

Control Valve Service Matrix

Courtesy of Singer Valve

Instructions

1. In the Summary section (in yellow below), insert your score for each of the eight variables.
2. Add your eight variable scores to get your Total Score.
3. Check your Total Score against the Scorecard (bottom of page) to determine the required action.

1. Size of area Number of properties in the zone?	Score	4. Differential Pressure Inlet press - Outlet press = Diff pressure (ΔP)	Score	7. Last minor service PRV disassembled, cleaned & visual inspection done?	Score
More than 2,500	5	Above 145 psi (10 bar)	9	Less than 4 years	7
1,800 to 2,499	4	116 psi to 144 psi (8 bar to 10 bar)	7	Less than 3 years	5
1,200 to 1,799	3	87 psi to 115 psi (6 bar to 8 bar)	5	Less than 2 years	3
800 to 1,199	2	43 psi to 86 psi (3 bar to 6 bar)	3	Less than 1 year	2
Less than 800	1	Below 42 psi (3 bar)	1	Less than 6 months	1
2. Critical nature of zone / area How critical is the zone fed by the PRV?	Score	5. Age of control valve When was the PRV installed?	Score	8. Sizing factor Is the PRV sized correctly?	Score
Medical facilities	5	Older than 15 years	5	Oversized - PRV opening 10% and below	9
Older network - prone to bursts	4	Between 11 and 14 years	4	Undersized - PRV opening 70% and more	7
Sensitive - manufacturing, critical users	3	Between 5 and 10 years	3	Correctly sized	0
Single feed zone	2	Between 1 and 4 years	2		
Domestic	1	Less than 1 year	1		
3. Size of pressure reducing valve What is the bore of the PRV?	Score	6. Last major service PRV had parts replaced: diap, disc, seals, etc.	Score	SUMMARY	
12" (300 mm) and larger	7	More than 4 years	9	1. Size of area	
8" to 10" (200 mm to 250 mm)	5	Between 3 and 4 years	7	2. Critical nature of zone	
6" (150 mm)	3	Between 2 and 3 years	5	3. Size of PRV	
3" to 4" (80 mm to 100 mm)	2	Between 1 and 2 years	3	4. Differential pressure across PRV	
2.5" (65 mm) and smaller	1	Less than 1 year	1	5. Age of control valve	
				6. Last major service	
				7. Last minor service	
				8. Sizing factors	
				TOTAL SCORE	

TOTAL ACTION SCORECARD

43 to 56	High risk Immediate review of valve operation required and preventive maintenance program to be generated. Inspection and major service required in the next 1 to 2 months.
29 to 42	Medium to high risk Check for high scores indicating a lack of maintenance. Where no major service has been done in more than 2 years, treat as above (High risk - major service required between 1 and 2 months). If major service has been done, perform minor service on valve in the next 2 to 6 months.
15 to 28	Medium to low risk Normal range of operation. Without any major critical factors existing (which would then require a major service), perform a minor service on the valve in the next 6 to 12 months.
0 to 14	Low risk If the valve has not had a major service in more than 4 years, a major service is required. If it has been serviced, then a minor service is required in the next 12 to 18 months.