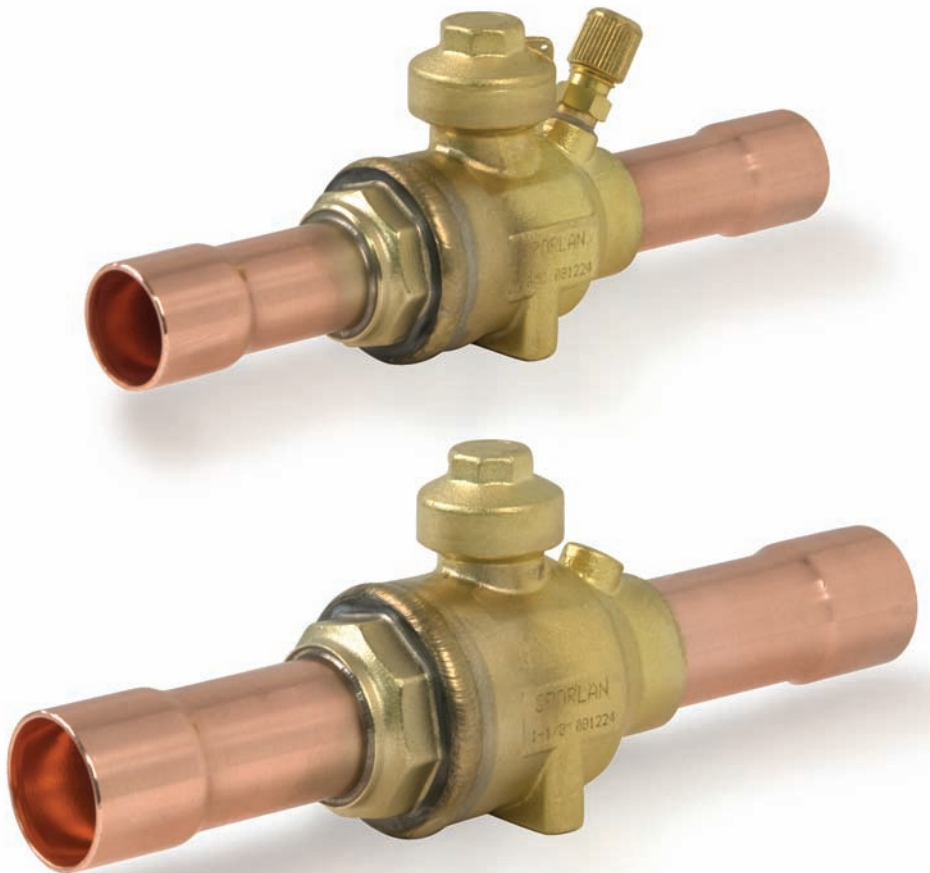
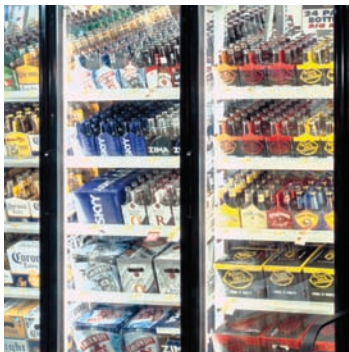




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# Sporlan EBV Ball Valve Series

Bulletin 50-10, October 2009



ENGINEERING YOUR SUCCESS.

## EBV Series and EBVT Series (with Access Fitting)

- Welded body joint. Factory tested to ensure positive, leak-free performance. Forged brass body construction with extended copper fittings and optional access fittings.
- Full size ports for unrestricted flow on most sizes 1/4" (6 mm) through 2-1/8" (54 mm).
- Dual Teflon seals surround the polished, brass ball to prevent leakage. Stem seal and stem washer provide the primary stem seal. Bottom load stem for safety.
- Stainless steel stop plate ensures fully open to fully closed with a 1/4 turn.
- Ball internal relief port design ensures positive shut-off in either flow direction, even during system evacuation.
- All EBV(T) ball valves are bi-directional and may be installed in any position.
- Full refrigeration service temperature range: -40°F to +325°F (-40°C to +149°C).
- Design working pressure: 700 psig (49 bar).
- U.L. Listed File No. SA13413 (SFJQ)
- The new EBV(T) ball valves are suitable for use with R-12, R-22, R-123, R-125, R-134a, R-236fa, R-402A, R-402B, R-404A, R-407A, R-407C, R-410A, R-422D, R-502, and R-507.
- Date code stamped into valve body Yr/Mo/Day

### EBV Series – Inches

Valve Type	Valve Type with Access Fitting	Connection (ODF)	Overall Length D	Socket Depth B	L	Overall Height M	Port Size C	Mounting Holes E	Mounting Hole Size H	Cv	Weight EBV & EBVT (lbs.)
EBV-1020**	EBVT-1020**	1/4	6.50	0.31	0.63	2.14	0.50	0.79	#8-36 UNF	2.1	0.725
EBV-1030	EBVT-1030	3/8	6.50	0.31	0.63	2.14	0.50	0.79	#8-36 UNF	4.3	0.725
EBV-1040	EBVT-1040	1/2	6.50	0.38	0.63	2.14	0.50	0.79	#8-36 UNF	7.0	0.725
EBV-1050	EBVT-1050	5/8	6.50	0.50	0.63	2.14	0.50	0.79	#8-36 UNF	13.9	0.725
EBV-1060	EBVT-1060	3/4	7.25	0.62	0.83	2.63	0.75	1.26	#8-36 UNF	21.0	1.375
EBV-1070	EBVT-1070	7/8	7.25	0.75	0.83	2.63	0.75	1.26	#8-36 UNF	30.3	1.405
EBV-1090	EBVT-1090	1-1/8	8.50	0.91	1.00	2.98	1.00	1.57	#10-32 UNF	61.3	2.10
EBV-1110	EBVT-1110	1-3/8	9.25	0.97	1.22	3.70	1.25	1.89	#10-32 UNF	85.2	3.36
EBV-1130	EBVT-1130	1-5/8	10.00	1.09	1.53	4.29	1.50	2.36	1/4-28 UNF	212	5.39
EBV-1170	EBVT-1170	2-1/8	11.38	1.34	1.87	5.18	2.00	2.95	1/4-28 UNF	285	10.09
EBV-1210	EBVT-1210	2-5/8	14.37	1.47	2.36	6.06	2.50	2.95	1/4-28 UNF	301	19.25
EBV-1250	EBVT-1250	3-1/8	16.54	1.66	2.81	7.01	3.15	4.10	5/16-24 UNF	420	40.13
EBV-2210*	EBVT-2210*	2-5/8	12.88	1.47	1.87	5.18	2.00	2.95	1/4-28 UNF	238	11.11
EBV-2250*	EBVT-2250*	3-1/8	14.37	1.66	2.36	6.06	2.50	2.95	1/4-28 UNF	324	19.25

\* Reduced port and not a stock item. Minimum order quantity may be required.

\*\* EBV-1020 and EBVT-1020 are not stock items. Minimum order quantity is required.

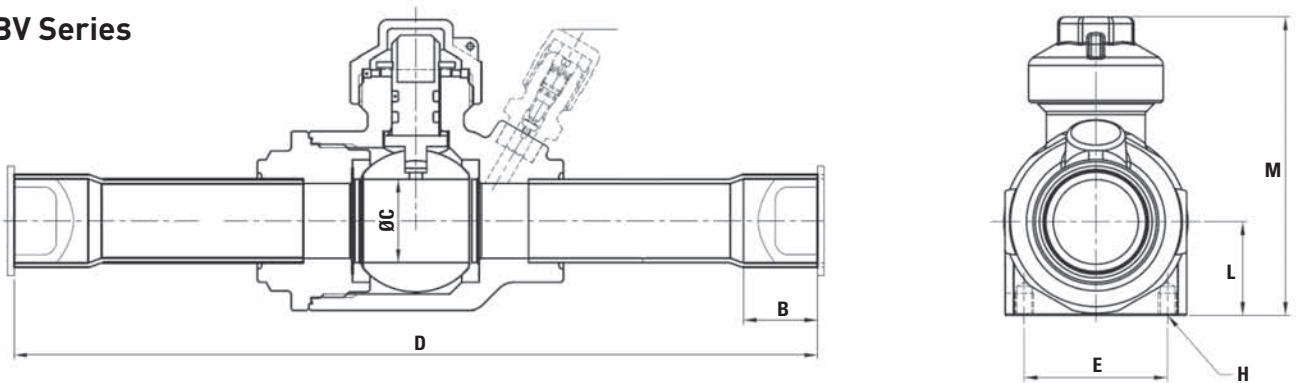
### EBV-MM Series – Millimeters

Valve Type	Valve Type with Access Fitting	Connection (ODF) mm	Overall Length D mm	Socket Depth B mm	L mm	Overall Height M mm	Port Size C mm	Mounting Holes E mm	Mounting Hole Size H	Kv	Weight EBV & EBVT (lbs.)
EBV-6MM**	EBVT-6MM**	6	165.10	8.00	16.00	54.36	12.70	20.07	#8-36 UNF	1.80	0.725
EBV-10MM	EBVT-10MM	10	165.10	8.00	16.00	54.36	12.70	20.07	#8-36 UNF	3.67	0.725
EBV-12MM	EBVT-12MM	12	165.10	10.00	16.00	54.36	12.70	20.07	#8-36 UNF	5.97	0.725
EBV-16MM	EBVT-16MM	16	165.10	13.00	16.00	54.36	12.70	20.07	#8-36 UNF	11.86	0.725
EBV-18MM	EBVT-18MM	18	184.15	17.00	21.08	66.80	19.05	32.00	#8-36 UNF	17.93	1.375
EBV-22MM	EBVT-22MM	22	184.15	20.00	21.08	66.80	19.05	32.00	#8-36 UNF	25.86	1.405
EBV-28MM	EBVT-28MM	28	215.90	24.00	25.40	75.69	25.40	39.88	#10-32 UNF	52.29	2.10
EBV-35MM	EBVT-35MM	35	234.95	25.00	31.00	93.98	31.75	48.01	#10-32 UNF	72.68	3.36
EBV-42MM	EBVT-42MM	42	254.00	28.00	38.86	108.97	38.10	59.94	1/4-28 UNF	181.18	5.39
EBV-54MM	EBVT-54MM	54	289.50	35.00	47.50	131.57	50.80	74.93	1/4-28 UNF	242.85	10.09
EBV-64MM	EBVT-64MM	64	365.00	35.00	60.00	153.92	63.50	74.93	1/4-28 UNF	256.16	19.25
EBV-76MM	EBVT-76MM	76	420.00	38.00	72.00	178.30	80.00	104.00	5/16-24 UNF	256.16	19.25
EBV-64MM*	EBVT-64MM*	64	327.15	35.00	47.50	131.57	50.80	74.93	1/4-28 UNF	202.59	11.11
EBV-76MM*	EBVT-76MM*	76	365.00	38.00	60.00	153.92	63.50	74.93	1/4-28 UNF	276.71	19.25

\* Reduced port and not a stock item. Minimum order quantity may be required.

\*\* EBV-6MM and EBVT-6MM are not stock items. Minimum order quantity is required.

## EBV Series



## Nomenclature - Inches

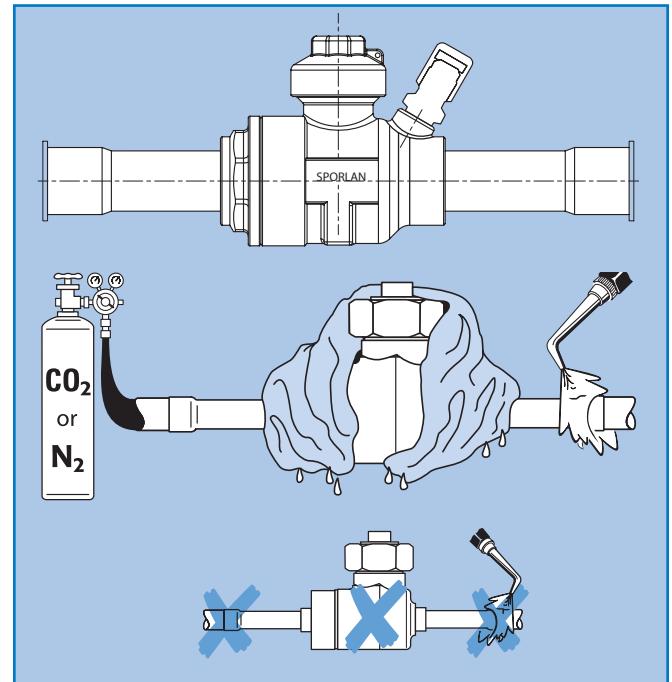
Example - EBVT-1030

EBV	T	-	1	03	0
Valve Type	Access Fitting		Series: 1 = Full Port 2 = Reduced port	Fitting Size: (In eighths of an inch) ie: 03 = 3/8"	Fitting Configuration: 0 = ODF x ODF

## Nomenclature - mm

Example - EBVT-10MM

EBV	T	-	10MM	R	
Valve Type	Access Fitting		Metric Fitting Size	Reduced Port	Fitting Configuration: ODF x ODF



## Brazing Instructions

- DO NOT DISASSEMBLE.
- WRAP THE BODY OF THE VALVE WITH A WET RAG (to dissipate heat-overheating causes damage).
- Bleed dry nitrogen or CO<sub>2</sub> through the valve while brazing.
- Use flux with silver brazing alloys.
- Flux not required with phosphor alloys, on copper to copper joints, but flux is recommended for deeper penetration and more uniform results with all alloys.
- Use large enough torch to rapidly heat joint to brazing temperature. Direct flame away from existing copper to brass joints.
- Quench to reduce heat spread after brazing.

## Operation Notes

- Remove seal cap. **CAUTION:** Pressure may be under seal cap, remove slowly.
- Rotate stem using adjustable wrench. Turn 90° against the mechanical stops. Align open arrow with refrigerant

line for non-directional flow. Turn clock-wise to close; counter-clockwise to open.

- This valve contains mechanical stops. **DO NOT USE EXCESSIVE FORCE AGAINST STOPS OR PERMANENT DAMAGE MAY OCCUR.**
- Install seal cap.
- Valves are designed for use with R-12, R-22, R-123, R-125, R-134a, R-236fa, R-402A, R-402B, R-404A, R-407A, R-407C, R-410A, R-422D, R-507 and RS-44.

**NOTICE: DO NOT DISASSEMBLE VALVE FOR ANY REASON.**

For use with CFC, HFC, and HCFC refrigerants listed in CAN/CSA B52 and ANSI/ASHRAE 15 Sec. 9.2 where the saturation vapor pressure at 125°F (52°C) (high side) and 80°F (27°C) (low side) is less than the maximum design working pressure. After charging, mark unit with refrigerant type and oil type.

**NOTE: WARRANTY IS VOID IF THESE INSTRUCTIONS ARE NOT FOLLOWED.**



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