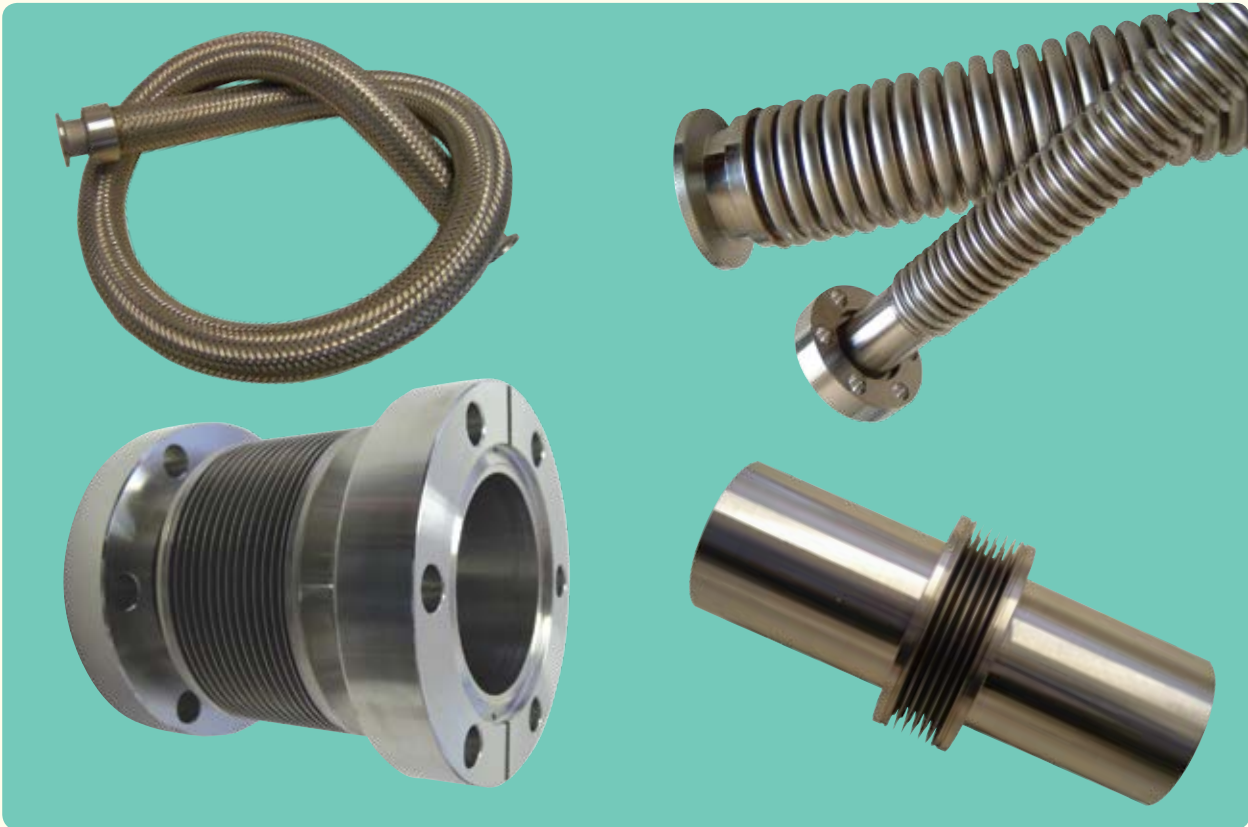


Bellows & Flexible Hoses



LewVac supplies flexible stainless steel hoses for use in applications where solid tube would not be practical or for purposes of vibration isolation. These hoses are manufactured from thin wall tube which is corrugated to allow flexing in all directions, along with a small amount of axial compression and extension. Also available are reinforced PVC hoses for backing or exhaust lines.

For applications which require greater flexibility, particularly axial compression and extension, LewVac offer a range of edge welded bellows. Edge welded bellows are manufactured from a series of formed metal diaphragms welded together, each diaphragm contributing to the overall extension allowable, so the more discs the greater the extension attainable and also the greater the lateral offset achievable.

All dimensions are nominal in millimetres unless otherwise specified

Email : sales@lewwac.co.uk - Tel : +44 (0)1444 233372 - Fax : +44 (0)1444 233392 - Website : www.lewwac.co.uk

Edge Welded Bellows



Specifications:

Material

Flanges 304 or 304L St.St.

Bellows 316L or AM350 St.St.

Temperature Range

316L -250°C to 450°C

AM350 -75°C to 450°C

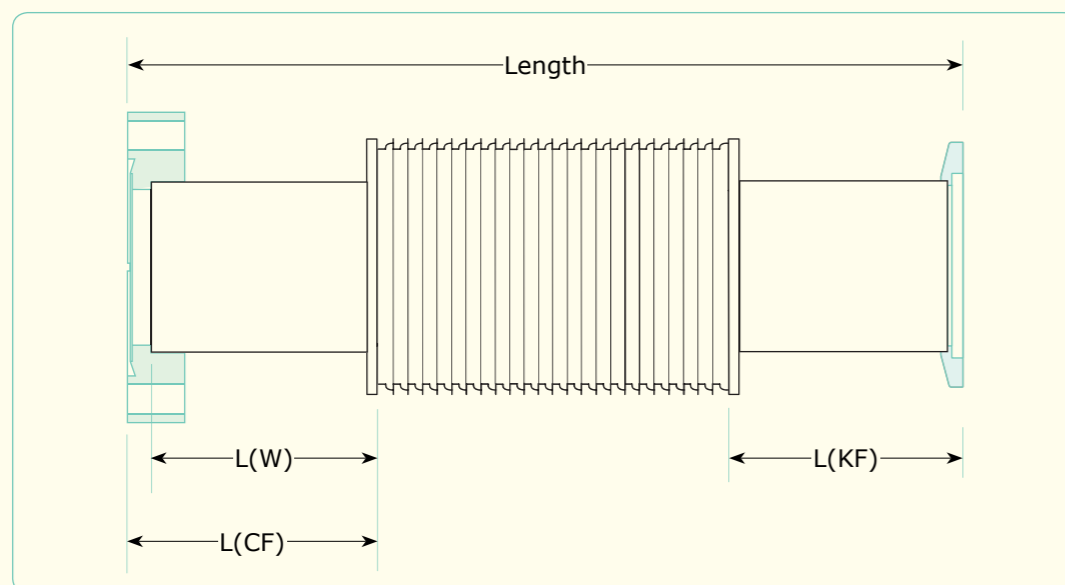
(May be limited by gasket / seal material)

Vacuum Range

CF flanged / weldable To below 1×10^{-11} TorrKF & LF flanged To below 1×10^{-8} Torr

Features:

- 316L stainless steel as standard for lower cycle requirement applications (typically 10,000 cycles).
- AM350 stainless steel also available for long lifetime (typically 1,000,000 cycles).
- Titanium, Inconel® or Hastelloy® available on request.
- Custom sizes and designs available upon request.



All dimensions are nominal in millimetres unless otherwise specified

DN16



| Flange Type | Through Bore | Max Bellow OD | Stroke | Extended Length | Compressed Length | L | Part Code | Price £ | Price € |
|-------------|--------------|---------------|--------|-----------------|-------------------|------|------------|---------|---------|
| CF | 16.0 | 31.5 | 12.1 | 56.4 | 44.3 | 20.0 | EWB16CF-12 | POA | POA |
| CF | 16.0 | 31.5 | 25.4 | 74.4 | 49.0 | 20.0 | EWB16CF-25 | POA | POA |
| CF | 16.0 | 31.5 | 38.7 | 92.5 | 53.8 | 20.0 | EWB16CF-38 | POA | POA |
| CF | 16.0 | 31.5 | 50.8 | 108.9 | 58.1 | 20.0 | EWB16CF-50 | POA | POA |
| CF | 16.0 | 31.5 | 76.2 | 143.3 | 67.1 | 20.0 | EWB16CF-76 | POA | POA |
| KF | 16.0 | 31.5 | 12.1 | 44.4 | 32.3 | 42.5 | EWB16KF-12 | POA | POA |
| KF | 16.0 | 31.5 | 25.4 | 62.4 | 37.0 | 43.0 | EWB16KF-25 | POA | POA |
| KF | 16.0 | 31.5 | 38.7 | 80.5 | 41.8 | 43.5 | EWB16KF-38 | POA | POA |
| KF | 16.0 | 31.5 | 50.8 | 96.9 | 46.1 | 44.0 | EWB16KF-50 | POA | POA |
| KF | 16.0 | 31.5 | 76.2 | 131.3 | 55.1 | 44.5 | EWB16KF-76 | POA | POA |
| Weldable | 16.0 | 31.5 | 12.1 | 48.4 | 36.3 | 16.0 | EWB16W-12 | POA | POA |
| Weldable | 16.0 | 31.5 | 25.4 | 66.4 | 41.0 | 16.0 | EWB16W-25 | POA | POA |
| Weldable | 16.0 | 31.5 | 38.7 | 84.5 | 45.8 | 16.0 | EWB16W-38 | POA | POA |
| Weldable | 16.0 | 31.5 | 50.8 | 100.9 | 50.1 | 16.0 | EWB16W-50 | POA | POA |
| Weldable | 16.0 | 31.5 | 76.2 | 135.3 | 59.1 | 16.0 | EWB16W-76 | POA | POA |

DN40



| Flange Type | Through Bore | Max Bellow OD | Stroke | Extended Length | Compressed Length | L | Part Code | Price £ | Price € |
|-------------|--------------|---------------|--------|-----------------|-------------------|------|------------|---------|---------|
| CF | 38.4 | 59.0 | 12.0 | 74.6 | 62.6 | 30.0 | EWB40CF-12 | POA | POA |
| CF | 38.4 | 59.0 | 26.0 | 91.7 | 65.7 | 30.0 | EWB40CF-25 | POA | POA |
| CF | 38.4 | 59.0 | 38.0 | 106.4 | 68.4 | 30.0 | EWB40CF-38 | POA | POA |
| CF | 38.4 | 59.0 | 50.0 | 121.0 | 71.0 | 30.0 | EWB40CF-50 | POA | POA |
| CF | 38.4 | 59.0 | 76.0 | 152.7 | 76.7 | 30.0 | EWB40CF-76 | POA | POA |
| KF | 38.4 | 59.0 | 12.0 | 44.6 | 32.6 | 15.0 | EWB40KF-12 | POA | POA |
| KF | 38.4 | 59.0 | 26.0 | 61.7 | 35.7 | 15.0 | EWB40KF-25 | POA | POA |
| KF | 38.4 | 59.0 | 38.0 | 76.4 | 38.4 | 15.0 | EWB40KF-38 | POA | POA |
| KF | 38.4 | 59.0 | 50.0 | 91.0 | 41.0 | 15.0 | EWB40KF-50 | POA | POA |
| KF | 38.4 | 59.0 | 76.0 | 122.7 | 46.7 | 15.0 | EWB40KF-76 | POA | POA |
| Weldable | 38.4 | 59.0 | 12.0 | 64.0 | 52.0 | 24.7 | EWB40W-12 | POA | POA |
| Weldable | 38.4 | 59.0 | 26.0 | 81.1 | 55.1 | 24.7 | EWB40W-25 | POA | POA |
| Weldable | 38.4 | 59.0 | 38.0 | 95.8 | 57.8 | 24.7 | EWB40W-38 | POA | POA |
| Weldable | 38.4 | 59.0 | 50.0 | 110.4 | 60.4 | 24.7 | EWB40W-50 | POA | POA |
| Weldable | 38.4 | 59.0 | 76.0 | 142.1 | 66.1 | 24.7 | EWB40W-76 | POA | POA |

All dimensions are nominal in millimetres unless otherwise specified

Edge Welded Bellows



Specifications:

Material

Flanges 304 or 304L St.St.
Bellows 316L or AM350 St.St.

Temperature Range

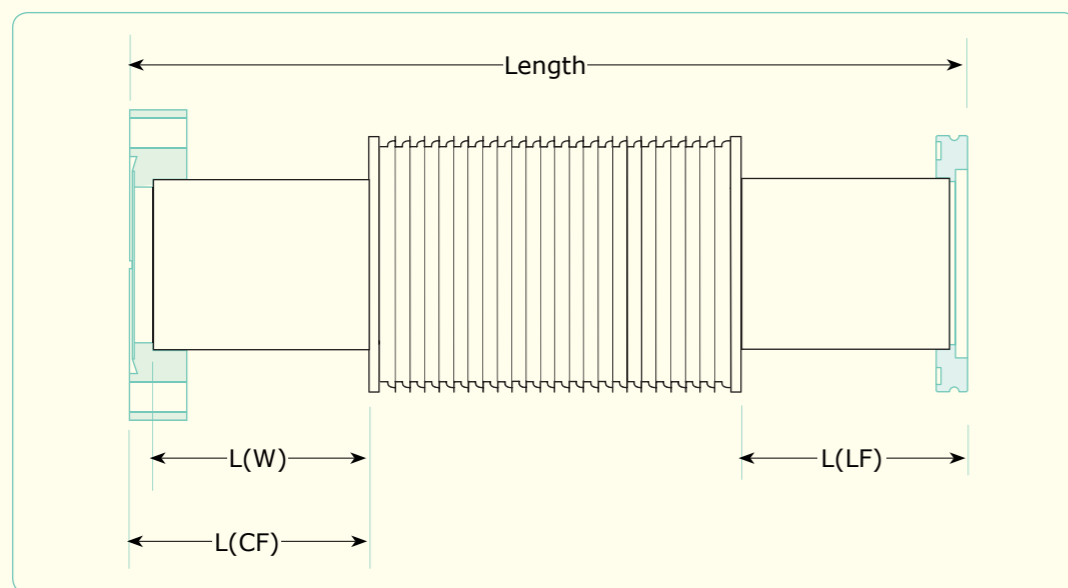
316L -250°C to 450°C
AM350 -75°C to 450°C
(May be limited by gasket / seal material)

Vacuum Range

CF flanged / weldable To below 1×10^{-11} Torr
KF & LF flanged To below 1×10^{-8} Torr

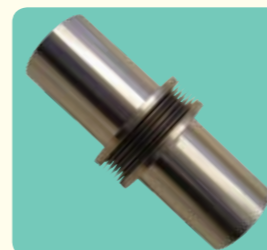
Features:

- 316L stainless steel asstandard for lower cycle requirement applications (typically 10,000 cycles).
- AM350 stainless steel also available for long lifetime (typically 1,000,000 cycles).
- Titanium, Inconel® or Hastelloy® available on request.
- Custom sizes and designs available upon request.



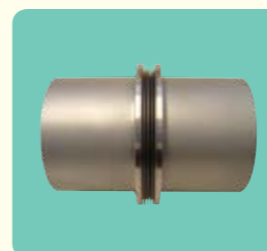
All dimensions are nominal in millimetres unless otherwise specified

DN63



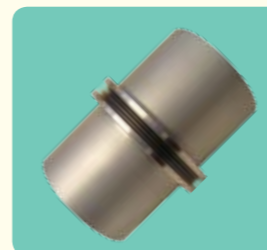
| Flange Type | Through Bore | Max Bellow OD | Stroke | Extended Length | Compressed Length | L | Part Code | Price £ | Price € |
|-------------|--------------|---------------|--------|-----------------|-------------------|------|------------|---------|---------|
| CF | 65.0 | 90.0 | 12.7 | 86.2 | 73.5 | 35.0 | EWB63CF-12 | POA | POA |
| CF | 65.0 | 90.0 | 25.5 | 102.5 | 77.0 | 35.0 | EWB63CF-25 | POA | POA |
| CF | 65.0 | 90.0 | 38.3 | 118.8 | 80.5 | 35.0 | EWB63CF-38 | POA | POA |
| CF | 65.0 | 90.0 | 51.0 | 135.0 | 84.0 | 35.0 | EWB63CF-50 | POA | POA |
| CF | 65.0 | 90.0 | 76.5 | 167.5 | 91.0 | 35.0 | EWB63CF-76 | POA | POA |
| LF | 65.0 | 90.0 | 12.7 | 86.2 | 73.5 | 35.0 | EWB63LF-12 | POA | POA |
| LF | 65.0 | 90.0 | 25.5 | 102.5 | 77.0 | 35.0 | EWB63LF-25 | POA | POA |
| LF | 65.0 | 90.0 | 40.5 | 118.8 | 78.3 | 35.0 | EWB63LF-38 | POA | POA |
| LF | 65.0 | 90.0 | 54.0 | 135.0 | 81.0 | 35.0 | EWB63LF-50 | POA | POA |
| LF | 65.0 | 90.0 | 76.5 | 167.5 | 91.0 | 35.0 | EWB63LF-76 | POA | POA |
| Weldable | 65.0 | 90.0 | 12.7 | 67.2 | 54.5 | 25.5 | EWB63W-12 | POA | POA |
| Weldable | 65.0 | 90.0 | 25.5 | 83.5 | 58.0 | 25.5 | EWB63W-25 | POA | POA |
| Weldable | 65.0 | 90.0 | 38.3 | 99.8 | 61.5 | 25.5 | EWB63W-38 | POA | POA |
| Weldable | 65.0 | 90.0 | 51.0 | 116.0 | 65.0 | 25.5 | EWB63W-50 | POA | POA |
| Weldable | 65.0 | 90.0 | 76.5 | 148.5 | 72.0 | 25.5 | EWB63W-76 | POA | POA |

DN100



| Flange Type | Through Bore | Max Bellow OD | Stroke | Extended Length | Compressed Length | L | Part Code | Price £ | Price € |
|-------------|--------------|---------------|--------|-----------------|-------------------|------|-------------|---------|---------|
| CF | 102.0 | 132.0 | 12.0 | 94.6 | 82.6 | 40.0 | EWB100CF-12 | POA | POA |
| CF | 102.0 | 132.0 | 26.9 | 112.8 | 85.9 | 40.0 | EWB100CF-25 | POA | POA |
| CF | 102.0 | 132.0 | 38.9 | 127.4 | 88.5 | 40.0 | EWB100CF-38 | POA | POA |
| CF | 102.0 | 132.0 | 51.0 | 142.0 | 91.0 | 40.0 | EWB100CF-50 | POA | POA |
| CF | 102.0 | 132.0 | 78 | 174.9 | 96.9 | 40.0 | EWB100CF-76 | POA | POA |
| LF | 102.0 | 132.0 | 12.0 | 94.6 | 82.6 | 40.0 | EWB100LF-12 | POA | POA |
| LF | 102.0 | 132.0 | 26.9 | 112.8 | 85.9 | 40.0 | EWB100LF-25 | POA | POA |
| LF | 102.0 | 132.0 | 38.9 | 127.4 | 88.5 | 40.0 | EWB100LF-38 | POA | POA |
| LF | 102.0 | 132.0 | 51.0 | 142.0 | 91.0 | 40.0 | EWB100LF-50 | POA | POA |
| LF | 102.0 | 132.0 | 78 | 174.9 | 96.9 | 40.0 | EWB100LF-76 | POA | POA |
| Weldable | 102.0 | 132.0 | 12.0 | 72.4 | 60.4 | 28.9 | EWB100W-12 | POA | POA |
| Weldable | 102.0 | 132.0 | 26.9 | 90.6 | 63.7 | 28.9 | EWB100W-25 | POA | POA |
| Weldable | 102.0 | 132.0 | 38.9 | 105.2 | 66.3 | 28.9 | EWB100W-38 | POA | POA |
| Weldable | 102.0 | 132.0 | 51.0 | 119.8 | 68.8 | 28.9 | EWB100W-50 | POA | POA |
| Weldable | 102.0 | 132.0 | 78 | 152.7 | 74.7 | 28.9 | EWB100W-76 | POA | POA |

DN160



| Flange Type | Through Bore | Max Bellow OD | Stroke | Extended Length | Compressed Length | L | Part Code | Price £ | Price € |
|-------------|--------------|---------------|--------|-----------------|-------------------|------|-------------|---------|---------|
| CF | 150.0 | 185.0 | 27.2 | 123.2 | 96.0 | 45.0 | EWB160CF-25 | POA | POA |
| LF | 150.0 | 185.0 | 27.2 | 123.2 | 96.0 | 45.0 | EWB160LF-25 | POA | POA |
| Weldable | 150.0 | 185.0 | 27.2 | 97.8 | 70.6 | 32.3 | EWB160W-25 | POA | POA |

All dimensions are nominal in millimetres unless otherwise specified

Formed Bellows - Weldable



Specifications:

Material

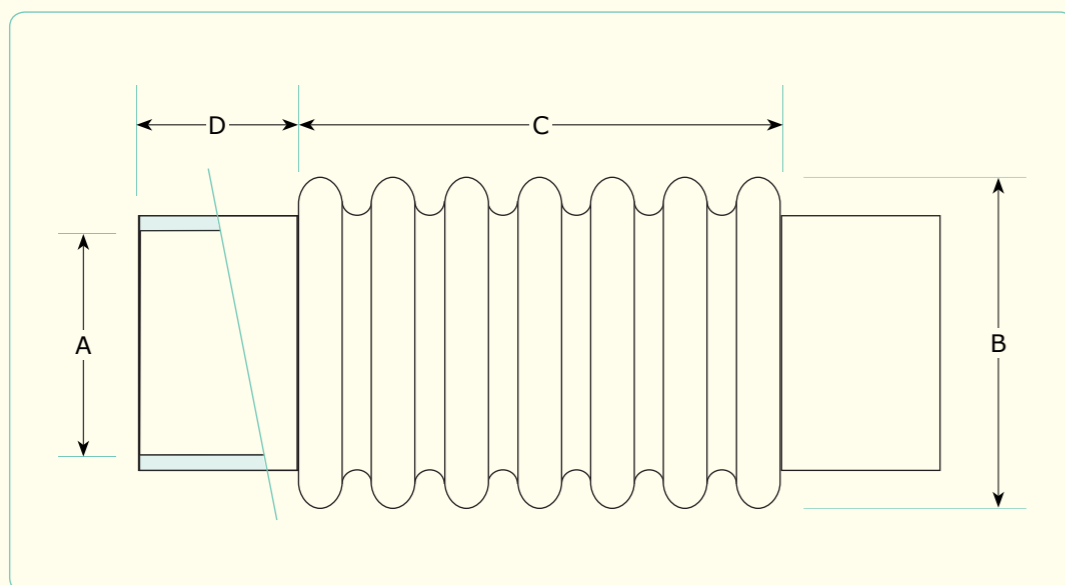
321 St.St.

Temperature Range

-250°C to 450°C

Features:

- Type 321 stainless steel as standard.
- Highly flexible.
- Flanged versions available upon request.
- Custom sizes and designs available upon request.



All dimensions are nominal in millimetres unless otherwise specified

Weldable Formed Bellows



| A | B | C | D | Wall Thickness | Axial Deflection +/- | Part Code | Price £ | Price € |
|-------|-------|-------|-------|----------------|----------------------|------------|---------|---------|
| 6.35 | 9.40 | 25.40 | 12.70 | 0.13 | +2.54 / -6.35 | FL-FB6.35 | POA | POA |
| 7.93 | 11.68 | 25.40 | 12.70 | 0.13 | +2.54 / -6.35 | FL-FB7.93 | POA | POA |
| 9.52 | 14.48 | 38.10 | 12.70 | 0.13 | +3.81 / -9.40 | FL-FB9.52 | POA | POA |
| 12.70 | 19.05 | 38.10 | 12.70 | 0.15 | +3.81 / -9.40 | FL-FB12.70 | POA | POA |
| 15.87 | 22.10 | 38.10 | 12.70 | 0.15 | +3.81 / -9.40 | FL-FB15.87 | POA | POA |
| 19.05 | 26.42 | 38.10 | 12.70 | 0.15 | +3.81 / -9.40 | FL-FB19.05 | POA | POA |
| 22.22 | 31.75 | 50.80 | 12.70 | 0.15 | +5.08 / -12.70 | FL-FB22.22 | POA | POA |
| 25.40 | 34.80 | 50.80 | 19.05 | 0.15 | +5.08 / -12.70 | FL-FB25.40 | POA | POA |
| 28.57 | 37.08 | 50.80 | 19.05 | 0.15 | +5.08 / -12.70 | FL-FB28.57 | POA | POA |
| 31.75 | 40.64 | 50.80 | 19.05 | 0.15 | +5.08 / -12.70 | FL-FB31.75 | POA | POA |
| 34.92 | 45.97 | 50.80 | 19.05 | 0.15 | +5.08 / -12.70 | FL-FB34.92 | POA | POA |
| 38.10 | 48.26 | 50.80 | 19.05 | 0.15 | +5.08 / -12.70 | FL-FB38.10 | POA | POA |
| 41.27 | 52.07 | 50.80 | 19.05 | 0.15 | +5.08 / -12.70 | FL-FB41.27 | POA | POA |
| 44.45 | 56.90 | 50.80 | 19.05 | 0.15 | +5.08 / -12.70 | FL-FB44.45 | POA | POA |
| 50.80 | 63.25 | 63.50 | 19.05 | 0.15 | +6.35 / -15.24 | FL-FB50.80 | POA | POA |
| 57.15 | 71.37 | 63.50 | 19.05 | 0.15 | +6.35 / -15.24 | FL-FB57.15 | POA | POA |
| 63.50 | 75.69 | 63.50 | 19.05 | 0.15 | +6.35 / -15.24 | FL-FB63.50 | POA | POA |
| 76.20 | 95.76 | 76.20 | 25.40 | 0.20 | +7.62 / -19.05 | FL-FB76.20 | POA | POA |
| 88.90 | 109.2 | 88.90 | 25.40 | 0.20 | +8.89 / -22.10 | FL-FB88.90 | POA | POA |
| 101.6 | 121.4 | 101.6 | 25.40 | 0.20 | +10.16 / -25.40 | FL-FB101.6 | POA | POA |
| 114.3 | 134.1 | 101.6 | 25.40 | 0.20 | +10.16 / -25.40 | FL-FB114.3 | POA | POA |
| 127.0 | 146.1 | 127.0 | 25.40 | 0.20 | +12.7 / -31.75 | FL-FB127.0 | POA | POA |
| 152.4 | 174.0 | 127.0 | 31.75 | 0.25 | +12.7 / -31.75 | FL-FB152.4 | POA | POA |
| 203.2 | 235.0 | 152.4 | 31.75 | 0.51 | +15.25 / -38.10 | FL-FB203.2 | POA | POA |
| 254.0 | 287.3 | 152.4 | 31.75 | 0.51 | +15.25 / -38.10 | FL-FB254.0 | POA | POA |
| 304.8 | 352.6 | 152.4 | 31.75 | 0.51 | +15.25 / -38.10 | FL-FB304.8 | POA | POA |

- Through ID of bellows is approximately 95% of cuff ID.
- Axial deflection is approximately +10% and -25% of length, C.
- Lateral deflection is approximately 10% of length, C.

Please note : A minimum order quantity may apply to some of these items. Please contact our sales office for further details.

All dimensions are nominal in millimetres unless otherwise specified

Flexible Hoses

**Specifications:****Material**

Hose - 316L St.St.
Flanges - 304 St.St.

Temperature Range

CF flanged -250°C to 450°C
KF flanged -20°C to 150°C (200°C*)

Vacuum Range

CF flanged To below 1×10^{-11} Torr
KF flanged To below 1×10^{-8} Torr

* - Increased upper limit for intermittent use.

Features:

- 316L stainless steel hose as standard.
- 304 stainless steel flanges as standard.
- Highly flexible.
- Custom sizes and designs available upon request.

Fig. 1.

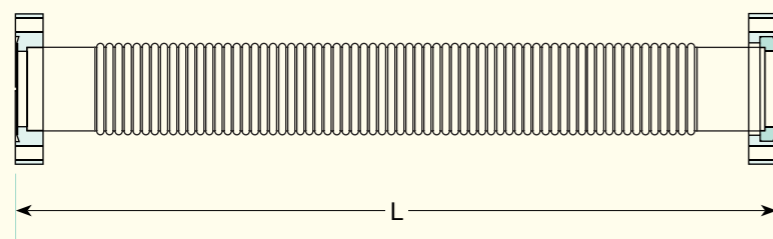
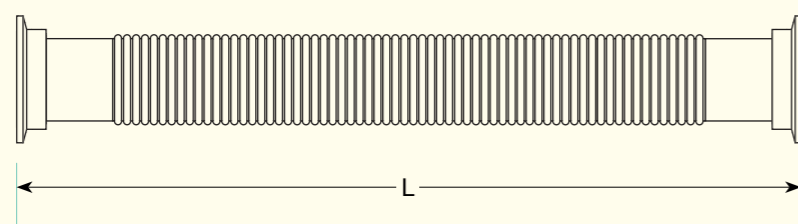


Fig. 2.



All dimensions are nominal in millimetres unless otherwise specified

CF Flanged Hoses

Braided flexible hoses are also available, please contact sales office for details.

| Flange | Fig. | L | Part Code | Price £ | Price € |
|---------|------|------|----------------|---------|---------|
| DN16CF | 1 | 250 | FL-H250-16CF | £67 | €78 |
| DN16CF | 1 | 500 | FL-H500-16CF | £72 | €83 |
| DN16CF | 1 | 750 | FL-H750-16CF | £76 | €88 |
| DN16CF | 1 | 1000 | FL-H1000-16CF | £81 | €94 |
| DN40CF | 1 | 250 | FL-H250-40CF | £83 | €96 |
| DN40CF | 1 | 500 | FL-H500-40CF | £89 | €103 |
| DN40CF | 1 | 750 | FL-H750-40CF | £96 | €111 |
| DN40CF | 1 | 1000 | FL-H1000-40CF | £102 | €118 |
| DN63CF | 1 | 500 | FL-H500-63CF | £233 | €268 |
| DN63CF | 1 | 750 | FL-H750-63CF | £251 | €289 |
| DN63CF | 1 | 1000 | FL-H1000-63CF | £269 | €310 |
| DN100CF | 1 | 500 | FL-H500-100CF | POA | POA |
| DN100CF | 1 | 750 | FL-H750-100CF | POA | POA |
| DN100CF | 1 | 1000 | FL-H1000-100CF | £413 | €475 |
| DN160CF | 1 | 500 | FL-H500-160CF | £453 | €521 |
| DN160CF | 1 | 750 | FL-H750-160CF | £502 | €578 |
| DN160CF | 1 | 1000 | FL-H1000-160CF | £551 | €634 |

KF Flanged Hoses

Braided flexible hoses are also available, please contact sales office for details.

| Flange | Fig. | L | Part Code | Price £ | Price € |
|--------|------|------|---------------|---------|---------|
| DN10KF | 2 | 250 | FL-H250-10KF | £60 | €69 |
| DN10KF | 2 | 500 | FL-H500-10KF | £68 | €79 |
| DN10KF | 2 | 750 | FL-H750-10KF | £77 | €89 |
| DN10KF | 2 | 1000 | FL-H1000-10KF | £85 | €98 |
| DN10KF | 2 | 1500 | FL-H1500-10KF | £102 | €118 |
| DN10KF | 2 | 2000 | FL-H2000-10KF | £125 | €144 |
| DN16KF | 2 | 250 | FL-H250-16KF | £31 | €36 |
| DN16KF | 2 | 500 | FL-H500-16KF | £36 | €42 |
| DN16KF | 2 | 750 | FL-H750-16KF | £42 | €49 |
| DN16KF | 2 | 1000 | FL-H1000-16KF | £47 | €55 |
| DN16KF | 2 | 1500 | FL-H1500-16KF | £52 | €60 |
| DN16KF | 2 | 2000 | FL-H2000-16KF | £59 | €68 |
| DN25KF | 2 | 250 | FL-H250-25KF | £33 | €38 |
| DN25KF | 2 | 500 | FL-H500-25KF | £38 | €44 |
| DN25KF | 2 | 750 | FL-H750-25KF | £43 | €50 |
| DN25KF | 2 | 1000 | FL-H1000-25KF | £50 | €58 |
| DN25KF | 2 | 1500 | FL-H1500-25KF | £57 | €66 |
| DN25KF | 2 | 2000 | FL-H2000-25KF | £65 | €75 |
| DN40KF | 2 | 250 | FL-H250-40KF | £41 | €48 |
| DN40KF | 2 | 500 | FL-H500-40KF | £49 | €57 |
| DN40KF | 2 | 750 | FL-H750-40KF | £58 | €67 |
| DN40KF | 2 | 1000 | FL-H1000-40KF | £67 | €78 |
| DN40KF | 2 | 1500 | FL-H1500-40KF | £76 | €88 |
| DN40KF | 2 | 2000 | FL-H2000-40KF | £85 | €98 |
| DN50KF | 2 | 250 | FL-H250-50KF | £59 | €68 |
| DN50KF | 2 | 500 | FL-H500-50KF | £71 | €82 |
| DN50KF | 2 | 750 | FL-H750-50KF | £83 | €96 |
| DN50KF | 2 | 1000 | FL-H1000-50KF | £91 | €105 |
| DN50KF | 2 | 1500 | FL-H1500-50KF | £99 | €114 |
| DN50KF | 2 | 2000 | FL-H2000-50KF | £107 | €124 |

All dimensions are nominal in millimetres unless otherwise specified

Flexible Hoses



Specifications:

Material

Hose - 316L St.St.
Flanges - 304 St.St.

Temperature Range

-20°C to 150°C (200°C*)

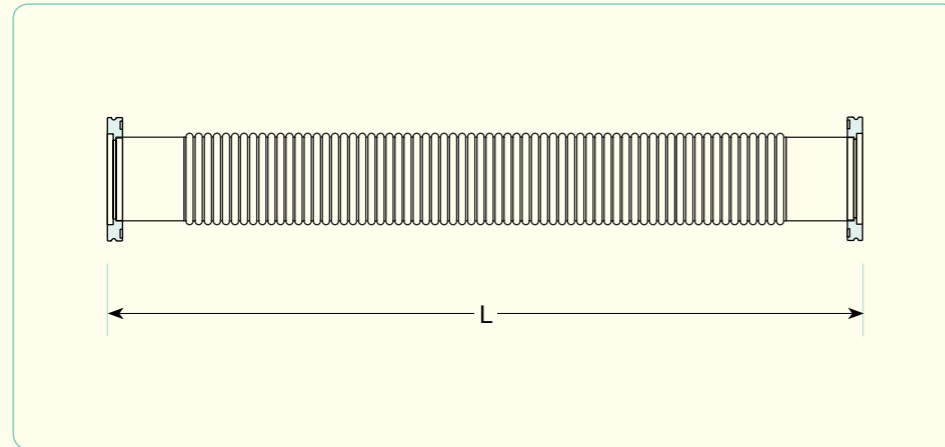
Vacuum Range

To below 1×10^{-8} Torr

* - Increased upper limit for intermittent use.

Features:

- 304 stainless steel as standard.
- Highly flexible.
- Custom sizes and designs available upon request.



All dimensions are nominal in millimetres unless otherwise specified

LF Flanged Hoses



Braided flexible hoses are also available, please contact sales office for details.

| Flange | L | Part Code | Price £ | Price € |
|---------|------|----------------|---------|---------|
| DN63LF | 500 | FL-H500-63LF | £153 | €176 |
| DN63LF | 750 | FL-H750-63LF | £164 | €189 |
| DN63LF | 1000 | FL-H1000-63LF | £174 | €201 |
| DN63LF | 2000 | FL-H2000-63LF | £272 | €313 |
| DN100LF | 125 | FL-H125-100LF | POA | POA |
| DN100LF | 250 | FL-H250-100LF | £207 | €239 |
| DN100LF | 500 | FL-H500-100LF | £218 | €251 |
| DN100LF | 750 | FL-H750-100LF | £229 | €264 |
| DN100LF | 1000 | FL-H1000-100LF | £240 | €276 |
| DN160LF | 500 | FL-H500-160LF | POA | POA |
| DN160LF | 750 | FL-H750-160LF | POA | POA |
| DN160LF | 1000 | FL-H1000-160LF | POA | POA |

All dimensions are nominal in millimetres unless otherwise specified

