

**TECHNICAL DATA SHEET • SOCKET WELD CONTRACTION RINGS****G.A.L. Gage Co. Gap-A-Let Socket Weld Contraction Rings****Pre-Measured 1/16" Minimum Gap Socket Weld Contraction Rings**

The **Gap-A-Let®** is a precision-engineered split ring designed to provide a pre-measured 1/16" minimum gap for socket welds instantly. Made from certified stainless steel (or optional carbon steel and water-soluble materials), it eliminates costly fit-up delays and cracked weld repairs.

Once inserted into the fitting, spring tension holds it tightly in place, becoming a permanent part of the joint without rattling or vibrating under extreme pressure.

**OVERVIEW**

Gap-A-Let® rings are revolutionizing piping fabrication and maintenance. By automatically establishing the code-required 1/16" minimum gap without manual measuring or scribing, inspectors and pipefitters can focus entirely on weld quality, drastically cutting assembly time and preventing joint failures.

**DESCRIPTION**

Each standard ring is precision machine-manufactured (1/4" to 2" NPS) while heavy-duty rings (2-1/2" to 4" NPS) are precision hand-manufactured. Available in 316 Stainless Steel, Carbon Steel, and Water-Soluble configurations, Gap-A-Let rings resist corrosion from chemicals, water, and radioactive environments while complying with ASME, ANSI B31.1, and military construction codes.

**FEATURES**

- **Rapid Fit-Up:** Cuts socket weld fit-up time by up to 90% (from 15 minutes to seconds).
- **Precise Gapping:** Automatically ensures a 1/16" minimum gap without measuring, scribing, or pull-out.
- **Certified Material:** Manufactured from certified 316 stainless steel, carbon steel, or water-soluble alloys.
- **Permanent Joint Integration:** Spring tension secures the ring inside the fitting; will not rattle or vibrate under extreme pressure.

**APPLICATIONS**

- **Power Generation Plants:** Essential for ensuring proper 1/16" minimum expansion gaps in high-pressure steam and nuclear piping systems subject to rigorous code requirements
- **Petrochemical and Chemical Processing Facilities:** Used by piping contractors to eliminate guesswork during fit-up and prevent joint cracking caused by thermal expansion in critical process lines
- **Oil and Gas Refineries (Onshore and Offshore):** Ideal for maintaining precise socket weld spacing and structural integrity in high-stress piping assemblies and manifold connections
- **Shipbuilding and Maritime Engineering:** A reliable, code-compliant solution utilized worldwide by pipefitters and quality control (QA/QC) inspectors for naval and commercial marine piping construction

**SPECIFICATIONS**

| Specification            | Details                                                                                 |
|--------------------------|-----------------------------------------------------------------------------------------|
| Expansion Gap            | Minimum 1/16" pre-measured gap for socket welded joints                                 |
| Size Range               | 1/4" up to 6" Nominal Pipe Size (e.g., 1/4", 3/8", 1/2", 3/4", 1", 2", 5", 6")          |
| Material Options         | Carbon Steel, Stainless Steel, and Water Soluble                                        |
| Packaging and Quantities | Pack of 20 units: Sizes 1/4" to 2"   Pack of 10 units: Sizes 5" and 6"                  |
| Code Compliance          | ANSI B31.1 (Power Piping), ASME Section III, and U.S. Navy / Maritime standards         |
| Primary Function         | Ensures proper fit-up spacing and prevents thermal expansion cracking in piping systems |
| Manufacturer             | G.A.L. Gage Co.                                                                         |

## ENGINEERING DATA, TABLES & INSTALLATION GUIDE

### 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.

#### Standard Gap-A-Let® Rings -- 1/4" NPS - 2" NPS:

Each "Standard" Gap-A-Let® Ring is precision MACHINE-manufactured ...

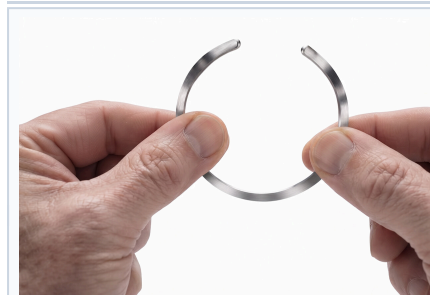
| Standard Ring | Fitting | Ring Free Outside Diameter | Ring Radial Wall | Ring Thickness |
|---------------|---------|----------------------------|------------------|----------------|
| 1/4" NPS      | .555    | .600                       | .070             | .025           |
| 3/8" NPS      | .690    | .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           |

#### Heavy Duty Gap-A-Let® Rings -- 2 1/2" NPS - 4" NPS:

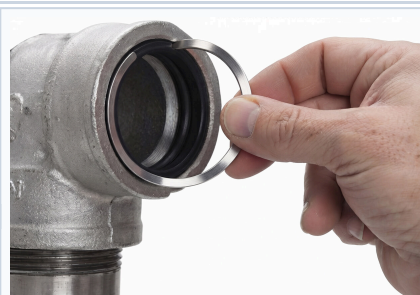
Each "Heavy Duty" Gap-A-Let® Ring is precision HAND-manufactured ...

| Heavy Duty Ring | Fitting | Ring Free Outside Diameter | Ring Radial Wall | Ring Thickness |
|-----------------|---------|----------------------------|------------------|----------------|
| 2 1/2" NPS      | 2.905   | 2.910                      | .205             | .035           |
| 3" NPS          | 3.500   | 3.530                      | .210             | .035           |
| 4" NPS          | 4.500   | 4.550                      | .230             | .035           |

### THREE EASY STEPS



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 becomes a permanent part of the joint



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

### HOW TO USE

- **Prepare the Joint:** Ensure the socket fitting and pipe end are clean, deburred, and free of oil, rust, moisture, or debris
- **Insert the Ring:** Place the Gap-A-Let® contraction ring inside the socket fitting until it rests flat against the bottom shoulder
- **Insert the Pipe:** Slide the pipe into the socket fitting until it firmly contacts the Gap-A-Let® ring. The ring automatically establishes the mandatory 1/16" expansion gap
- **Tack and Weld:** Apply secure tack welds to maintain alignment, then proceed with the final socket welding procedure in accordance with qualified welding procedures (WPS)



#### Ready to Order or Request a Quote?

Contact ABQ Industrial sales engineers for pricing, calibration certificates, and delivery options.

Email: [info@abqindustrial.net](mailto:info@abqindustrial.net)

Phone: +1 (888) 275-5772