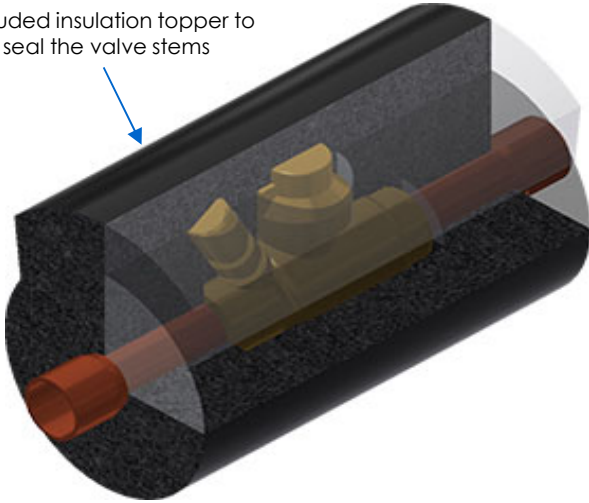


Refrigerant Ball Valves w/ Insulation Jackets

Included insulation topper to seal the valve stems



PRODUCT

Isolation Ball Valves for use in VRF/VRV and other refrigerant HVAC applications. EPDM Insulation Jackets are optional.

SPECIAL FEATURES

EPDM Insulation Jackets: EPDM insulation Jackets are included. They are time-saving and more appropriate compared to field-made 'solutions'. The EPDM Jacket meets 25/50 Fire and Smoke rating and has a working temperature from 70 to 257°F (-57 to 125 °C).

Accepts Brazing Rings: The sockets have a backstop, allowing the use of Brazing Rings for quality, repeatable brazes.

Sturdy Schrader Valve: The isolation valve has the schrader port built into the brass body, minimizing the chances of damage or failure.

VALVE SPECIFICATIONS

Maximum Working Pressure: 700 psig (48 bar, 49 kg/cm²)

Each valve is factory pressure and leak tested to 700 psig prior to shipping.

Valve Working Temperature: -40°F to 300°F (-40°C to 150°C)

Use: Compatible with CFC, HCFC, and HFC Refrigerants/Oils

Valve Type: Bidirectional Ball Valve with Unrestricted Flow

Access Port: Standard Schrader Valve brazed into Brass Body

Valve Certifications: UL/cUL Listed, CE Certified, and RoHS

INSULATION SPECIFICATIONS

Material: Low-density EPDM closed-cell elastomeric foam, CFC and HCFC gas free. Meets 25/50 Flame-Spread/Smoke-Generation per UL 723 and ASTM E84.

Thermal Conductivity: 0.235 (BTU * in/h * ft² * °F) at 75°F.

Water Vapor Permeability: <0.03 perm-in. (4.38 x 10⁻¹¹ g/Pa*s*m) per ASTM E96.

Water Absorption: <0.2% by volume per ASTM C 209.

Working Temperature: -70 °F to 257 °F (-57 °C to 125 °C) continuous per ASTM C 411.

Surface Burning Characteristics: Meets 25/50 Flame-Spread/Smoke-Generated per UL 723 and ASTM E84. Additionally meets UL-94 5 V-A, V-0 and is self-extinguishing per ASTM D 635.

Thickness: Available in 3/4", 1", and 1-1/2" thicknesses. Additional thickness can be easily added-on in the field.

⚠ CAUTION

▲ Cover brass body with damp cloth when brazing

▲ Ensure valve is fully insulated to be vapor tight

NOTE: Quantities are estimates only. Contractor is responsible for quantities required on project.

Qty.	Product #	Tube Size	Insulation Thickness	R-Value	Cv
	RBV6C	1/4"	Valve Only No Jacket		2.1
	RBV10C	3/8"			4.3
	RBV12C	1/2"			7.0
	RBV16C	5/8"			13.9
	RBV18C	3/4"			21.0
	RBV22C	7/8"			30.3
	RBV28C	1-1/8"			61.3
	RBV35C	1-3/8"			85.2
	RBV42C	1-5/8"			212.4
	RBV54C	2-1/8"			284.7
	JBV0206	1/4"	3/4"	4.5	2.1
	JBV0306	3/8"	3/4"	4.5	4.3
	JBV0406	1/2"	3/4"	4.5	7.0
	JBV0506	5/8"	3/4"	4.5	13.9

Reducers Included

- All 3/8" valves include a 3/8" to 1/4" Reducer

- All 5/8" valves include a 5/8" to 1/2" Reducer

Note: Reducers are compatible with brazing rings



Qty.	Product #	Tube Size	Insulation Thickness	R-Value	Cv
	JBV0208	1/4"	1"	6.5	2.1
	JBV0308	3/8"	1"	6.5	4.3
	JBV0408	1/2"	1"	6.5	7
	JBV0508	5/8"	1"	6.5	13.9
	JBV0608	3/4"	1"	6.2	21
	JBV0708	7/8"	1"	6.2	30.3
	JBV0908	1-1/8"	1"	6	61.3
	JBV1108	1-3/8"	1"	5.7	85.2
	JBV1308	1-5/8"	1"	5.5	212.4
	JBV1708	2-1/8"	1"	5.3	284.7
	JBV0212	1/4"	1-1/2"	10.9	2.1
	JBV0312	3/8"	1-1/2"	10.9	4.3
	JBV0412	1/2"	1-1/2"	10.9	7
	JBV0512	5/8"	1-1/2"	10.9	13.9
	JBV0612	3/4"	1-1/2"	10.3	21
	JBV0712	7/8"	1-1/2"	10.3	30.3
	JBV0912	1-1/8"	1-1/2"	9.9	61.3
	JBV1112	1-3/8"	1-1/2"	9.3	85.2
	JBV1312	1-5/8"	1-1/2"	8.9	212.4
	JBV1712	2-1/8"	1-1/2"	8.6	284.7

Refrigerant Ball Valves w/ Insulation Jackets

Important Installation Notes

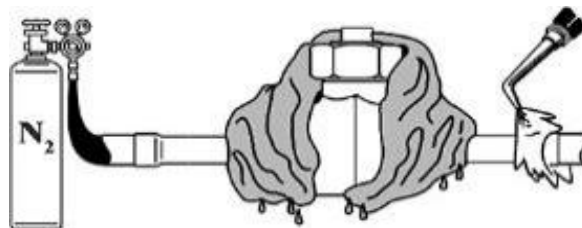
Installation on VRV/VRF Branch Controller Boxes

1) On modern VRV/VRF systems, it is common for the ports on branch controller boxes to be closely spaced. This tight spacing between ports often limits the thickness of insulation that can be used on valves, typically resulting in less insulation thickness than the requirements for the project. On the suction line, if the installed insulation thickness would be less than what is required to prevent condensation, it is recommended to move the valves away from the branch controller to allow space for insulation jackets having enough thickness to prevent condensation.

- If the valves must be installed at the branch box and if the suction line has insufficient insulation thickness to prevent condensation, then some other means of preventing or dealing with condensation must be used (such as the installation of a drip pan beneath the valves).

BRAZING INSTRUCTIONS

- 1) DO NOT DISASSEMBLE (other than to remove or slide the two smaller pieces of round inner insulation away from the heat)
- 2) WRAP THE BODY OF THE VALVE WITH A WET RAG (to dissipate heat - over heating causes damage)
- 3) Purge with dry nitrogen through the valve while brazing (to reduce internal carbon formation)
- 4) Flux not required with phosphor alloys (i.e. Reftekk Brazing Rings) on copper-to-copper joints
 - Flow temperature 1300°F - 1500°F
- 5) Use flux with silver brazing alloys
 - Flow temperature 1100°F - 1300°F
- 6) Use large enough torch to rapidly heat joint to brazing temperature
 - DIRECT FLAME AWAY FROM VALVE BODY
- 7) Quench to reduce heat spread after brazing



INSULATION JACKET

- 1) AFTER the valve has been fully brazed:
 - a) Installing the two smaller pieces of round inner insulation:
 - Place the two smaller insulation pieces onto each copper stub of the valve
 - If needed, cut insulation piece(s) longitudinally, put into place, then seal the seam with Aeroseal® contact adhesive
 - b) Installing the larger piece of round outer insulation:
 - Place the round insulation jacket around the valve
 - Wet-seal the two inner pieces from step "a" to the outer piece from step "b" using Aeroseal® contact adhesive
 - Peel off the yellow/orange strip to reveal the adhesive and press the split-seam together to create a seal
 - Peel off the Protape from the overlap-seal and adhere into place
 - c) Installing the insulation topper:
 - Peel off the removable adhesive liner from a rectangular insulation topper
 - Place the topper onto the round insulation jacket, centering it over the valve stems
 - Firmly press the topper down to ensure full adhesive contact
 - d) Joining to adjacent line insulation (typically line-sets):
 - Wet-seal the adjacent line insulation to the pipe using Aeroseal® contact adhesive
 - Join the valve insulation jacket to the adjacent line insulation with Aeroseal® contact adhesive
- 2) The insulation MUST be sealed to prevent rain or condensation from reaching the tube

OPERATING NOTES

- 1) Opening or closing the valve:
 - Use an adjustable wrench to thread on/off the seal cap (do not overtighten)
 - Turn the valve stem 90 degrees against the mechanical stops to open or close the valve
 - Open is in the counter-clockwise direction (arrows in-line with tubing)
 - Closed is in the clockwise direction (arrows perpendicular to tubing)
 - DO NOT USE EXCESSIVE FORCE AGAINST STOPS OR PERMANENT DAMAGE MAY OCCUR
- 2) To adjust the valve after the insulation jacket is installed:
 - The insulation jacket must first be removed
 - Adjust the valve
 - Reinstall a new insulation jacket