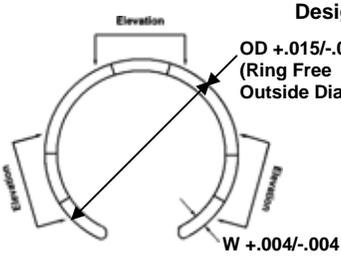


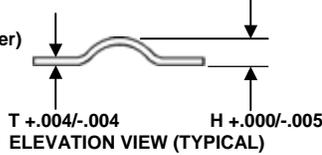
# Pipe Welding Inserts



**1/16" Minimum Code  
Required Gap, Without measuring,  
Using GAP-A-LET®  
Socket Weld Contraction Rings  
Prevents Cracked Welds due to Improper  
Gapping**



**Design Data**



## GAP-A-LET SOCKET WELD CONTRACTION RINGS

The Common Sense approach to Quick, Safe socket welds  
Material: 316L Stainless Steel (Call for other alloys) – All dimensions are in inches.  
Width designed for minimum pipe wall schedules listed in American Standard B36.10-  
B36.19. Commercial Construction Codes: ANSI, ASME; Military Std. NAVSEA-250 –  
1500, Military Std. 278, Military Std. 22

Part No.	Price/20pk	NPS	OD	W	T
15-1/4NPS	\$35.00	1/4	.600	.070	.025
15-3/8NPS	\$35.00	3/8	.730	.070	.025
15-1/2NPS	\$35.00	1/2	.880	.070	.025
15-3/4NPS	\$35.00	3/4	1.110	.070	.025
15-1NPS	\$35.00	1	1.385	.105	.030
15-1-1/4NPS	\$35.00	1-1/4	1.780	.105	.030
15-1-1/2NPS	\$35.00	1-1/2	2.020	.105	.030
15-2NPS	\$35.00	2	2.580	.105	.030
15-2-1/2NPS	\$35.00	2-1/2	3.010	.105	.030
15-3NPS	CALL	3	3.885	.105	.030
15-3-1/2NPS	CALL	3-1/2	4.150	.105	.030
15-4NPS	CALL	4	5.110	.103	.040
15-5NPS	CALL	5	5.880	.103	.040



### Robvon Types



**Robvon "CCC" Backing Ring**

Designed for quick easy joint alignment where the variation in inside diameters is relatively great

Pins (nubs) allow close tolerance fit-up and Clean Strike off.



**CC Backing Ring**

Ball (nub) use where inside pipe diameter is slightly out of round. Can be chipped off or left intact to be melted into the first root pass.

**Ordering Information :** Specify Quantity  
NPS & Schedule or Tubing O.D. & Wall,  
Backing Ring Type – CCC, CC or Plain  
Material & grade

**CALL FOR QUOTE**



**Plain Ring**

Designed to manually set root gap

Backing Rings qualified for nuclear work manufactured under 10CFR50 Part 21.

All Rings marked on inside diameter: P Size, Sch., Heat No., Material Spec.

### General Backing Ring Weight & Dimensions

Nom. Pipe Size or Tube OD	Num. of Root of Opening Spacers	Dia. of Spacers	Ring Thickness	Ring Width	Width of Land	Ring Weight (lb.)
1"	3	1/8"	3/32"	5/8"	3/8"	.052
1 1/4"	3	1/8"	3/32"	5/8"	3/8"	.069
1 1/2"	3	1/8"	3/32"	5/8"	3/8"	.078
2"	3	1/8"	3/32"	5/8"	3/8"	.109
2 1/2"	3	1/8"	3/32"	5/8"	3/8"	.129
3"	3	3/16"	3/32"	5/8"	3/8"	.157
3 1/2"	3	3/16"	3/32"	5/8"	3/8"	.180
4"	3	3/16"	3/32"	5/8"	3/8"	.203
5"	4	3/16"	1/8"	1"	5/8"	.520
6"	4	3/16"	1/8"	1"	5/8"	.625
8"	4	3/16"	1/8"	1"	5/8"	.828
10"	4	3/16"	1/8"	1"	5/8"	1.068
12"	5	3/16"	1/8"	1"	5/8"	1.269
14"	5	3/16"	1/8"	1"	5/8"	1.403
16"	5	3/16"	1/8"	1"	5/8"	1.616
18"	6	3/16"	1/8"	1"	5/8"	1.830
20"	6	3/16"	1/8"	1"	5/8"	2.043
22"	6	3/16"	1/8"	1"	5/8"	2.257
24"	6	3/16"	1/8"	1"	5/8"	2.471
26"	6	3/16"	1/8"	1"	5/8"	2.684
28"	6	3/16"	1/8"	1"	5/8"	2.898
30"	6	3/16"	1/8"	1"	5/8"	3.112
32"	6	3/16"	1/8"	1"	5/8"	3.325
34"	6	3/16"	1/8"	1"	5/8"	3.539
36"	6	3/16"	1/8"	1"	5/8"	3.752

**AVAILABLE BACKING RING MATERIAL (Specify material required when ordering)**

**Commercial Split Types- CCC, CC or Plain**  
Carbon Steel, ASTM A109 / ASME SA-414  
Chrome Moly, ASTM SA-182 / ASME SA-182  
Stainless Steel, ASTM A240 / ASME SA-240  
Aluminum, ASTM B-221 / ASME SB-221

Other weldable materials available upon inquiry: Special grades of Chrome Moly, Stainless Steel, Nickel, Cupro Nickel, etc.

**Note:** The weights listed on this page are for reference only actual ring weights may vary.

38" and larger – Available upon Request

### Consumable Insert (Ring)

For use in the welding of critical piping systems where internal obstructions cannot be tolerated or in welding of pipe, tube and other joining areas where uniformity and smooth root bead is required. A ROBIVON CONSUMABLE INSERT becomes an integral part of the initial root-weld bead. It insures complete penetration and smooth tying in of the insert and adjacent pipe, tube or fitting ends. The ROBIVON CONSUMABLE INSERT reduces flow restriction within the bore to a minimum and eliminates root-bead cracking due to notch-effect and abrupt change in cross-sectional weld area.

**Specifications:** All materials, and shapes, are manufactured in accordance with AWS 5.30, ASME 5.30 or MIL-I-23413, and Robvon QA Program 10CFR50, and are qualified for nuclear work.

**Specify Shape, Dimension and Material when ordering**

**CALL FOR QUOTE**

**General Materials Available:** Ms 1 (E70S2) & Ms 2 (E70S3 for Carbon Steel; 502 for 4 to 6 percent Chrome Moly; 515 for 1-1/4% Chrome 1/2% Moly; 521 for 2-1/4% Chrome 1% Moly; 308, 308L, 309, 309L, 316, 316L and 348 for Stainless Steels; 6A for NiCr-Fe-6; 60 for Monel Ni/cu-7; 61 for Nickel Ni-1; 62 for NiCrFe-5; 67 for Cupro Nickel CuNi; 82 for Inconel NiCr-3; other materials available.

### INSERT RINGS AND COILS - SPECIFICATIONS AND PRODUCT DATA



FIG. 1 Class 1  
FIG. 2 Class 2  
FIG. 3 Class 5  
FIG. 4 Class 3

1/8" or 5/32" Ø  
1/8" or 5/32" Ø  
5/32" thick  
1/8" thick

1/8" width  
1/8" width  
1/8" width  
1/16" width

**Product Scope:**

Coiled Insert Filler Material (50" Coils ) (all figures).  
Preformed Rings, Open Lap-Joint (all figures)  
Preformed Rings, Open Butt-Joint (all figures)  
Solid Rings (Fig 3 & Fig 4 Only – "K" or Rectangular Cross-Section)