

The B-series with strainer series is a balanced ported valve. Typical applications include: refrigerated cases, coolers, freezers, ice machines and air conditioning systems that operate over widely varying operating conditions. This valve series also features a removable inlet strainer.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Removable inlet strainer assembly
- Balanced port design compensates for changes in operating pressures due to varying ambients or widely varying evaporator loads
- Hermetic, leak-free construction
- Solid copper ODF connections, angle style only

Options

- Adjustable and non-adjustable configurations
- Ratings from 1/2 to 6 tons

Specifications

- Maximum Working Pressure: 450 psig

Nomenclature example: BAESB 1/2 HC 5 FT 3/8 x 1/2 ODF

B	A	E	S	B	1/2	H	CA	5 FT	3/8 x 1/2	ODF
Valve Series	Superheat Adjustment A = Adjustable	Equalizer E=External (Omit for Internal)	Strainer Removable Inlet Screen	Bleed Hole (optional) (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A *B = R-448A /R-449A +D = R-450A /R-513A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 30 IN (std) & 5 FT (std)	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2 1/2 x 5/8 5/8 x 7/8	Connection Type ODF = solder
Hermetic Balanced Port Design	N = Non-Adjustable									

- + = R-12, R-134a, R-450A/R-513R are interchangeable refrigerant charges
- * = R-507, R-502, R-404A, R-448A and R-448A are interchangeable refrigerant charges
- = R-22 and R-407C are interchangeable refrigerant charges

B Series with Strainer – Nominal* Capacity Table in Tons (kW)

R-12	R-134a	R-450A/R-513A	R-22/R-407C	R-502/R-507/R-404A	**R-448A/R-449A
1/4 (0.9)	1/2 (1.8)	1/4 (0.9)	1/2 (1.8)	1/4 (0.9)	1/2 (1.8)
1/2 (1.8)	3/4 (2.7)	1/2 (1.8)	1 (3.5)	1/2 (1.8)	1 (3.5)
1 (3.5)	1 (3.5)	3/4 (2.7)	1½ (5.3)	1 (3.5)	1½ (5.3)
1¼ (4.4)	1½ (5.3)	1 (3.5)	2 (7.0)	1¼ (4.4)	2 (7.0)
1½ (5.3)	2 (7.0)	1½ (5.3)	2½ (9.0)	1½ (5.3)	2½ (8.8)
2 (7.0)	2¼ (8.0)	1¾ (9.5)	3 (11.0)	2 (7.0)	3 (11.0)
2½ (9.0)	3 (11.0)	2½ (8.0)	4 (14.0)	2½ (9.0)	4 (14.0)
3 (11.0)	3½ (12.0)	3 (11.0)	5 (17.0)	3 (11.0)	5 (17.5)
3½ (12.0)	4 (15.0)	3½ (12.0)	6 (21.0)	4 (14.0)	6 (21.0)

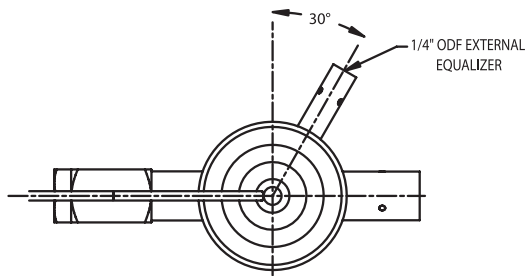
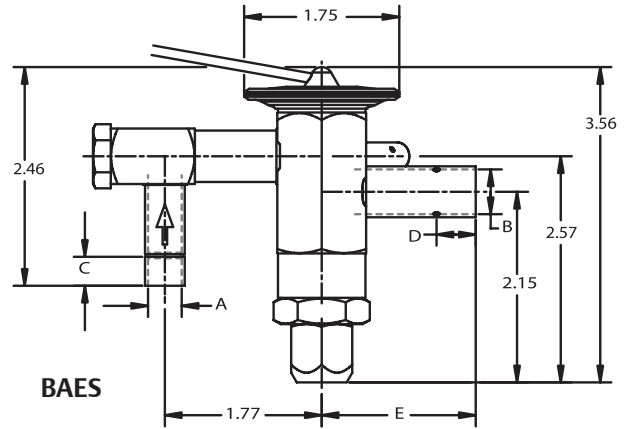
All capacities shown are at 100°F condensing, 40°F evaporator temperature.

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

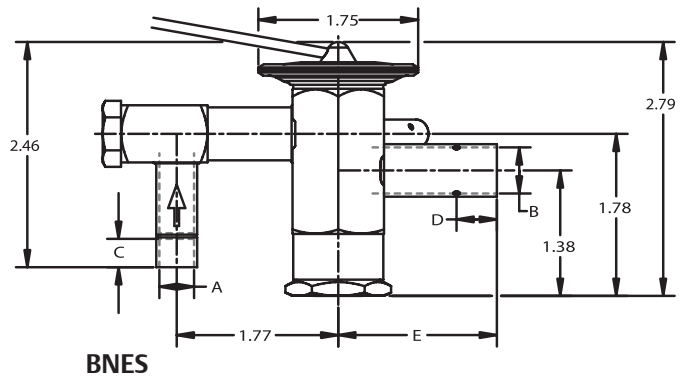
**Use SZ charge for all R-448A/R-449A applications. Recommend oversizing the valve capacity by 50% for low temperature applications.

BAES/BNES Dimensional Data (in) ODF Connections, Angle Style Only

Connection Size		A	B	C MIN	D MIN	E
Inlet	Outlet					
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.32	1.73
1/4 ODF	1/2 ODF	0.25	0.50	0.31	0.41	1.73
1/4 ODF	5/8 ODF	0.25	0.63	0.31	0.50	1.75
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.41	1.73
3/8 ODF	5/8 ODF	0.38	0.63	0.32 <td 0.50	1.75	
3/8 ODF	7/8 ODF	0.38	0.88	0.32	0.62	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.41	0.41	1.73
1/2 ODF	5/8 ODF	0.50	0.63	0.41	0.50	1.75
1/2 ODF	7/8 ODF	0.50	0.88	0.41	0.62	1.73



ODF
Top View
Showing External Equalizer Location



Remote Bulb Tubing Length 30" or 5' Standard

BAES & BNES Remote Bulb Dimensions		
Refrigerant Charge	Diameter	Length
HCA, NCA, HAA	0.75	2.38
MC, MZ, MW (MOP), RW (MOP) RC, SC, SZ, SW (MOP), PC, PZ, PW (MOP)	0.50	2.13

Ordering Information (BAES Only)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-134a R-12 R-450A R-513A	BAES	1/2	MC	3/8 X 1/2 ODF ANG	30 IN	064244
		3/4	MC	3/8 X 1/2 ODF ANG	30 IN	064245
		1	MC	3/8 X 1/2 ODF ANG	30 IN	064246
		1½	MC	3/8 X 1/2 ODF ANG	30 IN	064247
		2	MC	3/8 X 1/2 ODF ANG	30 IN	064248
		3	MC	3/8 X 1/2 ODF ANG	30 IN	064250
R-22 R-407C	BAES	1/2	HC	3/8 X 1/2 ODF ANG	30 IN	064235
		1	HC	3/8 X 1/2 ODF ANG	30 IN	064236
		1½	HC	3/8 X 1/2 ODF ANG	30 IN	064237
		2	HC	3/8 X 1/2 ODF ANG	30 IN	064238
		2½	HC	3/8 X 1/2 ODF ANG	30 IN	064239
		3	HC	3/8 X 1/2 ODF ANG	30 IN	064240
		4	HC	3/8 X 1/2 ODF ANG	30 IN	064241
		5	HC	3/8 X 1/2 ODF ANG	30 IN	064242
R-404A R-507 R-502 **R-448A **R-449A	BAES	1/4	SC	3/8 X 1/2 ODF ANG	30 IN	064137
			SZ	3/8 X 1/2 ODF ANG	30 IN	064295
		1/2	SC	3/8 X 1/2 ODF ANG	30 IN	064138
			SZ	3/8 X 1/2 ODF ANG	30 IN	064144
		1	SC	3/8 X 1/2 ODF ANG	30 IN	064139
			SZ	3/8 X 1/2 ODF ANG	30 IN	064145
		1¼	SC	3/8 X 1/2 ODF ANG	30 IN	064140
			SZ	3/8 X 1/2 ODF ANG	30 IN	064146
		1½	SC	3/8 X 1/2 ODF ANG	30 IN	064141
			SZ	3/8 X 1/2 ODF ANG	30 IN	064273
		2	SC	3/8 X 1/2 ODF ANG	30 IN	064142
			SZ	3/8 X 1/2 ODF ANG	30 IN	064537
		2½	SC	3/8 X 1/2 ODF ANG	30 IN	064280
			SZ	3/8 X 1/2 ODF ANG	30 IN	064434
		3	SC	3/8 X 1/2 ODF ANG	30 IN	064281
			SZ	3/8 X 1/2 ODF ANG	30 IN	064538
		4	SC	3/8 X 1/2 ODF ANG	30 IN	064460
			SZ	3/8 X 1/2 ODF ANG	30 IN	064780

* For interchangeable refrigerant charges R-134a/R-12/R-450A/R-513A, R-404A/R-507/R-502/R-448A/R-449A and R-22/R-407C the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.

Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected?

Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

** Use SZ charge for all R-450A/R-513A applications. Recommend oversizing the valve capacity by 50% for low temperature applications.