

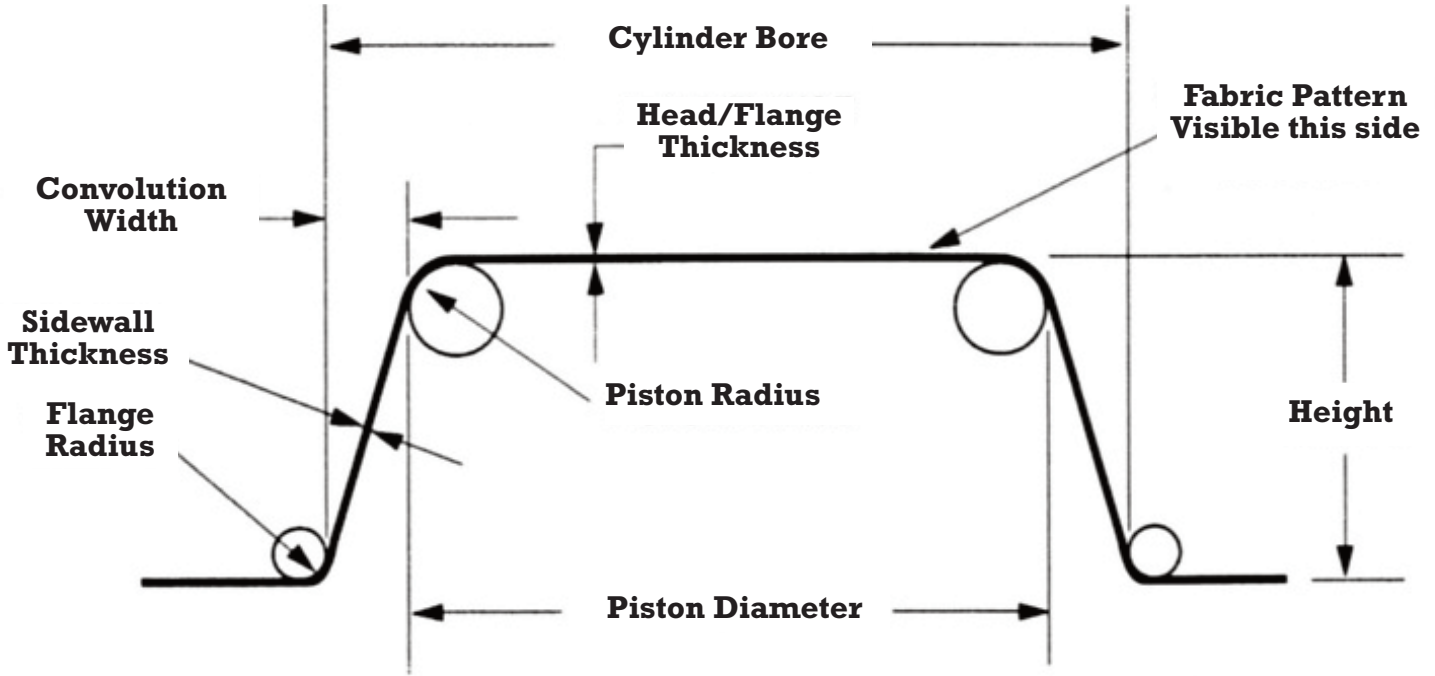
- Maximum stroke/diameter ratio.
- Broad range of fabrics and elastomers.
- Differential pressure capability (limited by beaded flange) is normally to 150 psi.
- Pressure applied from one direction only.
- Must be formed into convoluted shape during assembly
- Beaded flange assists in assembly
- Seal enhanced by bead, which spreads under pressure in a properly dimensioned hardware groove.
- Outside flange diameter is generally less than that of a flat-flange design.

Specifications: Inches and (Millimeters)

	Cylinder Bore Range 0.25-0.99	1.00-2.50	2.51-4.00	4.01-8.00	over 8.00
Sidewall Thickness	0.013/0.017 (0.330/0.432)	0.014/0.020 (0.356/0.508)	0.020/0.028 (0.508/0.711)	0.030/0.040 (0.762/1.016)	0.038/0.052 (0.965/1.321)
Head/Flange Thickness	0.015/0.025 (0.381/0.635)	0.015/0.025 (0.381/0.635)	0.025/0.035 (0.635/0.889)	0.030/0.040 (0.762/1.016)	0.035/0.055 (0.889/1.397)
Piston Radius	0.094 (2.388)	0.125 (3.175)	0.156 (3.962)	0.250 (6.350)	0.250 (6.350)
Flange Radius	0.031 (0.787)	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.125 (3.175)
Convolution Width	0.085 (2.159)	0.094 (2.388)	0.156 (3.962)	0.250 (6.350)	0.250 (6.350)
Bead Width	0.090/0.096 (2.286/2.438)	0.122/0.128 (3.099/3.251)	0.184/0.190 (4.674/4.826)	0.247/0.253 (6.274/6.426)	0.247/0.253 (6.274/6.426)
Bead Height	0.091/0.097 (2.311/2.464)	0.131/0.139 (3.327/3.531)	0.195/0.205 (4.953/5.207)	0.263/0.277 (6.680/7.036)	0.263/0.277 (6.680/7.036)

ROLLING

Single-Coated, Flat Flange (SCRF)



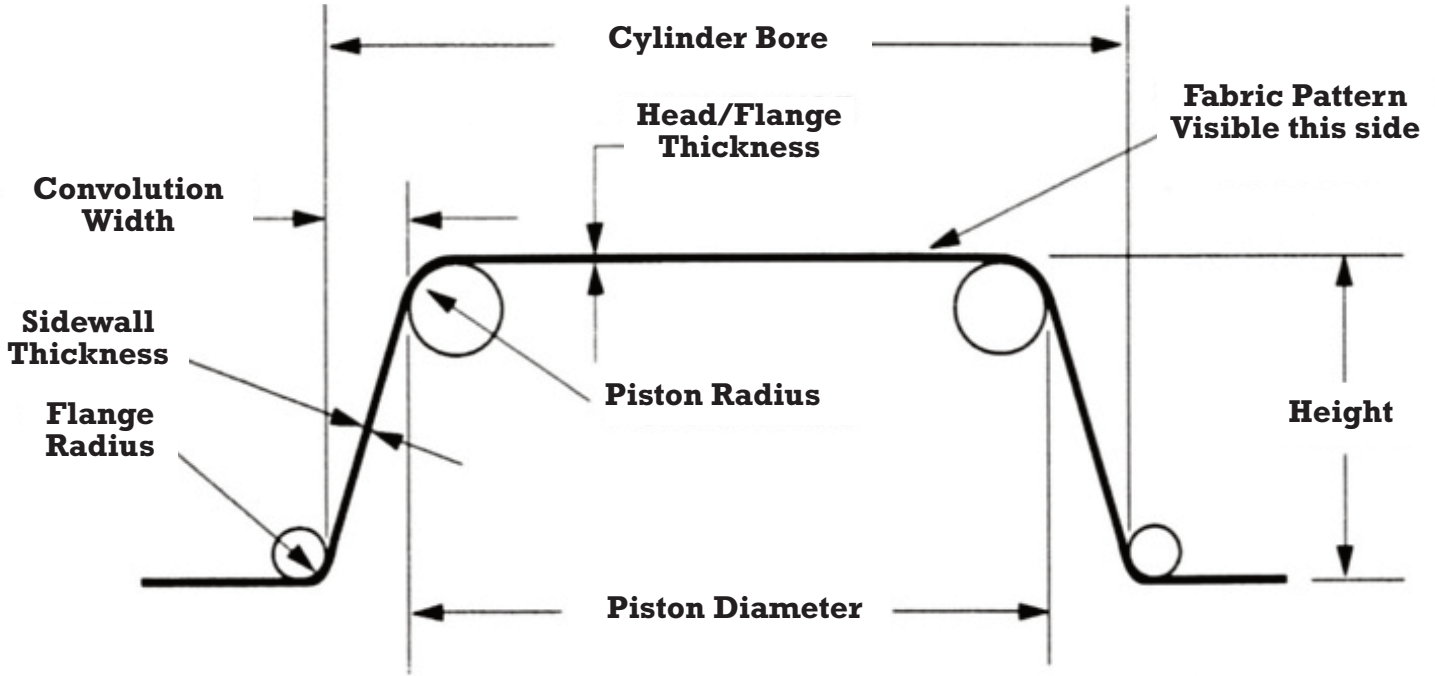
- Maximum stroke/diameter ratio.
- Broad range of fabrics and elastomers.
- Differential pressure capability limited in long-stroke applications.
- Pressure applied from one direction only.
- Must be formed into convoluted shape during assembly.

Specifications: Inches and (Millimeters)

Cylinder Bore Range	0.25-0.99	1.00-2.50	2.51-4.00	4.01-8.00	over 8.00
Sidewall Thickness	0.013/0.017 (0.330/0.432)	0.014/0.020 (0.356/0.508)	0.020/0.028 (0.508/0.711)	0.030/0.040 (0.762/1.016)	0.038/0.052 (0.965/1.321)
Head/Flange Thickness	0.015/0.025 (0.381/0.635)	0.015/0.025 (0.381/0.635)	0.025/0.035 (0.635/0.889)	0.030/0.040 (0.762/1.016)	0.035/0.055 (0.889/1.397)
Piston Radius	0.094 (2.388)	0.125 (3.175)	0.156 (3.962)	0.250 (6.350)	0.250 (6.350)
Flange Radius	0.031 (0.787)	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.125 (3.175)
Convolution Width	0.085 (2.159)	0.094 (2.388)	0.156 (3.962)	0.250 (6.350)	0.250 (6.350)

ROLLING

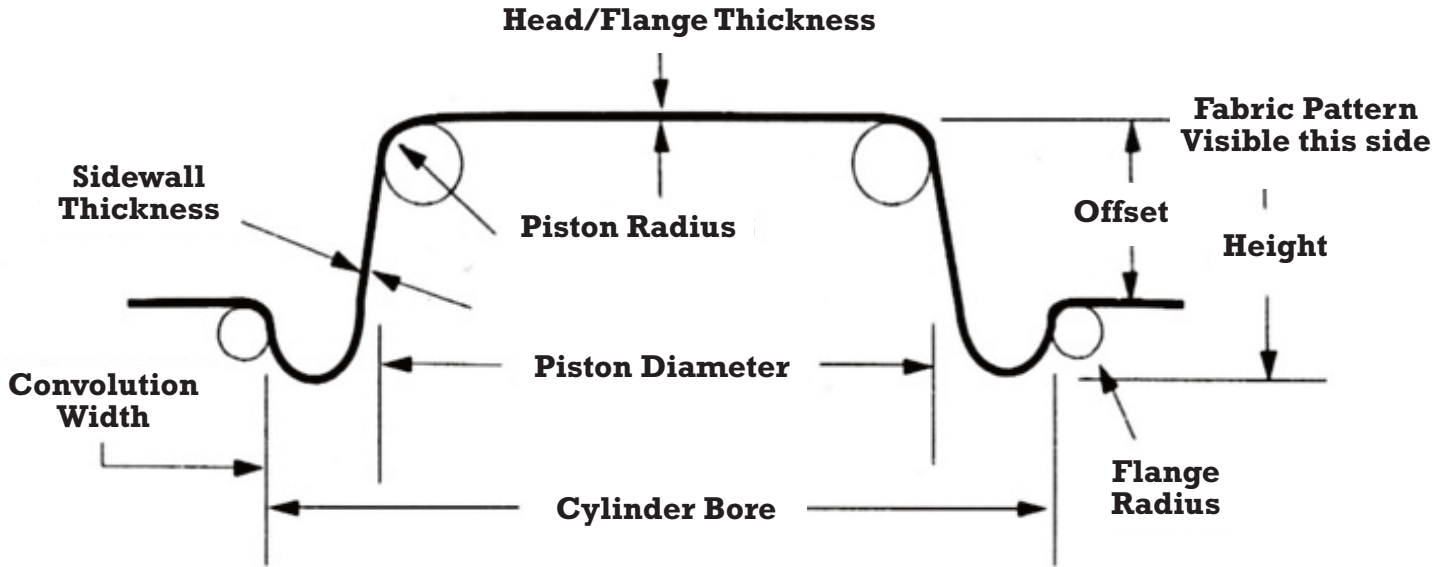
Double-Coated, Flat Flange (DCRF)



- Limited stroke/diameter ratio.
- Limited range of fabric and elastomers.
- Double-coating increases durability when in contact with rough surfaces.
- Pressure applied from one direction only.
- Must be formed into convoluted shape during assembly.
- Diaphragm height limited to approximately $\frac{1}{4}$ the diameter.

Specifications: Inches and (Millimeters)

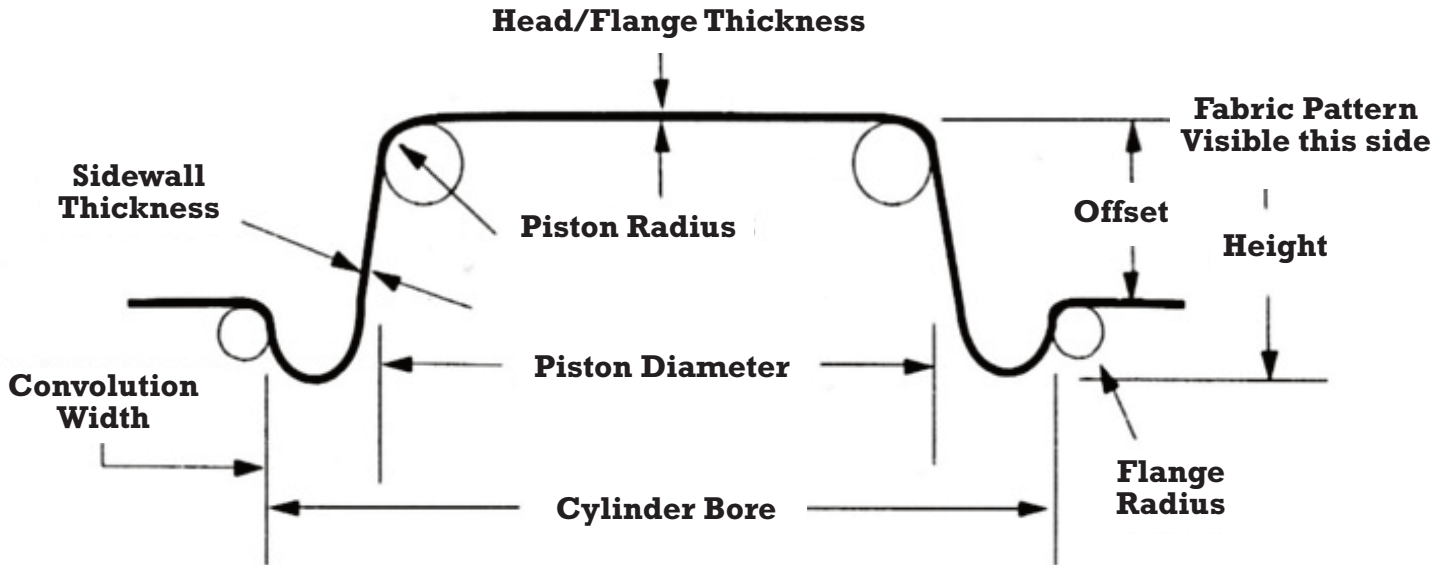
Cylinder Bore Range	0.25-0.99	1.00-2.50	2.51-4.00	4.01-8.00	over 8.00
Sidewall Thickness	0.013/0.017 (0.330/0.432)	0.014/0.020 (0.356/0.508)	0.020/0.028 (0.508/0.711)	0.030/0.040 (0.762/1.016)	0.035/0.055 (0.889/1.397)
Head/Flange Thickness	0.015/0.025 (0.381/0.635)	0.015/0.025 (0.381/0.635)	0.025/0.035 (0.635/0.889)	0.030/0.040 (0.762/1.016)	0.035/0.055 (0.889/1.397)
Piston Radius	0.094 (2.388)	0.125 (3.175)	0.156 (3.962)	0.250 (6.350)	0.310 (7.874)
Flange Radius	0.031 (0.787)	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.250 (6.350)
Convolution Width	0.085 (2.159)	0.094 (2.388)	0.156 (3.962)	0.205 (5.207)	0.250 (6.350)



- Longer stroke than planar types, but more limited than Top Hat style.
- Broad range of fabrics and elastomers.
- Pressure applied from one direction only.
- Total stroke length is twice offset.
- Pre-molded into installed shape for easy assembly.

Specifications: Inches and (Millimeters)

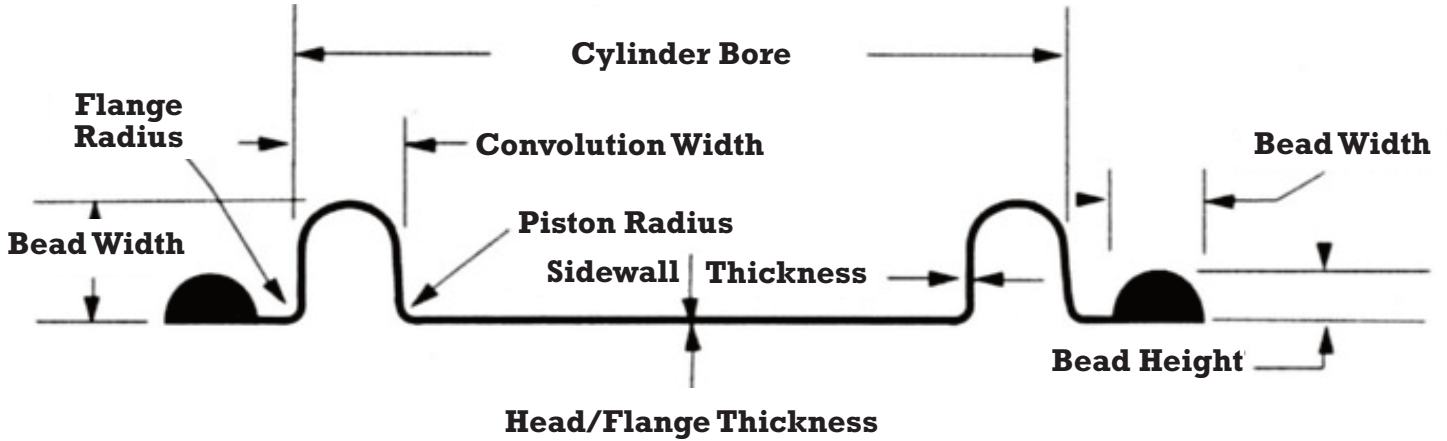
Cylinder Bore Range	1.00-2.50	2.51-4.00	4.01-8.00	over 8.00
Sidewall Thickness	0.015/0.025 (0.381/0.635)	0.020/0.030 (0.508/0.762)	0.030/0.040 (0.762/1.016)	0.038/0.052 (0.965/1.321)
Head/Flange Thickness	0.015/0.025 (0.381/0.635)	0.020/0.030 (0.508/0.762)	0.030/0.040 (0.762/1.016)	0.035/0.055 (0.889/1.397)
Piston Radius	0.125 (3.175)	0.156 (3.962)	0.250 (6.350)	0.310 (7.874)
Flange Radius	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.188 (4.775)
Convolution Width	0.125 (3.175)	0.156 (3.962)	0.250 (6.350)	0.375 (9.525)



- Diaphragm height ($1/2$ stroke length) is limited to approximately $1/4$ of the bore diameter.
- Limited fabric and elastomer selection.
- Double-coating increases durability when in contact with rough surfaces.
- Pre-molded into installed shape for easy assembly.

Specifications: Inches and (Millimeters)

Cylinder Bore Range	1.00-2.50	2.51-4.00	4.01-8.00	over 8.00
Sidewall Thickness	0.015/0.025 (0.381/0.635)	0.020/0.030 (0.508/0.762)	0.032/0.048 (0.813/1.219)	0.070/0.090 (1.778/2.286)
Head/Flange Thickness	0.015/0.025 (0.381/0.635)	0.020/0.030 (0.508/0.762)	0.032/0.048 (0.813/1.219)	0.070/0.090 (1.778/2.286)
Piston Radius	0.125 (3.175)	0.156 (3.962)	0.250 (6.350)	0.370 (9.398)
Flange Radius	0.094 (2.388)	0.125 (3.175)	0.250 (6.350)	0.250 (6.350)
Convolution Width	0.125 (3.175)	0.156 (3.962)	0.250 (6.350)	0.375 (9.525)

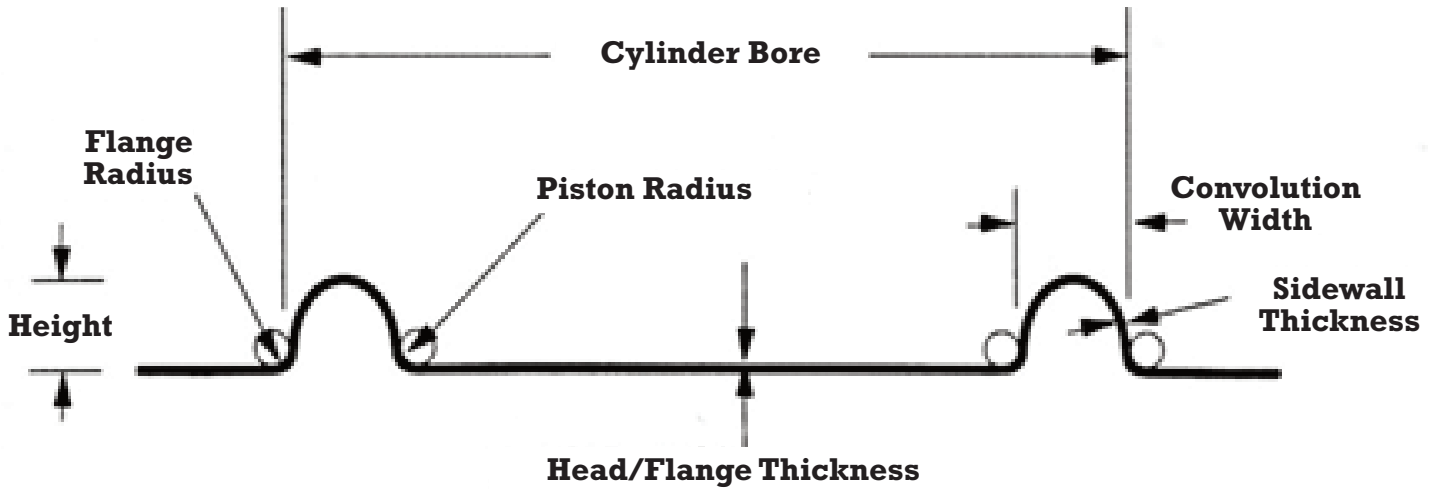


- Limited stroke length/diameter ratio.
- Broad range of fabrics and elastomers.
- Differential pressure capability (limited by beaded flange) is normally to 150 psi.
- Pressure applied from only one direction.
- Beaded flange and pre-molded shape permit quick, easy installation.
- Outside diameter is generally less than that of a flat-flange design.
- Flange seals by compressing bead in appropriate hardware groove.

Specifications: Inches and (Millimeters)

Cylinder Bore Range	1.00-2.50	2.51-4.00	4.01-8.00	over 8.00
Sidewall Thickness	0.014/0.020 (0.356/0.508)	0.020/0.030 (0.508/0.762)	0.030/0.040 (0.762/1.016)	0.038/0.052 (0.965/1.321)
Head/Flange Thickness	0.015/0.025 (0.381/0.635)	0.025/0.035 (0.635/0.889)	0.030/0.040 (0.762/1.016)	0.035/0.055 (0.889/1.397)
Piston Radius	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.188 (4.775)
Flange Radius	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.125 (3.175)
Convolution Width	0.125 (3.175)	0.156 (3.962)	0.250 (6.350)	0.250 (6.350)
Bead Width	0.122/0.128 (3.099/3.251)	0.184/0.190 (4.674/4.826)	0.247/0.253 (6.274/6.426)	0.247/0.253 (6.274/6.426)
Bead Height	0.131/0.139 (3.327/3.531)	0.195/0.205 (4.953/5.207)	0.263/0.277 (6.680/7.036)	0.263/0.277 (6.680/7.036)

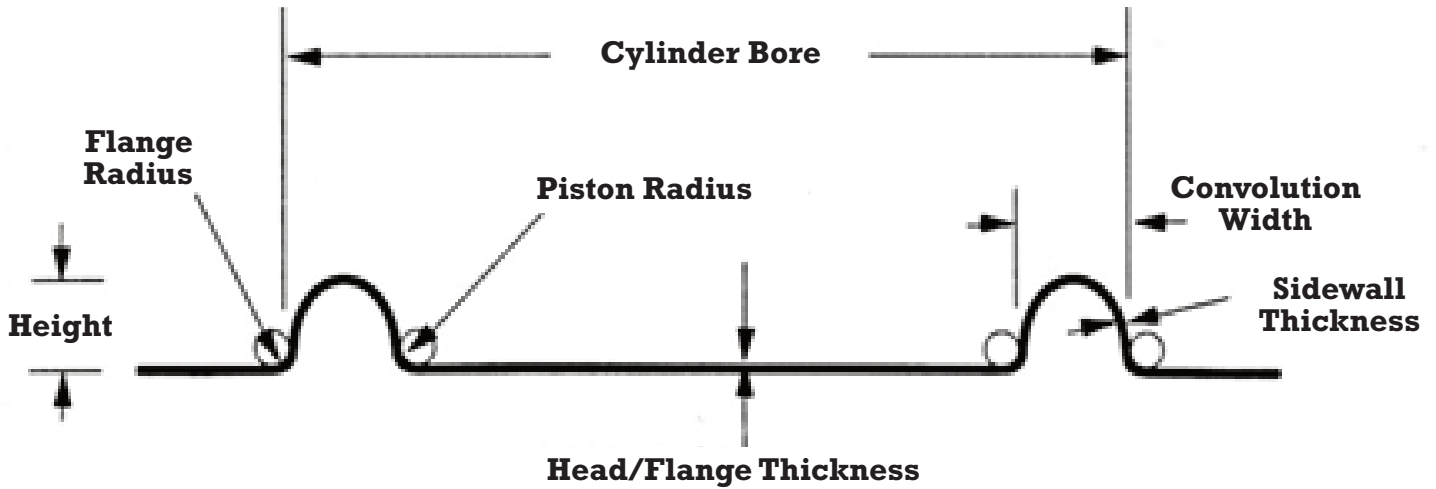
CONVOLUTED Single-Coated, Flat Flange (SCCF)



- Limited stroke/diameter ratio.
- Broad range of fabrics and elastomers.
- Pressure applied from only one direction.
- Pre-molded into installed shape for easy assembly.

Specifications: Inches and (Millimeters)

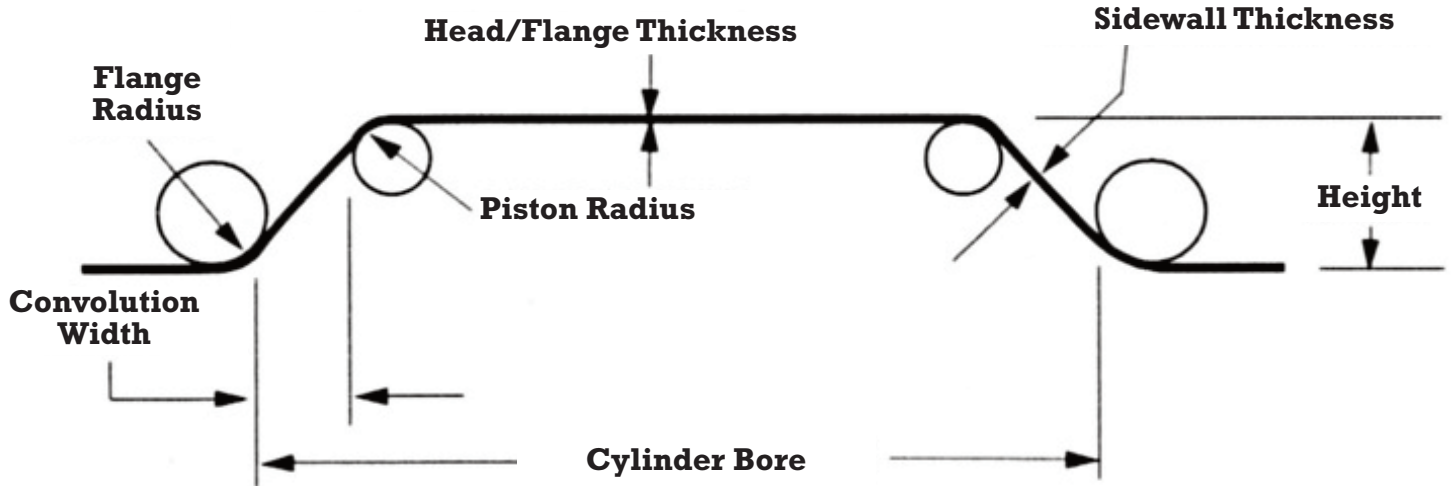
Cylinder Bore Range	0.25-0.99	1.00-2.50	2.51-4.00	4.01-8.00	over 8.00
Sidewall Thickness	0.013/0.017 (0.330/0.432)	0.014/0.020 (0.356/0.508)	0.020/0.030 (0.508/0.762)	0.030/0.040 (0.762/1.016)	0.038/0.055 (0.965/1.397)
Head/Flange Thickness	0.017/0.023 (0.432/0.584)	0.015/0.025 (0.381/0.635)	0.025/0.035 (0.635/0.889)	0.030/0.040 (0.762/1.016)	0.035/0.055 (0.889/1.397)
Piston Radius	0.031 (0.787)	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.125 (3.175)
Flange Radius	0.031 (0.787)	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.125 (3.175)
Convolution Width	0.085 (2.159)	0.094 (2.388)	0.250 (6.350)	0.250 (6.350)	0.250 (6.350)



- Limited stroke/diameter ratio.
- Limited selection of fabrics and elastomers.
- Pressure applied from only one direction.
- Double-coating protects seal when in contact with rough surfaces.
- Pre-molded into installed shape for easy assembly.

Specifications: Inches and (Millimeters)

Cylinder Bore Range	0.25-0.99	1.00-2.50	2.51-4.00	4.01-8.00	over 8.00
Sidewall Thickness	0.013/0.017 (0.330/0.432)	0.014/0.020 (0.356/0.508)	0.020/0.028 (0.508/0.711)	0.030/0.040 (0.762/1.016)	0.035/0.055 (0.889/1.397)
Head/Flange Thickness	0.017/0.023 (0.432/0.584)	0.015/0.025 (0.381/0.635)	0.025/0.035 (0.635/0.889)	0.030/0.040 (0.762/1.016)	0.035/0.055 (0.889/1.397)
Piston Radius	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.187 (4.750)	0.250 (6.350)
Flange Radius	0.062 (1.575)	0.094 (2.388)	0.125 (3.175)	0.187 (4.750)	0.250 (6.350)
Convolution Width	0.085 (2.159)	0.094 (2.388)	0.250 (6.350)	0.250 (6.350)	0.250 (6.350)



- Limited stroke diameter ratio.
- Limited selection of fabrics and elastomers.
- Double coating protects seal when in contact with rough surfaces.
- Pressure applied from both directions.
- Pre-molded in installed shape for easy assembly.
- Effective area changes slightly from top to bottom of stroke.

Specifications: Inches and (Millimeters)

Cylinder Bore Range	1.00-2.50	2.51-4.00	4.01-8.00	over 8.00
Sidewall Thickness	0.020/0.030 (0.508/0.762)	0.030/0.040 (0.762/1.016)	0.045/0.055 (1.143/1.397)	0.070/0.090 (1.778/2.286)
Head/Flange Thickness	0.020/0.030 (0.508/0.762)	0.030/0.040 (0.762/1.016)	0.045/0.055 (1.143/1.397)	0.070/0.090 (1.778/2.286)
Piston Radius	0.094 (2.388)	0.125 (3.175)	0.188 (4.775)	0.250 (6.350)
Flange Radius	0.094 (2.388)	0.125 (3.175)	0.188 (4.775)	0.250 (6.350)
Convolution Width	0.085 (2.159)	0.062 (1.575)	0.870 (22.098)	1.120 (28.448)