



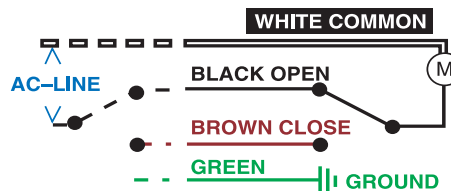
EATB Series Electric Actuator and True Union Valve



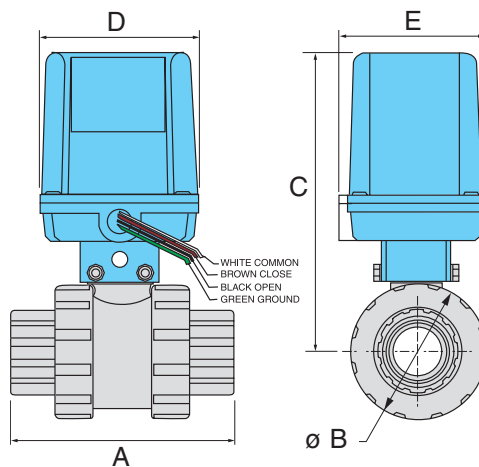
Overview

Moderately priced, full featured, plastic ball valve with unidirectional quarter-turn actuator. Fully serviceable true union ball valve provides reliable, long-term service in a wide range of corrosive applications. All plastic actuator features an integrally molded bracket and provides ample torque for 1/2" – 2" valve operation.

Wiring Diagram



Dimensions



Dimensions—Inches

Size	Part Number	A	B	C	D	E	Weight (lb/kg)
1/2"	EATB1050STE or V	4.63	2.25	8.40			6.8/3.1
3/4"	EATB1075STE or V	4.75	2.63	8.60			
1"	EATB1100STE or V	5.25	3.00	9.10	4.88	4.13	7.1/3.2
1 1/2"	EATB1150STE or V	6.75	4.00	9.50			8.1/3.7
2"	EATB1200STE or V	8.00	4.75	10.10			9.8/4.5

Valve Features

- 1/2" to 2" Corrosion-Resistant True Union Ball Valve
- Pressure Rating to 250 PSI
- EPDM Seals/FPM Seals
- PTFE Seats
- Full Port Design
- Fully Serviceable
- Double O-ring Stem Seal

Actuator Features

- All Plastic Weather-Resistant Enclosure
- 2.5-second Cycle Time
- Thermal Overload Protection
- Permanently Lubricated Gear Train
- Nema 4/4X Enclosure
- Actuator Brake for Full Open/Close
- No Adjustments Needed



Technical Information

Actuator Specifications

Model	EATB
Torque Output (in-lbs)	140
Standard Voltage	110 VAC
Duty Cycle	25%
Thermal Overload	Standard
Cycle Time (secs @ 90°)	2.5
Conduit Entry	1/2" NPT
Enclosure	NEMA 4/4X
Enclosure Material	Polypropylene
Max Current Amps @ 115 Vac	2.8

C_v Factors

Size	Factor
1/2"	8.0
3/4"	15.0
1"	29.0
1 1/4"	75.0
1 1/2"	90.0
2"	140.0

Valve Specifications

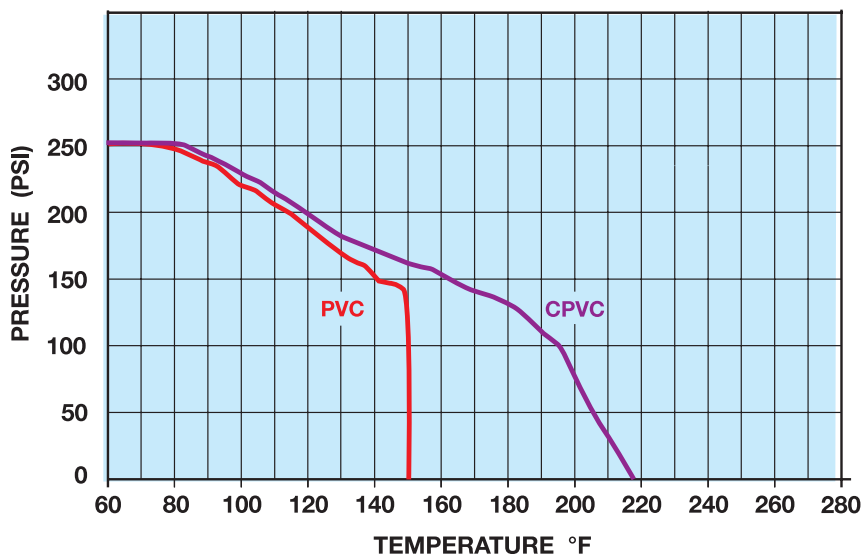
Valve Type	True Union
Material of Construction	PVC
Seals	EPDM/FPM
Seats	PTFE
End Connections	Socket or Threaded
Sizes	1/2", 3/4", 1", 1 1/2" and 2"
Pressure Rating	250 PSI @ 70°F, Non-shock
Design	Full Port

Pressure Loss Calculation Formula

$$\Delta P = \left[\frac{Q}{C_v} \right]^2$$

ΔP = Pressure Drop
 Q = Flow in GPM
 C_v = Flow Coefficient

Operating Temperature/Pressure





Electric Actuator Specifications and Accessories

Features/ Accessories/Voltages		General Specifications Actuator Model			
		EATB	EAU		
Standard Actuator Features					
Motor Drive Rotation		Uni	Uni		
NEMA Rating (Available)		4, 4X	4, 4X		
Enclosure Material (Top/Bottom)		GFPPL/GFPPL	GFPPL/GFPPL		
Position Indication w/LED		POA	POA		
Standard Voltage (VAC)		115	115		
Prewired to Terminal Strip			Standard		
Motor Thermal Protector		Standard	Standard		
Automatic Reset		Standard	Standard		
Auxiliary Limit Switches (SPDT)			1 STD		
Auxiliary Limit Switch (Amp Rating)		5	5		
Low Ambient Limit without "T" (°F)		40°F	40°F		
High Ambient Limit (°F)		160°F	160°F		
Motor Brake		Standard	Standard		
Conduit Entry Size, NPT		1/2"	1/2"		
Permanent Lubrication		Standard	Standard		
Mounting Position		Any	Any		
Min/Max Wire Size		18/16	18/16		
Optional Actuator Accessories	Suffix	EATB	EAU		
Timer Board	A				
Cycle Time Rate Regulator	B				
Positioner (4-20 mA)	C2E				
180 Degree Center-Off	D				
Extended Duty	E				
Handwheel	H				
Mechanical Brake	K		Standard		
Electric Fail-safe (Battery Backup)	L2				
Feedback Potentiometer					
90 Degree, 0 to 1000 Ohms	P				
No-Stop, 0 to 1000 Ohms	P2				
Dual, 0 to 1000 Ohms	P3				
Auxiliary Limit Switches Available*					
Auxiliary Limit Switch w/cam 1	S				
Auxiliary Limit Switch w/cam 2	S2				
Auxiliary Limit Switch w/cam 3	S3				
Heater & Thermostat	T				
Enclosure, NEMA 4,7,9	X2				
316 SS Tags w/Stamped Valve Numbers	YSS2	Optional	Optional		
Optional Voltages	Suffix	EATB	EAU		
12 VAC	12A		Optional		
24 VAC	24A		Optional		
220 VAC	220A		Optional		
12 VDC	12D		Optional		
24 VDC	24D		Optional		

*Should additional auxiliary limit switches be required greater than quantity shown, consult factory.

- Notes:**
1. K Option, Mechanical Brake, is required with Actuators for butterfly valves.
 2. E Option, Extended Duty, is included with Positioners.
 3. EVS and EVT Actuators can be CSA certified. Price on application.
 4. Positioners with 12–24 VDC input are available. Consult factory.
 5. EJM Actuators over 800 in-lb torque include handwheel.

Important Note: The valve and actuator combinations shown in this catalog have been tested and approved by Hayward Flow Control Systems when properly installed into compatible process systems. Should actuators, accessories or mounting hardware other than those supplied by Hayward be used for the operation of these valves, the installer assumes all responsibility for the performance of those valves.

Automated Valves and Actuators

EA Series Automated True Union Ball Valves, 1/2" to 2" Low Cost, Full Featured Valve and Actuator Combination



Valve Features

- PVC and Corzan® CPVC
- EPDM seals
- PTFE seats
- Full port design
- Fully serviceable
- Double o-ring stem seals

Actuator Features

- Thermoplastic NEMA 4/4X enclosure
- 2.5 second, 90 degree cycle time
- Thermal overload protection
- Permanently lubricated gear train
- Actuator brake
- No need for manual adjustments

Selection Chart

Size	Material	End Connection	Seals	Pressure Rating
1/2" - 2" (DN15 - DN50)	PVC	Socket or Threaded	EPDM	235 PSI @ 70°F non-shock

EAU Series Automated True Union Ball Valves, 1/2" to 2" Low Cost, Fully Featured Valve and Actuator Combination



Valve Features

- PVC and Corzan® CPVC
- FPM or EPDM seals
- PTFE seats
- Full port design
- Fully serviceable
- Double o-ring stem seals
- Unidirectional, not reversing

Actuator Features

- UL/CSA Listed Motor
- Thermoplastic NEMA 4/4X enclosure
- 2.5 second, 90 degree cycle time
- 90 or 180 degree operation
- Permanently lubricated gear train
- Actuator brake

Selection Chart

Size	Material	End Connection	Seals	Pressure Rating
1/2" - 2" (DN15 - DN50)	PVC or CPVC	Socket and Threaded	FPM or EPDM	235 PSI @ 70°F non-shock