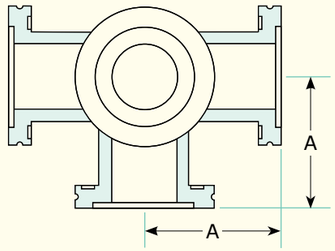


Fig. 3.

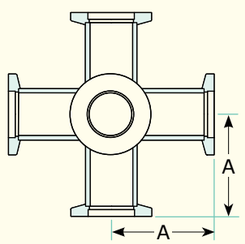
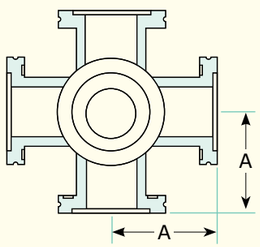


Fig. 4.



All dimensions are nominal in millimetres unless otherwise specified

KF 5-Way Cross



Flange	Tube OD	Fig.	A	Part Code	Price £	Price €
DN16KF	19.1	1	38.3	FL-5X16KF	£87	€101
DN25KF	25.4	1	51.4	FL-5X25KF	£103	€119
DN40KF	38.1	1	60.1	FL-5X40KF	£116	€134
DN50KF	50.8	1	80.0	FL-5X50KF	£210	€242

LF 5-Way Cross



Flange	Tube OD	Fig.	A	Part Code	Price £	Price €
DN63LF	63.5	2	82.8	FL-5X63LF	£275	€317
DN80LF	76.2	2	89.2	FL-5X80LF	£325	€374
DN100LF	101.6	2	105.0	FL-5X100LF	£385	€443
DN160LF	152.4	2	133.6	FL-5X160LF	£525	€604
DN200LF	203.2	2	184.4	FL-5X200LF	POA	POA
DN250LF	254.0	2	247.7	FL-5X250LF	POA	POA

KF 6-Way Cross



Flange	Tube OD	Fig.	A	Part Code	Price £	Price €
DN16KF	19.1	3	38.3	FL-6X16KF	£138	€159
DN25KF	25.4	3	51.4	FL-6X25KF	£163	€188
DN40KF	38.1	3	65.0	FL-6X40KF	£115	€133
DN50KF	50.8	3	80.0	FL-6X50KF	£236	€272

LF 6-Way Cross



Flange	Tube OD	Fig.	A	Part Code	Price £	Price €
DN63LF	63.5	4	82.8	FL-6X63LF	£298	€343
DN80LF	76.2	4	89.29	FL-6X80LF	£355	€409
DN100LF	101.6	4	105.0	FL-6X100LF	£425	€489
DN160LF	152.4	4	133.6	FL-6X160LF	POA	POA
DN200LF	203.2	4	184.4	FL-6X200LF	POA	POA
DN250LF	254.0	4	247.7	FL-6X-250LF	POA	POA
DN250LF	254.0	4	208.0	FL-6X250LF-208	POA	POA

All dimensions are nominal in millimetres unless otherwise specified