National Fire Equipment ltd

Model ZW4104SS Pressure-Tru ™ Automatic Fire Control Valve

SPECIFICATION SUBMITTAL SHEET

WILKINS a ZURN company

ZW4104SS

APPLICATION

The Pressure-Tru™ ZW4104SS Series Pressure Reducing Valve is listed as a floor control valve, an indicating valve, and a check valve in automatic sprinkler systems as well
as a standpipe valve for CLASS II systems. Regulates pressure under both flow and no-flow conditions. The valve has a listed supervisory switch built in. Suitable for indoor / outdoor use. Tamper resistant housing can be rotated for easy wiring switch rated 3 amps @ 125 VAC. Normally open contacts are standard.

STANDARDS COMPLIANCE

- UL® Listed
- C-UL® Listed

MATERIAL

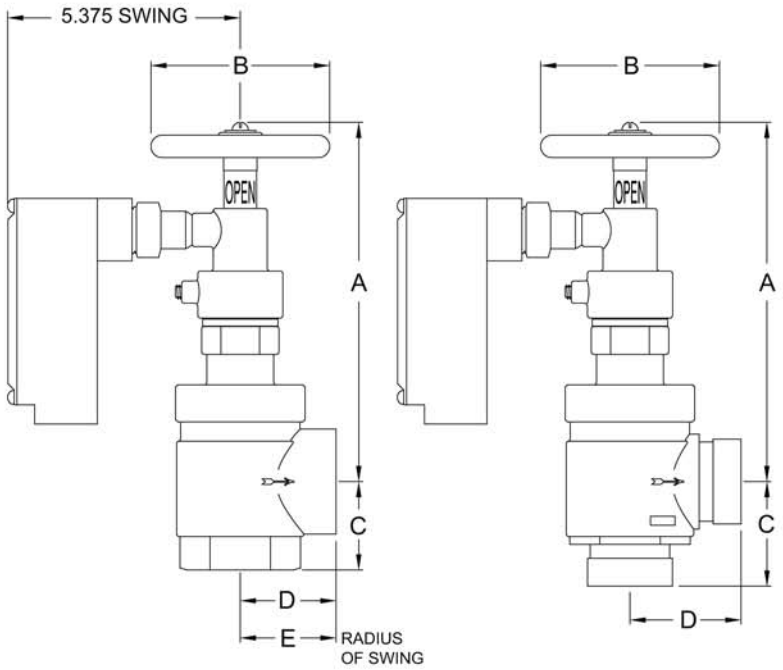
Castings/internals	Cast bronze ASTM B 584
Elastomers	Buna Nitrile (FDA approved)
	EPDM (FDA approved)

OPTIONS

(Suffixes can be combined)
 CH - with rough chrome finish
 G - with grooved inlet and outlet connections
 ZW4104 - angle type valve

FEATURES

Sizes: 1 1/2”
Maximum inlet pressure 400 psi
End connections:
FNPT ANSI B1.20.1
Grooved AWWA C606
Manufactured in the USA
Factory Set



ZW4104SS ZW4104GSS

DIMENSIONS & WEIGHTS (do not include pkg.)

MODEL	DIMENSIONS (approximate)													
	A OPEN		A CLOSED		B		C		D		E Radius of Swing		WEIGHT	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs	kg
ZW4104SS	6 3/4	171	6 1/8	155	4	101	2	51	2 3/16	55	2 3/16	55	11	5
ZW4104GSS	6 3/4	171	6 1/8	155	4	101	2 3/8	60	2 1/2	63	n/a	n/a	11	5

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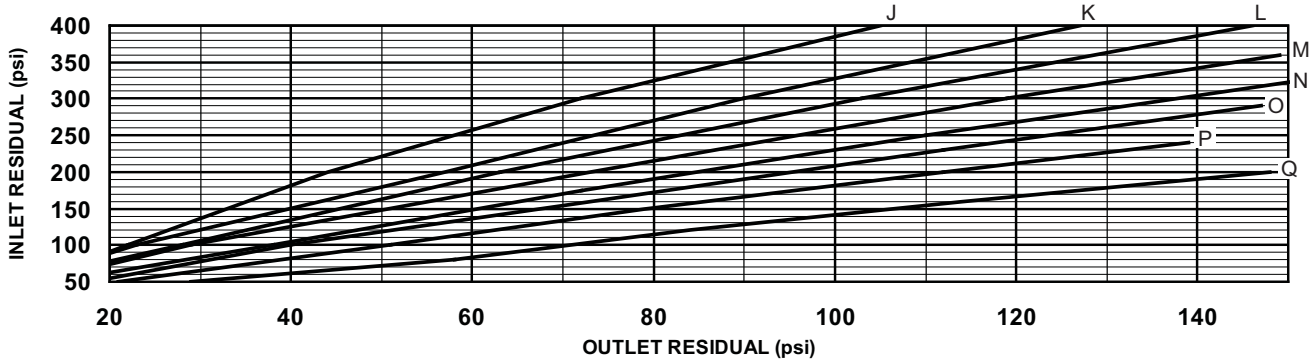
website: www.nationalfire.com

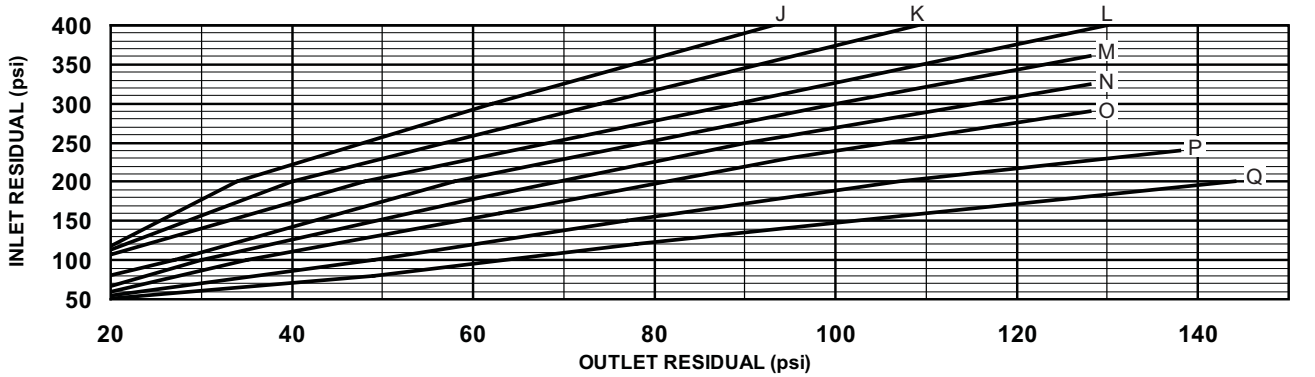
Residual Pressure Charts

For Pressure-Tru® 1 1/2” Models: ZW4100, ZW4100G, ZW4104 & ZW4104G

ZW4100 SERIES
25-75 GPM



ZW4100 SERIES
76-125 GPM



CHOOSING THE CORRECT SETTINGS

In designing a sprinkler system, a minimum of 20 psi pressure differential (the difference between the inlet static pressure and the valve outlet set static pressure) is recommended to assure a well regulated and efficient system. In choosing the correct setting for the Pressure-Tru® valve, refer to the Residual Pressure Charts, Static Pressure Chart and the following procedures:

1. Determine the demand in gallons per minute required downstream of the valve.
2. Determine the standpipe residual or “flow pressure” at the valve inlet.
3. Locate the appropriate flow chart based on GPM required and body style.
4. Locate the inlet residual pressure on the vertical axis of the chart and draw a horizontal line from this pressure across the chart.
5. Locate the desired valve outlet residual pressure on the horizontal axis of the chart and draw a vertical line from this pressure.
6. The curve nearest the intersection of the two lines drawn is the appropriate type for the valve.
7. To determine the static outlet pressure, locate the static chart. Determine the valve inlet static pressure shown on the vertical axis and draw a horizontal line from that pressure to the appropriate curve determined above, then draw a vertical line down to the horizontal axis and read the static outlet pressure.

MAXIMUM RATED INLET PRESSURE

Maximum inlet pressure, to assure a maximum outlet pressure of 175 psi. Inlet side of valves can be safely tested up to 400 PSI during system hydrostatic leak test.

Bonnet Type	Max Inlet Pressure psi (kpa)	
J	400	(2750)
K	400	(2750)
L	400	(2750)
M	360	(2475)
N	325	(2240)
O	290	(2000)
P	240	(1650)
Q	200	(1375)

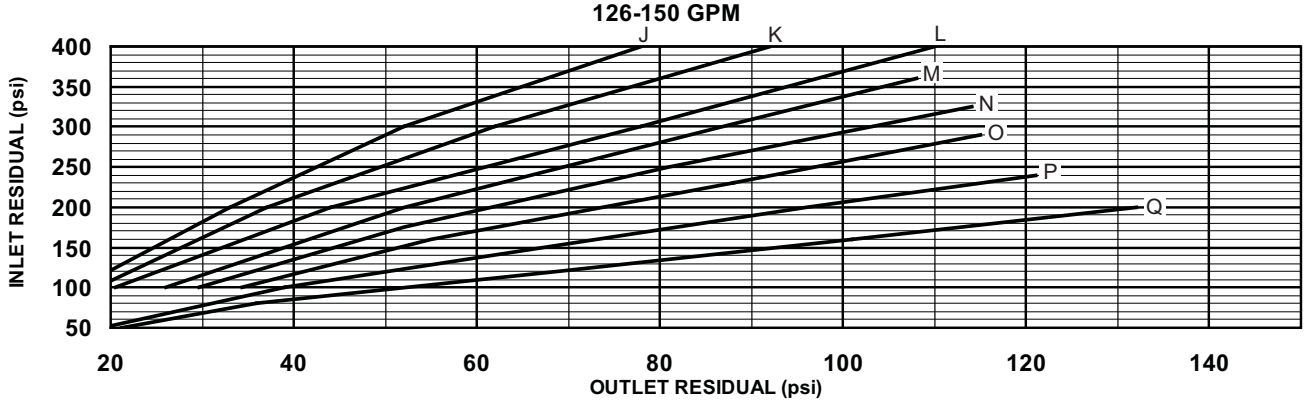
Proper performance is dependent upon licensed, qualified personnel performing regular, periodic testing according to WILKINS’ specifications and prevailing governmental & industry standards and codes and upon following these installation instructions. Failure to do so releases WILKINS of any liability that it might otherwise have with respect to that device. Such failure could also result in an improperly functioning device.

WILKINS a Zurn company, 1747 Commerce Way, Paso Robles, CA 93446 Phone:**805-238-7100** Fax:**805-238-5766**
In Canada: ZURN INDUSTRIES LIMITED, 3544 Nashua Dr., Mississauga, Ontario L4V 1L2 Phone:**905-405-8272** Fax:**905-405-1292**
Product Support Help Line: 877-BACKFLOW **(877-222-5356)** • **Website: http://www.zurn.com**

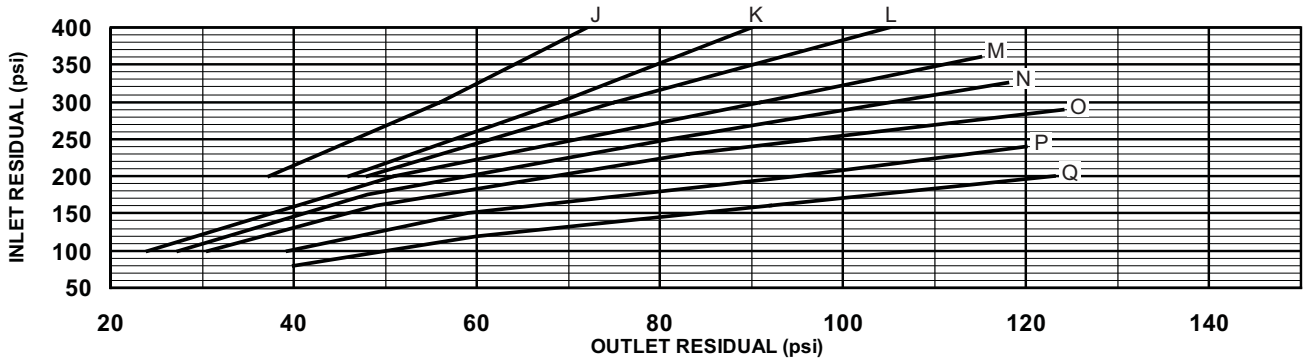
Residual Pressure Charts

For Pressure-Tru® 1 1/2” Models: ZW4100, ZW4100G, ZW4104 & ZW4104G

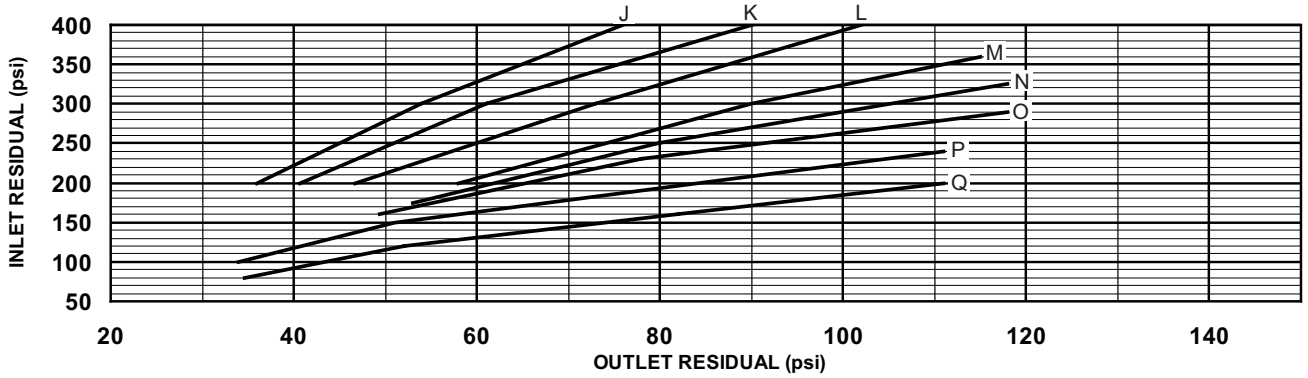
ZW4100 SERIES
126-150 GPM



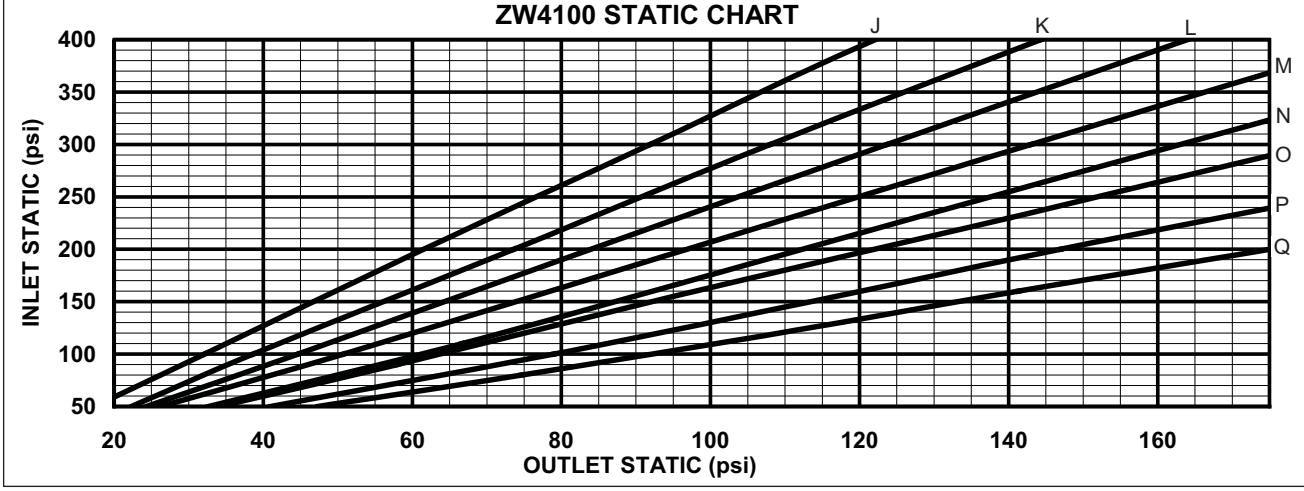
ZW4100 SERIES
151-175 GPM



ZW4100 SERIES
176-200 GPM



ZW4100 STATIC CHART



ZW4100 Series Fire Valve Part Number Assistant

WILKINS a ZURN company

Check off the boxes that match the choices you want. If the choice is blank, this is standard and you add nothing to the part number. If there are letters after the check box, then you add those letters to the part number in that order from left to right.
A bonnet setting has to be part of the part number since the ZW4100 series valves are factory set and not field adjustable. The flow curves **Must** be used by the system designer to select the correct bonnet setting.

Example
1-1/2" ZW4104 Sprinkler Floor Control Valve or Hose Rack Valve (Factory Set) (choose one)

Angle Body ☑ (choose one)
Threaded Ends ☑ Grooved Ends ☐ **G** (choose one)
☐ **SS** Supervisory Switch
Monitor Switch Adapter Bracket ☑ **MSA** No Handwheel Capped Bonnet ☐ **CAP** (choose one or none)
Rough Chrome Plated ☐ CH (optional)
Bonnet Setting Type: ☐ **-J** ☐ **-K** ☐ **-L** ☑ **-M** ☐ **-N** ☐ **-O** ☐ **-P** ☐ **-Q**

In this example the part number would be ZW4104MSA-M

1-1/2" ZW4100 Standpipe Hose Valve (Factory Set) (choose one)

Angle Body ☐ (choose one)
Threaded Inlet ☐ Grooved Inlet ☐ **G** (choose one)
1-1/2" National Hose thread ☐ Special Thread ☐ **ST** (choose one)
☐ **CC** w/ Cap & Chain (optional)
Rough Chrome Plated ☐ **CH** (optional)
Bonnet Setting Type: ☐ **-J** ☐ **-K** ☐ **-L** ☐ **-M** ☐ **-N** ☐ **-O** ☐ **-P** ☐ **-Q**

Specify special thread _____

1-1/2" ZW4104 Sprinkler Floor Control Valve or Hose Rack Valve (Factory Set) (choose one)

Angle Body ☐
Threaded Ends ☐ Grooved Ends ☐ **G** (choose one)
☐ **SS** Supervisory Switch
Monitor Switch Adapter Bracket ☐ **MSA** No Handwheel Capped Bonnet ☐ **CAP** (choose one or none)
Rough Chrome Plated ☐ **CH** (optional)
Bonnet Setting Type: ☐ **-J** ☐ **-K** ☐ **-L** ☐ **-M** ☐ **-N** ☐ **-O** ☐ **-P** ☐ **-Q**

Specify if the body should be tapped and plugged for gauges.

Qty	Part number	Notes
___	_____	_____
___	_____	_____
___	_____	_____
___	_____	_____

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Document # OF-ZW4100SERIES Revision: 7/12