



WELDING PRODUCTS

Specifications

Grooved Welding Outlets

ALL GROOVED WELDING OUTLETS MANUFACTURED FOR AND BY SIGMA PIPING PRODUCTS CONFORM TO, COMPLY WITH, AND ARE MANUFACTURED TO THE FOLLOWING STANDARDS:

ASTM A 53	Standard Spec for Pipe, Steel, Black, Welded
ANSI/AWWA C606-97	Standard Spec for Roll & Cut Grooves
ANSIB36.10	Standard Spec for IPS pipe sizes

Threaded Welding Outlets

ALL THREADED WELDING OUTLETS MANUFACTURED FOR AND BY SIGMA PIPING PRODUCTS CONFORM TO, COMPLY WITH, AND ARE MANUFACTURED TO THE FOLLOWING STANDARDS:

ASTM A 106	Standard Spec for Steel Brass, Carbon, Alloy and Cold Finished
ANSI/ASME B1.20.1	Pipe Threads, General Purpose (inch)

Uni-Let Templates

ALL THREADED WELDING OUTLETS (TEMPLATE) ARE MADE OF HIGH POLYMER.

Steel Plate Flanges

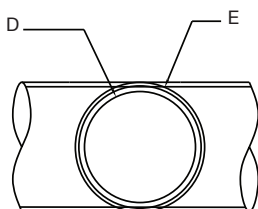
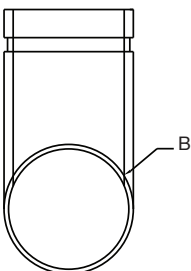
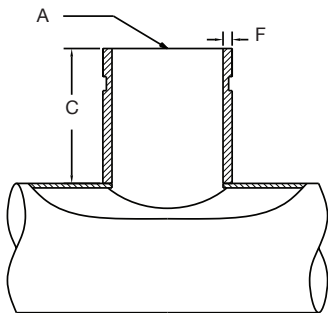
ALL STEEL PLATE FLANGES MANUFACTURED FOR AND BY SIGMA PIPING PRODUCTS CONFORM TO, COMPLY WITH, AND ARE MANUFACTURED TO THE FOLLOWING STANDARDS:

ASTM A 105	Standard Spec for Steel Brass, Carbon, Alloy and Cold Finished
ANSI B16.5	Standard Spec for Pipe Flanges and Flanged Fittings

Grooved Welding Outlet

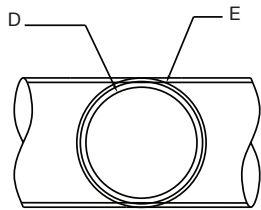
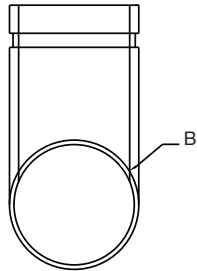
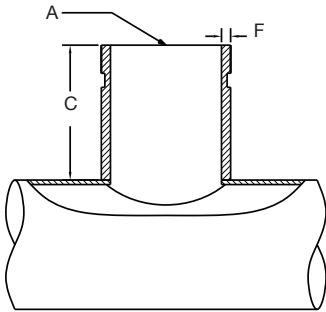
- MATERIALS:** Highly weldable grade black carbon steel equal to or exceeding the requirements of the American Society for Testing and Materials specification(s) our option of the following in single/dual or triple stenciled material/: A-135, A-795, A-53.
- U.L. / U.L.C. / F.M. WORKING PRESSURE:** Schedule 40 Cut Groove / up to 500 CWP in PSI Schedule 40 Roll Groove up to 300 CWP in PSI Pressures have been established using listed and/or approved couplings and fittings of equal or higher ratings. Hydrostatic test of 2:1 for maximum working pressure and 5:1 for strength of body. (4:1 for 8").
- QUALITY ASSURANCE AND INSPECTION:** Dimensional integrity is assured with accurate machining, stringent quality control procedures, and sound fabrication techniques. Grooves, threads and bevels are constantly checked for proper alignment and concentricity, uniform depth, taper and degree, as applicable, conforming to established industry standards.
- MARKING:** For identification, each fitting bears the name "ISLAND" or registered trademark, along with appropriate figure number and end preparation designation. In addition, the nominal outlet and header size in inches, and ◀FM▶ indicating listing and approval with recognized testing laboratories.
- DESIGN:** Weld outlets are designed to provide unobstructed full flow. This is accomplished by making the inside diameter of the low weld volume machine contour precisely fit the outside diameter of the adjoining pipe / header to be welded. The full penetration weld is made forming a smooth passageway to prevent catching or clogging of foreign matter. Therefore, no special allowances are necessary when utilizing computer hydraulic flow calculations. Type 40 & 10 weld outlets are manufactured in a wide range of header sizes. Each fitting is manufactured "size on size". This means the outlet fits exactly on the header to which it is welded, so it is ideal for use with automatic welding machines.
- FINISH:** Fittings are cleaned to bare metal internally and externally and protected with a smokeless rust inhibitor giving a lasting finish to extend shelf life.
- PACKAGING:** For convenience in warehouse handling, storage, and inventory control, Schedule 40 and 10 fittings are packaged in corrugated cartons; palletized and sealed with shrink wrap plastic. Thread protectors are provided with #40MT to insure quality from factory to job site.

Roll Groove



NOM SIZE AxB	ITEM CODE	LENGTH C	INSIDE DIAMETER D	OUTSIDE DIAMETER E	WALL THICKNESS F	WEIGHT (LBS)
2.5" X 2.5"	UL0117	3"	2.635"	2.875"	0.120"	1.00
2.5" X 3"	UL0118	3"	2.635"	2.875"	0.120"	1.00
2.5" X 4"	UL0119	3"	2.635"	2.875"	0.120"	1.00
2.5" X 6"	UL0120	3"	2.635"	2.875"	0.120"	1.00
2.5" X 8"	UL0121	3"	2.635"	2.875"	0.120"	1.00
3" X 3"	UL0122	4"	3.260"	3.500"	0.120"	1.20
3" X 4"	UL0123	4"	3.260"	3.500"	0.120"	1.20
3" X 6"	UL0124	4"	3.260"	3.500"	0.120"	1.20
3" X 8"	UL0125	4"	3.260"	3.500"	0.120"	1.20
4" X 4"	UL0126	4"	4.260"	4.500"	0.120"	2.10
4" X 6"	UL0127	4"	4.260"	4.500"	0.120"	2.10
4" X 8"	UL0128	4"	4.260"	4.500"	0.120"	2.10
6" X 6"	UL0129	4"	6.357"	6.625"	0.134"	3.80
6" X 8"	UL0130	4"	6.357"	6.625"	0.134"	3.80
8" X 8"	UL0131	4"	8.329"	8.625"	0.188"	6.20

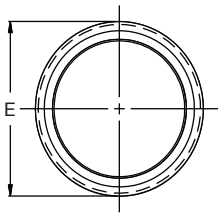
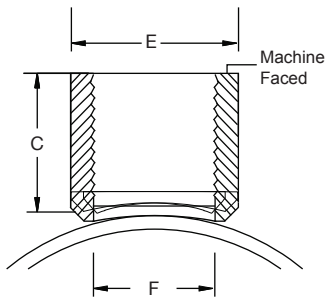
Cut Groove



NOM SIZE AxB	ITEM CODE	LENGTH C	INSIDE DIAMETER D	OUTSIDE DIAMETER E	WALL THICKNESS F	WEIGHT (LBS)
1.25" X 1.25"	UL0201	3"	1.368"	1.660"	0.140"	0.56"
1.25" X 1.5"	UL0202	3"	1.368"	1.660"	0.140"	0.56"
1.25" X 2"	UL0203	3"	1.368"	1.660"	0.140"	0.56"
1.25" X 2.5"	UL0203A	3"	1.368"	1.660"	0.140"	0.56"
1.25" X 3"	UL0204	3"	1.368"	1.660"	0.140"	0.56"
1.25" X 4"	UL0204A	3"	1.368"	1.660"	0.140"	0.56"
1.25" X 5"	UL0205	3"	1.368"	1.900"	0.145"	0.70"
1.25" X 6"	UL0205A	3"	1.368"	1.900"	0.145"	0.70"
1.25" X 8"	UL0205C	3"	1.368"	1.900"	0.145"	0.70"
1.5" X 1.5"	UL0206	3"	1.610"	1.900"	0.145"	0.70"
1.5" X 2"	UL0207	3"	1.610"	1.900"	0.145"	0.70"
1.5" X 2.5"	UL0208	3"	1.610"	1.900"	0.145"	0.70"
1.5" X 3"	UL0209	3"	1.610"	2.375"	0.154"	0.90"
1.5" X 4"	UL0209A	3"	1.610"	2.375"	0.154"	0.90"
1.5" X 5"	UL0210	3"	1.610"	2.375"	0.154"	0.90"
1.5" X 6"	UL0210A	3"	1.610"	2.375"	0.154"	0.90"
2" X 2"	UL0211	3"	2.067"	2.375"	0.154"	0.90"
2" X 2.5"	UL0212	3"	2.067"	2.375"	0.154"	0.90"
2" X 3"	UL0213	3"	2.067"	2.375"	0.154"	0.90"
2" X 4"	UL0214	3"	2.067"	2.375"	0.154"	0.90"
2" X 6"	UL0215	3"	2.067"	2.375"	0.154"	0.90"
2" X 8"	UL0216	3"	2.067"	2.375"	0.154"	0.90"
2.5" X 2.5"	UL0217	3"	2.469"	2.875"	0.203"	1.40"
2.5" X 3"	UL0218	3"	2.469"	2.875"	0.203"	1.40"
2.5" X 4"	UL0219	3"	2.469"	2.875"	0.203"	1.40"
2.5" X 6"	UL0220	3"	2.469"	2.875"	0.203"	1.40"
2.5" X 8"	UL0221	3"	2.469"	2.875"	0.203"	1.40"
3" X 3"	UL0222	3"	3.068"	3.500"	0.216"	2.10"
3" X 4"	UL0223	3"	3.068"	3.500"	0.216"	2.10"
3" X 6"	UL0224	3"	3.068"	3.500"	0.216"	2.10"
3" X 8"	UL0225	3"	3.068"	3.500"	0.216"	2.10"
4" X 4"	UL0226	4"	4.026"	4.500"	0.237"	3.40"
4" X 6"	UL0227	4"	4.026"	4.500"	0.237"	3.40"
4" X 8"	UL0228	4"	4.026"	4.500"	0.237"	3.40"
6" X 6"	UL0229	4"	6.065"	6.625"	0.280"	7.00"
6" X 8"	UL0230	4"	6.065"	6.625"	0.280"	7.00"
8" X 8"	UL0231	4"	7.981"	8.625"	0.277"	10.40"

SigLet Threaded Welding Outlet

- SigLet welding outlets are manufactured by Sigma Piping Products from highly weldable steel which conforms to ASTM A 576/A 29. SigLets are designed specifically for use with automatic welding equipment. Threads are cut in accordance with ANSI B1.20.1 national standard for tapered threads.
- FOR FIRE PROTECTION & OTHER LOW PRESSURE PIPING SYSTEMS: SigLets offer the user a high strength-low cost, forged threaded outlet specifically designed and manufactured to be installed on proprietary thin wall "FLOW PIPE", Schedule 10 and standard wall pipe.

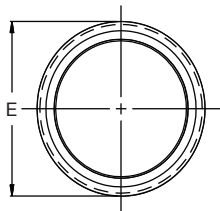
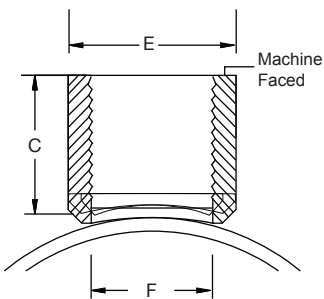


OUTLET SIZE	RUN SIZE	ITEM CODE	DIMENSION C	DIMENSION E	DIMENSION F	HOLE SIZE
1/2"	1 1/4" - 1 1/2"	D-SL011	1.059"	1.063"	0.71"	0.74"
1/2"	2" - 2 1/2"	D-SL012	1.059"	1.063"	0.71"	0.74"
1/2"	2 1/2" - 8"	D-SL013	1.059"	1.063"	0.71"	0.74"
3/4"	1 1/4" - 1 1/2"	D-SL021	1.125"	1.313"	0.917"	0.95"
3/4"	2" - 2 1/2"	D-SL022	1.125"	1.313"	0.917"	0.95"
3/4"	2 1/2" - 8"	D-SL023	1.125"	1.313"	0.917"	0.95"
1"	1 1/4"	D-SL031	1.25"	1.57"	1.156"	1.186"
1"	1 1/2"	D-SL032	1.25"	1.57"	1.156"	1.186"
1"	2" - 2 1/2"	D-SL033	1.25"	1.57"	1.156"	1.186"
1"	3" - 4"	D-SL034	1.25"	1.57"	1.156"	1.186"
1 1/4"	1 1/2"	D-SL042	1.351"	1.90"	1.48"	1.51"
1 1/4"	2" - 2 1/2"	D-SL044	1.359"	1.90"	1.48"	1.51"
1 1/4"	3" - 4"	D-SL045	1.362"	1.90"	1.48"	1.51"
1 1/2"	2"	D-SL052	1.426"	2.105"	1.635"	1.66"
1 1/2"	2 1/2"	D-SL053	1.511"	2.105"	1.635"	1.66"
1 1/2"	3"	D-SL054	1.573"	2.105"	1.635"	1.66"
1 1/2"	4"	D-SL055	1.619"	2.105"	1.635"	1.66"
1 1/2"	6" - 8"	D-SL056	1.619"	2.105"	1.635"	1.66"
2"	2 1/2"	D-SL062	1.283"	2.62"	2.113"	2.143"
2"	3"	D-SL063	1.408"	2.62"	2.113"	2.143"
2"	4"	D-SL064	1.513"	2.62"	2.113"	2.143"
2"	6"	D-SL066	1.615"	2.62"	2.113"	2.143"

SafeLet

Threaded Welding Outlet

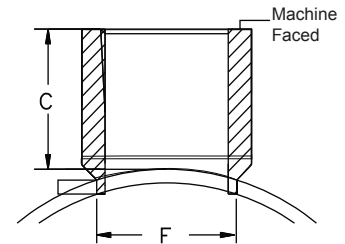
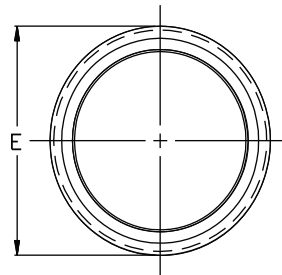
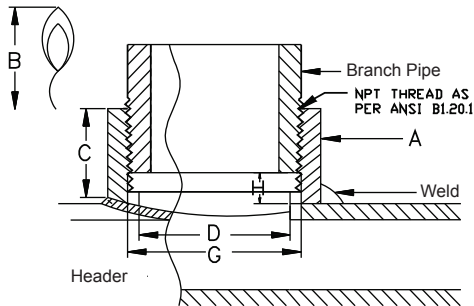
- SafeLet welding outlets are manufactured by Sigma Piping Products from highly weldable steel which conforms to ASTM A 576/A 29. SafeLets are designed specifically for use with automatic welding equipment. Threads are cut in accordance with ANSI B1.20.1 national standard for tapered threads.
- FOR FIRE PROTECTION & OTHER LOW PRESSURE PIPING SYSTEMS: SafeLets offer the user a high strength-low cost, forged threaded outlet specifically designed and manufactured to be installed on proprietary thin wall "FLOW PIPE", Schedule 10 and standard wall pipe.



OUTLET SIZE	RUN SIZE	ITEM CODE	DIMENSION C	DIMENSION E	DIMENSION F	HOLE SIZE
1/2"	1 1/4" - 1 1/2"	SL011	1.059"	1.063"	0.71"	0.74"
1/2"	2" - 2 1/2"	SL012	1.059"	1.063"	0.71"	0.74"
1/2"	2 1/2" - 8"	SL013	1.059"	1.063"	0.71"	0.74"
3/4"	1 1/4" - 1 1/2"	SL021	1.125"	1.313"	0.917"	0.95"
3/4"	2" - 2 1/2"	SL022	1.125"	1.313"	0.917"	0.95"
3/4"	2 1/2" - 8"	SL023	1.125"	1.313"	0.917"	0.95"
1"	1 1/4"	SL031	1.25"	1.57"	1.156"	1.186"
1"	1 1/2"	SL032	1.25"	1.57"	1.156"	1.186"
1"	2" - 2 1/2"	SL033	1.25"	1.57"	1.156"	1.186"
1"	3" - 4"	SL034	1.25"	1.57"	1.156"	1.186"
1 1/4"	1 1/2"	SL042	1.351"	1.90"	1.48"	1.51"
1 1/4"	2" - 2 1/2"	SL043	1.351"	1.90"	1.48"	1.51"
1 1/4"	2 1/2"	SL044	1.359"	1.90"	1.48"	1.51"
1 1/4"	3" - 4"	SL045	1.362"	1.90"	1.48"	1.51"
1 1/2"	2"	SL052	1.426"	2.105"	1.635"	1.66"
1 1/2"	2 1/2"	SL053	1.511"	2.105"	1.635"	1.66"
1 1/2"	3"	SL054	1.573"	2.105"	1.635"	1.66"
1 1/2"	4"	SL055	1.619"	2.105"	1.635"	1.66"
1 1/2"	6" - 8"	SL053	1.619"	2.105"	2.113"	1.66"
2"	2 1/2"	SL062	1.283"	2.62"	2.113"	2.143"
2"	3"	SL063	1.408"	2.62"	2.113"	2.143"
2"	4"	SL064	1.513"	2.62"	2.113"	2.143"
2"	6"	SL066	1.615"	2.62"	2.113"	2.143"
2"	8"	SL067	1.662"	2.62"	2.113"	2.143"

UniLet Threaded Welding Outlet

- UniLet welding outlets are manufactured by Sigma Piping Products from highly weldable steel which conforms to ASTM A 576/A 29. UniLets are designed specifically for use with automatic welding equipment. Threads are cut in accordance with ANSI B1.20.1 national standard for tapered threads.
- FOR FIRE PROTECTION & OTHER LOW PRESSURE PIPING SYSTEMS: UniLets offer the user a high strength-low cost, forged threaded outlet specifically designed and manufactured to be installed on proprietary thin wall "FLOW PIPE", Schedule 10 and standard wall pipe.
- Only three 1" outlets are required to fit header sizes up to 8"
- Reduces stock numbers in inventory by reducing inventory cost
- Only one 1/2" or 3/4" outlet is required to fit header sizes up to 8"
- Chill ring ensures proper positioning, speeds automatic welding, and helps prevent burn or weld through

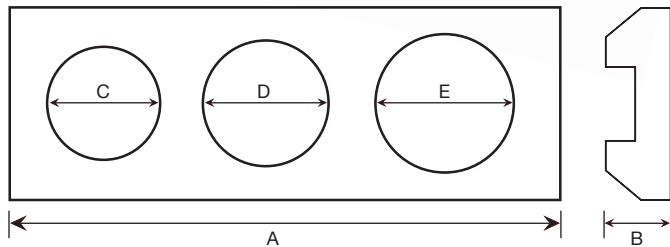


OUTLET SIZE A	HEADER SIZE B	ITEM CODE	TAKE OUT LENGTH C	INSIDE DIAMETER D	OUTSIDE DIAMETER E	BOTTOM DIAMETER F	HOLE SIZE G	MAKE UP H	WEIGHT (LBS)
1/2"	1 1/4" - 8"	UL0001N	1.063"	0.700"	1.063"	0.858"	0.875"	0.531"	0.1
3/4"	1 1/4" - 8"	UL0002N	1.125"	0.900"	1.315"	1.055"	1.063"	0.562"	0.15
1"	1/ 1/2" - 2 1/2"	UL0003N	1.250"	1.145"	1.570"	1.300"	1.313"	0.593"	0.2
1"	3" - 8"	UL0004N	1.250"	1.145"	1.570"	1.300"	1.313"	0.593"	0.2
1 1/4"	1 1/2" - 2"	UL0005	1.375"	1.480"	1.900"	1.605"	1.625"	0.687"	0.4
1 1/4"	2 1/2" - 8"	UL0006	1.375"	1.480"	1.900"	1.605"	1.625"	0.687"	0.4
1 1/2"	2" - 3"	UL0007	1.625"	1.610"	2.105"	1.735"	1.750"	0.937"	0.5
1 1/2"	4" - 8"	UL0008	1.625"	1.610"	2.105"	1.735"	1.750"	0.937"	0.5
2"	2 1/2" - 3"	UL0009	1.750"	2.067"	2.620"	2.192"	2.250"	1.062"	0.8
2 "	4" - 8"	UL0010	1.750"	2.067"	2.620"	2.192"	2.250"	1.062"	0.8

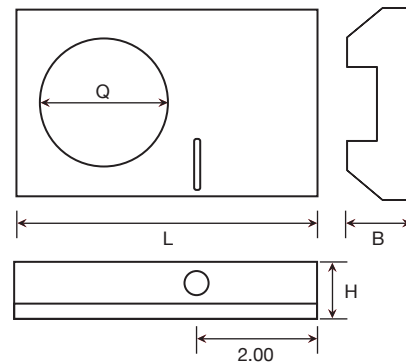
UniLet Template



Size: 1/2, 3/4, 1



Size: 1 1/4, 1 1/2, 2

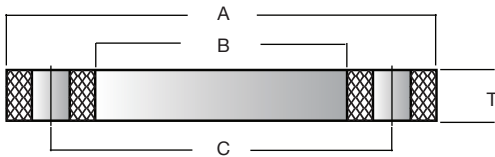


SIZE	ITEM CODE	DESCRIPTION	A/L	B/H	C/Q	D/G	E/W
THERMAL DYNAMICS							
1.000	ULTEMP1	1/2, 3/4, 1	9.25	1.00	1.81	2.02	2.24
1.000	ULTEMP4	1 1/4 X 4 - 8	6.25	0.87	2.63	2.12	3.5
1.000	ULTEMP5	1 1/4 X 2 1/2 - 4	6.25	0.87	2.63	1.435	3.5
1.000	ULTEMP6	1 1/2 X 4 - 8	7.00	0.87	2.69	2.12	3.875
1.000	ULTEMP7	1 1/2 X 3 - 4	7.00	0.87	2.69	1.50	3.875
1.000	ULTEMP8	1 1/2 X 2 - 2 1/2	7.00	0.87	2.69	1.50	3.875
1.000	ULTEMP9	2 X 4 - 8	7.00	0.99	3.19	2.12	4.25
1.000	ULTEMP10	2 X 2 1/2 - 3	7.00	0.99	3.19	1.56	4.25
MILLER							
1.080	ULTEMP3	1/2, 3/4, 1	9.25	1.00	1.88	2.11	2.33
HYPER THERM							
1.125	ULTEMP2	1 1/2, 3/4, 1	9.25	1.00	1.94	2.15	2.40
1.125	ULTEMP11	1 1/4 X 4 - 8	6.25	0.87	2.75	2.12	3.5
1.125	ULTEMP12	1 1/4 X 2 1/2 - 4	6.25	0.87	2.75	1.435	3.5
1.125	ULTEMP13	1 1/2 X 4 - 8	7.00	0.87	2.815	2.12	3.875
1.125	ULTEMP14	1 1/2 X 3 - 4	7.00	0.87	2.815	1.50	3.875
1.125	ULTEMP15	1 1/2 X 2 - 2 1/2	7.00	0.87	2.815	1.50	3.875
1.125	ULTEMP16	2 X 4 - 8	7.00	0.99	3.315	2.12	4.25
1.125	ULTEMP17	2 X 2 1/2 - 3	7.00	0.99	3.315	1.56	4.25

Steel Plate Flanges

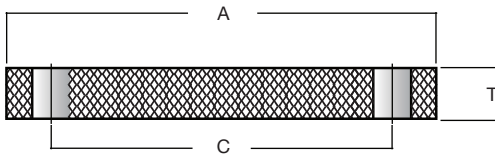
- Bolts shall be smaller in diameter than the normal bolt hole diameter
- Pressure rating at atmospheric temperature for sizes 2" - 12" is 175 psi
- These flanges have the same diameter and drilling as class 125 Cast Iron flanges (ANSI B16.1)
- Minimum bolt lengths shall be the sum of the mating flange maximum thicknesses, the gasket, and the depth of the nut plus 1/8" (3.2mm) minimum before torquing. If threaded rods are used, they shall be the same length as the bolts determined previously, plus the depth of the nuts, plus Flanges conform to AWWA C207 Class

Slip-On



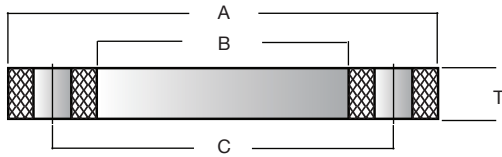
NOM SIZE	ITEM CODE	OUTSIDE DIAMETER A	INSIDE DIAMETER B	BOLT CIRCLE C	THICKNESS T	NUMBER OF BOLTS REQUIRED	BOLT HOLE DIAMETER	ITEM WT.
2"	1FLS0909	6	3	4.75	0.63	4	0.75	4.2
2 1/2"	1FLS1010	7	3	5.5	0.63	4	0.75	5.6
3"	1FLS1111	7.5	3.6	6	0.63	4	0.75	6.3
4"	1FLS1212	9	4.6	7.5	0.63	8	0.75	8.5
6"	1FLS1414	11	6.7	9.5	0.69	8	0.875	10.9
8"	1FLS1515	13.5	8.7	11.75	0.69	8	0.875	15.6
10"	1FLS1616	16	11	14.25	0.69	12	1	20
12"	1FLS1717	19	13	17	0.83	12	1	33.1

Blind



NOM SIZE	ITEM CODE	OUTSIDE DIAMETER A	INSIDE DIAMETER B	BOLT CIRCLE C	THICKNESS T	NUMBER OF BOLTS REQUIRED	BOLT HOLE DIAMETER	ITEM WT.
2"	1FLB0909	6	N/A	4.75	0.63	4	0.75	4.2
2 1/2"	1FLB1010	7	N/A	5.5	0.63	4	0.75	5.6
3"	1FLB1111	7.5	N/A	6	0.63	4	0.75	6.3
4"	1FLB1212	9	N/A	7.5	0.63	8	0.75	8.5
6"	1FLB1414	11	N/A	9.5	0.69	8	0.875	10.9
8"	1FLB1515	13.5	N/A	11.75	0.69	8	0.875	15.6
10"	1FLB1616	16	N/A	14.25	0.69	12	1	20
12"	1FLB1717	19	N/A	17	0.83	12	1	33.1

Reducing



NOM SIZE	ITEM CODE	OUTSIDE DIAMETER A	INSIDE DIAMETER B	BOLT CIRCLE C	THICKNESS T	NUMBER OF BOLTS REQUIRED	BOLT HOLE DIAMETER	ITEM WT.
2 1/2 X 2	1FLR1009	7	2.4	5.5	0.5	4	0.75	5.6
3 X 2	1FLR1109	7.5	2.4	6	0.5	4	0.75	6.3
3 X 2 1/2	1FLR1110	7.5	3.0	6	0.5	4	0.75	6.3
4 X 2	1FLR1209	9	2.4	7.5	0.63	8	0.75	8.5
4 X 2 1/2	1FLR1210	9	3.0	7.5	0.63	8	0.75	8.5
4 X 3	1FLR1211	9	3.6	7.5	0.63	8	0.75	8.5
6 X 2	1FLR1409	11	2.4	9.5	0.69	8	0.875	10.9
6 X 2 1/2	1FLR1410	11	3.0	9.5	0.69	8	0.875	10.9
6 X 3	1FLR1411	11	3.6	9.5	0.69	8	0.875	10.9
6 X 4	1FLR1412	11	4.6	9.5	0.69	8	0.875	10.9
8 X 3	1FLR1511	13.5	3.0	11.75	0.63	8	0.875	15.6
8 X 4	1FLR1512	13.5	4.6	11.75	0.63	8	0.875	15.6
8 X 6	1FLR1514	13.5	6.7	11.75	0.63	8	0.875	15.6
10 X 6	1FLR1614	16	6.7	14.25	0.69	12	1	20.0
10 X 8	1FLR1615	16	8.7	14.25	0.69	12	1	20.0