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- Zinc plated steel lever handle with securely attached vinyl grip, hole for tagging
- Blowout-proof stem
- Chrome plated brass ball

- RPTFE seats, seals, stem bearing
- 90-degree (quarter-turn) operation
- Rated 600 psig WOG cold, non-shock; 150 psig saturated steam (except for 3-way and Saturn valves)





70-100 Series—Conbraco's most versatile, most used ball valve. Reliable shutoff, easy operation. Available with above features and ratings, or with choice of nearly 30 options. Sizes 1/4" to 4".

70-100-27



70-100-27 Series—Same as 70-100 but with optional latch-lock handle. Latch secures handle in open or closed position, reducing risk of mishap. Satisfies OSHA requirements. Sizes 1/4" to 3".

70-200



70-200 Series—Solder-end valve designed for soft-soldering into lines without disassembly so valve can be installed without disturbing seats and seals. Several options available. Sizes 3/8" to 3".

70-300



70-300 Series—Same as 70-100 but with single union end. Fluorocarbon O-Ring sealed union requires only light torque for proper seal; threaded or solder end. Sizes 1/4" to 2".

70-600/900



70-600/70-900 Series—3-way diverter valve; perfect for tank selection or fluid transfer applications. Large ports; 400 psig WOG rated. Threaded or solder ends. Sizes 1/4" to 2".

71-100



71-100 Series—Same as 70-100 but with mounting pad for optional spring-return handle, actuator or panel mounting. Sizes 3/4" to 3".

77-100/200



77-100/77-200 Series—Full port design for full flow, minimum pressure drop. Cast-in mounting pad. Threaded or solder ends. Sizes 1/4" to 2-1/2".



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70-140-64 Series—Threaded 250 lb. steam valve with 316 SS ball and stem. Multi-fill seats and stuffing box ring. Yellow vinyl grip with red lettering. Sizes 1/4" to 3".





75-100 Series—Padlocking valve; threaded, 600 psig WOG, cold non-shock, 150 psig saturated steam. Stainless steel lever and nut optional; automatic drain available. Sizes 1/4" to 2".

71 AR



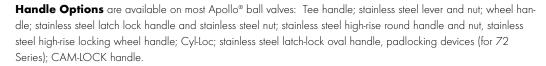
71 AR Series—Bronze standard port ball valve with threaded ends; ISO mounting pad, advanced live loaded packing design, latch lock handle available. Sizes 3/4" to 3".

77 AR



77 AR Series –Bronze full port ball valve with threaded ends; ISO mounting pad, advanced live loaded packing design, latch lock handle available. Sizes 1/4" to 2".

Handle Options



Bronze Ball Valves [Specialty]





71-500

Descriptions



71-500 Series—Ball valve with spring return handle. Choose return to close (-01) or return to open (-08). Sizes 1/4" to 2".

77-900



77-900 Series–Full port valves designed to fully comply to SAE [ISO 11926] specifications to reduce fluid leakage and energy loss. Cast-in mounting pad. Sizes 1/4" to 2".

78-100/200



78-100/200 Series—Bronze ball valve with dust cover and chain. Blowout-proof stem design, adjustable packing gland, chromium-plated ball. -100: threaded x 3/4" hose connection; -200: soft-solder end x 3/4" hose connection. Sizes 1/2" and 3/4" NPT or solder end.

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78-257/267

Descriptions



78-257/267 Series—Brass or bronze instrumentation valve with male and female threading. Micro-finish ball, nitrile stem seal, PTFE seats. Options: mixed end fittings; tee handle, lever handle or screw slot.

78-621





78-621 Series—Threaded irrigation valve; 600 psig water, cold non-shock; curb stop top works.

Temperature range from +50°F to +400°F. For use where drained liquid will not cause damage. Sizes 3/4" to 2".

80-100





80-100 Series—UL® listed shutoff valve for use with LP gas, natural gas, flammable liquids and heated oil. Large ports reduce pressure drop; easy quarter-turn ON/OFF. RPTFE seats, seals. Sizes 1/4" to 3". Available with latch-lock -27.

82-100/200



82-100/200 Series—3-piece full port ball valve; inline repairable, adjustable packing gland. Sizes 1/4" to 4". -100: threaded ends. Shown with -19 locking plate option. -200: solder ends.

9A/90/91

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9A/90/91 Series—Compact Saturn® ball valve; One piece body with threaded ends for fuel, inert gas, flammable liquids; tee or lever handles. 9A: heavy pattern, 600 psig WOG. Sizes 1/4" to 2". 90: UL® Listed, 300 psig, Sizes 1/2" to 2". 91: 400 psig WOG, sizes 1/4" to 2".

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Carbon Steel [Threaded, Socket And Butt Weld Ball Valves]

Descriptions

Standard Carbon Steel Valve Ratings [89 and 93 Series]

- 1/4" 1": 2,000 psig WOG
- 1-1/4" 2": 1,500 psig WOG
- 73A Series: 1/4" 2": 2,000 psig WOG
- 72 Series: 1/4" 2": 3,000 psig WOG

72-100



72-100 Series—High-pressure valve with heavy-duty lever, body rated 3000 psig WOG, cold non-shock, 150 psig saturated steam. Nitride corrosion protection. Sizes 1/2" to 2"; all models except 2" feature full port. Shown above with optional tee handle.



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72-900 Series-Straight-thread, O-Ring boss valves meet SAE 11926 specs. Ideal for reducing fluid leakage and energy loss in automotive applications and machining and hydraulic systems. Sizes 1/4" to 1-1/2" are full port; 2" is standard port; optional locking kit available.







73A Series-Forged A105 Low Carbon Steel valve with nitride corrosion protection, adjustable packing gland, blow-out proof stem. Two-piece design, NACE compliant when ordered with SS trim (73A-140 series). Standard handle options. Sizes 1/4" - 2".

73-300





73-300 Series-UL listed double union end valves. Rated 3000 psig. For natural and manufactured gas, LP gas and flammable liquids. Heavy-duty quarter-turn lever; easy to install and maintain. Sizes 1/4" to 2". Round handle shown. Only -01 is UL listed.

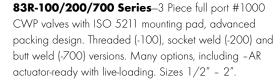




7A-130-26-Dry chlorine ball valve with Ni-Cu ball and stem. Investment cast components with nitride corrosion protection. Chevron style stem packing, bolted, adjustable gland. Sizes 1/4" to 2".

3R-100/200/700





83-500/600





83-500/600 Series-3-piece high pressure full port ball valve with blowout-proof stem design. In-line repairable; meets NACE MR-01-75 with SS trim. -500: threaded ends; -600: socket weld ends. Sizes 1/4" to 2".

89-100





89-100 Series-Cast valves with threaded ends; up to 2000 psig WOG cold non-shock. Easy actuator mounting; 316 SS ball and stem, NACE trim available options. Sizes 1/4" to 3". Shown with high-rise locking wheel handle, option -39.

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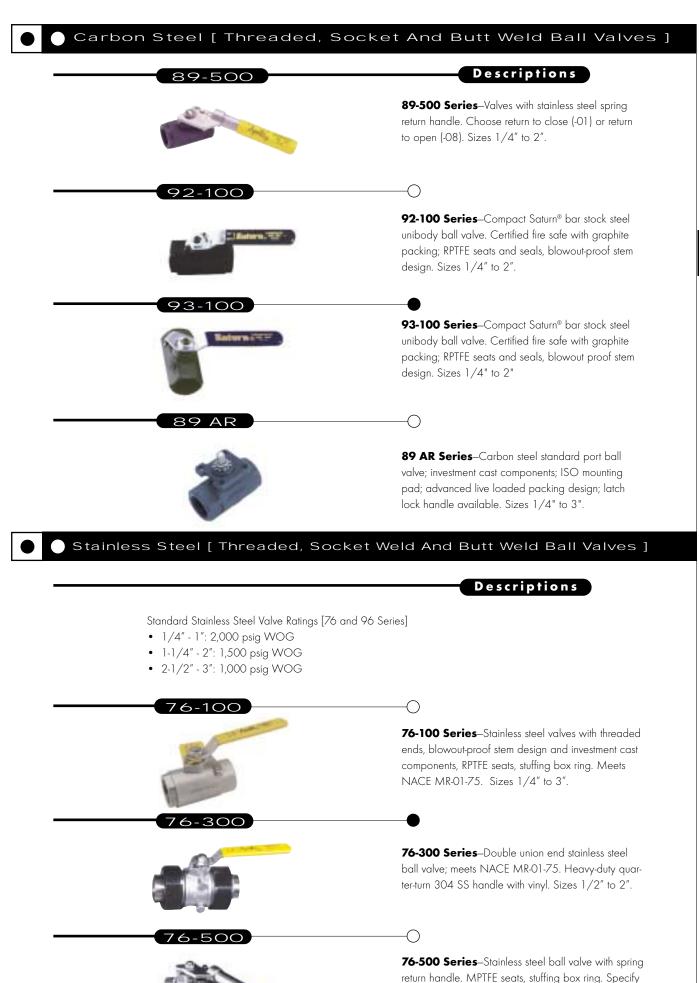
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(-01) suffix for return to close or (-08) suffix for return

to open. Sizes 1/4" to 2".



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possibility of accidental opening or closing.



96-100

96-100 Series—Saturn® stainless steel unibody ball valves; meets NACE MR-01-75. Investment cast body, adjustable packing gland. Sizes 1/4" to 2".



87A Series



Descriptions

87A-100 Series—Stainless Steel class 150 Flanged, Regular Port Valves. Unibody to 2", easily-repaired split body 3" and larger. (87B series is unibody design 3" and 4"). Standard stem grounding and locking device. Includes ISO 5211 mounting pad. Meets many standards, including NACE, and API 607 4th Ed. when ordered as -24. Available in 1-1/2"-10".

87A-200 Series—Class 150 full port stainless valves. Split body design for easy repair, includes grounding, locking device, and ISO 5211 actuator mounting pad. Available in sizes 1/2" - 12", with a broad standards compliance. A true engineered design with every desirable feature addressed.

87A-700 Series—Class 300 standard port flanged valve with features identical to 87A-100 above.

87A-900 Series—Class 300 full port stainless valve, with features of 87A-200 above.

87A-400/500/ 600 Series



87A-400 Series—Alloy 20 class 150 flanged standard port ball valves.

87A-500 Series—Alloy 20 class 150 flanged full port ball valves.

87A-600 Series—Alloy 20 class 300 flanged full port ball valves.

See page 9 under Alloy Ball Valves section for more details.

452 Series–Class 150 full port stainless steel ball valves with extended bonnet. See page 10 under *Specialty Valves* section for more details.

452 Series



88A Series



88A-100 Series—Carbon Steel Class 150 Flanged, Regular Port Valves. Unibody to 2", easily-repaired split body 2-1/2" and larger. (88B series is unibody design 3" and 4"). Standard stem grounding and locking device. Includes ISO 5211 mounting pad. Meets all standards, including NACE when ordered with SS trim, and API 607 4th Ed, when ordered as -24. Available in 1-1/2"-10".

88A-200 Series—Class 150 full port carbon valves. Split body design for easy repair, includes grounding, locking device, and ISO 5211 actuator mounting pad. Available in sizes 1/2" - 12", with full standards compliance. A true engineered design with every desirable feature addressed.

88A-700 Series—Class 300 standard port carbon steel flanged valve with features identical to 88A-100 above.

88A-900—Class 300 full port carbon steel valve, with features of 88A-200 shown above.

453 Series



453 Series—Class 150 full port carbon steel ball valves with extended bonnet. See page 10 under *Specialty Valves* section for more details.



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In addition to stainless and carbon steel, Conbraco routinely pours special alloys such as Alloy 20, Hastelloy®, Ni-Cu and nickel at its state-of-the-art investment-casting foundry in Conway, SC. Hastelloy, Ni-Cu and titanium are primarily used in the company's top entry ball valve line but can be used for end entry valves on special orders. The valves shown on this page are standard Apollo alloy ball valves.



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74-100 Series-Chemical resistant nickel ball valve, threaded end, blowout-proof stem, 304 SS lever and grip. Investment cast components. Sizes 1/2" to 2".



399-100 Series-Alloy 20 2-piece threaded valve with 304 SS and vinyl lever and grip. Investment cast with blowout-proof stem, adjustable packing gland; many options. Sizes 1/4" to 2". Shown with option -27, latch lock handle.



87A-400/500/600

87A-400 Series-Alloy 20 class 150 flanged standard port ball valve. Unibody design 1/2" - 2", easy repair split body on 3" and 4" sizes. Unibody available as 87B-400 on 3" and 4".



87A-500 Series-Alloy 20 class 150 flanged full port ball valves.

87A-600 Series-Alloy 20 class 300 flanged full port ball valves.

The most advanced design for the most demanding applications.

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401R-100/200 Series-Alloy 20 3-piece full port valve with RPTFE seats and seal, investment cast parts. -100: threaded; -200: socket weld. Sizes 1/2" to 2". Shown with lock plate, option -19 which allows valve to be locked in open or closed position.

High strength, abrasion resistant, but higher cost. Torque 40% higher than RPTFE.

Seat Options

Seal Style Designation Tem	Seal	Style	Designation	Tem
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PEEK

Seal Style Designation	Temp Range	Application/Special Capabilities
PTFE	to 400°F	For general applications. Lowest torque. Excellent chemical resistance.
RPTFE	to 450°F	Most commonly used. Basis for published torque values. Reinforced for longer life.
Multifill PTFE	to 500°F	Carbon graphite reinforced RPTFE; 30% lower torque than RPTFE. Ideal for steam applications.
UMPHWE	to 165°F	For high solids/slurry applications, or to prevent flourine off-gassing. 30% higher torque than RPTFE.

to 600°F

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Spec

87A-380/390



Descriptions

87A-380 Series—Stainless steel full port threaded x flanged valve. AAR approval numbers: E009007, E009008 and E009009. Includes ISO 5211 mounting pad, advanced packing design. sizes 1", 2", 3".

87A-390 Series—Stainless steel full port threaded valve. AAR approval numbers: E009003 and E009004. Bolted body design for ease of maintenance and repair. Includes ISO 5211 mounting pad, advanced packing design. Sizes 1", 2".

452/453-200



452/453-200 Series—Stainless steel and carbon steel ANSI class 150 full port flanged ball valve with extended bonnet for insulation. Positive shutoff, choice of stainless (452) or carbon steel (453). Sizes 1/2" to 6".

82-200



82-200 Series—Bronze 3-piece full port solder end ball valve for installation without disassembly. Type K tubing is brazed on both ends, in sizes 3/8" to 3-1/8" O.D. tube. Full port through 2-1/8".

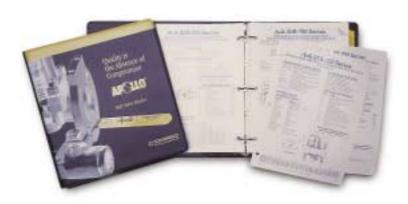
78-664



78-664 Series—Bronze center tapped ball valves with drain feature. Ideal for marine applications. Brass bonding screw standard. Sizes 3/4" through 2".

Engineering Binder

Descriptions



For more complete information on the valves you've seen in this catalog, including schematic drawings, materials tables, dimensions, options and flow curves, call Conbraco or our nearest Conbraco representative and request the Apollo Engineering Binder. You'll receive more than 200 pages of the detailed information you need to specify the right Apollo product for your application.



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