



# Balanced Port Thermostatic Expansion Valve Selection Chart for Bohn Refrigeration Products

A Unit of Heatcraft Inc.

All of the valves selected below are of the balanced port design with load conditions provided by Bohn Refrigeration Products. The selections are based on 95° F condensing temperature and 10° F liquid subcooling. Externally equalized valves are used with coils having refrigerant distributors. The pressure drop across the coil and distributor is approximately 35 psi for R-22 and R-502. The balanced port design is recommended primarily for use on systems having one or more of the following operating conditions: (1) widely varying evaporator loads; (2) widely varying head pressures; and (3) fluctuating or extremely low liquid temperatures. However, if actual conditions differ from those listed above, valve selections should be made from Bulletins 10-10-2 and 20-10. For systems that do not utilize the design concepts listed above, select a standard thermostatic expansion valve by referring to Bulletin 500-10-BAB or Bulletin 10-10.

### REACH-INS 35° F Cooler Temperature

COIL MODEL	COIL INLET CONNECTION INCHES	25° F EVAPORATING TEMPERATURE		20° F EVAPORATING TEMPERATURE	
		BTU/HR 10° T. D.	REFRIGERANT	BTU/HR 15° T. D.	REFRIGERANT
			22		22
VA, VAT, VAK-7	1/2 SAE Flare Nut	650	BFV-AA-C	975	BFV-AA-C
VA, VAT, VAK-8		800		1,200	
VA, VAT, VAK-12		1,200		1,800	
U, UF, UK-9	1/2 SAE Flare Nut	850	BFV-AA-C	1,275	BFV-AA-C
U, UF, UK-12		1,150		1,725	
U, UF, UK-15		1,500		2,250	
TA, TAK-10	1/2 SAE Flare Nut	1,000	BFV-AA-C	1,500	BFV-AA-C
TA, TAK-13		1,300		1,950	
TA, TAK-17		1,700		2,550	
TA, TAK-23		2,300		3,450	
TA, TAK-30		3,000	4,500		
TA, TAK-41		4,100	BFVE-AA-C	6,150	BFVE-AA-C
KM, RAM-13	1/2 SAE Flare Nut	1,250	BFV-AA-C	1,875	BFV-AA-C
KM, RAM-17		1,650		2,475	
KM, RAM-22		2,200		3,300	
C, CK-13	1/2 SAE Flare Nut	1,300	BFV-AA-C	1,950	BFV-AA-C
C, CK-17		1,700		2,550	
C, CK-23		2,300		3,450	
C, CK-30		3,000	4,500		
C, CK-43		4,300	BFVE-AA-C	6,450	BFVE-AA-C
UM-13	1/2 SAE Flare Nut	1,300	BFV-AA-C	1,950	BFV-AA-C
UM-17		1,700		2,550	
UM-23		2,300		3,450	
UM-29		2,850		4,275	

### - 10° F Freezer Temperature

COIL MODEL	COIL INLET CONNECTION INCHES	-20° F EVAPORATING TEMPERATURE		COIL MODEL	COIL INLET CONNECTION INCHES	-20° F EVAPORATING TEMPERATURE	
		BTU/HR 10° T. D.	REFRIGERANT			BTU/HR 10° T. D.	REFRIGERANT
			502				502
TE-297	1/2 SAE Flare Nut	2,900	BFRE-AA-ZP	TL-9	1/2 SAE Flare Nut	920	BFR-AA-ZP
TE-357		3,500		TL-12		1,200	
TE-527		5,200		TL-16		1,550	
				TL-21		2,100	

## AIR DEFROST UNIT COOLERS 35° F Cooler Temperature

COIL MODEL	COIL INLET CONNECTION INCHES	25° F EVAPORATING TEMPERATURE			20° F EVAPORATING TEMPERATURE		
		BTU/HR 10° T.D.	REFRIGERANT		BTU/HR 15° T.D.	REFRIGERANT	
			22	502		22	502
LO-40	1/2 SAE Flare Nut	4,000	BFVE-AA-C	BFRE-AA-C	6,000	BFVE-AA-C	BFRE-AA-C
LO-58		5,800		BFRE-AA-C	8,700	BFVE-A-C	BFRE-A-C
LO-70		7,000		BFRE-A-C	10,500		
LO-87		8,700	13,050				
LO-118		11,800	17,700				
LO-125		12,500	BFVE-A-C	BFRE-B-C	18,750	BFVE-B-C	BFRE-B-C
LO-150		15,000			22,500		
LO-165		16,500			24,750		
LO-189		18,900		BFRE-C-C	28,350		BFRE-C-C
LO-266	7/8 ODM	26,600	EBFVE-B-C	EBFRE-C-C	39,900	EBFVE-C-C	EBFRE-C-C

FM-36	1/2 SAE Flare Nut	3,600	BFVE-AA-C	BFRE-AA-C	5,400	BFVE-AA-C	BFRE-AA-C	
FM-46		4,600			6,900		BFVE-A-C	BFRE-A-C
FM-56		5,600			8,400			
FM-76		7,600			11,400			
FM-96		9,600			14,400			
FM-380	7/8 ODM	38,000	EBFVE-C-C	EBFRE-C-C	57,000	EBFVE-C-C	EBSRE-D-C	
FM-450		45,000		67,500				
FM-630		63,000		EBSRE-D-C	94,500			EBSVE-D-C
FM-850	1-3/8 ODM	85,000	EBSVE-D-C	127,500	ORE-12-C			
FM-1100		110,000	ORE-9-C	165,000		OVE-15-C		
FM-1400	1-5/8 ODM	140,000	OVE-15-C	ORE-12-C	210,000	OVE-20-C	ORE-21-C	

HR-35	1/2 SAE Flare Nut	3,470	BFVE-AA-C	BFRE-AA-C	5,205	BFVE-AA-C	BFRE-AA-C	
HR-43		4,330			6,495		BFVE-A-C	BFRE-A-C
HR-54		5,400			8,100			
HR-69		6,880		10,320				
HR-87		8,670		BFRE-A-C	BFVE-A-C	13,005	BFRE-B-C	
HR-108		10,800				16,200		
HR-149		14,900				22,350		
HR-180		18,000		BFVE-A-C	BFRE-B-C	27,000	BFVE-B-C	BFRE-C-C

ADT-40	1/2 SAE Flare Nut	4,000	BFVE-AA-C	BFRE-AA-C	-	-	-	
ADT-52		5,200						BFRE-A-C
ADT-65		6,500						
ADT-70		7,000						
ADT-90		9,000						
ADT-104		10,400						
ADT-130		13,000	BFVE-A-C	BFRE-B-C				
ADT-156		15,600						
ADT-208		20,800						
ADT-260		26,000	BFVE-B-C	BFRE-C-C				
ADT-312		31,200						
ADT-370		5/8 ODM	37,000	EBFVE-B-C				EBFRE-C-C

## AIR DEFROST UNIT COOLERS (Con't)

### 35° F Cooler Temperature

COIL MODEL	COIL INLET CONNECTION INCHES	25° F EVAPORATING TEMPERATURE			20° F EVAPORATING TEMPERATURE		
		BTU/HR 10° T. D.	REFRIGERANT		BTU/HR 15° T. D.	REFRIGERANT	
			22	502		22	502
LSC-120	5/8 ODM	12,000	EBFVE-A-C	EBFRE-A-C	18,000	EBFVE-A-C	EBFRE-B-C
LSC-160	7/8 ODM	16,000		EBFRE-B-C	EBFRE-B-C	24,000	
LSC-200		20,000	30,000			EBFRE-C-C	
LSC-240		24,000	36,000				

SM-46	1/2 SAE Flare Nut	4,600	BFVE-AA-C	BFRE-AA-C	6,900	BFVE-AA-C	BFRE-A-C
SM-52		5,200		BFRE-A-C	BFRE-A-C	7,800	
SM-76		7,600	BFVE-A-C			11,400	
SM-90		9,000		BFRE-B-C	13,500	BFVE-B-C	
SM-108		10,800	BFRE-B-C		16,200		
SM-156		15,600		BFRE-B-C	23,400	BFRE-C-C	
SM-208		20,800	31,200				

WK-50	1/2 SAE Flare Nut	5,000	BFVE-AA-C	—	7,500	BFVE-AA-C	—
WK-75		7,500			BFVE-A-C	11,250	
WK-100		10,000	EBFVE-A-C			15,000	
WK-130	1-1/8 ODM	13,000		EBFVE-A-C	—	19,500	
WK-155		15,500	EBFVE-B-C			23,250	
WK-180		18,000				EBFVE-C-C	27,000
WK-210		21,000	EBFVE-C-C	31,500			
WK-270		27,000		EBFVE-C-C		40,500	
WK-340	34,000	51,000					

MPA-115	5/8 ODM †	11,500	EBFVE-A-C	EBFRE-A-C	17,250	EBFVE-A-C	EBFRE-B-C
MPA-140		14,000		EBFRE-B-C	EBFRE-B-C	21,000	
MPA-175	7/8 ODM †	17,500				EBFRE-C-C	26,000
MPA-245	1-1/8 ODM	24,500	EBFRE-C-C	EBFRE-C-C	36,750		EBFVE-C-C
MPA-300		30,000			EBSRE-D-C	45,000	
MPA-365	36,500	EBSRE-D-C	54,750	EBSRE-D-C			
MPA-450	1-3/8 ODM		45,000		EBSRE-D-C	67,500	EBSRE-D-C
MPA-600		60,000	90,000				

† Adapter makes conversion to 1/2 SAE Flare Nut (included w/coil)

**RIPENING ROOM COOLERS**  
50° F Cooler Temperature

COIL MODEL	COIL INLET CONNECTION INCHES	40° F EVAPORATING TEMP.	
		BTU/HR 10° T.D.	REFRIGERANT
RU0546	7/8 ODM	34,700	EBFVE-C-GA
RU0556		41,700	
RU0566		46,100	
RU1046	1-1/8 ODM	73,900	EBSVE-D-GA
RU1056		88,700	
RU1066		100,000	

**55° F Cooler Temperature**

COIL MODEL	COIL INLET CONNECTION INCHES	40° F EVAPORATING TEMP.	
		BTU/HR 15° T.D.	REFRIGERANT
RU0544	7/8 ODM	50,100	EBFVE-C-GA
RU0554		60,600	
RU0564		68,900	
RU1044	1-1/8 ODM	106,200	EBSVE-D-GA
RU1054		128,200	
RU1064	1-3/8 ODM	147,400	OVE-15-GA

COIL MODEL	COIL INLET CONNECTION INCHES	45° F EVAPORATING TEMP.	
		BTU/HR 10° T.D.	REFRIGERANT
RU0544	7/8 ODM	30,500	EBFVE-B-GA
RU0554		37,300	EBFVE-C-GA
RU0564		41,500	
RU1044	1-1/8 ODM	65,100	EBSVE-D-GA
RU1054		79,400	
RU1064	1-3/8 ODM	90,600	

**AIR DEFROST UNIT COOLERS**  
55° F Cooler Temperature

COIL MODEL	COIL INLET CONNECTION INCHES	35° F EVAPORATING TEMP.		
		BTU/HR 20° T.D.	REFRIGERANT	
LO-40	1/2 SAE Flare Nut	8,000	BFVE-AA-C	
LO-58		11,600	BFVE-A-C	
LO-70		14,000		
LO-87		17,400		
LO-118		23,600		
LO-125		25,000	BFVE-B-C	
LO-150		30,000		
LO-165		33,000		
LO-189		37,800	BFVE-C-C	
LO-226		7/8 ODM	53,200	EBSVE-D-C

WK-50	1/2 SAE Flare Nut	10,000	BFVE-A-C
WK-75		15,000	
WK-100		20,000	
WK-130	1-1/8 ODM	26,000	EBFVE-B-C
WK-155		31,000	
WK-180		36,000	EBFVE-C-C
WK-210		42,000	
WK-270		54,000	
WK-340		68,000	EBSVE-D-C

**ELECTRIC DEFROST UNIT COOLERS**  
30° F Cooler Temperature

COIL MODEL	COIL INLET CONNECTION INCHES	20° F EVAPORATING TEMPERATURE		
		BTU/HR 10° T.D.	REFRIGERANT	
LET-40	1/2 SAE Flare Nut	4,600	BFVE-AA-C	BFRE-AA-C
LET-65		7,500		
LET-90		10,400	BFVE-A-C	BFRE-A-C
LET-120		13,800		
LET-160		18,400		
LET-200		23,000	BFVE-B-C	BFRE-B-C
LET-240		27,600		BFRE-C-C

SME35	1/2 SAE Flare Nut	4,100	BFVE-AA-C	BFRE-AA-C
SME40		4,600		
SME54		6,200		
SME65		7,500		
SME90		10,300	BFVE-A-C	BFRE-A-C
SME130		14,900		BFRE-B-C
SME174		20,000		

LLE-102	5/8 ODM	12,000	EBFVE-A-C	EBFRE-A-C
LLE-136	7/8 ODM	16,000		
LLE-170		20,000	EBFRE-B-C	
LLE-204		24,000		EBFVE-B-C

LOD-87	1/2 SAE Flare Nut	8,700	BFVE-AA-C	BFRE-A-C
LOD-118		11,800	BFVE-A-C	
LOD-125		12,500		
LOD-150		15,000		
LOD-165		16,500		BFRE-B-C
LOD-189		18,900		
LOD-266		7/8 ODM	26,600	EBFVE-B-C

FL-42	1/2 SAE Flare Nut	4,900	BFVE-AA-C	BFRE-AA-C
FL-65		7,500		BFRE-A-C
FL-330	7/8 ODM	38,000	EBFVE-C-C	EBFRE-C-C
FL-400		45,000		EBSRE-D-C
FL-550		63,000		
FL-740	1-3/8 ODM	85,000	EBSVE-D-C	ORE-9-C
FL-950		110,000		
FL-1200	1-5/8 ODM	140,000		ORE-12-C

**ELECTRIC DEFROST UNIT COOLERS (Con't)**  
**30° F Cooler Temperature**

COIL MODEL	COIL INLET CONNECTION INCHES	20° F EVAPORATING TEMPERATURE		
		BTU/HR 10° T. D.	REFRIGERANT	
			22	502
MPE-090	1/2 SAE Flare Nut	11,500	BFVE-A-C	BFRE-A-C
MPE-140		17,500		BFRE-B-C
MPE-190	7/8 ODM	24,500	EBFVE-B-C	EBFRE-B-C
MPE-260	1-1/8 ODM	30,000		EBFRE-C-C
MPE-300		36,500	EBSRE-D-C	
MPE-390		45,000		
MPE-520		60,000		

**HOT GAS DEFROST UNIT COOLERS (Con't)**  
**- 10° F Freezer Temperature**

COIL MODEL	COIL INLET CONNECTION INCHES	-20° F EVAPORATING TEMP.	
		BTU/HR 10° T. D.	REFRIGERANT
			502
HGT-65	*5/8 ODM	6,500	EBFRE-A-ZP
HGT-90		9,000	
HGT-120	*7/8 ODM	12,000	
HGT-160		16,000	EBFRE-B-ZP
HGT-200		20,000	
HGT-240		24,000	EBFRE-C-ZP

MPE-090X	1/2 SAE Flare Nut	11,500	BFVE-A-C	BFRE-A-C
MPE-140X		17,500		BFRE-B-C
MPE-190X		24,500	EBFVE-B-C	EBFRE-C-C
MPE-260X	7/8 ODM	30,000		
MPE-300X		36,500		
MPE-390X		45,000	EBSRE-D-C	
MPE-520X	1-1/8 ODM	60,000		

MPG-260	*1-1/8 ODM	26,000	EBFRE-C-ZP
MPG-300		30,000	
MPG-390	*1-3/8 ODM	39,000	EBSRE-D-ZP
MPG-520		52,000	

**ELECTRIC DEFROST UNIT COOLERS**  
**- 10° F Freezer Temperature**

COIL MODEL	COIL INLET CONNECTION INCHES	20° F EVAPORATING TEMPERATURE	
		BTU/HR 10° T. D.	REFRIGERANT
			22
WKE-50	1/2 SAE Flare Nut	5,000	BFVE-AA-C
WKE-75		7,500	
WKE-100		10,000	
WKE-130	1-1/8 ODM	13,000	EBFVE-A-C
WKE-155		15,500	
WKE-180		18,000	
WKE-210		21,000	
WKE-270		27,000	EBFVE-B-C
WKE-340		34,000	

COIL MODEL	COIL INLET CONNECTION INCHES	-20° F EVAPORATING TEMP.	
		BTU/HR 10° T. D.	REFRIGERANT
			502
LET-40	1/2 SAE Flare Nut	4,000	BFRE-AA-ZP
LET-65		6,500	BFRE-A-ZP
LET-90		9,000	
LET-120		12,000	
LET-160		16,000	BFRE-B-ZP
LET-200		20,000	
LET-240		24,000	BFRE-C-ZP

**HOT GAS DEFROST UNIT COOLERS**  
**30° F Cooler Temperature**

COIL MODEL	COIL INLET CONNECTION INCHES	20° F EVAPORATING TEMPERATURE		
		BTU/HR 10° T. D.	REFRIGERANT	
			22	502
LOG-118	1/2 SAE Flare Nut	11,800	BFVE-A-C	BFRE-A-C
LOG-125		12,500		
LOG-150		15,000		BFRE-B-C
LOG-165		16,500		
LOG-189		18,900		
LOG-266	7/8 ODM	26,600	EBFVE-B-C	EBFRE-C-C

SME-35	1/2 SAE Flare Nut	3,500	BFRE-AA-ZP
SME-40		4,000	
SME-54		5,400	
SME-65		6,500	BFRE-A-ZP
SME-90		9,000	
SME-130		13,000	
SME-174		17,400	

\*For reverse cycle applications, flare valve may be required. See Bohn Installation Manual.

COIL MODEL	COIL INLET CONNECTION INCHES	20° F EVAPORATING TEMPERATURE	
		BTU/HR 10° T. D.	REFRIGERANT
			22
WKG-130	1-1/8 ODM	13,000	EBFVE-A-C
WKG-155		15,500	
WKG-180		18,000	
WKG-210		21,000	
WKG-270		27,000	EBFVE-B-C
WKG-340		34,000	

**ELECTRIC DEFROST UNIT COOLERS (Con't)**  
 — 10° F Freezer Temperature

**ELECTRIC DEFROST UNIT COOLERS (Con't)**  
 — 10° F Freezer Temperature

COIL MODEL	COIL INLET CONNECTION INCHES	-20° F EVAPORATING TEMP.	
		BTU/HR 10° T. D.	REFRIGERANT 502
LLE-102	5/8 ODF	10,200	EBFRE-A-ZP
LLE-136	7/8 ODF	13,600	
LLE-170		17,000	EBFRE-B-ZP
LLE-204		20,400	EBFRE-C-ZP

COIL MODEL	COIL INLET CONNECTION INCHES	-20° F EVAPORATING TEMP.	
		BTU/HR 10° T. D.	REFRIGERANT 502
MPE-090	1/2 SAE Flare Nut	9,000	BFRE-A-ZP
MPE-140		14,000	BFRE-B-ZP
MPE-190	7/8 ODM	19,000	EBFRE-B-ZP
MPE-260	1-1/8 ODM	26,000	EBFRE-C-ZP
MPE-300		30,000	
MPE-390		39,000	EBSRE-D-ZP
MPE-520		52,000	

FL-42	1/2 SAE Flare Nut	4,200	BFRE-AA-ZP
FL-65		6,500	BFRE-A-ZP
FL-330	7/8 ODM	33,000	EBSRE-D-ZP
FL-400		40,000	
FL-550		55,000	
FL-740	1-3/8 ODM	74,000	ORE-9-ZP
FL-950		95,000	ORE-12-ZP
FL-1200		120,000	ORE-21-ZP

MPE-090X	1/2 SAE Flare Nut	9,000	BFRE-A-ZP
MPE-140X		14,000	BFRE-B-ZP
MPE-190X		19,000	
MPE-260X	7/8 ODM	26,000	EBFRE-C-ZP
MPE-300X		30,000	
MPE-390X		39,000	EBSRE-D-ZP
MPE-520X		52,000	

