



CLARK COOPER
A DIVISION OF MAGNATROL VALVE CORP.

HIGH PRESSURE SOLENOID VALVES

Available for
Quick Delivery



Controls the flow of:

- Gases & Liquids up to 10,000 PSIG
- Natural Gas, Hydrogen & other High Pressure Gases
- High Pressure Cryogenics
- Flammable Liquids & Gases

CATALOG EH-3.5

COMPANY OVERVIEW

The **Clark Cooper Division** of Magnatrol Valve Corporation offers a complete line of industrial solenoid valves for process control.

- Established 1962
- Experienced Applications / Engineering Staff for Customer Assistance
- Certified ISO 9001:2000 Quality Management System
- Quick Delivery



*EH50 Series, 1/2" - Full Port
10,000 PSIG Operating Pressure*



*ER Series Emergency Shut-Off Valve
Electrically Trips Closed,
Manually Reset Open*

OUR PRODUCTS & SERVICES

High Pressure Solenoid Valves (Catalog EH)

- 1/4" to 2" Pipe Size
- Pressures up to 10,000 PSIG
- NEMA 4X and Explosion-Proof Solenoid Enclosure

Rotary Shaft Style Solenoid Valves (Catalog ER)

- 1/2" to 6" Pipe Size
- All solenoid components are isolated from the process fluid
- NEMA 4X and Explosion-Proof Solenoid Enclosure
- Emergency Shut-Off (or Deluge) Valves
- 3-Way Valves

Engineered Valve Modifications and **New Designs** to meet specific application requirements

Designs for Navy and Marine Service, Qualified for Shock and Vibration (MIL-S-901 and MIL-STD-167-1)

Large library of custom valve designs

General Purpose Industrial Solenoid Valves are available direct from Magnatrol Valve Corporation.

- 1/4" to 3" Pipe Size
- Bronze and Stainless Steel
- Watertight and Explosion-Proof Solenoid Enclosure
- Pressures up to 500 PSIG
- Temperatures up to 400°F
- Quick Delivery



Request Catalog 3006

**FOR ADDITIONAL INFORMATION CONTACT:
Magnatrol Valve Corporation**

Tel: 973-427-4341 • Fax: 973-427-7611 • Email: info@magnatrol.com • www.magnatrol.com

EH30 SERIES

1/4" PIPE SIZE



OPERATION:

This DIRECT ACTING, normally closed valve opens when energized and closes when de-energized. When the coil is energized the plunger lifts the piston off the valve seat, opening the valve. Upon de-energizing the coil, a spring closes the piston to seat it. The normally open valve operates similarly, closing when energized and opening when de-energized.

NO MINIMUM PRESSURE REQUIRED

APPLICATION:

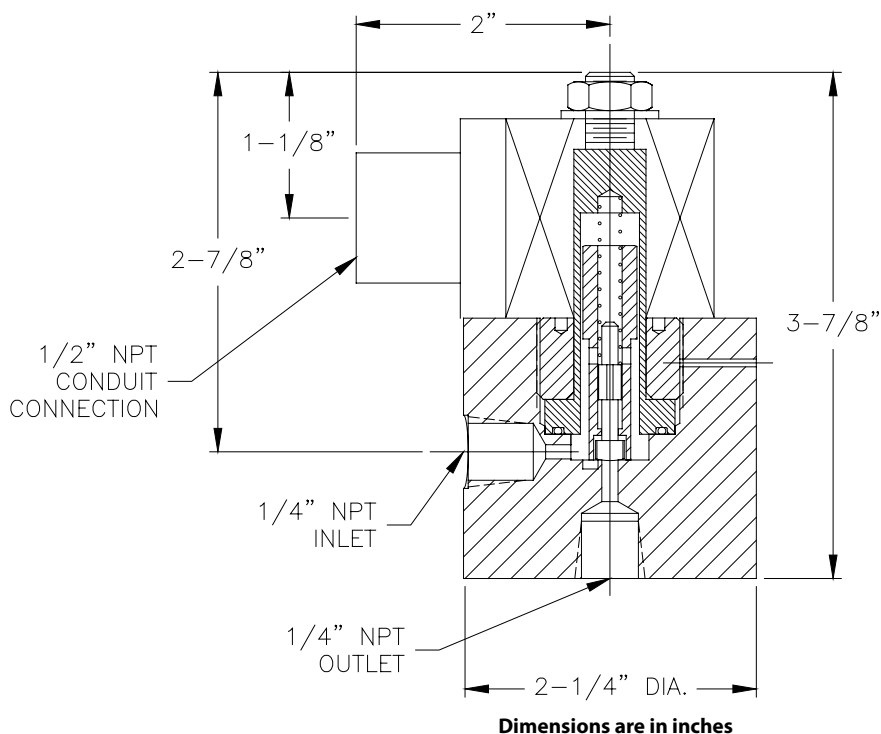
To control the flow of **High Pressure Air, Water, Hydrogen, Nitrogen** and other gases or light liquids compatible with materials of construction. Suitable for **Cryogenic** applications.

CONSTRUCTION

VALVE BODY:	316 SS
PISTON/SEAL:	303 SS / Teflon®
O RING SEAL:	Teflon®
SPRING:	302 SS
PLUNGER:	430 SS
BONNET:	316 SS/430 SS
BONNET RETAINER:	430 SS
FLUID TEMP.:	-350° to 400°F
SHIPPING WT.:	3 LBS.

ELECTRICAL

POWER:	22 Watts
AC INRUSH:	2.5 AMP @ 120V AC
AC HOLDING:	0.2 AMP @ 120V AC
INSULATION:	Class "H"
DUTY:	Continuous
ENCLOSURE:	NEMA 4 and 7
CONNECTION:	1/2" NPT, 18" Leads



MODEL #: EH30-04X-XXXX-XX

#	Port Dia.	C _v	Maximum Pressure, PSIG	
			AC	DC
1	0.019	0.005	10,000	5,000
2	0.032	0.020	4,000	2,000

OPTIONS

UM - Universal Mount
HY - Hydrogen Service
NO - Normally Open, Energize to Close*
OX - Oxygen Clean
 * ONLY AVAILABLE WITH AC VOLTAGES

SOLENOID VOLTAGE

A024 - 24V AC	D012 - 12V DC
A048 - 48V AC	D024 - 24V DC
A120 - 120V AC	D125 - 125V DC
A240 - 240V AC	D250 - 250V DC

CONSULT FACTORY FOR OTHER OPTIONS

EH40 SERIES

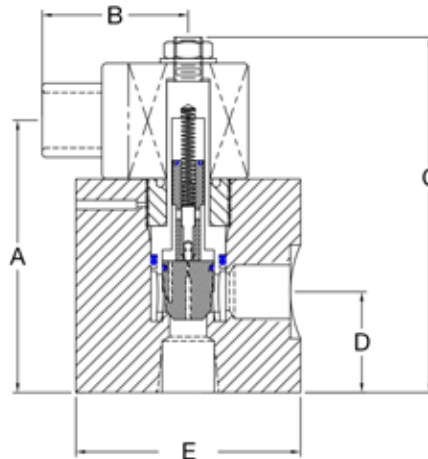
1/4 - 1/2" PIPE SIZE

Application:

The EH40 series is ideal for flow control of high pressure air, water, compressed natural gas (CNG), hydrogen, nitrogen, and other gases or light liquids compatible with the materials of construction. The mounting orientation is critical, requiring the valve to be mounted with the solenoid vertical and on top.

CONSTRUCTION

VALVE BODY:	316 SS
PISTON:	PEEK®
O RINGS:	Buna-N / Viton / Teflon
BACKING RINGS:	Buna-N / Viton / Teflon
PISTON RING/SEAL:	Teflon® / 302 SS
CARTRIDGE:	316 SS / 430 SS
PILOT/SEAL:	303 SS / Teflon®
SPRING:	302 SS
PLUNGER:	430 SS
BONNET RETAINER:	430 SS
CARTRIDGE GASKET:	Nylon
FLUID TEMPERATURE RANGE:	
BUNA:	-35° to 250°F
VITON:	-15° to 400°F
TEFLON:	-330° to 500°F



Pipe Size Inches	Min. Diff. PSI	Type No.	Cv	Watts	Ship Weight lbs.	Dimensions in inches				
						A	B	C	D	E
1/4"	50	EH40-04	1.1	10	4	3.02	1.95	4.14	0.87	2.25
1/2"	100	EH40-08	4.5	10	7	3.625	2	4.75	1.33	3

ELECTRICAL (COIL)

	(STD)	(XP)
POWER:	10 Watts	22 Watts
AC INRUSH:	1 AMP @ 120V AC	2.5 AMP @ 120V AC
AC HOLDING:	0.1 AMP @ 120V AC	0.2 AMP @ 120V AC
INSULATION:	Class "F"	Class "H"
DUTY:	Continuous	Continuous
CONNECTION:	1/2" NPT, 18" Leads	1/2" NPT, 18" Leads
ENCLOSURE		
STANDARD:	NEMA 3, 3S, 4, 4X, 7, 9	NEMA 3, 3S, 4, 4X, 7, 9
(EXPLOSION PROOF)		
GENERAL SERVICE:	NEMA 1, 2, 3, 3S, 4, 4X	NEMA 1, 2, 3, 3S, 4, 4X

PRESSURE

MAXIMUM OPERATING PRESSURE:

	EH40-04	EH40-08
AC VOLTAGE (STD):	7,500 PSIG	7,500 PSIG
AC VOLTAGE (XP):	10,000 PSIG	10,000 PSIG
DC VOLTAGE (STD):	3,500 PSIG	3,600 PSIG
DC VOLTAGE (XP):	5,000 PSIG	7,200 PSIG
MINIMUM PRESSURE:	50 PSIG	100 PSIG

MODEL #: EH40-XX-XXXX-**

XXXX = SOLENOID VOLTAGE

A024 - 24V AC	D012 - 12V DC
A120 - 120V AC	D024 - 24V DC
A240 - 240V AC	D120 - 120V DC

** = OPTIONS

GS - General Service
HY - Hydrogen Service (Helium Leak Test)
NO - Normally Open (not available in the 1/2" size)
OX - Oxygen Clean
VT - Viton O-Rings
XP - Higher Pressure 22 Watt Coil
 (see Pressure chart above)

EH50 SERIES

1/2" PIPE SIZE - FULL PORT



OPERATION:

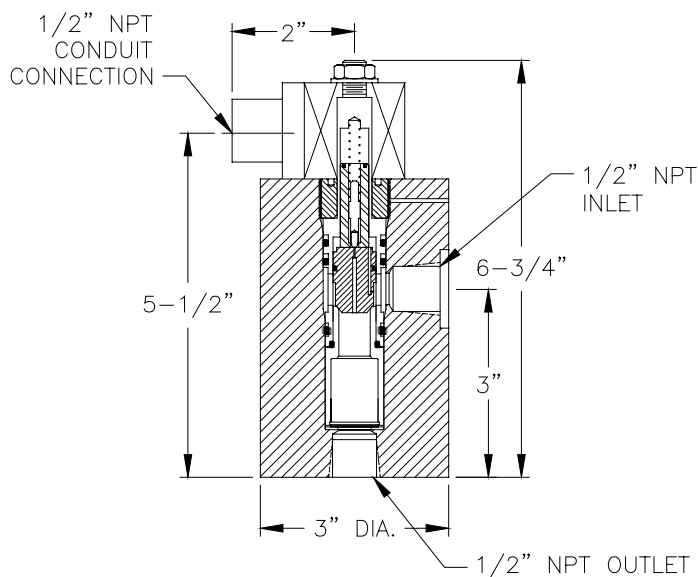
The normally closed valve opens when energized and closes when de-energized. When the coil is energized the pilot valve opens, relieving the pressure above the piston, which is then lifted from its seat by the inlet pressure. Upon de-energizing the coil, a spring closes the pilot valve and pressure builds above the piston to seat it. The normally open valve operates similarly, closing when energized and opening when de-energized.

APPLICATION:

To control the flow of **High Pressure Air, Water, Natural Gas, Hydrogen, Nitrogen** and other gases or light liquids compatible with materials of construction. Valve must be mounted with solenoid vertical and on top.

CONSTRUCTION

VALVE BODY:	7075-T6 Aluminum, Anodized
PISTON:	PEEK®
O RINGS:	Buna-N
BACKING RINGS:	Buna-N
PISTON RING/SEAL:	Teflon® / Silicone
CARTRIDGE:	316 SS/430 SS
PILOT/SEAL:	303 SS / Teflon®
SPRING:	302 SS
PLUNGER:	430 SS
BONNET RETAINER:	430 SS
CARTRIDGE GASKET:	Nylon
FLUID TEMPERATURE RANGE:	
BUNA:	-50° to 230°F
VITON:	-10° to 400°F
SHIPPING WEIGHT:	5 LBS. C _v = 4.5



Dimensions are in inches

ELECTRICAL

	(STD)	(XP)
POWER:	10 Watts	22 Watts
AC INRUSH:	1 AMP @ 120V AC	2.5 AMP @ 120V AC
AC HOLDING:	0.1 AMP @ 120V AC	0.2 AMP @ 120V AC
INSULATION:	Class "F"	Class "H"
DUTY:	Continuous	Continuous
ENCLOSURE:	NEMA 4 and 7	NEMA 4 and 7
CONNECTION:	1/2" NPT, 18" Leads	1/2" NPT, 18" Leads

PRESSURE

MAXIMUM OPERATING PRESSURE:

AC VOLTAGE (STD):	7,500 PSIG
AC VOLTAGE (XP):	10,000 PSIG
DC VOLTAGE (STD):	3,500 PSIG
DC VOLTAGE (XP):	5,000 PSIG
MINIMUM PRESSURE:	100 PSIG

MODEL #: EH50-08-XXXX-XX

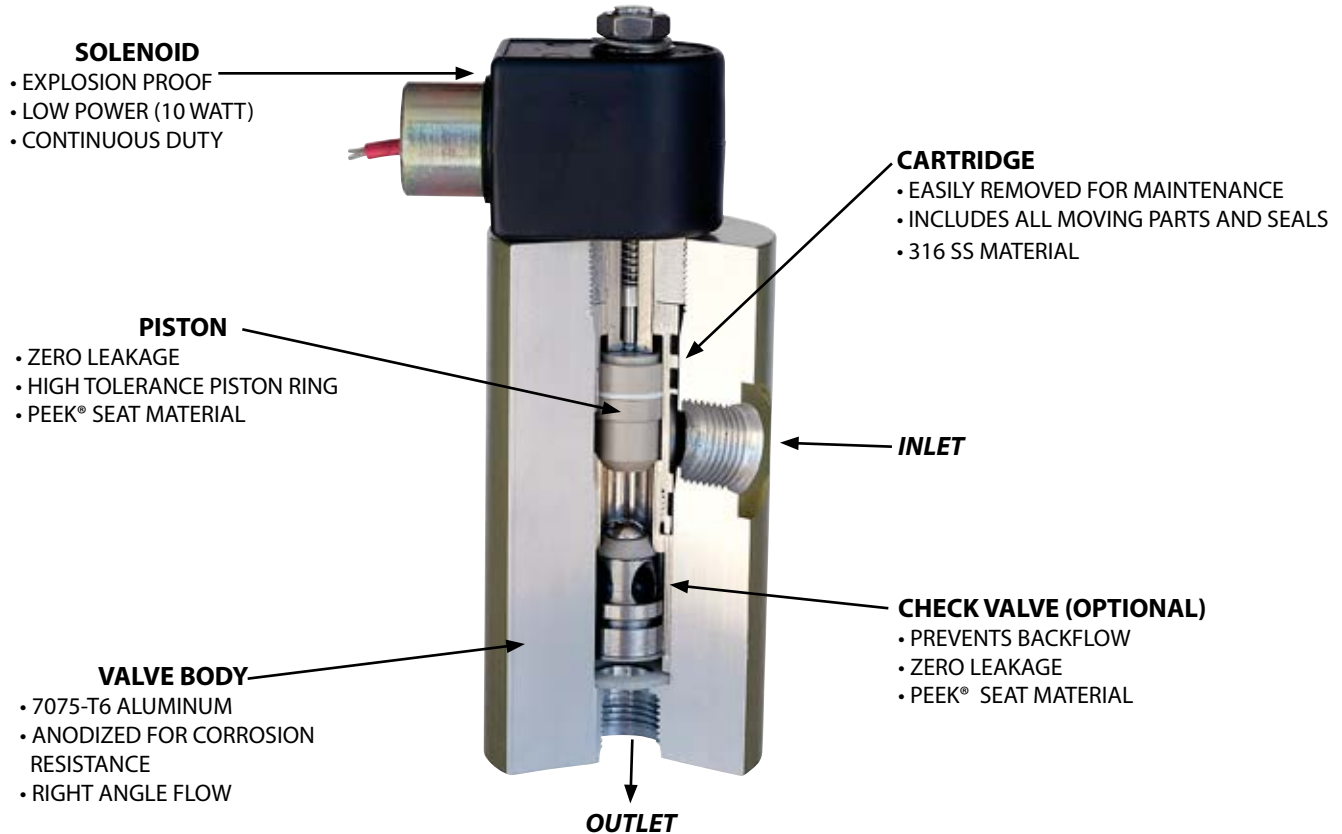
SOLENOID VOLTAGE	
A024 - 24V AC	D012 - 12V DC
A048 - 48V AC	D024 - 24V DC
A120 - 120V AC	D125 - 125V DC
A240 - 240V AC	D250 - 250V DC

CONSULT FACTORY FOR OTHER OPTIONS

OPTIONS
CK - Integrated Check Valve
SS - 316 SS Valve Body
HY - Hydrogen Service
NO - Normally Open, Energize to Close*
VT - Viton Seals
OX - Oxygen Clean
XP - Pressures up to 10,000 PSIG - (AC Voltage) Pressures up to 5,000 PSIG - (DC Voltage)
* ONLY AVAILABLE WITH AC VOLTAGES

EH50 SERIES

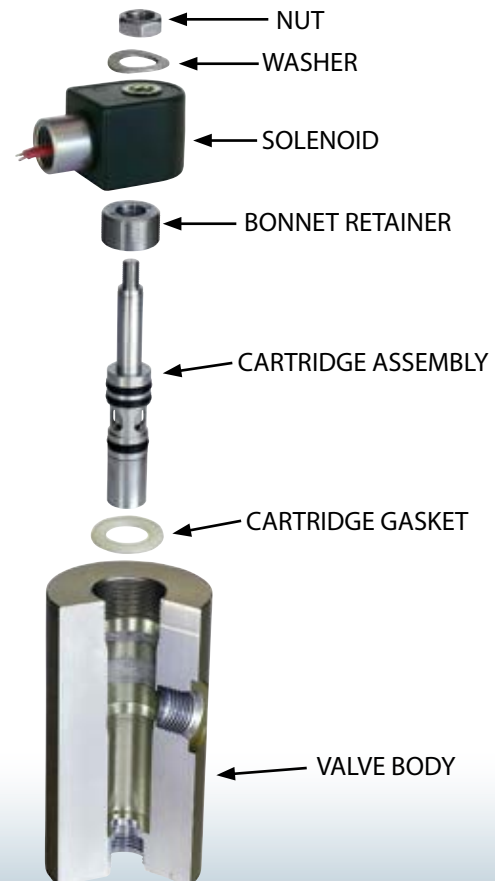
1/2" PIPE SIZE - FULL PORT



Easy Maintenance

STEPS TO REPLACE CARTRIDGE

- REMOVE NUT, WASHER AND SOLENOID
- REMOVE BONNET RETAINER
- REMOVE CARTRIDGE AND GASKET FROM VALVE BODY
- INSTALL NEW GASKET AND CARTRIDGE
- RE-INSTALL BONNET RETAINER AND SOLENOID



EH70 SERIES

1/2" TO 2" PIPE SIZE - FULL PORT



OPERATION:

Valve opens when energized and closes when de-energized. When the coil is energized the pilot valve opens, relieving the pressure above the piston, which is then lifted from its seat by the plunger. Upon de-energizing the coil, a spring closes the pilot valve and opens a bleed passageway to permit pressure to build above the piston and seat it. The normally open valve operates similarly, closing when energized and opening when de-energized.

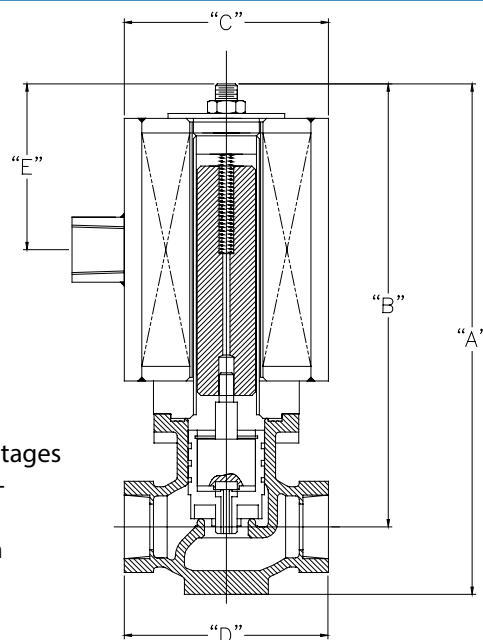
NO MINIMUM PRESSURE REQUIRED

APPLICATION:

To control the flow of **Corrosive Fluids • Deionized Water • Condensate • Ammonias • Vegetable Oils • Fuel Oils • Cryogenics • Flammable Liquids and Gases**. Valve operates from zero to maximum differential pressure indicated in table. Valve can be mounted in any orientation.

CONSTRUCTION

VALVE BODY:	316 SS Globe Pattern NPT End Connections
PISTON:	303 SS
PLUNGER:	430 SS
PILOT VALVE:	303 SS
BONNET TUBE:	304 SS
SPRING:	302 SS
BODY SEAL:	Non Asbestos Gasket (Durlon 8500™)
VALVE DISC:	Teflon®
COIL:	Encapsulated Class "H", 18" leads - All AC/DC Voltages
COIL ENCLOSURE:	Carbon Steel - Coil enclosure is completely seal-welded NEMA 4 (watertight) and NEMA 7 (explosion-proof) 1/2" NPT Conduit Connection



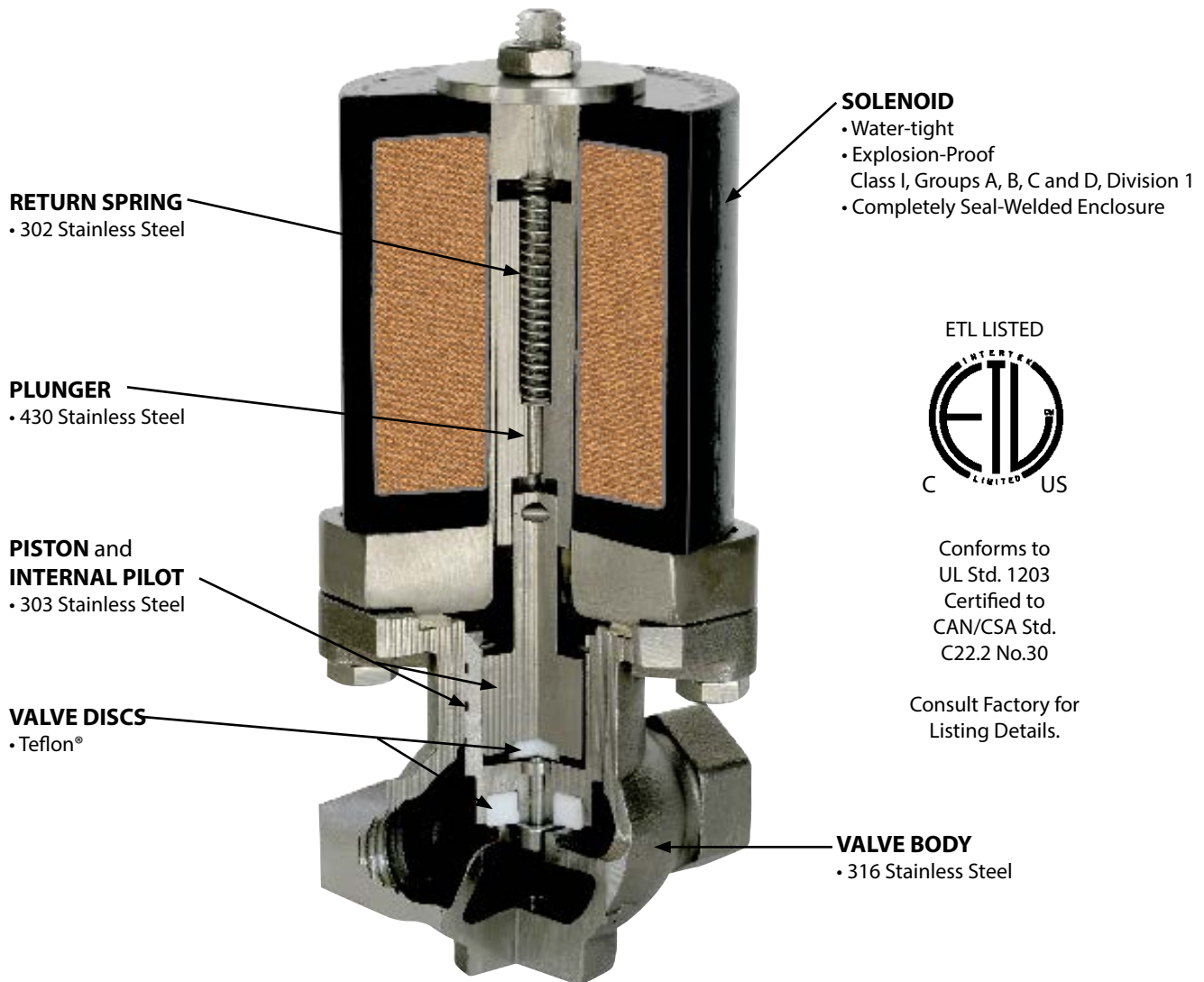
Pipe Size Inches	Max Diff. P.S.I.	Type No.	C _v	Watts	Ship Wt. Lbs.	Dimensions, Inches				
						A	B	C	D	E
1/2	1500	EH70-08	3.5	80	15	8.5	7.5	3.5	3.3	2.8
3/4	1200	EH70-12	7.5	80	16	8.8	7.6	3.5	3.5	2.8
1	1200	EH70-16	13	80	18	9.3	7.8	3.5	4.2	2.8
1-1/2	1200	EH70-24	25	140	30	11.6	8.5	4.5	4.9	3.3
2	1200	EH70-32	48	140	38	12.4	10.2	4.5	6.0	3.3

Maximum Fluid Temperature is 400°F.

Consult factory for Normally Open configuration and for other available options.

EH70 SERIES

1/2" TO 2" PIPE SIZE - FULL PORT



Clark-Cooper maintains a large library of valve designs and design modifications to accommodate many unique applications.

Please contact us if you require a special end connection, material selection or other option not listed in this catalog.

Our Engineering Department routinely incorporates customer specified options and accessories into existing valve designs. When necessary, new designs are created to meet the customer's special requirements and specifications.

We invite you to challenge us with your special application requirements.

REQUEST FOR QUOTE

We appreciate the opportunity to quote on your requirements.

For immediate quote: Fill in the information below and CALL 856-829-4580

For same day quote: Fill in the information below and FAX to 856-829-7303

For next day quote: Email your requirements to techsupport@clarkcooper.com or use the Request For Quote form on our website www.clarkcooper.com

YOUR COMPANY INFORMATION

Date: _____

Name: _____ Dept. or Title: _____

Company: _____ Phone: _____

Address: _____ Fax: _____

City: _____ State: _____ Zip: _____ Email: _____

Type of Business: Resale / Distributor OEM End User

VALVE INFORMATION

Quantity: _____ Requested Delivery: _____

Valve Type: EH30 Series
 EH40 Series
 EH50 Series
 EH70 Series

Flow Designation: Normally Closed (Energize to Open)
 Normally Open (Energize to Close)
(check one)

Valve Features

Pipe Size: _____

End Connection: NPT

150#FL

300#FL

Other: _____

Solenoid Features

Voltage: AC _____ Volts _____ Hz

DC _____ Volts

Enclosure Construction:

Watertight Explosion Proof

Other: _____

Operating Conditions

Fluid: _____

Max. Op. Press. Diff.: _____

Fluid Temp: _____

Viscosity: _____

Flow Rate or C_v : _____

Max. Press. Drop: _____

Ambient Temp: _____

Options / Application Notes: _____

CONTACT INFORMATION



CLARK COOPER
A DIVISION OF MAGNATROL VALVE CORP.

Phone: (856) 829-4580

Fax: (856) 829-7303

techsupport@clarkcooper.com

855 Industrial Highway, # 4

Cinnaminson, NJ 08077



CLARK COOPER

A DIVISION OF MAGNATROL VALVE CORP.

Follow us on social media:

