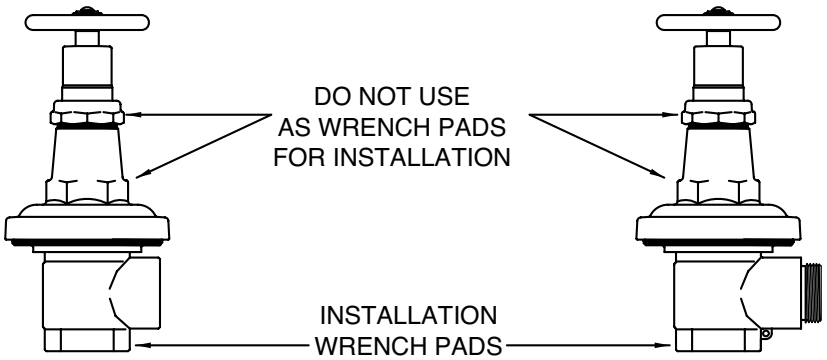
Model Z2100 & Z2105

For Pressure-Tru™ 1 1/2" Fire Hose Valve

❑ Installation ❑ Testing ❑ Maintenance Instructions



APPLICATION:
The Z2100 and 2105 Series Pressure Reducing Valves are UL® Listed and C-UL® Listed as standpipe valves to control pressure to individual hose stations for CLASS II systems.

SPECIFICATIONS:
- ❑ UL® Listed and C-UL® Listed as a standpipe valve for CLASS II systems
- ❑ Rated up to 400 psi inlet pressure
- ❑ Can be adjusted in the field
- ❑ Regulates pressure under both FLOW and NO-FLOW conditions
- ❑ Z2100 Series features 1-1/2” female inlet NPT connection with 1-1/2” male outlet hose connection, available with cap and chain
- ❑ Z2105 Series features 1-1/2" female NPT inlet and outlet connections

OPTIONS:
(options can be combined)

Z2100	Angle type hose valve
Z2100CH	With rough chrome finish
Z2100C/C	With cap and chain
Z2100ST	With specified hose thread
Z2105	Angle type valve

NOTE

Installation:
Proper installation of these valves shall be in accordance with NFPA 14.

Inspection, Testing & Maintenance:
Proper inspection, testing and maintenance of these valves shall be in accordance with NFPA 25.

For Class II Standpipe Systems:
A. The outlet pressures indicated in the illustrations on pages 2-3 are at the outlet of the valve. To determine the pressure at a specific hose nozzle, the hydraulic calculation information provided in NFPA 13 and the NFPA Fire Protection Handbook, should be followed. In any case, the design flow demand required from the hose nozzle shall not exceed the flow range specified in the illustrations on pages 2-3.

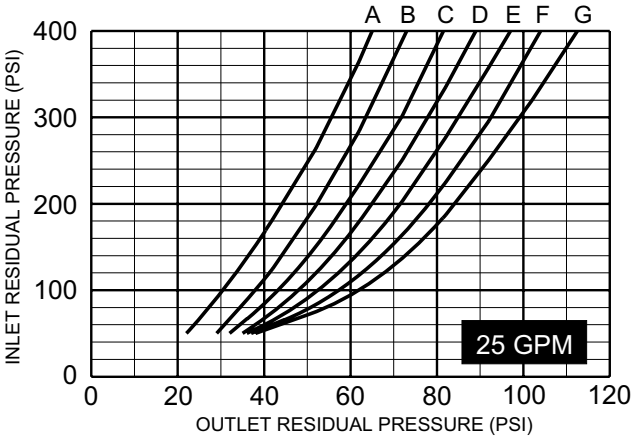
WARRANTY: ZURN WILKINS Valves are guaranteed against defects of material or workmanship when used for the services recommended. If in any recommended service, a defect develops due to material or workmanship, and the device is returned, freight prepaid, to ZURN WILKINS within 12 months from date of purchase, it will be repaired or replaced free of charge. ZURN WILKINS' liability shall be limited to our agreement to repair or replace the valve only.

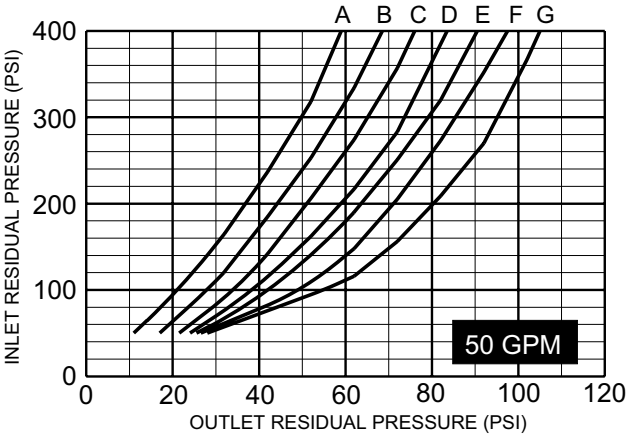
WARNING: This product is NOT Lead Free in accordance with U.S. Federal Law and is illegal in the U.S. for use in potable services or to install in water systems anticipated for human consumption.

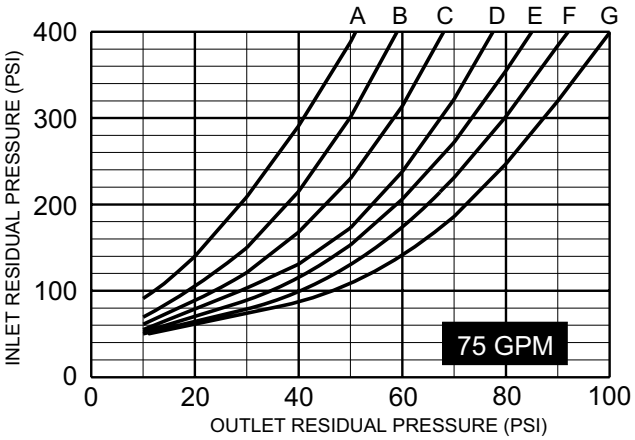
⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
⚠ **ADVERTENCIA:** Cáncer y daño reproductivo - www.P65Warnings.ca.gov
⚠ **AVERTISSEMENT:** Cancer et néfastes sur la reproduction - www.P65Warnings.ca.gov

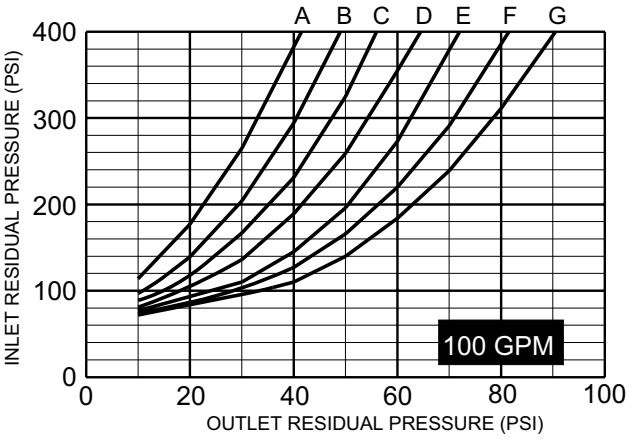
Residual Pressure Charts

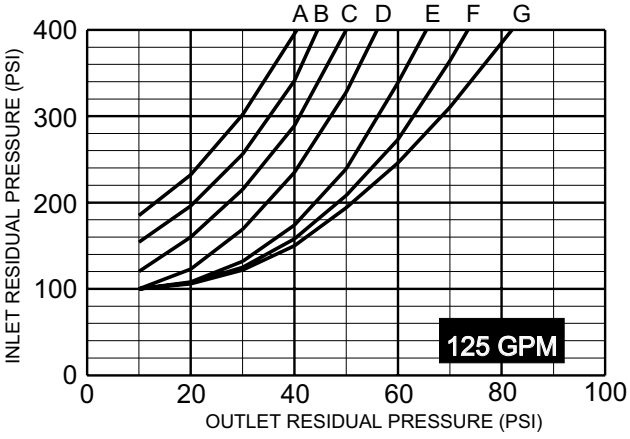
For Pressure-Tru™ 1 1/2” Angle Valves
Models: Z2100 & Z2105

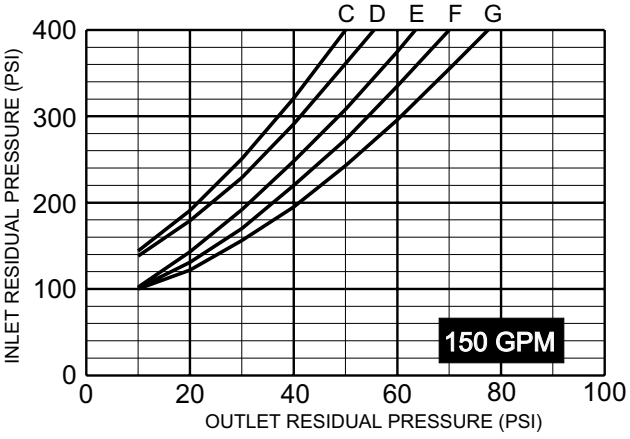












"A" DIMENSION SETTINGS (inches)						
A	B	C	D	E	F	G
3/16	1/4	5/16	3/8	7/16	1/2	9/16
NOTE: Curve accuracy= ±5 PSIG						

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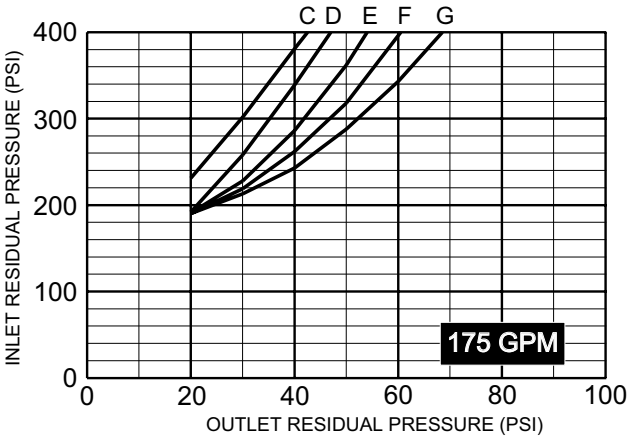
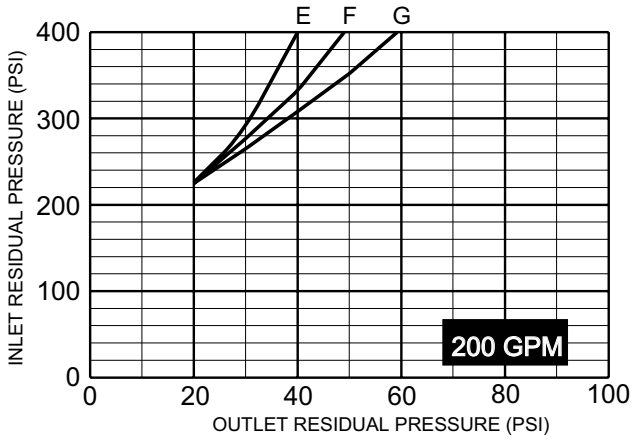
Residual Pressure Charts

For Pressure-Tru™ 1 1/2” Angle Valves
Models: Z2100 & Z2105



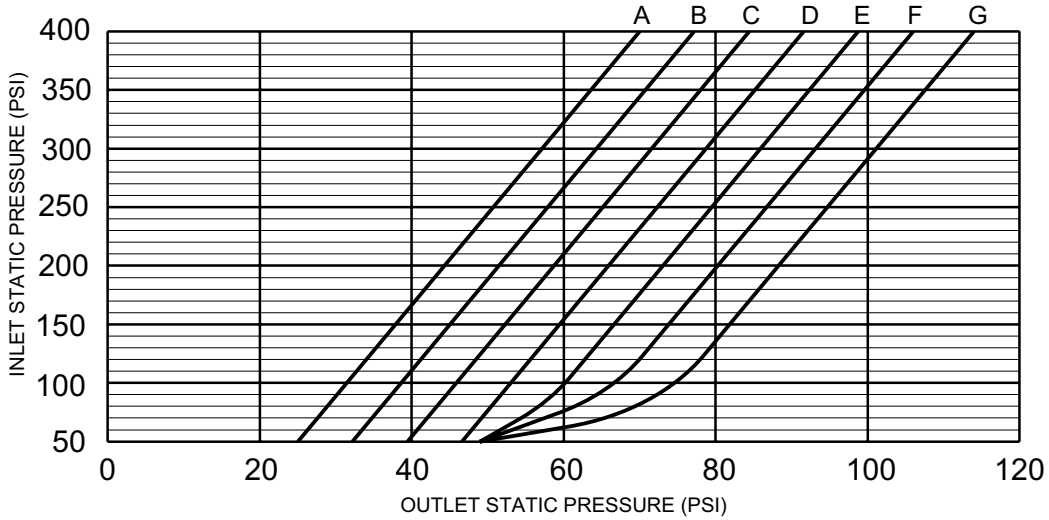


"A" DIMENSION SETTINGS (inches)						
A	B	C	D	E	F	G
3/16	1/4	5/16	3/8	7/16	1/2	9/16
NOTE: Curve accuracy= ±5 PSIG						

STATIC PRESSURE CHART

For ZURN WILKINS
Pressure-Tru™
Angle Valves
(1-1/2” Inlet and Outlet)

MODELS:
Z2100 and Z2105



"A" DIMENSION SETTINGS (inches)						
A	B	C	D	E	F	G
3/16	1/4	5/16	3/8	7/16	1/2	9/16
NOTE: Curve accuracy= ±5 PSIG						

FIELD SETTING INSTRUCTIONS

1. Pressure gauges should be installed upstream and downstream of the Pressure-Tru™ Valve.

2. Refer to flow data charts on pages 2-3 to determine the proper "A" DIMENSION setting.

3. Open valve by rotating hand wheel counter-clockwise.

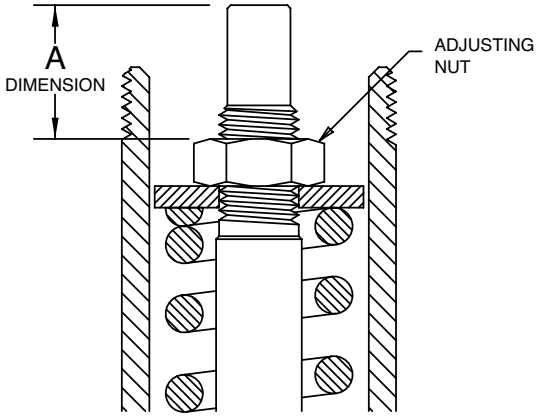
4. Remove wheel handle assembly by loosening the upper coupling nut.

5. Insert a 1 1/16" deep well socket (for 2-1/2" valve) or a 15/16 deep-well socket (for 1 1/2" valve) into bell housing and onto adjusting nut.

6. Turn the adjusting nut clockwise to increase the "A" DIMENSION setting and counter-clockwise to reduce the "A" DIMENSION setting. Decreasing the "A" DIMENSION setting lowers the downstream pressure.

   NOTE: Do not exceed 175 PSI static or maximum "A" DIMENSION setting of 9/16" (1-1/2" valve) and 1-3/16" (2 -1/2" valve) (see illustration).

7. After installation, the valve shall be tested in accordance with NFPA 14 and tested periodically thereafter in accordance with NFPA 25.



CAUTION: To prevent a false reading during the setting process it is necessary that a test valve be opened and closed to relieve the locked up pressure in the system.

If the system requires the valve to remain in a static position to maintain a regulated dead-end service pressure, it is good engineering practice to incorporate a pressure relief valve within the system.

VALVES WHICH ARE FIELD SET DIFFERENT THAN ABOVE INSTRUCTIONS WILL RENDER THE **WARRANTY VOID.**

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 Charts and the following procedures:

1. Determine the standpipe residual or "flow pressure" at the valve inlet.
2. Determine the demand in gallons per minute required downstream of the valve.
3. Locate the appropriate flow chart based on GPM required, valve type and size.
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 setting for the valve.
7. To determine the static outlet pressure, locate the static chart for the appropriate valve size. 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.

VALVE CARE AND MAINTENANCE

Since the Pressure-Tru™ Valve is an automatic valve, it is imperative to make sure that the system is free of rocks and debris. This can be ensured by flushing the system. Upon completion of valve installation and testing, it is important that it be filled *slowly* to prevent water hammer. It is recommended that a flow test be run periodically to allow the Pressure-Tru™ Valve to open and reset itself. If valve repair is required, the system should be drained. Access to internal components can be achieved by removing the wheel handle assembly, adjusting nut, spring, bell housing and flange. The body need not be removed from the system. Contact the factory for repair parts.

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