SUPERIOR® INTEGRA-SEAL BALL VALVES

WA SERIES (WELDED)

Robotically Welded Body Joint! Full Size Ports for Unrestricted Flow!

The new line of INTEGRA-SEAL® ball valves employs the latest robotic welding technology. Every continuous welded body joint is 100% factory tested to ensure positively leak-free performance.

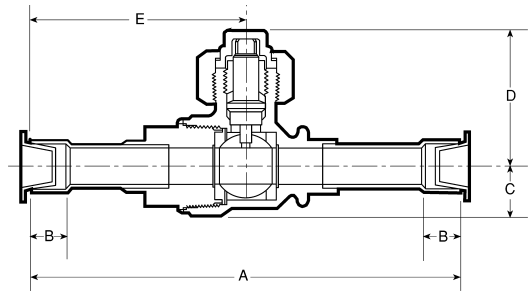
Dual Teflon ball seals surround a polished brass ball at each end. A secondary seal becomes effective if foreign material scores the primary seal...even in extremely unfavorable conditions such as compressor burnout — a Superior exclusive!

- Full Refrigeration Service Temperature Range of -40° F to +325° F.
- Forged Brass Body and Seal Cap.
- Design Working Pressure: 500 psig.
- U.L. Listed File No. 3462 (N).
- C.S.A. Certified File No. 37268.
- No Synthetic “O” Ring Seals. Double Seal Protection Provides a Superior Stem Design.
- Polished Brass Ball.
- Seal Cap Design Permits Valve Operation Without Removal of Seal Cap.
- All INTEGRA-SEAL® Ball Valves are suitable for use with R12, R-22, R-500, R-502, R-134A, R-123, R-125, R-404A, R-402B, R-402A, and for Industrial Oxygen Usages.

P/N	SIZE (in.)		WEIGHT (lbs)	DIMENSIONS (in.)					MAXIMUM WIDTH	C_V
	Connection (ODS)	Ball Port Diameter		A	B	C	D	E		
586WA-6ST	3/8	0.501	.7	6-1/2	5/16	.555	1.80	3.44	1-3/8	3.6
586WA-8ST	1/2	0.501	.7	6-1/2	3/8	.555	1.80	3.44	1-3/8	3.6
586WA-10ST	5/8	0.501	.7	6-1/2	1/2	.555	1.80	3.44	1-3/8	14.6
587WA-12ST	3/4	0.751	1.0	6-9/16	5/8	.725	1.96	3.46	1-7/8	22.3
587WA-14ST	7/8	0.751	1.0	6-9/16	3/4	.725	1.96	3.46	1-7/8	30.0
591WA-11ST	1-1/8	1.00	2.2	7-11/16	1-15/16	1.025	2.37	4.01	2-5/16	62.0
592WA-13ST	1-3/8	1.50	3.8	8-7/8	1	1.415	2.73	4.488	3-3/16	110.3
593WA-15ST	1-5/8	1.50	3.8	9-1/8	1-3/32	1.415	2.73	4.62	3-3/16	135.0
594WA-21ST	2-1/8	2.00	8.0	9-7/8	1-11/32	1.850	3.11	5.065	4-1/16	270.0
594W-25ST*	2-5/8	2.010	11.0	12-7/8	1-7/16	1.850	3.11	6.565	4-1/16	150.0
594WA-31ST	3-1/8	2.010	11.0	13-3/4	1-5/8	1.850	3.11	7.01	4-1/16	150.0

*Reduced Ports.

INTEGRA-SEAL®
BALL VALVE 586WA



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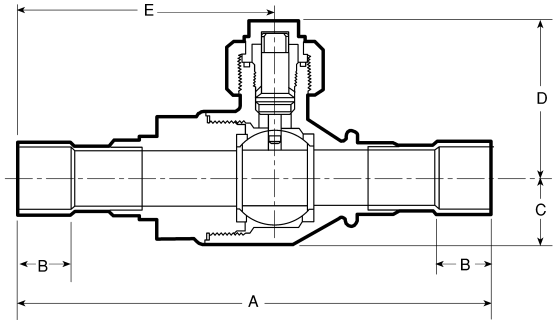
INTEGRA-SEAL®
BALL VALVE 594WA



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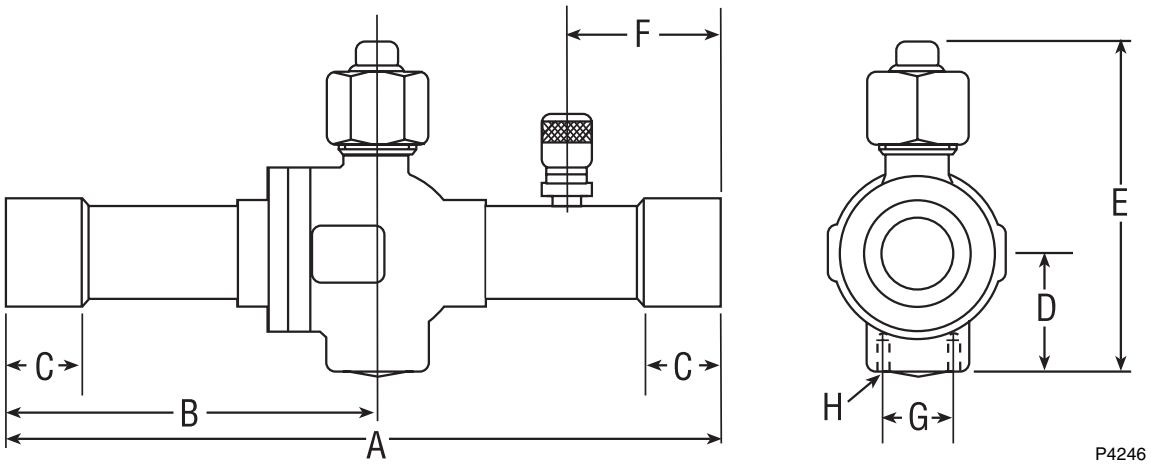
MUELLER CYCLEMASTER BALL VALVES

Specifications

Technical Data	
Refrigerants	HFC, CFC, HCFC
Maximum Working Pressure	700 psig
Working Temperature Range	-40° F/300° F



Cyclemaster® Ball Valve

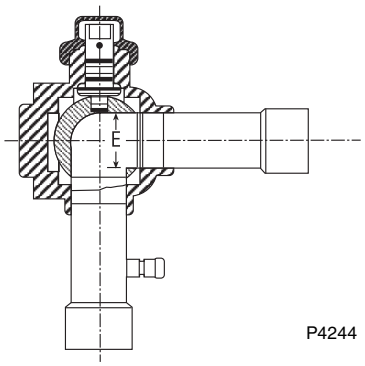
PART NO.	SIZE	Cv	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F** (in.)	G** (mm)	H**	SEAL CAP KIT****
A 17859	1/4	2.20	5-7/16	2-15/16	5/16	7/8	2-3/4	NA	14	M4 x .07	A 17842
A 17860	3/8	4.29	5-1/2	3	5/16	7/8	2-3/4	15/16	14	M4 x .07	A 17842
A 17861	1/2	6.00	6-3/8	3-7/16	3/8	7/8	2-3/4	1-3/16	14	M4 x .07	A 17842
A 17862	5/8	10.70	6-3/8	3-7/16	1/2	7/8	2-3/4	1-3/8	14	M4 x .07	A 17842
A 17863	3/4	19.40	7-7/16	3-7/8	5/8	1-1/4	3-1/2	1-1/2	20	M4 x .07	A 17843
A 17864	7/8	31.30	7-7/16	3-7/8	3/4	1-1/4	3-1/2	1-5/8	20	M4 x .07	A 17843
A 17865	1-1/8	59.80	8-7/16	4-5/16	7/8	1-9/16	3-13/16	1-3/4	25	M4 x .07	A 17844
A 17866	1-3/8	83.60	10	5	1	1-1/2	4-3/16	2-1/16	30	M6 x 1.0	A 17844
A 17867	1-5/8	218.60	11	5-1/2	1-1/8	1-11/16	4-7/8	2-1/4	34	M6 x 1.0	A 17845
A 17868	2-1/8	292.50	12	6	1-3/8	2-1/8	5-9/16	2-7/16	34	M6 x 1.0	A 17845
A 17869	2-5/8	423.47	13-1/2	6-13/16	1-1/2	***	***	***	34	M6 x 1.0	A 17846
A 17870	3-1/8	***	16	8	1-3/8	3	7-3/8	3-1/8	34	M6 x 1.0	A 17846
A 17871*	2-5/8	185.00	12	6	1-3/8	2-1/8	5-5/8	2-3/8	34	M6 x 1.0	A 17845
A 17872*	3-1/8	130.00	12	6	1-11/16	2-1/8	5-5/8	3-1/16	34	M6 x 1.0	A 17845

*Reduced port.
**Where applicable.
***Consult factory for details.
****Seal Cap Kit includes seal cap, seal cap gasket, anti-friction ring, cap nut.

Prefixed for Ball Valve Options:
A = Standard
AC = Standard with access
AP = Drilled & tapped
AQ = Drilled & tapped with access

Examples:
A 17860, 3/8″ without access
AC 17860, 3/8″ with access

MUELLER CYCLEMASTER BALL VALVES



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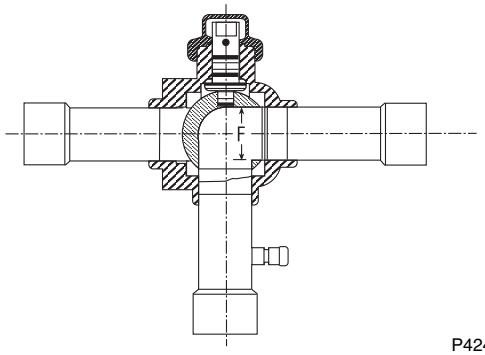
Cyclemaster® 90° Short Radius Angle Ball Valves with Access Ports

PART NO.	SIZE	Cv	A	B	C	D	E	F	G	WEIGHT
AO17860	3/8	—	2-3/16	2-19/64	3-27/32	5/16	1/2	41/64	3-21/64	.67
AO17861	1/2	4.3	2-9/16	2-43/64	4-7/32	3/8	1/2	53/64	3-23/32	.70
AO17862	5/8	5.0	3-19/32	2-35/64	3-7/64	1/2	1/2	27/32	4-47/64	.70
AO17864	7/8	11.7	2-13/16	3-29/32	4-7/8	3/4	3/4	27/32	4-9/32	1.44
AO17865	1-1/8	20.7	3-3/16	3-7/64	5-31/64	29/32	1	53/64	4-51/64	2.78
AO17866	1-3/8	33.2	3-61/64	3-61/64	6-53/64	31/32	1-1/4	1-5/64	5-27/32	5.06
AO17867	1-5/8	47.6	4-23/64	4-23/64	7-33/64	1-3/32	1-1/2	1-5/32	6-15/32	7.29
AO17868	2-1/8	62.2	4-23/32	4-23/32	8-13/32	1-11/32	2	1-5/64	7-5/32	14.00
AO17871	2-5/8	72.0	4-19/32	4-19/32	8-9/32	1-5/32	2	1-1/64	7-1/32	14.57
AO17872	3-1/8	55.0	4-13/32	4-13/32	8-3/32	1-43/64	2	1-27/64	6-27/32	14.84



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Cyclemaster 3-Way Ball Valves with Access Ports

PART NO.	SIZE	Cv	A	B	C	D	E	F	G	WEIGHT
AU17860	3/8	2.13	4-7/8	2-21/32	2-19/64	3-21/32	5/16	1/2	41/64	.67
AU17861	1/2	4.30	5-3/8	3-3/64	2-43/64	4-7/32	3/8	1/2	53/64	.70
AU17862	5/8	5.00	5-3/8	2-59/64	2-35/64	4-7/64	1/2	1/2	27/32	.70
AU17864	7/8	11.7	5-31/32	3-5/32	2-29/32	4-7/8	3/4	3/4	27/32	1.44
AU17865	1-1/8	20.7	6-39/64	3-3/16	3-7/64	5-31/64	29/32	1	53/64	2.76
AU17866	1-3/8	33.2	8-1/16	4-7/64	3-61/64	6-57/64	31/32	1-1/4	1-5/64	4.97
AU17867	1-5/8	47.6	8-7/8	4-7/16	4-23/64	7-33/64	1-3/32	1-1/2	1-5/32	7.17
AU17868	2-1/8	62.2	9-5/16	4-39/64	4-23/32	8-13/32	1-11/32	2	1-5/64	13.80
AU17871	2-5/8	72.0	9-1/16	4-15/32	4-19/32	8-9/32	1-15/32	2	1-1/64	14.66
AU17872	3-1/8	55.0	8-11/16	4-9/32	4-11/32	8-3/32	1-21/32	2	1-27/64	15.48

MUELLER ACTUATED BALL VALVES

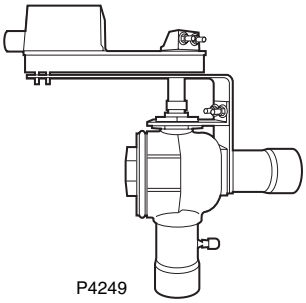
Ideal for Heat Reclaim, Split Condenser and Hot Gas Applications

Advanced Isolation Control, Free-Flowing Efficiency

Mueller's Cyclemaster® Series actuated ball valves feature exclusive MCM™ seal technology which provides virtually no leak rates, even after hundreds of thousands of cycles. Precision dual bearings and blowout-proof stems are engineered for extended life cycles that far exceeds industry standards.

Cyclemaster valves feature a full-flow ball port design to match line size I.D., minimizing pressure drop and increasing flow capacity. The gradual operating characteristics of the ball valve eliminates the abrupt cycling, line hammer, and efficiency loss associated with solenoid-operated shutoff valves.

The motorized actuator provides either local or remote operation, and may be controlled by a thermostat, pressure, switch, or microprocessor. Models are available in multiple voltages and with an optional fail-safe positioning feature.



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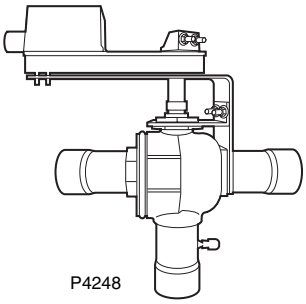

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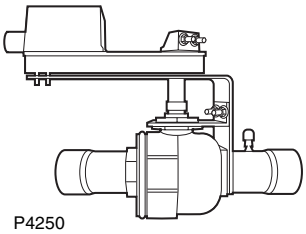

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Look for these Mueller Advantages:

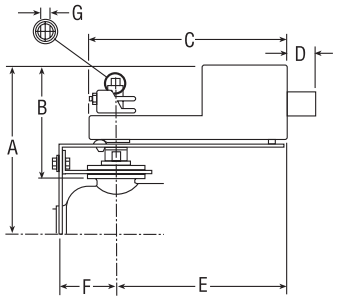
- Full port construction to match line size I.D.
- Minimizes pressure drop.
- Quarter turn operation, with ball position indicated by arrow.
- Full shutoff capability.
- Dual pin stops.
- Gradual open/close stops line hammer.
- Chromium plated ball.
- Nylon anti-friction ring.
- Blowout-proof stem design with dual stem bearings for extended life.
- Exclusive MCM™ leak-free seals.
- Compatible with all new refrigerants and oils.
- Remote operating capability.
- Removable actuator for quick change replacement.
- Manual override and valve positioning.
- Electronic overload protection.
- Failsafe spring return available.
- Various voltage settings available.
- Weatherproof housings available.
- All valves 100% tested and UL/cUL listed.

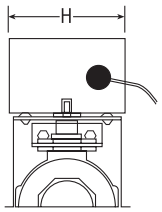
MUELLER ACTUATED BALL VALVES

Specifications

Technical Data			
Actuator	**LM Series**	**AM Series**	**GM Series**
Sizes	1/2 - 7/8	1-1/8 - 1-3/8	1-5/8 - 2-1/8
Torque (in.-lb)	35	160	266
Power Supply (VAC/DC)	24	24	24
Power Consumption (W)	2	2.5	3
Running Time (seconds)	80 to 110*	110 to 150*	135**
Ambient Temperature (°F)	-22 to 122	-22 to 122	-22 to 122
Ball Valve			
Refrigerants	All Fluorinated Types		
Maximum Working Pressure (psig)	up to 700		
Burst Pressure (psig)	2500		
Working Temperature Range (°F)	-40 to 300		

*Load dependent.
**Does not depend on load.





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Conditions:

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

PART NUMBER			SIZE	A	B	C	D	E	F	G	H
Straight	**90°**	**3-Way**									
AW17861	**AX17861**	**AY17861**	1/2	4.63	3.85	4.56	NA	3.71	1.13	0.3	2.6
AW17862	**AX17862**	**AY17862**	5/8	4.63	3.85	4.56	NA	3.71	1.13	0.3	2.6
AW17863	**AX17863**	**AY17863**	3/4	4.97	3.88	4.56	NA	3.71	1.13	0.3	2.6
AW17864	**AX17864**	**AY17864**	7/8	4.97	3.88	4.56	NA	3.71	1.13	0.3	2.6
AW17865	**AX17865**	**AY17865**	1-1/8	5.68	4.5	7.5	1.5	5.7	1.69	0.33	3.6
AW17866	**AX17866**	**AY17866**	1-3/8	6.27	4.5	7.5	1.5	5.7	1.69	0.33	3.6
AW17867	**AX17867**	**AY17867**	1-5/8	6.65	4.73	8.43	1.2	7.25	2.44	0.375	4.9
AW17868	**AX17868**	**AY17868**	2-1/8	7.14	4.79	8.43	1.2	7.25	2.44	0.375	4.9
AW17871	**AX17871**	**AY17861**	2-5/8	7.14	4.79	8.43	1.2	7.25	2.44	0.375	4.9
AW17872	**AX17872**	**AY17872**	3-1/8	7.14	4.79	8.43	1.2	7.25	2.44	0.375	4.9

NOTE: Part numbers given here are for 2-position non-spring return actuators.

3-WAY & 90°		NOMINAL LIQUID CAPACITY (Tons)			SUCTION VAPOR CAPACITY (Tons)			NOMINAL HOT GAS CAPACITY (Tons)		
Size	**Cv**	**R-22**	**R-404A**	**R-507**	**R-22**	**R-404A**	**R-507**	**R-22**	**R-404A**	**R-507**
1/2	4.3	14.0	9.2	9.4	1.4	1.0	1.0	2.6	1.8	1.8
5/8	5.0	16.2	10.7	10.9	1.6	1.1	1.1	3.0	2.1	2.1
3/4	7.2	23.4	15.4	15.7	2.3	1.6	1.6	4.3	3.0	3.0
7/8	11.7	37.7	24.9	25.3	3.7	2.6	2.6	7.0	4.8	4.9
1-1/8	20.7	67.2	44.3	45.0	6.7	4.6	4.7	12.4	8.6	8.7
1-3/8	33.2	107.9	71.0	72.2	10.7	7.4	7.5	19.9	13.8	14.0
1-5/8	47.6	154.4	101.6	103.4	15.3	10.6	10.8	28.5	19.7	20.0
2-1/8	62.2	202.0	132.9	135.2	20.0	13.8	14.1	37.3	25.8	26.2
2-5/8	72	233.8	153.8	156.5	23.2	16.0	16.3	43.3	29.9	30.3
3-1/8	55	178.6	117.5	119.5	17.7	12.2	12.4	33.0	22.0	23.2

STRAIGHT		NOMINAL LIQUID CAPACITY (Tons)			SUCTION VAPOR CAPACITY (Tons)			NOMINAL HOT GAS CAPACITY (Tons)		
Size	**Cv**	**R-22**	**R-404A**	**R-507**	**R-22**	**R-404A**	**R-507**	**R-22**	**R-404A**	**R-507**
1/2	6	19.5	12.8	13.0	1.9	1.3	1.4	3.6	2.5	2.5
5/8	10.7	34.7	22.9	23.3	3.4	2.4	2.4	6.4	4.4	4.5
3/4	19.4	63.0	41.5	42.2	6.2	4.3	4.4	11.6	8.1	8.2
7/8	31.3	101.6	66.9	68.0	10.1	7.0	7.1	18.8	13.0	13.2
1-1/8	59.8	194.2	127.8	130.0	19.2	13.3	13.5	35.8	24.8	25.2
1-3/8	83.6	271.4	178.6	181.7	26.9	18.6	18.9	50.1	34.7	35.2
1-5/8	218.6	709.7	467.0	475.0	70.3	48.6	49.4	131.0	90.1	92.1
2-1/8	292.5	949.6	624.9	635.6	94.0	65.1	66.1	175.3	121.3	123.3
2-5/8	185	600.6	395.3	402.0	59.5	41.2	41.8	110.9	76.7	78.0
3-1/8	130	422.1	277.8	282.5	41.8	29.0	29.4	77.9	54.0	54.8

SUPERIOR® PACKED ANGLE VALVES

Packed line valves are designed for a multitude of uses in refrigeration systems. When installed properly, these handy, forged brass, packed angle valves provide easy accessibility, and serviceability to the refrigeration system. All packed angle valves are provided with a brass seal cap.

The 605 series special receiver valve can be furnished with or without copper tube extensions. The tube extensions allow the valve to be silver-soldered into the line without fear of harming the packing. Valves supplied with tube extensions are recommended for liquid line use only.

The 617A series charging and purging valves are designed to be installed on the branch or run of a solder-type fee. The valve can be readily positioned for easy access. These valves are shipped loosely assembled for easy removal of parts prior to soldering. Reassemble after installation with a standard 3/8″ square wrench.

Specialty packed angle valves are designed specifically for the Refrigeration Rack industry.

- Working Pressure: 500 psig.
- Maximum Temperature: 300° F.
- Minimum Temperature: -40° F.
- Body Construction: Forged Brass.
- Seal Cap Construction: Brass with Copper Gasket or Nylon Gasket.
- U.L. File No. SA3462(N).
- C.S.A. File No. 32768.
- All Packed Angle Valves are suitable for use with R-12, R-22, R-500, R-502, R-134A, R-123, R-125, R-404A, R-402B, and R-402A.

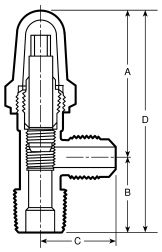
SUPERIOR PACKED ANGLE VALVES — 600A SERIES

P/N	SIZE (in.)			SOCKET FOR OD TUBING	WEIGHT (lbs)	DIMENSIONS (in.)			
	Bottom Inlet		Side Outlet			A	B	C	D
	NPT	X	SAE						
600A-4B	1/4		1/4	1/4	0.25	2-3/32	1-1/32	1-1/32	3-1/8
600A-4C	3/8		1/4	3/8	0.25	2-3/32	1-1/32	1-1/32	3-1/8
600A-6B	1/4		3/8	1/4	0.25	2-3/32	1-1/32	1-1/32	3-1/8
600A-6C	3/8		3/8	3/8	0.25	2-3/32	1-1/32	1-1/32	3-1/8
	SAE	X	NPT						
600A-B4	1/4		1/4	—	0.25	2-3/32	1-1/32	1-1/32	3-1/8

SUPERIOR PACKED ANGLE CHARGING AND PURGING VALVES — 617A SERIES

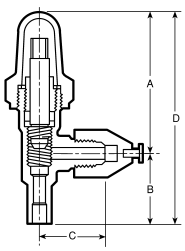
P/N	SIZE (in.)			WEIGHT (lbs)	DIMENSIONS (in.)			
	Bottom Inlet		Side Outlet		A	B	C	D
	ODS	X	SAE					
617A-4S4	1/4		1/4	0.25	2-3/32	1-1/32	31/32	3-1/8
617A-6S4	3/8		1/4	0.25	2-3/32	1-1/32	31/32	3-1/8
617A-6S6	3/8		3/8	0.25	2-3/32	1-1/32	1-3/32	3-1/8
617A-8S4	1/2		1/4	0.375	2-3/32	1-1/32	31/32	3-1/8
617A-8S6	1/2		3/8	0.375	2-3/32	1-1/32	1-3/32	3-1/8
617A-10S4	5/8		1/4	0.375	2-3/32	1-1/32	31/32	3-1/8
617A-10S6	5/8		3/8	0.375	2-3/32	1-1/32	1-3/32	3-1/8
	NPT	X	SAE					
617A-B4	1/4		1/4	0.375	2-3/32	1-1/32	1-1/32	3-1/8

PACKED ANGLE CHARGING AND PURGING VALVES — 600A SERIES



P1105

PACKED ANGLE CHARGING AND PURGING VALVES — 617A SERIES



P1106

SUPERIOR® LINE VALVES — "TUFFY" SERIES

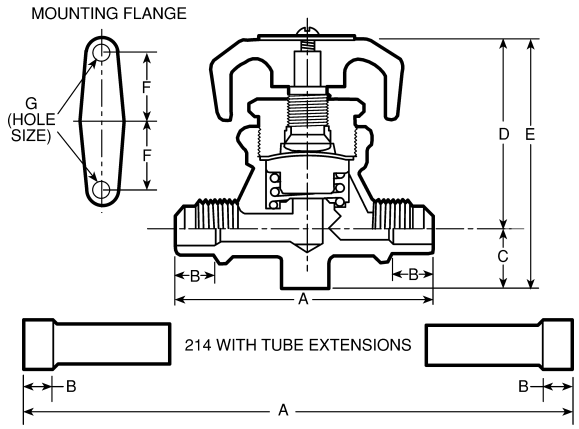
DIAPHRAGM PACKLESS VALVES

All diaphragm packless valves contain metal diaphragms and backseat metal to metal when the valve is fully open. Controlled stem travel assures life-time diaphragm performance; balanced bearing surfaces and polished stem heads eliminate wear and assure smooth, easy operation. Flow is unrestricted. All OD solder connections for valves 7/8″ and smaller are machined to an outside diameter equivalent to the next largest standard size of tubing. Because of their unique construction, Superior diaphragm packless valves can be soldered into the line without disassembly. "Comfortgrip" nylon handwheels are furnished on all types of valves. Types 214, 215, and 216 Underwriters' Laboratories and Canadian Standards Association listed.

- Working Pressure: 1/4″ thru 7/8″: 500 psig.
- Working Pressure — 1-1/8″: 375 psig.
- Body Construction: Forged Brass.
- Seat Material: Nylon.
- Diaphragm Construction: Stainless Steel.
- Maximum Temperature: 275° F.
- Minimum Temperature: -40° F.
- U.L. File No. SA3462(N).
- C.S.A. File No. 32768.
- Valves may be installed without disassembly. Wrap body with damp cloth or other suitable heat sinking material during soldering.
- All "Tuffy" Valves are suitable for use with R-12, R-22, R-500, R-502, R-134A, R-123, R-125, R-404A, R-402B, R-402A and industrial oxygen usage.

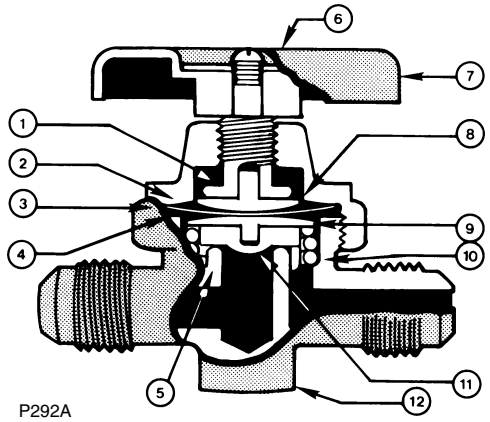
P/N	SIZE (in.)			WEIGHT (lbs)	DIMENSIONS (in.)							C_V
	Inlet		Outlet		A	B	C	D	E	F	G	
"TUFFY" STANDARD	**SAE**	**X**	**SAE**									
214-4	1/4		1/4	0.50	2-3/4	—	19/32	1-29/32	2-1/2	3/4	0.199	N/A
214-6	3/8		3/8	0.50	2-3/4	—	19/32	1-29/32	2-1/2	3/4	0.199	0.882
215-8	1/2		1/2	1.00	3-5/8	—	13/16	2-9/16	3-3/8	7/8	0.199	1.788
216-10	5/8		5/8	1.00	3-7/8	—	13/16	2-9/16	3-3/8	7/8	0.199	2.828
"TUFFY" STANDARD	**ODS**	**X**	**ODS**									
214-4S	1/4		1/4	0.75	2-3/4	5/16	19/32	1-29/32	2-1/2	3/4	0.199	N/A
214-6S	3/8		3/8	0.50	2-3/4	7/16	19/32	1-29/32	2-1/2	3/4	0.199	0.882
215-8S	1/2		1/2	1.00	3-5/8	9/16	13/16	2-9/16	3-3/8	7/8	0.199	1.788
216-10S	5/8		5/8	1.00	3-7/8	21/32	13/16	2-9/16	3-3/8	7/8	0.199	2.828
"TUFFY" W/TUBE EXTS.	**ODS**	**X**	**ODS**									
214-4ST	1/4		1/4	0.75	6	5/16	19/32	1-29/32	2-1/2	3/4	0.199	N/A
214-6ST	3/8		3/8	0.75	5-7/8	7/16	19/32	1-29/32	2-1/2	3/4	0.199	0.882
215-8ST	1/2		1/2	1.25	6-9/16	9/16	13/16	2-9/16	3-3/8	7/8	0.199	1.788
216-10ST				1.25	7-5/16	21/32	13/16	2-9/16	3-3/8	7/8	0.199	2.828

"TUFFY" LINE VALVES



P1102

HENRY GLOBE AND ANGLE SHUT-OFF VALVES, BANTAM TYPE

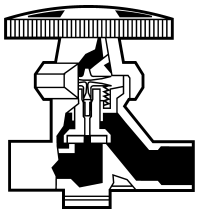


P292A

- DIAPHRAGM PACKLESS TYPE
- GREATER FLOW
- LESS PRESSURE DROP
- LIGHTER, SMALLER VALVES
- IMPROVED BODY, CORED BRASS FORGING OFFERS GREATER FLOW AND LOWER PRESSURE DROP
- MAXIMUM TEMPERATURE RATING 275° F
- WORKING PRESSURE 500 PSI

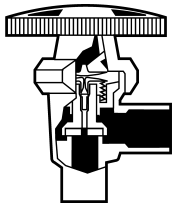
1. **Positive Backseating** with valve in wide open position.
2. **Forged brass bonnet** machined to provide support for diaphragms when valve is wide open.
3. **Hermetic seal** between bonnet, diaphragms and body.
4. **Large diameter diaphragms** of dissimilar metals permit greater lift; aids flow and longer life. Phosphor bronze for greater wear; stainless steel to eliminate corrosion.
5. **Raised seat** reduces possibility of foreign matter accumulating on valve seat.
6. **Individual nameplates** for easy valve identification.
7. **Round hand wheel** for easy grip hand operation.
8. **Non-rotating floating bearing plate** in upper stem eliminates torsional wear and strain on diaphragms.
9. **Brass stem cap** minimizes wear and strain on diaphragm and seat disc.
10. **Stainless steel spring** corrosion resistant for long life.
11. **Heat stabilized nylon seat disc** for easy positive shut-off.
12. **Forged brass cored body** provides durability, maximum rigidity and strength. Integral mounting bracket on globe valves simplifies installation.

HENRY GLOBE AND ANGLE SHUT-OFF VALVES, STANDARD TYPE



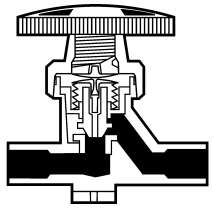
P424

GLOBE O.D. SOLDER 626 ( )



P425

ANGLE SHUT-OFF VALVE 647 ( )



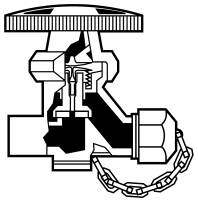
P426

GLOBE EXPANSION VALVE 629 ( )
Red hand wheel identifies expansion valves

- DIAPHRAGM PACKLESS VALVES
- BALANCES ACTION
- NON-DIRECTIONAL FLOW
- BACKSEATING LOWER STEM
- DIAPHRAGMS ARE CHANGEABLE UNDER LINE PRESSURE
- MAXIMUM TEMPERATURE RATING 275° F AND WORKING PRESSURE 500 PSI

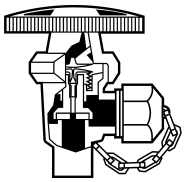
DIMENSIONS (in.)							P/N
SIZE CONN.	ORIFICE DIAMETER	FULL OPEN HEIGHT	CENTER TO BOTTOM	CENTER TO SIDE FACE	FACE TO FACE ON RUN	MOUNTING HOLE CENTERS	
GLOBE VALVES							
O.D. SOLDER							
1/4 ODS	-	3-3/8	-	-	2-5/8	1-5/8	**6261N**
3/8 ODS	-	3-3/8	-	-	2-5/8	1-5/8	**6263N**
1/2 ODS	-	3-9/16	-	-	3-1/8	1-3/4	**6264N**
5/8 ODS	-	3-3/4	-	-	3-1/2	2	**6265N**
7/8 ODS	-	5-3/8	-	-	4-13/16	2-1/2	**6267N**
1-1/8 ODS	-	6-1/2	-	-	6	3-1/4	**6268N**
ANGLE VALVES							
O.D. SOLDER							
1/4 ODS	-	3-7/16	1-1/8	1-5/16	-	-	**6471N**
3/8 ODS	-	3-7/16	1-1/8	1-5/16	-	-	**6473N**
5/8 ODS	-	3-13/16	1-3/8	1-1/2	-	-	**6475N**
7/8 ODS	-	5-3/8	1-13/16	2-1/8	-	-	**6477N**
1-1/8 ODS	-	6-1/2	2-1/4	2-1/2	-	-	**6478N**
HAND EXPANSION VALVES							
5/8 ODS	9/32	3-9/16	-	-	3-3/8	1-3/4	**6295N**

HENRY CHARGING AND PURGING VALVES



P427

STANDARD GLOBE 623 ( )
One end - solder
Other end - flare connection



P428

STANDARD ANGLE 643 ( )
Bottom - solder connection
Side - flare connection

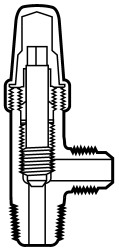
DIMENSIONS (in.)							
SIZE CONNECTIONS		FULL OPEN HEIGHT	CENTER TO BOTTOM	CENTER TO SIDE FACE	FACE TO FACE ON RUN	MOUNTING HOLE CENTERS	P/N
BOTTOM	SIDE						
GLOBE VALVES							
3/8 ODS x 318 Flare		3-3/8	-	-	2-5/8	1-5/8	**6232N**
1/2 ODS x 1/2 Flare		3-9/16	-	-	3-1/4	1-3/4	**6233N**
ANGLE VALVES							
3/8 ODS	3/8 Flare	3-3/8	1-1/8	1-5/16	-	-	**6432N**
1/2 ODS	1/2 Flare	3-9/16	1-3/16	1-5/8	-	-	**6433N**

REMOVABLE SEAL CAP - flare connection has cap chained to valve body.
Removable seal cap features mechanically retained copper gasket.

HENRY PACKED ANGLE (RECEIVER) VALVES, WITH SEAL CAP

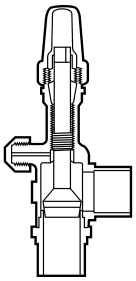
- MAXIMUM TEMPERATURE RATING 300° F
- 500 PSI MAXIMUM WORKING PRESSURE

.



ANGLE VALVE
NON-BACK-SEATING
776 ( )

P429



ANGLE VALVE
BACK-SEATING
783 ( )

P431

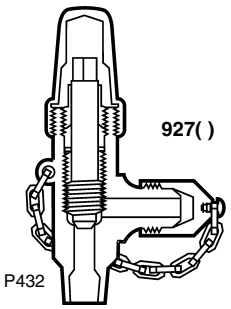
DIMENSIONS (in.)						
SIZE CONNECTIONS		CENTER TO BOTTOM	CENTER TO SIDE	OVERALL HEIGHT	DIP TUBE SIZE O.D.	P/N
BOTTOM	SIDE					
FORGED BRASS - NON-BACK-SEATING						
1/4 MPT	1/4 Flare	7/8	15/16	3	1/4	**7761-B**
1/4 MPT	1/4 FPT	1-1/16	1-1/4	3-5/16	5/16	**7771-B**
1/4 MPT	3/8 Flare	1-1/16	1-1/4	3-5/16	5/16	**7763-B**
3/8 MPT	1/4 Flare	1-1/16	1-1/16	3-5/16	3/8	**7764-B**
3/8 MPT	3/8 Flare	1-1/16	1-1/4	3-5/16	3/8	**7766-B**
3/8 MPT	1/2 Flare	1-1/4	1-1/4	3-13/16	3/8	**7767-B**
1/2 MPT	3/8 Flare	1-3/8	1-1/4	3-15/16	1/2	**7768-AB**
1/2 MPT	5/8 Flare	1-3/8	1-5/8	4-9/16	1/2	**7768-B**
FORGED BRASS - BACK-SEATING						
1/2 MPT	1/2 Flare	1-11/16	1-5/16	4-9/16	1/2	**7792-B**
1/2 MPT	5/8 Flare	1-11/16	1-9/16	4-9/16	1/2	**7793-B**
FORGED BRASS - BACK-SEATING*						
3/8 ODS	3/8 ODS	9/32	1-1/8	4-3/8	-	**7830**
1/2 ODS	1/2 ODS	9/32	1-1/4	4-1/2	-	**7831**
FORGED BRASS - BACK-SEATING*						
1-1/8 ODS	1-1/8 ODS	1-3/4	2	7-1/8	-	**7834**
1-3/8 ODS	1-3/8 ODS	2	2-1/4	7-3/8	-	**7835**
1-5/8 ODS	1-5/8 ODS	2-1/8	2-7/16	8-13116	-	**7836**

*Furnished with 1/4″ flare capped charging and testing connection above back seat.

HENRY FORGED BRASS, PACKED, SHUT-OFF VALVES WITH SEAL CAP ANGLE, CHARGING AND PURGING — OFFSET AND GLOBE TYPES

- MAXIMUM WORKING PRESSURE 500 PSI
- MAXIMUM TEMPERATURE RATING 300° F

CHARGING AND PURGING ANGLE VALVES - Non-Back-Seating



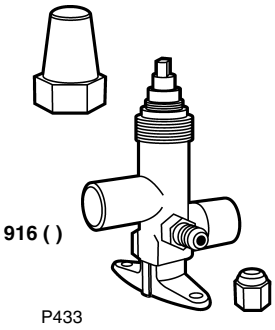
Bottom - solder connection.

Side - flare connection seal cap has mechanically retained copper gasket.

Valves furnished disassembled to avoid excessive heating of internal parts during brazing.

SIZE CONNECTIONS (in.)			DIMENSIONS (in.)			P/N
BOTTOM		SIDE	CENTER TO		OVERALL HEIGHT	
EXTERNAL	INTERNAL		BOTTOM	SIDE FACE		
1/2 ODM	3/8 ODS	1/4 Flare	1-1/16	1-1/16	3-5/16	**9271**
5/8 ODM	1/2 ODS	1/4 Flare	1-1/16	1-1/16	3-5/16	**9273**
5/8 ODM	1/2 ODS	3/8 Flare	1-1/16	1-1/4	3-5/16	**9274**

OFFSET PORT SHUT-OFF VALVES - Non-Back-Seating with 114 Flare Access Valve

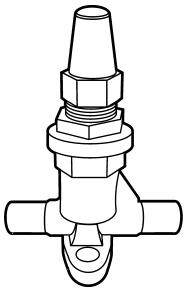


Integral Mounting Bracket Bolt Centers 2-1/4″.

Recommended for hot gas service or other high temperature applications.

SIZE CONN. (in.)	DIMENSIONS (in.)				P/N
	CENTER TO BOTTOM		OVERALL		
	OUTLET	INLET	HEIGHT	LENGTH	
5/8 ODS	1-9/16	15/16	4-1/4	2-1/2	**9165-SAV**

GLOBE SHUT-OFF VALVES - Back-Seating

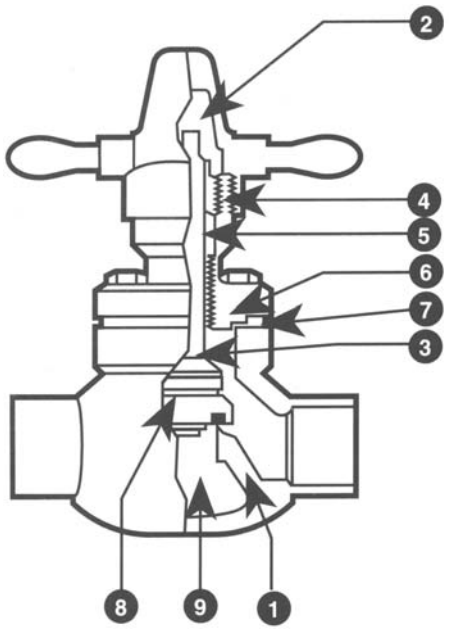


Integral Mounting Bracket.

SIZE CONN. (in.)	DIMENSIONS (in.)				P/N
	CENTER TO		OVERALL		
	BOTTOM	TOP OF CAP	HEIGHT	LENGTH	
1/4 ODS	9/16	3-1/2	4-1/16	2-5/8	**9261**
3/8 ODS	9/16	3-1/2	4-1/16	2-5/8	**9263**
5/8 ODS	3/4	3-11/16	4-7/16	3-1/2	**9265**

NOTE: For mounting hole center dimensions see STANDARD GLOBE valves.

HENRY WING CAP, PACKED, SHUT-OFF VALVES - BACK-SEATING

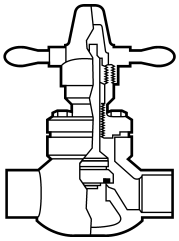


P297A

- BRONZE ALLOW BODY
- FORGED BRASS CAP AND BONNET
- GREATER FLOW - LESS PRESSURE DROP
- MAXIMUM TEMPERATURE RATING 275° F
- 450 PSI MAXIMUM WORKING PRESSURE

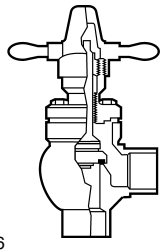
1. **Heavy wall cored bronze body** provides additional strength and greater flow.
2. **Forged brass wing cap seal** with stem operating socket wrench in top of cap.
3. **Plated steel stem, back-seating** can be repacked under pressure.
4. **Specially designed gland** for tight seal and longer packing life.
5. **Packing** - special molded rings.
6. **Forged brass bolted bonnet** for maximum safety
7. **Body-bonnet seal** - full retained gasket.
8. **Patented, non-rotating self-aligning swivel disc**. Easy positive seating, minimum seat wear, chatterproof.
9. **Lead seat disc** insures easy, quick positive shut-off and long life, suitable for all applications including hot gas.

WING CAP, GLOBE & ANGLE VALVES - ODS CONNECTIONS



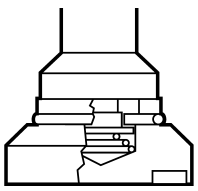
P435

GLOBE VALVE 203 ( )



P436

ANGLE VALVE 216 ( )

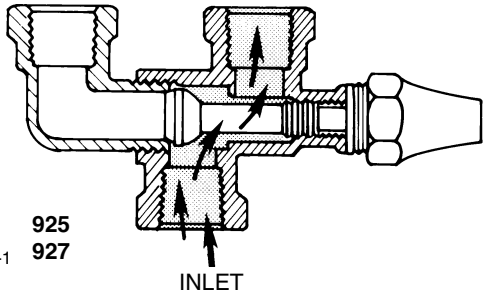


P437

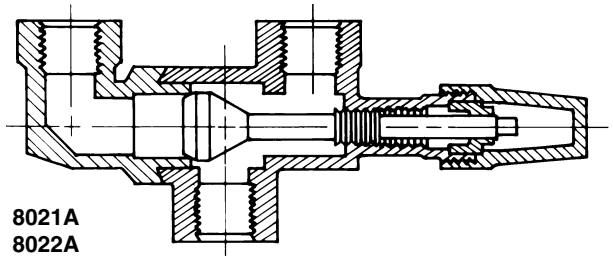
SIZE CONNECTIONS (in.)	DIMENSIONS (in.)			P/N
	Center to Bottom	Overall Height	Overall Length	
GLOBE VALVES				
2-1/8 ODS	2	10-3/4	8-1/2	**2033**
2-5/8 ODS	2-1/4	11-15/16	1 1	**2034**
3-1/8 ODS	2-5/8	13-1/4	12	**2035**
3-5/8 ODS	3	14-7/8	14	**2036**
4-1/8 ODS	3-5/8	15-3/4	15	**2037**
ANGLE VALVES				
1-3/8 ODS	2-1/16	8-9/16	2-7/16	**2161**

NOTE: Valves come with lead allow seat discs for hot gas service or other high temperature applications.

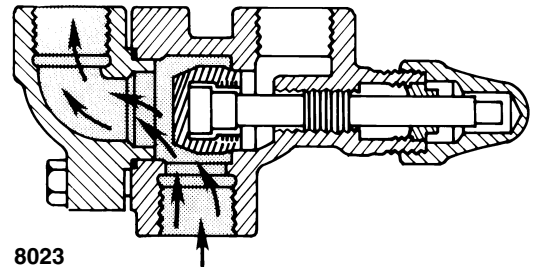
HENRY THREE-WAY DUAL SHUT-OFF VALVES



P297-1



P297-2



P297-3

For Dual Relief Valves and Drier By-Pass Installations or Applications requiring simultaneous opening of one line and closing of another.

- WORKING PRESSURE 450 PSI
- MAXIMUM TEMPERATURE RATING 300° F

Three-Way Dual Shut-off Valve inlets are shown at the bottom of the illustrations. Tight shut-off can be obtained at either extreme of stem position, closing off either the left or right outlet port. When the valve stem is in an intermediate position, the flow is through both outlet ports.

A dual relief valve installation consists of one three-way shut-off valve and two relief valves arranged so that both relief valves cannot be shut off from the protected pressure vessel at the same time. This permits safe removal of either relief valve for repair or replacement, while the vessel is protected and under pressure. EACH relief valve must have sufficient capacity to provide the necessary discharge flow when used alone.

The design of this Three-Way Valve provides full discharge area through the valve regardless of stem position, assuring maximum protection. Furthermore, this design provides for convenient parallel mounting of the two relief valves and fulfills the requirement set forth in the ANSI B9.1 1971.

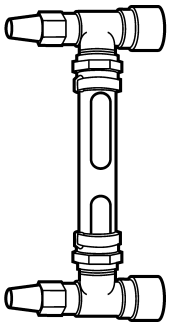
"No stop valve shall be located between any automatic pressure relief device or fusible plug and the part or parts of the system protected thereby, except when the parallel relief devices are so arranged that only one can be rendered inoperative at a time for test or repair purposes."

Two three-way valves, installed with drier bypass line, permit installation or removal of service drier without air, dirt, or moisture entering line.

PARALLEL MOUNTING - SEAL CAP TYPE, BOTTOM INLET

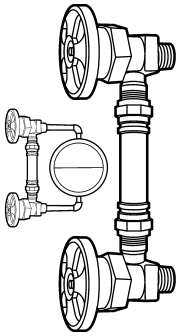
SIZE CONNECTIONS (in.)	BODY MATERIAL	DIMENSIONS (in.)				P/N
		Inlet Center to		Inlet Face to Outlet Faces	Outlet Port Centers	
		Elbow Center	Cap End			
1/2 FPT	Forged Brass	2-1/16	3-5/8	2-1/16	2-3/4	**925**
3/4 FPT	Forged Brass	2-1/16	3-7/8	2-13/16	2-3/4	**927**
1/2 FPT	Forged Steel	2-15/16	5-3/4	3-3/8	3-5/8	**8021A**
3/4 FPT	Forged Steel	2-15/16	5-3/4	3-3/8	3-5/8	**8022A**
1 FPT	Forged Steel	4-15/16	7-1/2	3-7/8	5-13/16	**8024**
1-1/4 FPT	Forged Steel	4-15/16	7-1/2	3-7/8	5-13/16	**8023**

HENRY LIQUID LEVEL GAUGES



P438

SEAL CAP TYPE
Female pipe thread connections. For all refrigerants, including Ammonia (R-717).
5024 ( )



P439

DIAPHRAGM PACKLESS BACK-SEATING VALVES
Male pipe thread connections.
6024 (set)

Recommended for use on accumulators, liquid receivers, oil reservoirs, or similar vessels where it is important to keep an accurate liquid level check.

ORDERING INFORMATION: Gauge sets with standard 15′ mounting centers will be furnished unless special glass lengths are required. For special lengths orders must specify exact glass lengths required or mounting centers of Gauge Set. specify whether dimension is exact Glass or Guard Length or mounting centers of Gauge Set.

Recommended maximum working pressures for glass lengths:

1″ to 20″	420 PSI
21″ to 30″	340 PSI
31″ to 40″	290 PSI

For mounting centers greater than 40″ it is recommended that multiple gauge sets be used.

Maximum temperature rating is 150° F.

Types 438 liquid level gauge sets in case of glass breakage, liquid cannot escape because safety ball checks seal off gauge glass. High pressure glass tubing protected by metal guard.

SINGLE GAUGE VALVES Non-Back-Seating

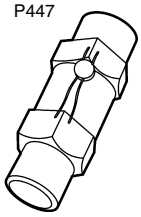
SIZE CONNECTIONS (in.)	DIMENSIONS (in.)		GLASS WELL DEPTH	P/N
	Full Open Height	Vert. C/L to Face of Pipe Thread		
1/2 FPT	4	1-1/2	Shallow	**5021** (LOWER)
1/2 FPT	4	1-1/2	Deep	**5022** (UPPER)

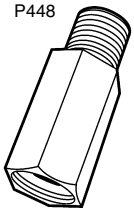
GAUGE GLASS AND GUARDS: Glass length is always 1-5/8″ less than mounting centers. Guard length is always 2-3/4″ less than mounting centers. Minimum mounting centers 6-1/8″.

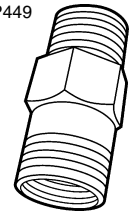
.

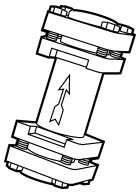
VALVES

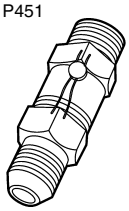
PRESSURE RELIEF VALVES

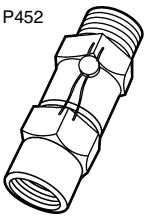
P447 
FIG. A

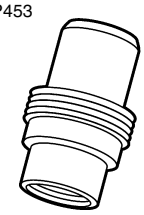
P448 
FIG. B

P449 
FIG. C

P450 
FIG. D

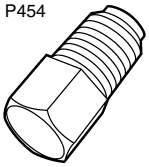
P451 
FIG. E

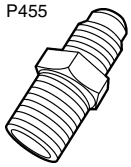
P452 
FIG. F

P453 
FIG. G

RUPTURE PRESSURE (PSI)	CONNECTION (in.)	SERVICE	FIGURE	P/N
350	1/2 NPT	R- 1 2, 22, 502	B	**EB51FH270**
350	1 NPT x 1-1 /2 - 18	R-12, 22, 502	C	**EB51FH310**
350	1-1/8 SOLDER	R-12, 22, 500	D	**EB51FN870**
385	3/8 NPT x 3/8 FLARE	R-1 2, 22, 500	E	**EB51LP121**
385	1/2 NPT x 5/8 FLARE	R-12, 22, 500, 502	E	**EB51LZ183**
385	3/4 NPT x 3/4 NPT*	R-12, 22, 500, 502	A	**EB51FZ241**
450	1/4 NPT	R-12, 22, 500, 502	B	**EB51RP061**

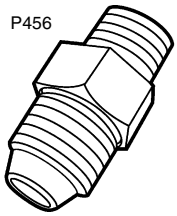
*Internal Threads.

P454 
FIG. H

P455 
FIG. I

- FUSIBLE SAFETY PLUG AND FUSIBLE SAFETY UNION
- BRASS BODY

RELIEF TEMP. (°F)	CONNECTION SIZE (in.)	FIGURE	P/N
160-170	1/16 NPT	H	**EK02JA170**
200-210	1/16 NPT	H	**EK02JA203**
200-210	1/8 NPT	H	**EK02JA210**
210-215	3/8 NPT	H	**EK02JN200**
208-220	1/4 NPT	H	**EK02KK105**
208-220	1/4 NPT & 1/4 FLARE	I	**EK41JK101**
208-220	3/8 NPT & 3/8 FLARE	I	**EK41JK202**

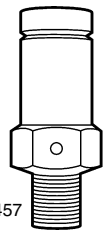
P456 
FIG. J

- NON-REPLACEABLE SAFETY HEAD
- BRASS BODY

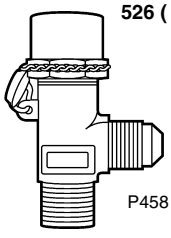
RUPTURE PRESSURE (PSI)	CONNECTION SIZE (in.)	SERVICE	FIG.	P/N
332-368	3/8 NPT x 3/8 FLARE	R-22	J	**EB51LR350**
346-382	3/8 NPT x 3/8 FLARE	R 1 1, 12, 22, 500, 502	J	**EB51LR364**
407-450	3/8 NPT x 3/8 FLARE	Rl 1, 12, 22, 500, 502	J	**EB51LR428**

HENRY AUTOMATIC PRESSURE RELIEF VALVES

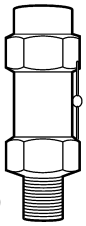
ATMOSPHERIC TYPE
No outlet line connection
For small systems
522 ( )

P457 

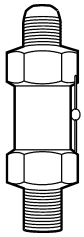
ANGLE BODY
Bottom inlet -
Side Outlet
526 ( )

P458 

STRAIGHT-THRU MPT x MPT
523 ( )

P459 

STRAIGHT-THRU MPT x FPT
524 ( )

P460 

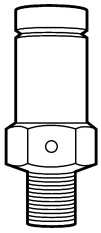
SELECTION OF RELIEF VALVES: Most states and municipalities which have refrigeration safety codes conform to the “American Safety Code for Mechanical Refrigeration (ANSI-B9.1 1971)”. this code provides for a relief valve setting not to exceed the design working pressure of the vessel on which the relief valve is installed. The discharge capacity required is based on the size of the vessel and the refrigerant used. The discharge capacity of relief valves varies with the pressure setting. The capacities of relief valves at various pressure settings are shown on Data Sheet No. AE1303, copies of which are available upon request.

Whenever conditions permit, it is advisable to have the relief valve pressure setting (which must not exceed the design working pressure of the vessel) at least 25 percent higher than the normal maximum operating pressure for the refrigerant used.

Relief Valve Selection (RVS-) and Safety Relief Devices (SRD-) Booklet available upon request.

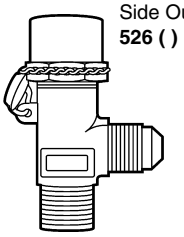
HENRY AUTOMATIC PRESSURE RELIEF VALVES

ATMOSPHERIC TYPE
No outlet line connection
For small systems
522 ( )



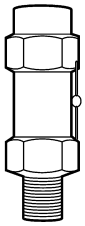
P457

ANGLE BODY
Bottom inlet -
Side Outlet
526 ( )



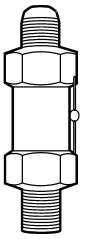
P458

STRAIGHT-THRU
MPT x MPT
523 ( )



P460

STRAIGHT-THRU
MPT x FPT
524 ( )



P459

- POSITIVE PRESSURE RELIEF
- CONSISTENT OPERATION AT MARKED PRESSURE SETTING
- EXCELLENT RESEATING CHARACTERISTICS
- A SPECIAL PROCESS REDUCES VALVE SEAT “STICKAGE” TO THE ABSOLUTE MINIMUM
- SUITABLE FOR REFRIGERANTS 12, 22, 500 AND 502
- VALVE STEM PROPERLY GUIDED FOR MINIMUM FRICTION
- FACTORY SEALED
- STANDARD SETTINGS ARE: 235, 300, 350, 400, 425 AND 450 PSI

Relief valves in the types and sizes shown on this page are constructed in accordance with the requirements of the ASME. These valves are also approved by many local refrigeration and air conditioning codes in the USA and Canada for relief of excess pressure. In addition, these valves are stamped with ASME UV symbol and NB to indicate National Board certification as to capacities.

ATMOSPHERIC - BRASS BODY

SIZE CONNECTION INLET (in.)	LENGTH OVERALL (in.)	P/N*
1/8 MPT	2-1/4	**5220** -(PSI)*
1/4 MPT	2-3/8	**5221** -(PSI)*
3/8 MPT	2-3/8	**5223** -(PSI)*

*Orders must specify pressure setting. Select appropriate alpha identifier for pressure setting required from adjacent chart.

STRAIGHT-THRU BRASS BODY

SIZE CONNECTIONS (in.)		OVERALL LENGTH (in.)	P/N*
Inlet	Outlet		
MALE PIPE THREAD BY MALE FLARE			
1/4 MPT	3/8 Flare	3-1/8	**5250** -(PSI)*
3/8 MPT	3/8 Flare	3-1/8	**5231** -(PSI)*
3/8 MPT	1/2 Flare	3-1/4	**5231-A** (PSI)*
1/2 MPT	5/8 Flare	3-9/16	**5231-B** (PSI)*
1/2 MPT	5/8 Flare	3-15/16	**5232** -(PSI)*
FEMALE PIPE THREAD BY FEMALE PIPE THREAD			
1/2 FPT	1/2 FPT	4-7/16	**5233** -(PSI)*
3/4 FPT	3/4 FPT	4-7/16	**5234** -(PSI)*
1 FPT	1 FPT	6-1/8	**5234-C** (PSI)*
MALE PIPE THREAD BY FEMALE PIPE THREAD			
1/2 MPT	3/4 FPT	3-11/16	**5240-1/2**(PSI)*
3/4 MPT	3/4 FPT	3-11/16	**5242-3/4** (PSI)*
1 MPT	1 FPT	4-1/16	**5244-1**(PSI)*
1-1/4 MPT	1-1/4 FPT	5-1/2	**5246-1-1/4**(PSI)*

*Orders must specify pressure setting. Select appropriate alpha identifier for pressure setting required from adjacent chart.

NOTE: For alpha specify pressure setting, i.e. 5230-350.

PRESSURE SETTING/ALPHA CHART						
PRESSURE SETTINGS (PSI)	235	300	350	400	425	450

RELIEF VALVE CAPACITY RATINGS
pounds of air per minute

STANDARD PRESSURE SETTINGS (PSIG)					P/N
235	300	350	400	450	
5.8	7.3	8.4	9.6	10.7	**5220** -(PSI)*
5.8	7.3	8.4	9.6	10.7	**5221** -(PSI)*
5.8	7.3	8.4	9.6	10.7	**5223** -(PSI)*
7.0	8.8	10.2	11.6	13.0	**5026-A** (PSI)*
7.0	8.8	10.2	11.6	13.0	**5026** -(PSI)*
7.0	8.8	10.2	11.6	13.0	**5026-B**(PSI)*
7.6	9.6	11.2	12.7	14.3	**5230** -(PSI)*
7.6	9.6	11.2	12.7	14.3	**5231** -(PSI)*
13.2	16.7	19.3	22.0	24.6	**5231-A** (PSI)*
13.2	16.7	19.3	22.0	24.6	**5231-B** (PSI)*
19.2	24.2	28.1	32.0	35.8	**5232** -(PSI)*
19.5	24.6	28.5	32.4	36.3	**5027** -(PSI)*
19.5	24.6	28.5	32.4	36.3	**5029-S** -(PSI)*
28.4	35.9	41.6	47.3	53.0	**5240-1/2** (PSI)*
28.4	35.9	41.6	47.3	53.0	**5242-3/4**(PSI)*
29.8	37.6	43.6	49.6	55.6	**5233** -(PSI)*
29.8	37.6	43.6	49.6	55.6	**5234** -(PSI)*
43.2	54.5	63.2	71.8	80.5	**5234-C** (PSI)*
50.6	63.8	74.0	84.2	94.4	**5244-1** (PSI)*
88.6	111.8	129.7	147.5	165.4	**5246-1-1/4** (PSI)*

CAPACITY IN CFM - To convert pounds of air per minute to standard cubic feet per minute, multiply by 13.3.

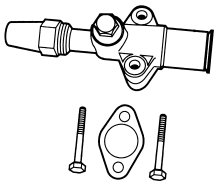
ANGLE BODY - FORGED BRASS

SIZE CONNECTIONS (in.)		DIMENSIONS (in.)			P/N*
Inlet	Outlet	Center to Bottom	Center to Side	Overall Height	
1/4 MPT	3/8 Flare	1-1/16	1-1/4	2-3/4	**526-EA** (PSI)*
3/8 MPT	1/2 Flare	1-1/16	1-1/4	2-3/4	**526-EB** (PSI)*
1/2 MPT	5/8 Flare	1-3/8	1-5/8	3-9/16	**527** -(PSI)*
5/8 ODS	5/8 ODS	3-11/16	3-11/16	5-7/8	**529-ES** (PSI)*

*Orders must specify pressure setting. Select appropriate alpha identifier for pressure setting required from above chart.

VALVE KITS

COMPRESSOR SERVICE VALVE KITS



P419

- KIT CONSISTS OF:
  SERVICE VALVE, GASKET AND BOLTS

NOTE: Service Valve contained in kits cannot be ordered separately.

VALVE SIZE (in.)	VALVE MOUNTING (BOLT HOLE CENTER-IN)	MUELLER - SERVICE VALVE				HENRY - SERVICE VALVE			
		Adapter/ Tailpiece P/N	Kit P/N	Valve P/N	Cap P/N	Adapter/ Tailpiece P/N	Kit P/N	Valve P/N.	Cap P/N
5/8 FLARE	2 BOLT (1-5/8)	NR	06DA660059	EN26AA211	EN99ZA001	-	-	-	-
5/8 SWEAT	2 BOLT (1-5/8)	NR	06DA660060	EN32AA250	EN99ZA001	-	-	-	-
7/8 SWEAT	2-BOLT (1 -5/8)	NR	06DA660061	EN07AA271	EN99ZA006	NR	06DA660061	EN07AA271	NA
	2 BOLT (1 -3/4)		06DA660062	06DA660062			06DA660062	06DA660062	
	2 BOLT (2-3/4)	EN99ZC027	-	EN07AA390		-	-	-	-
1-1/8 SWEAT	4 BOLT (2-1/2)	NR	06DA660063	06DA660063	EN99ZA006	NR	06DA660063	06DA660063	EN99ZA013
	2 BOLT (1 -3/4)		06DA660064	EN07AA348			06DA660064	EN07AA348	
	2 BOLT (2-3/4)	EN99ZC033	-	EN07AA395		NA	-	-	
1-3/8 SWEAT	4 BOLT (2-1/2)	NR	06DA660065	EN07EA039	EN99ZA006	NR	-	-	-
1-5/8 SWEAT	4 BOLT (2-1/2)	NR	06EA660090	EN07EA041	EN99ZA006	NR	06EA660090	EN07EA041	EN99ZA013
		-	-	EN13HA045	NA	NA	-	EN13HA045	
2-1/8 SWEAT	4 BOLT (3-1/16)	EM99AA516	-	06EA660091	EN99ZA009	EP29VC540	06EA660091	06EA660091	EN99ZA022
			-	EM13FA516					
2-5/8 SWEAT	4 BOLT (3-1/16)	EM99AA518	-	EM13FA518	-	-	-	-	-
3-1/8 SWEAT	4 BOLT (3-7/8)	EM99AA520	-	EM13FA520	EN99ZA011	EP29VC660	-	EM13FE520	EN99ZA018
4-1/8 SWEAT	4 BOLT (4-13/16)	NA	-	EM13FA524	NA	NA	-	EM13FES24	EN99ZA025

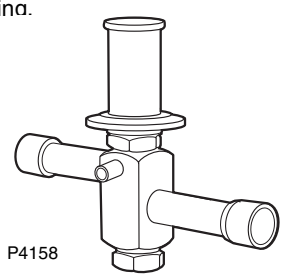
NR= Not Required.
NA = Vender part number available upon request.

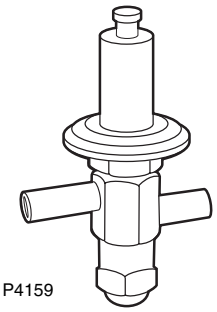
SPORLAN DISCHARGE BYPASS VALVES

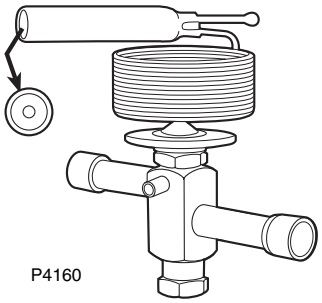
The Sporlan line of discharge bypass valves are designed to provide an economical method of compressor capacity control in place of cylinder unloaders or to handle unloading requirements below the last step of cylinder unloading.

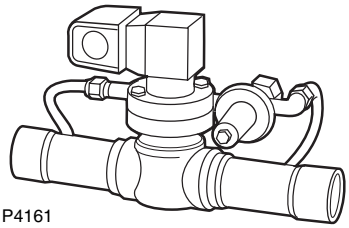
Connections — (Standard Connections are in **BOLD** type.)

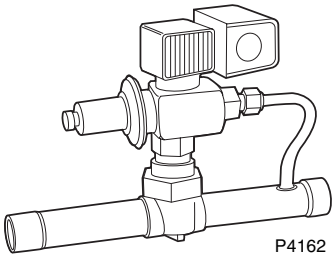
ADRI(E)-1-1/4 — **3/8″** ODF Solder
ADRS(E)-2 — 3/8″, **1/2″**, 5/8″ ODF Solder or 3/8″, 1/2″, 5/8″ SAE Flare
ADRP(E)-3 — 1/2″, **5/8″** ODF Solder or 1/2″, 5/8″ SAE Flare
ADRHE-6 & DRHE-6 — 5/8″, **7/8″**, 1-1/8″ ODF Solder
SHGB(E)-8 — 7/8″ ODF, 1-1/8″ ODF Solder
SHGB(E)-15 — 1-1/8″, 1-3/8″ ODF Solder


P4158
ADRHE-6


P4159
ADRI


P4160
DRHE-6


P4161
SHGB-15


P4162
SHGB-8

Discharge Bypass Valve Capacities (Tons)

Capacities based on 6° F evaporator temperature change from closed to rated opening (does not apply to pilot operated models), discharge temperature 30° F above isentropic compression, 100° F condensing temperature, 0° F subcooling, 25° F superheat at the compressor and includes both the hot gas bypassed and liquid refrigerant for desuperheating, regardless of whether the liquid is fed through the system thermostatic expansion valve or auxiliary desuperheating thermostatic expansion valve.

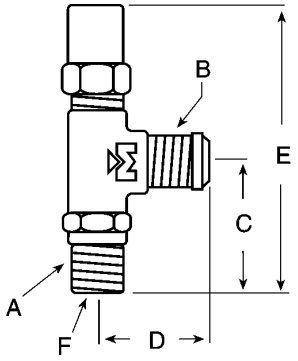
REFRIGERANT	MINIMUM ALLOWABLE EVAPORATOR TEMPERATURE	VALVE TYPE & ADJUSTMENT RANGE (psig)														
		ADRI-1-1/4 ADRIE-1-1/4			ADRS-2 ADRSE-2		ADRP-3 ADRPE-3		ADRHE-6		DRHE-6 (Adjustable "Remote Bulb" Model)*				SHGB-8 SHGBE-8	SHGB-15 SHGBE-15
		0/55	0/75	0/100	0/30	0/80	0/30	0/80	0/30	0/80	25/35	32/44	55/70	65/80	0/100	0/75
22	40	—	0.58	0.53	—	3.51	—	5.99	—	9.16	—	—	1 9.8	—	15.7	58
	26	0.44	0.64	0.54	—	3.57	—	6.26	—	9.90	—	—	1 6.9	—	15.9	62
	0	0.63	0.60	0.49	3.90	3.66	7.38	6.61	13.9	10.9	—	—	—	—	16.2	66
	–20	0.59	0.50	0.44	3.75	3.65	7.45	6.64	14.1	11.0	—	—	—	—	16.2	69
134a	40	0.40	0.43	0.34	—	2.67	—	4.94	—	9.34	9.64	—	—	—	10.9	41
	26	0.41	0.39	0.32	2.60	2.44	4.95	4.42	9.36	7.26	8.31	—	—	—	10.9	43
	0	0.38	0.31	0.28	2.46	—	4.89	—	9.41	—	—	—	—	—	11.0	46
401A	40	0.45	0.48	0.39	—	2.76	—	4.95	—	7.99	—	11.0	—	—	12.3	52
	26	0.47	0.45	0.37	2.97	2.79	5.66	5.04	10.7	8.26	—	9.49	—	—	1 .4	52
	0	0.44	0.36	0.32	2.83	2.74	5.62	5.01	10.8	8.32	—	—	—	—	12.5	56
402A	40	—	—	0.54	—	—	—	—	—	—	—	—	—	—	17.3	—
	26	—	0.65	0.60	—	3.91	—	6.66	—	10.3	—	—	—	—	17.7	63
	0	0.66	0.72	0.57	—	4.00	—	7.16	—	11.7	—	—	—	—	17.9	63
	–20	0.69	0.63	0.52	4.22	4.04	8.11	7.33	15.3	12.2	—	—	—	—	18.0	64
404A	40	—	—	0.55	—	—	—	—	—	—	—	—	—	—	17.5	—
	26	—	0.67	0.60	—	3.91	—	6.70	—	10.4	—	—	—	21.4	17.7	64
	0	0.67	0.71	0.56	—	4.00	—	7.16	—	11.7	—	—	—	—	17.9	65
	–20	0.68	0.61	0.51	4.17	4.02	8.08	7.28	15.3	12.1	—	—	—	—	17.9	65
407C	40	—	0.78	0.65	—	4.25	—	7.50	—	12.1	—	—	22.9	—	18.6	74
	26	0.61	0.78	0.63	—	4.25	—	7.50	—	12.1	—	19.3	—	—	18.7	75
	0	0.74	0.68	0.56	4.51	4.31	8.63	7.81	16.3	13.0	—	—	—	—	18.9	76
	–20	0.68	0.56	0.50	4.33	4.23	8.64	7.71	16.5	12.9	—	—	—	—	19.1	77
502	40	—	—	0.46	—	3.14	—	5.28	—	7.85	—	—	—	19.2	14.3	—
	26	—	0.56	0.49	—	3.19	—	5.51	—	8.55	—	—	—	16.6	14.5	55
	0	0.55	0.57	0.46	3.58	3.28	6.64	5.90	12.5	9.62	—	—	—	—	14.7	59
	–20	0.55	0.59	0.41	3.43	3.30	6.68	6.00	12.6	9.91	—	—	—	—	14.8	61
507	40	—	—	0.53	—	—	—	—	—	—	—	—	—	—	17.4	—
	26	—	0.65	0.59	—	3.87	—	6.60	—	10.2	—	—	—	—	17.7	64
	0	—	0.71	0.57	—	3.96	—	7.09	—	11.5	—	—	—	—	17.8	64
	–20	0.69	0.62	0.52	4.17	4.00	8.02	7.25	15.2	12.0	—	—	—	—	17.9	65

*These models applicable on air conditioning systems only.

MUELLER ANGLED PACKED LINE VALVES

TECHNICAL DATA

- Available in both backseating and non-backseating types
- Forged brass body
- Plated steel stem suitable for refrigerants and other industrial fluids non-corrosive to brass and steel
- Asbestos-free packing material
- Designed in conformance with MIL-V-22854 and Military Standard MS-17243
- NPTFE ends are counter-bored to allow assembly with refrigerant dip tubes
- Maximum pressure rating is 500 PSIG
- Maximum temperature rating at +300° F

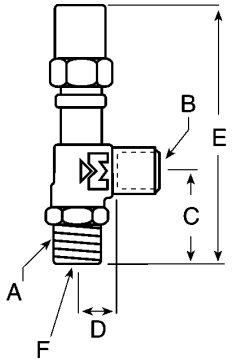


P1315

Angle Backseating - NPTFE Inlet to Flare

P/N	SIZE		C	D	E	COUNTERBORE DIMENSION (F*)		WT/EA.
	NPTFE A	Flare B				Dia.	Depth	
A-13220	1/2	1/2	1-13/16	1-5/16	4-1/8	.504	3/8	.53
A13183	1/2	5/8	1-13/16	1-1/2	4-11/16	.504	3/8	.64

*Machined to accept O.D. size tube as indicated.

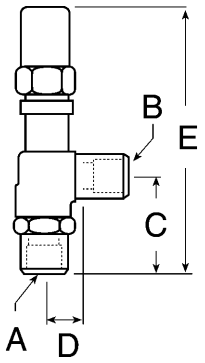


P1316

Angle Backseating - NPTFE Inlet to Solder

P/N	SIZE		C	D	E	COUNTERBORE DIMENSION (F*)		WT/EA.
	NPTFE A	Flare B				Dia.	Depth	
A-13977	1/2	1/2	1-13/16	1	4-3/32	.504	3/8	.51
A-13978	1/2	5/8	1-13/16	1	4-11/16	.504	3/8	.61
A-13979	3/4	7/8	2-3/32	1	6	.754	5/8	1.27

*Machined to accept O.D. size tube as indicated.



P1434

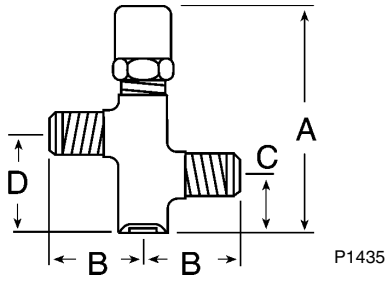
Angle Backseating - Solder to Solder

P/N	A	B	C	D	E	WT/EA.
A-17506	5/8	5/8	29/32	1	4-1/4	.66

MUELLER 2-WAY PACKED LINE VALVES

TECHNICAL DATA

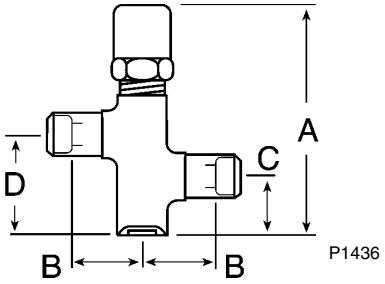
- Non-backseating service valves
- Forged brass body with integral mounting bracket
- Plated steel stem suitable for refrigerants and other industrial fluids non-corrosive to brass and steel
- Asbestos-free stem packing material
- Maximum working pressure is 500 PSIG
- Maximum temperature rating at +300°F



P1435

Mueller Two Way - Flare to Flare

P/N	SIZE	A	B	C	D	WT/EA.
A-13591	1/4	3-13/32	1	29/32	1-13/32	.50
A-13595	3/8	3-13/32	1-1/8	29/32	1-13/32	.55
A-13592	1/2	3-13/32	1-1/4	15/16	1-7/16	.56



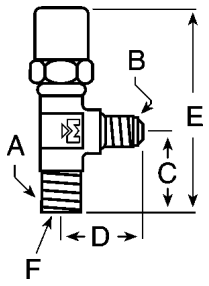
P1436

Mueller Two Way - Solder to Solder

P/N	SIZE	A	B	C	D	WT/EA.
A-15580	1/4	3-13/32	3/4	15/16	1-7/16	.49
A-15581	3/8	3-13/32	15/16	29/32	1-13/32	.51
A-15582	1/2	3-13/32	7/8	29/32	1-13/32	.52

2-WAY PACKED LINE VALVES (cont)

Mueller Angle Non-Backseating - NPTFE Inlet to Flare†

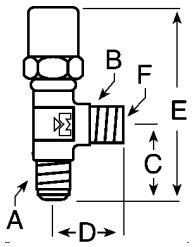


P1318

P/N	SIZE		FPT B	C	D	E	COUNTERBORE DIMENSIONS (F*)		WT/EA.
	MPT A	Flare B					Dia.	Depth	
A-11031	1/4	1/4	—	1	15/16	3-3/64	.254	5/16	.26
A-11030	1/4	3/8	—	1-1/16	1-1/8	3-3/32	.317	3/8	.31
A-13613	3/8	1/4	—	1-1/8	1-1/16	3-3/16	.379	3/8	.31
A-13503	3/8	3/8	—,	1-1/8	1-1/8	3-3/32	.379	3/8	.33
A-11042	3/8	1/2	—	1-3/8	1-3/8	3-3/4	.379	3/8	.51
A-13502	1/4	—	1/4	1-3/8	1-1/16	3-13/16	.317	5/16	.48

*Machined to accept O.D. size tube as indicated.

Mueller Angle Non-Backseating - Flare to NPTFE†



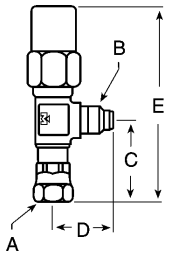
P1319

P/N	SIZE		C	D	E	COUNTERBORE DIMENSIONS (F*)		WT/EA.
	Flare A	MPT B				Dia.	Depth	
A-15073	1/4	1/4	15/16	1	3	.254	3/8	.27

*Machined to accept O.D. size tube as indicated.

Mueller Angle Non-Backseating - Internal Swivel Flare to Flare

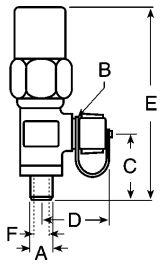
One soft copper gasket included with each assembly.



P1320

P/N	INTERNAL FLARE A	FLARE B	C	D	E	WT./EA.
A-17429	1/4	1/4	1-15/32	1-1/16	3-29/32	.33
A-17474	3/8	3/8	1-1/2	1-1/8	3-9/16	.27

Mueller Angle Non-Backseating - Solder To Flare With Seal Cap

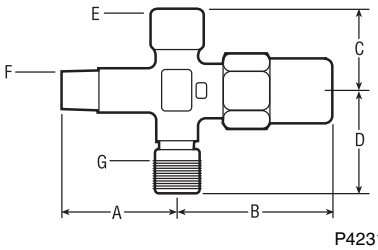


P1437

P/N	SOLDER A	FLARE B	C	D	E	WT/EA.
A-17502	1/4*	1/4	23/32	1-1/32	3-3/64	.58
A-17503	3/8**	3/8	9/16	1-1/2	3-1/64	.49

*Also 3/8 FTG.
**Also 1/2 FTG.

Mueller Packed Line Valve

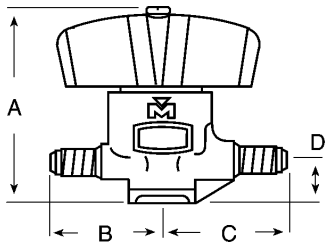


P4231

P/N	A	B	C	D	E	F	G	STEM CAP MATERIAL
B 33837	1-1/2	2	1	1-1/4	1/8 NPTF	1/4 NPTF	1/4 Flare Access	Steel
B 34254	1-1/2	2	1	1-1/4	1/8 NPTF	1/4 NPTF	1/4 Flare Access	Brass

† Recognized under the component program of Underwriters Laboratories.

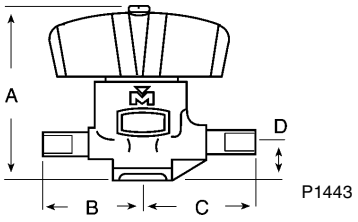
MUELLER PACKLESS DIAPHRAGM VALVES



P1317

Straight Thru - Flare to Flare - Type I - Class IV

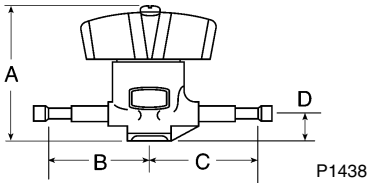
P/N	SIZE	A OPEN	B	C	D	WT/EA.
A-14833	1/4	2-11/16	1-5/16	1-3/8	5/8	.75
A-14835	3/8	2-11/16	1-3/8	1-27/64	5/8	.76
A-14836	1/2	3-15/32	1-5/8	1-27/32	27/32	1.25
A-14837	5/8	3-15/32	1-11/16	1-15/16	27/32	1.27



P1443

Straight Thru - Solder to Solder - Type I - Class II

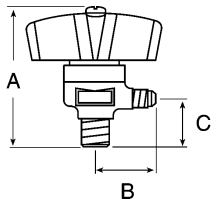
P/N	SIZE	A OPEN	B	C	D	WT/EA.
A-14838	1/4	2-11/16	1-1/32	1-3/32	5/8	.72
A-14840	3/8	2-11/16	1-1/32	1-3/32	5/8	.71
A-14841	1/2	3-1/2	1-5/16	1-9/16	27/32	1.22
A-14842	5/8	3-1/2	1-13/64	1-7/16	27/32	1.22



P1438

Extended End - Solder to Solder - Type I - Class II

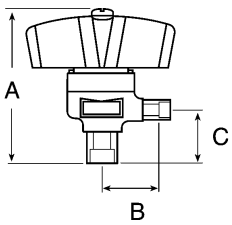
P/N	SIZE	A OPEN	B	C	D	WT/EA.
A-14848	1/4	2-11/16	2-21/36	2-23/32	5/8	.75
A-14850	3/8	2-11/16	2-13/16	2-7/8	5/8	.76
A-14851	1/2	3-1/2	3-1/32	3-11/32	27/32	1.28
A-14852	5/8	3-1/2	3-7/64	3-11/32	27/32	1.34



P1439

Angle - NPTFE to Flare - Type I

P/N	SIZE		OPEN A	B	C	WT/EA..
	MPT	Flare				
A-15525	1/4	1/4	2-13/16	1-19/64	1-3/64	.61
A-15526	1/4	3/8	2-13/16	1-27/64	1-3/64	.63
A-15527	3/8	1/4	2-7/8	1-19/64	1-5/64	.62
A-15528	3/8	3/8	2-7/8	1-27/64	1-5/64	.64
A-15529	3/8	1/2	3-9/16	1-27/32	1-19/64	1.06
A-15530	1/2	1/2	3-11/16	1-27/32	1-7/16	1.06
A-15531	1/2	5/8	3-11/16	1-15/16	1-7/16	1.08



P1440

Angle - Solder to Solder - Type I - Class I

P/N	SIZE		OPEN A	B	C	WT/EA.
	O.D.	O.D.				
A-15539	1/4	1/4	2-27/32	1-3/32	3/4	.69
A-15540	3/8	3/8	2-27/32	1-3/32	3/4	.71
A-15541	1/2	1/2	3-11/16	1-3/16	1-1/16	1.14
A-15542	5/8	5/8	3-11/16	15/16	15/16	1.14

Specifications

Technical Data	
Refrigerants	All fluorinated types
Working Temperature Range	-40° F/+300° F
Maximum Working Pressure	500 psig with flow in the direction of the arrow on the body 350 psig with flow against the direction of the arrow
Burst Pressure	2500 psig

MUELLER PRESSURE RELIEF VALVES

Technical Data

SAFETYMASTER® pressure relief valves have been designed and engineered to provide high volume discharge. Mueller's Pressure Relief Valves fully satisfy ASHRAE Standard 15 code requirements for a refrigerant vessel safety device. They comply with the ASME code for unfired pressure vessels and the discharge rates are certified by the National Board of Boiler and Pressure Vessel Inspectors.

How to select a relief valve:

(a) Determine the minimum discharge capacity required.
(b) Determine pressure setting. This relief setting cannot exceed the design pressure of the liquid receiver. However, the relief valve setting should be at least 25% higher than the maximum system operating pressure.
(c) Determine the size connection required.
(d) Select valve from chart below.

Mueller pressure relief valves are designed primarily for use on liquid receiver applications, above the liquid refrigerant level, and it is recommended that the factory be consulted before the valves are used on other applications.

As these valves are designed to operate according to ASHRAE Standard 15, they should be applied according to this safety code. Application information can also be found in the ASHRAE Guide and Data book.

Discharge Capacity

The minimum required discharge capacity of the pressure relief device or fusible plug for each pressure vessel is determined by the following formula, specified by the ASHRAE Standard 15, Safety Code for Mechanical Refrigeration:

$C = kfDL$

where

C = minimum required discharge capacity of the relief device. lb air/min (kg air/min)
D = outside diameter of vessel, ft (m)
L = length of the vessel, ft (m)
k = factory dependent on units used (k = 1 for I-P units, k = 4.88 for SI units)
f = factor dependent on the kind of refrigerant, as follows:

Type of Refrigerant	Value of f
Refrigerants 12, 22, R-134a & 500	1.6
Refrigerant 502, 13, 13 B1, and 14 when on cascade systems	2.5
All other refrigerants	1.0

DISCHARGE CAPACITY (lbs of Air Per Minute)
STANDARD CONDITIONS: 1 lb of air @ 60° F = 13.34 cu ft

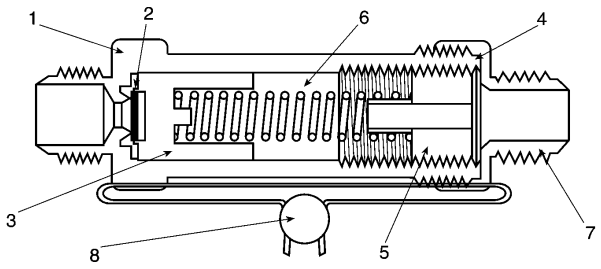
Standard Setting (psig)	A-15508 1/8 NPTFE Inlet	A-15509 A-15501 1/4 NPTFE Inlet	B-33746, A-15502, A-15503 A-15512, A-15513, A-17430 1/4 & 3/8 NPTFE Inlet	A-15504, A-15514, A-15515 1/2 NPTFE Inlet	A-15506 3/4 NPTFE Inlet
235	4.3	4.3	9.1	20.1	33.7
300	5.4	5.4	11.5	25.4	42.5
350	6.3	6.3	13.3	29.5	49.3
400	7.1	7.1	15.2	33.5	56.1
425	7.6	7.6	16.1	35.6	59.5
450	8.0	8.0	17.0	37.6	62.9

Prefixes for standard settings are:
AD = 235 psig, AE = 300 psig, AG = 350 psig, AH = 400 psig, AI = 425 psig, AJ = 450 psig

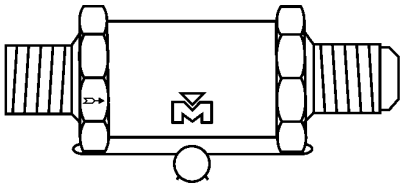
For valves furnished at non-standard settings, use "A" prefix with the exact pressure setting.
Example: A-15504 set at 375 psig.

MUELLER PRESSURE RELIEF VALVES

DESIGN FEATURES



P1326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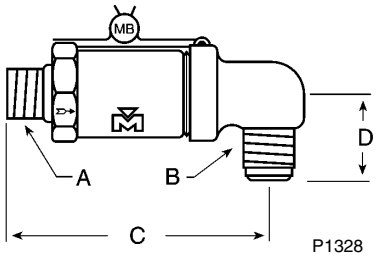
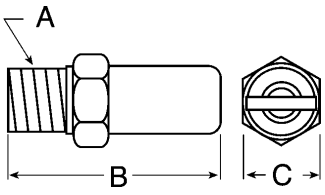


P1328



P1442

Straight Thru - NPTFE Inlet to Flare

P/N	INLET A	OUTLET B	C	WT/EA.
A-15501	1/4	3/8	2-21/32	.19
A-15502	3/8	3/8	2-13/16	.33
A-15503	3/8	1/2	3	.36
A-15504	1/2	5/8	4-3/16	.84
A-15506	3/4	3/4 FTP	5	1.49
B-33752	1/4	3/8	2-13/16	—
B-33753	1/4	1/2	3	—

Angle - NPTFE to Flare

P/N	INLET A	OUTLET B	C	D	WT/EA.
B-33746	1/4	3/8	2-3/8	1-1/8	.30
B-33754	1/4	1/2	2-7/16	1-5/16	—
A-15512	3/8	3/8	2-3/8	1-3/8	.36
A-15513	3/8	1/2	2-3/8	1-11/32	.38
A-15514	1/2	5/8	4-3/32	1-9/16	.98
A-15515	1/2	3/4	3-11/16	1-7/8	—
A-15511	1/4	3/8	2-1/4	1-1/16	—

Atmospheric - NPTFE Inlet

P/N	INLET A	OUTLET B	C	WT/EA.
A-15508	1/8	1-7/8	3/4	.12
A-15509	1/4	2	3/4	.13
A-17430	3/8	2-1/8	1	.24
B-33755	1/4	2-1/8	1	—

Straight Thru - NPTFE Inlet to NPTFI Outlet

P/N	INLET A	OUTLET B	C	WT/EA.
A-17840	1	1	4-9/16	—
A-17834	1-1/4	1-1/4	5	—

Straight Thru - Straight Thread Inlet to NPTFI Outlet

P/N	INLET A	OUTLET B	C	WT/EA.
B-34444	7/8-14UNF 2A	1-7/8	3/4	—
B-34519	15/16-14UNF 2A	1	4-3/8	—
B-34580	1-5/9-14UNF 2A	1-1/4	5	—

Fusible pipe plugs — fusible connectors, half union.

Prefixes for standard settings are as follows:

AD = 235 psig, AE = 300 psig, AG = 350 psig, AH = 400 psig, AI = 425 psig, AJ = 450 psig.

For valves furnished at non-standard settings, use “A” prefix with the exact pressure setting.

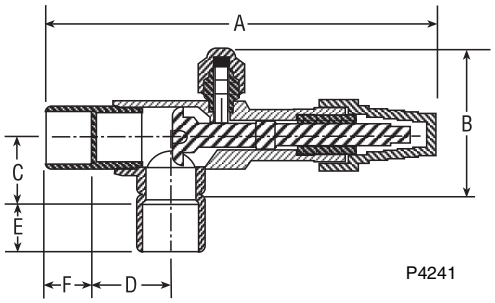
MUELLER ANGLE ISOLATION VALVES

Specifications

TECHNICAL DATA										
Part Number	**B-34413**	**B-34412**	**B-34411**	**B-34594**	**B-34595**	**B-34418**	**B-34417**	**B-34416**	**B-34415**	**B-34414**
Torques to Seal (ft-lb)										
Front Seat	16-18	22-40	22-40	22-40	22-40	16-18	22-40	22-40	22-40	22-40
Back Seat	16-18	25-45	25-45	25-45	25-45	16-18	25-45	25-45	25-45	25-45
Pack Gland	8-12	15-25	15-25	15-25	15-25	8-12	15-25	15-25	15-25	15-25
Flare Seal Cap	8-10	8-10	15-25	15-25	15-25	8-10	8-10	15-25	15-25	15-25
Rotolock Nut	NA	NA	NA	NA	NA	40-50	60-80	60-80	60-80	80-100
Seal Cap	Finger Tight			40-50	40-50	Finger Tight			40-50	40-50
Maximum Working Pressure (psig)	500	500	50	500	500	500	500	500	500	500
Burst Pressure (psig)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Working Temperature Range (°F)	-40/300	-40/300	-40/300	-40/300	-40/300	-40/300	-40/300	-40/300	-40/300	-40/300
Refrigerants	All Fluorinated Types									

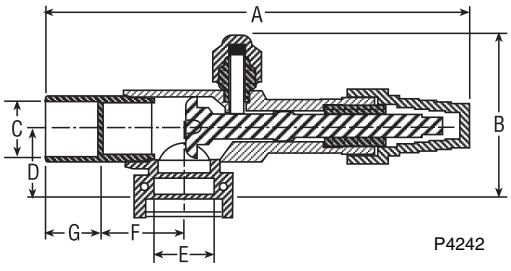
Solder X Solder Angle Isolation Valve

PART NO.	SIZE	TYPE	Cv	A	B	C	D	E	F
B-34413	5/8	5/8 ODS x 5/8 ODS	6	5-27/64	2-21/32	27/32	1-11/64	1/2	1/2
B-34412	7/8	7/8 ODS x 7/8 ODS	15	6-9/16	3-3/32	29/32	1-17/64	3/4	3/4
B-34411	1-1/8	1-1/8 ODS x 1-1/8 ODS	25	7-19/32	3-63/64	1-5/16	1-1/2	15/16	15/16
B-34594	1-3/8	1-3/8 ODS x 1-3/8 ODS	38	9-31/64	4-3/16	1-1/2	1-29/32	1	1
B-34595	1-5/8	1-5/8 ODS x 1-5/8 ODS	53	10-3/64	4-11/16	1-3/4	2-3/16	1-3/32	1-3/32



Solder X Rotolock Angle Isolation Valve

PART NO.	SIZE	TYPE	Cv	A	B	C	D	E	F	G
B-34418	5/8	5/8 ODS x 1 THD	6	5-27/64	2-1/4	35/64	15/16	35/64	11/64	1/2
B-34417	7/8	7/8 ODS x 1-1/4 THD	15	6-9/16	2-31/64	3/4	1-3/64	3/4	1-17/64	3/4
B-34416	1-1/8	1-1/8 ODS x 1-1/2 THD	25	7-19/32	3	1	1-1/4	1	1-33/64	15/16
B-34415	1-3/8	1-3/8 ODS x 1-3/4 THD	38	9-33/64	3-17/64	1-1/4	1-13/32	1-1/4	1-29/32	1
B-34414	1-5/8	1-5/8 ODS x 2-1/4 THD	53	10-3/64	3-35/64	1-1/2	1-9/16	1-1/2	2-3/16	1-3/32

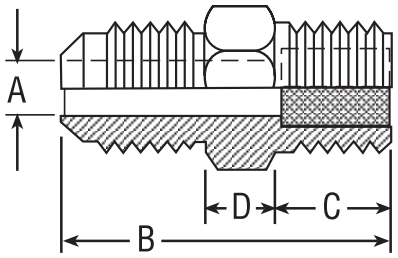


MUELLER FUSIBLE CONNECTORS

Fusible Connectors — Half Union — Flare to NPTFE

Listed by Underwriters Laboratories, Inc., for use in the USA and Canada											
Cat No.	Part No.	Size			A	B	C	D	Melting Temp* (°F)	Per Ctn.	Wt/Ea.
		Flare	NPTFE	Hex							
FU-4B	**A-14062**	1/4	1/4	9/16	3/16	1-1/4	9/16	3/16	283	10	.07
FU-4C	**A-14063**	1/4	3/8	11/16	3/16	1-5/16	9/16	1/4	283	10	.09
FU-6C	**A-14064**	3/8	3/8	11/16	9/32	1-7/16	9/16	1/4	283	10	.12
FU-4B	**A-14023**	1/4	1/4	9/16	3/16	1-1/4	9/16	3/16	210	10	.06
FU-4C	**A-14025**	1/4	3/8	11/16	3/16	1-5/16	9/16	1/4	210	10	.09
FU-6C	**A-14026**	3/8	3/8	11/16	9/32	1-7/16	9/16	1/4	210	10	.12
FU-4B	**A-14024**	1/4	1/4	9/16	3/16	1-1/4	9/16	3/16	168	10	.06
FU-4C	**A-14050**	1/4	3/8	11/16	3/16	1-5/16	9/16	1/4	168	10	.09
FU-6C	**A-14027**	3/8	3/8	11/16	9/32	1-7/16	9/16	1/4	168	10	.13

*Melting Temperature Equivalents — 283° F (139° C), 210° F (99° C), 168° F (76 ° C).

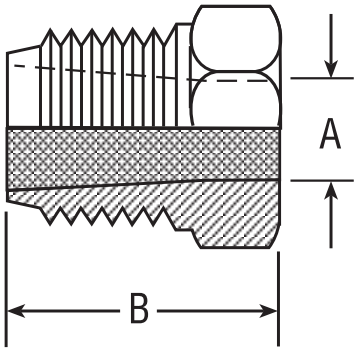


P4239

Fusible Pipe Plugs

Listed by Underwriters Laboratories, Inc., for use in the USA and Canada								
Cat No.	Part No.	Size		A	B	Melting Temp* (°F)	Pcs, Per Ctn.	Wt/Ea.
		NPTFE	Hex					
FP-A	**A-14058**	1/8	7/16	7/32	19/32	283	10	.02
FP-B	**A-14059**	1/4	9/16	1/4	25/32	283	15	.05
FP-C	**A-14060**	3/8	11/16	3/8	27/32	283	15	.08
FP-A	**A-14017**	1/8	7/16	7/32	19/32	210	10	.03
FP-B	**A-14018**	1/4	9/16	1/4	25/32	210	15	.05
FP-C	**A-14021**	3/8	11/16	3/8	27/32	210	15	.06
FP-A	**A-15214**	1/8	7/16	7/32	19/32	168	10	.02
FP-B	**A-14019**	1/4	9/16	1/4	25/32	168	15	.04
FP-C	**A-14022**	3/8	11/16	3/8	27/32	168	15	.06

*Melting Temperature Equivalents — 283° F (139° C), 210° F (99° C), 168° F (76 ° C).



P4240

A-1 LINE TAP VALVES

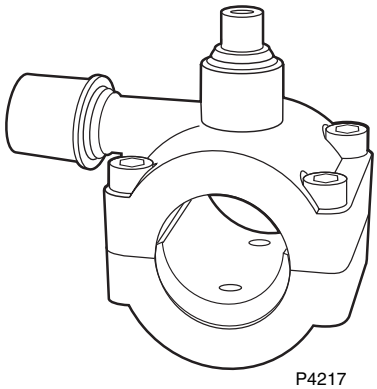
BTV Series Clamp-On Line Tap Valves

Used to provide access fitting without having to remove refrigerant from the system.

Features:

- Three different sizes.
- Hex wrench included.
- Fits 7 different O.D. size tubing.

PRODUCT NO.	TUBING SIZE O.D. (in.)	WEIGHT	ORDER NO.
BTV-1	1/4, 5/16, 3/8	0.163	6175
BTV-2	1/2, 5/8	0.206	6285
BTV-3	3/4, 7/8	0.419	6177



P4217