

APPARATUS VALVES



SELECTOR GUIDE

The table below includes information for both Apparatus Valves and Industrial Valves.

TYPES			SIZES (Inches)		STYLES		PRIMARY APPLICATION			ACTUATORS		CERT.		VALVE SERIES	PAGE
Ball	Butterfly	Other	Minimum	Maximum	Angle	Inline	Fire Apparatus	Pressure Reducing / Restricting	Commercial / Industrial Installations	Manual	Electric	FM Approved	UL Listed		
•			1	1 ½		•	•			•				Single Body Valve	8-6
•	•		1 ½	8		•	•			•	•			Unibody Valve	8-7
		•	3 ½	6			•			•				Piston Intake Valve	4-10
		•	2 ½	3	•		•							Relief	8-28
	•		4 ½	6		•	•			•				Suction Intakes	8-2
		•	2 ½	2 ½		•	•							Tank-Fill Check	8-28
•			2 ½	3		•	•			•				2925A	8-19
•			3	3		•	•			•				W-893	8-19
		•	1 ½	2.5		•	•							Hydrant	8-4
		•	2 ½	2 ½	•	•		•					•	Field Adjustable Pressure Reducing (URFA)	10-1
		•	1 ½	2 ½	•	•		•					•	Pressure Reducing (Pressure-Matic)	10-3
		•	1 ½	2 ½	•			•				•	•	Pressure Restricting	10-5
		•	1 ½	2 ½	•				•			•	•	Angle	10-7
	•		3	4		•			•					84 Butterfly Valve	5-53

Suction Intake

Elkhart Brass offers a special cast iron, butterfly valve with Elk-O-Lite® end caps for use as a suction intake in apparatus applications. The valve features:

- Aluminum/bronze disc
- Re-inforced EPDM seat (bi-directional)
- Two piece stainless steel stem
- Rated to 200 psi
- Finished in red urethane enamel with polished chrome hand-wheel and hard anodized end caps
- Gear operated version complies with NFPA 1901



Gearbox can be rotated to assist with positioning without interference

Shown with Female #16

Shown with Male #36

APPARATUS VALVES



SUCTION INTAKE

MODELS		2850	2860	
Waterway Size (Inches)		5"	6"	
Operation Style	Gear	s	s	
	Lever/Trigger	o	o	
Weight (Lbs.)*		35.8	42.4	
Available Adapters/End Caps	Type	Size		
	Rigid NPT Female	5"	•	
		6"	•	•
	Rigid NHT Female	4.5"	•	
		5"	•	
		6"		•
	Storz F/S	4"	•	
		5"	•	
	NHT Swivel Female	4"	•	
		4.5"	•	
		5"	•	•
		6"	•	•
	NHT Male	4"	•	
		4.5"	•	
		5"	•	•
		6"		•

HOW TO ORDER

- Select suction intake model (2850 or 2860).
- Select intake adapter from available options.
- Select discharge adapter from available options.
- Specify operation style (gear or lever/trigger).

KEY s = standard o = option
 * Intakes only, excludes adapter options

ADDITIONAL INFORMATION

OPTIONS

- NHT swivel female adapters available with long handle or rocker lug.
- Optional strainer available on some male adapters.
- Optional air bleeder valve on male adapters.

THREADS

Valve information is NHT unless otherwise specified. See index T-13 for alternative thread options.

Hydrant

Available in sizes ranging from 1½" to LDH for portable use (in either aluminum or brass) or permanent mount utilizing the NPT inlet.



X-86A



X-86

APPARATUS VALVES



HYDRANT

APPARATUS VALVES

8-5

INLET SIZES					OUTLET SIZES					VALVE TYPE		HANDLE STYLE			MATERIAL/TRIM				DIMENSIONS		MODEL	FIGURE
Female (NPT)		Female (NHT)			Female (NHT)		Male (NHT)			Storz		Ball	Gated	Crank	Hand-wheel	Twist-Lock	Brass					
1.5"	2.5"	2.5"	4.5"	5.0"	3.5"	4.0"	4.5"	1.5"	2.5"	3.5"	4.0"						4.5"	4.0"	5.0"	Cast	Satin	Chrome (cast)
		s							s									s	12.5	5.5	X-86A	3
		s							s									s	6.25	6.4	B-96A	5
s								s							s		o		5.75	4.5	88-1.5	1
	s								s						s		o		8.5	9.1	88-2.5	1
		s							s							s	o		12.5	13.75	X-86	2
		s							s							s	o		8.0	19.75	B-94	4

Figure 1



88

- Non-rising stem design
- Metal to metal seat
- Pressure rated to 300 psi (20.68 bar)

Fig. 1

Figure 4



B-94

- Adjustable, teflon impregnated, neoprene seat
- Pressure rated to 250 psi (17.2 bar)
- Red urethane finish with satin brass or chrome trim (specify)

Fig. 4

Figure 2



X-86

- Non-rising stem design
- Metal to metal seat
- Pressure rated at 175 psi (12.07 bar)
- Red urethane finish with satin brass or chrome trim (specify)

Fig. 2

Figure 5



B-96A

- Adjustable, teflon impregnated, neoprene seat
- Pressure rated to 200 psi (13.79 bar)

Fig. 5

Figure 3



X-86A

- Non-rising stem
- Metal to metal seat
- Pressure rated to 175 psi (12.07 bar)

Fig. 3

ADDITIONAL INFORMATION

OTHER PRODUCTS

Cap and chain are Elkhart model #310 and may be found on page 11-1.

THREADS

Valve information is NHT unless otherwise specified. See index T-13 for alternative thread options.

Single Body Apparatus

Single Body Apparatus Valves come with an integral actuator of your choice - direct or remote. Designed specially for reliability, ease of installation and ease of use. The Single Body ball valve is designed to the industry standard dimensions. Features the option to select one of eight handle positions with removal of a single bolt. It's that simple. Pair Single Body valves with Unibody Apparatus line for a total apparatus valve solution.

- 1" & 1.5" body sizes
- Dual self-adjusting seats provide bi-directional sealing
- Corrosion resistant brass body with stainless steel valve ball
- Eight position handle adjustment in 45° increments

Remote Handle (R1)



Direct Handle (TS)

Size	ACTUATOR				MATERIALS			BALL TYPE	WORKING PRESSURE (psi)	C _v VALUE	ELKHART MODEL	Akron Model
	R1	TS	Travel	Locking	Body	Ball	Seat					
1"	•		90°		Brass Alloy 844	316 Stainless Steel	Hytrel	Round	250	81	SB10/R1	8810/R-1
1½"	•		90°		Brass Alloy 844	316 Stainless Steel	Hytrel	Round	250	206	SB15/R1	8815/R-1
1"		•	105°	•	Brass Alloy 844	316 Stainless Steel	Hytrel	Round	250	81	SB10/TS	8810/TS
1½"		•	105°	•	Brass Alloy 844	316 Stainless Steel	Hytrel	Round	250	206	SB15/TS	8815/TS

NOTE: See 8-15 for Single Body Adapters.



Unibody Apparatus

The answer to all your apparatus valve needs — the Unibody Apparatus Valve. The Unibody ball valve has been designed to be dimensionally identical to the Akron Brass heavy-duty apparatus valves for cross compatibility. Additionally, Elkhart's Unibody ball valve has a single body design to simplify both configuration and installation.

A unique aspect of the Unibody valve actuator is the ability to be easily interchanged among the various Unibody valve sizes to simplify selecting or changing actuators. Just remove 4 bolts, and you can change the actuator on any Unibody Valve without breaking the waterway or internal plumbing.

- All valve materials are designed for endurance. (See chart on page 8-9 for specifics)
- Ball valves have dual self-adjusting seats, which provide bi-directional sealing and do not require O-rings that might cut and tear during servicing
- Ball valves feature swing-out construction, which allows for easy access to internal waterway without removing the valve from the truck plumbing
- Butterfly valves are bi-directional
- Adapters (end caps) and pump flanges are constructed of either brass or stainless steel
- Actuators are interchangeable — a valve may be easily converted to different actuation type without the need to break the waterway
- Durable handles and handle stops ensure dependability
- Manual handles may be easily changed to different positions by removing a single bolt
- The electric valve utilizes a three-inch extreme duty motor and gearbox for ultimate reliability
- Maximum working pressure rated to 250 psi (SB10, SB15, & EB15-EB35). EB40 rated to 250 psi if flow is in the direction of the arrow and 150 psi if in the opposite direction.
- Static pressure tested to 600 psi (SB10, SB15, & EB15-EB35) closed or open. EB40 is static pressure tested to 150/500 psi depending on which side pressure is applied when valve is closed, and 500 psi when valve is open.
- The Unibody valves meet or exceed NFPA 1901 standards



APPARATUS VALVES

UNIBODY APPARATUS

APPARATUS VALVES

8-8

For order assistance, download the Unibody Configurator at www.ElkhartBrass.com

EB - - -

Valve body	Page 8-9	1.5" Ball valve body	1	5
		2.0" Ball valve body	2	0
		2.5" Ball valve body	2	5
		3.0" Ball valve body	3	0
		3.5" Ball valve body	3	5
		4.0" Flat ball valve body	4	0
		3.0" Butterfly valve body	3	B
		4.0" Butterfly valve body	4	B
		4.0" High performance butterfly valve body	4	J
		5.0" Butterfly valve body	5	B
		5.0" High performance butterfly valve body	5	J
		6.0" Butterfly valve body	6	B
		6.0" High performance butterfly valve body	6	J
		6.0" High performance butterfly valve body (SS)	6	S
		6.0" High efficiency butterfly valve body	6	D
		8.0" Butterfly valve body	8	B
		8.0" High performance butterfly valve body	8	J
8.0" High performance butterfly valve body (SS)	8	S		

Adapters (endcaps)	Page 8-15	No inlet endcap	0	0	0	0	0	
		Hose thread	EB15 -EB40		H			
		Pipe thread (NPT)		N				
		Victaulic		V				
		Flex hose		F				
		Pump flange		P				
		Solder		S				
		Weld (SS)		W				
		Page 8-11	Female	EB15 -EB40		F		
			Male		M			
	Non-gender adapter			A				
	4 bolt (pump flange)			4				
	8 bolt (pump flange)			8				
	Page 8-13	Two digit listing	EB15 -EB40		X	X		
		Blank - no taps	EB15 -EB40				B	
		Integrated check valve					C	
		Drain & pressure tap					D	
	Repeat Inlet Steps	Flow sensor port					F	
		No outlet endcap			0	0	0	
	Outlet	Same options as available for inlet end cap	EB15 -EB40					

Valve actuator <small>(remote push/pull rods and assemblies, handwheels, and electric controllers are ordered separately on page 8-17)</small>	Page 8-9	No actuator		0	0	0
		Direct handle (long)	EB15 - EB35		D	1
		Direct handle with chrome cover (long)		D	2	
		Direct handle (short)		D	3	
		Direct handle with chrome cover (short)		D	4	
		Electric	All (except EB6D)		E	1
		Electric	EB6D		E	2
		Gear	All (except EB6D)		G	1
		Gear	EB6D		G	2
		Remote short handle (self-locking)	EB15 - EB35		R	1
		Remote long handle (self-locking)		R	2	
		Remote short handle (non-locking)		R	3	
		Remote long handle (non-locking)		R	4	
		Rack & sector		S	1	
		Twist-lock handle		T	1	
		Slow close	(D1, D3, R1, R2, R3, R4 & S1 only)			S
		Free close				F

Example EB 2 5 - P 4 2 9 B - H M 1 0 D - R 1 F

This is a complete model number for a 2.5" ball valve with: a simple 4 bolt pump flange inlet adapter, a male hose thread outlet adapter with drain tap, a remote push/pull style actuator handle without an additional mechanical slow close device.

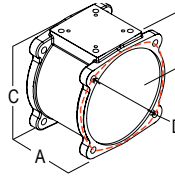
APPARATUS VALVES



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BODIES

BALL VALVE BODY

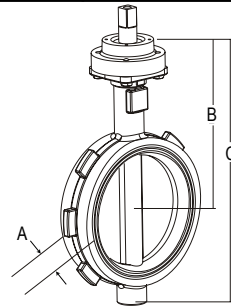


MODEL AND DIMENSION KEY

Size	DIMENSIONS				MATERIALS			BALL TYPE	WORKING PRESSURE (psi)	C _v VALUE	ELKHART MODEL	Akron Model
	A	B	C	D*	Body	Ball	Seat					
1½"	3"	2¾"	4¾"	4½"	Brass Alloy 844	316 Stainless Steel	Hytrel	Round	250	139	EB15	7615/7815
2"	3"	2¾"	4¾"	4½"	Brass Alloy 844	316 Stainless Steel	Hytrel	Round	250	139	EB20	8620/8820
2½"	3½"	2¾"	5½"	5½"	Brass Alloy 844	316 Stainless Steel	Hytrel	Round	250	277	EB25	8625/8825
3"	4"	3"	5½"	6½"	Brass Alloy 844	316 Stainless Steel	Hytrel	Round	250	510	EB30	8630/8830
3½"	4"	3"	5½"	6½"	Brass Alloy 844	316 Stainless Steel	Hytrel	Round	250	510	EB35	8635/8835
4"	4"	4½"	8½"	7½"	Brass Alloy 844	Manganese Bronze	Hytrel	Flat	250/150	694	EB40	N/A

* Bolt center diameter

BUTTERFLY VALVE



Butterfly Valve fits between 150# ANSI flanges. Butterfly Valves do not utilize adapters.

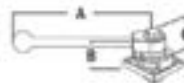
Size	DIMENSIONS			MATERIALS				WORKING PRESSURE (psi)	C _v VALUE	ELKHART MODEL	Akron Model			
	A	B	C	Body	Wafer	Shaft	Seat							
3"	1 ¹³ / ₁₆ "	7 ⁵⁷ / ₆₄ "	11 ²⁹ / ₃₂ "	Cast Iron	316 Stainless Steel	416 Stainless Steel	EPDM	250	262	EB3B				
4"	2 ¹ / ₁₆ "	8 ⁴⁵ / ₆₄ "	13 ³ / ₄ "	Cast Iron	316 Stainless Steel	416 Stainless Steel	EPDM	250	647	EB4B				
				Carbon Steel	316 Stainless Steel	17-4 PH Stainless Steel	PTFE					285	400	EB4J
5"	2 ¹ / ₄ "	9 ¹⁷ / ₆₄ "	14 ²³ / ₃₂ "	Cast Iron	316 Stainless Steel	416 Stainless Steel	EPDM	250	1141	EB5B				
				Carbon Steel	316 Stainless Steel	17-4 PH Stainless Steel	PTFE					285	650	EB5J
				316 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	PTFE					275	650	EB5S
6"	2 ⁶ / ₂₅ "	8 ²³ / ₅₀ "	13 ⁴³ / ₁₀₀ "	Cast Iron	316 Stainless Steel	416 Stainless Steel	EPDM	250	1580	EB6B				
				Ductile Iron	Aluminum/Bronze	416 Stainless Steel	EPDM					250	1950	EB6D
				Carbon Steel	316 Stainless Steel	17-4 PH Stainless Steel	PTFE					285	1050	EB6J
				316 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	PTFE					275	1050	EB6S
8"	2 ⁷ / ₈ "	11 ⁵ / ₆₄ "	18 ⁷ / ₃₂ "	Cast Iron	316 Stainless Steel	416 Stainless Steel	EPDM	250	2892	EB8B				
				Carbon Steel	316 Stainless Steel	17-4 PH Stainless Steel	PTFE					285	2200	EB8J
				316 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	PTFE					275	2200	EB8S

ACTUATORS

DIRECT HANDLE



DIMENSIONS	INCHES	DESCRIPTION	ELKHART MODEL	Akron Model
Handle Length A (short)	5"	Short	D3F	TS
Handle Length A (long)	9 ⁹ / ₁₆ "	Long	D1F	TS
Handle Height B \perp	1 ⁷ / ₈ "	Short with slow close	D3S	TS
Overall Height C	2 ¹ / ₄ "	Long with slow close	D1S	TS
Overall Height C (with slow close)	3 ⁵ / ₈ "	Short with chrome cover	D4F	TSC
		Long with chrome cover	D2F	TSC



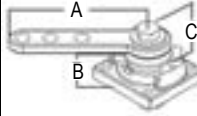
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REMOTE HANDLE



DIMENSIONS	INCHES	DESCRIPTION	ELKHART MODEL		Akron Model
			Self-Locking	Non-Locking	
Handle Length A (short)	4½"	Short	R1F	R3F	R-1
Handle Length A (long)	7"	Long	R2F	R4F	R-2
Handle Height B \perp	1⅞"	Short with slow close	R1S	R3S	R-1
Overall Height C	2¼"		R2S	R4S	R-2
Overall Height C (with slow close)	3⅞"	Long with slow close			



RACK & SECTOR



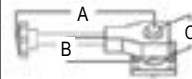
DIMENSIONS	INCHES	DESCRIPTION	ELKHART MODEL	Akron Model
Handle Offset A	4⅞"	Standard	S1F	R/S
Handle Height B \perp	1⅞"			
Overall Height C	1⅞"	Standard with slow close	S1S	R/S
Overall Height C (with slow close)	3⅞"			



TWIST LOCK



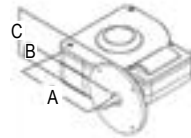
DIMENSIONS	INCHES	DESCRIPTION	ELKHART MODEL	Akron Model
Handle Length A	8 ¹⁵ / ₁₆ "	Standard	T1F	SZ
Handle Height B \perp	1⅞"			
Overall Height C	3"			



GEAR



DIMENSIONS	INCHES	DESCRIPTION	ELKHART MODEL	Akron Model
Handle Offset A	2⅞"	Standard	G1F	G
Handle Height B \perp	1⅞"			
Overall Height C	3⅞"	High Pressure	G2F*	



Hand-wheels are ordered separately

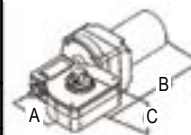
* For use on the EB6D only.

ELECTRIC



E14X
*E16X

DIMENSIONS	INCHES	DESCRIPTION	ELKHART MODEL	Akron Model
Manual Offset A	2⅞"	Standard	E14X *E16X	E
Motor Length B	10¼"			
Overall Height C	3¾"			



Controllers are ordered separately

* For use on the EB6D only.

SLOW CLOSE



			Slow close may be bolted to remote, direct, and rack & sector actuators.
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APPARATUS VALVES



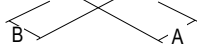
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APPARATUS VALVES

8-11

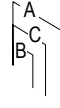
ADAPTER DIMENSION KEY

PUMP ELBOW ADAPTERS



A = Valve Flange to
Centerline of Elbow
B = Pump Flange to
Centerline of Elbow

DISCHARGE & INTAKE ADAPTERS



A = Overall Length
B = Length to Centerline of
Drain Hole
C = Length to Edge of
Drain Boss

		ADAPTERS													MODEL						
Style	Valve Size	Bolt Center Diameter (Inches)							Drain (°)	Flow Port	4 Degree	26 Degree	90 Degree	94 Degree	Offset	Dimension A	Dimension B	Dimension C	Note	Elkhart #	Akon #
		4 3/4"	4 1 1/2"	5 1/2"	5 3/4"	6 3/8"	7 1/16"	7 25/32"													
4 BOLT PUMP FLANGE (HALE)		2.5" 4 3/4"								4					2 3/4"	—	—		P427B		
		3.0" 4 3/4"								4					2 3/4"	—	—		P427B		
		3.5" 4 3/4"								4					2 3/4"	—	—		P427B		
		2.5" 4 3/4"												5d20m	6 1/4"	—	—		P401B	HD1-S	
		2.5" 4 3/4"												5d20m	6 3/8"	—	—		P403B	HD3-S	
		2.5" 4 3/4"												14d5m	5 1/2"	—	—		P404B	HD4-S	
		2.5" 4 3/4"								4					10 3/4"	—	—		P405B	HD5-S	
		3.0" 4 3/4"													7d	5 3/4"	—	—	P401B	HD1-S	
		3.5" 4 3/4"													7d	5 3/4"	—	—	P401B	HD1-S	
		2.5" 4 3/4"								F					5d20m	6 3/8"	3 3/8"	—	P409F	HD21-SF	
		2.5" 4 3/4"										90			3 1/4"	5 1/4"	—	—	P411B	SE1-S	
		2.5" 4 3/4"										90			5 1/4"	5 1/4"	—	—	P412B	SE2-S	
		3.0" 4 3/4"										90			3 3/4"	6"	—	—	P411B	SE1-S	
		3.0" 4 3/4"										90			4 3/4"	6"	—	—	P412B	SE2-S	
	3.5" 4 3/4"										90			3 3/4"	6"	—	—	P411B	SE1-S		
	3.5" 4 3/4"										90			4 3/4"	6"	—	—	P412B	SE2-S		
	2.5" 4 3/4"										90			2 1/2"	7 3/4"	—	—	P413B	SE3-S		
8 BOLT PUMP FLANGE (HALE)		3.0"			5 3/4"										2 3/4"	—	—		P851B	B1-SE	
		3.0"			5 3/4"					4					2 3/4"	—	—		P853B	B3-SE	
		3.5"			5 3/4"										2 3/4"	—	—		P851B	B1-SE	
		3.5"			5 3/4"						4				2 3/4"	—	—		P853B	B3-SE	
		4.0"			5 3/4"						4				4"	—	—		P853B	B3-SE	
		4.0"			5 3/4"						4				4"	—	—	Octagonal Flange	P858B	B8-SH	
		3.0"			5 3/4"						4				6 3/8"	—	—		P856B	B6-SE	
		3.5"			5 3/4"						4				6 3/8"	—	—		P856B	B6-SE	
		4.0"			5 3/4"						F				5 1/8"	2 1/16"	—	—	P850F	B20-SHF	
		3.0"			5 3/4"							90			4 3/8"	4 3/8"	—	—	P861B	HDE1-S	
		3.5"			5 3/4"							90			4 3/8"	4 3/8"	—	—	P861B	HDE1-S	
		4.0"			5 3/4"							90			9 1/2"	5"	—	—	P861B	HDE1-S	
	4.0"			5 3/4"								94		9 1/2"	5"	—	—	P869B	HDE94-S		

APPARATUS VALVES

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		ADAPTERS														MODEL					
Style	Valve Size	BoltCenter Diameter (Inches)							Drain (1/4")	FlowPort	4 Degree	26 Degree	90 Degree	94 Degree	Offset	Dimension A	Dimension B	Dimension C	Note	Elkhart #	Akron #
		4 3/8	4 1/2	5 1/2	5 3/4	6 1/4	7 1/8	7 1/2													
4 BOLT PUMPLANCE (WATEROUS)		1.5"	4 3/8													2 3/8	—	—	slots	P429B	B1-SX
		2.0"	4 3/8													2 3/8	—	—	slots	P429B	B1-SX
		2.5"	4 3/8													2 3/8	—	—	slots	P429B	B1-SX
		3.0"	4 3/8													2 3/8	—	—	slots	P429B	B1-SX
		3.5"	4 3/8													2 3/8	—	—	slots	P429B	B1-SX
		3.0"	4 3/8													4 1/2	—	—	slots	P425B	B5-S
		3.5"	4 3/8													4 1/2	—	—	slots	P425B	B5-S
		2.5"	4 3/8													2 3/8	—	—		P423B	B3-S
		2.5"	4 3/8													1 1/8	—	—		P418B	B2-SH
		3.0"						7 25/32		4						1 3/8	—	—		P493B	B3-SH
		3.5"						7 25/32		4						1 3/8	—	—		P493B	B3-SH
		4.0"				6 3/8				4						2	—	—	2 piece	P473B	B3-SH
		2.5"	4 3/8													1 3/8	—	—	clamp	P419B	B1-SW
		3.0"	4 3/8													1 3/8	—	—	clamp	P419B	B1-SW
		3.5"	4 3/8													1 3/8	—	—	clamp	P419B	B1-SW
		2.5"	4 3/8							F						3 1/2	1 3/16	—		P410F	B10-SF
	3.0"	4 3/8							F						3 3/16	1 3/8	—		P410F	B10-SF	
	3.5"	4 3/8							F						3 3/16	1 3/8	—		P410F	B10-SF	
	2.5"	4 3/8													2 3/8	—	—		P814B	B4-S	
8 BOLT PUMPLANCE (WATEROUS)		2.5"	4 3/8												4 1/2	—	—	4 holes & 4 slots	P815B	B5-S	
		2.5"	4 3/8												6	—	—		P816B	B6-S	
		3.0"	4 3/8												2 3/8	—	—		P814B	B4-S	
		3.5"	4 3/8												2 3/8	—	—		P814B	B4-S	
		2.5"				6 3/8				4						7/8	—	—		P871B	B1-SH
		4.0"				6 3/8				4					2	—	—	2 piece	P871B	B1-SH	
		3.0"		5 1/2							26					2 3/8	—	—		P842B	B2-SW
		3.0"		5 1/2						4						3 3/8	—	—		P843B	B3-SW
		3.0"		5 1/2												2 3/8	—	—	slots	P841B	B1-SEW
		3.5"		5 1/2							26					2 3/8	—	—		P842B	B2-SW
		3.5"		5 1/2						4						3 3/8	—	—		P843B	B3-SW
		3.5"		5 1/2												2 3/8	—	—	slots	P841B	B1-SEW
		4.0"		5 1/2												4	—	—		P848B	B8-SW
		4.0"		5 1/2						F						5 7/16	2 11/16	—		P840F	B20-SFW
		3.0"		5 1/2								90				4 3/16	4 3/16	—		P845B	WDE1S
		3.5"		5 1/2								90				4 3/16	4 3/16	—		P845B	WDE1-S
4.0"			5 1/2								90				9 1/2	5	—		P845B	WDE1-S	
4.0"			5 1/2									94			9 1/2	5	—		P849B	WDE94-S	
4.0"			5 1/2												9 1/2	5	—		P849B	WDE94-S	
GENERAL		1.5"	4 3/8												3 3/4	4 13/16	—		P817B	DE1-S	
		1.5"	4 3/8												3 3/4	5 1/2	—		P818B	DE2-S	
		2.0"	4 3/8												3 3/4	4 13/16	—		P817B	DE1-S	
		2.0"	4 3/8												3 3/4	5 1/2	—		P818B	DE2-S	
4 BOLT PUMP FLANGE (DARLEY)		2.5"		4 1/2											2 3/8	—	—		P432B	B2-S	
		3.0"		4 1/2											2 3/8	—	—		P432B	B2-S	
		3.5"		4 1/2											2 3/8	—	—		P432B	B2-S	
		2.5"		4 1/2										6d	6 3/4	—	—		P431B	DD1-S	

APPARATUS VALVES

APPARATUS VALVES



UNIBODY APPARATUS


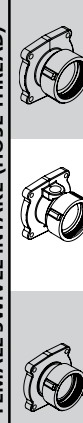
APPARATUS VALVES

8-13

		ADAPTERS																MODEL					
Style	Valve Size	Pipe Size (Inches)								Drain(1/4")	Pressure Tap(1/4")	Flow Port	Check Valve	4 Degree Offset	30 Degree Droop	90 Degree Droop	Strainer	Dimension A	Dimension B	Dimension C	Note	Elkhart#	Akon #
		1	1 1/2	2	2 1/2	3	3 1/2	4	5														
RIGID NPT MALE		1.5"	1 1/2															1 1/8	—	—		NM01B	M1-S
		2.0"		2														1 1/8	—	—		NM01B	M1-S
		2.5"			2 1/2													2	—	—		NM01B	M1-S
		3.0"				3												2 1/16	—	—		NM01B	M1-S
		3.5"					3 1/2											2 1/16	—	—		NM01B	M1-S
		4.0"						4										2 1/16	—	—		NM01B	M1-S
		2.5"			2 1/2				D	P								3 3/16	1 1/8	1 1/8		NM03D	M3-S
		3.0"				3			D	P								3 3/16	1 1/8	2 1/8		NM03D	M3-S
		4.0"					4		D	P								4 1/4	1 1/8	2 3/8		NM03D	M3-S
RIGID NPT FEMALE		2.0"		2 1/2														1 15/16	—	—		NM12B	M12-S
		3.0"				4												3 3/4	—	—		NM12B	M12-S
		1.5"	1 1/2															1 1/4	—	—		NF01B	P1-S
		2.0"		2														1 1/4	—	—		NF01B	P1-S
		2.5"			2 1/2													1 1/8	—	—		NF01B	P1-S
		3.0"				3												1 1/8	—	—		NF01B	P1-S
		3.5"					3 1/2											2	—	—		NF01B	P1-S
		4.0"						4										2	—	—		NF01B	P1-S
		1.5"	1 1/2						D	P								3 3/4	1 3/8	2 3/8		NF02D	P2-S
RIGID NPT FEMALE		2.0"		2				D	P									3 3/4	1 3/8	2 3/8		NF02D	P2-S
		2.5"			2 1/2			D	P									3 3/8	1 3/8	2 3/8		NF02D	P2-S
		2.5"			2 1/2				D	P								4 3/16	1 3/4	2 1/2		NF22D	P2-SE
		3.0"				3			D	P								3 3/16	1 3/8	2 3/8		NF02D	P2-S
		3.5"					3 1/2		D	P								4	1 3/8	2 3/8		NF02D	P2-S
		4.0"						4	D	P								4 13/16	1 13/16	2 3/16		NF02D	P2-S
		1.5"		2														2 1/16	—	—		NF10B	P10-S
		2.0"			2 1/2													2 1/16	—	—		NF10B	P10-S
		2.5"				3												3 3/16	—	—		NF10B	P10-S
		3.0"					4		D	P								3 3/4	1 3/8	2 3/8		NF12D	P12-S
		2.0"		2	2 1/2						F							4 7/16	—	—	2" F NPT & 2.5" Vic	NF20F	P20-SF
		2.5"			2 1/2	3					F							4 7/16	—	—	2.5" F NPT & 3" Vic	NF20F	P20-SF
	3.0"				3					F							4 3/8	—	—		NF20F	P20-SF	
	4.0"					4				F							4 7/16	—	—		NF20F	P20-SF	
	1.5"	1 1/2	2					D			C						6	3 3/8	4 3/4	1.5" F NPT & 2" Vic	NF30C	P30-SCV	
	2.0"		2					D			C						5 1/8	3 3/8	4 3/8		NF30C	P30-SCV	
	2.5"			2 1/2				D			C						6 1/2	4 3/16	5 1/16		NF30C	P30-SCV	
	3.0"				3		4				C						6 1/16	—	—	3" F NPT & 4" Vic	NF40C	P40-SCV	
	3.0"				3		4										2 3/16	—	—	3" F NPT & 4" Vic	NF71B	VT1-S	
	3.0"				3		4	D	P								3 3/16	—	—	3" F NPT & 4" Vic	NF72D	VT3-S	
	4.0"					4	5										2 3/8	—	—	4" F NPT & 5" Vic	NF71B	VT1-S	

APPARATUS VALVES

UNIBODY APPARATUS

ADAPTERS															MODEL								
Style	Valve Size	Pipe Size (Inches)								Drain (1/4")	Pressure Tap (1/4")	Flow Port	Check Valve	4 Degree Offset	30 Degree Droop	90 Degree Droop	Strainer	Dimension A	Dimension B	Dimension C	Note	Elkhart #	Akon #
		1	1 1/2	2	2 1/2	3	3 1/2	4	5														
	1.5"		1 1/2														1 3/8	—	—		HM01B	M1-S	
	2.0"			2													1 3/8	—	—		HM01B	M1-S	
	2.0"				2 1/2												1 15/16	—	—		HM02B	M2-S	
	2.5"				2 1/2												2	—	—		HM01B	M1-S	
	3.0"					3											2 1/16	—	—		HM01B	M1-S	
	3.5"						3 1/2										2 1/4	—	—		HM01B	M1-S	
	4.0"							4									2 1/16	—	—		HM01B	M1-S	
	2.0"				2 1/2				D	P							3 3/8	1 3/8	2 1/2		HM10D	M10-S	
	2.5"				2 1/2				D	P							3 3/8	1 3/8	2 1/2		HM03D	M3-S	
	3.0"					3			D	P							3 3/8	1 3/8	2 1/2		HM03D	M3-S	
	4.0"						4		D	P							4	1 1/8	2 3/8		HM03D	M3-S	
	2.5"				2 1/2				D	P							5	1 3/8	1 1/8		HM04D	M4-S	
	3.0"					3			D	P							5	1 3/8	1 1/8		HM04D	M4-S	
	4.0"						4		D	P							8 3/4	1 13/16	2 1/2		HM04D	M4-S	
	2.5"				2 1/2				D	P							6 1/2	1 3/8	2 1/2		HM07D	M7-S	
	2.5"				2 1/2				D	P							10	1 3/8	2 1/2		HM06D	M6-S	
	2.5"				2 1/2				D	P						30	7 1/16	1 3/8	2 1/2		HM21D	ME1-S	
	3.0"					3			D	P					30	7	1 3/8	2 1/2			HM21D	ME1-S	
	3.5"						3 1/2		D	P					30	7 1/16	1 3/8	2 1/2			HM21D	ME1-S	
	4.0"							4	D	P					30	9 3/4	1 3/8	2 3/16			HM21D	ME1-S	
2.5"				2 1/2				D	P					30	10 3/16	1 3/8	2 1/2			HM23D	ME3-S		
2.5"				2 1/2				D	P					30	12 3/16	1 3/8	2 1/2			HM24D	ME4-S		
3.0"					3			D	P					30	10 3/8	1 3/8	2 1/2			HM23D	ME3-S		
3.0"				2 1/2				D	P					30	6	1 3/8	2 1/2			HM25D	ME5-S		
	1.5"		1 1/2														3 3/4	—	—		HM31B	MES1-S	
	2.0"			2													3 3/4	—	—		HM31B	MES1-S	
	2.5"				2 1/2												4 7/8	—	—		HM31B	MES1-S	
	1.5"		1 1/2														1 3/4	—	—		HF51B	F1-S	
	2.5"				2 1/2												2 5/16	—	—		HF51B	F1-S	
	3.0"					3											2 5/16	—	—		HF51B	F1-S	
	3.5"						3 1/2										2 3/8	—	—		HF51B	F1-S	
	4.0"							4									3 3/8	—	—		HF51B	F1-S	
	2.5"				2 1/2				D	P							3 1/2	1 3/8	2 1/2		HF52D	F2-S	
	2.5"				2 1/2				D	P							5 1/2	1 3/8	2 1/2		HF53D	F3-S	
	3.0"					3			D	P							3 3/4	1 3/8	2 1/2		HF52D	F2-S	
	3.0"					3			D	P							5 1/2	1 3/8	2 1/2		HF53D	F3-S	
	4.0"						4		D	P							5 1/2	1 13/16	2 3/16		HF52D	F2-S	
	1.5"		1 1/2														S	1 3/4	—	—		HF01B	F1-SS
2.5"				2 1/2												S	2 5/16	—	—		HF01B	F1-SS	
3.0"					3											S	2 5/16	—	—		HF01B	F1-SS	
3.5"						3 1/2										S	2 3/8	—	—		HF01B	F1-SS	
4.0"							4									S	3 3/8	—	—		HF01B	F1-SS	

APPARATUS VALVES

APPARATUS VALVES



UNIBODY APPARATUS

APPARATUS VALVES

8-15


		ADAPTERS															MODEL						
Style	Valve Size	Pipe Size (Inches)								Drain (3/4")	Pressure Tap (1/4")	Flow Port	Check Valve	4 Degree Offset	30 Degree Droop	90 Degree Droop	Strainer	Dimension A	Dimension B	Dimension C	Note	Elkhart #	Akron #
		1	1 1/2	2	2 1/2	3	3 1/2	4	5														
	2.0"				2 1/2					D							S	4 3/8	1 3/8	2 1/2		HF12D	F12-SS
	2.5"				2 1/2					D	P						S	3 1/2	1 3/8	2 1/2		HF02D	F2-SS
	2.5"				2 1/2					D	P						S	5 1/2	1 3/8	2 1/2		HF03D	F3-SS
	3.0"				2 1/2					D	P						S	3 13/16	1 3/8	2 1/2		HF04D	F4-SS
	3.0"				2 1/2					D	P						S	5 1/2	1 3/8	2 1/2		HF05D	F5-SS
	3.0"					3				D	P						S	3 3/4	1 3/8	2 1/2		HF02D	F2-SS
	3.0"					3				D	P						S	5 1/2	1 3/8	2 1/2		HF03D	F3-SS
	4.0"						4			D	P						S	5 1/2	1 13/16	2 7/16		HF02D	F2-SS
	2.5"				2 1/2					D	P				30		S	7 7/8	1 3/8	2 1/2		HF23D	FE3-SS
	3.0"					3				D	P				30		S	7 3/4	1 3/8	2 1/2		HF23D	FE3-SS
	2.5"				2 1/2													1 7/8	—	—		FM01B	P1-SH
	3.0"					3												1 15/16	—	—		FM01B	P1-SH
	3.0"					3												2 1/4	—	—		FM51B	PA-SH
	3.0"					3							4					2 1/4	—	—		FM61B	PO-SH
	3.0"						4											1 15/16	—	—		FM12B	P12-SH

		SINGLE BODY ADAPTERS															MODEL						
Style	Valve Size	Pipe Size (Inches)								Drain (3/4")	Pressure Tap (1/4")	Flow Port	Check Valve	4 Degree Offset	30 Degree Droop	90 Degree Droop	Strainer	Dimension A	Dimension B	Dimension C	Note	Elkhart #	Akron #
		1	1 1/2	2	2 1/2	3	3 1/2	4	5														
HOSE	1.5"		1 1/2														S	1 3/16			Female	HF01B	F1-SS
	1.0"	1																1 11/16			Male	HM01B	M1-S
	1.5"		1 1/2																1 5/16			Male	HM01B
RIGID	1.0"	1																1 1/8		1	Female	NF01B	P1-S
	1.5"		1 1/2															1 1/8		1	Female	NF01B	P1-S
	1.5"		1 1/2						D	P								3 3/8	1 3/8	2 1/16	Female	NF02D	P2-S
	1.0"	1																1 21/32			Male	NM01B	M1-S
	1.5"		1 1/2																1 5/16			Male	NM01B
VICT.	1.0"	1																1 11/16				VA01B	V1-S
	1.5"		1 1/2															1 3/4				VA01B	V1-S
	1.5"		1 1/2						D									3 5/16	1 3/8	2 1/16		VA03D	V3-S

Single Body Adapters are for use with SB10 & SB15 valves. See 8-6 for Single Body Valves.

APPARATUS VALVES

UNIBODY APPARATUS

		ADAPTERS																				MODEL	
Style	Valve Size	Pipe Size (Inches)								Drain (3/4")	Pressure Tap (1/4")	Flow Port	Check Valve	4 Degree Offset	30 Degree Droop	90 Degree Droop	Stainer	Dimension A	Dimension B	Dimension C	Note	Elkhart #	Akron #
		1	1 1/2	2	2 1/2	3	3 1/2	4	5														
VICTAULIC		1.5"	1 1/2															1 1/16	—	—		VA01B	V1-S
	2.0"			2														1 1/16	—	—		VA01B	V1-S
	2.5"				2 1/2													1 1/16	—	—		VA01B	V1-S
	3.0"					3												2 1/8	—	—		VA01B	V1-S
	3.5"						3 1/2											2 3/8	—	—		VA01B	V1-S
	4.0"							4										2 1/4	—	—		VA01B	V1-S
	1.5"	1 1/2							D	P								3 1/4	1 3/8	2 3/8		VA03D	V3-S
	2.0"		2						D	P								3 1/4	1 3/8	2 3/8		VA03D	V3-S
	2.5"			2 1/2					D	P								3 3/16	1 3/8	2 3/8		VA03D	V3-S
	2.5"				3				D	P								3 1/2	1 3/8	2 3/8		VA04D	V4-S
	3.0"					3			D	P								3 3/16	1 3/8	2 3/8		VA03D	V3-S
	4.0"						4		D	P								4	1 1/16	2 1/16		VA03D	V3-S
	2.0"		2	2 1/2							F							4 3/16	—	—	2" F NPT & 2.5" Vic	NF20F	P20-SF
	2.5"			2 1/2	3						F							4 3/16	—	—	2.5" F NPT & 3" Vic	NF20F	P20-SF
	1.5"	1 1/2	2						D			C						6	3 3/8	4 3/8	1.5" F NPT & 2" Vic	NF30C	P30-SCV
	3.0"				3		4					C						6 1/16	—	—	3" F NPT & 4" Vic	NF40C	P40-SCV
	3.0"					3	4											2 3/16	—	—	3" F NPT & 4" Vic	NF71B	VT1-S
	3.0"					3	4		D	P								3 7/16	—	—	3" F NPT & 4" Vic	NF72D	VT3-S
	4.0"						4	5										2 3/8	—	—	4" F NPT & 5" Vic	NF71B	VT1-S
	1.5"	1 1/2							D							90		3 3/4	3	—		VA21D	VE1-S
2.0"		2						D	P					90			3 3/4	3	—		VA21D	VE1-S	
2.0"		2						D	P					90			5 3/4	3	—		VA22D	VE2-S	
2.0"		2								F							3 3/16	1 1/4	—		VA20F	V20-SF	
2.5"			2 1/2							F							3 3/16	1 1/4	—		VA20F	V20-SF	
3.0"				3						F							4 1/4	1 3/8	—		VA20F	V20-SF	
2.0"		2						D			C						5 7/8	3 3/8	4 3/8		VA30C	V30-SCV	
2.5"			2 1/2					D			C						6 1/4	4 3/16	5 1/16		VA30C	V30-SCV	
WELD (STAINLESS STEEL)	2.0"		2														2 1/4	—	—		WA01B		
	2.5"			2 1/2													2 1/4	—	—		WA01B		
	3.0"				3												2 1/4	—	—		WA01B		
	3.5"					3 1/2											2 1/4	—	—		WA01B		
	4.0"						4										2 1/4	—	—		WA01B		
	2.0"		2						D	P							4 3/8	1 3/8	2 3/16		WA03D		
	2.5"			2 1/2					D	P							4 3/8	1 3/8	2 3/16		WA03D		
	3.0"				3				D	P							4 3/8	1 3/8	2 3/16		WA03D		
3.5"					3 1/2			D	P							4 3/8	1 3/8	2 3/16		WA03D			
4.0"						4		D	P							4 3/8	1 3/8	2 3/16		WA03D			

APPARATUS VALVES



APEX ELECTRIC CONTROLLER

APPARATUS VALVES

APEX™ VALVE CONTROLLER

Combine the customization capabilities with the space saving design, the tactile keypad buttons and large, easy-to-read graphics and the result is an innovative new valve controller that provides benefits to the OEM as well as the end-user. The design and versatility of the APEX allows the OEM to save valuable pump panel space and adapt the controller to any application, while offering only one version of actuator takes the guesswork out of the ordering process. End-users will appreciate the large screen on the APEX with high resolution graphics, while additional features including the adjustable “Target Pressure” indicator and daytime/nighttime screen modes offer benefits to the end-user never seen before in a valve controller. The APEX-S utilizes 10 LED segments for crystal clear valve position recognition and control.

8-17

APEX 100



Valve Control

APEX 200



Valve Control with Pressure

APEX 300



Valve Control with Pressure and Flow

UICS 2



CAF

UBEC 1AT



Tank Fill

Controller Selector Chart

Open/Close	10 LED Position	Pressure	Flow	CAF Mode	Model
•	•				APEX 100
•	•	•			APEX 200
•	•	•	•		APEX 300
•	•	•		•	UICS 2
•					UBEC 1AT*

Controllers may be networked for primary-secondary operations with remote display

*Available in two tank fill % levels: 50/95.

Visor Color Options



Black



Orange



Red



Purple



Yellow



White



Blue



Brown



Green



Gray

SENSORS

(3)



(4)



(5)



ADDITIONAL INFORMATION

- Controller has manual override capability.
- Unibody Valve information may be found on page 8-7.

APPARATUS VALVES



APEX ELECTRIC CONTROLLER

APPARATUS VALVES

8-19

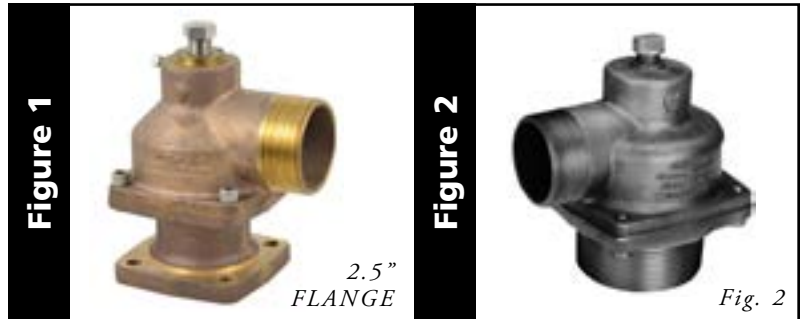
OPTIONS & COMPONENTS			ILLUSTRATION	
APEX 100 Valve Control Only	Visor color options:	Choose Black, Orange, Red, Purple , Yellow, White, Blue, Brown, Green or Grey		
	Harness controller to valve actuator	Choose 2', 10', 15', 20', 30' or 40'		
APEX 200 Valve Control and Pressure	Visor color options:	Choose Black, Orange, Red, Purple , Yellow, White, Blue, Brown, Green or Grey		
	Harness controller to valve actuator	Choose 2', 10', 15', 20', 30' or 40'		
	Pressure sensor		3	
	Harness Pressure sensor to valve actuator	Choose 2', 10', 15', 20' or 40'		
APEX 300 Valve Control, Pressure and Flow	Visor color options:	Choose Black, Orange, Red, Purple , Yellow, White, Blue, Brown, Green or Grey		
	Harness controller to valve actuator	Choose 2', 10', 15', 20', 30' or 40'		
	Pressure sensor		3	
	Flow sensor	End cap mount style flow sensor		
		Saddle clamp style flow sensor	Choose pipe diameter 2.0", 2.5", 3.0", 3.5" or 4.0"	5
		Weldmount style flow sensor	Choose a pipe material Steel, Stainless steel or Aluminum	4
		Choose a pipe diameter 2.0", 2.5", 3.0", 3.5", 4.0", 5.0", 6.0" or 8.0"		
Harness connect pressure and flow sensor to valve actuator	Choose 2', 10', 15', 20' or 40'			

INLET SIZES							2.5" OUTLET OPTIONS			MATERIAL		DIMENSIONS		MODEL	FIGURE
Female	Male		2.5" Flange				Male NPT	Vic-taulic	NHT	Cast Brass	Elk-O Lite®	Length (Inches)	Weight (Lbs.)		
2.5"	2.5"	3"	Ameri-can	Darley	Hale	Water-ous									
•							s			•		6.3	11.1	40-10	1
			•		•	•	s	o	o	•		6.8	11.2	40-20	1
				•			o	s		•		6.1	11.1	40-22	1
	™						s			•		6.8	10.9	40-32	2
	•						s	o		•		6.5	10.6	40-40	2
		•					s	o		•		6.1	10.9	40-41	2
•							s				•	6.3	3.5	40A	

KEY s = standard o = option ™ = NHT

40 RELIEF VALVE

- For use on the suction side of the pump or on a designated LDH discharge outlet
- Material: Choice of cast brass or Elk-O-Lite® with stainless steel mechanism
- Rubber seat to ensure positive vacuum seal
- Adjustable psi of 75-250 (pre-set to 125 psi)



Figures depict general product types only and are not intended to be inclusive of all product features.

PUSH/PULL DRAIN VALVE



110



115

Product Information	MODELS	
	110	115
Mounting	Direct	Panel
Inlet	0.75" NPT Female	
Outlet	.75" NPT Female	Male shank outlet for .75" ID drain hose
Handle length	2.25"	
Optional handle lengths	4.375", 3.0", or 1.5" (specify)	
Material	Cast brass valve body with stainless steel handle rod	
Additional features		Body pre-drilled for mounting

116 QUARTER TURN DRAIN VALVE

- Panel mounted
- Body pre-drilled for mounting to pump panel
- Material: Cast brass valve body with stainless steel handle rod
- Inlet: 0.75" NPT
- Outlet: 0.75" NPT
- Machined brass ball
- Optional adapter with .125" NPT tap for gauge

