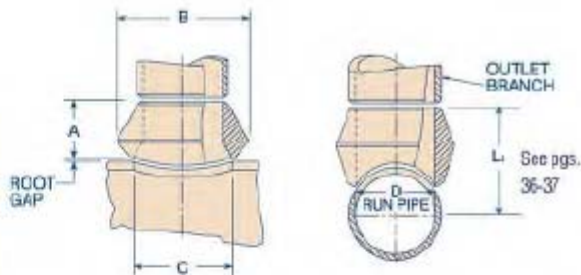


**SIZE ON SIZE**

**STANDARD WEIGHT, RUN AND BRANCH**

**FORGED**



Outlet Size Inches	Dimensions				Approx. Weight Pounds
	A	B	C	D	
1/2	3/4	1-3/8	15/16	5/8	.15
3/4	7/8	1-5/8	1-3/16	13/16	.25
1	1-1/16	2	1-7/16	1-1/32	.40
1-1/4	1-1/4	2-3/8	1-3/4	1-3/8	.70
1-1/2	1-5/16	2-7/8	2	1-5/8	.80
2	1-1/2	3-1/2	2-9/16	2-1/16	1.50
2-1/2	1-5/8	4-1/16	3	2-7/16	2.25
3	1-3/4	4-13/16	3-1/16	3-1/16	3.75
3-1/2	2	5-3/8	3-7/8	3-9/16	5.00
4	2	6	4-3/4	4	6.70
5	2-1/4	7-1/8	5-9/16	5-1/16	8.50
6	2-3/8	8-1/2	6-1/16	6-1/16	14.00
8	2-3/4	10-3/8	8-1/16	7-15/16	28.00
10	3-1/16	12-9/16	10-13/16	10	39.00
12	3-3/8	14-7/8	12-13/16	12	65.00
14	3-1/2	16-1/8	14-1/16	13-1/4	70.00
16	3-11/16	18-1/4	16-1/16	15-1/4	92.00
18	4-1/16	20-3/4	18-5/8	17-1/4	125.00
20	4-5/8	23-1/16	20-1/16	19-1/4	175.00
24	5-3/8	27-7/8	25-1/8	23-1/4	280.00
30	5-3/8	34-1/16	30-7/16	29-1/4	440.00
36	5-3/8	34-1/16	36-1/2	35-1/4	1180.00

Footnotes apply to pages 0 & 9.

Each outlet size listed is available to fit any run curvature.

Larger Outlet Sizes Available on Application.

Design per MSS-SP-97. BW ends per B16.9 and B16.25.

RUN PIPE SIZES

Outlet sizes 6" and less fit a number of run pipe sizes, and the fittings are marked accordingly. See page 38 for run pipe size combination table(s). Standard weight fittings are the same as schedule 40 fittings through 10". Pipe schedule numbers and weight designators are in accordance with ASME B36.10.

SCHEDULES

A schedule 40 Weldolet for sizes 12" and larger is available.

FLATS

A flat Weldolet for use on welding caps, elliptical heads and flat surfaces is available.

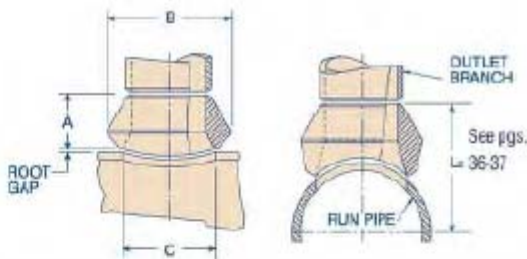
ORDERING

When ordering a Weldolet fitting, see page 7.

**REDUCING AND FLAT SIZE**

**EXTRA STRONG, RUN AND BRANCH**

**FORGED**



Outlet Size Inches	Dimensions			Approx. Weight Pounds
	A	B	C	
1/8	5/8	1	5/8	.10
1/4	5/8	1	5/8	.10
3/8	3/4	1-1/4	3/4	.15
1/2	3/4	1-3/8	15/16	.20
3/4	7/8	1-3/4	1-3/16	.30
1	1-1/16	2-1/8	1-7/16	.50
1-1/4	1-1/4	2-9/16	1-3/4	.90
1-1/2	1-5/16	2-7/8	2	1.10
2	1-1/2	3-1/2	2-9/16	1.75
2-1/2	1-5/8	4-1/16	3	2.60
3	1-3/4	4-13/16	3-11/16	4.10
3-1/2	1-7/8	5-3/8	4	5.60
4	2	6	4-3/4	6.40
5	2-1/4	7-1/16	5-9/16	10.40
6	3-1/16	8-7/8	6-11/16	23.00
8	3-7/8	11-1/2	8-11/16	37.00
10	3-11/16	12-3/4	10-7/16	46.00
12	4-1/16	14-15/16	12-1/2	61.00
14	3-15/16	17	13-13/16	70.00
16	4-3/16	13-3/8	15-7/8	102.00
18	4-3/8	23-3/8	17-15/16	130.00
20	4-11/16	22-15/16	20-1/16	158.00
24	5-1/2	27-7/8	24-3/16	290.00
26	5-3/4	30-1/8	27-1/4	350.00

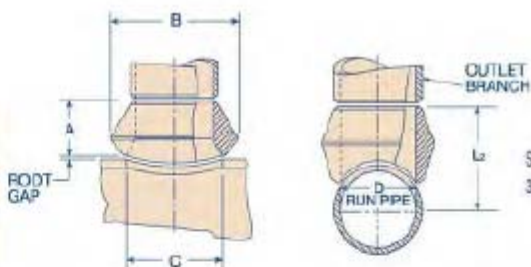
30, 36 and larger sizes available on application.

See footnotes at bottom of page 11.

**SIZE ON SIZE**

**EXTRA STRONG, RUN AND BRANCH**

**FORGED**



See pgs.  
36-37



Outlet Size Inches	Dimensions				Appx. Weight Pounds
	A	B	C	D	
1/2	3/4	1-3/8	15/16	5/8	.15
3/4	7/8	1-5/8	1-3/16	13/16	.25
1	1-1/16	2	1-7/16	1-1/32	.40
1-1/4	1-1/4	2-7/16	1-3/4	1-3/8	.70
1-1/2	1-5/16	2-7/8	2	1-5/8	.80
2	1-1/2	3-1/2	2-9/16	2-1/16	1.60
2-1/2	1-5/8	4-1/16	3	2-7/16	2.50
3	1-3/4	4-13/16	3-11/16	3-1/16	4.10
3-1/2	2	5-3/8	3-7/8	3-9/16	5.10
4	2	6	4-3/4	4	7.50
5	2-1/4	7-1/8	5-9/16	5-1/16	9.50
6	3-1/16	8-7/8	6-11/16	6-1/16	15.00
8	3-7/8	10-5/8	8-11/16	7-5/8	32.00
10	3-1/2	12-7/8	10-7/16	9-3/4	46.00
12	3-15/16	15-3/16	13	11-3/4	61.00
14	4-1/8	16-11/16	14-5/16	13	75.00
16	4-7/16	18-7/8	16-1/2	15	115.00
18	4-11/16	21-1/8	18-5/8	17	130.00
20	5	23-3/8	20-13/16	19	187.00
24	5-1/2	27-7/8	25-1/8	23	316.00
26	5-3/4	30-1/8	27-1/4	25	370.00

30, 36 and larger sizes available on application.

Footnotes apply to pages 10 & 11.

Each outlet size listed is available to fit any run curvature.

Design per MSS-SP-07. BW ends per B16.9 and B16.25.

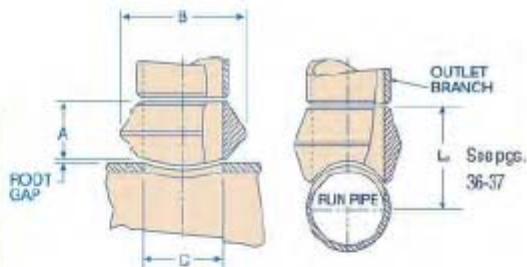
RUN PIPE SIZES	Outlet sizes 5" and less fit a number of run pipe sizes, and the fittings are marked accordingly. See page 38 for run pipe size combination table(s).
SCHEDULES	Extra strong fittings are the same as schedule 80 through 8". Pipe schedule numbers and weight designations are in accordance with ASME B31.10. A schedule 80 Weldolet for sizes 10" and larger is available. Dimensions and prices on application.
FLATS	A flat Weldolet for use on welding caps, elliptical heads and flat surfaces is available.
ORDERING	When ordering a Weldolet fitting, see page 7.

**SIZE ON SIZE**

**SCHEDULE 160 & DOUBLE EXTRA STRONG**

**RUN AND BRANCH**

**FORGED**



Outlet Size Inches	Dimensions			Appx. Weight Pounds
	A	B	C	
1/2	1-1/8	1-3/8	9/16	.25
3/4	1-1/4	1-3/4	3/4	.70
1	1-1/2	2	1	.80
1-1/4	1-3/4	2-7/16	1-5/16	1.25
1-1/2	2	2-3/4	1-1/2	1.75
2	2-3/16	3-3/16	1-11/16	2.15
2-1/2	2-7/16	3-13/16	2-1/8	3.40
3	2-7/8	4-3/4	2-7/8	6.35
4	3-5/16	6	3-7/8	10.50
5	3-11/16	7-3/8	4-13/16	14.25
6	4-1/8	8-11/16	5-3/4	30.25
8	<b>For dimensions see Heavy Wall Weidollet, page 14.</b>			
10				
12				
14				
16				
18				
20				
24				

Footnotes apply to pages 12 & 13.

Each outlet size listed is available to fit any run size.

Larger sizes available on application.

Design per MSS-SP-97, BW ends per B16.9 and B16.25.

**RUN PIPE SIZES** Outlet sizes 4" and less fit a number of run pipe sizes, and the fittings are marked accordingly. See page 38 for run pipe size combination table(s).

**FLATS** A flat Weidollet for use on welding caps, elliptical heads and flat surfaces is available.

**ORDERING** When ordering a Weidollet fitting, see page 7.

# HEAVY WALL

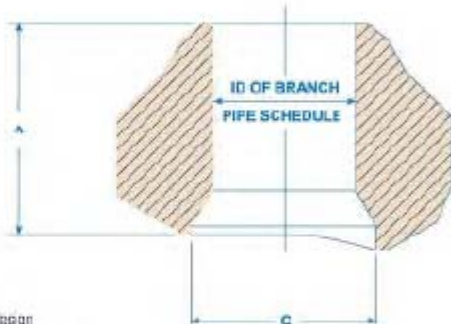
# FORGED



The Heavy Wall Forged Necklet® is an integrally reinforced branch connection. It provides the economical and engineering answer to the problem of welding outlet fittings on high pressure, high temperature piping and pressure vessels.



TYPE 1



TYPE 2

Type 1 - Straight thru bore design

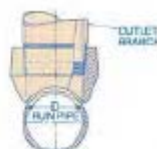
Type 2 - Conventional tapered bore design

Nom Wall Thickness	3/4		1		1-1/4		1-1/2		1-3/4		2		2-1/4		2-1/2		2-3/4		3	
	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C
3	238	300	330	380	336	394	388	380	414	380	496	380	5	300	540	380	576	380	616	380
3/2	210	330	334	389	370	379	389	470	389	493	389	510	529	540	389	5	330	540	389	
1	357	380	338	385	340	383	348	385	434	385	535	385	541	541	385	548	385	646	385	
5	334	380	338	410	4	387	414	417	438	417	541	417	541	417	541	417	541	417	541	
5	448	570	4132	581	440	579	4138	570	541	570	644	570	644	570	644	570	714	570	710	
1	437	705	454	725	428	705	520	725	534	725	612	725	612	742	725	632	705	816	725	
1	414	370	4232	680	5	387	546	387	546	387	646	387	646	387	646	387	646	387	646	
2	489	1200	5402	1130	540	1125	5418	1125	646	1125	1206	1125	1206	1125	1206	1125	1206	1125	1206	
5	412	5	541	5	540	1200	5396	1200	646	1200	1206	1200	1206	1200	1206	1200	1206	1200	1206	
5	1116	5	573	5	5	1426	678	570	561	1430	718	1430	718	1430	812	1430	812	1430	812	
5	348	1	341	1	340	612	612	612	646	612	646	612	646	612	646	612	646	612	646	
2	598	5	538	5	7	1707	746	538	720	1708	802	1708	802	1708	802	1708	802	1708	802	
3	410	2	754	31	8	1161	870	246	832	246	1136	246	1136	246	1136	246	1136	246	1136	

# THREDOLET® REDUCING, SIZE ON SIZE AND FLAT

CL 3000

CL 6000



## REDUCING SIZES

	Outlet Size Inches	Dimensions			Appx. Weight Pounds
		A	B	C	
CL 3000	1/8	3/4	1	5/8	.10
	1/4	3/4	1	5/8	.10
	3/8	1 2/16	1 1/4	3/4	.20
	1/2	1	1 1/32	15/16	.25
	3/4	1 1/16	1 23/32	1 5/32	.35
	1	1 5/16	2	1 7/16	.60
	1 1/4	1 5/16	2 9/16	1 3/4	.90
	1 1/2	1 3/8	2 27/32	2	1.00
	2	1 1/2	3 15/32	2 9/16	1.75
	2 1/2	1 13/16	4 1/16	3	3.00
	3	2	4 13/16	3 11/16	4.35
	3 1/2	2 1/8	5 7/32	4	5.75
CL 6000	4	2 1/4	5 31/32	4 3/4	7.10
	5	2 5/8	7 5/16	5 9/16	12.00
	6	2 3/4	8 5/8	6 11/16	15.30
	1/4	1 1/8	1 11/32	9/16	.30
	3/8	1 1/8	1 11/32	9/16	.30
	1/2	1 1/4	1 23/32	3/4	.45
	3/4	1 7/16	1 51/64	1	.75
	1	1 9/16	2 7/16	1 5/16	1.25
	1 1/4	1 5/8	2 23/32	1 1/2	1.60
	1 1/2	1 11/16	3 1/4	1 15/16	1.55
2	2 1/16	4 1/2	2 3/4	5.00	

## SIZE ON SIZE

	Outlet Size Inches	Dimensions				Appx. Weight Pounds
		A	B	C	D	
CL 3000	1/2	1	1 3/8	1 5/16	5/8	.15
	3/4	1 1/16	1 3/8	1 3/16	13/16	.25
	1	1 5/16	2	1 7/16	1 1/16	.45
	1 1/4	1 5/16	2 3/8	1 3/4	1 3/8	.70
	1 1/2	1 3/8	2 7/8	2	1 5/8	.90
	2	1 1/2	3 1/2	2 9/16	2 1/16	1.40
	2 1/2	1 29/32	4 1/16	3	2 1/2	2.50
	3	2	4 13/16	3 11/16	3 1/16	4.30
	3 1/2	2 1/8	5 3/8	4 7/16	3 9/16	4.50
	4	2 1/4	6 1/16	4 3/4	4 1/16	6.80
	5	2 7/16	7 1/4	5 1/4	5 1/4	9.20
	6	2 3/4	8 11/16	5 3/4	5 3/4	15.70

Each outlet size listed is available to fit any run curvature. Threaded ends are in accordance with ANSI/ASME B1.20.1 Design per MSS-SP-97

RUN PIPE SIZES: Outlet sizes noted above fit a number of run pipe sizes, and the fittings are marked accordingly.

See page 36 for run pipe size combination table(s).

FLATS: A flat Thredolet for use on welding caps, elliptical heads and flat surfaces is available.

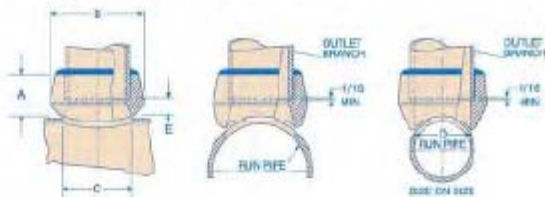
ORDERING

When ordering a Thredolet fitting, see page 7.

# SOCKOLET® REDUCING, SIZE ON SIZE AND FLAT

CL 3000

CL 6000



## REDUCING SIZES

	Outlet Size Inches	Dimensions					Appx. Weight Pounds
		A	B	C	D	E	
CL 3000	1/8	3/4	1	5/8	.269	9/32	.10
	1/4	3/4	1	5/8	.364	9/32	.10
	3/8	13/16	1-1/4	3/4	.463	7/16	.20
	1/2	1	1-13/32	29/32	.622	9/16	.30
	3/4	1-1/16	1-23/32	1-5/32	.824	9/16	.35
	1	1-3/16	2	1-7/16	1.049	25/32	.60
	1-1/4	1-5/16	2-9/16	1-3/4	1.380	3/4	.85
	1-1/2	1-9/8	2-27/32	2	1.610	3/4	1.00
	2	1-1/2	3-15/32	2-9/16	2.067	13/16	1.60
	2-1/2	1-9/16	4-1/16	3	2.469	3/4	2.75
	3	1-3/4	4-13/16	3-11/16	3.068	15/16	3.80
	3-1/2	2-1/8	5-7/32	4	3.548	1	4.30
CL 6000	4	1-7/8	5-31/32	4-3/4	4.026	1-1/16	7.25
	5	2-5/8	7-5/16	5-9/16	5.047	1-11/32	12.00
	6	2-3/4	8-5/8	6-11/16	6.065	1-13/32	14.50
	1/2	1-1/4	1-23/32	3/4	.466	7/8	.50
	3/4	1-7/16	1-61/64	1	.614	7/8	.80
	1	1-9/16	2-7/16	1-5/16	.815	15/16	1.30
	1-1/4	1-3/8	2-23/32	1-1/2	1.160	13/16	1.60
	1-1/2	1-11/16	3-1/4	1-15/16	1.338	7/8	2.00
	2	2-1/16	4-1/32	2-3/4	1.689	1-3/16	5.15

## SIZE ON SIZE

	Outlet Size Inches	Dimensions					Appx. Weight Pounds
		A	B	C	D	E	
CL 3000	1/2	1	1-3/8	15/16	.622	17/32	.15
	3/4	1-1/16	1-5/8	1-3/16	.824	15/32	.25
	1	1-5/16	2	1-7/16	1.049	23/32	.45
	1-1/4	1-5/16	2-3/8	1-3/4	1.380	9/16	.85
	1-1/2	1-9/8	2-7/8	2	1.610	21/32	.85
	2	1-1/2	3-1/2	2-9/16	2.067	13/16	1.40
	2-1/2	1-9/16	4-1/16	3	2.469	3/4	2.25
	3	1-3/4	4-13/16	3-11/16	3.068	15/16	3.75
	3-1/2	1-11/16	5-3/8	4-7/16	3.548	11/16	4.30
	4	1-7/8	6-1/16	4-3/4	4.026	1-1/16	6.50
	5	2-7/16	7-1/4	5-1/4	5.047	1	9.00
	6	2-11/16	8-11/16	6-1/16	6.065	1-3/16	15.50

Each outlet size listed is available to fit any run curvature.

Socket dimensions are in accordance with ASME B16.11. Design per MSS-8P-91.

### RUNPIPE SIZES

Outlet sizes noted above fit a number of run pipe sizes, and the fittings are marked accordingly. See page 38 for run pipe size combination table(s).

### FLATS

A flat Sockolet for use on welding caps, elliptical heads and flat surfaces is available.

### ORDERING

When ordering a Sockolet fitting, see page 7.