



PROGRAM OVERVIEW

For actuation and accessories, FNW utilizes Wolseley Industrial Group Valve & Automation, or WIGVA. This facility located in Portland, Oregon is a premier valve automation center, is ISO 9001:2008 registered, and is a member of the Wolseley Industrial Group, the industrial division of Ferguson Enterprises, Inc. WIGVA developed the Instant Valve Package program, or iVP program, to streamline availability of some of the more common actuated valve packages sold within the Wolseley/Ferguson group. Typical steps for acquiring actuated valves often include contacting your local valve automation center (VAC), sizing, quoting, procurement of parts, assembly, testing, and packaging prior to shipping. The iVP program completes most of that process ahead of time by prepackaging some of the more common configurations for distribution center or branch inventory.



This particular program utilizes the FNW line of actuation ready ball valves. All packages have been presized at either 80 PSI air or 120 VAC using a 25% safety factor to ensure long service life. Packages needing mounting adaption kits use 304 stainless plate brackets, 303 stainless barstock encapsulated socket couplers. All packages are assembled with stainless steel hardware, tubing, and fittings as applicable. Finished product is affixed with a stainless steel tag containing the iVP part number and a serial number for traceability. Each assembly is packaged in a labeled, foam filled box and includes the component manuals.

MOUNTING OVERVIEW

Hardware

All packages are secured with hex cap screws, washers and nuts as needed.

- 304 Stainless Steel



Stem Adapters

Stem adapters are used in direct mount packages when valve stem sizes do not match actuator drive sockets. Stem adapters are:

- Dimensionally Precise for ISO 5211 Actuator Drive Adaption
- Formed from FE 212



Brackets

Most threaded end (NPT) packages are direct mount. In some cases, and for flange valves, brackets are provided to adapt valves to actuators. Program brackets are:

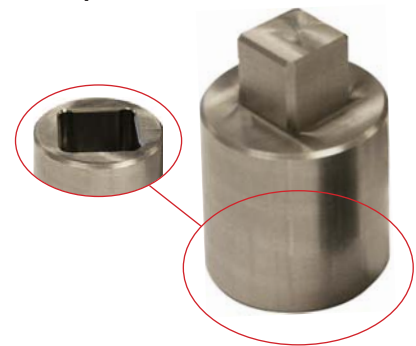
- Designed in 3D
- 304 Stainless Steel Plate
- Precision Laser Cut
- Support Multiple Actuator Sizes



Couplers

Most threaded end (NPT) packages are direct mount. In some cases, and for flange valves, couplers are provided to adapt valves to actuators. Program couplers are:

- Designed in 3D
- 303 Stainless Steel Bar Stock
- Precision CNC Milled
- Encapsulated Socket for Stem Engagement



Tested, Tagged & Packed



Every iVP unit is individually tested for proper operation prior to packaging. They are then tagged and packaged. Heavy gauge stainless steel tags include the applicable part number and serial number for traceability and are wire attached. Each unit is packaged in a labeled, foam filled cardboard box and includes valve, actuator, and applicable accessory manuals.

Cv (Flow Coefficient)

Model Size	440	220AM	310AM 311AM	600 601
1/2	19	18	18	15
3/4	19	36	36	61
1	34	48	48	110
1-1/4	50	58	58	
1-1/2	268	120	120	270
2	309	190	190	500
2-1/2				800
3				1,310
4				2,120
6				5,070
8				9,250

Torque (in-lbs)

Model Size	440	220AM	310AM 311AM	600 601
1/2	52	77	66	68
3/4	52	98	80	96
1	52	166	146	186
1-1/4	52	277	242	
1-1/2	154	388	344	226
2	154	582	503	485
2-1/2				598
3				664
4				1,394
6				3,280
8				6,240

NOTE: Actuator sizing for iVP packages includes a 25% service factor.

VALVE OVERVIEW

Figure X440



- Full Port
- Certified Lead Free
- NPT Connections
- 600 WOG
- 150 PSI WSP
- Two-piece Design
- Forged Brass Body
- Non-adjustable Dual Viton® O-ring Packing Plus PTFE Seal
- O-ring Backed PTFE Seats for Reduced Operating Torques
- Sizes 1/2" to 2"

Figure 220AM



- Full Port
- NPT Connections
- 2000 CWP
- 150 PSI WSP
- Two-piece design
- Investment Cast Stainless Steel Body
- Live Loaded Adjustable Packing
- Reinforced TFM Seats
- Anti-static Design
- Sizes 1/2" to 2"

Figure 310AM / 311AM



- Full Port
- NPT Connections
- 1000 CWP
- 150 PSI WSP
- Two-piece Design
- Investment Cast Body
 - Stainless Steel (fig. 310AM)
 - Carbon Steel (fig. 311AM)
- Live Loaded Adjustable Packing
- RTFE Seats
- Anti-static Design
- Sizes 1/2" to 2"

Figure 600 / 601



- Full Port
- Flange Connections
- ANSI Rated 150#
- 150 PSI WSP
- Two-piece Design
- Investment Cast Body
 - Stainless Steel (fig. 600)
 - Carbon Steel (fig. 601)
- Adjustable Packing
- RTFE Seats
- Anti-static Design
- Sizes 1/2" to 8"

ACTUATOR OVERVIEW



Pneumatic Figure RP

- -4°F to 185°F Temperature Range
- Single Piece Anodized Aluminum Housing (Nickel Plating Optional)
- High Visibility Position Indicator
- Polyester Powder Coated Die Cast Aluminum End Caps or Nickel Plated
- NAMUR Accessories and Solenoid Mounting Pad
- Anti-blowout Pinion Design
- Zinc Phosphate Coated Springs (Spring Return Units Only)
- NBR Piston Seals
- POM Bearing and Piston Guides
- Extra Length Stainless Steel End Cap Screws
- ISO 5211 Output Mounting Pad
- Die Cast Aluminum Pistons with Generous Rack Engagement
- Adjustable +/-5° Open and Close Travel Stops
- Travel Stops Do Not Breach Pressure Chamber
- Spring Return Action is Reversible
- Easily Convert Double-Acting to Spring-Return with Addition of Springs (End Caps are the Same)
- Sized for 80 PSI Supply Air



Electric Model 100E, 200E, 300E & 400E

- 0°F to 150°F Temperature Range
- CSA Certified NEMA 4 Enclosure
- Single 1/2" NPT Conduit Entry
- 300 Series Stainless Steel Output Drive
- 300 Series Stainless Steel Captive Enclosure Fasteners
- Friction Brake Standard
- Non-Declutching Manual Override (400E has Declutching Manual Override Hand Wheel)
- Dome Position Indicator
- Permanently Lubricated
- Thermally Bonded Polyester Powder Coated
- Sized at 120 VAC Supply Voltage

Electric Model 600E, 1000E, 2500E, 6000E & 10000E

- -40°F (with Standard Heater Activated) to 140°F Temperature Range
- CSA Certified Enclosure Conforms to NEMA 1, 2, 3, 3R, 4, and 12
- Motor Thermal Overload Protection
- Dual 1/2" NPT Conduit Entries (3/4" on models 2500E and larger)
- Heater & Thermostat
- Hardened Steel Spur Gear and Output Drive
- Captive Hex Head Enclosure Fasteners
- Declutching Manual Override with Indicator (Handwheel on models 2500E and larger)
- 2 Auxiliary SPST switches (On models 2500E and larger)
- 2 Mechanical Torques Switches (On models 2500E and larger)
- Permanently Lubricated
- Polyester Coated
- Sized at 120 VAC Supply Voltage

NOTE: WIGVA offers additional configurations beyond what is included in the iVP program. For pneumatic actuators, alternate supply air sizing, temperature ranges, spring to open position on loss of supply air, and others are available. For electric actuators, alternate supply voltage sizing, spring-return on loss of supply, NEMA 7 rated enclosures, brakes, auxiliary switches, heater and thermostats, positioner servo-boards, and more are available. For additional configurations, please contact WIGVA.

FIGURE X440 PNEUMATIC*

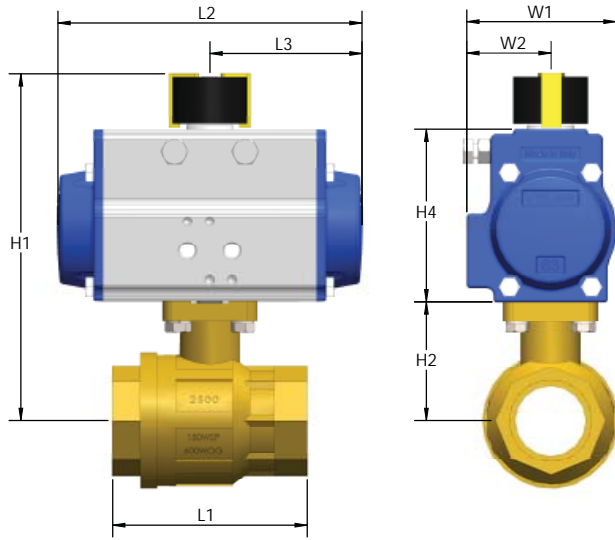
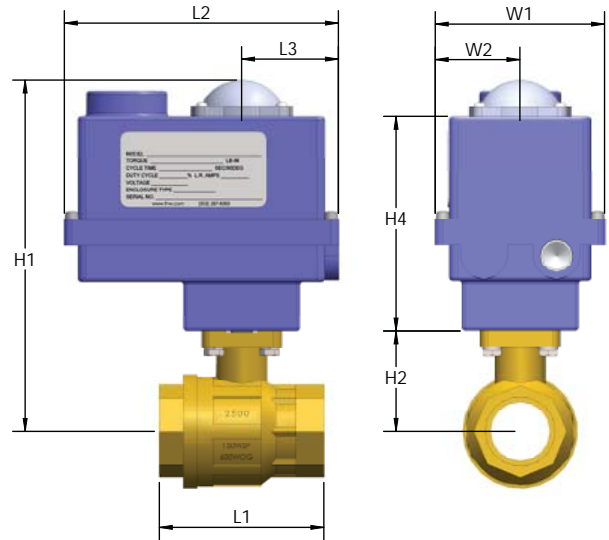


FIGURE X440 ELECTRIC*



Double-Acting Actuator (80 PSI Supply)

Size	Actuator	H1	H2	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	RP52	5.67	1.28	3.21	2.64	5.55	2.78	2.79	1.61	3.6
3/4	RP52	5.75	1.36	3.21	3.00	5.55	2.78	2.79	1.61	3.6
1	RP52	6.18	1.79	3.21	3.35	5.55	2.78	2.79	1.61	4.2
1-1/4	RP52	6.32	1.93	3.21	3.66	5.55	2.78	2.79	1.61	4.8
1-1/2	RP63	7.36	2.52	3.66	4.13	6.46	3.23	3.17	1.77	8.1
2	RP63	7.72	2.88	3.66	4.80	6.46	3.23	3.17	1.77	9.4

Spring-Return Actuator (80 PSI Supply)

Size	Actuator	H1	H2	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	RP52	5.67	1.28	3.21	2.64	5.55	2.78	2.79	1.61	4.0
3/4	RP52	5.75	1.36	3.21	3.00	5.55	2.78	2.79	1.61	4.0
1	RP52	6.18	1.79	3.21	3.35	5.55	2.78	2.79	1.61	4.6
1-1/4	RP52	6.32	1.93	3.21	3.66	5.55	2.78	2.79	1.61	5.2
1-1/2	RP75	8.07	2.52	4.37	4.13	8.27	4.14	3.72	2.07	11.9
2	RP75	8.43	2.88	4.37	4.80	8.27	4.14	3.72	2.07	13.2

Electric Actuator (120 VAC Supply)

Size	Actuator	H1	H2	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	100E	6.91	1.28	4.72	2.64	5.75	2.39	4.13	2.07	7.1
3/4	100E	6.99	1.36	4.72	3.00	5.75	2.39	4.13	2.07	7.1
1	100E	7.42	1.79	4.72	3.35	5.75	2.39	4.13	2.07	7.7
1-1/4	100E	7.56	1.93	4.72	3.66	5.75	2.39	4.13	2.07	8.3
1-1/2	200E	8.82	2.52	5.39	4.13	6.88	2.43	4.25	2.13	14.4
2	200E	9.18	2.88	5.39	4.80	6.88	2.43	4.25	2.13	15.7

* Actuator profiles can change with size. For additional dimensional information, consult the specific actuator brochure or drawings.

FIGURE 220AM PNEUMATIC*

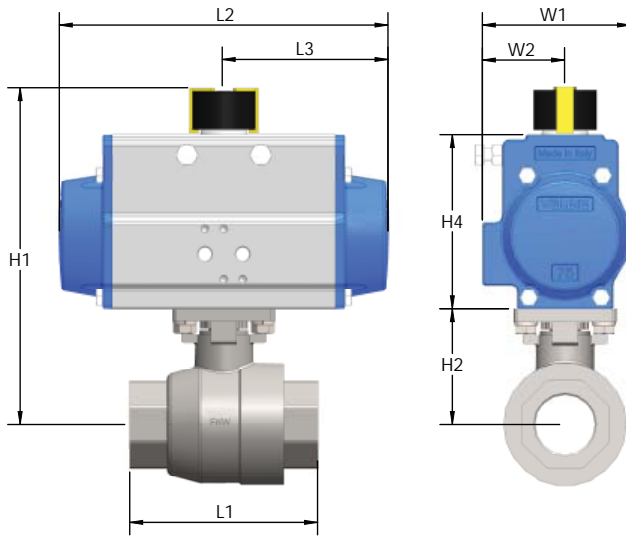
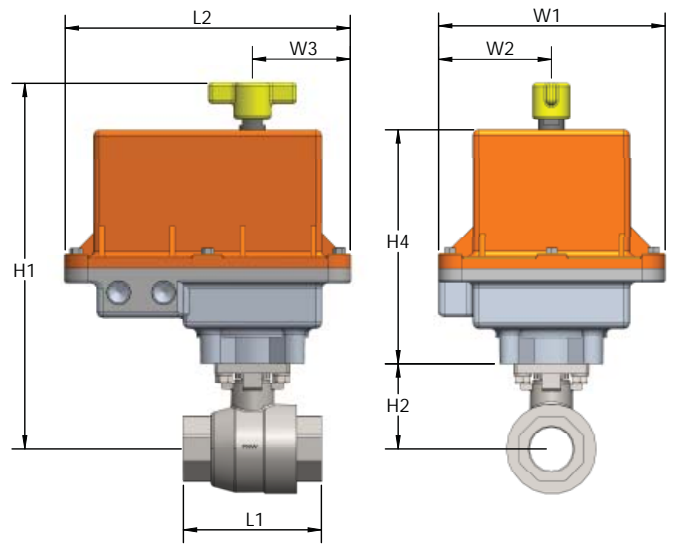


FIGURE 220AM ELECTRIC*



Double-Acting Actuator (80 PSI Supply)

Size	Actuator	H1	H2	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	RP52	6.09	1.70	3.21	2.95	5.55	2.78	2.79	1.61	3.9
3/4	RP52	6.39	2.00	3.21	3.15	5.55	2.78	2.79	1.61	4.4
1	RP63	7.12	2.28	3.66	3.54	6.46	3.23	3.17	1.77	6.8
1-1/4	RP75	8.03	2.48	4.37	41.33	8.27	4.14	3.72	2.07	10.0
1-1/2	RP75	8.46	2.91	4.37	4.72	8.27	4.14	3.72	2.07	12.4
2	RP85	9.37	3.27	4.92	5.51	9.47	4.74	4.17	2.30	18.8

Spring-Return Actuator (80 PSI Supply)

Size	Actuator	H1	H2	H3**	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	RP63	8.04	1.70	1.50	3.66	2.95	6.46	3.23	3.17	1.77	6.7
3/4	RP75	7.55	2.00		4.37	3.15	8.27	4.14	3.72	2.07	9.4
1	RP85	8.38	2.28		4.92	3.54	9.47	4.74	4.17	2.30	13.7
1-1/4	RP100	10.58	2.48	1.50	5.43	41.33	10.83	5.42	4.85	2.68	20.4
1-1/2	RP115	11.45	2.91		6.39	4.72	13.11	6.56	5.39	2.87	31.6
2	RP125	12.28	3.27		6.87	5.51	14.65	7.33	5.83	3.15	41.3

Electric Actuator (120 VAC Supply)

Size	Actuator	H1	H2	H3**	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	100E	7.33	1.70		4.72	2.95	5.75	2.39	4.13	2.07	7.4
3/4	200E	8.30	2.00		5.39	3.15	6.88	2.43	4.25	2.13	11.9
1	300E	8.58	2.28		5.39	3.54	6.88	2.43	4.25	2.13	13.2
1-1/4	400E	13.01	2.48	1.50	7.09	41.33	7.00	2.38	7.00	2.63	22.9
1-1/2	600E	12.50	2.91		8.00	4.72	9.75	3.75	7.75	3.87	24.3
2	1000E	12.86	3.27		8.00	5.51	9.75	3.75	7.75	3.87	28.2

* Actuator profiles can change with size. For additional dimensional information, consult the specific actuator brochure or drawings.

** Noted configurations require bracket and coupler. Dimension H3 is the bracket height and is included in dimension H1.

FIGURE 310AM & 311AM PNEUMATIC*

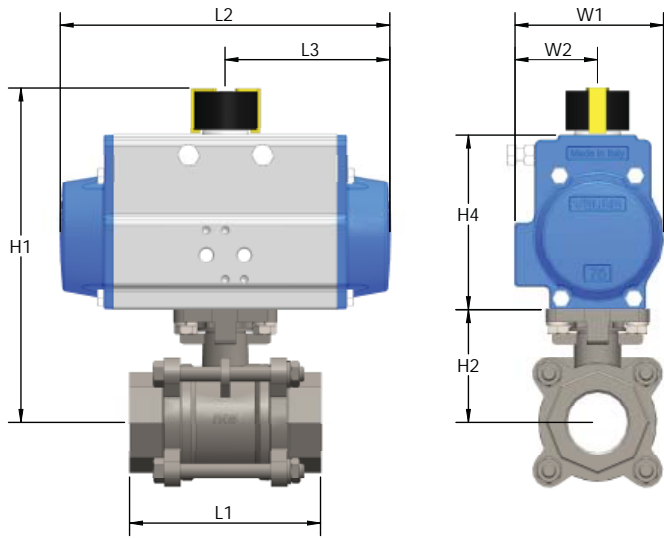
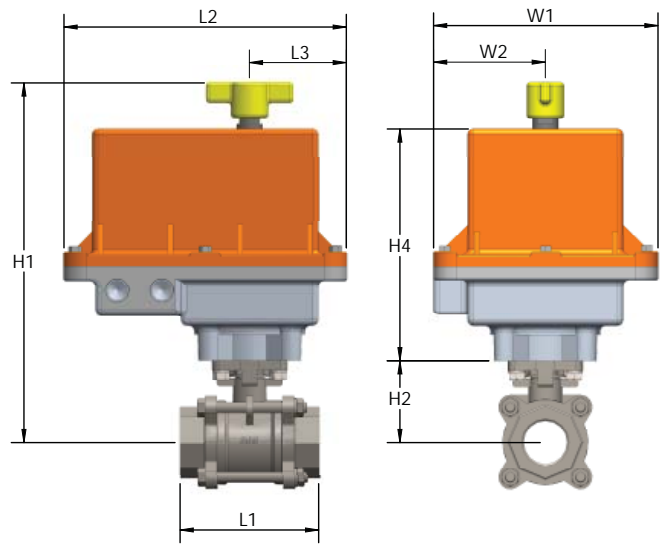


FIGURE 310AM & 311AM ELECTRIC*



Double-Acting Actuator (80 PSI Supply)

Size	Actuator	H1	H2	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	RP52	6.04	1.65	3.21	2.95	5.55	2.78	2.79	1.61	3.6
3/4	RP52	6.30	1.91	3.21	3.15	5.55	2.78	2.79	1.61	4.3
1	RP63	7.14	2.30	3.66	3.54	6.46	3.23	3.17	1.77	6.1
1-1/4	RP63	7.32	2.48	3.66	4.33	6.46	3.23	3.17	1.77	8.2
1-1/2	RP75	8.36	2.81	4.37	4.72	8.27	4.14	3.72	2.07	11.5
2	RP85	9.18	3.08	4.92	5.51	9.47	4.74	4.17	2.30	17.9

Spring-Return Actuator (80 PSI Supply)

Size	Actuator	H1	H2	H3**	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	RP63	7.99	1.65	1.50	3.66	2.95	6.46	3.23	3.17	1.77	6.4
3/4	RP63	6.75	1.91		3.66	3.15	6.46	3.23	3.17	1.77	6.2
1	RP75	7.85	2.30		4.37	3.54	8.27	4.14	3.72	2.07	9.9
1-1/4	RP85	8.58	2.48		4.92	4.33	9.47	4.74	4.17	2.30	14.9
1-1/2	RP100	9.41	2.81		5.43	4.72	10.83	5.42	4.85	2.68	20.8
2	RP115	11.62	3.08		6.39	5.51	13.11	6.56	5.39	2.87	34.5

Electric Actuator (120 VAC Supply)

Size	Actuator	H1	H2	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	100E	7.28	1.65	4.72	2.95	5.75	2.88	4.13	2.07	7.2
3/4	100E	7.54	1.91	4.72	3.15	5.75	2.88	4.13	2.07	7.8
1	200E	8.60	2.30	5.39	3.54	6.88	3.44	4.25	2.13	12.4
1-1/4	400E	11.51	2.48	7.09	4.33	7.00	2.38	7.00	2.63	22.5
1-1/2	600E	12.40	2.81	8.00	4.72	9.75	3.75	7.75	3.87	23.4
2	1000E	12.67	3.08	8.00	5.51	9.75	3.75	7.75	3.87	27.3

* Actuator profiles can change with size. For additional dimensional information, consult the specific actuator brochure or drawings.

** Noted configurations require bracket and coupler. Dimension H3 is the bracket height and is included in dimension H1.

FIGURE 600 & 601 PNEUMATIC*

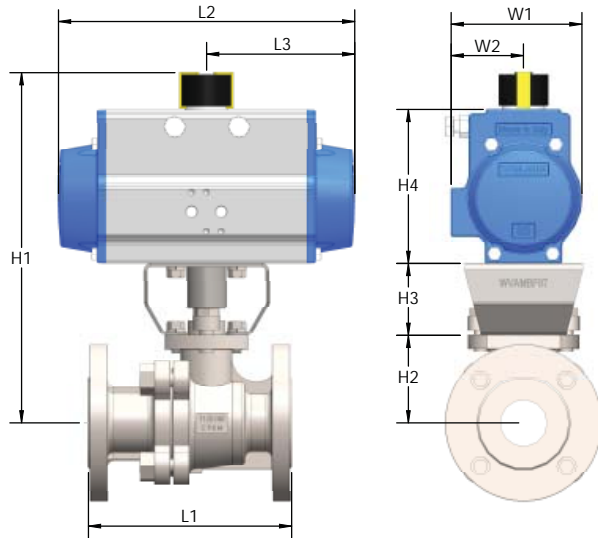
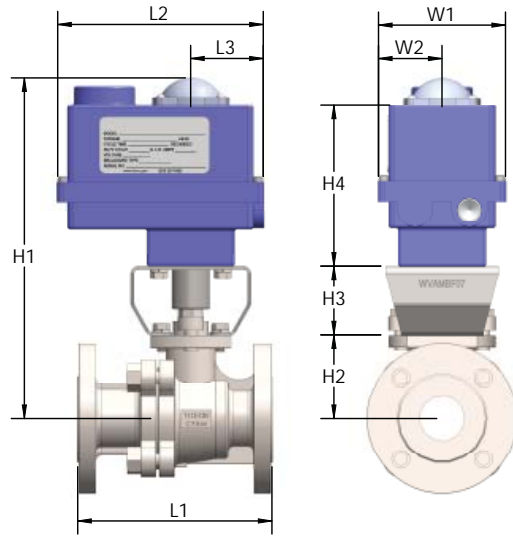


FIGURE 600 & 601 ELECTRIC*



Double-Acting Actuator (80 PSI Supply)

Size	Actuator	H1	H2	H3	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	RP52	7.52	1.32	1.81	3.21	4.25	5.55	2.78	2.79	1.61	7.7
3/4	RP52	7.63	1.43	1.81	3.21	4.61	5.55	2.78	2.79	1.61	7.8
1	RP63	8.40	1.75	1.81	3.66	5.00	6.46	3.23	3.17	1.77	12.1
1-1/2	RP63	9.64	2.50	2.30	3.66	6.50	6.46	3.23	3.17	1.77	20.6
2	RP85	11.20	2.80	2.30	4.92	7.01	9.47	4.74	4.17	2.30	32.5
2-1/2	RP85	11.68	3.28	2.30	4.92	7.48	9.47	4.74	4.17	2.30	42.5
3	RP85	13.15	3.90	3.15	4.92	7.99	9.47	4.74	4.17	2.30	54.3
4	RP115	16.18	4.49	3.15	6.39	9.02	13.11	6.56	5.39	2.87	89.1
6	RP160	21.48	7.13	3.50	8.70	15.51	19.69	9.85	7.33	3.90	190.2
8	RP200	26.47	9.37	4.00	10.94	17.99	22.78	11.39	8.54	4.29	312.8

Spring-Return Actuator (80 PSI Supply)

Size	Actuator	H1	H2	H3	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	RP63	7.97	1.32	1.81	3.66	4.25	6.46	3.23	3.17	1.77	9.6
3/4	RP75	8.79	1.43	1.81	4.37	4.61	8.27	4.14	3.72	2.07	12.9
1	RP85	9.66	1.75	1.81	4.92	5.00	9.47	4.74	4.17	2.30	19.1
1-1/2	RP85	10.90	2.50	2.30	4.92	6.50	9.47	4.74	4.17	2.30	27.5
2	RP115	13.64	2.80	2.30	6.39	7.01	13.11	6.56	5.39	2.87	49.4
2-1/2	RP115	14.12	3.28	2.30	6.39	7.48	13.11	6.56	5.39	2.87	59.4
3	RP125	16.06	3.90	3.15	6.87	7.99	14.65	7.33	5.83	3.15	76.9
4	RP160	18.49	4.49	3.15	8.70	9.02	19.69	9.85	7.33	3.90	135.1
6	RP200	23.73	7.13	3.50	10.94	15.51	22.78	11.39	8.54	4.29	264.3
8	RP270	31.21	9.37	4.00	15.71	17.99	26.46	13.23	11.42	5.71	453.7

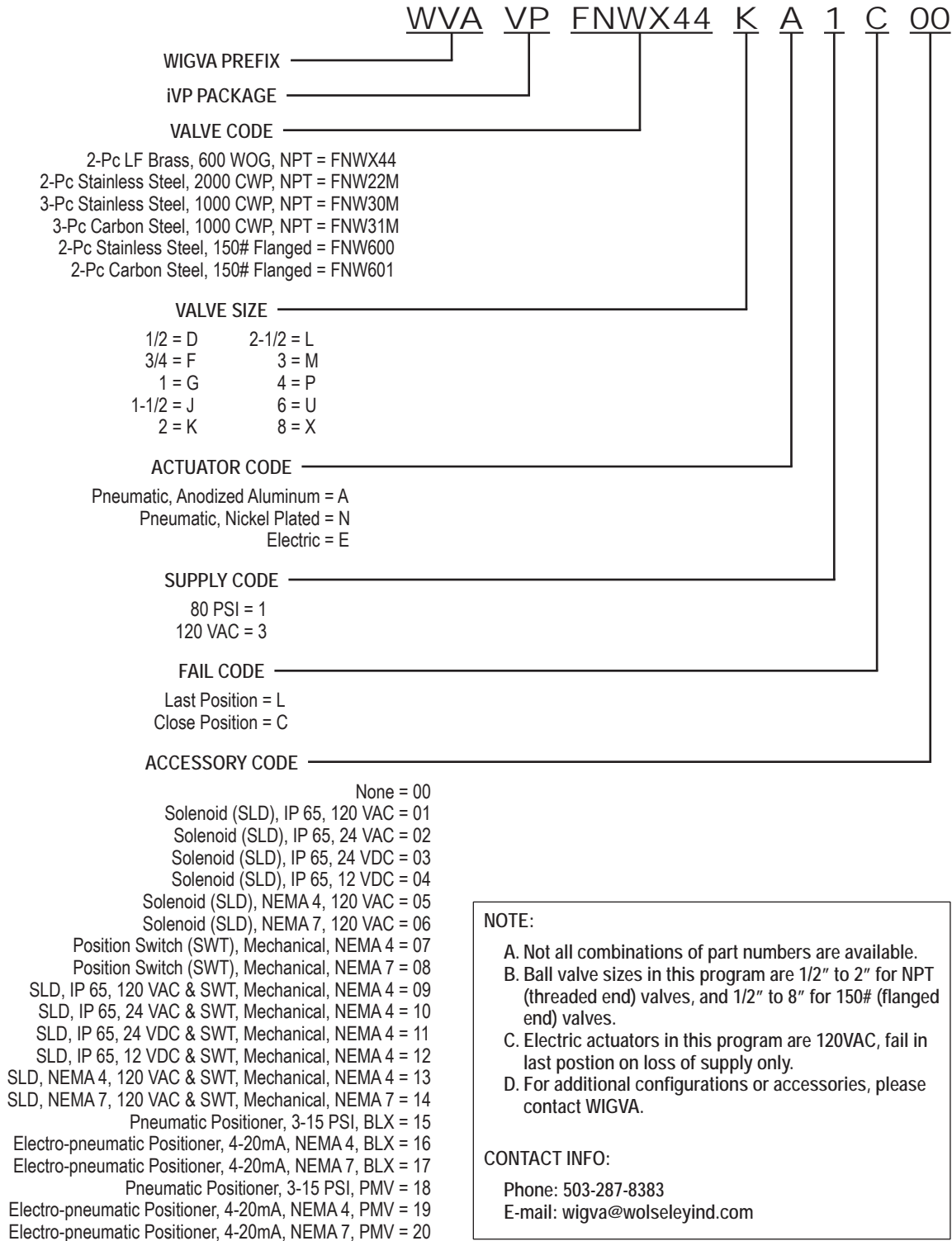
Electric Actuator (120 VAC Supply)

Size	Actuator	H1	H2	H3	H4	L1	L2	L3	W1	W2	Wt. (Lbs)
1/2	100E	8.76	1.32	1.81	4.72	4.25	5.75	2.39	4.13	2.07	11.3
3/4	200E	9.54	1.43	1.81	5.39	4.61	6.88	2.43	4.25	2.13	15.4
1	300E	9.86	1.75	1.81	5.39	5.00	6.88	2.43	4.25	2.13	18.5
1-1/2	300E	11.10	2.50	2.30	5.39	6.50	6.88	2.43	4.25	2.13	26.9
2	1000E	14.69	2.80	2.30	8.00	7.01	9.75	3.75	7.75	3.87	42.0
2-1/2	1000E	15.17	3.28	2.30	8.00	7.48	9.75	3.75	7.75	3.87	52.0
3	1000E	16.64	3.90	3.15	8.00	7.99	9.75	3.75	7.75	3.87	63.8
4	2500E	23.01	4.49	3.15	14.00	9.02	14.00	3.87	13.31	7.13**	138.4
6	6000E	26.00	7.13	3.50	14.00	15.51	14.00	3.87	13.31	7.13**	212.6
8	10000E	28.74	9.37	4.00	14.00	17.99	14.00	3.87	13.31	7.13**	300.8

* Actuator profiles can change with size. For additional dimensional information, consult the specific actuator brochure or drawings.

** Measured from hand wheel face to center of output drive.

PART NUMBER MATRIX



NOTE:

- A. Not all combinations of part numbers are available.
- B. Ball valve sizes in this program are 1/2" to 2" for NPT (threaded end) valves, and 1/2" to 8" for 150# (flanged end) valves.
- C. Electric actuators in this program are 120VAC, fail in last position on loss of supply only.
- D. For additional configurations or accessories, please contact WIGVA.

CONTACT INFO:

Phone: 503-287-8383
E-mail: wigva@wolseleyind.com