

**ISU Steam Pressure Reducing Valve Selection Table For Main Building Entrance
With Monitor**

Standard Station Sizes Based on Inlet Pressure of 90 psig and outlet Pressure of 12 psig.

Valve Train	Flow (#/hr)	Valve & Mat'l Store# (for FP&M use only)	Size	Trim	Model #
1	350-925	1A – Monitor Control 7879.9025	1"	EQ % Microform	4150KR-667-EZ
		1B – Working Control 7879.9030	1"	EQ % Microform	4160KR-667-EZ
2	850-2020	2A – Monitor Control 7879.9035	1"	EQ % Standard	4150KR-667-EZ
		2B – Working Control 7879.9040	1 ½"	Characterized Whisper I*	4160KR-667-ES
3	1750-2925 (not stocked)	3A – Monitor Control	1"	Whisper I	4150KR-667-ES
		3B – Working Control	2"	Characterized Whisper I*	4160KR-667-ES
4	2000-5225	4A – Monitor Control 7879.9045	1 ½"	Whisper I	4150KR-667-ES
		4B – Working Control 7879.9050	2 ½"	Characterized Whisper I*	4160KR-667-ES
5	3700-7270	5A – Monitor Control 7879.9055	2 ½"	Restricted Whisper I	4150KR-667-ES
		5B – Working Control 7879.9060	3"	Characterized Whisper I*	4160KR-667-ES
6	6800-12,800	6A – Monitor Control 7879.9065	3"	Restricted Whisper I	4150KR-667-ES
		6B – Working Control 7879.9070	4"	Characterized Whisper I*	4160KR-667-ES

Standard Sizes for PRV's are based on Fisher ES an EZ body globe valves. Standard size valves and repair parts are stocked in ISU Material Stores.

The above sets are matched to provide for required steam flows, linearized performance and keep a noise level less than 85 DBA

The designations 1A, 1B etc must be used when re-ordering from R.S. Stover Company.

* Valves with characterized Whisper I trim are a special order. The standard Whisper I is drilled out to allow a nearly linear response through the PRV work and monitor station.

Monitor valve is upstream valve and takes 20-50% of pressure drop under normal conditions (monitor valve wide open.)

Processes requiring steam pressures greater than 15 psig require approval of the Owners Representative.

667 is the control valve model number. All are set for "Air to open-fail closed". 4150K and 4160K are the model numbers for the Wizard box controllers. They are identical except for the 4160 has a "reset restriction valve" which opposes the proportional bellows. They are both reverse acting (air to open) controllers (thus adding the R on the end of the model number) They require 35 psig air to operate and output a range of from 6 to 30 psig to actuator.

Mounted on valve is an air pressure reducing regulator type 67AFR which can accept an input pressure up to 250 psig. Set to put out 35 psig air. These have built in filter.

Steam Pressure Reducing Valve Specification

Valve Train 1

1A-1 inch monitor control valve

1 inch CL150 RF steel EZ globe valve, 3/4 inch equal percentage trim #1, TFE packing 667 size 30 actuator, 6-30 psi bench set, 4150KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4150KR-667-EZ and no equal

1B-1 inch working control valve

1 inch CL150 RF steel EZ globe valve, 3/4 inch equal percentage trim #1, TFE packing 667 size 30 actuator, 6-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-EZ and no equal

Valve Train 2

2A-1 inch monitor control valve

1 inch CL150 RF steel EZ globe valve, 1 inch equal percentage trim #1, TFE packing 667 size 30 actuator, 10-30 psi bench set, 4150KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4150KR-667-EZ and no equal

2B-1 1/2 inch working control valve

1 inch CL150 RF steel ES globe valve, 1 5/16 inch whisper 1 characterized trim #1, TFE packing ,667 size 34 actuator, 6-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal

Valve Train 3

3A-1 inch monitor control valve

1 inch CL150 RF steel ES globe valve, 1 5/16 inch whisper 1 linear trim #1, TFE packing 667 size 34 actuator, 10-30 psi bench set, 4150KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4150KR-667-ES and no equal

3B-2 inch working control valve

2 inch CL150 RF steel ES globe valve, 2 5/16 inch whisper 1 characterized trim #1, TFE packing ,667 size 45 actuator, 10-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal

Valve Train 4

4A-1 1/2 inch monitor control valve

1 1/2 inch CL150 RF steel ES globe valve, 1 7/8 inch whisper 1 linear trim #1, TFE packing

667 size 45 actuator, 10-30 psi bench set, 4150KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4150KR-667-ES and no equal

4B-2 1/2 inch working control valve

2 1/2 inch CL150 RF steel ES globe valve, 2 7/8 inch whisper 1 characterized trim #1, TFE packing, 667 size 45 actuator, 14-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal

Valve Train 5

5A-2 1/2 inch monitor control valve

2 1/2 inch CL150 RF steel ES globe valve, 1 7/8 inch whisper 1 linear trim #1, TFE packing, 667 size 40 actuator, 10-30 psi bench set, 4150KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4150KR-667-ES and no equal

5B-3 inch working control valve

3 inch CL150 RF steel ES globe valve, 3 7/16 inch whisper 1 characterized trim #1, TFE packing, 667 size 45 actuator, 14-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal

Valve Train 6

6A-3 inch monitor control valve

3 inch CL150 RF steel ES globe valve, 2 5/16 inch whisper 1 characterized trim #1, TFE packing, 667 size 45 actuator, 10-30 psi bench set, 4150KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4150KR-667-ES and no equal

6B-4 inch working control valve

4 inch CL150 RF steel ES globe valve, 4 3/8 inch whisper 1 characterized trim #1, TFE packing, 667 size 70 actuator, 14-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal