

INDUSTRIAL FITTINGS

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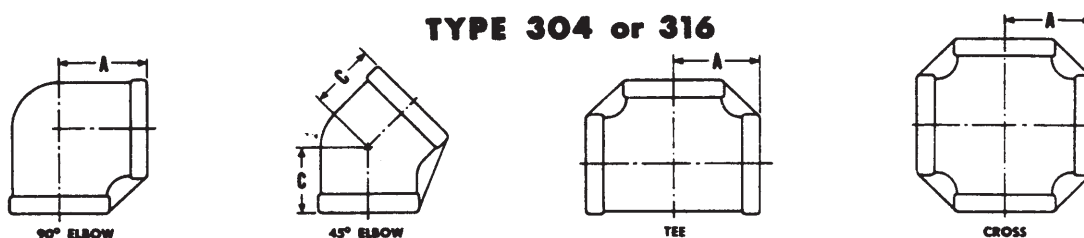
NOTE: MOST ITEMS SHOWN ARE AVAILABLE IN
HIGH NICKEL ALLOYS & ALUMINIUM

**All data supplied herein is theoretical and no responsibility is implied by
Resistaloy Inc. as to actual field results which may vary.*

Stainless Steel Screwed Fittings

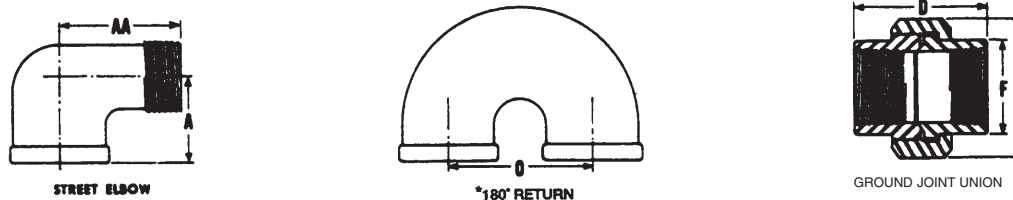
DIMENSIONAL DATA 150 POUND WORKING PRESSURE

TYPE 304 or 316



NOMINAL PIPE SIZE	90° ELBOW	45° ELBOW	TEE	CROSS
	A	C	A	A
1/8	3/4	3/8	3/4	3/4
1/4	13/16	11/16	13/16	13/16
3/8	15/16	3/4	15/16	15/16
1/2	1 1/8	1 1/16	1 1/8	1 1/8
3/4	1 5/16	1 1/16	1 5/16	1 5/16
1	1 1/2	1 1/8	1 1/2	1 1/2
1 1/4	1 3/4	1 5/16	1 3/4	1 3/4
1 1/2	1 15/16	1 7/16	1 15/16	1 15/16
2	2 1/4	1 11/16	2 1/4	2 1/4
2 1/2	2 11/16	1 15/16	2 11/16	2 11/16
3	3 1/16	2 3/16	3 1/16	3 1/16
4	3 13/16	2 5/8	3 13/16	3 13/16

AVAILABLE FROM STOCK IN ALL POPULAR SIZES



NOMINAL PIPE SIZE	STREET ELBOW		180° RETURN	UNION		
	A	AA	O	D	E	F
1/8	3/4	1	...	1 7/16	1 3/16	5/8
1/4	13/16	1 3/16	...	1 21/32	1 7/16	13/16
3/8	15/16	1 7/16	...	1 13/16	1 9/16	1
1/2	1 1/8	1 5/8	1 1/2	1 15/16	1 13/16	1 3/16
3/4	1 5/16	1 7/8	2	1 15/16	2	1 3/8
1	1 1/2	2 1/8	2 1/2	2 1/4	2 13/32	1 5/8
1 1/4	1 3/4	2 7/16	3	2 3/8	2 3/4	2
1 1/2	1 15/16	2 11/16	3 1/2	2 5/8	3	2 1/4
2	2 1/4	3 1/4	4	3	3 11/16	2 3/4
2 1/2	2 11/16	3 7/8	4 1/2	3 1/2	4 7/16	3 1/4
3	3 1/16	4 1/2	5	4 1/8	5 1/4	3 15/16
4	3 13/16	5 11/16	6	4 7/16	6 5/8	5 3/16

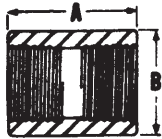
*Special Order Only

NOTE: 150 LBS STAINLESS ALSO AVAILABLE IN SOCKET WELD.

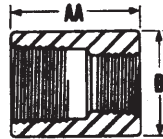
Stainless Steel Screwed Fittings (cont'd)

DIMENSIONAL DATA 150 POUND WORKING PRESSURE

TYPES 304 or 316



COUPLING



REDUCING COUPLING



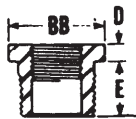
HALF COUPLING



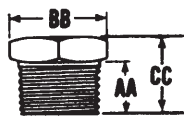
CAP

NOMINAL PIPE SIZE	COUPLING		REDUCING COUPLING		HALF COUPLING		CAP	
	A	B	AA	B	AAA	B	D	B
1/8	31/32	5/8	...	5/8	13/32	5/8	5/8	5/8
1/4	1 1/16	3/4	1	3/4	7/16	3/4	25/32	3/4
3/8	1 5/32	7/8	1 1/8	7/8	1/2	7/8	27/32	7/8
1/2	1 11/32	1 1/16	1 3/8	1 1/16	5/8	1 1/16	1 1/32	1 1/16
3/4	1 33/64	1 5/16	1 9/16	1 5/16	11/16	1 5/16	1 3/32	1 5/16
1	1 43/64	1 9/16	1 3/4	1 9/16	3/4	1 9/16	1 5/16	1 9/16
1 1/4	1 15/16	2 1/16	2 1/16	2 1/16	7/8	2 1/16	1 19/32	2 1/8
1 1/2	2 5/32	2 11/32	2 5/16	2 11/32	1	2 11/32	1 25/32	2 1/2
2	2 17/32	2 7/8	2 13/16	2 7/8	1 3/16	2 7/8	1 13/16	3
2 1/2	2 7/8	3 7/16	3 1/4	3 7/16	1 3/8	3 7/16	2 3/32	3 1/2
3	3 3/16	4 1/8	3 11/16	4 1/8	1 17/32	4 1/8	2 3/8	4 1/4
4	3 11/16	5 3/16	4 3/8	5 3/16	1 25/32	5 3/16	2 5/8	5 1/4

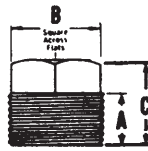
AVAILABLE FROM STOCK IN ALL POPULAR SIZES



HEX. HEAD BUSHING



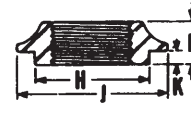
HEX. HEAD PLUG



SQUARE HEAD PLUG



*LOCK NUT



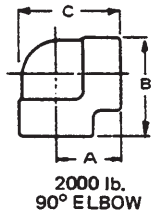
*WELDING SPUD

NOMINAL PIPE SIZE	HEX. HEAD BUSHING			HEX. HEAD PLUG			SQUARE HEAD PLUG			LOCK NUT		WELDING SPUD			
	BB	D	E	BB	CC	AA	B	C	A	F	G	H	J	K	L
1/8	...	...	...	7/16	9/16	7/16				3/16	11/16	27/32	1 3/8	3/32	15/32
1/4	9/16	1/8	1/2	9/16	5/8	1/2				1/4	7/8	31/32	1 1/2	1/8	1/2
3/8	11/16	3/16	9/16	11/16	3/4	9/16				9/32	1	31/32	1 5/8	1/8	1/2
1/2	7/8	3/16	11/16	7/8	7/8	11/16				5/16	1 3/16	1 5/32	1 3/4	5/32	19/32
3/4	1 1/16	1/4	3/4	1 1/16	1	3/4				11/32	1 7/16	1 11/32	2	5/32	21/32
1	1 3/8	1/4	7/8	1 3/8	1 1/8	7/8				3/8	1 3/4	1 23/32	2 1/4	3/16	25/32
1 1/4	1 3/4	3/8	15/16				15/16	1 3/8	13/16	7/16	2 1/8	1 15/16	2 11/16	3/16	3/4
1 1/2	2	3/8	1				1 1/8	1 1/2	7/8	15/32	2 3/8	2 5/16	3 1/32	3/16	3/4
2	2 1/2	7/16	1 1/4				1 5/16	1 5/8	15/16	17/32	2 7/8	2 11/16	3 1/2	3/16	13/16
2 1/2	3	1/2	1 3/8				1 1/2	2 1/8	1 1/8	19/32	3 1/2	3 3/16	4 1/16	3/16	1
3	3 7/8	1/2	1 3/8				1 11/16	1 15/16	1 1/8	11/16	4 9/32	3 11/16	4 5/8	3/16	1
4	5	5/8	1 1/2				2 1/4*	2 11/16	1 1/4	13/16	5 3/8	4 3/4	5 13/16	3/16	1 1/8

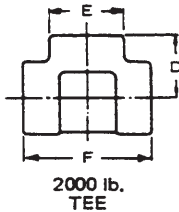
*Special Order Only

Stainless Steel Screwed Fittings (cont'd)

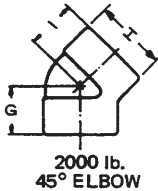
DIMENSIONAL DATA 2000, 3000, 6000 p.s.i.* WORKING PRESSURE



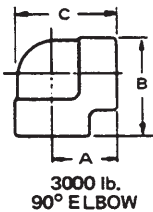
	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
A	.620	.620	.780	.900	1.035	1.200	1.420	1.670	1.990
B	.900	.900	1.085	1.330	1.570	1.860	2.200	2.485	3.000
C	1.242	1.242	1.560	1.800	2.070	2.400	2.840	3.340	3.980
Wt. Per Each	3 oz.	3 oz.	5 oz.	9 oz.	13 oz.	20 oz.	30 oz.	43 oz.	63 oz.



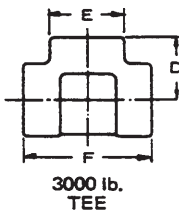
D	.670	.670	.790	.920	1.050	1.220	1.450	1.630	1.950
E	.875	.875	1.040	1.330	1.585	1.870	2.280	2.490	3.070
F	1.740	1.740	2.095	2.325	2.655	3.080	3.550	4.080	4.800
Wt. Per Each	4 oz.	4 oz.	7 oz.	10 oz.	15 oz.	25 oz.	40 oz.	55 oz.	88 oz.



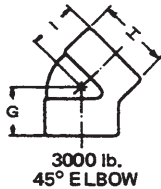
G	1.585	1.585	1.800	1.125	2.385	2.775	3.465	3.475	4.665
H	.885	.885	1.010	1.310	1.525	1.810	2.270	2.460	3.040
I	.091	.091	1.000	1.085	1.125	1.330	1.600	1.700	2.250
Wt. Per Each	3 oz.	3 oz.	4 oz.	7 oz.	9 oz.	14 oz.	28 oz.	29 oz.	55 oz.



A	.800	.800	.900	1.050	1.250	1.470	1.630	1.970	2.130
B	1.700	1.700	1.320	1.565	1.870	2.245	2.520	3.010	3.315
C	1.590	1.590	1.800	2.100	2.490	2.930	3.265	3.935	4.265
Wt. Per Each	6 oz.	6 oz.	10 oz.	16 oz.	25 oz.	41 oz.	53 oz.	97 oz.	112 oz.



D	.962	.962	1.192	1.315	1.525	1.782	2.015	2.437	2.530
E	1.130	1.130	1.355	1.500	1.880	2.295	2.500	3.015	3.320
F	1.925	1.925	2.385	2.630	3.050	3.565	4.030	4.875	5.160
Wt. Per Each	8 oz.	8 oz.	14 oz.	17 oz.	32 oz.	55 oz.	65 oz.	109 oz.	118 oz.



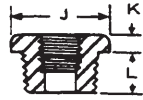
G	.970	.970	1.200	1.420	1.450	1.575	1.950	2.375	2.532
H	1.050	1.050	1.315	1.505	1.890	2.285	2.505	3.020	3.312
I	1.860	1.860	2.130	2.620	2.835	3.190	3.680	4.395	4.764
Wt. Per Each	5 oz.	5 oz.	8 oz.	13 oz.	22 oz.	35 oz.	26 oz.	65 oz.	68 oz.

*Dimensions Available Upon Request

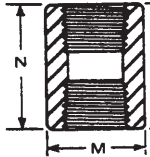
MANY TYPES AVAILABLE FROM STOCK IN BOTH TYPES 304L, 316L & ALUMINUM & HIGH NICKEL ALLOYS.

Stainless Steel Screwed Fittings (cont'd)

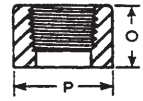
DIMENSIONAL DATA 2000, 3000, 6000 p.s.i.* WORKING PRESSURE



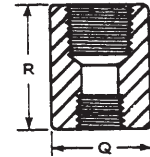
HEX. HEAD
BUSHING



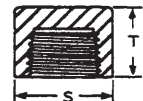
3000 lb.
COUPLING



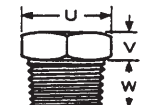
3000 lb.
HALF COUPLING



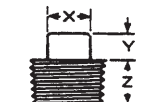
3000 lb.
REDUCING COUPLING



3000 lb.
CAP



3000 lb.
HEX. HEAD PLUG



3000 lb.
SQUARE HEAD PLUG

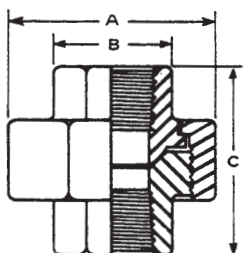
	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
J	—	.625	.687	.875	1.062	1.437	1.812	2.000	2.500
K	—	.125	.187	.187	.250	.250	.375	.375	.437
L	—	.500	.562	.562	.750	.812	.875	.937	1.000
Wt. Per Each	—	—	—	—	—	—	—	—	—
M	.750	.750	.875	1.125	1.375	1.750	2.250	2.500	3.000
N	1.250	1.375	1.500	1.875	2.000	2.375	2.625	3.125	3.375
Wt. Per Each	2 oz.	3 oz.	4 oz.	5 oz.	7 oz.	10 oz.	25 oz.	35 oz.	50 oz.
O	.625	.688	.750	.938	1.000	1.188	1.313	1.563	1.688
P	.750	.750	.875	1.125	1.375	1.750	2.250	2.500	3.000
Wt. Per Each	1 oz.	1.5 oz.	2 oz.	2.5 oz.	3.5 oz.	5 oz.	12.5 oz.	17.5 oz.	25 oz.
Q	.750	.750	.875	1.125	1.375	1.750	2.250	2.500	3.000
R	1.250	1.375	1.500	1.875	2.000	2.375	2.625	3.125	3.375
Wt. Per Each	2 oz.	3 oz.	4 oz.	5 oz.	7 oz.	10 oz.	25 oz.	35 oz.	50 oz.
S	.750	.750	.875	1.125	1.375	1.750	2.250	2.500	3.000
T	1.000	1.000	1.000	1.250	1.438	1.625	1.750	1.750	1.875
Wt. Per Each	.5 oz.	1 oz.	2 oz.	4 oz.	5 oz.	8 oz.	16 oz.	26 oz.	50 oz.
U	.437	.625	.687	.875	1.062	1.437	1.812	2.000	2.500
V	.250	.250	.312	.312	.375	.375	.562	.625	.687
W	.562	.625	.687	.750	.937	1.000	1.000	1.000	1.062
Wt. Per Each	1 oz.	1.5 oz.	2 oz.	2.5 oz.	4 oz.	7.5 oz.	15 oz.	20 oz.	41 oz.
X	.281	.375	.437	.562	.625	.812	.937	1.125	1.312
Y	.250	.250	.312	.375	.562	.625	.637	.750	.812
Z	.625	.687	.812	.937	1.187	1.375	1.499	1.562	1.687
Wt. Per Each	.5 oz.	.5 oz.	1 oz.	2 oz.	3.5 oz.	6 oz.	10 oz.	14 oz.	22 oz.

*Dimensions Available Upon Request

MANY TYPES AVAILABLE FROM STOCK IN BOTH TYPES 304L, 316L & ALUMINUM & HIGH NICKEL ALLOYS.

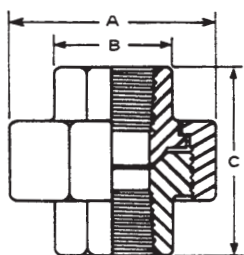
Stainless Steel Screwed Fittings (cont'd)

DIMENSIONAL DATA 2000, 3000, 6000 p.s.i.* WORKING PRESSURE



3000 lb.
SCREWED UNION

	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
A	—	1.375	1.562	1.813	2.203	2.578	3.078	3.453	4.078
B	—	.765	.953	1.140	1.390	1.703	2.078	2.328	2.890
C	—	1.640	1.828	1.953	2.265	2.515	2.828	3.078	3.453
Wt. Per Each	—	8 oz.	8 oz.	13 oz.	21 oz.	28 oz.	40 oz.	56 oz.	84 oz.

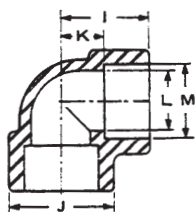


3000 lb.
SOCKET WELD
UNIONS

A	—								
B	—								
C	—								
Wt. Per Each	—	9 oz.	9 oz.	11 oz.	20 oz.	27 oz.	39 oz.	55 oz.	82 oz.

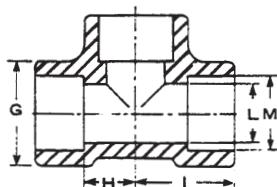
Note: Same Dimensions as Screwed

DIMENSIONS OF 3000 LB. SOCKET WELD STAINLESS FITTINGS



3000 lb.
SOCKET WELD
90° ELBOW

I	—	.812	.969	1.125	1.312	1.500	1.750	2.000	2.375
J	—	.875	1.000	1.312	1.500	1.812	2.188	2.438	2.969
K	—	.438	.531	.625	.750	.875	1.062	1.250	1.500
L	—	.379	.508	.637	.839	1.064	1.395	1.625	2.082
M	—	.555	.690	.855	1.065	1.330	1.675	1.915	2.406
Wt. Per Each	—	3 oz.	5 oz.	9 oz.	13 oz.	21 oz.	29 oz.	43 oz.	69 oz.



3000 lb.
SOCKET WELD
TEE

G	—	.875	1.000	1.312	1.500	1.812	2.188	2.438	2.969
H	—	.438	.531	.625	.750	.875	1.062	1.250	1.500
I	—	.812	.969	1.125	1.312	1.500	1.750	2.000	2.375
Wt. Per Each	—	4 oz.	7 oz.	11 oz.	15 oz.	27 oz.	35 oz.	47 oz.	76 oz.

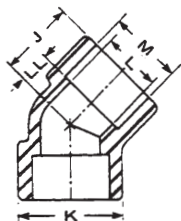
*Dimensions Available Upon Request

MANY TYPES AVAILABLE FROM STOCK IN BOTH TYPES 304L, 316L & ALUMINUM & HIGH NICKEL ALLOYS.

Stainless Steel Socket Weld Fittings

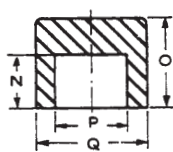
DIMENSIONAL DATA 2000, 3000, 6000 p.s.i.* WORKING PRESSURE

SOCKET WELD



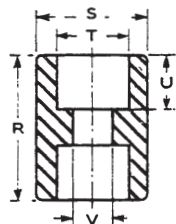
3000 lb.
SOCKET WELD
45° ELBOW

	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
J	—	.688	.750	.938	1.062	1.188	1.250	1.563	1.875
K	—	.875	1.000	1.312	1.500	1.812	2.188	2.438	2.969
LL	—	.313	.313	.438	.500	.563	.688	.813	1.000
Wt. Per Each	—	3 oz.	4 oz.	7 oz.	11 oz.	17 oz.	26 oz.	33 oz.	54 oz.



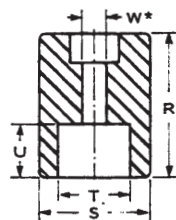
3000 lb.
SOCKET WELD
CAP

N	—	.375	.438	.500	.563	.625	.688	.750	.875
O	—	.563	.641	.750	.844	.938	1.063	1.188	1.375
P	—	.555	.690	.855	1.065	1.330	1.675	1.915	2.406
Q	—	.875	1.000	1.250	1.500	1.750	2.250	2.500	3.000
Wt. Per Each	—	1.5 oz.	2 oz.	4 oz.	6 oz.	8 oz.	21 oz.	24 oz.	37 oz.



3000 lb.
SOCKET WELD
COUPLING

R	—	1.000	1.125	1.375	1.500	1.750	1.875	2.000	2.500
S	—	.875	1.000	1.250	1.500	1.750	2.250	2.500	3.000
T	—	.555	.690	.855	1.065	1.330	1.675	1.915	2.406
U	—	.375	.438	.500	.563	.625	.688	.750	.875
V	—	.379	.508	.637	.839	1.064	1.395	1.625	2.082
Wt. Per Each	—	2 oz.	4 oz.	4 oz.	6 oz.	9 oz.	14 oz.	23 oz.	27 oz.



3000 lb.
SOCKET WELD
REDUCING COUPLING

Note: Same Dimensions as Coupling

W*: The I.D. of Reducing Coupling is that same size to which the reduction is made.

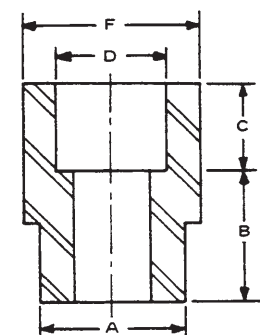
*Dimensions Available Upon Request

MANY TYPES AVAILABLE FROM STOCK IN BOTH TYPES 304L, 316L & ALUMINUM & HIGH NICKEL ALLOYS.

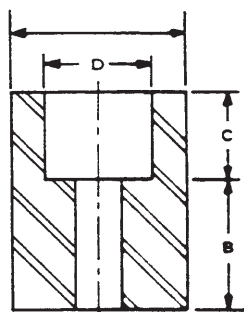
Stainless Steel Forged Socket Weld Fittings

DIMENSIONAL DATA
2000, 3000, 6000 p.s.i.* WORKING PRESSURE

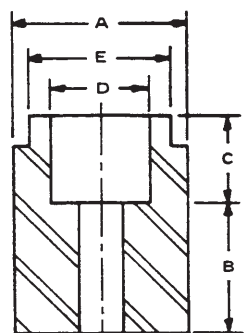
FORGED SOCKET WELD



AA REDUCING INSERT



BB REDUCING INSERT



CC REDUCING INSERT

	Size	Type	A	B	C	D	E	F
A	1/2 x 3/8	AA	.850	15/16	7/16	.690		1
	1/2 x 1/4	BB	.850	5/8	3/8	.555		
	1/2 x 1/8	CC	.850	5/8	3/8	.420	11/16	
C	3/4 x 1/2	AA	1.060	1	1/2	.855		1-1/4
	3/4 x 3/8	BB	1.060	9/16	7/16	.690		
	3/4 x 1/4	CC	1.060	5/8	3/8	.555	7/8	
D	3/4 x 1/8	CC	1.060	5/8	3/8	.420	7/8	
A	1 x 3/4	AA	1.325	15/16	9/16	1.065		1-1/2
	1 x 1/2	BB	1.325	13/16	1/2	.855		
	1 x 3/8	CC	1.325	7/8	7/16	.690	1	
C	1 x 1/4	CC	1.325	15/16	3/8	.555	1	
D	1-1/4 x 1	AA	1.670	1-1/16	5/8	1.330		1-3/4
	1-1/4 x 3/4	BB	1.670	13/16	9/16	1.065		
	1-1/4 x 1/2	CC	1.670	7/8	1/2	.855	1-1/4	
A	1-1/2 x 1-1/4	AA	1.910	1-3/16	11/16	1.675		2-1/8
	1-1/2 x 1	BB	1.910	13/16	5/8	1.330		
	1-1/2 x 3/4	CC	1.910	7/8	9/16	1.065	1-1/2	
D	1-1/2 x 1/2	CC	1.910	15/16	1/2	.855	1-1/4	
E	2 x 1-1/2	BB	2.400	13/16	3/4	1.915		
	2 x 1-1/4	CC	2.400	7/8	11/16	1.675	2-1/8	
	2 x 1	CC	3.400	15/16	5/8	1.330	1-3/4	
	2 x 3/4	CC	2.400	1	9/16	1.065	1-1/2	
	2 x 1/2	CC	2.400	1-1/16	1/2	.855	1-1/4	

NOTE: Dimensions for use with Schedule 40 & 80 Pipe

*Dimensions Available Upon Request

MANY TYPES AVAILABLE FROM STOCK IN BOTH TYPES 304L, 316L & ALUMINUM & HIGH NICKEL ALLOYS.

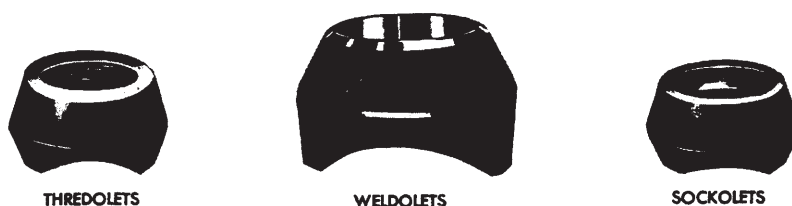
Stainless Steel Screwed Pipe Nipples

Schedule 40, 80, 160, XXH With various Ends
In Types 304L, 316L, Aluminum & High Nickel
Alloys all with quick delivery times.



Pipe Size	Close	Short	Standard Lengths
1/8"	3/4"	1 1/2"	Stocked in 1/2" increments up to 6" in length. Intermediate or longer sizes are available on request.
1/4"	7/8"	1 1/2"	
3/8"	1"	1 1/2"	
1/2"	1 1/4"	1 1/2"	
3/4"	1 3/8"	2"	
1"	1 1/2"	2"	
1 1/4"	1 3/4"	2 1/2"	
1 1/2"	1 3/4"	2 1/2"	
2"	2"	2 1/2"	
2 1/2"	2 1/2"	3"	
3"	2 5/8"	3"	
4"	2 5/8"	4"	

Stainless, Aluminum & Nickel Alloy Weldolets - Thredolets
- Sockolets as well as Specialty Items made to your drawings.



THREDOLETS

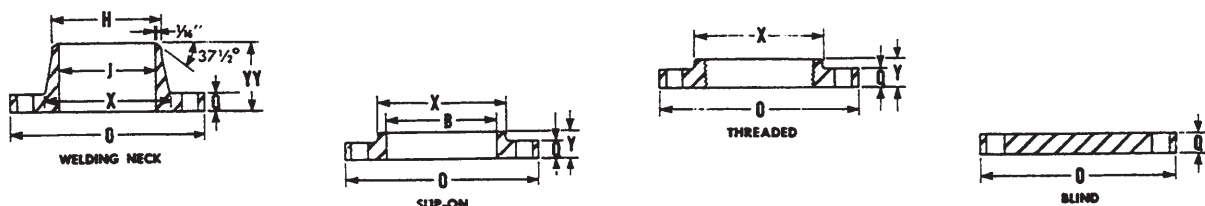
WELDOLETS

SOCKOLETS

Available in sizes 1/8" thru 12"
DIMENSIONAL DATA UPON REQUEST

Stainless Steel Flanges

M.S.S. 150 POUND WORKING PRESSURE



Nominal Pipe Size	COMMON DIMENSIONS					WELDING NECK			SLIP-ON THREADED	SLIP-ON
	O	Q	X	Number and Diameter of Bolt Holes	Bolt Circle	YY	H	J	Y	B
1/2	3 1/2	5/16	1 3/16	4 - 3/16	2 1/2	1 7/8	.84	.62	5/8	.88
3/4	3 3/4	11/32	1 1/2	4 - 1/2	2 1/2	2 1/16	1.05	.82	5/8	1.09
1	4 1/4	3/8	1 15/16	4 - 1/2	3 1/2	2 3/16	1.32	1.05	11/16	1.36
1 1/4	4 3/4	13/32	2 5/16	4 - 1/2	3 1/2	2 1/4	1.66	1.38	13/16	1.70
1 1/2	5	7/16	2 9/16	4 - 1/2	3 3/4	2 7/16	1.90	1.61	7/8	1.95
2	6	1/2	3 1/16	4 - 3/4	4 1/2	2 1/2	2.38	2.07	1	2.44
2 1/2	7	9/16	3 9/16	4 - 3/4	5 1/2	2 3/4	2.88	2.47	1 1/8	2.94
3	7 1/2	5/8	4 1/4	4 - 3/4	6	2 3/4	3.50	3.07	1 3/16	3.57
4	9	11/16	5 5/16	8 - 3/4	7 1/2	3	4.50	4.03	1 5/16	4.57
5	10	3/4	6 7/16	8 - 7/8	8 1/2	3 1/2	5.56	5.05	1 7/16	5.66
6	11	13/16	7 9/16	8 - 7/8	9 1/2	3 1/2	6.63	6.07	1 9/16	6.72
8	13 1/2	15/16	9 11/16	8 - 7/8	11 1/2	4	8.63	7.98	1 3/4	8.72
10	16	1	12	12-1	14 1/2	4	10.75	10.02	1 15/16	10.88
12	19	1 1/16	14 3/8	12-1	17	4 1/2	12.75	12.00	2 3/16	12.88

Drilling and O.D. match A.S.A. B16.5-150 lb. Steel Flange Standard, M.S.S. SP-42-150 lb. Corrosion Resistant Valve Standard and A.S.A. B16.1-125 lb. Cast Iron Flange Standard.

Special stainless steels and other corrosion resisting metal alloys available from our Canadian warehouse stocks or from nearby mill sources.

ALLOYS AVAILABLE

304 SS	347 SS
304L SS	403 SS
309 SS	405 SS
309S SS	410 SS
310 SS	420 SS
316 SS	430 SS
316L SS	440 SS
317 SS	446 SS
317L SS	600 SS
321 SS	Carpenter
330 SS	Hastelloy A B C
333 SS	Titanium
Monel	Nickel
	Inconel

This list of alloys is representative only. All these alloys are available. However, a full range of sizes is not necessarily available in each alloy. We welcome all inquiries for non-standard items.

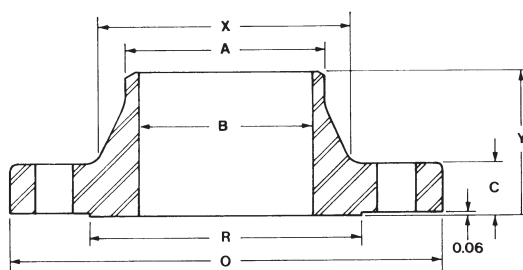
NOW AVAILABLE IN ALUMINUM CASTING GRADE 356-F

Stainless Steel Forged Flanges

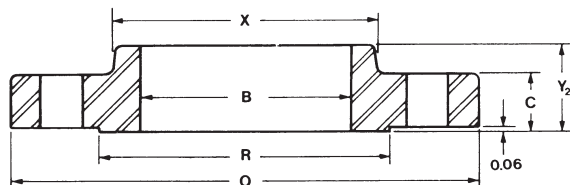
NOTE: Manufacturers Catalogs
on 1500 and 2500 pound A.S.A.
Flanges are available upon request.

ANSI B16.5/ASA

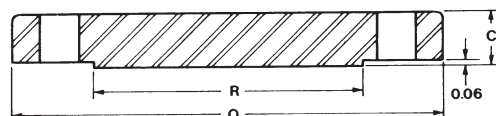
150 lbs



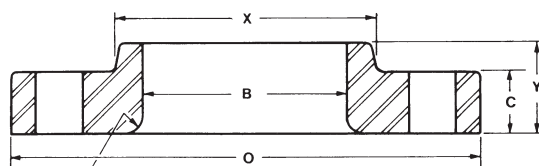
WELDING NECK



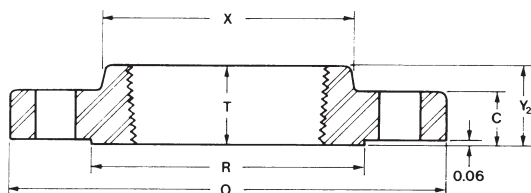
SLIP-ON



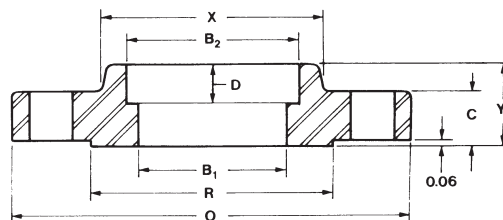
BLIND



LAP JOINT



THREADED



SOCKET WELD

150-LB.																		
Nom. Pipe Size	Out- side Diam.	Thkn. (min.)	O.D. of Raised Face	Hub Diam.	Length thru Hub			Bore □			Depth of Socket	Approx. Weight (Lbs.)				Drilling		
					Wldg. Neck	Slip-on Thrd. Sock. W.	Lap Joint	Wldg. Neck	Slip-on Sock. W.	Lap Joint		Wldg. Neck	Slip-On Thrd. Sock. W.	Lap Joint	Blind	No. Holes	Diam. Holes	Bolt Circle Diam.
					O	C	R	X	Y ₁	Y ₂		Y ₃	B ₁	B ₂	B ₃	D		
1/2	3 1/2	7/16	1 3/8	1 1/8	1 7/8	5/8	5/8	0.62	0.88	0.90	3/8	2	1	1	1	4	5/8	2 3/8
3/4	3 7/8	1/2	1 11/16	1 1/2	2 1/16	5/8	5/8	0.82	1.09	1.11	7/8	2	2	2	2	4	5/8	2 3/4
1	4 1/4	9/16	2	1 5/8	2 3/16	1 1/16	1 1/16	1.05	1.36	1.38	1 1/2	3	2	2	2	4	5/8	3 1/8
1 1/4	4 5/8	5/8	2 1/2	2 5/8	2 1/4	1 3/8	1 3/8	1.38	1.70	1.72	9/8	3	3	3	3	4	5/8	3 1/2
1 1/2	5	1 1/16	2 7/8	2 5/8	2 7/16	7/8	7/8	1.61	1.95	1.97	5/8	4	3	3	4	4	5/8	3 7/8
2	6	3/4	3 5/8	3 1/8	2 1/2	1	1	2.07	2.44	2.46	1 1/16	6	5	5	5	4	3/4	4 3/4
2 1/2	7	7/8	4 1/8	3 3/8	2 3/4	1 1/8	1 1/8	2.47	2.94	2.97	3/4	8	7	7	7	4	3/4	5 1/2
3	7 1/2	1 5/16	5	4 1/4	2 3/4	1 3/8	1 3/8	3.07	3.57	3.60	1 3/8	10	8	8	9	4	3/4	6
3 1/2	8 1/2	1 5/8	5 1/2	4 1 3/16	2 13/16	1 1/4	1 1/4	3.55	4.07	4.10	7/8	12	11	11	13	8	3/4	7
4	9	1 5/8	6 3/8	5 5/8	3	1 3/8	1 3/8	4.03	4.57	4.60	1 5/8	15	13	13	17	8	3/4	7 1/2
5	10	1 5/8	7 3/8	6 1/8	3 1/2	1 3/8	1 3/8	5.05	5.66	5.69	1 5/8	19	15	15	20	8	7/8	8 1/2
6	11	1	8 1/2	7 1/8	3 1/2	1 3/8	1 3/8	6.07	6.72	6.75	1 1/2	24	19	19	26	8	7/8	9 1/2
8	13 1/2	1 1/8	10 5/8	9 1 1/16	4	1 3/4	1 3/4	7.98	8.72	8.75	1 1/4	39	30	30	45	8	7/8	11 3/4
10	16	1 3/8	12 3/4	12	4	1 5/8	1 5/8	10.02	10.88	10.92	1 3/8	52	43	43	70	12	1	14 1/4
12	19	1 1/4	15	14 3/8	4 1/2	2 3/8	2 3/8	12.00	12.88	12.92	1 3/8	80	64	64	110	12	1	17
14	21	1 3/8	16 1/4	15 3/4	5	2 1/4	3 1/8	13.25	14.14	14.18	1 5/8	110	90	105	140	12	1 1/8	18 3/4
16	23 1/2	1 1/2	18 1/2	18	5	2 1/2	3 3/8	15.25	16.16	16.19	1 3/4	140	98	140	180	16	1 1/8	21 1/4
18	25	1 5/8	21	19 7/8	5 1/2	2 1 1/16	3 1 1/16	17.25	18.18	18.20	1 5/8	150	130	160	220	16	1 1/4	22 3/4
20	27 1/2	1 5/8	23	22	5 1 1/16	2 7/8	4 1/8	19.25	20.20	20.25	2 1/8	180	165	195	285	20	1 1/4	25
22	29 1/2	1 3/4	25 1/4	24 1/4	5 7/8	3 3/8	4 1/4	21.25	22.22	22.25	2 3/8	225	185	245	355	20	1 3/8	27 1/4
24	32	1 7/8	27 1/4	26 1/8	6	3 3/4	4 3/8	23.25	24.25	24.25	2 1/2	260	220	275	430	20	1 3/8	29 1/4

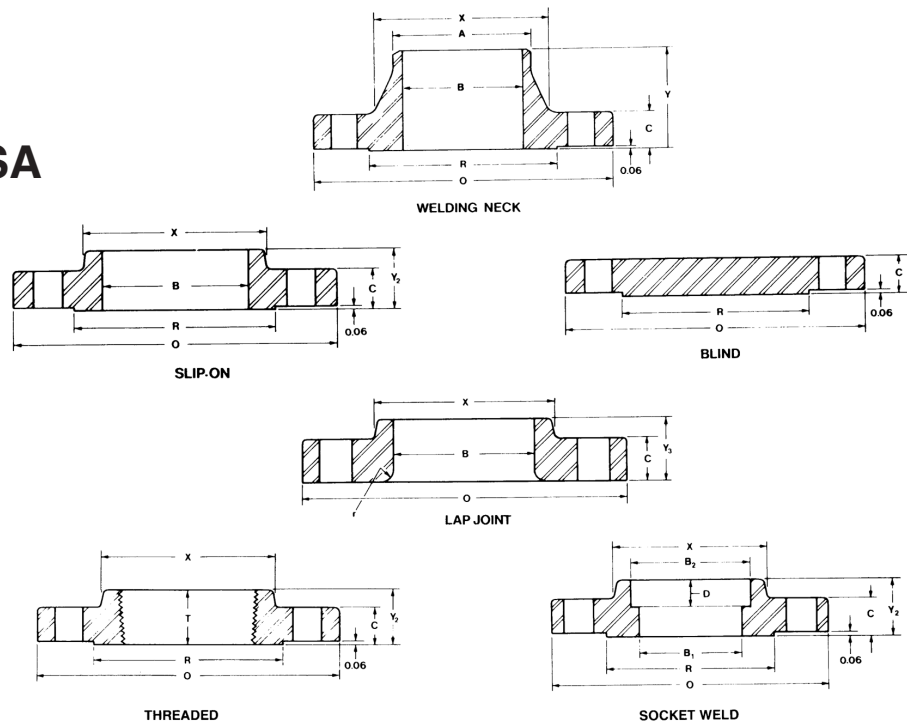
The 1/16" raised face is included in thickness C and length Y.

ANSI B16.5 only covers sizes through 24". For larger sizes refer to MSS - SP44, API 605, AWWA C207, Class 125, Class 175 p. 8-13.
Special designs can also be furnished.

Stainless Steel Forged Flanges (cont'd)

ANSI B16.5/ASA

300 lbs & 400 lbs

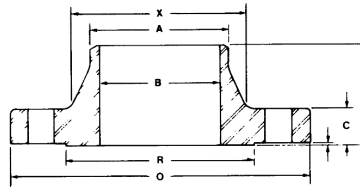


300-lb.																		
Nom. Pipe Size	Out-side Diam.	Thkn. (min.)	O.D. of Raised Face	Hub Diam.	Length thru Hub			Bore □			Depth of Sock.	Approx. Weight (Lbs.)				Drilling		
					Wldg. Neck	Slip-on Thrd. Sock. W.	Lap Joint	Wldg. Neck ²	Slip-On Sock. W.	Lap Joint		Wldg. Neck	Slip-On Thrd. Sock. W.	Lap Joint	Blind	No. Holes	Diam. Holes	Bolt Circle Diam.
	O	C	R	X	Y ₁	Y ₂	Y ₃	B ₁	B ₂	B ₃	D							
½	3¾	⅝	1⅜	1½	2⅞	⅞	⅞	0.62	0.88	0.90	⅜	2	2	2	2	4	⅝	2⅝
¾	4⅝	⅞	1⅞	1⅞	2¼	1	1	0.82	1.09	1.11	⅞	3	3	3	3	4	¾	3¼
1	4⅞	1⅞	2	2⅞	2⅞	1⅞	1⅞	1.05	1.36	1.38	½	4	3	3	3	4	¾	3½
1¼	5¼	¾	2½	2½	2⅞	1⅞	1⅞	1.38	1.70	1.72	⅞	5	4	4	4	4	¾	3⅞
1½	6⅞	1⅞	2⅞	2¾	2⅞	1⅞	1⅞	1.61	1.95	1.97	⅞	7	6	6	6	4	7/8	4½
2	6½	⅞	3⅝	3⅞	2¾	1⅞	1⅞	2.07	2.44	2.46	1⅞	9	7	7	8	8	¾	5
2½	7½	1	4⅞	3⅞	3	1½	1½	2.47	2.94	2.97	¾	12	10	10	12	8	⅞	5⅞
3	8¼	1⅞	5	4⅝	3⅞	1⅞	1⅞	3.07	3.57	3.60	1⅞	15	13	13	16	8	⅞	6⅝
3½	9	1⅞	5½	5¼	3⅞	1¾	1¾	3.55	4.07	4.10	—	18	17	17	21	8	⅞	7¼
4	10	1¼	6⅞	5¾	3⅞	1⅞	1⅞	4.03	4.57	4.60	—	25	22	22	27	8	⅞	7⅞
5	11	1⅞	7⅞	7	3⅞	2	2	5.05	5.66	5.69	—	32	28	28	35	8	⅞	9¼
6	12½	1⅞	8½	8⅞	3⅞	2⅞	2⅞	6.07	6.72	6.75	—	42	39	39	50	12	⅞	10⅞
8	15	1⅞	10⅞	10¼	4⅞	2⅞	2⅞	7.98	8.72	8.75	—	67	58	58	81	12	1	13
10	17½	1⅞	12¾	12⅝	4⅞	2⅞	3¾	10.02	10.88	10.92	—	91	81	91	124	16	1⅞	15¼
12	20½	2	15	14¾	5⅞	2⅞	4	12.00	12.88	12.92	—	140	115	140	185	16	1¼	17¾
14	23	2⅞	16¼	16¾	5⅞	3	4⅞	13.25	14.14	14.18	—	180	165	190	250	20	1¼	20¼
16	25½	2¼	18½	19	5¾	3¼	4¾	15.25	16.16	16.19	—	250	190	250	295	20	1⅞	22½
18	28	2⅞	21	21	6¼	3½	5⅞	17.25	18.18	18.20	—	320	250	295	395	24	1⅞	24¾
20	30½	2½	23	23⅞	6⅞	3¾	5½	19.25	20.20	20.25	—	400	315	370	505	24	1⅞	27
22	33	2⅞	25¼	25¼	6½	4	5¾	21.25	22.22	22.25	—	465	370	435	640	24	1⅞	29¼
24	36	2¾	27¼	27⅞	6⅞	4⅞	6	23.25	24.25	24.25	—	580	475	550	790	24	1⅞	32
The ⅛" raised face is included in thickness C and length Y.																		
400-lb. (NOTE: Sizes ½" thru 3⅞" are identical with 600 lb. flanges (see next page).																		
4	10	1⅞	6⅞	5¾	3½	2	2	To be specified	4.57	4.60		35	26	25	33	8	1	7⅞
5	11	1½	7⅞	7	4	2⅞	2⅞		5.66	5.69		43	31	29	44	8	1	9¼
6	12½	1⅞	8½	8⅞	4⅞	2¼	2¼		6.72	6.75		57	44	42	61	12	1	10⅞
8	15	1⅞	10⅞	10¼	4⅞	2⅞	2⅞	To be specified	8.72	8.75		89	67	64	100	12	1⅞	13
10	17½	2⅞	12¾	12⅝	4⅞	2⅞	4		10.88	10.92		125	91	110	155	16	1¼	15¼
12	20½	2¼	15	14¾	5⅞	3⅞	4¼		12.88	12.92		175	130	150	225	16	1⅞	17¾
14	23	2⅞	16¼	16¾	5⅞	3⅞	4⅞	To be specified	14.14	14.18		230	180	205	290	20	1⅞	20¼
16	25½	2½	18½	19	6	3⅞	5		16.16	16.19		295	235	260	370	20	1½	22½
18	28	2⅞	21	21	6½	3⅞	5⅞		18.18	18.20		350	285	315	455	24	1½	24¾
20	30½	2¾	23	23⅞	6⅞	4	5¾	To be specified	20.20	20.25		425	345	385	587	24	1⅞	27
22	33	2⅞	25¼	25¼	6¾	4¼	6		22.22	22.25		505	405	455	720	24	1¾	29¼
24	36	3	27¼	27⅞	6⅞	4½	6¼		24.25	24.25		620	510	570	890	24	1⅞	32
The ¼" raised face is not included in thickness C and length Y.																		

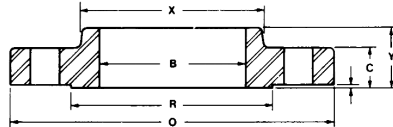
Stainless Steel Forged Flanges (cont'd)

ANSI B16.5/ASA

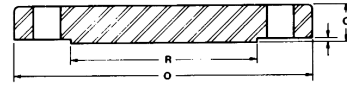
600 lbs & 900 lbs



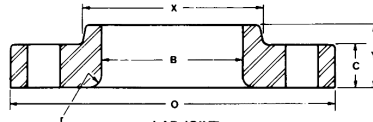
WELDING NECK



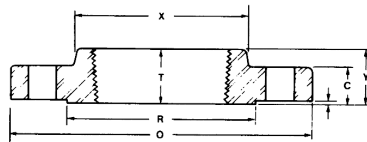
SLIP-ON



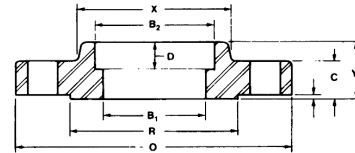
BLIND



LAP JOINT



THREADED



SOCKET WELD

600-lb.																		
Nom. Pipe Size	Out-side Diam.	Thkn. (min.)	O.D. of Raised Face	Hub Diam.	Length thru Hub			Bore [□]			Depth of Socket	Approx. Weight (Lbs.)				Drilling		
					Wldg. Neck	Slip-On Thrd. Sock. W.	Lap Joint	Wldg. Neck	Slip-On Socket W.	Lap Joint		Wldg. Neck	Slip-On Thrd. Sock. W.	Lap Joint	Blind	No. Holes	Diam. Holes	Bolt Circle Diam.
	O	C	R	X	Y ₁	Y ₂	Y ₃	B ₁	B ₂	B ₃	D							
1/2	3 3/4	3/16	1 3/8	1 1/2	2 1/16	7/8	7/8	To be specified	0.88	0.90	3/8	2	2	2	2	4	5/8	2 5/8
3/4	4 5/8	5/8	1 11/16	1 7/8	2 1/4	1	1		1.09	1.11	7/16	4	3	3	3	4	3/4	3 1/4
1	4 7/8	1 1/16	2	2 1/8	2 7/16	1 1/16	1 1/16		1.36	1.38	1/2	4	4	4	4	4	3/4	3 1/2
1 1/4	5 1/4	1 3/16	2 1/2	2 1/2	2 5/8	1 1/8	1 1/8		1.70	1.72	3/8	6	5	5	5	4	3/4	3 7/8
1 1/2	6 1/8	7/8	2 7/8	2 3/4	2 3/4	1 1/4	1 1/4		1.95	1.97	5/8	8	7	7	8	4	7/8	4 1/2
2	6 1/2	1	3 5/8	3 3/16	2 7/8	1 1/16	1 1/16		2.44	2.46	1 1/16	12	9	9	10	8	3/4	5
2 1/2	7 1/2	1 1/8	4 1/8	3 1 1/16	3 3/8	1 5/8	1 5/8		2.94	2.97	3/4	18	13	12	15	8	7/8	5 7/8
3	8 1/4	1 1/4	5	4 5/8	3 3/4	1 1 3/16	1 1 3/16		3.57	3.60	1 3/16	23	16	15	20	8	7/8	6 5/8
3 1/2	9	1 3/8	5 1/2	5 1/4	3 3/8	1 1 3/16	1 1 3/16		4.07	4.10	—	26	21	20	29	8	1	7 1/4
4	10 3/4	1 1/2	6 3/16	6	4	2 1/8	2 1/8		4.57	4.60	—	42	37	36	41	8	1	8 1/2
5	13	1 3/4	7 3/16	7 1/16	4 1/2	2 3/8	2 3/8		5.66	5.69	—	68	63	61	68	8	1 1/8	10 1/2
6	14	1 7/8	8 1/2	8 3/4	4 5/8	2 5/8	2 5/8		6.72	6.75	—	81	80	78	86	12	1 1/8	11 1/2
8	16 1/2	2 3/16	10 5/8	10 3/4	5 1/4	3	3		8.72	8.75	—	120	115	110	140	12	1 1/4	13 3/4
10	20	2 1/2	12 3/4	13 1/2	6	3 3/8	4 3/8		10.88	10.92	—	190	170	170	230	16	1 3/8	17
12	22	2 5/8	15	15 3/4	6 1/8	3 5/8	4 5/8		12.88	12.92	—	225	200	200	295	20	1 3/8	19 1/4
14	23 3/4	2 3/4	16 1/4	17	6 1/2	3 1 1/16	5		14.14	14.18	—	280	230	250	355	20	1 1/2	20 3/4
16	27	3	18 1/2	19 1/2	7	4 3/16	5 1/2		16.16	16.19	—	390	330	365	495	20	1 5/8	23 3/4
18	29 1/4	3 1/4	21	21 1/2	7 1/4	4 5/8	6		18.18	18.20	—	475	400	435	630	20	1 3/4	25 3/4
20	32	3 1/2	23	24	7 1/2	5	6 1/2		20.20	20.25	—	590	510	570	810	24	1 3/4	28 1/2
22	34 1/4	3 3/4	25 1/4	26 1/4	7 3/4	5 1/4	6 7/8		22.22	22.25	—	720	590	670	1000	24	1 7/8	30 5/8
24	37	4	27 1/4	28 1/4	8	5 1/2	7 1/4		24.25	24.25	—	830	730	810	1250	24	2	33
900-lb.																		
(NOTE: Sizes 1/2" thru 2 1/2" are identical with 1500 lb. flanges (see next page).)																		
3	9 1/2	1 1/2	5	5	4	2 1/8	2 1/8	To be specified	3.57	3.60	—	31	26	25	29	8	1	7 1/2
4	11 1/2	1 3/4	6 3/16	6 1/4	4 1/2	2 3/4	2 3/4		4.57	4.60	—	53	53	51	54	8	1 1/4	9 1/4
5	13 3/4	2	7 3/16	7 1/2	5	3 1/8	3 1/8		5.66	5.69	—	86	83	81	87	8	1 3/8	11
6	15	2 3/16	8 1/2	9 1/4	5 1/2	3 3/8	3 3/8		6.72	6.75	—	110	110	105	115	12	1 1/4	12 1/2
8	18 1/2	2 1/2	10 5/8	11 3/4	6 3/8	4	4 1/2		8.72	8.75	—	175	170	190	200	12	1 1/2	15 1/2
10	21 1/2	2 3/4	12 3/4	14 1/2	7 1/4	4 1/4	5		10.88	10.92	—	260	245	275	290	16	1 1/2	18 1/2
12	24	3 1/8	15	16 1/2	7 7/8	4 5/8	5 5/8		12.88	12.92	—	325	325	370	415	20	1 1/2	21
14	25 1/4	3 3/8	16 1/4	17 3/4	8 3/8	5 1/8	6 1/8		14.14	14.18	—	400	400	415	520	20	1 5/8	22
16	27 3/4	3 1/2	18 1/2	20	8 1/2	5 1/4	6 1/2		16.16	16.19	—	495	425	465	600	20	1 3/4	24 1/4
18	31	4	21	22 1/4	9	6	7 1/2		18.18	18.20	—	680	600	650	850	20	2	27
20	33 3/4	4 1/4	23	24 1/2	9 3/4	6 1/4	8 1/4		20.20	20.25	—	830	730	810	1075	20	2 1/8	29 1/2
22	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—
24	41	5 1/2	27 1/4	29 1/2	11 1/2	8	10 1/2		24.25	24.25	—	1500	1400	1550	2025	20	2 5/8	35 1/2
—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—

Rev. 2013 The 1/4" raised face is not included in thickness C and length Y.

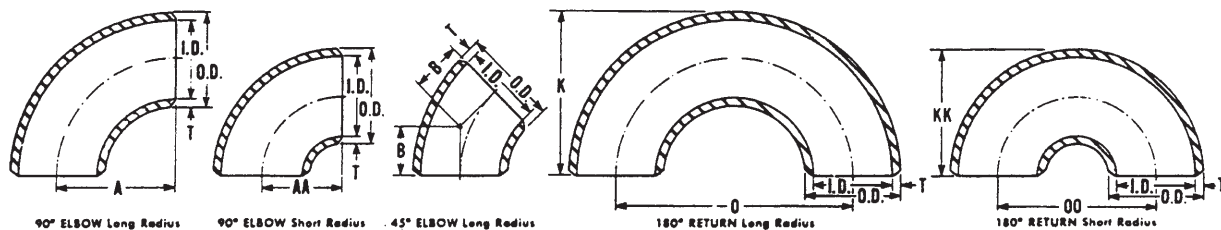
Stainless Steel I.P.S. Butt Welding Fittings

ALSO AVAILABLE IN ALUMINUM, & NICKEL ALLOYS

MSS SP-43 ASA B16.9**

Schedules 5S, 10S, 40S and 80S

(other thicknesses on request)



NOMINAL PIPE SIZE	OUTSIDE DIAMETER	SCHEDULE 5S		SCHEDULE 10S		SCHEDULE 40S		SCHEDULE 80S		90° ELBOW		45° ELBOW
		WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	LONG RADIUS	SHORT RADIUS*	LONG RADIUS
	O.D.	T	I.D.	T	I.D.	T	I.D.	T	I.D.	A	AA	B
1/2	0.840	.065	.710	.083	.674	.109	.622	.147	.546	1 1/2	...	5/8
3/4	1.050	.065	.920	.083	.884	.113	.824	.154	.742	1 5/8	...	7/16
1	1.315	.065	1.185	.109	1.097	.133	1.049	.179	.957	1 1/2	1	3/8
1 1/4	1.660	.065	1.530	.109	1.442	.140	1.380	.191	1.278	1 7/8	1 1/4	1
1 1/2	1.900	.065	1.770	.109	1.682	.145	1.610	.200	1.500	2 1/4	1 1/2	1 1/8
2	2.375	.065	2.245	.109	2.157	.154	2.067	.218	1.939	3	2	1 3/8
2 1/2	2.875	.083	2.709	.120	2.635	.203	2.469	.276	2.323	3 3/4	2 1/2	1 3/4
3	3.500	.083	3.334	.120	3.260	.216	3.068	.300	2.900	4 1/2	3	2
3 1/2	4.000	.083	3.834	.120	3.760	.226	3.548	.318	3.364	5 1/4	3 1/2	2 1/4
4	4.500	.083	4.334	.120	4.260	.237	4.026	.337	3.826	6	4	2 1/2
5	5.563	.109	5.345	.134	5.295	.258	5.047	.375	4.813	7 1/2	5	3 1/8
6	6.625	.109	6.407	.134	6.357	.280	6.065	.432	5.761	9	6	3 3/4
8	8.625	.109	8.407	.148	8.329	.322	7.981	.500	7.625	12	8	5
10	10.750	.134	10.482	.165	10.420	.365	10.020	.500	9.750	15	10	6 1/4
12	12.750	.156	12.438	.180	12.390	.375	12.000	.500	11.750	18	12	7 1/2
14	14.000	.156	13.688	.188	13.624	.375+	13.250	.500+	13.000	21	14	8 3/4
16	16.000	.165	15.670	.188	15.624	.375+	15.250	.500+	15.000	24	16	10
18	18.000	.165	17.670	.188	17.624	.375+	17.250	.500+	17.000	27	18	11 1/4
20	20.000	.188	19.624	.218	19.564	.375+	19.250	.500+	19.000	30	20	12 1/2
24	24.000	.218	23.564	.250	23.500	.375+	23.250	.500+	23.000	36	24	15
30	30.000	.250	29.500	.312	29.376	.375+	29.250	.500+	29.000	45	30	18 1/2
36	36.000	TO BE SPECIFIED				.375+	35.250	.500+	35.000	54	36	22 1/4

**Dimensions are in accordance with MSS SP-43 and where applicable to A.S.A. B16.9. Short Radius Elbows are not included in either of these standards.

*Not available in Schedules 5S and 10S in sizes through 4".

Sizes 14" through 36" are not covered by A.S.A. B36.19-1957.

Wall thicknesses shown represent nominal or average wall dimensions as established in A.S.A. B36-19-1957. Wall thicknesses are

subject to a minus 12 1/2% mill tolerance. Wall thickness for Schedules 5S and 10S in sizes 12" through 30" are tentative and subject to change.

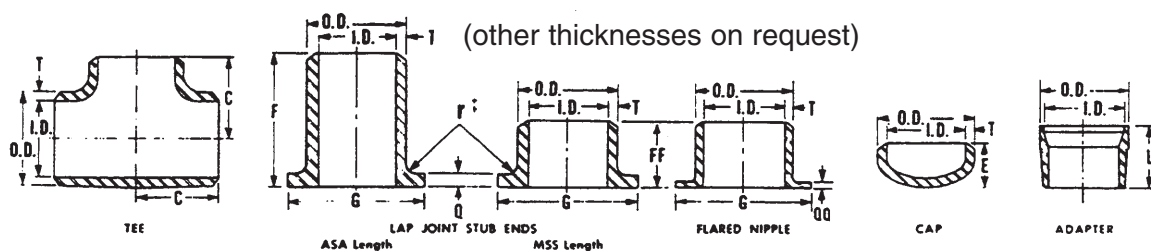
+ These wall thicknesses correspond respectively to Standard Weight and Extra Strong.

OTHER SCHEDULES AND WALL THICKNESSES ARE AVAILABLE.

Stainless Steel I.P.S. Butt Welding Fittings (cont'd)

ALSO AVAILABLE IN ALUMINUM, & NICKEL ALLOYS

MSS SP-43** ASA B16.9 Schedules 5S, 10S, 40S and 80S



NOMINAL PIPE SIZE	180° RETURN				TEE	LAP JOINT STUB ENDS ASA LENGTH AND MSS LENGTH							FLARED NIPPLE†	CAP	ADAPTER+
	LONG RADIUS		SHORT RADIUS*			Q*									
	K	O	KK	OO		C	F	FF	SCH. 5S		SCH. 10S				
½	1 15⁄16	3	...	...	1	3	2	.084	.095	1 3⁄8	1⁄8	SLIGHTLY LESS THAN NOMINAL PIPE WALL THICKNESS	1	...	
¾	1 11⁄16	2 ¼	...	...	1 1⁄8	3	2	.086	.097	1 11⁄16	1⁄8		1	1 1⁄8	
1	2 3⁄16	3	1 5⁄8	2	1 ½	4	2	.093	.120	2	1⁄8		1 ½	1 ¾	
1 ¼	2 ¾	3 ¾	2 1⁄16	2 ½	1 7⁄8	4	2	.095	.124	2 ½	3⁄16		1 ½	1 ¾	
1 ½	3 ¼	4 ½	2 7⁄16	3	2 ¼	4	2	.097	.126	2 7⁄8	¼		1 ½	1 ¾	
2	4 3⁄16	6	3 3⁄16	4	2 ½	6	2 ½	.100	.130	3 5⁄8	5⁄16		1 ½	1 13⁄16	
2 ½	5 3⁄16	7 ½	3 15⁄16	5	3	6	2 ½	.130	.156	4 1⁄8	5⁄16		1 ½	2 5⁄16	
3	6 ¼	9	4 ¾	6	3 3⁄8	6	2 ½	.134	.161	5	3⁄8		2	2 ½	
3 ½	7 ¼	10 ½	5 ½	7	3 ¾	6	3	.137	.165	5 ½	3⁄8		2 ½	2 9⁄16	
4	8 ¼	12	6 ¼	8	4 1⁄8	6	3	.140	.169	6 3⁄16	7⁄16		2 ½	2 9⁄16	
5	10 5⁄16	15	7 ¾	10	4 7⁄8	8	3	.168	.186	7 5⁄16	7⁄16		3	...	
6	12 5⁄16	18	9 5⁄16	12	5 5⁄8	8	3 ½	.175	.194	8 1⁄2	½		3 ½	...	
8	16 5⁄16	24	12 5⁄16	16	7	8	4	.187	.218	10 5⁄8	½		4	...	
10	20 3⁄8	30	15 3⁄8	20	8 ½	10	5	.221	.245	12 ¾	½		5	...	
12	24 3⁄8	36	18 3⁄8	24	10	10	6	.249	.260	15	½		6	...	
14	28	42	21	28	11	12	7	.375	.375	16 ¼	½		6 ½	...	
16	32	48	24	32	12	12	8	.375	.375	18 ½	½		7	...	
18	36	54	27	36	13 ½	12	9	.375	.375	21	½		8	...	
20	40	60	30	40	15	12	10	.375	.375	23	½		9	...	
24	48	72	36	48	17	12	12	.375	.375	27 ¼	½		10 ½	...	
30	60	90	45	60	...	...	...	...	...	...	...	...	...		
36	72	108	54	72	...	...	...	...	...	...	...	...	...		

For O.D., I.D. and wall thickness T, see facing page.

**Dimensions are in accordance with MSS SP.43 and where applicable to A.S.A. B16.9.

*Not available in Schedules 5S and 10S in sizes through 4".

LAP JOINT STUB ENDS—MSS length available in Schedules 5S, 10S and 40S. A.S.A. length in Schedules 40S and 80S.

*Lap thickness Q for Schedule 40S and 80S in sizes through 12" is equal to wall thickness T. In sizes 14" and larger, the lap thickness for Schedules 40S and 80S is .375" and .500" respectively.

† Type B, Lap Joint Stub End (fillet radius "r" decreased to accommodate Slip-On Flange) available in Schedules 5S, 10S and 40S.

A.S.A. and MSS length Lap Joint Stub Ends are furnished with a

modified serrated face. Face of Flared Nipple is not serrated.

FLARED NIPPLES are available in Schedules 5S and 10S.

† Flared nipple has same FF and G dimensions as MSS length Lap Joint Stub End.

Caps have semi-ellipsoidal shape with minor axis at least one half of major axis.

+ WELDING ADAPTER (from Schedule 5S or 10S to NPT thread) available in Type 316 only. For Schedule 40S and 80S, use Standard Weight or Extra Strong Short Nipple threaded one end only.

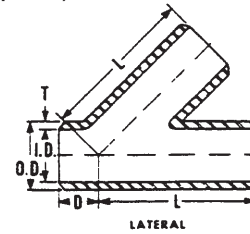
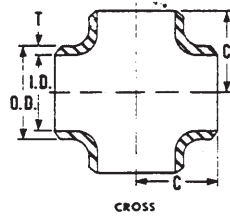
OTHER SCHEDULES AND WALL THICKNESSES ARE AVAILABLE.

Stainless Steel I.P.S. Butt Welding Fittings (cont'd)

ALSO AVAILABLE IN ALUMINUM, & NICKEL ALLOYS

Schedules 5S, 10S, 40S and 80S

(other thicknesses on request)



NOMINAL PIPE SIZE	OUTSIDE DIAMETER	SCHEDULE 5S		SCHEDULE 10S		SCHEDULE 40S		SCHEDULE 80S		CROSS C	Lateral			
		WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER		SCHEDULES 5S, 10S, 40S		SCHEDULE 80S	
		O.D.	T	I.D.	T	I.D.	T	I.D.	T		D	L	D	L
3/4	1.050	.065	.920	.083	.884	.113	.824	.154	.742	1 1/8	1	5	...	...
1	1.315	.065	1.185	.109	1.097	.133	1.049	.179	.957	1 1/2	1 3/4	5 3/4	2	6 1/2
1 1/4	1.660	.065	1.530	.109	1.442	.140	1.380	.191	1.278	1 7/8	1 3/4	6 1/4	2 1/4	7 1/4
1 1/2	1.900	.065	1.770	.109	1.682	.145	1.610	.200	1.500	2 1/4	2	7	2 1/2	8 1/2
2	2.375	.065	2.245	.109	2.157	.154	2.067	.218	1.939	2 1/2	2 1/2	8	2 1/2	9
2 1/2	2.875	.083	2.709	.120	2.635	.203	2.469	.276	2.323	3	2 1/2	9 1/2	2 1/2	10 1/2
3	3.500	.083	3.334	.120	3.260	.216	3.068	.300	2.900	3 3/8	3	10	3	11
3 1/2	4.000	.083	3.834	.120	3.760	.226	3.548	.318	3.364	3 3/4	3	11 1/2	3	12 1/2
4	4.500	.083	4.334	.120	4.260	.237	4.026	.337	3.826	4 1/8	3	12	3	13 1/2
5	5.563	.109	5.345	.134	5.295	.258	5.047	.375	4.813	4 7/8	3 1/2	13 1/2	3 1/2	15
6	6.625	.109	6.407	.134	6.357	.280	6.065	.432	5.761	5 5/8	3 1/2	14 1/2	4	17 1/2
8	8.625	.109	8.407	.148	8.329	.322	7.981	.500	7.625	7	4 1/2	17 1/2	5	20 1/2
10	10.750	.134	10.482	.165	10.420	.365	10.020	.500	9.750	8 1/2	5	20 1/2	5 1/2	24
12	12.750	.156	12.438	.180	12.390	.375	12.000	.500	11.750	10	5 1/2	24 1/2	6	27 1/2
14	14.000	.156	13.688	.188	13.624	.375†	13.250	.500†	13.000	11	6	27	6 1/2	31
16	16.000	.165	15.670	.188	15.624	.375†	15.250	.500†	15.000	12	6 1/2	30	7 1/2	34 1/2
18	18.000	.165	17.670	.188	17.624	.375†	17.250	.500†	17.000	13 1/2	7	32	8	37 1/2
20	20.000	.188	19.624	.218	19.564	.375†	19.250	.500†	19.000	15	8	35	8 1/2	40 1/2
24	24.000	.218	23.564	.250	23.500	.375†	23.250	.500†	23.000	17	9	40 1/2	10	47 1/2

Sizes 14" through 24" are not covered by A.S.A. B36.19-1957.

Wall thicknesses shown represent nominal or average wall dimensions as established in A.S.A. B36.19-1957. Wall thicknesses are subject to a minus 12 1/2% mill tolerance.

Wall thicknesses for Schedule 5S and 10S in sizes 12" are tentative and subject to change.

†These wall thickness correspond respectively to Standard Weight and Extra Strong.

Center to face dimensions of the Cross correspond to that of the Tee in A.S.A. B16.9.

Reducing Laterals are available with the same center to end dimensions as Straight Laterals of the same size run.

OTHER SCHEDULES AND WALL THICKNESSES ARE AVAILABLE.

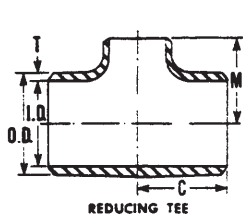
Stainless Steel I.P.S. Butt Welding Fittings (cont'd)

ALSO AVAILABLE IN ALUMINUM, & NICKEL ALLOYS

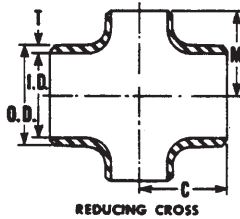
M.S.S. SP-43**

A.S.A. B16.9

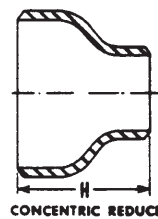
Schedules 5S, 10S, 40S and 80S
(other thicknesses on request)



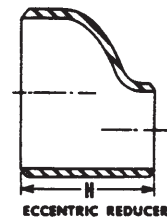
REDUCING TEE



REDUCING CROSS



CONCENTRIC REDUCER



EXCENTRIC REDUCER

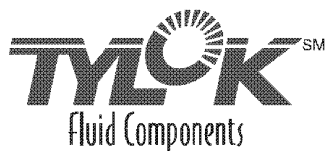
NOMINAL PIPE SIZE	REDUCING TEE AND REDUCING CROSS		REDUCERS— CONCENTRIC ECCENTRIC
	C	M	
3/4 x 1/2	1 1/8	1 1/8	1 1/2
1 x 1/2	1 1/2	1 1/2	2
1 x 3/4	1 1/2	1 1/2	2
1 1/4 x 1/2	1 7/8	1 7/8	2
1 1/4 x 3/4	1 7/8	1 7/8	2
1 1/4 x 1	1 7/8	1 7/8	2
1 1/2 x 1/2	2 1/4	2 1/4	2 1/2
1 1/2 x 3/4	2 1/4	2 1/4	2 1/2
1 1/2 x 1	2 1/4	2 1/4	2 1/2
1 1/2 x 1 1/4	2 1/4	2 1/4	2 1/2
2 x 3/4	2 1/2	1 3/4	3
2 x 1	2 1/2	2	3
2 x 1 1/4	2 1/2	2 1/4	3
2 x 1 1/2	2 1/2	2 3/8	3
2 1/2 x 1	3	2 1/4	3 1/2
2 1/2 x 1 1/4	3	2 1/2	3 1/2
2 1/2 x 1 1/2	3	2 5/8	3 1/2
2 1/2 x 2	3	2 3/4	3 1/2
3 x 1 1/4	3 3/8	2 3/4	3 1/2
3 x 1 1/2	3 3/8	2 3/8	3 1/2
3 x 2	3 3/8	3	3 1/2
3 x 2 1/2	3 3/8	3 1/4	3 1/2
3 1/2 x 1 1/4	...	...	4
3 1/2 x 1 1/2	3 3/4	3 1/8	4
3 1/2 x 2	3 3/4	3 1/4	4
3 1/2 x 2 1/2	3 3/4	3 1/2	4
3 1/2 x 3	3 3/4	3 5/8	4
4 x 1 1/2	4 1/8	3 3/8	4
4 x 2	4 1/8	3 1/2	4
4 x 2 1/2	4 1/8	3 3/4	4
4 x 3	4 1/8	3 7/8	4
4 x 3 1/2	4 1/8	4	4
5 x 2	4 7/8	4 1/8	5
5 x 2 1/2	4 7/8	4 1/4	5
5 x 3	4 7/8	4 3/8	5
5 x 3 1/2	4 7/8	4 1/2	5
5 x 4	4 7/8	4 5/8	5

NOMINAL PIPE SIZE	REDUCING TEE AND REDUCING CROSS		REDUCERS— CONCENTRIC ECCENTRIC
	C	M	
6 x 2 1/2	5 5/8	4 3/4	5 1/2
6 x 3	5 5/8	4 7/8	5 1/2
6 x 3 1/2	5 5/8	5	5 1/2
6 x 4	5 5/8	5 1/8	5 1/2
6 x 5	5 5/8	5 3/8	5 1/2
8 x 3 1/2	7	6	6
8 x 4	7	6 1/8	6
8 x 5	7	6 3/8	6
8 x 6	7	6 5/8	6
10 x 4	8 1/2	7 1/4	7
10 x 5	8 1/2	7 1/2	7
10 x 6	8 1/2	7 3/8	7
10 x 8	8 1/2	8	7
12 x 5	10	8 1/2	8
12 x 6	10	8 3/8	8
12 x 8	10	9	8
12 x 10	10	9 1/2	8
14 x 8	11	9 3/4	13
14 x 10	11	10 1/8	13
14 x 12	11	10 3/8	13
16 x 8	12	10 3/4	14
16 x 10	12	11 1/8	14
16 x 12	12	11 3/8	14
16 x 14	12	12	14
18 x 10	13 1/2	12 1/8	15
18 x 12	13 1/2	12 3/8	15
18 x 14	13 1/2	13	15
18 x 16	13 1/2	13	15
20 x 10	15	13 1/8	20
20 x 12	15	13 3/8	20
20 x 14	15	14	20
20 x 16	15	14	20
20 x 18	15	14 1/2	20
24 x 12	17	15 5/8	20
24 x 14	17	16	20
24 x 16	17	16	20
24 x 18	17	16 1/2	20
24 x 20	17	17	20

** Dimensions are in accordance with MSS SP-43 and where applicable to ASA B16.9. Reducing Cross is not included in either of these standards. O.D., I.D. and wall thickness for each end of a reducer correspond to dimensions for pipe of the same size, see facing page. Sizes 14" through 24" are not covered by ASA B36.19-1957.

Reductions other than those listed are available on application. Reducers 8" and larger will be furnished conical or contour design at option. In 12" and smaller sizes, Reducers with reductions beyond those shown are available in conical shapes with increased lengths. OTHER SCHEDULES AND WALL THICKNESSES ARE AVAILABLE.

STAINLESS & ALLOY COMPRESSION TUBE FITTINGS WITH SINGLE OR DOUBLE FERRULES



CBC-LOK® Tube Fittings



Stainless Steel Flexible Hose

Available in all metals, all standard sizes. Also in any required length, with any standard or special fitting or flange attached.



COATED STAINLESS FLEXIBLE HOSES

**FLANGED SWIVEL &
FIX END ASSEMBLIES**

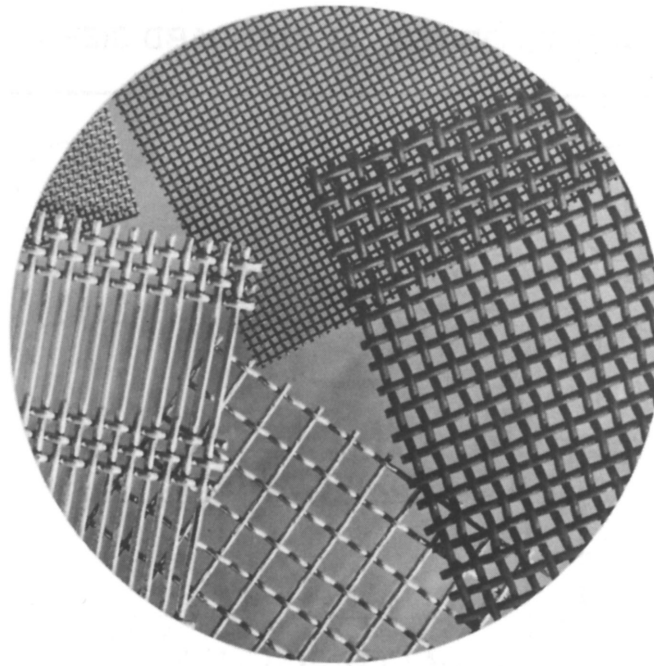
**QUICK DISCONNECT
FLEXIBLE STAINLESS
HOSE ASSEMBLIES**

**SANITARY STAINLESS
& TEFLON LINED HOSES**

**TEFLON LINED
FITTINGS & ADAPTERS**

**ALSO AVAILABLE IN TEFLON LINED-STAINLESS HOSE, OR WITH SANITARY CONNECTIONS.
THREADED END HOSES NOW AVAILABLE WITH U.L. APPROVAL.**

Corrosion Resisting Wire Cloth / Filter Cloth



Made of: Stainless Steel 304, 316, Monel. Other alloys and materials available.
 Meshes: SQUARE WEAVES; from coarse to very fine.
 Weaves: Plain, Twilled, and Dutch Weave (Corduroy and all grades of Filter Cloth).
 Widths: 36"—48"—and wider.
 Shipment: Large stock available for immediate shipment.
 Sample Swatches } : Promptly Furnished.

WIRE CLOTH
FABRICATION
made to order

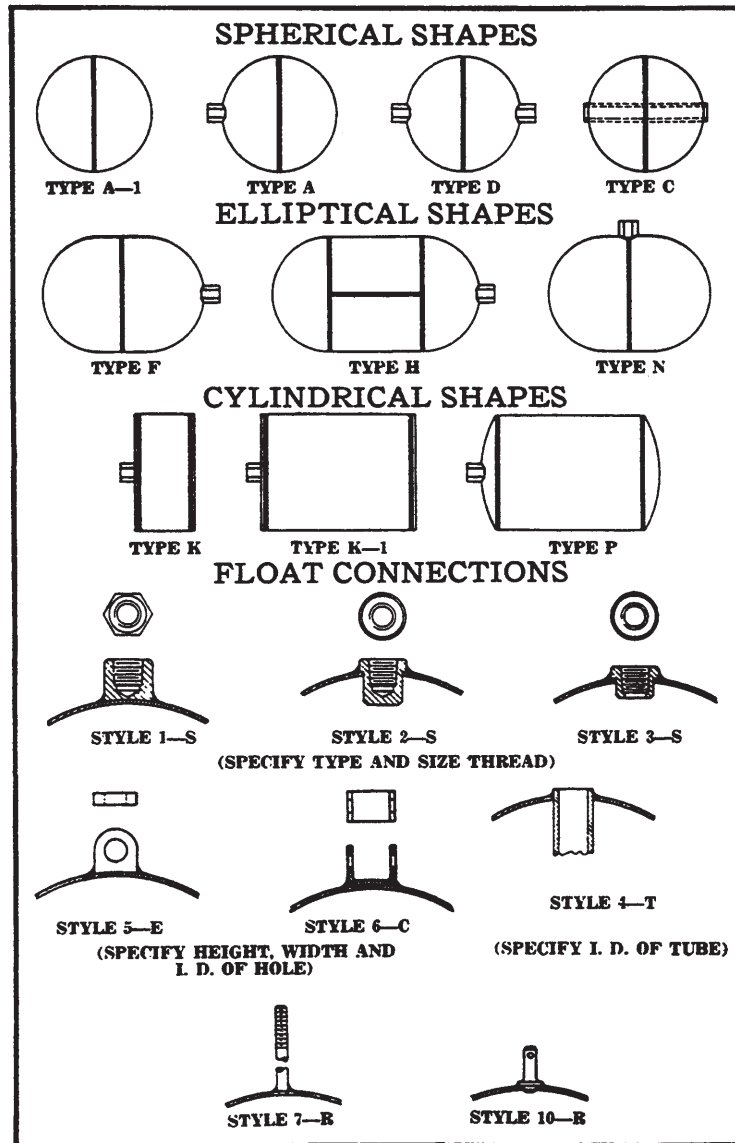
MARKET GRADE STAINLESS STEEL WIRE CLOTH

Mesh	W. & M. Gauge	Decimal Size of Wire Inches	Decimal Size of Opening Inches	Weight Per 100 Sq. Ft. in Lbs.	Open Area
2	16	.063	.437	51.2	76.4%
3	17	.054	.279	56.7	70.1%
4	18	.047	.203	57.6	65.9%
5	19	.041	.159	54.9	63.2%
6	20	.035	.132	48.1	62.7%
8	22	.028	.097	41.1	60.2%
10	23	.025	.075	41.2	56.3%
12	24	.023	.060	42.2	51.8%
14	25	.020	.051	37.2	51.0%
16	26	.018	.0445	34.5	50.7%
18	27	.017	.0386	34.8	48.3%
20	28	.016	.034	34.4	46.2%
24	30	.014	.0277	31.8	44.2%
30	31	.013	.0203	34.8	40.8%
40	34	.010	.015	27.6	36.0%
50	36	.009	.011	28.4	30.3%
60	39	.0075	.0092	23.7	30.5%
80	45	.0055	.007	16.9	29.6%
90	47	.005	.0061	15.8	31.4%
100	50	.0045	.0055	14.2	30.1%

SPECIAL SCREEN SHAPES AVAILABLE ON DEMAND.

Stainless Steel Floats

MADE TO ORDER, OR STANDARD SIZES



Dia. of Float	Std. Spud Pipe Tap	Approx. Buoyancy in Ounces when completely Submerged in Cold Water (60°F.)							
		U. S. STANDARD GAUGES							
		10	12	14	16	18	20	22	24
2"	1/8"							5	1.0
2 1/2"	1/8"						1.0	1.5	2.0
3"	1/8"					1.5	3.0	3.5	4.5
3 1/2"	1/8"				1.5	4	6	7.5	8.5
4"	1/8"			1	5	8	10	12	13
4 1/2"	1/8"			4	9	13	16	18	20
5"	1/4"			9	14	20	24	26	28
5 1/2"	1/4"			14	21	28	32	35	38
6"	1/4"			24	31	38	44	48	51
6 1/2"	1/4"		14	35	43	52	59	62	
7"	3/8"	2	24	48	58	68	76		
7 1/2"	3/8"	10	36	62	75	85	95		
8"	3/8"	25	54	83	96	108	119		
9"	3/8"	56	90	130	146	162			
10"	3/8"	100	141	190	210	230			
12"	1/2"	247	298	290	390	415			

Dia. of Float	SPHERICAL SHAPES MAXIMUM RECOMMENDED WORKING PRESSURE, PSI							
	U. S. STANDARD GAUGES							
	10	12	14	16	18	20	22	24
2"							900	775
2 1/2"						1000	800	650
3"					1400	875	700	575
3 1/2"				1600	1275	775	600	500
4"			1900	1450	1150	650	525	400
4 1/2"			1700	1325	1025	575	450	350
5"			1550	1200	900	500	375	300
5 1/2"			1375	1100	825	450	325	250
6"		1600	1250	1025	750	350	275	200
6 1/2"		1500	1125	925	650	325	225	
7"	1600	1400	1050	850	600	275		
7 1/2"	1550	1300	925	775	525	250		
8"	1500	1200	875	725	475	200		
9"	1400	1075	775	600	375			
10"	1325	925	650	525	300			
12"	1250	750	550	400				

Stainless Steel Chain, Springs & Accessories

WELDLESS CHAIN 18-8 Stainless Steel

	Name	Size of Wire or Metal	Links per Foot
	#3 Ball	3/32"	100
	#6 Ball	1/8"	75
	#10 Ball	3/16"	50
	#13 Ball	1/4"	25
	#3 Bow-tie	.080"	10 1/2
	#1 Bow-tie	.105"	8
	2/0 Bow-tie	.135"	6 1/2
	2/0 Safety	.018"	27
	1/0 Safety	.023"	25
	#1 Safety	.028"	20
	#8 Sash +	.035"	21
	#25 Sash	.042"	21
	#35 Sash *	.035"	22
	#40 Sash	.042"	22
	#50 Sash	.060"	18
	#65 Sash	.072"	14
	#18 Single Jack	.047"	29
	#16 Single Jack	.0625"	23
	#14 Single Jack	.080"	19
	#12 Single Jack	.105"	16
	#10 Single Jack	.135"	13

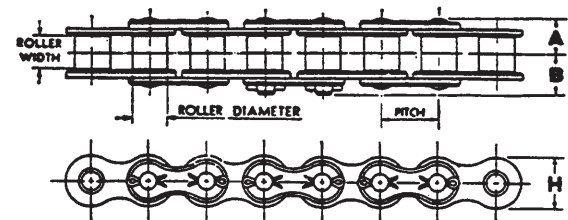
* Also stocked T-316
+ Also stocked Monel



STOCK LIST—WELDED LINK CHAIN

Wire Dia.	Alloy	Inside Link Dim.	Links per Foot
.105	T-304	1 1/4 x 7/32"	10 1/2
1/8	T-316	23/32 x 1/4"	16
9/16	T-316	1 x 3/8"	13
1/4	T-316	1 1/8 x 7/16"	12 1/2
5/16	T-316	1 3/16 x 9/16"	11
3/8	T-316	1 5/16 x 19/32"	9

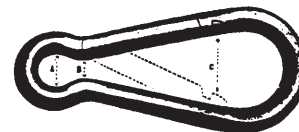
ROLLER CHAIN



STANDARD SERIES DIMENSIONS

Pitch	American Standard Number	Overall Dim. Conn Link		Roller		Pin		
		A	B	D	E	G	H	T
3/4	35	.228	.286	.200	3/8	.181	.434	.050
1 1/2	41	.260	.333	.306	1/2	.141	.385	.050
1 1/2	40	.314	.373	3/4	5/8	.156	.468	.060
2	50	.392	.548	400	3/4	.200	.571	.080
2 1/2	60	.493	.567	1 1/2	1	.234	.679	.094
3	80	.643	.762	3/4	1 1/2	.312	.908	.125

SAFETY SPRING HOOKS, #2450-S



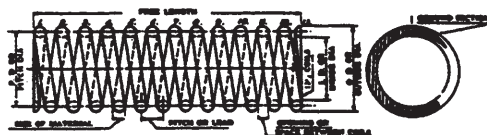
Molybdenum-bearing T-316 Stainless Steel

Spring-loaded, interlocking. Ideal for small boats, water skiing, mooring, motor safety line, trailer, winch rope, etc.

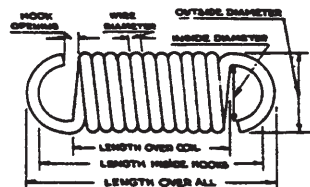
Size & Length	"A"	"B"	"C"
1/4" x 2 1/2"	5/16"	3/16"	5/16"
5/16" x 3 1/8"	7/16"	5/16"	3/8"
3/8" x 4"	9/16"	3/8"	1/2"
7/16" x 4 3/4"	1 1/16"	7/16"	1 1/16"

STAINLESS STEEL SPRINGS

COMPRESSION TYPE



EXTENSION TYPE



ALL SPRINGS MADE ON SPECIAL ORDER
PRICES ON APPLICATION

No. 7350-S QUICK LINKS T-316

For quick connection of chain, cable and wire rope. No tools required. Easily tightened with fingers. Can be used over and over again. Has tensile of proof coil chain.



Trade Size	Overall Length	Jaw Opening	Wgt. Per 100	Average Tensile Lbs.
1/8"	1-3/8"	3/16"	2	550
3/16"	1-7/8"	1/4"	5	1,870
1/4"	2-1/4"	9/32"	9	2,760
5/16"	2-15/16"	3/8"	19	7,050
3/8"	3-1/8"	7/16"	25	7,950
1/2"	4-1/8"	19/32"	57	12,800

Stainless Steel Bolts, Fasteners & U-Bolts

stainless machine bolts & fasteners



American Standard hexagon head bolts with American Standard hexagon nuts are stocked for immediate shipment in sizes $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1 and $1\frac{1}{8}$ inch.

Lengths of bolts are measured from under head to extreme point.

ORDERING: Specify bolt size, name, length and alloy.

stainless hexagon nuts

American Standard hexagon nuts — sizes $\frac{1}{4}$ thru $1\frac{1}{2}$ inch.

American Standard heavy hexagon flat nuts — sizes $1\frac{3}{4}$ thru $3\frac{3}{4}$ inch.

ORDERING: Specify bolt size, name.

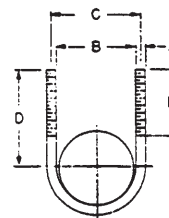
dimensions (inches)

bolt size	width	thickness
$\frac{1}{4}$	$\frac{7}{16}$	$\frac{15}{64}$
$\frac{3}{8}$	$\frac{9}{16}$	$\frac{11}{32}$
$\frac{1}{2}$	$\frac{3}{4}$	$\frac{29}{64}$
$\frac{5}{8}$	$\frac{15}{16}$	$\frac{9}{16}$
$\frac{3}{4}$	$1\frac{1}{8}$	$\frac{43}{64}$
$\frac{7}{8}$	$1\frac{5}{16}$	$\frac{25}{32}$
1	$1\frac{1}{2}$	$\frac{57}{64}$
$1\frac{1}{4}$	$1\frac{7}{8}$	$\frac{13}{32}$
$1\frac{3}{8}$	$2\frac{1}{16}$	$\frac{113}{64}$
$1\frac{1}{2}$	$2\frac{1}{4}$	$\frac{15}{16}$
$1\frac{3}{4}$	$2\frac{3}{4}$	$\frac{125}{32}$
2	$3\frac{3}{8}$	$\frac{21}{32}$
$2\frac{1}{4}$	$3\frac{1}{2}$	$\frac{219}{64}$
$2\frac{1}{2}$	$3\frac{7}{8}$	$\frac{235}{64}$
$2\frac{3}{4}$	$4\frac{1}{4}$	$\frac{213}{16}$
3	$4\frac{3}{4}$	$\frac{31}{16}$
$3\frac{1}{4}$	5	$\frac{35}{16}$
$3\frac{1}{2}$	$5\frac{3}{8}$	$\frac{39}{16}$
$3\frac{3}{4}$	$5\frac{3}{4}$	$\frac{313}{16}$

■ Furnished with 8 UN series threads.

*Other Types Available Upon Request

standard weight U-bolt fig. 30



SIZE RANGE: $\frac{1}{2}$ to 10 inch pipe and conduit.

MATERIAL: Stainless steel 304L & 316L

SERVICE: Recommended for support, or guide of relatively light loads. Normally used with two hex nuts.

MAXIMUM TEMPERATURE: 650°F.

ORDERING: Specify rod size x pipe size, figure number, name. Hex nuts must be ordered separately.

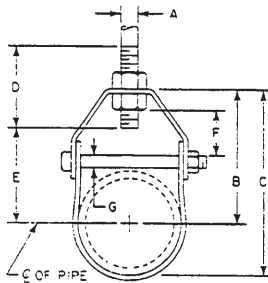
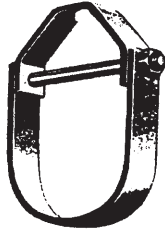
loads • weights • dimensions (inches)

pipe size	max recom load, lb	wgt app'x lbs each	rod size A	B	C	D	E
$\frac{1}{2}$	485	.06	$\frac{1}{4}$	$\frac{15}{16}$	$\frac{13}{16}$	$\frac{115}{16}$	$1\frac{3}{4}$
$\frac{3}{8}$	485	.07	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$2\frac{1}{16}$	$1\frac{3}{4}$
1	485	.07	$\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{8}$	$2\frac{3}{16}$	$1\frac{3}{4}$
$1\frac{1}{4}$	485	.08	$\frac{1}{4}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{8}$	$1\frac{3}{4}$
$1\frac{1}{2}$	485	.09	$\frac{1}{4}$	2	$2\frac{1}{4}$	$2\frac{7}{16}$	$1\frac{3}{4}$
2	485	.10	$\frac{1}{4}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{11}{16}$	$1\frac{3}{4}$
$2\frac{1}{2}$	1220	.28	$\frac{3}{8}$	$2\frac{15}{16}$	$3\frac{5}{16}$	$3\frac{1}{16}$	2
3	1220	.31	$\frac{3}{8}$	$3\frac{9}{16}$	$3\frac{15}{16}$	$3\frac{3}{8}$	2
$3\frac{1}{2}$	1220	.35	$\frac{3}{8}$	$4\frac{1}{16}$	$4\frac{7}{16}$	$3\frac{3}{8}$	2
4	1220	.38	$\frac{3}{8}$	$4\frac{9}{16}$	$4\frac{15}{16}$	$3\frac{7}{8}$	2
5	1220	.45	$\frac{3}{8}$	$5\frac{5}{8}$	6	$4\frac{9}{16}$	$2\frac{1}{4}$
6	2260	.95	$\frac{1}{2}$	$6\frac{3}{4}$	$7\frac{1}{4}$	$5\frac{1}{16}$	$2\frac{1}{4}$
8	2260	1.2	$\frac{1}{2}$	$8\frac{3}{4}$	$9\frac{1}{4}$	$6\frac{1}{16}$	$2\frac{1}{4}$
10	3620	2.3	$\frac{5}{8}$	$10\frac{7}{8}$	$11\frac{1}{2}$	$7\frac{1}{4}$	$2\frac{1}{2}$

*Rod sizes may vary.

Stainless Steel Adjustable Clevis Hanger

adjustable clevis hanger*
fig. 25



NOTE: "Punched holes in bottom of clevis hangers are for rivoting insulation shields to clevis hanger."

SIZE RANGE: ½ through 30 inch.

clevis

MATERIAL: Stainless steel 304L & 316L.

SERVICE: Recommended for the suspension of stationary pipe lines.

MAXIMUM TEMPERATURE: 650°F.

APPROVALS: Underwriters' Laboratories listed and Factory Mutual approved for ¾ through 8 inch pipe. Complies with Federal Specification WW-H-171E (Type 1) and Manufacturers Standardization Society SP-69 (Type 1).

INSTALLATION: Hanger load nut *above* clevis must be tightened securely to assure proper hanger performance. When an oversized clevis is used, a nipple should be placed over the clevis bolt as a spacer to assure that the lower U-strap will not move in on the bolt.

ADJUSTMENT: Vertical adjustment without removing pipe may be made from 1½ to 5 inches, varying with the size of clevis. Tighten upper nut after adjustment.

FEATURES:

- Design has yoke on outside of lower U-strap so yoke cannot slide toward center of bolt, thus bending of bolt is minimized.
- Sizes 5-inch and up have rod and two nuts instead of bolt and nut; thread length on clevis rod is such that the thread locks the nuts in place, and threads are not in shear plane.
- The unique new tear drop shape design eases making hanger rod measurements and reduces assembly time by helping to maintain the hanger in its upright - final installed position. This feature is of particular benefit on the larger size clevis hangers.

ORDERING: Specify pipe size, figure number, name.

loads • weights • dimensions (inches)*

pipe size	max. recom. load, lb	weight (approx) lbs each	size of steel		A	B	C	D	rod take out E	adjustment F	G
			upper	lower							
½	610	.25	½ x 1	½ x 1	¾	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1½	1 ¹ / ₈	¾	¼
¾	610	.26	½ x 1	½ x 1	¾	1 ¹⁵ / ₁₆	2 ⁹ / ₁₆	1½	1 ¹ / ₈	½	¼
1	610	.29	½ x 1	½ x 1	¾	2 ¹ / ₈	2 ¹³ / ₁₆	1¾	1 ¹ / ₈	¾	¼
1¼	610	.33	½ x 1	½ x 1	¾	2 ⁵ / ₁₆	3 ³ / ₁₆	1¾	1½	¾	¼
1½	610	.36	½ x 1	½ x 1	¾	2 ¹¹ / ₁₆	3 ¹¹ / ₁₆	2	1 ⁷ / ₈	¾	¼
2	610	.42	½ x 1	½ x 1	¾	3 ³ / ₁₆	4 ⁷ / ₁₆	2¼	2 ³ / ₈	1 ¹ / ₈	¼
2½	1130	.72	½ x 1¼	½ x 1¼	½	3 ⁷ / ₈	5 ³ / ₈	2½	3	1 ⁵ / ₁₆	¾
3	1130	.84	½ x 1¼	½ x 1¼	½	4 ¹¹ / ₁₆	6½	3	3¾	1 ¹³ / ₁₆	¾
3½	1130	.98	½ x 1¼	½ x 1¼	½	4 ¹⁵ / ₁₆	7	3	4	1 ¹³ / ₁₆	¾
4	1430	1.18	½ x 1¼	½ x 1¼	¾	5 ³ / ₁₆	7 ⁹ / ₁₆	3¼	4 ¹ / ₈	1 ¹¹ / ₁₆	¾
5	1430	1.53	¾ x 1¼	¾ x 1¼	¾	6 ¹ / ₁₆	8 ¹⁵ / ₁₆	3½	4 ⁷ / ₈	1 ⁷ / ₈	½
6	1940	2.42	¾ x 1½	¾ x 1½	¾	6 ¹³ / ₁₆	10 ³ / ₁₆	3¾	5½	1 ⁷ / ₈	½
8	2000	3.48	¾ x 1¾	¾ x 1¾	¾	8 ¹ / ₈	12½	4	6 ⁷ / ₈	2 ¹ / ₁₆	¾
10	3600	8.8	¾ x 1¾	¾ x 1¾	¾	9½	15	4	8	1 ⁷ / ₈	¾
12	3800	11.4	¾ x 2	¾ x 2	¾	11 ¹ / ₈	17 ¹ / ₈	4½	9½	2 ⁵ / ₁₆	¾
14	4200	14.8	¾ x 2	¾ x 2	1	12¾	19½	5¼	10 ³ / ₈	2 ¹¹ / ₁₆	¾
16	4600	21.0	¾ x 2½	¾ x 2½	1	13 ¹³ / ₁₆	21 ¹⁵ / ₁₆	5½	12	2¾	1
18	4800	24.4	¾ x 2½	¾ x 2½	1	15¾	24 ³ / ₈	6½	13 ³ / ₈	3 ³ / ₈	1
20	4800	42.6	¾ x 3	¾ x 3	1¼	17 ⁷ / ₈	27½	7	15¼	3 ⁷ / ₈	1¼
24	4800	48.4	¾ x 3	¾ x 3	1¼	19¾	31¾	7¼	17½	3 ⁷ / ₈	1¼
30	6000	69.5	¾ x 3	¾ x 3	1¼	24	39 ¹ / ₈	8¼	21¾	4 ⁷ / ₈	1 ¹ / ₈

*Other Hanger Types Available Upon Request

*Dimensions may vary with manufacturer

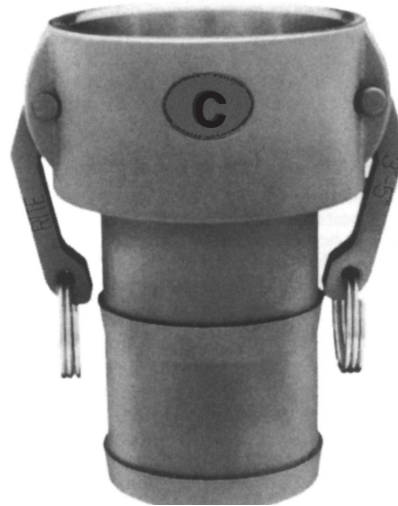
Stainless Steel Quick Couplings

SAVE LABOR, TIME AND MATERIAL



Part A Adaptor Female Thread

Size	½"	¾"	1"	1¼"	1½"	2"
Part No.	050A	075A	100A	125A	150A	200A
Size	2½"	3"	4"	5"	6"	8"
Part No.	250A	300A	400A	500A	600A	800A



Part C Hose Shank Coupler

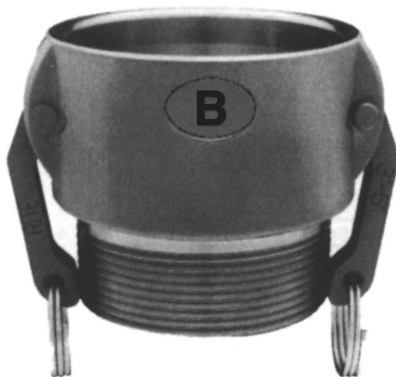
Size	½"	¾"	1"	1¼"	1½"	2"
Part No.	050C	075C	100C	125C	150C	200C
Size	2½"	3"	4"	5"	6"	8"
Part No.	250C	300C	400C	500C	600C	800C

Part B Coupler Male Thread

Size	½"	¾"	1"	1¼"	1½"	2"
Part No.	050B	075B	100B	125B	150B	200B
Size	2½"	3"	4"	5"	6"	
Part No.	250B	300B	400B	500B	600B	

Part F Adaptor Male Thread

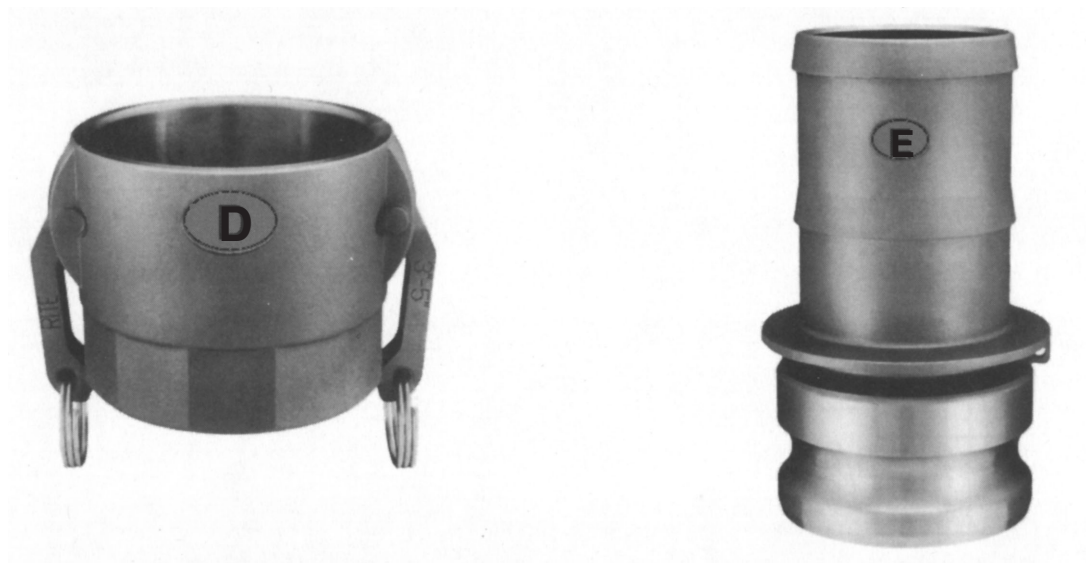
Size	½"	¾"	1"	1¼"	1½"	2"
Part No.	050F	075F	100F	125F	150F	200F
Size	2½"	3"	4"	5"	6"	
Part No.	250F	300F	400F	500F	600F	



AVAILABLE IN 316SS, ALUMINUM, BRASS IN ALL SIZES AND TYPES SHOWN

Stainless Steel Quick Couplings (cont'd)

SAVE LABOR, TIME AND MATERIAL



Part D Coupler Female Thread

Size	½"	¾"	1"	1¼"	1½"	2"
Part No.	050D	075D	100D	125D	150D	200D
Size	2½"	3"	4"	5"	6"	8"
Part No.	250D	300D	400D	500D	600D	800D

Part E Hose Shank Adaptor

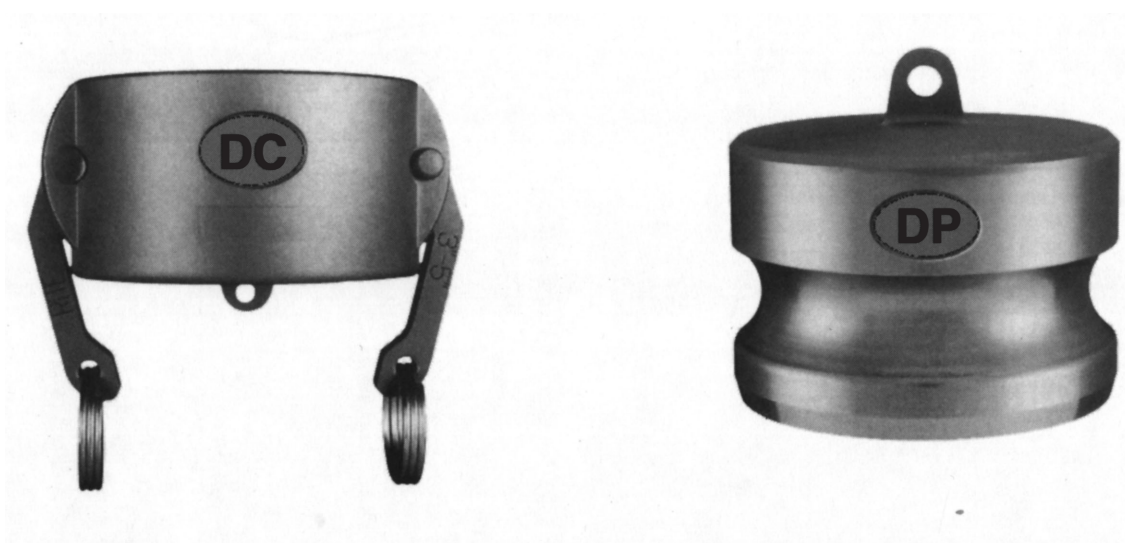
Size	½"	¾"	1"	1¼"	1½"	2"
Part No.	050E	075E	100E	125E	150E	200E
Size	2½"	3"	4"	5"	6"	8"
Part No.	250E	300E	400E	500E	600E	800E

Part DC Dust Cap For adaptors

Size	½"	¾"	1"	1¼"	1½"	2"
Part No.	050DC	075DC	100DC	125DC	150DC	200DC
Size	2½"	3"	4"	5"	6"	8"
Part No.	250DC	300DC	400DC	500DC	600DC	800DC

Part DP Dust Plug For Couplers

Size	½"	¾"	1"	1¼"	1½"	2"
Part No.	050DP	075DP	100DP	125DP	150DP	200DP
Size	2½"	3"	4"	5"	6"	8"
Part No.	250DP	300DP	400DP	500DP	600DP	800DP



AVAILABLE IN 316SS, ALUMINUM, BRASS IN ALL SIZES AND TYPES SHOWN