GAP-A-LET®

Socket Weld Contraction Rings

What is it?

Gap-A-Let is a split ring that is engineered and designed to give you a pre-measured 1/16" minimum gap for socket welds. Made from a certified stainless steel, Gap-A-Let resists corrosion from chemicals, radioactive materials and water.
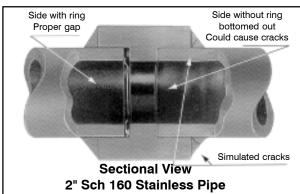
Gap-A-Let's spring tension makes it fit tightly into all standard sized fittings from 1/4" to 5". (Non-standard sizes are available upon request). Once inserted into the fitting the Gap-A-Let ring becomes a permanent part of the joint. It will not rattle or vibrate even under extreme pressure.

Where is it used?

Designed for use on any socket weld application, Gap-A-Let rings are suitable for **power piping (nuclear, conventional), industrial hydraulics, welded railroad air brake piping, petrochemical plants, fertilizer plants, shipbuilding,** and the list goes on.

What does it do for you?

Socket welds that once took 15 minutes or more to fit-up now take just seconds. There is no measuring, scribing or re-measuring. Just pop the Gap-A-Let into the fitting and insert pipe into the fitting. Gap-A-Let socket weld contraction rings automatically set the required 1/16" minimum gap so you're ready to weld.

Side with ring
Proper gap

Side without ring
bottomed out
Could cause cracks

Simulated cracks
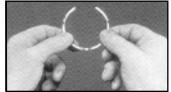
**Sectional View
2" Sch 160 Stainless Pipe**

And because there rings are so easy to use, they eliminate some of the problems of socket welding. No longer is there the problem of error commonly caused by guessing the gap. Nor is there the need to scribe into hard-to-mark metal pipe walls with the danger of encroaching on minimum wall thickness. With Gap-A-Let rings quality control inspectors can concentrate of the **QUALITY OF THE WELD** and not spend all their time measuring for proper gapping. And since the costly problem of cracked welds due to improper gap is practically eliminated, your pipes can safely transport fluids the first time and every time.

A plus for piping engineers

Gap-A-Let rings help piping engineers determine end-to-end length of pipe without guessing. Constant, proper gap gives precise length whether in field run or fab shop assembly.
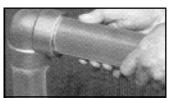
Three easy steps make proper 1/16" minimum gap socket welds in seconds

1

Fitter compresses Gap-A-Let® ring to fit into pipe fitting.

2

Fitter seats ring into fitting. Spring tension holds ring tightly in place, assuring no rattling or vibration even under extreme pressure. Ring actually becomes a permanent part of the joint.

3

Fitter inserts pipe into fitting. Gap-A-Let® ring automatically assures the required minimum gap (1/16") to meet the code requirements of ANSI 31.1 Section III, ASME & military codes.

Get PROPER Socket Weld Fit-Up In One-Tenth The Time

Gap-A-Lets + Socket Welds

Why the gap between the pipe end and the internal shoulder of the fitting before welding?
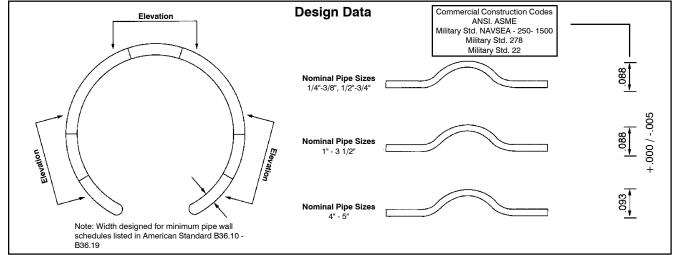
The function of the gap is to permit thermal expansion of the pipe. Without the gap, the heat of welding can cause the pipe to expand at a faster rate than the fitting. If the pipe bottoms against the socket fitting, the thermal growth of the pipe strains the weld, possibly producing cracks in the root.
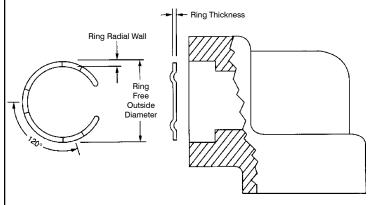
Failures have also been observed in socket welds subjected to thermal and mechanical cycling during service. The mechanism is similar to failure during welding. Rapid temperature changes cause the pipe to expand against the bottom of the fitting, straining and cracking the weld.

Construction and Military codes such as ANSI, ASME, NAVSEA-250-1500-1, MIL-STD-278 and MIL STD-22 permit socket welds to be used, provided a minimum 1/16" (1.6 mm) is established between the pipe end and socket prior to welding.

- Proper socket weld fit-up in one-tenth the time.
- Accurate 1/16" min. gap without time-consuming measuring, scribing and pull-out.
- Eliminate cracked welds resulting from improperly gapped joints.
- Meets military and commercial construction code standards.
- Patented-United States, Germany, United Kingdom, Japan and Canada.
- Sizes from 1/4" NPS to 5" NPS in stock for immediate shipment.
- Instrumentation tubing sizes 3/8" to 2".
- Boiler tubing sizes as required.

Design Data

Elevation

Commercial Construction Codes
ANSI. ASME
Military Std. NAVSEA - 250- 1500
Military Std. 278
Military Std. 22

Nominal Pipe Sizes
1/4"-3/8", 1/2"-3/4" — .088

Nominal Pipe Sizes
1" - 3 1/2" — .088

Nominal Pipe Sizes
4" - 5" — .093

+.000 / -.005

Note: Width designed for minimum pipe wall schedules listed in American Standard B36.10 - B36.19

Ring Thickness

Ring Radial Wall

Ring Free Outside Diameter

120°

Standard GAP-A-LET Ring	Fitting	Ring Free Outside Diameter	Ring Radial Wall	Ring Thickness
1/4 NPS	.555	.600	.070	.025
3/8 NPS	.690	.730	.070	.025
1/2 NPS	.855	.880	.070	.025
3/4 NPS	1.065	1.110	.070	.025
1 NPS	1.330	1.385	.105	.030
1 1/4 NPS	1.675	1.780	.105	.030
1 1/2 NPS	1.915	2.020	.105	.030
2 NPS	2.406	2.580	.105	.030
2 1/2 NPS	2.905	3.010	.105	.030
3 NPS	3.500	3.885	.105	.030
3 1/2 NPS	4.000	4.150	.105	.030
4 NPS	4.500	5.110	.103	.040
5 NPS	5.563	5.880	.103	.040

Get Proper Socket Weld Fit-Up In One-Tenth the Time

GAP-A-LET®

Socket Weld Contraction Rings

Patented

- Every socket weld gap, the proper 1/16" minimum required by ANSI 31.1 Section III, ASME US Navy & Military Codes

- No more scribe and pull out procedure

- No more measuring or guessing gap distance

- And no more cracked welds due to contraction of improperly gapped joints

Easy to Store, Easy to Distribute

Gap-A-Let socket weld contraction rings come in packages of 20 per re-sealable plastic bag - no messy case of loose rings ...no spilling of rings on floor while working. Just hand your welders and fitters the number of packages they need for the day and they're ready to make perfect, pre-measured socket welds to code. And the pre-counted contents make inventory and re-ordering easier, too. Helps prevent over- and under- stocking.

Part No.	Description
GAPxxx	Gap -A-Let Rings Pkg. of 20

(xxx = size of ring required ie. 0.25 for ¼")