

Design Release

Date: July 16, 2012

Reference: Design Improvement

Product Line: Ball Valves

In response to evolving market demands requiring refrigeration and air conditioning components become more seamlessly integrated into new space saving equipment designs while improving overall performance and functionality, Mueller Refrigeration has enhanced the design of their CYCLEMASTER® Ball Valves to meet these industry challenges.

Using the latest computer-aided engineering design modeling and analysis software, Mueller Refrigeration has been able to reduce the overall footprint of the CYCLEMASTER® Ball Valve series, while maintaining critical dimensions such as overall lengths for ease of installation and replacement, and internal geometries that minimize pressure drop by line size. Market proven design features that include blow out proof stems with dual O-ring seals are retained in the new valve designs. The new designs allow greater flexibilities in mounting and installation; bi-directional flow characteristics have been maintained throughout the series, while valves have been mass optimized to minimize potential line fatigue.

CYCLEMASTER® series valves are UL and CE approved, and have been extensively tested and rated for use with all refrigerants and oils including systems that incorporate higher pressure refrigerants such as R-410a and subcritical CO₂.

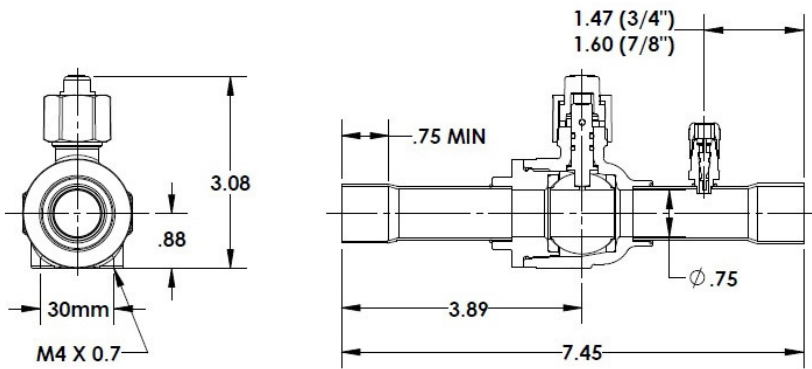
The new CYCLEMASTER® series will be released in phases by valve size. The 1 1/8" series was implemented and accepted by the industry in 2011, followed by the 1 3/8" valves during the second quarter of 2012.

During the third quarter of 2012, the third series will be implemented on the 3/4" and 7/8" sized valves. There will not be a transition of part numbers. Affective part numbers are listed below for reference:

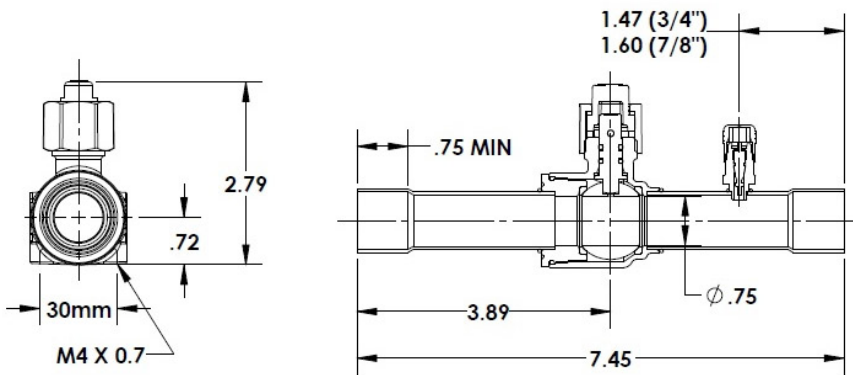
PARTNO	DESCRIPTION	PARTNO	DESCRIPTION
API7863	3/4 Ball Valve Drilled & Tapped	API7864	7/8 Ball Valve Drilled & Tapped
AQI7863	3/4 Ball Valve, Drilled & Tapped, Access Port	AQI7864	7/8 Ball Valve Drilled & Tapped, Access Port
ARI7863	3/4 Ball Valve, 5/16 FL Access	ARI7864	7/8 BV ASSY 5/16 ACC
AQB17863	EA 3/4 BALL VALVE ASSY	AQB17864	EA 7/8 BALL VALVE ASSY
APM17863	3/4 Ball Valve Drilled & Tapped	APM17864	7/8 Ball Valve Drilled & Tapped
AQM17863	3/4 Ball Valve Drilled & Tapped, Access Port	AQM17864	7/8 Ball Valve Drilled & Tapped, Access Port
APX17863	3/4 Ball Valve Drilled & Tapped, plastic cap	AQX17864	7/8 Ball Valve Drilled & Tapped, Access Port, plastic cap
AQX17863	3/4 Ball Valve, Drilled & Tapped, Access Port, plastic cap	B 34922	7/8 Straight Tube Ball Valve with 3" tube length
B 34482	3/4 BALL Valve ASSY	B 35280	EA 1 5/8 X 7/8 BV ASSY
B 34397	EA 3/4 FL X ORBP BALL VALVE ASSY	B 35368	EA 7/8 ODE X ODI BV ASSY
B 35405	EA 3/4 ODE X ODS BV ASSY		

General dimensional information can be found below.

Previous Design



Redesigned



For specific application questions or assistance with product selections, please contact your local Mueller Refrigeration sales representative or authorized distributor.