

# HF/HFK Series

## Thermal Expansion Valves

The HF series is a balanced ported valve designed for refrigeration, air conditioning and heat pump applications.

### Features

- Stainless steel replaceable power element eliminates corrosion and prevents valve failure
- Two body sizes provide capacities from 1/4 to 20 tons

### Standard Body – HF & HFK

- The HF is offered several ways:
  - *Pre-packaged HFK service kits* – Include a mix of bodies and power elements with a complete set of cages to serve the most applications with a minimum of parts
  - *Individual components* – Bodies, cages, & power elements may be ordered separately
  - *Finished valves* – Assembled valves ready for immediate installation
- Bi-Flow capability up to 5-1/2 tons R-22 allows one valve to control the superheat in both cooling and heating modes

### Extended Body – HF

- Capacity range from 8 to 20 tons (R-22)
- Finished valve only



**NOTE:** If the HF body is stamped HFK, then the cage is replaceable.

### Options

- ODF or SAE connections
- Straight-through or angle flow configurations
- Removable inlet strainer (ODF only)
- Internal or external equalizer

### Specifications

- Maximum working pressure: 450 psig
- UR/CUR file number: SA5312

### Nomenclature example: HFESC 2 HC 5 FT 3/8 x 1/2 ODF S/T

HF	N	E	S	C	B	2	H	C	5 FT	3/8 x 1/2	ODF	S/T
<b>Valve Series</b> Balanced Port Design	<b>Superheat Adjustment</b> N = Non-Adjustable Omit for Adjustable	<b>Equalizer</b> E=External (Omit for Internal)	<b>Connection Type</b> S = Solder (Omit for SAE Flare)	<b>Removable Inlet Strainer</b> (optional) C = Inlet Strainer (ODF only)	<b>Bleed Hole</b> (optional) (Omit for no bleed hole)	<b>Capacity</b> Nominal Rating in Tons (See nominal capacity table below)	<b>Refrigerant Code</b> +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	<b>Charge Code</b> C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp AA = wide range	<b>Capillary Tube Length</b> 5 FT (std)	<b>Inlet x Outlet Connection Sizes</b> 1/4 x 3/8 3/8 x 1/2	<b>Connection Type</b> SAE = flare ODF = solder	<b>Configuration</b> ANG = 90° angle S/T = straight-thru

+ = R-12, R-134a, R-450A and R-513A are interchangeable refrigerant charges  
 \* = R-507, R-502, R-404A, R-448A and R-449A are interchangeable refrigerant charges  
 • = R-22 and R-407C are interchangeable refrigerant charges

### HF Series-Nominal\* Capacity Tables in Tons (kW)

#### Standard Body HF

R-12	R-134a	R-450A/ R-513A	R-22/ R-407C	R-502/ R-404A/ R-507	**R-448A/ R-449A
1/8 (0.4)	1/4 (0.9)	1/5 (0.7)	1/4 (0.9)	1/8 (0.4)	1/4 (0.9)
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)	1-1/2 (5.3)
1¼ (4.4)	1½ (5.3)	1 (3.5)	2 (7.0)	1¼ (4.4)	2 (7.0)
1½ (5.3)	1¾ (6.2)	1½ (5.3)	2½ (8.8)	1½ (5.3)	2-1/2 (9.0)
2 (7.0)	2½ (8.8)	2 (7.0)	3 (11.0)	2 (7.0)	3-1/2 (12.0)
3½ (12.0)	4 (14.0)	3½ (12.0)	5½ (20.0)	3½ (12.0)	6 (21.0)

#### Extended Body HF

R-12	R-134a	R-450A/ R-513A	R-22/ R-407C	R-502/ R-404A/ R-507	**R-448A/ R-449A
5 (17.0)	6 (2.1)	4½ (16.0)	8 (28.0)	5 (17.0)	8½ (30.0)
6 (21.0)	7½ (27.0)	6 (21.0)	10 (35.0)	7 (27.0)	10½ (37.0)
9 (32.0)	11 (39.0)	9 (32.0)	15 (53.0)	10 (35.0)	16 (56.0)
12 (42.0)	14 (50.0)	11½ (40.0)	20 (70.0)	13 (46.0)	20 (70.0)

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

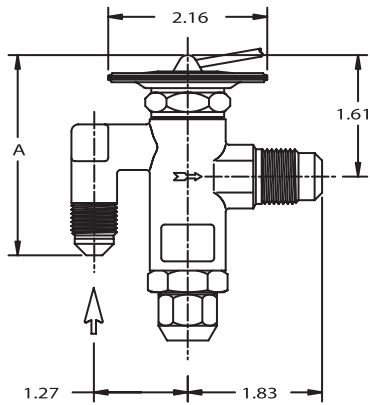
\*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

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

## Dimensional Data

### Standard Body HF

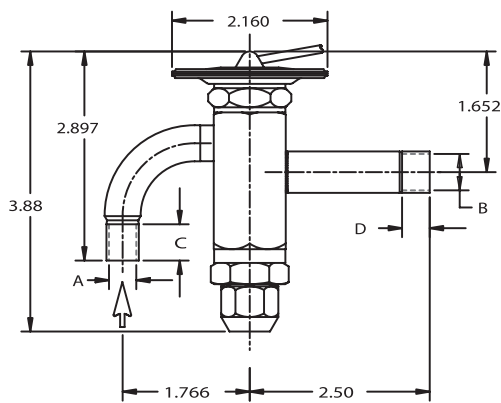
¼ thru 5½ tons R-22



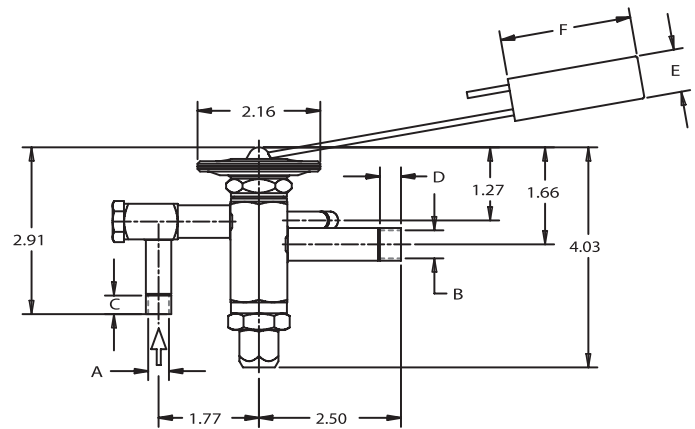
SAE

### HF SAE

Connection Size		A	B	C
Inlet	Outlet			
1/4 SAE	1/2 SAE	3.11	1.27	1.83
3/8 SAE	1/2 SAE	2.72		



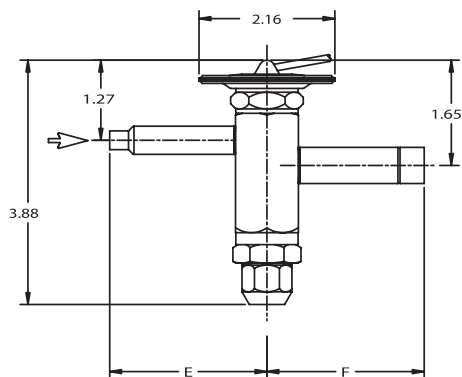
ODF



ODF  
w/optional strainer  
at inlet

### Extended Body HF

8, 10, 15 & 20 ton R-22



ODF

### HF ODF

Connection Size		A±	B±	C	D	E	F
Inlet	Outlet	.002	.002	MIN	MIN		
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.31	2.50	2.50
3/8 ODF	1/2 ODF	0.25	0.50	0.31	0.37		
3/8 ODF	1/2 ODF	0.38	0.50	0.37	0.37		

## Ordering Information

Use the following tables to order individual components.

### HFK Body Selection Table

PCN	Description	Type	Connections (Inlet x Outlet)
064881	KT-20298-1	HFK	1/4 x 1/2 SAE Ang Inlet
064882	KT-20298-2	HFK	3/8 x 1/2 SAE Ang Inlet
064883	KT-20298-3	HFKE	1/4 x 1/2 SAE Ang Inlet
064884	KT-20298-4	HFKE	3/8 x 1/2 SAE Ang Inlet
064885	KT-20298-5	HFKSC	3/8 x 1/2 ODF Ang Inlet w/ Strainer
064886	KT-20298-6	HFKESC	3/8 x 1/2 ODF Ang Inlet w/ Strainer
064887	KT-20298-7	HFKS	3/8 x 1/2 ODF S/T
064888	KT-20298-8	HFKS	3/8 x 5/8 ODF S/T
064889	KT-20298-9	HFKS	1/2 x 5/8 ODF S/T
064890	KT-20298-10	HFKS	1/2 x 7/8 ODF S/T
064891	KT-20298-11	HFKES	3/8 x 1/2 ODF S/T
064892	KT-20298-12	HFKES	3/8 x 5/8 ODF S/T
064895	KT-20298-13	HFKES	1/2 x 5/8 ODF S/T
064896	KT-20298-14	HFKES	1/2 x 7/8 ODF S/T

### HF & HFK Power Element Table

PCN	Description	System Refrigerant(s)	Application
053769	X26300-FW15-1	R-134a/R-12	Low Temp MOP
054798	X26300-FW35-1	R-134a/R-12	Low Temp MOP
063869	X26300-FW55-1	R-134a/R-12	Low Temp MOP
053766	X26300-FZ-1	R-134a/R-12	Low Temp
053763	X26300-FC-1	R-134a/R-12	Medium Temp
058074	X26300-MC-1	R-134a	Medium Temp
053767	X26300-HZ-1	R-22/R-407C	Low Temp
057834	X26300-HCA-1	R-22/R-407C	Heat Pump
057764	X26300-HW100-1	R-22/R-407C	AC MOP
053764	X26300-HC-1	R-22/R-407C	A/C Med. Temp
058085	X26300-SW45-1	R-404/ R-507/ R-502	Low Temp MOP
058082	X26300-SZ-1	R-404/ R-507/ R-502	Low Temp
058083	X26300-SC-1	R-404/ R-507/ R-502	Medium Temp

### HFK Cage Nominal\* Capacity Table

PCN	Description <sup>1</sup>	Cage Code	R-12	R-22	R-134a	R-404	R-507	R-502	R-407C
064868	KT-20299-0	0	1/8	1/4	1/4	1/8	1/8	1/8	1/4
064869	KT-20299-1	1	1/4	1/2	1/2	1/4	1/4	1/4	1/2
064870	KT-20299-2	2	1/2	1	3/4	1/2	1/2	1/2	1
064871	KT-20299-3	3	1	1 1/2	1	1	1	1	1 1/2
064872	KT-20299-4	4	1 1/4	2	1 1/2	1 1/4	1 1/4	1 1/4	2
064873	KT-20299-5	5	1 1/2	2 1/2	1 3/4	1 1/2	1 1/2	1 1/2	2 1/2
064874	KT-20299-6	6	2	3	2 1/2	2	2	2	3
064875	KT-20299-7	7	3 1/2	5 1/2	4	3 1/2	3 1/2	3 1/2	5 1/2

<sup>1</sup> Cage Kit includes Cage, Insertion Tool and ID Clips.

\*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.

### Cage Kit (PCN 064879)

Item	Qty
Size 0 Cage (1/4 ton R-22)	2
Size 1 Cage (1/2 ton R-22)	2
Size 2 Cage (1 ton R-22)	2
Size 3 Cage (1 1/2 ton R-22)	2
Size 4 Cage (2 ton R-22)	2
Size 5 Cage (2 1/2 ton R-22)	2
Size 6 Cage (3 ton R-22)	2
Size 7 Cage (5 1/2 ton R-22)	2
Insertion Tool	1
Oil Bottle	1
Cage ID Tags	16

### Replacement Parts – SAE Inlet

PCN	Part Number	Description
027385	X-11176-1	3/8" Inlet Filter Screen
058707	27676-1	Seal Cap
048638	X-11176-7	1/4" Inlet Filter Screen

### Replacement Parts- HFSC & HFESC Only

PCN	Kit Number	Description
057686	KT-20264	Includes seal cap, gasket o-ring, screen, spring

### HFK Accessories

PCN	Description
064897	Cage Box (Empty)
064898	Insertion Tool
064899	Oil Bottle
065203	Cage Gasket Kit (12 sets)

## Ordering Information

### HFK Pre-Packaged Kits

The HFK is a pre-packaged kit consisting of a mix of popular bodies and power elements with a complete selection of cages. These kits provide great flexibility allowing valves to be assembled as needed for each application. Three kits are provided as shown below, along with the cage kit which is included in each pre-packaged kit. In addition, custom kits can be assembled by stocking an empty kit case with desired components.



#### SAE/ODF Kit (PCN 065135)

Item	Qty
HFK 3/8 x 1/2 SAE ANG	1
HFKE 3/8 x 1/2 SAE ANG	1
HFKS 3/8 x 1/2 ODF S/T	1
HFKES 3/8 x 1/2 ODF S/T	1
Cage Kit (PCN 064879)	1
Insertion Tool (PCN 064898)	1
Service Box	1
FC Power Element	1
FZ Power Element	1
HC Power Element	1
HZ Power Element	1
SC Power Element	1
SW45 Power Element	1

#### SAE Kit (PCN 064876)

Item	Qty
HFK 1/4 X 1/2 Body	1
HFK 3/8 X 1/2 Body	1
HFKE 3/8 X 1/2 Body	2
FC Power Element	2
HC Power Element	1
HZ Power Element	1
SZ Power Element	2
Cage Kit (PCN 064879)	1

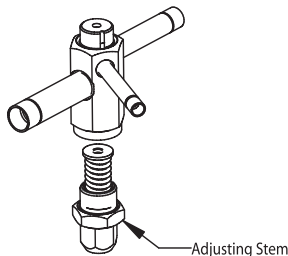
#### ODF Kit (PCN 064877)

Item	Qty
HFKSC 3/8 X 1/2 Body	1
HFKES 3/8 X 1/2 Body	1
HFKESC 3/8 X 1/2 Body	2
FC Power Element	2
HC Power Element	1
HZ Power Element	1
SZ Power Element	2
Cage Kit (PCN 064879)	1

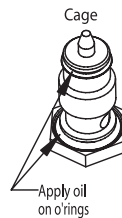
#### Cage Kit (PCN 064879)

Item	Qty
Size 0 Cage (1/4 ton R-22)	2
Size 1 Cage (1/2 ton R-22)	2
Size 2 Cage (1 ton R-22)	2
Size 3 Cage (1 1/2 ton R-22)	2
Size 4 Cage (2 ton R-22)	2
Size 5 Cage (2 1/2 ton R-22)	2
Size 6 Cage (3 ton R-22)	2
Size 7 Cage (5 1/2 ton R-22)	2
Insertion Tool	1
Oil Bottle	1
Cage ID Tags	16

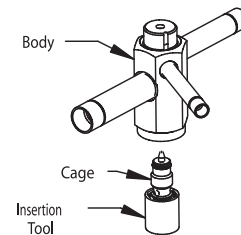
## HFK Assembly Procedure (see 6 assembly steps & diagrams below)



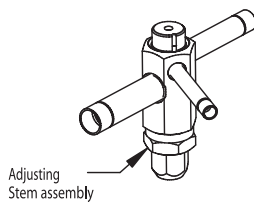
1. Remove adjusting stem assembly from body with 15/16" wrench.



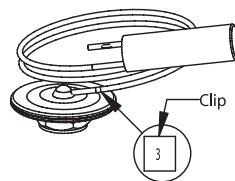
2. Lubricate both o-rings on cage.



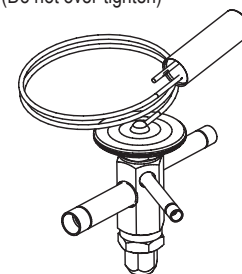
3. Insert cage into body with driver and insertion tool and hand tighten. (Do not over-tighten)



4. Replace adjustment stem assembly to body and hand tighten. Use the 15/16" wrench to tighten adjustment stem assembly 60° or one wrench flat. (300-360 inch lbs. - Do not over-tighten)



5. Attach cage identification clip on power element cap tube.



6. Screw power element to top of valve body and hand tighten. Use the 1" wrench to tighten power element 60° or one wrench flat. (300-360 inch lbs. - Do not over-tighten)

## Ordering Information

Use the following tables to order factory assembled valves.

### HF Series – Internally Equalized

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-12	HF HFS	1/4	FC	1/4 X 1/2 SAE ANG	5 FT	009811
			FC	3/8 X 1/2 SAE ANG	5 FT	054134
		1/2	FC	1/4 X 1/2 SAE ANG	5 FT	009810
			FC	3/8 X 1/2 ODF ANG	5 FT	056063
			FC	3/8 X 1/2 ODF S/T	5 FT	056013
			FC	3/8 X 1/2 SAE	5 FT	054966
			FC	3/8 X 1/2 SAE ANG	5 FT	054892
		1	FC	3/8 X 1/2 ODF S/T	5 FT	056119
			FC	3/8 X 1/2 SAE ANG	5 FT	057619
		1 1/2	FC	3/8 X 1/2 SAE ANG	5 FT	054914
2	FC	3/8 X 1/2 SAE	5 FT	053060		
R-134a R-12 R-450A R-513A	HF HFS	1/4	MC	3/8 X 1/2 ODF ANG	5 FT	058545
			MC	3/8 X 1/2 SAE ANG	5 FT	057618
		1/2	MC	3/8 X 1/2 ODF S/T	5 FT	058100
			MC	3/8 X 1/2 SAE ANG	5 FT	057620
1	MC	3/8 X 1/2 ODF S/T	5 FT	065641		
R-22 R-407C	HF HFS	1/4	HC	1/4 X 1/2 SAE ANG	5 FT	058430
			HC	3/8 X 1/2 ODF ANG	5 FT	055493
			HC	3/8 X 1/2 ODF S/T	5 FT	055633
			HC	3/8 X 1/2 SAE	5 FT	054921
			HZ	1/4 X 1/2 SAE ANG	5 FT	059653
			HZ	3/8 X 1/2 ODF S/T	5 FT	056169
		1/2	HC	1/4 X 1/2 SAE ANG	5 FT	009812
			HC	3/8 X 1/2 ODF ANG	5 FT	054723
			HC	3/8 X 1/2 ODF S/T	5 FT	054136
			HC	3/8 X 1/2 SAE	5 FT	054135
			HZ	3/8 X 1/2 SAE	5 FT	054364
			HC	3/8 X 1/2 ODF ANG	5 FT	055702
		1	HC	3/8 X 1/2 ODF S/T	5 FT	055928
			HC	3/8 X 1/2 SAE	5 FT	054927
			HZ	3/8 X 1/2 SAE	5 FT	054928
			HC	3/8 X 1/2 ODF ANG	5 FT	055969
		1 1/2	HC	3/8 X 1/2 ODF S/T	5 FT	056018
			HC	3/8 X 1/2 SAE	5 FT	054933
		2	HC	3/8 X 1/2 SAE	5 FT	054939
			HZ	3/8 X 1/2 SAE ANG	5 FT	054940
		2 1/2	HC	3/8 X 1/2 SAE	5 FT	054947
		3	HC	3/8 X 1/2 SAE	5 FT	053316
			HC	3/8 X 1/2 ODF S/T	5 FT	053915
		R-404A R-507 **R-448A **R-449A	HF HFS	1/4	SC	1/4 X 1/2
SW45	1/4 X 1/2				30 IN	066517
SZ	1/4 X 1/2				30 IN	066518
1/2	SC			1/4 X 1/2	30 IN	066519
	SW45			1/4 X 1/2	30 IN	066520
	SZ			1/4 X 1/2	30 IN	066521
1	SC			3/8 X 1/2 ODF S/T	5 FT	065643
	SW45			3/8 X 1/2	5 FT	066522
	SZ			3/8 X 1/2	5 FT	066523
1/2	SC			3/8 X 1/2	5 FT	066524
	SW45			3/8 X 1/2	5 FT	066525
	SZ			3/8 X 1/2	5 FT	066526
2	SC			3/8 X 1/2	5 FT	066527
	SW45			3/8 X 1/2	5 FT	066528
	SZ			3/8 X 1/2	5 FT	066529
3 1/2	SC			3/8 X 1/2	5 FT	066530
	SW45			3/8 X 1/2	5 FT	066531
	SZ			3/8 X 1/2	5 FT	066532

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

HF Series – Internally Equalized (continued)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-502	HF HFS	1/4	RC	1/4 X 1/2 SAE ANG	5 FT	059304
			RC	3/8 X 1/2 ODF ANG	5 FT	055490
			RC	3/8 X 1/2 SAE	5 FT	054137
			RZ	1/4 X 3/8 ODF S/T	5 FT	055792
			RZ	3/8 X 1/2 ODF S/T	5 FT	056228
			RZ	3/8 X 1/2 SAE	5 FT	054369
		1/2	RC	3/8 X 1/2 SAE	5 FT	054964
			RZ	3/8 X 1/2 ODF ANG	5 FT	055874
			RZ	3/8 X 1/2 ODF S/T	5 FT	056008
			RZ	3/8 X 1/2 SAE	5 FT	054965
			RC	3/8 X 1/2 SAE	5 FT	054976
			RC	3/8 X 1/2 SAE ANG	5 FT	054905
		1	RZ	3/8 X 1/2 ODF ANG	5 FT	055785
			RZ	3/8 X 1/2 SAE	5 FT	054977
			RC	3/8 X 1/2 SAE	5 FT	054984
		1½	RZ	3/8 X 1/2 SAE	5 FT	054986
			RC	3/8 X 1/2 SAE	5 FT	053061
		2	RC	3/8 X 1/2 SAE	5 FT	053061
3½	RC	3/8 X 1/2 SAE	5 FT	055936		

## Ordering Information (continued)

### HF Series – Externally Equalized (continued)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-12	HFE HFES	1/4	FC	3/8 X 1/2 SAE ANG	5 FT	054360
		1/2	FC	1/4 X 1/2 SAE ANG	5 FT	009955
			FC	3/8 X 1/2 ODF ANG	5 FT	056021
			FC	3/8 X 1/2 ODF S/T	5 FT	056331
			FC	3/8 X 1/2 SAE ANG	5 FT	054895
		1	FC	3/8 X 1/2 ODF ANG	5 FT	055993
			FC	3/8 X 1/2 ODF S/T	5 FT	056151
			FC	3/8 X 1/2 SAE ANG	5 FT	054909
		1½	FC	3/8 X 1/2 ODF ANG	5 FT	055994
			FC	3/8 X 1/2 SAE ANG	5 FT	054917
		2	FC	3/8 X 1/2 ODF S/T	5 FT	053266
			FC	3/8 X 1/2 SAE ANG	5 FT	053069
3½	FC	3/8 X 1/2 SAE ANG	5 FT	054138		
R-134a R-12 R-450A R-513A	HFE HFES	1/4	MC	3/8 X 1/2 SAE ANG	30 IN	057860
		1/2	MC	3/8 X 1/2 ODF S/T	5 FT	065645
			MC	3/8 X 1/2 SAE ANG	5 FT	057616
		3/4	MC	3/8 X 1/2 ODF ANG	5 FT	057784
			MC	3/8 X 1/2 SAE ANG	30 IN	057861
		1	MC	3/8 X 1/2 ODF S/T	5 FT	059422
			MC	3/8 X 1/2 ODF ANG	5 FT	058546
			MC	3/8 X 1/2 SAE ANG	5 FT	065646
		1½	MC	3/8 X 1/2 ODF S/T	5 FT	057617
			MC	3/8 X 1/2 SAE ANG	5 FT	057895
		1¾	MC	3/8 X 1/2 ODF S/T	5 FT	065647
			MC	3/8 X 1/2 SAE	5 FT	058152
			MC	3/8 X 1/2 SAE ANG	5 FT	057896
		4	MC	3/8 X 1/2 SAE ANG	5 FT	057897
		6	MC	5/8 X 7/8 ODF S/T	5 FT	057903
			MC	5/8 X 7/8 ODF S/T	5 FT	057906
11	MC	7/8 X 1 1/8 ODF S/T	5 FT	058681		
	MC	7/8 X 1 3/8 ODF S/T	5 FT	064000		
14	MC	7/8 X 1 3/8 ODF S/T	5 FT	064000		
R-22 R-407C	HFE HFES	1/4	HC	3/8 X 1/2 ODF S/T	5 FT	055927
			HC	3/8 X 1/2 SAE	5 FT	054924
			HZ	3/8 X 1/2 SAE	5 FT	054925
		1/2	HC	1/4 X 1/2 SAE ANG	5 FT	059079
			HC	3/8 X 1/2 ODF ANG	5 FT	054838
			HC	3/8 X 1/2 ODF S/T	5 FT	055827
			HC	3/8 X 1/2 SAE	5 FT	054361
			HZ	3/8 X 1/2 ODF S/T	5 FT	055889
			HZ	3/8 X 1/2 SAE	5 FT	054365
		1	HC	3/8 X 1/2 ODF ANG	5 FT	055494
			HC	3/8 X 1/2 ODF S/T	5 FT	055708
			HC	3/8 X 1/2 SAE	5 FT	054930
			HW 35	3/8 X 1/2 SAE	5 FT	054932
		1½	HZ	3/8 X 1/2 SAE	5 FT	054931
			HC	3/8 X 1/2 ODF ANG	5 FT	055495
			HC	3/8 X 1/2 ODF S/T	5 FT	055863
			HC	3/8 X 1/2 SAE	5 FT	054936
			HZ	3/8 X 1/2 ODF S/T	5 FT	055870
		2	HZ	3/8 X 1/2 SAE	5 FT	054937
			HC	3/8 X 1/2 ODF S/T	5 FT	055706
			HC	3/8 X 1/2 SAE	5 FT	054942
			HC	3/8 X 1/2 ODF ANG	5 FT	054946
		2½	HZ	3/8 X 1/2 SAE	5 FT	054943
			HC	3/8 X 1/2 ODF ANG	5 FT	056042
			HC	3/8 X 1/2 ODF S/T	5 FT	055931
		3	HC	3/8 X 1/2 SAE	5 FT	054950
			HC	3/8 X 1/2 ODF ANG	5 FT	054756
			HC	3/8 X 1/2 ODF S/T	5 FT	053916
			HC	3/8 X 1/2 SAE	5 FT	053317
			HC	1/2 X 5/8 ODF ANG	5 FT	064761
HCA	3/8 X 1/2 ODF S/T		5 FT	058648		
HCA	1/2 X 5/8 ODF S/T		5 FT	061730		
HZ	3/8 X 1/2 ODF S/T	5 FT	055924			
HZ	3/8 X 1/2 SAE	5 FT	053191			

## Ordering Information (continued)

### HF Series – Externally Equalized (continued)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-22 R-407C	HFE HFES	5½	HC	3/8 X 1/2 ODF S/T	5 FT	054141
			HC	3/8 X 1/2 SAE	5 FT	054140
			HC	1/2 X 5/8 ODF ANG	5 FT	054778
			HC	1/2 X 7/8 ODF S/T	5 FT	055187
			HC	5/8 X 7/8 ODF S/T	5 FT	054779
			HCA	3/8 X 1/2 ODF S/T	5 FT	065649
		HCA	1/2 X 5/8 ODF ANG	5 FT	057378	
		HZ	3/8 X 1/2 ODF S/T	5 FT	054780	
		HZ	3/8 X 1/2 SAE	5 FT	054777	
		8	HC	1/2 X 5/8 ODF S/T	5 FT	057312
			HC	5/8 X 1 1/8 ODF ST	5 FT	057313
			HCA	1/2 X 7/8 ODF S/T	5 FT	056818
			HCA	5/8 X 1 1/8 ODF ST	5 FT	056819
		10	HC	1/2 X 5/8 ODF S/T	5 FT	057315
			HC	5/8 X 7/8 ODF S/T	5 FT	057256
			HC	7/8 X 1 1/8 ODF S/T	5 FT	057316
			HCA	5/8 X 7/8 ODF S/T	5 FT	056820
		12	HCA	5/8 X 1 1/8 ODF S/T	5 FT	056821
			HC	5/8 X 1 1/8 ODF S/T	5 FT	062737
		15	HC	5/8 X 7/8 ODF S/T	5 FT	057317
			HC	7/8 X 1 1/8 ODF S/T	5 FT	057318
			HCA	5/8 X 1 1/8 ODF S/T	5 FT	056824
			HCA	5/8 X 7/8 ODF S/T	5 FT	056823
		20	HCA	7/8 X 1 1/8 ODF S/T	5 FT	056825
HC	7/8 X 1 1/8 ODF S/T		5 FT	062055		
HCA	7/8 X 1 1/8 ODF S/T	5 FT	058490			
	SC	1/4 X 1/2 ODF S/T	30IN	066533		
R-404A R-507 R-502 **R-448A **R-449A	HFE HFES	1/4	SW 45	3/8 X 1/2 ODF S/T	5 FT	065734
			SW 45	3/8 X 1/2 SAE ANG	5 FT	066623
			SZ	3/8 X 1/2 ODF S/T	5 FT	065733
		1/2	SC	3/8 X 1/2 ODF ANG	5 FT	058975
			SW 45	3/8 X 1/2 ODF S/T	5 FT	065736
			SW 45	3/8 X 1/2 SAE ANG	5 FT	066040
			SZ	3/8 X 1/2 ODF ANG	5 FT	058995
		1	SZ	3/8 X 1/2 ODF S/T	5 FT	065735
			SC	3/8 X 1/2 ODF S/T	5 FT	065650
			SC	3/8 X 1/2 ODF ANG	5 FT	058976
			SW 45	3/8 X 1/2 ODF ANG	5 FT	059086
			SW 45	3/8 X 1/2 SAE ANG	5 FT	066624
		1¼	SW 45	3/8 X 1/2 ODF S/T	5 FT	065651
			SZ	3/8 X 1/2 ODF S/T	5 FT	064289
			SC	3/8 X 1/2 ODF ANG	5 FT	058977
		1½	SW 45	3/8 X 1/2 ODF S/T	5 FT	057976
			SZ	3/8 X 1/2 ODF S/T	5 FT	065737
			SC	3/8 X 1/2 ODF S/T	5 FT	057974
		2	SW 45	3/8 X 1/2 ODF S/T	5 FT	057974
			SW 45	3/8 X 1/2 ODF S/T	5 FT	065738
			SW 45	3/8 X 1/2 SAE ANG	5 FT	066625
			SZ	3/8 X 1/2 ODF S/T	5 FT	064290
		3½	SC	3/8 X 1/2 ODF S/T	5 FT	057958
			SW 45	3/8 X 1/2 ODF S/T	5 FT	065740
			SW 45	3/8 X 1/2 SAE ANG	5 FT	066627
			SZ	3/8 X 1/2 ODF S/T	5 FT	065739
		5	SC	3/8 X 1/2 ODF S/T	5 FT	065652
			SC	5/8 X 7/8 ODF S/T	5 FT	062151
			SW 45	1/2 X 5/8 ODF S/T	5 FT	066534
			SZ	1/2 X 5/8 ODF S/T	5 FT	061694
		7	SW 45	5/8 X 7/8 ODF S/T	5 FT	064170
			SC	5/8 X 7/8 ODF S/T	5 FT	066536
			SZ	5/8 X 7/8 ODF S/T	5 FT	058451
		10	SC	5/8 X 7/8 ODF S/T	5 FT	066537
			SW45	5/8 X 7/8 ODF S/T	5 FT	066536
			SZ	5/8 X 7/8 ODF S/T	5 FT	064291
		SC	5/8 X 7/8 ODF S/T	5 FT	066538	
			SW 45	5/8 X 7/8 ODF S/T	5 FT	064195
		SZ	5/8 X 7/8 ODF S/T	5 FT	062828	

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



### Ordering Information (continued)

#### HF Series – Externally Equalized (continued)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN			
R-502	HFE (HFES)	1/4	RC	3/8 X 1/2 SAE	5 FT	054366			
			RC	3/8 X 1/2 ODF ANG	5 FT	055092			
			RZ	3/8 X 1/2 ODF ANG	5 FT	055491			
			RZ	3/8 X 1/2 SAE	5 FT	054370			
		1/2	RC	3/8 X 1/2 ODF ANG	5 FT	055992			
			RC	3/8 X 1/2 ODF S/T	5 FT	056022			
			RC	3/8 X 1/2 SAE	5 FT	054967			
			RW 45	3/8 X 1/2 ODF ANG	5 FT	055996			
			RW 45	3/8 X 1/2 SAE	5 FT	054969			
			RZ	3/8 X 1/2 ODF ANG	5 FT	055497			
			RZ	3/8 X 1/2 ODF S/T	5 FT	056024			
			RZ	3/8 X 1/2 SAE	5 FT	054968			
			R-502	HFE (HFES)	1	RC	3/8 X 1/2 ODF ANG	5 FT	054983
						RC	3/8 X 1/2 ODF S/T	5 FT	056029
RC	3/8 X 1/2 SAE	5 FT				054979			
RW 45	3/8 X 1/2 SAE	5 FT				054981			
RZ	3/8 X 1/2 ODF ANG	5 FT				055496			
RZ	3/8 X 1/2 ODF S/T	5 FT				056225			
RZ	3/8 X 1/2 SAE	5 FT				054980			
RZ	3/8 X 1/2 ODF ANG	5 FT				055657			
1½	RC	3/8 X 1/2 ODF ANG			5 FT	056031			
	RC	3/8 X 1/2 ODF S/T			5 FT	054988			
	RC	3/8 X 1/2 SAE			5 FT	055991			
	RW 45	3/8 X 1/2 ODF ANG			5 FT	056032			
	RW 45	3/8 X 1/2 ODF S/T			5 FT	054990			
	RZ	3/8 X 1/2 ODF ANG			5 FT	055498			
	RZ	3/8 X 1/2 SAE			5 FT	054989			
	RZ	3/8 X 1/2 ODF ANG			5 FT	054768			
2	RC	3/8 X 1/2 ODF S/T			5 FT	053270			
	RC	3/8 X 1/2 SAE			5 FT	053070			
	RW 45	3/8 X 1/2 SAE			5 FT	054992			
	RZ	3/8 X 1/2 ODF S/T			5 FT	053271			
	RZ	3/8 X 1/2 ODF ANG			5 FT	054844			
	RZ	3/8 X 1/2 SAE			5 FT	053071			
	RZ	3/8 X 1/2 ODF ANG			5 FT	054783			
	RZ	3/8 X 1/2 ODF S/T			5 FT	054143			
3½	RC	3/8 X 1/2 SAE	5 FT	054142					
	RW 45	3/8 X 1/2 ODF ANG	5 FT	058907					
	RZ	3/8 X 1/2 ODF ANG	5 FT	054785					
	RZ	3/8 X 1/2 ODF S/T	5 FT	054784					
	RZ	3/8 X 1/2 SAE	5 FT	054145					
	RC	3/8 X 1/2 ODF S/T	5 FT	058875					
	RC	5/8 X 7/8 ODF S/T	5 FT	058608					
	RW 45	5/8 X 7/8 ODF S/T	5 FT	058305					
5	RZ	1/2 X 5/8 ODF ANG	5 FT	061196					
	RC	5/8 X 7/8 ODF S/T	5 FT	058607					
	RW 45	5/8 X 7/8 ODF S/T	5 FT	059291					
7	RC	5/8 X 7/8 ODF S/T	5 FT	058607					
	RW 45	5/8 X 7/8 ODF S/T	5 FT	059291					
10	RC	5/8 X 7/8 ODF S/T	5 FT	058808					

\* 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.

## Ordering Information (continued)

### HFESC Series – Externally Equalized (continued)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-12	HFESC	1/2	FC	3/8 X 1/2 ODF ANG	5 FT	057397
		1	FC	3/8 X 1/2 ODF ANG	5 FT	057398
		1½	FC	3/8 X 1/2 ODF ANG	5 FT	057399
R-134a R-12 R-450A R-513A	HFESC	1/4	MC	3/8 X 1/2 ODF ANG	5 FT	057572
		1/2	MC	3/8 X 1/2 ODF ANG	5 FT	058069
		1	MC	3/8 X 1/2 ODF ANG	5 FT	057570
		1½	MC	3/8 X 1/2 ODF ANG	5 FT	057568
		2½	MC	3/8 X 1/2 ODF ANG	5 FT	058421
R-22 R-407C	HFESC	1/4	HC	3/8 X 1/2 ODF ANG	5 FT	057409
			HZ	3/8 X 1/2 ODF ANG	5 FT	057428
		1/2	HC	3/8 X 1/2 ODF ANG	5 FT	057291
			HZ	3/8 X 1/2 ODF ANG	5 FT	057429
		1	HC	3/8 X 1/2 ODF ANG	5 FT	057410
			HZ	3/8 X 1/2 ODF ANG	5 FT	057430
		1½	HC	3/8 X 1/2 ODF ANG	5 FT	057292
			HZ	3/8 X 1/2 ODF ANG	5 FT	057321
		2	HZ	3/8 X 1/2 ODF ANG	5 FT	057433
			HC	3/8 X 1/2 ODF ANG	5 FT	057294
		2½	HC	3/8 X 1/2 ODF ANG	5 FT	057411
			HZ	3/8 X 1/2 ODF ANG	5 FT	057434
		3	HC	3/8 X 1/2 ODF ANG	5 FT	057412
			HZ	3/8 X 1/2 ODF ANG	5 FT	057748
5½	HC	3/8 X 1/2 ODF ANG	5 FT	057781		
	HC	3/8 X 1/2 ODF ANG	5 FT	058609		
R-502 R-404A R-507 **R-448A **R-449A	HFESC	1/4	SC	1/4 X 1/2 ODF ANG	30 IN	066539
			SW45	1/4 X 1/2 ODF ANG	30 IN	066540
			SZ	1/4 X 1/2 ODF ANG	30 IN	066542
		1/2	SC	1/4 X 1/2 ODF ANG	30 IN	066543
			SW45	1/4 X 1/2 ODF ANG	30 IN	066544
			SZ	1/4 X 1/2 ODF ANG	30 IN	066545
		1	SC	3/8 X 1/2 ODF ANG	5 FT	058135
			SW45	3/8 X 1/2 ODF ANG	5 FT	058157
			SZ	3/8 X 1/2 ODF ANG	5 FT	058118
		1½	SC	3/8 X 1/2 ODF ANG	5 FT	058119
			SW45	3/8 X 1/2 ODF ANG	5 FT	058136
			SZ	3/8 X 1/2 ODF ANG	5 FT	058121
		2	SC	3/8 X 1/2 ODF ANG	5 FT	058122
			SW45	3/8 X 1/2 ODF ANG	5 FT	058212
			SZ	3/8 X 1/2 ODF ANG	5 FT	058214
		3½	SC	3/8 X 1/2 ODF ANG	5 FT	058071
			SW45	3/8 X 1/2 ODF ANG	5 FT	066547
			SZ	3/8 X 1/2 ODF ANG	5 FT	066548
		5	SC	3/8 X 1/2 ODF ANG	5 FT	058220
			SW45	3/8 X 1/2 ODF ANG	5 FT	058221
			SZ	3/8 X 1/2 ODF ANG	5 FT	066549
		7	SC	5/8 X 7/8 ODF ANG	5 FT	065458
			SW45	5/8 X 7/8 ODF ANG	5 FT	066550
			SZ	5/8 X 7/8 ODF ANG	5 FT	064058
		10	SC	5/8 X 7/8 ODF ANG	5 FT	064219
			SW45	5/8 X 7/8 ODF ANG	5 FT	066551
			SZ	5/8 X 7/8 ODF ANG	5 FT	064059
		1/4	RC	3/8 X 1/2 ODF ANG	5 FT	057436
			RZ	3/8 X 1/2 ODF ANG	5 FT	057454
		1/2	RC	3/8 X 1/2 ODF ANG	5 FT	057437
			RZ	3/8 X 1/2 ODF ANG	5 FT	057455
		1	RC	3/8 X 1/2 ODF ANG	5 FT	057438
			RW 45	3/8 X 1/2 ODF ANG	5 FT	057446
			RZ	3/8 X 1/2 ODF ANG	5 FT	057456
		1½	RC	3/8 X 1/2 ODF ANG	5 FT	057439
			RW 45	3/8 X 1/2 ODF ANG	5 FT	057448
			RZ	3/8 X 1/2 ODF ANG	5 FT	057322
		2	RC	3/8 X 1/2 ODF ANG	5 FT	057440
			RZ	3/8 X 1/2 ODF ANG	5 FT	057457
		2½	RC	3/8 X 1/2 ODF ANG	5 FT	057441
			RZ	3/8 X 1/2 ODF ANG	5 FT	057458
		5	RC	3/8 X 1/2 ODF ANG	5 FT	058595
			RZ	3/8 X 1/2 ODF ANG	5 FT	059654

\*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-448A/R-449A applications. Recommend oversizing capacity by 50% for low temperature applications.

### HFSC Series – Internally Equalized

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-134a R-12 R-450A R-513A	HFSC	1/4	MC	3/8 X 1/2 ODF ANG	5 FT	057573
		1/2	MC	3/8 X 1/2 ODF ANG	5 FT	058067
R-22 R-407C	HFSC	1/4	HC	3/8 X 1/2 ODF ANG	5 FT	057467
		1/2	HC	3/8 X 1/2 ODF ANG	5 FT	057293
			HZ	3/8 X 1/2 ODF ANG	5 FT	057482
		1	HC	3/8 X 1/2 ODF ANG	5 FT	057468
		2	HC	3/8 X 1/2 ODF ANG	5 FT	057470
R-404A R-507 R-502 **R-448A **R-449A	HFSC	1/8	SC	3/8 X 1/2 ODF ANG	5 FT	058248
			SW45	1/4 X 1/2 ODF ANG	30 IN	066552
			SZ	1/4 X 1/2 ODF ANG	30 IN	066553
		1/4	SC	3/8 X 1/2 ODF ANG	5 FT	058249
			SW45	1/4 X 1/2 ODF ANG	30 IN	066554
			SZ	1/4 X 1/2 ODF ANG	30 IN	066555
		1/2	SC	3/8 X 1/2 ODF ANG	5 FT	058250
			SW45	1/4 X 1/2 ODF ANG	30 IN	066556
			SZ	1/4 X 1/2 ODF ANG	30 IN	066557
		1	SC	3/8 X 1/2 ODF ANG	5 FT	058251
			SW45	3/8 X 1/2 ODF ANG	5 FT	066558
			SZ	3/2 X 1/2 ODF ANG	5 FT	066559
		1/4	SC	3/8 X 1/2 ODF ANG	5 FT	058252
			SW45	3/8 X 1/2 ODF ANG	5 FT	066560
			SZ	3/8 X 1/2 ODF ANG	5 FT	066561
R-502	HFSC	1/4	RC	3/8 X 1/2 ODF ANG	5 FT	057487
			RZ	3/8 X 1/2 ODF ANG	5 FT	057484
		1/2	RC	3/8 X 1/2 ODF ANG	5 FT	057488
			RZ	3/8 X 1/2 ODF ANG	5 FT	057485
		1	RC	3/8 X 1/2 ODF ANG	5 FT	057489
			RZ	3/8 X 1/2 ODF ANG	5 FT	057486

\* 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-448A/R-449A applications. Recommend oversizing capacity by 50% for low temperature applications.