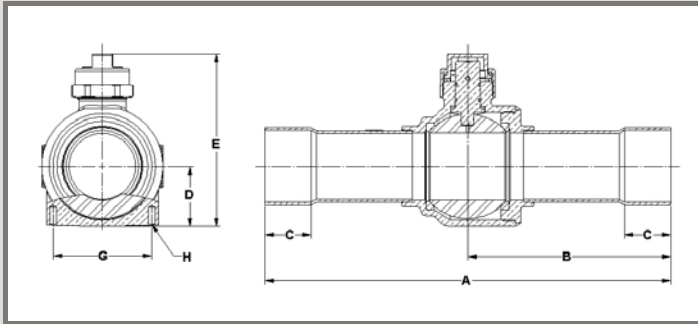




**Features:**

- Maximum abnormal pressure (MAP): Up to 775 psig, 53 bar
- Continuous operating temperature (COT): -40°F/300°F, -40°C/149°C
- Compatible with all CFC, HCFC and HFC refrigerants and oils
- Full port construction to match line size ID
- Internally equalized ball design
- Rupture-proof encapsulated stem
- MCM Seal Technology
- UL/cUL Listed, Conforms to Pressure Equipment Directive 97/23/EC



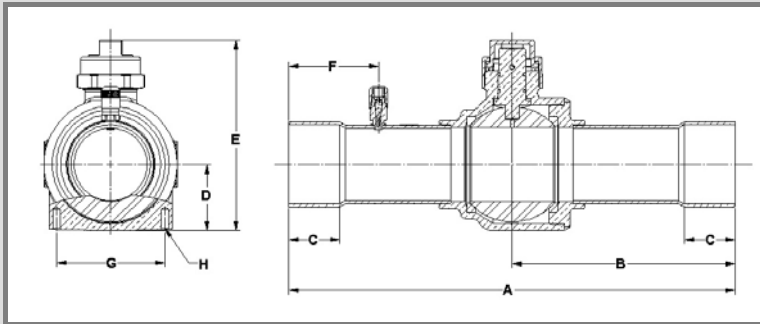
Part Number	Size		Cv	Kv	A		B		C Min		D		E		G **		H **		Port (in)	MWP		Wt		Seal Cap Kit
	in	mm			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	psi	bar		lb	kg			
AP17859	‡	1/4	6	1.0	1	5.50	140	2.98	76	0.31	8	0.54	14	2.23	57	0.87	22	M4 X 0.7	0.50	775	53	0.67	0.30	A 17842
AP17860C	‡	3/8	10	4.3	4	5.50	140	2.98	76	0.31	8	0.54	14	2.23	57	0.87	22	M4 X 0.7	0.50	775	53	0.48	0.22	A 17842
AP17861C	‡	1/2	13	6.2	5	6.35	161	3.41	87	0.38	10	0.54	14	2.23	57	0.87	22	M4 X 0.7	0.50	775	53	0.53	0.24	A 17842
AP17862C	‡	5/8	17	12.1	10	6.35	161	3.41	87	0.50	13	0.54	14	2.23	57	0.87	22	M4 X 0.7	0.50	775	53	0.50	0.23	A 17842
AP17863	‡	3/4	19	19.0	16	7.45	189	3.89	99	0.62	16	0.72	18	2.66	68	1.18	30	M4 X 0.7	0.75	775	53	1.40	0.63	A 17843
AP17864C	‡	7/8	22	27.5	24	7.45	189	3.89	99	0.75	19	0.72	18	2.66	68	1.18	30	M4 X 0.7	0.75	775	53	0.93	0.42	A 17843
AP17865	‡	1 1/8	29	54.0	47	8.42	214	4.21	107	0.91	23	1.00	25	3.15	80	1.50	38	M4 X 0.7	1.00	775	53	1.61	0.73	A 17843
A 17866		1 3/8	35	89.1	77	10.00	254	5.00	127	0.97	25	1.17	30	3.72	94	1.89	48	M6 X 1.0	1.25	775	53	2.59	1.17	A 17844
A 17867		1 5/8	41	114.0	99	11.00	279	5.50	140	1.09	28	1.38	35	4.12	105	2.17	55	M6 X 1.0	1.50	775	53	3.64	1.65	A 17844
A 17868		2 1/8	54	244.0	211	12.00	305	6.00	152	1.34	34	1.79	45	5.14	131	2.91	74	M6 X 1.0	2.00	700	48	8.02	3.64	A 17845
A 17869		2 5/8	67	401.0	347	13.50	343	6.75	171	1.47	37	2.19	56	5.92	150				2.44	700	48	13.40	6.08	A 17845
A 17870		3 1/8	79	553.0	478	16.00	406	8.00	203	1.66	42	2.69	68	7.03	179				3.00	700	48	21.31	9.67	A 17846
A 17871	*	2 5/8	67	230.0	199	12.00	305	6.00	152	1.47	37	1.79	45	5.14	131	2.91	74	M6 X 1.0	2.00	700	48	8.46	3.84	A 17845
A 17872	*	3 1/8	79	143.0	124	12.00	305	6.00	152	1.66	42	1.79	45	5.14	131	2.91	74	M6 X 1.0	2.00	700	48	9.12	4.13	A 17845
B 34909	***	3 5/8	92			13.10	333	6.50	165	1.91	49	2.69	68	7.03	179				3.00	700	48	22.80	10.34	A 17846
B 34910	***	4 1/8	105			14.50	368	7.20	183	2.16	55	2.69	68	7.03	179				3.00	700	48	21.00	9.53	A 17846

\* Reduced Port  
 \*\* Where Applicable  
 \*\*\* Consult Factory  
 ‡ Standard product offering includes drilled/ tapped feature  
 Prefix AP Drilled/ tapped



**Features:**

- Maximum abnormal pressure (MAP): Up to 775 psig, 53 bar
- Continuous operating temperature (COT): -40°F/300°F, -40°C/149°C
- Compatible with all CFC, HCFC and HFC refrigerants and oils
- Full port construction to match line size ID
- Internally equalized ball design
- Rupture-proof encapsulated stem
- MCM Seal Technology
- UL/cUL Listed, Conforms to Pressure Equipment Directive 97/23/EC



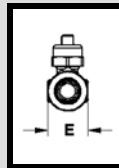
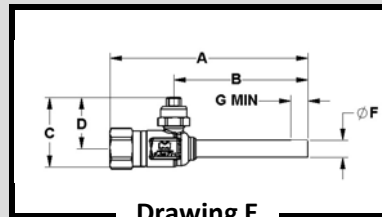
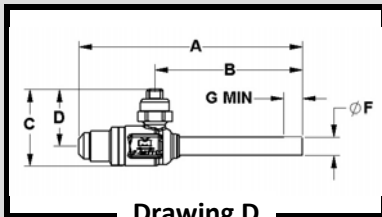
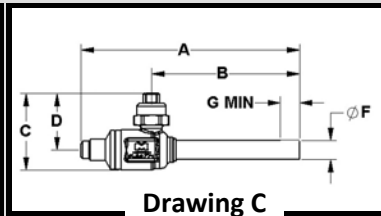
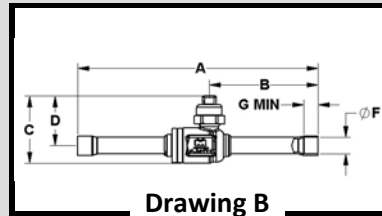
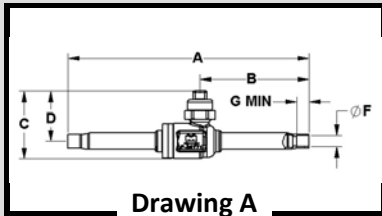
Part Number	Size		Cv	Kv	A		B		C Min		D		E		F		G **		H **		Port (in)	MWP		Wt		Seal Cap Kit
	in	mm			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		psig	bar	lb	kg	
AQ17859 ‡	1/4	6	1.0	1	5.50	140	2.98	76	0.31	8	0.54	14	2.23	57	1.16	29	0.87	22	M4 X 0.7	0.50	775	53	0.72	0.33	A 17842	
AQ17860C ‡	3/8	10	4.3	4	5.50	140	2.98	76	0.31	8	0.54	14	2.23	57	1.16	29	0.87	22	M4 X 0.7	0.50	775	53	0.52	0.24	A 17842	
AQ17861C ‡	1/2	13	6.2	5	6.35	161	3.41	87	0.38	10	0.54	14	2.23	57	1.21	31	0.87	22	M4 X 0.7	0.50	775	53	0.53	0.24	A 17842	
AQ17862C ‡	5/8	17	12.1	10	6.35	161	3.41	87	0.50	13	0.54	14	2.23	57	1.35	34	0.87	22	M4 X 0.7	0.50	775	53	0.54	0.24	A 17842	
AQ17863 ‡	3/4	19	19.0	16	7.45	189	3.89	99	0.62	16	0.72	18	2.66	68	1.47	37	1.18	30	M4 X 0.7	0.75	775	53	0.96	0.43	A 17843	
AQ17864C ‡	7/8	22	27.5	24	7.45	189	3.89	99	0.75	19	0.72	18	2.66	68	1.60	41	1.18	30	M4 X 0.7	0.75	775	53	0.96	0.43	A 17843	
AQ17865 ‡	1 1/8	29	54.0	47	8.42	214	4.21	107	0.91	23	1.00	25	3.15	80	1.74	44	1.50	38	M4 X 0.7	1.00	775	53	1.66	0.75	A 17843	
AC17866	1 3/8	35	89.1	77	10.00	254	5.00	127	0.97	25	1.17	30	3.72	94	2.04	52	1.89	48	M6 X 1.0	1.25	775	53	2.62	1.19	A 17844	
AC17867	1 5/8	41	114.0	99	11.00	279	5.50	140	1.09	28	1.38	35	4.12	105	2.25	57	2.17	55	M6 X 1.0	1.50	775	53	4.78	2.17	A 17844	
AC17868	2 1/8	54	244.0	211	12.00	305	6.00	152	1.34	34	1.79	45	5.14	131	2.41	61	2.91	74	M6 X 1.0	2.00	700	48	8.09	3.67	A 17845	
AC17869	2 5/8	67	401.0	347	13.50	343	6.75	171	1.47	37	2.19	56	5.92	150	2.85	72				2.44	700	48	13.81	6.26	A 17845	
AC17870	3 1/8	79	553.0	478	16.00	406	8.00	203	1.66	42	2.69	68	7.03	179	3.41	87				3.00	700	48	21.42	9.72	A 17846	
AC17871 *	2 5/8	67	230.0	199	12.00	305	6.00	152	1.47	37	1.79	45	5.14	131	2.48	63	2.91	74	M6 X 1.0	2.00	700	48	8.71	3.95	A 17845	
AC17872 *	3 1/8	79	143.0	124	12.00	305	6.00	152	1.66	42	1.79	45	5.14	131	2.66	68	2.91	74	M6 X 1.0	2.00	700	48	9.23	4.18	A 17845	

\* Reduced Port  
 \*\* Where Applicable  
 \*\*\* Consult Factory  
 ‡ Standard product offering includes drilled/ tapped feature  
 Prefix AQ Drilled/ tapped



**Features:**

- Maximum abnormal pressure (MAP): 775 psig, 53 bar
- Continuous operating temperature (COT): -40°F/300°F, -40°C/149°C
- Compatible with all CFC, HCFC and HFC refrigerants and oils
- Full port construction to match line size ID
- Internally equalized ball design
- Rupture-proof encapsulated stem
- MCM Seal Technology



**Solder**

Part Number	Size	A	B	C	D	E	F	G Min	Wt	Drawing	2 Piece Seal Cap Assembly
	in	in mm	in mm	in mm	in mm	in mm	in mm	in mm	lb kg		
A 17855	1/4 ODS	5.50 140	2.50 64	1.54 39	1.14 29	0.81 21	0.250 6	0.25 6	0.25 0.12	A	A 17841
A 17856	3/8 ODS	5.50 140	2.50 64	1.54 39	1.14 29	0.81 21	0.375 10	0.31 8	0.26 0.12	B	A 17841

**FL x ODE**

Part Number	Size	A	B	C	D	E	F	G Min	Wt	Drawing	Flare Fitting Seal Cap	Valve Core **	Flare Fitting Seal Cap Kit ***	2 Piece Seal Cap Assembly
	in	in mm	in mm	in mm	in mm	in mm	in mm	in mm	lb kg					
A 18673	1/4 FL X 3/8 ODE	4.38 111	2.97 75	1.54 39	1.14 29	0.81 21	0.375 10	0.38 10	0.26 0.12	C	A 16447	P 25998	A 18726	A 17841
A 18674	3/8 FL X 3/8 ODE	4.50 114	2.97 75	1.54 39	1.14 29	0.81 21	0.375 10	0.38 10	0.28 0.13	D	A 16448			A 17841

**NPTFI X ODE**

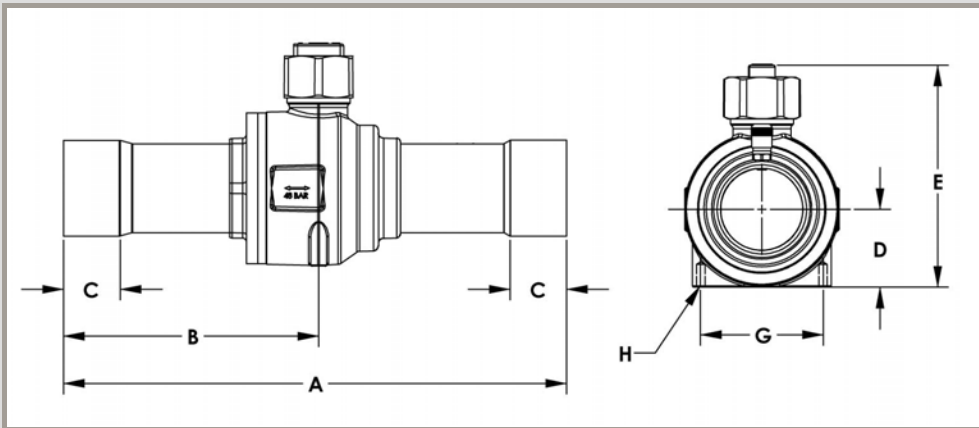
Part Number	Size	A	B	C	D	E	F	G Min	Wt	Drawing	Plug for 1/4 NPTF	2 Piece Seal Cap Assembly
	in	in mm	in mm	in mm	in mm	in mm	in mm	in mm	lb kg			
A 18675	1/4 NPTFI X 3/8 ODE	4.38 111	2.97 75	1.54 39	1.14 29	0.81 21	0.375 10	0.38 10	0.28 0.13	E	P 34707	A 17841

- \* Assembled finger tight
- \*\* Installation torque 1-3 in/lbs
- \*\*\* Includes seal cap and valve core
- 1) Stem torque to rotate ball: 15 in-lbs maximum
- 2) Torque for installing ball valves with 1/4" flare connection: 8 – 10 ft-lbs
- 3) Torque for installing ball valves with 3/8" flare connection: 15 - 25 ft-lbs



### Features:

- Maximum abnormal pressure (MAP): Up to 2031 psi, 140 bar
- Continuous operating temperature (COT): -40°F/250°F, -40°C/120°C
- Designed for transcritical CO2 systems
- Meets requirements of Directive 97/23/EC (PED) and EN 378-2
- Bi-directional flow
- Brass body with copper-iron alloy connections
- Bleed hole in ball allows for the support of gas pressure without stressing other components
- Full port construction to match line size
- Rupture-proof, internally-loaded stem
- Specially selected o-ring material compatible for CO2 operating conditions



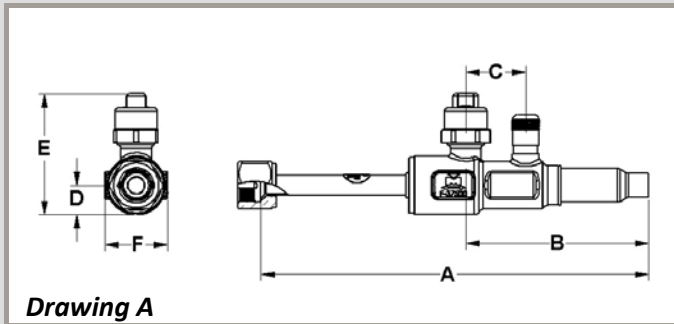
Part Number	Size		Cv	Kv	A		B		C Min		D		E		G **		H **		Port (in)	MWP		Wt		Seal Cap Kit
	in	mm			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	psi	bar		lb	kg			
A 17855XHP	1/4	6	1.0	1	5.50	140	3.01	76	0.00	0	0.40	10	1.54	39	0.00	0	M4 X 0.7	0.50			0.24	0.11	A 17842	
A 17856XHP	3/8	10	4.3	4	5.50	140	3.01	76	0.00	0	0.40	10	1.54	39	0.00	0	M4 X 0.7	0.50			0.24	0.11	A 17842	
A 17861XHP	1/2	13	6.2	5	6.35	161	3.41	87	0.00	0	0.54	14	2.23	57	0.00	0	M4 X 0.7	0.50			0.54	0.24	A 17842	
A 17862XHP	5/8	17	12.1	10	6.35	161	3.41	87	0.00	0	0.54	14	2.23	57	0.00	0	M4 X 0.7	0.50			0.55	0.25	A 17842	
A 17863XHP	3/4	19	19.0	16	7.45	189	3.88	99	0.00	0	1.28	33	3.35	85	0.00	0	M4 X 0.7	0.75			1.59	0.72	A 17843	
A 17864XHP	7/8	22	27.5	24	7.45	189	3.88	99	0.00	0	1.28	33	3.35	85	0.00	0	M4 X 0.7	0.75			1.60	0.73	A 17843	
A 17865XHP	1 1/8	29	54.0	47	8.41	214	4.33	110	0.00	0	1.47	37	3.97	101	0.00	0	M4 X 0.7	1.00			3.06	1.39	A 17843	
A 17866XHP	1 3/8	35	89.1	77	10.00	254	5.00	127	0.00	0	1.38	35	3.92	100	0.00	0	M6 X 1.0	1.25			4.55	2.06	A 17844	
A 17867XHP	1 5/8	41	114.0	99	11.00	279	5.50	140	0.00	0	1.59	40	4.33	110	0.00	0	M6 X 1.0	1.50			6.81	3.09	A 17844	
A 17868XHP	2 1/8	54	244.0	211	12.00	305	6.00	152	0.00	0	2.07	53	5.53	140	0.00	0	M6 X 1.0	2.00			13.82	6.27	A 17845	

\*\* Where Applicable

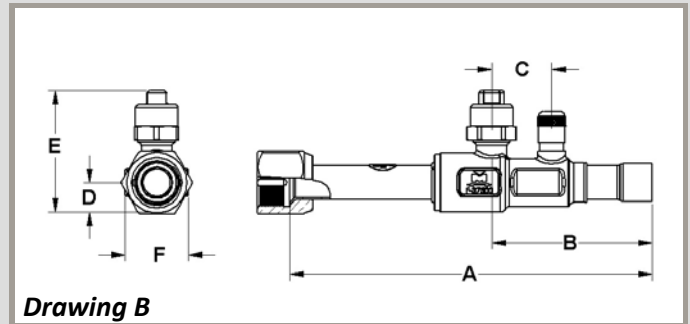


**Features:**

- Maximum abnormal pressure (MAP): 775 psig, 53 bar
- Continuous operating temperature (COT): -40°F/300°F, -40°C/149°C
- Compatible with all CFC, HCFC and HFC refrigerants and oils
- Full port construction to match line size ID
- Internally equalized ball design
- Rupture-proof encapsulated stem
- MCM Seal Technology
- UL/cUL Listed, Conforms to Pressure Equipment Directive 97/23/EC

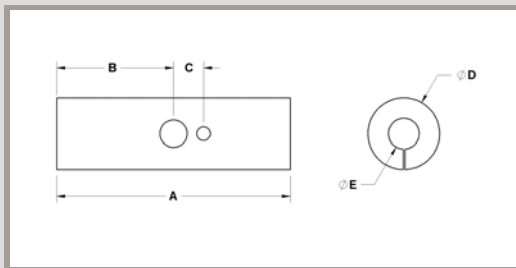


**Drawing A**



**Drawing B**

Valve Part Number	Valve Insulation Kit Part Number	Size		A		B		C		D		E		F		Wt		Drawing
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg	
A 18941	A 18611U	1/4	6	7.17	182	3.36	85	1.10	28	0.54	14	2.23	57	1.16	29			A
A 18942	A 18612U	3/8	10	7.12	181	3.36	85	1.10	28	0.54	14	2.23	57	1.16	29			A
A 18943	A 18613U	1/2	13	6.71	170	2.94	75	1.10	28	0.54	14	2.23	57	1.16	29			A
A 18944	A 18614U	5/8	17	6.64	169	2.94	75	1.10	28	0.54	14	2.23	57	1.16	29			B

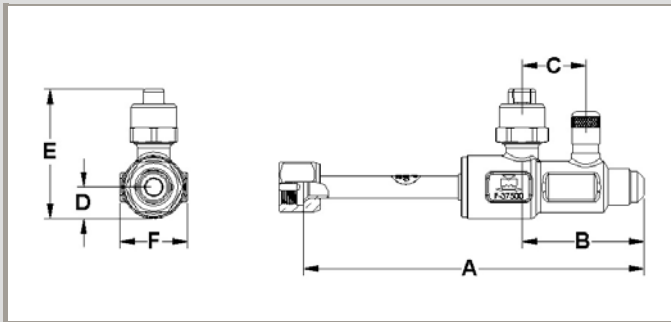


Insulation Part No.	Valve Size	A (in)	B (in)	C (in)	D (in)	E (in)	Wt(lb)
MSBVINS	Multi Split Valves	8.56	4.28	1.10	2.63	1.13	0.10



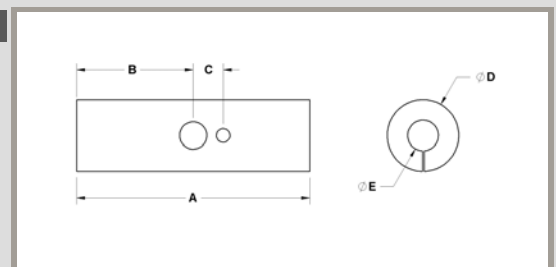
**Features:**

- Maximum abnormal pressure (MAP): 775 psig, 53 bar
- Continuous operating temperature (COT): -40°F/300°F, -40°C/149°C
- Compatible with all CFC, HCFC and HFC refrigerants and oils
- Full port construction to match line size ID
- Internally equalized ball design
- Rupture-proof encapsulated stem
- MCM Seal Technology
- UL/cUL Listed, Conforms to Pressure Equipment Directive 97/23/EC



Valve Part Number	Valve Insulation Kit Part Number	Size		A		B		C		D		E		F		Wt	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
A 18945	A 18567U	1/4	6	5.86	149	2.05	52	1.10	28	0.54	14	2.23	57	1.16	29		
A 18946	A 18568U	3/8	10	5.86	149	2.10	53	1.10	28	0.54	14	2.23	57	1.16	29		
A 18947	A 18569U	1/2	13	5.98	152	2.21	56	1.10	28	0.54	14	2.23	57	1.16	29		
A 18948	A 18570U	5/8	17	5.98	152	2.28	58	1.10	28	0.54	14	2.23	57	1.16	29		
A 18949	A 18652U	3/8 F X 1/4 M		5.81	148	2.05	52	1.10	28	0.54	14	2.23	57	1.16	29		
A 18950	A 18653U	5/8 F X 1/2 M		5.91	150	2.21	56	1.10	28	0.54	14	2.23	57	1.16	29		

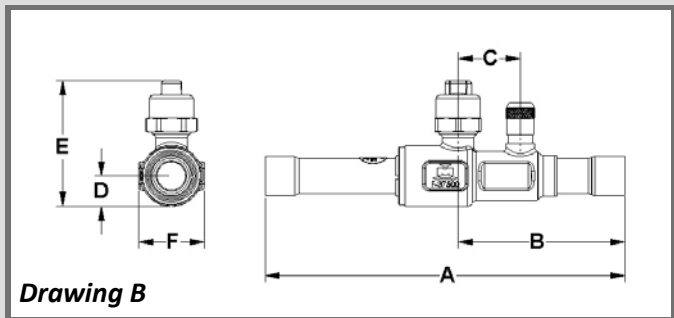
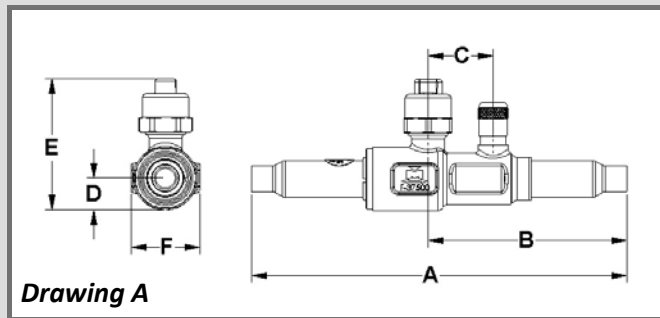
Insulation Part No.	Valve Size	A (in)	B (in)	C (in)	D (in)	E (in)	Wt(lb)
MSBVINS	Multi Split Valves	8.56	4.28	1.10	2.63	1.13	0.10





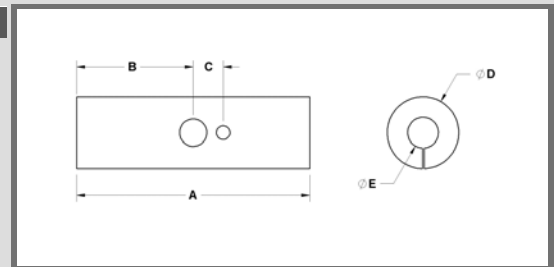
**Features:**

- Maximum abnormal pressure (MAP): 775 psig, 53 bar
- Continuous operating temperature (COT): -40°F/300°F, -40°C/149°C
- Compatible with all CFC, HCFC and HFC refrigerants and oils
- Full port construction to match line size ID
- Internally equalized ball design
- Rupture-proof encapsulated stem
- MCM Seal Technology
- UL/cUL Listed, Conforms to Pressure Equipment Directive 97/23/EC



Valve Part Number	Valve Insulation Kit Part Number	Size		A		B		C		D		E		F		Wt		Drawing
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg	
A 18937	A 18571U	1/4	6	6.35	161	3.36	85	1.10	28	0.54	14	2.23	57	1.16	29			A
A 18938	A 18572U	3/8	10	6.35	161	3.36	85	1.10	28	0.54	14	2.23	57	1.16	29			A
A 18939	A 18573U	1/2	13	6.35	161	2.94	75	1.10	28	0.54	14	2.23	57	1.16	29			A
A 18940	A 18574U	5/8	17	6.35	161	2.94	75	1.10	28	0.54	14	2.23	57	1.16	29			B

Insulation Part No.	Valve Size	A (in)	B (in)	C (in)	D (in)	E (in)	Wt(lb)
MSBVINS	Multi Split Valves	8.56	4.28	1.10	2.63	1.13	0.10

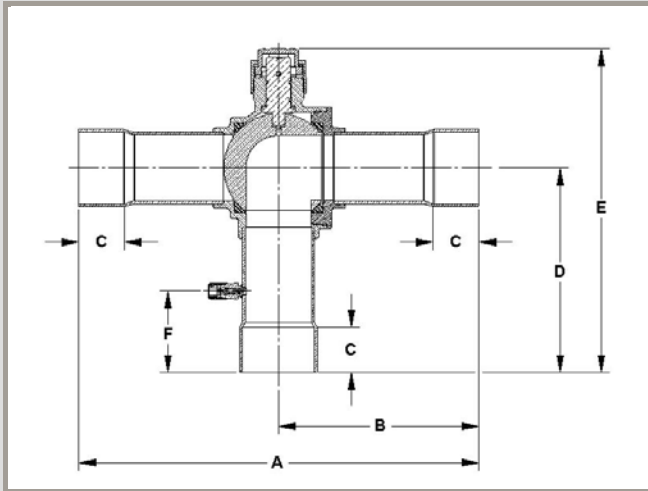






**Features:**

- Maximum abnormal pressure (MAP): 700 psig, 48 bar
- Continuous operating temperature (COT): -40°F/300°F, -40°C/149°C
- Compatible with all CFC, HCFC and HFC refrigerants and oils
- Full port construction to match line size ID
- Internally equalized ball design
- Rupture-proof encapsulated stem
- MCM Seal Technology
- UL/cUL Listed, Conforms to Pressure Equipment Directive 97/23/EC



Part Number	Size		Cv	Kv	A		B		C		D		E		F		Port (in)	Wt		Seal Cap Kit
	in	mm			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		lb	kg	
AU17860	3/8	10	2.23	2	5.50	140	2.97	75	0.31	8	2.61	66	4.16	106	1.16	29	0.50	0.73	0.33	A 17842
AU17861	1/2	13	3.94	3	6.38	162	3.42	87	0.38	10	3.05	77	4.60	117	1.21	31	0.50	0.74	0.33	A 17842
AU17862	5/8	17	4.63	4	6.38	162	3.42	87	0.50	13	3.05	77	4.60	117	1.35	34	0.50	0.74	0.34	A 17842
AU17863	3/4	19	11.90	10	7.47	190	3.91	99	0.62	16	3.65	93	5.86	149	1.47	37	0.75	1.40	0.64	A 17843
AU17864	7/8	22	10.89	9	7.47	190	3.91	99	0.75	19	3.65	93	5.86	149	1.60	41	0.75	1.52	0.69	A 17843
AU17865	1 1/8	29	19.33	17	8.41	214	4.33	110	0.91	23	4.01	102	6.39	162	1.74	44	1.00	2.82	1.28	A 17844
A 17545	1 3/8	35	31.06	27	10.00	254	5.07	129	0.97	25	4.92	125	7.89	200	2.04	52	1.25	4.97	2.25	A 17845
A 17546	1 5/8	41	44.69	39	11.00	279	5.53	140	1.09	28	5.46	139	8.61	219	2.25	57	1.50	7.17	3.25	A 17845
AU17868	2 1/8	54	76.32	66	11.86	301	5.95	151	1.34	34	6.06	154	9.58	243	2.41	61	1.93	8.27	3.75	A 17845
AU17871 *	2 5/8	67	69.85	60	11.90	302	5.97	152	1.47	37	6.08	154	9.60	244	2.48	63	1.93	8.80	3.99	A 17845
AU17872 *	3 1/8	79	58.19	50	11.86	301	5.95	151	1.66	42	6.06	154	9.58	243	2.66	68	1.93	11.10	5.03	A 17845

\* Reduced Port




**Features:**

- Maximum abnormal pressure (MAP): Up to 775 psig, 53 bar
- Power Supply: 24 VAC
- Actuator Ambient Temperature: -22°F to 130°F, -30°C to 54°C
- Compatible with all CFC, HCFC and HFC refrigerants and oils
- Valve Refrigerant Temperature: -40°F to 300°F, -40°C to 149°C
- Full shutoff capability
- Gradual open/close stops line hammer
- Remote operating capability
- Removable actuator for quick change replacement
- Manual override and valve positioning
- Electronic overload protection
- UL/cUL Listed, Conforms to Pressure Equipment Directive 97/23/EC

**Actuated Standard**

Part Number	Size		Cv	Kv	A		B		C Min		D		MWP		Wt		Motor	Hub Kit	Actuator Kit***	Heater	
	in	mm			in	mm	in	mm	in	mm	in	mm	psig	bar	lb	kg					
AW17861	1/2	13	6.20	5	4.00	102	2.36	60	3.70	94	2.76	70	775	53	2.21	1.00	1	A 18389	A 18390		
AW17862	5/8	17	12.10	10	4.00	102	2.36	60	3.70	94	2.76	70	775	53	2.38	1.08	1	A 18389	A 18390		
AW17863	3/4	19	19.00	16	4.21	107	2.36	60	3.70	94	2.76	70	775	53	2.40	1.09	1	A 18391	A 18392		
AW17864	7/8	22	27.50	24	4.21	107	2.36	60	3.70	94	2.76	70	775	53	2.42	1.10	1	A 18391	A 18392		
AW17865	1 1/8	29	54.00	47	4.58	116	2.36	60	3.70	94	2.76	70	775	53	3.10	1.41	1	A 18391	A 18392		
AW17866	1 3/8	35	89.10	77	5.05	128	2.36	60	5.91	150	3.19	81	775	53	5.53	2.51	2	A 18393	A 18394	A 18366	
AW17867	1 5/8	41	114.00	99	5.34	136	2.36	60	5.91	150	3.19	81	775	53	6.94	3.15	2	A 18393	A 18394	A 18366	
AW17868	2 1/8	54	244.00	211	6.42	163	2.66	68	8.94	227	3.94	100	700	48	13.14	5.96	3	A 18368	A 18395	A 18367	
AW17869	**	2 5/8	67	401.00	347	9.45	240	5.30	135	8.94	227	3.94	100	700	48	23.40	10.61	4	A 18764	A 18765	A 18367 (2)
AW17870	**	3 1/8	79	553.00	478	9.99	254	5.30	135	8.94	227	3.94	100	700	48	31.40	14.24	4	A 18400	A 18401	A 18367 (2)
AW17871	*	2 5/8	67	230.00	199	6.42	163	2.66	68	8.94	227	3.94	100	700	48	13.56	6.15	3	A 18368	A 18395	A 18367
AW17872	*	3 1/8	79	143.00	124	6.42	163	2.66	68	8.94	227	3.94	100	700	48	14.24	6.46	3	A 18368	A 18395	A 18367

**Actuated 3-Way**

Part Number	Size		Cv	Kv	A		B		C Min		D		MWP		Wt		Motor	Hub Kit	Actuator Kit***	Heater	
	in	mm			in	mm	in	mm	in	mm	in	mm	psig	bar	lb	kg					
AY17861	1/2	13	3.90	3	4.18	106	2.36	60	3.70	94	2.76	70	700	48	2.28	1.03	1	A 18389	A 18390		
AY17862	5/8	17	4.60	4	4.18	106	2.36	60	3.70	94	2.76	70	700	48	2.39	1.08	1	A 18389	A 18390		
AY17863	3/4	19	11.90	10	4.50	114	2.36	60	3.70	94	2.76	70	700	48	3.50	1.59	1	A 18391	A 18392		
AY17864	7/8	22	10.90	9	4.50	114	2.36	60	3.70	94	2.76	70	700	48	3.25	1.47	1	A 18391	A 18392		
AY17865	1 1/8	29	19.30	17	5.02	128	2.36	60	5.91	150	3.19	81	700	48	5.73	2.60	2	A 18393	A 18394	A 18366	
A 17810	1 3/8	35	31.10	27	5.44	138	2.36	60	5.91	150	3.19	81	700	48	8.13	3.69	2	A 18368	A 18396	A 18366	
A 17811	1 5/8	41	44.70	39	6.22	158	2.66	68	8.94	227	3.94	100	700	48	12.00	5.44	3	A 18368	A 18395	A 18367	
AY17868	2 1/8	54	76.30	66	6.54	166	2.66	68	8.94	227	3.94	100	700	48	13.23	6.00	3	A 18368	A 18395	A 18367	
AY17871	*	2 5/8	67	69.90	60	6.54	166	2.66	68	8.94	227	3.94	100	700	48	14.09	6.39	3	A 18368	A 18395	A 18367
AY17872	*	3 1/8	79	58.20	50	6.54	166	2.66	68	8.94	227	3.94	100	700	48	14.64	6.64	3	A 18368	A 18395	A 18367

\* Reduced Port

\*\* Consists of two stacked motors operating in tandem

\*\*\* Actuator Kit includes Motor and Hub

Prefix AWS Actuator includes auxillary switch

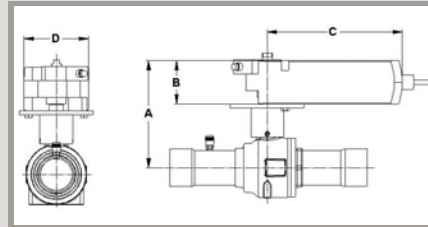
Prefix AYS Actuator includes auxillary switch

Warning Heater assembly required for low temperature applications

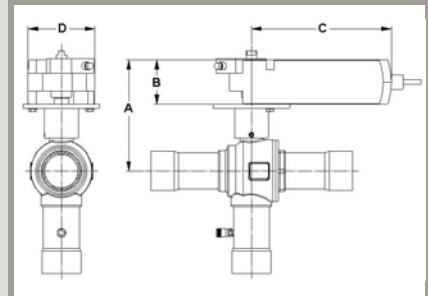
Warning Motors not for use in wet or applications where moisture will condense on motor



### Actuated Standard



### Actuated 3-Way



### Motor Specifications

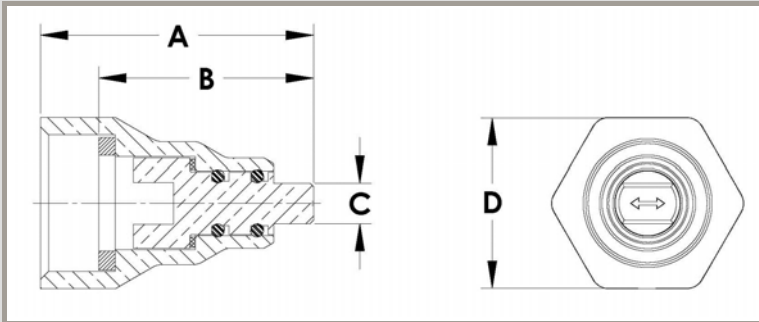
Motor Series	Torque (in-lb)	Power Consumption (VA)	Running Time (seconds)
1	44	2.5	90
2	132	3.0	125
3	310	7	125
4 **	620	12	125

Tonnage calculations are based on the following conditions:  
 Evaporator temperature: 40°  
 Vapor temperature exiting evaporator: 10°F superheated  
 Liquid temperature entering evaporator: 100°F  
 Hot gas temperature: 140°F  
 Pressure drop across valve: 1 psig

Part Number	Liquid Capacity (tons)					Suction Capacity (tons)					Hot Gas Capacity (tons)				
	R22	R134a	R404A/ R507	R407C	R410A	R22	R134a	R404A/ R507	R407C	R410A	R22	R134a	R404A/ R507	R407C	R410A
AW17861	19.0	17.7	12.2	18.13	17.8	2.7	2.1	2.2	2.52	3.1	3.9	3.2	3.2	4.05	4.5
AW17862	36.9	34.5	23.8	35.27	34.6	5.2	4.1	4.3	4.90	6.0	7.5	6.2	6.2	7.87	8.7
AW17863	58.0	54.1	37.4	55.40	54.4	8.1	6.4	6.8	7.69	9.5	11.8	9.7	9.7	12.37	13.7
AW17864	84.1	78.4	54.2	80.27	78.8	11.8	9.2	9.8	11.15	13.7	17.1	14.1	14.0	17.92	19.8
AW17865	165.3	154.3	106.5	157.86	154.9	23.2	18.1	19.4	21.92	27.0	33.7	27.7	27.6	35.24	38.9
AW17866	272.9	254.7	175.8	260.62	255.8	38.3	29.9	32.0	36.19	44.6	55.6	45.7	45.6	58.18	64.2
AW17867	348.7	325.3	224.6	332.95	326.8	49.0	38.2	40.8	46.23	57.0	71.1	58.4	58.3	74.33	82.1
AW17868	746.8	696.9	481.2	713.19	699.9	104.9	81.9	87.5	99.03	122.2	152.3	125.0	124.8	159.21	175.8
AW17869	1227.6	1145.5	791.0	1172.30	1150.5	172.4	134.6	143.8	162.78	200.8	250.3	205.5	205.2	261.71	289.0
AW17870	1693.7	1580.4	1091.3	1617.41	1587.4	237.9	185.8	198.4	224.58	277.0	345.3	283.5	283.1	361.08	398.7
AW17871	705.3	658.2	454.5	673.57	661.1	99.1	77.4	82.6	93.53	115.4	143.8	118.1	117.9	150.37	166.0
AW17872	439.3	409.9	283.0	419.50	411.7	61.7	48.2	51.5	58.25	71.9	89.6	73.5	73.4	93.65	103.4
AY17861	12.1	11.3	7.8	11.52	11.3	1.7	1.3	1.4	1.60	2.0	2.5	2.0	2.0	2.57	2.8
AY17862	14.2	13.2	9.1	13.54	13.3	2.0	1.6	1.7	1.88	2.3	2.9	2.4	2.4	3.02	3.3
AY17863	36.4	34.0	23.5	34.79	34.1	5.1	4.0	4.3	4.83	6.0	7.4	6.1	6.1	7.77	8.6
AY17864	33.3	31.1	21.5	31.84	31.2	4.7	3.7	3.9	4.42	5.5	6.8	5.6	5.6	7.11	7.8
AY17865	59.2	55.2	38.1	56.52	55.5	8.3	6.5	6.9	7.85	9.7	12.1	9.9	9.9	12.62	13.9
A 17810	95.1	88.7	61.3	90.81	89.1	13.4	10.4	11.1	12.61	15.6	19.4	15.9	15.9	20.27	22.4
A 17811	136.8	127.7	88.2	130.66	128.2	19.2	15.0	16.0	18.14	22.4	27.9	22.9	22.9	29.17	32.2
AY17868	233.7	218.0	150.6	223.14	219.0	32.8	25.6	27.4	30.98	38.2	47.6	39.1	39.1	49.81	55.0
AY17869															
AY17870															
AY17871	213.9	199.6	137.8	204.22	200.4	30.0	23.5	25.1	28.36	35.0	43.6	35.8	35.7	45.59	50.3
AY17872	178.2	166.2	114.8	170.13	167.0	25.0	19.5	20.9	23.62	29.1	36.3	29.8	29.8	37.98	41.9


**Features:**

- Designed to replace existing caps on installed valves for the full range of CYCLEMASTER Ball Valve sizes 1/4" to 3 1/8"
- Large nut secures cap assembly to valve neck allowing center post to easily turn for on/off operation and clear visual identification
- Uses dual o-ring stem seals and base seal to assure positive isolation



Part Number	Valve Configuration	Valve Size in	A		B		C		D		Recommended Sealing Torque		Wt	
			in	mm	in	mm	in	mm	in	mm	ft-lb	N-m	lb	kg
A 18351	Straight	1/4 - 5/8	1.33	34	1.04	26	0.16	4	0.81	21	5 - 6	7 - 8	0.08	0.04
	3-Way	1/4 - 5/8												
A 18352	** Straight	3/4 - 1 1/8	1.50	38	1.18	30	0.22	6	0.94	24	5 - 6	7 - 8	0.12	0.05
	3-Way	3/4 - 7/8												
A 18353	*** Straight	1 3/8 - 1 5/8	1.92	49	1.59	40	0.31	8	1.13	29	13 - 15	18 - 20	0.22	0.10
	3-Way	1 1/8												
A 18354	Straight	2 1/8, 2 5/8 & 3 1/8" Red Port	2.57	65	1.97	50	0.38	10	1.63	41	40 - 45	54 - 61	0.57	0.26
	3-Way	1 3/8 - 2 1/8, 2 5/8 & 3 1/8" Red Port												
A 18355	* Straight	2 5/8 & 3 1/8 Full Port	2.66	68	2.10	53	0.38	10	1.88	48	45 - 50	61 - 68	0.84	0.38
	3-Way													

Valve sizes listed are based on current standard product offering. Confirm part number requirement based on thread size.

\* For use with 2 1/8" and larger 3-Way Ball Valves manufactured prior to Nov. 2006

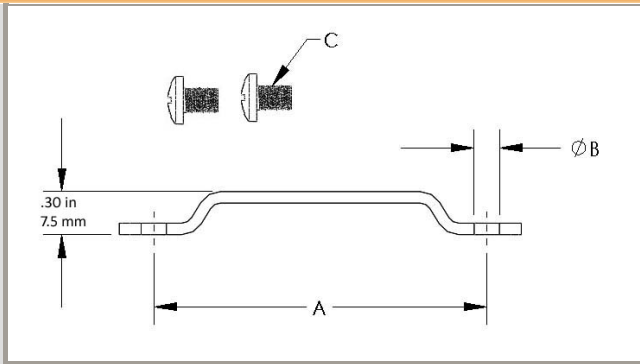
\*\* For use with 1 1/8 Straight valves manufactured after Jun 2010

\*\*\* For use with 1 5/8 straight valves manufactured after Jan 2014



**Features:**


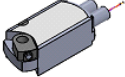
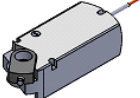
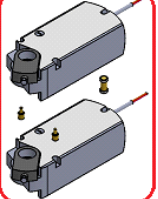




- Kits include bracket and two screws
- Specifically designed to fit Mueller CYCLEMASTER® ball valve sizes
- Plated steel to provide corrosion resistance



Part Number	Valve Size	A		B		Screw Thread Size (C)	Wt	
		(in)	(mm)	(in)	(mm)		(lb)	(kg)
B 35531	1/4 - 5/8	2.28	58	0.17	4.4	M4 X .07	0.03	0.01
B 35532	3/4 - 7/8	2.84	72	0.17	4.4	M4 X .07	0.04	0.02
B 35533	1 1/8	3.07	78	0.17	4.4	M4 X .07	0.04	0.02
B 35534	1 3/8	3.62	92	0.25	6.4	M6 X 1.0	0.05	0.02
B 35535	1 5/8	3.94	100	0.25	6.4	M6 X 1.0	0.05	0.02
B 35536	2 1/8	4.80	122	0.25	6.4	M6 X 1.0	0.06	0.03

**Ball Valve Cross-Reference - Caps, Hubs, Motor Accessories**

Stem Neck Thread Size	Connection Size	Straight-Through Valve Body Numbers	3-Way Valve Body Numbers	Motor Series	ABV Hub Kit	ABV Hub-Motor Kit	Heater	One-Piece Plastic Cap	One-Piece Brass Cap	Two-Piece Brass Cap	Retrofit Brass Cap			
11/16"-16 UN	1/4"	N-2351 F-35222 F-36573 F-36700 F-36700A	---	I	A 18389	A 18390		P 36723	A 17965	A 17842	A 18351			
	3/8"		F-35223											
	1/2"													
	5/8"													
13/16"-16 UN	3/4"	N-2352 F-33957 F-35223 F-35427 F-35639 F-36701 F-36701A	F-35223	I	A 18391	A 18392		P 36762	A 17966	A 17843	A 18352			
	7/8"													
	1-1/8"											F-36702A	---	
1"-16 UN	1-1/8"	N-2353 F-33958 F-35224 F-35428 F-35640 F-36702	F-35224	II	A 18393	A 18394	A 18366	P 36763	A 17967	A 17844	A 18353			
	1-3/8"											F-35949 F-36703 F-36703A	---	
	1-5/8"											F-36704A	---	
1-1/2"-16 UN	1-3/8"	N-2354 F-35429 F-35641	F-35162	II	A 18368	A 18396	A 18366	P 36764	A 17968	A 17845	A 18354			
	1-5/8"											N-2355 F-35430 F-35642 F-35950 F-36704	---	F-35160
		F-35951 F-36451 F-36705 F-36705A	F-36595	III	A 18368	A 18395	A 18367							
		F-36706A	---	IV	A 18764	A 18765	(2) A 18367							
	2-5/8" Full Port	F-36322A F-36707A	---											
3-1/8" Full Port 3-5/8" & 4-1/8" Reduced Port														

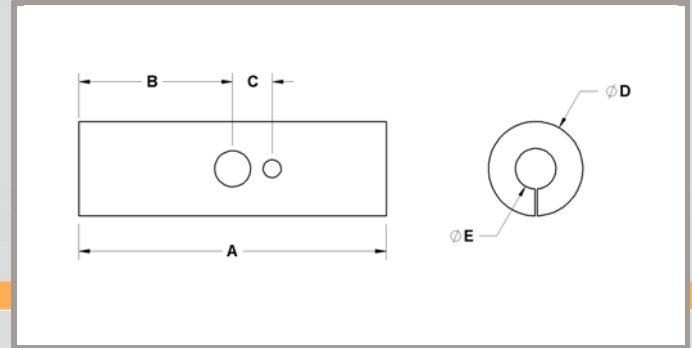
Motor Series	I	II	III	IV *
Standard Actuator	P 36408 	P 36409 	P 36410 	(2) P 36714 
Actuator w/ Aux Switches	P 36417	P 36418	P 36419	P 36714 P 36889
Hub Seal Kits	A 18403 (1 Seal) 	A 18404 (2 Seals) 	A 18404 (2 Seals) 	A 18404 (2 Seals) 

Views shown without Hub Kit Bracket Assembly. **Hub Seal Kits** include seals **ONLY**. \* **Note:** Series IV motor assemblies require additional mounting hardware to join tandem motors.

### O Ring Kit for Actuator Hub Service

O-Ring Kits	Valve Size
A 18403	1/2 - 1 1/8
A 18404	1 3/8 - 3 1/8

### Insulation Cover



Insulation	Valve Size	A (in)	B (in)	C (in)	D (in)	E (in)	Wt(lb)
38RBVINS	3/8	5.50	3.00	0.63	2.50	1.19	0.10
12RBVINS	1/2	6.38	3.44	0.63	2.50	1.19	0.10
58RBVINS	5/8	6.38	3.44	0.63	2.50	1.38	0.10
34RBVINS	3/4	7.44	3.88	0.88	3.06	1.63	0.10
78RBVINS	7/8	7.44	3.88	0.88	3.06	1.63	0.10
118RBVINS	1 1/8	8.44	4.31	1.13	3.63	1.75	0.10
138RBVINS	1 3/8	10.00	5.00	1.25	3.94	2.06	0.10
158RBVINS	1 5/8	11.00	5.50	1.44	4.56	2.25	0.32
218RBVINS	2 1/8	12.00	6.06	1.88	5.38	2.44	0.10
258RBVINS	2 5/8	13.50	6.81	2.25	6.25	2.88	0.10
MSBVINS	Multi Split Valves	8.56	4.28	1.10	2.63	1.13	0.10