Built on a tradition of exceeding quality at every step.

American Thermowell

BLEED & FLUSH RINGS

Bleed Rings | Flush Rings | Bleed & Flush Ring Assemblies

www.americanthermowell.com

American Thermowell provides high-quality flow solutions for a broad range of applications. Whether you need bleed or drip rings, flush rings, or complete bleed/flush ring assemblies, we have the expertise to support your project.

We partner with our customers to develop precision products built to specification, while maintaining dependable delivery schedules and competitive pricing.

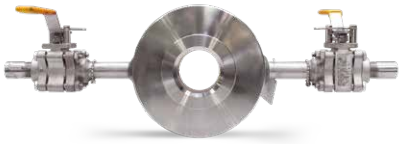
Built on a tradition of exceeding quality at every step.

Table of Contents

American Thermowell reserves the right to update and/or change our product line at any time without written notice. Drawings may differ slightly from the final product. For the most up-to-date and accurate drawing, please contact your American Thermowell Sales representative today at 1-409-246-1111. Revised January 2026.

Bleed Ring

Flush Ring



Bleed Ring Assembly

Flush Ring Assembly

Bleed & Flush Rings

All rings are quality checked and tested to code, prior to being shipped.

American Thermowell manufacturers all bleed and flush rings, with over 25 years experience manufacturing the hardware to the temperature, flow and pressure industries. These rings are designed to mount between the flanged process connection and the diaphram seal, which then allows for easy access for on site calibration, venting & purging.

Precision | Quality | On-time Delivery

Our flush ring design is made to accept all flanged pressure transmitters on one side and a standard ANSI flange on the other side in all sizes. An example of this would be as follows; 2" thick can come with two different ANSI sizes on each side allowing for example a 2" 150# process to fit with a 3" 150# level transmitter.

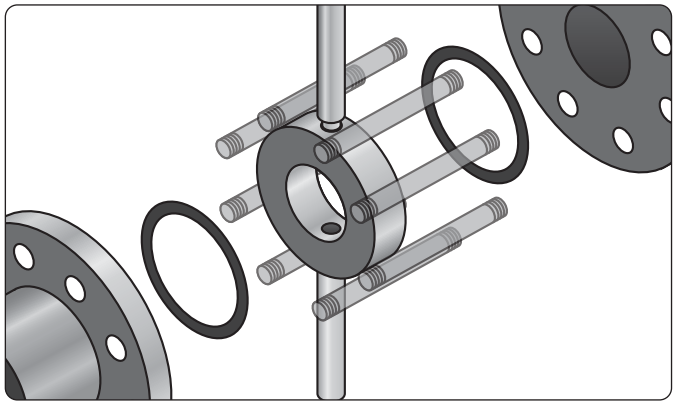
American Thermowell bleed rings are manufactured in house, and can be modified for your specific application or process line requirements. Bleed rings may also be referred to as calibration rings or drip rings, but they all do the same thing.

Bleed Rings

- Manufactured 100% in house and can be modified for your application.
- Reduces installation and maintenance costs.
- Allows for on site calibration, venting & purging.
- Can be used as a spacer for piping systems
- Bleed Rings are available with specified instrument valves upon request.
- Approved Canadian Registration Numbers (CRN).
- Available in carbon steel, A105, 304/L, 316/L and most alloy materials

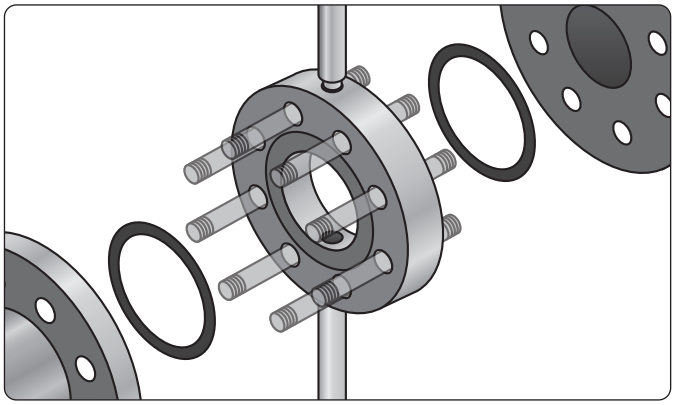
Flush Rings

- Allows for transmitter calibration, venting and purging.
- This seal and process size transition design reduces installation and maintenance costs.
- Our engineered and maufactured in-house design can be adopted and modified for your specific applications.
- Carbon Steel and Stainless Steel contruction, also available in most alloy materials.
- Eliminates the need for reducing spool.
- Includes Concentric, Eccentric and line reducing designs.
- Valve options available upon request.
- Approved Canadian Registration Numbers (CRN).
- Manufactured in accordance with ASME, ASTM and ANSI standards.



Bleed Rings

Bleed Rings are smaller than there comparable flush ring counterpart. The bleed ring fits between the flanges within the bolt pattern.



Flush Rings

Flush Rings are larger than there comparable bleed ring counterpart. The flush ring fits between the flanges through the bolt pattern.

Ring Comparison

Need help deciding which one is right for your project?

What's the difference?

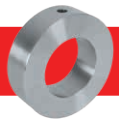
Even though they look similar, these two products are very much different. Looking at the installation type, required materials and the manufacturing time. Cost is going to be one of the biggest differences between these two products, so it's best to make sure you're ordering the right product for the job.

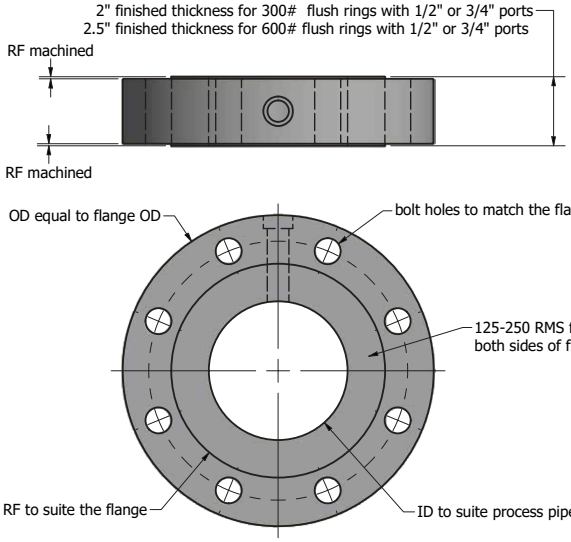
Need help deciding which one is right for your project? Call your American Thermowell sales representative today for more information.

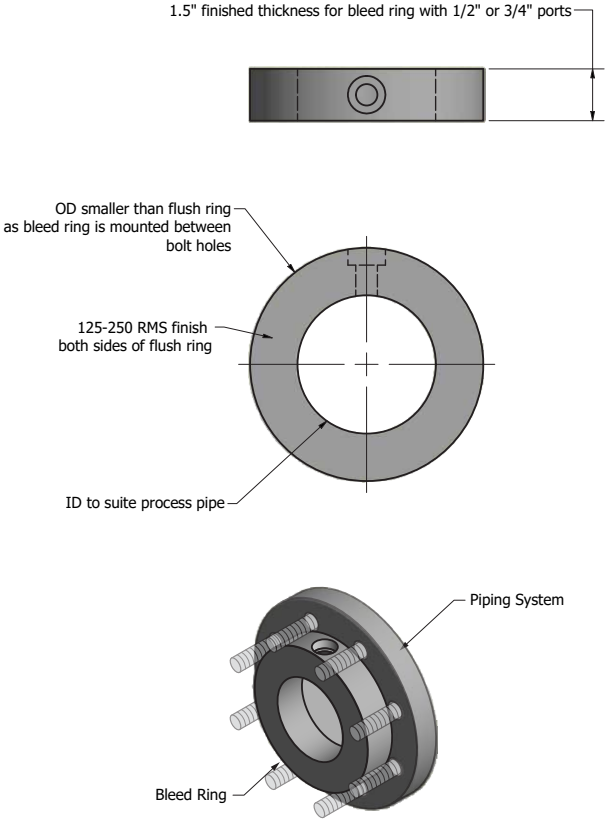
Flush Ring

OR

Bleed Ring





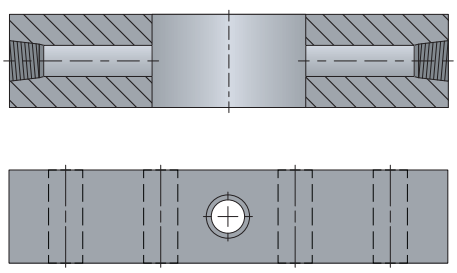


Notes:

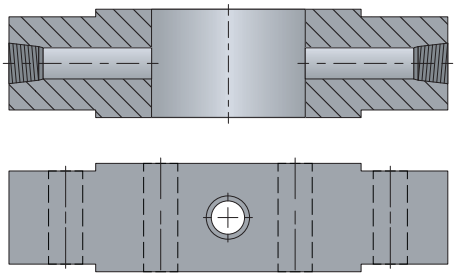
- Material requirements are greater for flush ring as compared with bleed ring. OD of a flush ring and thickness are significantly greater than those of bleed ring.
- Raw materials sourced for production are significantly more expensive for flush rings due to greater OD and greater thickness
- Flush Rings require significantly greater manufacturing time. Raised face, bolt holes require additional machining time as compare to simple bleed ring.

Face Styles

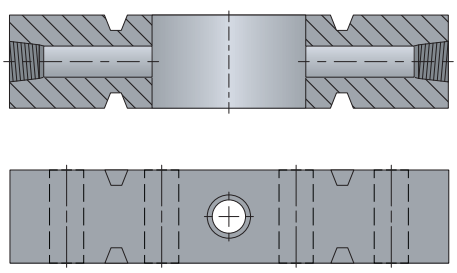
Flat Face



Raised Face



Ring Type Joint (RTJ)



Bore Styles

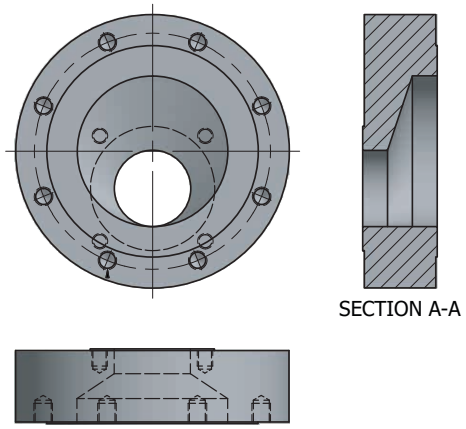
American Thermowell offers various bore styles, along with multiple flange face types.

American Thermowell offers a large variety of bores styles including; concentric, eccentric, reducing concentric and reducing eccentric.

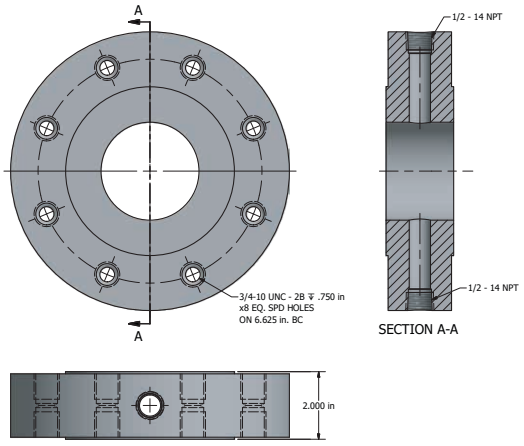
Flush ring bore styles are selected based on flow characteristics and installation needs. Concentric bores are centered on the flange and provide uniform flow around the instrument, making them ideal for horizontal lines and clean services. Eccentric bores are offset to one side, allowing proper draining or venting and helping prevent trapped air or solids, often used in horizontal piping.

Reducing concentric bores transition evenly from a larger pipe ID to a smaller bore, maintaining symmetry while directing flow toward the tap. Reducing eccentric bores combine an offset with a reduction, promoting self-draining flow and improved flushing in services where buildup, sediment, or gas pockets are concerns.

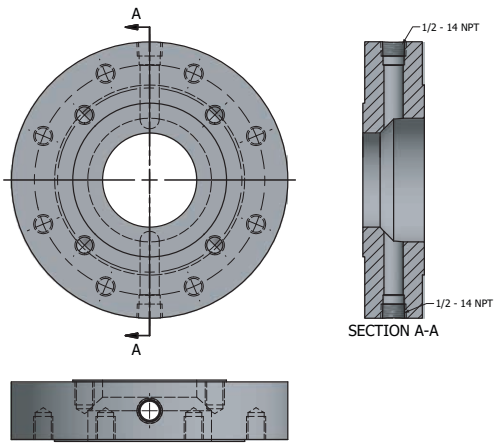
Bleed ring bores are available in concentric configurations only. Because the ring fits within the stud circle, the line size and pressure rating must be identical on both mating flanges. Available bore options include full-bore (line size) and reduced-bore designs, both maintaining concentric alignment.



Eccentric Bore - Flush Ring



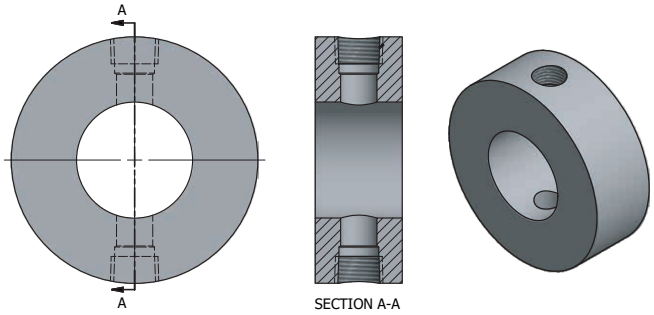
Concentric Bore - Flush Ring



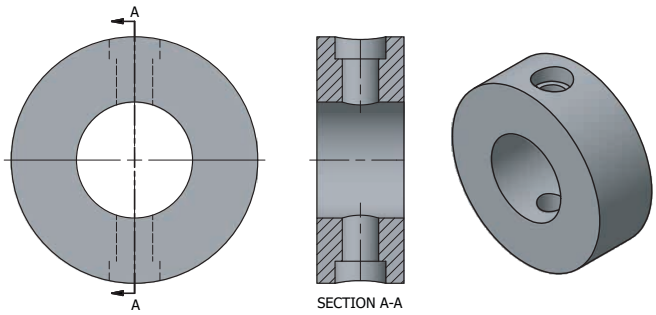
Reducing Concentric Bore - Flush Ring

BLEED RING

Threaded



Socket-Weld



Bleed Rings

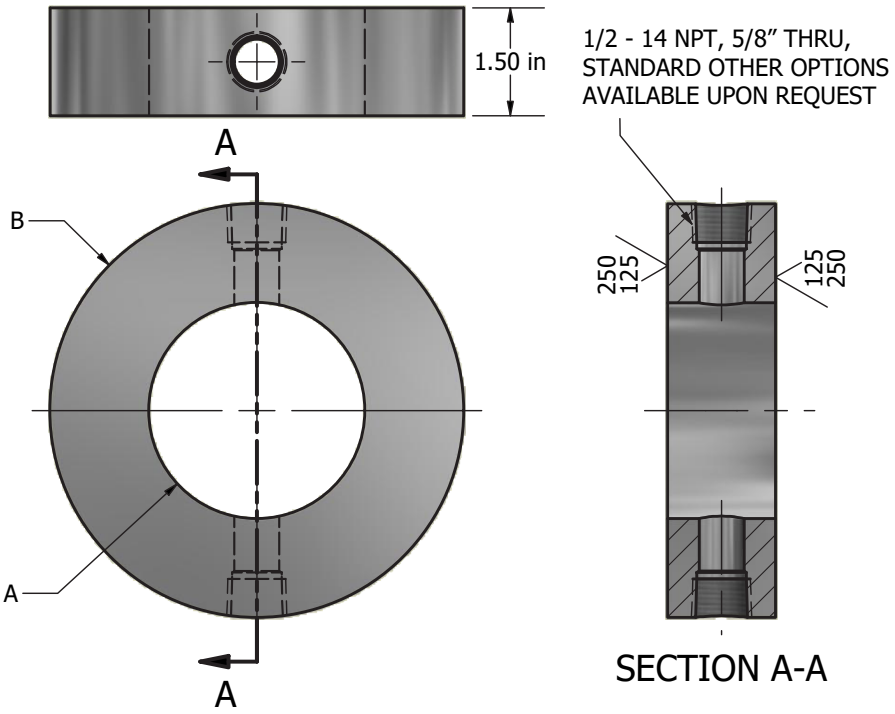
Built to ANSI Flange sizes, and designed to mount within the bolt circle.

Bleed rings provide a convenient way of attaching valves or other instruments to piping systems, along with providing access for samples or drainage.

Our Bleed (drip) Rings allow for venting and purging of piping systems. They are designed to fit between the flanges. Available in various flange rating sizes. Complete with one or two bleed ports in threaded or socket weld connections.

ISO-9001:2015 certification and meeting all applicable codes and government regulations. All Bleed rings are quality checked and tested to code, prior to being shipped.

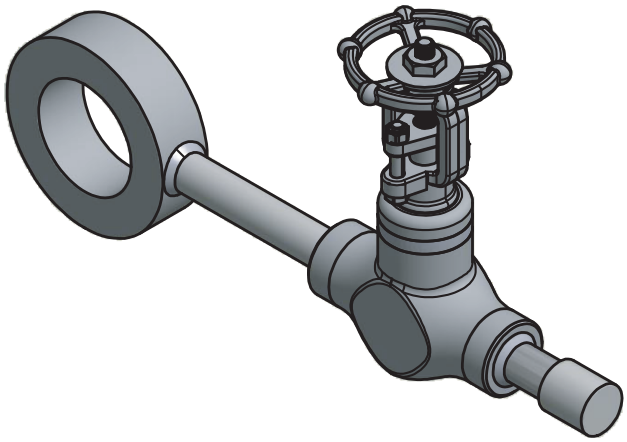
- Manufactured 100% in house and can be modified for your application.
- Reduces installation and maintenance costs.
- Allows for on site calibration, venting & purging.
- Can be used as a spacer for piping systems
- Bleed Rings are available with specified instrument valves upon request.
- Approved Canadian Registration Numbers (CRN).



Material Options: Available in 316/L, 304/L or A105 Carbon Steel. Also available in most alloy materials.

Industries: Chemical & Petro Chemical

BLEED RING ASSEMBLY



Bleed Rings with Valve Assembly

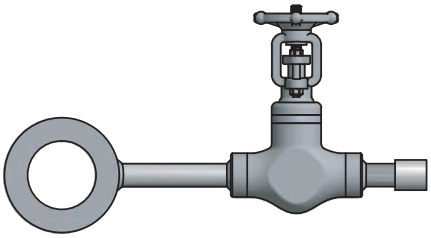
- Single of Double ports available
- Threaded or Socket-weld connection
- Available in a large variety of sizes and materials
- Valve options available upon request

Bleed Ring Assemblies

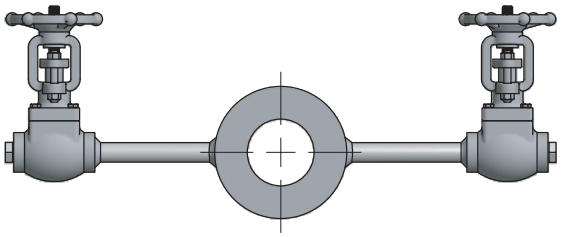
Complete bleed and flush ring assemblies; shipped ready to be installed

American Thermowell can provide our bleed and flush rings with various instrument connections valves and flanges, based on our clients specific requirements. Already have your own valves?
American Thermowell can handle the manufacturing of the rings, and assembly of valves so our clients receive a ready to go product.

- Instrument connections are available in threaded, butt weld and socket-weld designs.
- Manufactured in accordance with ASME, ASTM and ANSI standards
- CRN numbers available if requested
- Single or double valve assemblies available
- Flanged instrument connection are also available



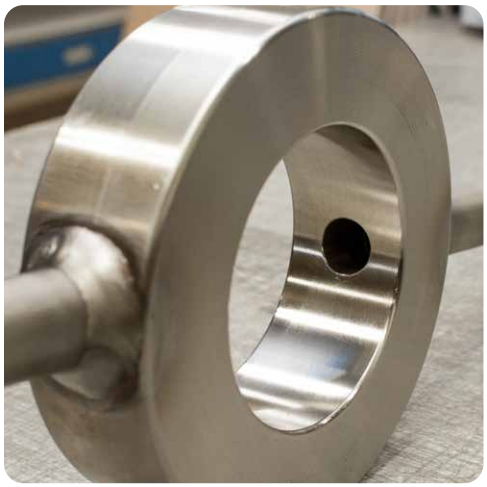
Single Valve Assembly

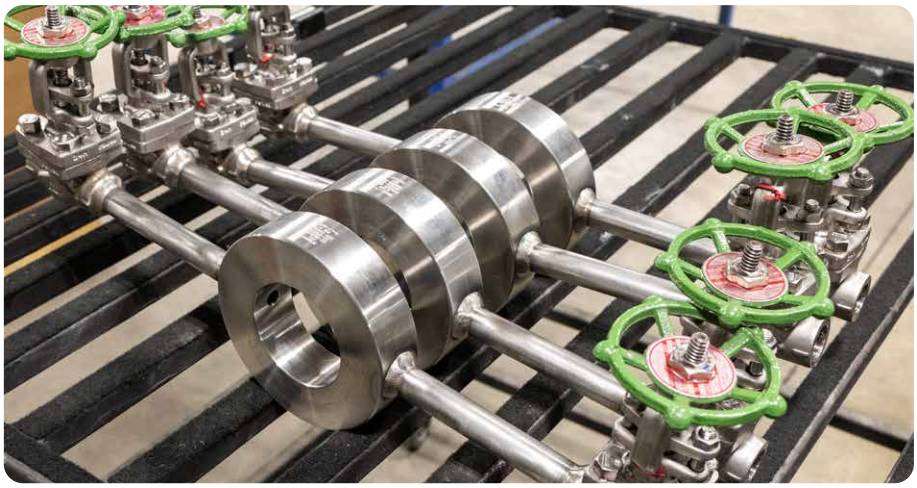


Double Valve Assembly

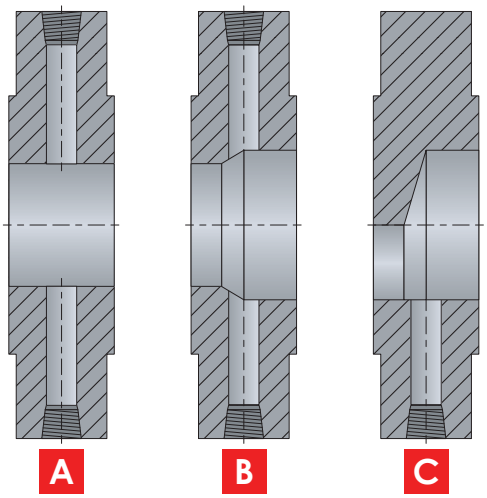
Material Options: Carbon Steel and Stainless Steel. Also available in most alloy materials.

Industries: Chemical & Petro Chemical





FLUSH RING



Bore Style:

1. Concentric
2. Reducing Concentric
3. Eccentric

The surface finish is critical for proper sealing and performance, it directly impacts the component's sealing effectiveness.

Flush Rings

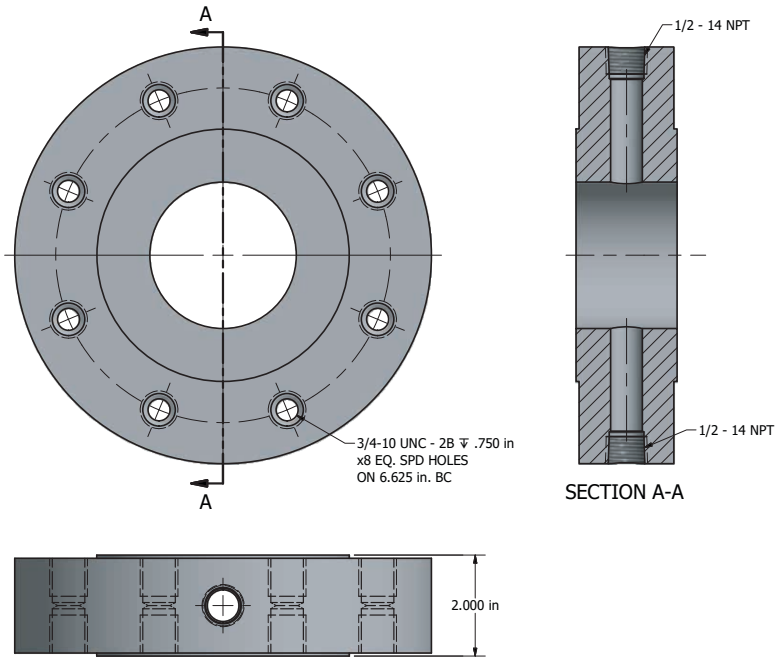
American Thermowell Flush Rings perform even under the most demanding conditions

Our Flush Ring design is made to accept all flanged pressure transmitters on one side and a standard ANSI flange on the other side in most sizes.

Our Flush Ring design is made to accept all flanged pressure transmitters on one side and a standard ANSI flange on the other side in all sizes. The American Thermowell Flanged Flush Ring allows the instrument connections to have flanges welded in place.

American Thermowell flush rings allow you to have two different ANSI flange sizes or ratings on opposite sides of the ring. Being approximately 2" thick, it also allows you to tap the top and bottom. American Thermowell bleed rings are manufactured to accept standard pressure transmitters or can be customized for your particular application. All flush rings are quality checked and tested to code, prior to being shipped.

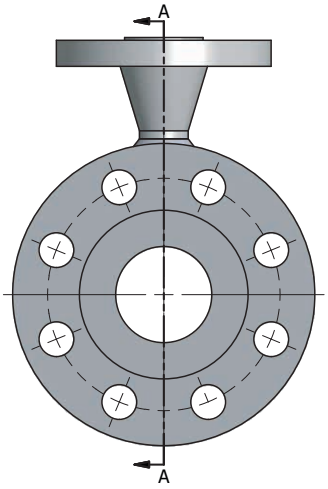
- Allows for transmitter calibration, venting and purging
- The seal and process size transition design reduces installation and maintenance costs
- Our engineered and manufactured-in-house design can be adapted and modified for your specific application
- Eliminates the need for a reducing spool
- Valve options available upon request
- Manufactured in accordance with ASME, ASTM and ANSI standards
- CRN approved

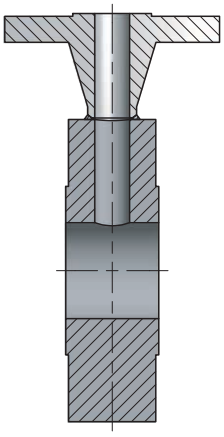


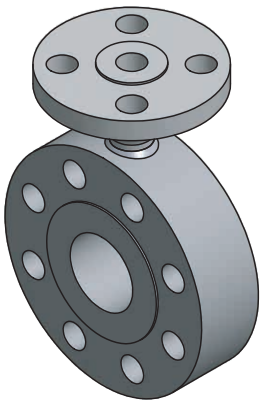
Material Options: Carbon Steel and Stainless Steel. Also available in most alloy materials.

Industries: Chemical & Petro Chemical

FLUSH RING ASSEMBLY







Flanged Flush Rings

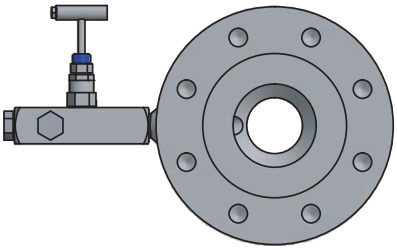
- Single of Double ports available
- Threaded or Socket-weld connection
- Available in a large variety of flange sizes and materials

Flush Ring Assemblies

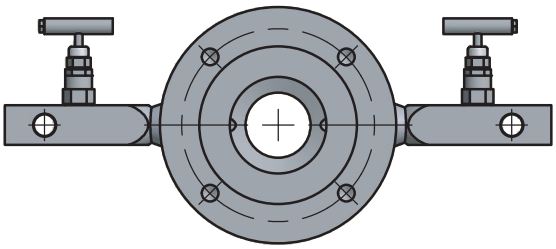
Complete bleed and flush ring valve assemblies; shipped ready to be installed

American Thermowell can provide our bleed and flush rings with various valves, based on our clients specific requirements. Already have your own valves? American Thermowell can handle the manufacturing of the rings, and assembly of valves so our clients receive a ready to go product.

- Available in both threaded and socket-weld designs.
- Manufactured in accordance with ASME, ASTM and ANSI standards
- CRN numbers available if requested
- Single or double valve assemblies available.
- Flange assemblies also available.



Single Valve Assembly



Double Valve Assembly

Material Options: Carbon Steel and Stainless Steel. Also available in most alloy materials.

Industries: Chemical & Petro Chemical

American Thermowell

Exotic Materials & Coatings for Bleed and Flush Rings

High-Performance Materials and Protective Coatings

We have experience manufacturing bleed and flush rings in a wide range of exotic and corrosion-resistant materials to suit demanding service conditions. Materials used include Super Duplex, Chrome-Moly, Hastelloy, 304/304L & 316/316L Stainless Steels, Carbon Steel , Monel, Inconel, Titanium, and Kynar just to name a few.

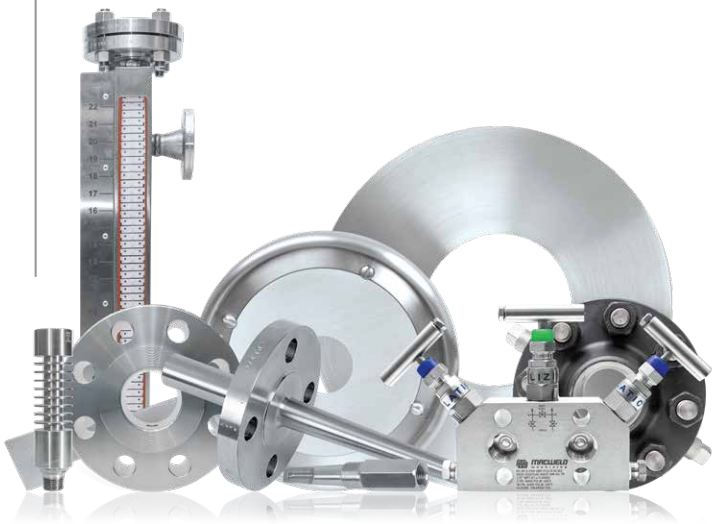
To further enhance performance and service life, available coatings and surface treatments include PTFE coatings for chemical resistance, electroless nickel plating (ENP), zinc or phosphate coatings, passivation, and specialized corrosion- or wear-resistant coatings as required by the application.

Materials

- Carbon Steel A516Gr70
- Carbon Steel ASTM A105
- A350 LF2
- Duplex 2205
- Super Duplex 2507
- Stainless 254 SMO
- Super Duplex S32760
- Chrome-Moly-Gr5
- Chrome-Moly-Gr9
- Chrome-Moly-Gr11
- Chrome-Moly-Gr91
- Chrome-Moly Gr22
- 304/304L
- 317L
- 310
- 316/316L
- 316H
- 321
- 347
- Alloy 600 (Inconel)
- Alloy 625 (Inconel)
- Alloy 800 (Inconel)
- Alloy 400 (Monel)
- Alloy 200 (Nickel)
- Alloy 20
- AL-6XN
- Titanium Gr2
- Alloy C-276 (Hastelloy)
- Teflon
- PVC
- CPVC
- Zirc 702
- Kynar (PVDF)

Coatings

- PTFE
- Electroless nickel plating (ENP)
- Zinc
- Phosphate coatings



The promise of precision, every time.

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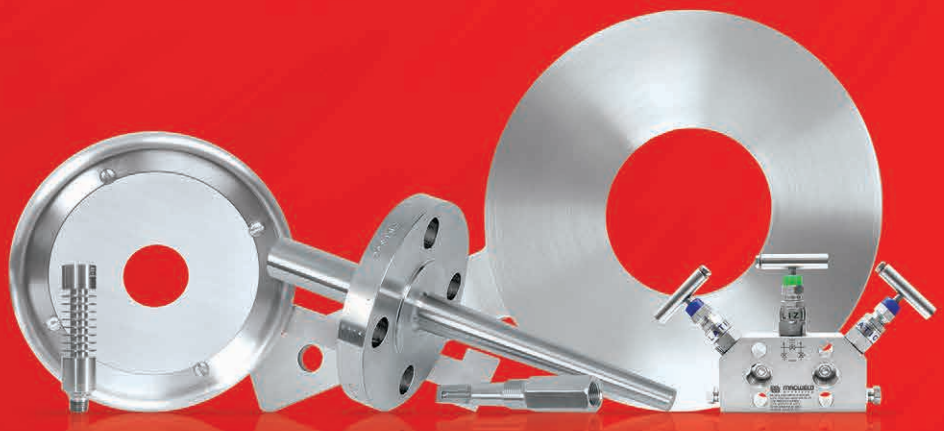
American Thermowell

FLOW | TEMPERATURE | PRESSURE | LEVEL



- Thermowells
- Orifice Plates
- Bleed & Flush Rings
- Gauge Siphons

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