

The A-series is used for heat pump, air conditioning, food services and commercial applications.

## Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Hermetic, leak-free construction
- Compact size allows installation in limited spaces
- Mass spectrometer tested to ensure less than 0.10 oz/year external leakage rate



## Options

- ZW195 charge available for R-410A systems
- Adjustable or non-adjustable superheat
- SAE or ODF connections standard – Chatleff or Aeroquip are available
- External or internal equalizer
- Internal check valve allows reverse flow for heat pump applications, eliminating the need for external piping and external check valve
- Bleed type pressure equalization to accommodate PSC type compressors
- Pressure limiting charges (MOP) available

## Specifications

Maximum working pressure: 700 psig  
UR/CUR file number: SA 5312

## Nomenclature

example: AACEB 2 HC 30 IN 3/8 x 1/2 ODF ANG

A	A	C	E	B	2	H	C	30 IN	3/8 x 1/2	ODF	ANG
<b>Valve Series</b> Hermetic Design	<b>Superheat Adjustment</b> A = Adjustable N = Non-Adjustable	<b>Internal Check Valve</b> (optional) Reverse Flow Bypass Application	<b>Equalizer</b> E=External (Omit for Internal)	<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 Z = R-410A *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> 30 IN & 5 FT (std)	<b>Inlet x Outlet Connection Sizes</b> 1/4 x 3/8 3/8 x 1/2 1/2 x 5/8 5/8 x 7/8	<b>Connection Type</b> SAE=flare ODF = solder Chatleff (optional) Aeroquip (optional)	<b>Configuration</b> S/T = straight-thru ANG = 90° angle

+ = 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

## AA/AN Series – Nominal\* Capacity Table in Tons (kW)

R-12	R-134a	R-450A/R-513A	R-22	R-410A	R-502	R-507/R-404A	**R-448A/R-449A	R-407C
–	1/8 (0.4)	1/8 (0.4)	1/5 (0.7)	–	–	1/8 (0.4)	1/5 (0.7)	1/5
1/8 (0.4)	1/4 (0.9)	1/5 (0.7)	1/4 (0.9)	1/4 (0.9)	1/8 (0.4)	1/4 (0.9)	1/4 (0.9)	1/4 (0.9)
1/4 (0.9)	1/2 (1.8)	1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/2 (1.8)
1/2 (1.8)	3/4 (2.7)	1/2 (1.8)	1 (3.5)	1 (3.5)	1/2 (1.8)	3/4	1 (3.5)	1 (3.5)
1 (3.5)	1 (3.5)	3/4 (2.7)	1½ (5.3)	1½ (5.3)	1 (3.5)	1 (3.5)	1½ (5.3)	1¼ (4.4)
–	1½ (5.3)	1 (3.5)	2 (7.0)	2 (7.0)	–	1¼ (4.4)	2 (7.0)	2 (7.0)
1½ (5.3)	2 (7.0)	1½ (5.3)	2½ (8.8)	3 (11.0)	1½ (5.3)	2 (7.0)	2¾ (9.7)	2½ (8.8)
2 (7.0)	2½ (9.0)	2 (7.0)	3 (11.0)	4 (14.0)	2 (7.0)	2¼ (8.0)	3½ (12.0)	3¼ (11.5)
2½ (9.0)	3 (11.0)	2½ (9.0)	4 (14.0)	5 (17.0)	2½ (8.8)	2½ (8.8)	4 (14.0)	4 (14.0)
3 (11.0)	4 (14.0)	3 (11.0)	5 (17.0)	–	3 (11.0)	3½ (12.0)	5½ (20.0)	5¼ (19.0)

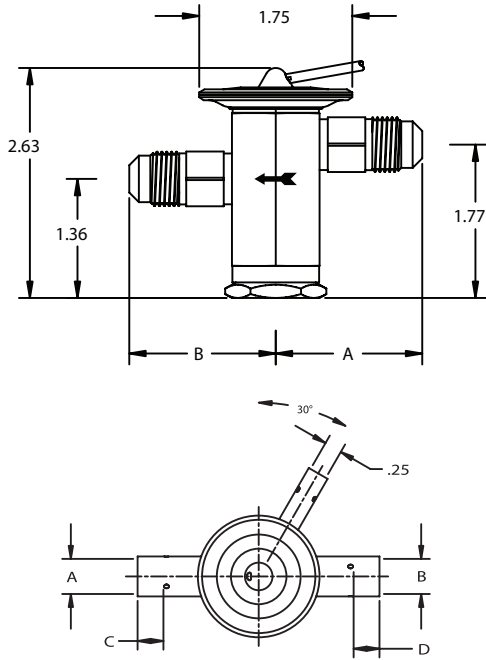
All capacities shown are at 100°F condensing, 40°F evaporator temperature.

\*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.

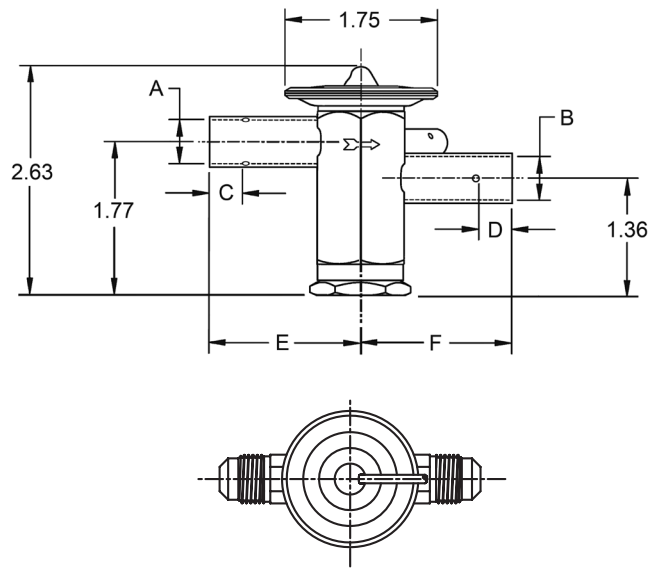
## ANCE SAE Dimensional Data

Connection Size		A	B
Inlet	Outlet		
3/8 SAE	3/8 SAE	1.67	1.67
1/2 SAE	1/2 SAE	1.75	1.75



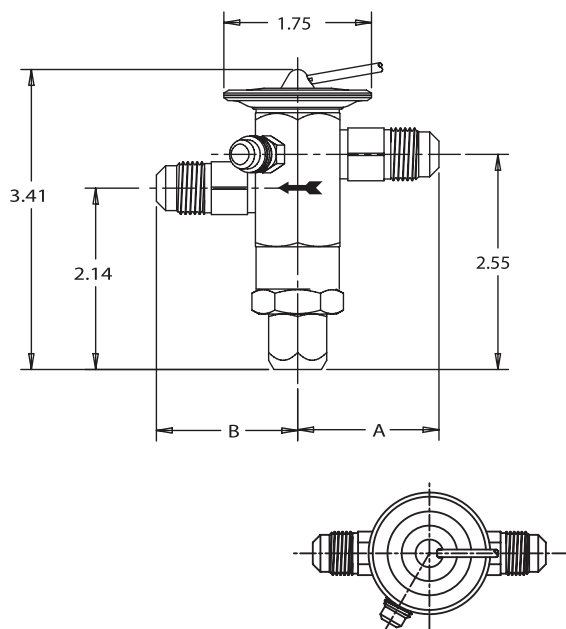
## ANCE ODF Dimensional Data

Connection Size		A± .002	B± .002	C MIN	D MIN	E	F
Inlet	Outlet						
1/4 ODF	3/8 ODF	0.25	0.38	0.32	0.32	1.70	1.73
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.70	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.38	1.73	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.38	0.38	1.73	1.73
1/2 ODF	5/8 ODF	0.63	0.61	0.38	0.50	1.75	1.75



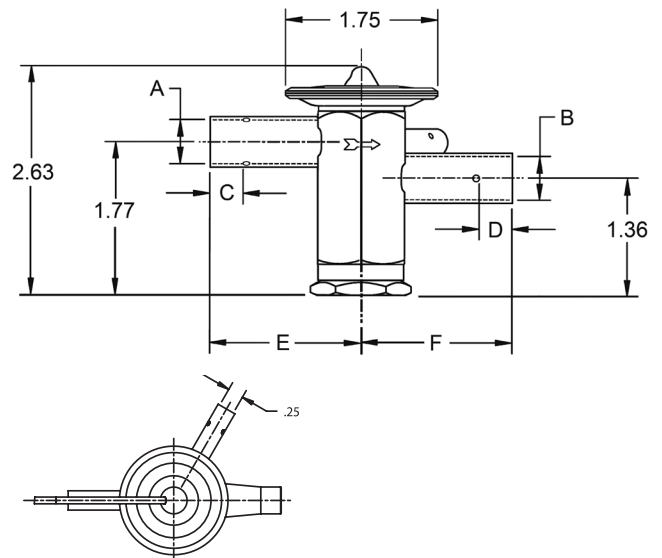
## AACE SAE Dimensional Data

Connection Size		A	B
Inlet	Outlet		
3/8 SAE	3/8 SAE	1.67	1.67
1/2 SAE	1/2 SAE	1.75	1.75



## AACE ODF Dimensional Data

Connection Size		A± .002	B± .002	C MIN	D MIN	E	F
Inlet	Outlet						
1/4 ODF	3/8 ODF	0.25	0.38	0.32	0.32	1.70	1.73
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.70	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.38	1.73	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.38	0.38	1.73	1.73
1/2 ODF	5/8 ODF	0.63	0.61	0.38	0.50	1.75	1.75



## Ordering Information

### Without Internal Check Valve

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN		
R-410A	AAE	1½	ZW195	3/8 X 1/2 ODF S/T	30 IN	066515		
			ZW195	3/8 X 3/8 ODF S/T	30 IN	064595		
		3	ZW195	3/8 X 1/2 ODF S/T	30 IN	065579		
			ZW195	CHATLEFF	30 IN	015776		
		5	ZW195	1/2 X 5/8 ODF S/T	30 IN	065580		
			ZW195	CHATLEFF	30 IN	015794		
R-134a R-12 R-450A R-513A	AA	1/8	MC	1/4 X 3/8 ODF S/T	30 IN	066030		
			MC	1/4 X 1/2 ODF S/T	30 IN	065821		
		1/4	MC	1/4 X 3/8 ODF S/T	30 IN	062051		
			MC	1/4 X 1/2 ODF S/T	5 FT	065623		
		1	MC	3/8 X 1/2 ODF S/T	30 IN	065776		
			MC	1/4 X 3/8 SAE S/T	30 IN	058985		
	AAE	1/2	MC	1/4 X 1/2 ODF S/T	5 FT	065624		
			MZ	1/4 X 3/8 SAE S/T	30 IN	058986		
		1/2	MC	1/4 X 1/2 ODF S/T	5 FT	065630		
			1	MC	3/8 X 1/2 ODF S/T	5 FT	065631	
		R-22 R-407C	AA	1/4	HC	1/4 X 3/8 ODF S/T	5 FT	056315
					HC	1/4 X 1/2 ODF S/T	5 FT	055932
1/2	HC			1/4 X 1/2 ODF S/T	5 FT	065626		
	HC			3/8 X 3/8 ODF S/T	30 IN	056547		
1/2	HC			3/8 X 1/2 SAE S/T	5 FT	057828		
	HC			1/4 X 1/2 ODF S/T	5 FT	065632		
AAE	1/2		HC	3/8 X 1/2 ODF S/T	5 FT	065633		
			HC	3/8 X 1/2 SAE ST	5 FT	057987		
	1		HC	1/4 X 3/8 ODF ST	30 IN	059582		
			HC	1/4 X 1/2 ODF S/T	5 FT	065634		
	1½		HC	3/8 X 1/2 ODF S/T	5 FT	064424		
			HC	3/8 X 1/2 ODF S/T	5 FT	064425		
AAE	2		HCA	3/8 X 1/2 ODF S/T	30 IN	049632		
			HAA	3/8 X 1/2 ODF S/T	30 IN	063648		
	2½		HAA	CHATLEFF	30 IN	013938		
			HCA	3/8 X 1/2 ODF S/T	30 IN	049633		
	3		HC	3/8 X 1/2 ODF S/T	5 FT	062376		
			HC	3/8 X 1/2 SAE S/T	5 FT	056686		
		HCA	3/8 X 1/2 ODF S/T	30 IN	049634			
		HCA	1/2 X 5/8 ODF S/T	30 IN	060643			
		4	HC	1/2 X 5/8 ODF S/T	5 FT	061960		
			HCA	3/8 X 1/2 ODF S/T	30 IN	049638		
	AAEB	5	HCA	1/2 X 1/2 ODF S/T	30 IN	061247		
			HAA	3/8 X 1/2 ODF S/T	30 IN	063649		
2		HAA	CHATLEFF	30 IN	013939			
		HC	1/2 X 5/8 ODF S/T	5 FT	059565			
3		HC	5/8 X 7/8 ODF S/T	30 IN	061805			
		HCA	3/8 X 1/2 ODF S/T	30 IN	054024			
HCA	1/2 X 5/8 ODF S/T	30 IN	059683					
HW100	3/8 X 5/8 ODF S/T	5 FT	062088					
2	HCA	3/8 X 1/2 ODF S/T	30 IN	059616				
3	HCA	3/8 X 1/2 ODF S/T	30 IN	059603				
4	HCA	1/2 X 1/2 ODF S/T	30 IN	059605				
5	HCA	1/2 X 1/2 ODF S/T	30 IN	059607				

Chatleff Gasket Kit – KG 10045 (PCN: 066031)

\* 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.

### Without Internal Check Valve (cont.)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN	
R-404A R-507 R-502 **R-448A **R-449A	AA	1/8	SC	1/4 X 3/8 ODF S/T 6A	30 IN	065921	
			SC	1/4 X 1/2 ODF S/T	30 IN	063503	
		1/4	SW45	1/4 X 3/8 ODF S/T	5 FT	065676	
			SZ	1/4 X 3/8 ODF S/T	5 FT	065675	
		1/2	SC	1/4 X 1/2 ODF S/T	30 IN	063504	
			SW45	1/4 X 1/2 ODF S/T	5 FT	065685	
			SZ	1/4 X 1/2 ODF S/T	5 FT	065682	
			SZ	3/8 X 1/2 ODF S/T	30 IN	063925	
		3/4	SC	3/8 X 1/2 ODF S/T	30 IN	066200	
			SW45	3/8 X 1/2 ODF S/T	30 IN	065686	
		1	SZ	3/8 X 1/2 ODF S/T	30 IN	065149	
			SC	3/8 X 1/2 ODF S/T	30 IN	066201	
		AAE	1/4	SC	1/4 X 1/2 ODF S/T	30 IN	066422
				SZ	1/4 X 1/2 ODF S/T	30 IN	066435
			1/2	SC	1/4 X 1/2 ODF S/T	30 IN	066423
				SC	3/8 X 1/2 ODF S/T	5 FT	066085
				SW45	1/4 X 1/2 ODF S/T	5 FT	065636
				SW45	3/8 X 1/2 ODF S/T	5 FT	065688
			1/2	SZ	1/4 X 1/2 ODF S/T	30 IN	066436
				SZ	3/8 X 1/2 ODF S/T	5 FT	065687
			3/4	SC	3/8 X 1/2 ODF S/T	5 FT	066086
				SZ	1/4 X 1/2 ODF S/T	30 IN	066437
			1	SC	3/8 X 1/2 ODF S/T	5 FT	066087
				SW45	3/8 X 1/2 ODF S/T	5 FT	065637
	1¼	SZ	3/8 X 1/2 ODF S/T	5 FT	065183		
		SC	3/8 X 1/2 ODF S/T	5 FT	066081		
	1½	SW45	3/8 X 1/2 ODF S/T	5 FT	066079		
		SZ	3/8 X 1/2 ODF S/T	5 FT	066080		
	2	SC	3/8 X 1/2 ODF S/T	5 FT	066448		
		SW45	3/8 X 1/2 ODF S/T	5 FT	065698		
	2	SZ	3/8 X 1/2 ODF S/T	5 FT	065697		
		SC	3/8 X 1/2 ODF S/T	30 IN	065330		
	2¼	SW45	3/8 X 1/2 ODF S/T	5 FT	065690		
		SZ	3/8 X 1/2 ODF S/T	5 FT	065689		
	2½	SW45	3/8 X 1/2 ODF S/T	5 FT	066082		
		SZ	3/8 X 1/2 ODF S/T	5 FT	066083		
	2½	SC	3/8 X 1/2 ODF S/T	5 FT	066084		
		SW45	1/2 X 5/8 ODF S/T	5 FT	065148		
	3	SZ	1/2 X 5/8 ODF S/T	5 FT	065691		
		SW45	3/8 X 1/2 ODF S/T	5 FT	065693		
				SZ	3/8 X 1/2 ODF S/T	5 FT	065692

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

### With Internal Check Valve

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN	
R-410A	AAE	1½	ZW195	3/8 X 1/2 ODF S/T	5 FT	065871	
			ZW195	CHATLEFF	30 IN	016432	
		2	ZW195	3/8 X 1/2 ODF S/T	5 FT	065872	
			ZW195	CHATLEFF	30 IN	016615	
		3	ZW195	3/8 X 1/2 ODF S/T	5 FT	065873	
			ZW195	CHATLEFF	30 IN	015795	
		4	ZW195	3/8 X 1/2 ODF S/T	5 FT	065874	
			ZW195	CHATLEFF	30 IN	016433	
		5	ZW195	1/2 X 5/8 ODF S/T	5 FT	065875	
			ZW195	CHATLEFF	30 IN	015796	
		AAEB	1½	ZW195	3/8 X 1/2 ODF S/T	30 IN	065946
				ZW195	3/8 X 1/2 ODF S/T	30 IN	065942
	2		ZW195	3/8 X 1/2 ODF S/T	30 IN	065943	
			ZW195	3/8 X 1/2 ODF S/T	30 IN	065944	
	3		ZW195	3/8 X 1/2 ODF S/T	30 IN	065945	
			ZW195	3/8 X 1/2 ODF S/T	30 IN	065946	
	AAE		1	HCA	3/8 X 1/2 ODF S/T	30 IN	063795
				HCA	3/8 X 1/2 ODF S/T	5 FT	058923
			1½	HCA	3/8 X 1/2 ODF S/T	30 IN	063676
				HCA	3/8 X 1/2 ODF S/T	30 IN	063676
			2	HAA	3/8 X 1/2 ODF S/T	30 IN	064102
				HAA	CHATLEFF	30 IN	014091
		3	HCA	3/8 X 1/2 ODF S/T	5 FT	065868	
			HCA	1/2 X 5/8 ODF S/T	5 FT	065797	
4		HCA	3/8 X 1/2 ODF S/T	5 FT	065869		
		HAA	3/8 X 1/2 ODF S/T	30 IN	064103		
5		HAA	CHATLEFF	30 IN	014092		
		HAA	1/2 X 5/8 ODF S/T	5 FT	065863		
AAEB	1½	HCA	3/8 X 1/2 ODF S/T	30 IN	065842		
		HCA	3/8 X 1/2 ODF S/T	30 IN	065959		
	2	HCA	3/8 X 1/2 ODF S/T	30 IN	065941		
		HCA	3/8 X 5/8 ODF S/T	30 IN	065844		