

84000 Series

SteamForm[®]

Utilizing patented fluid flow conditioning technology and a unique nozzle arrangement, Masoneilan's SteamForm is designed for severe service and intermittent operation of the most challenging turbine bypass and steam conditioning applications.



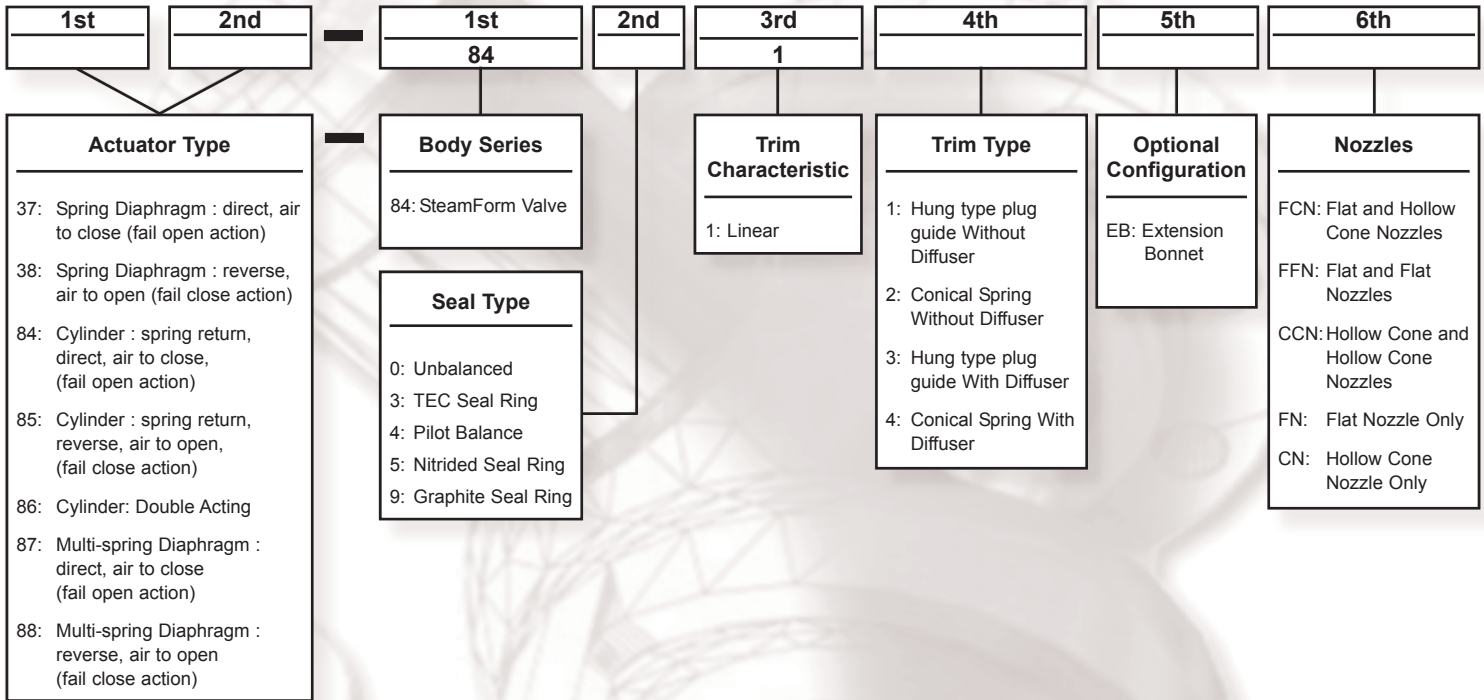
Inlet Size:	3" - 24"
ANSI Rating:	150 - 2500 Class
Materials:	Carbon Steel - 9 Cr 1.0 Mo
Steam C _v :	70 - 4320
Water C _v :	0.01 - 100+

Masoneilan[®]

DRESSER

SPECIFICATIONS

Numbering System



Features

The Masoneilan 84000 Series SteamForm steam conditioning valve combines years of successful experience in steam pressure control with the latest technological development in water injection and desuperheating. The SteamForm's unique design is engineered to provide the most efficient water vaporization and superior temperature control.

High Performance Design

Masoneilan's 84000 Series heavy-duty globe control valves are engineered to handle the most demanding process conditions and exceeds the capabilities of comparable designs. The cage guided design of the 84000 Series is structured for the severe service conditions and intermittent operation which is common in steam conditioning and turbine bypass applications. The construction allows for cyclical operation which accommodates large thermal transients.

Advanced Water Injection System

Masoneilan has achieved superior results by utilizing a patented dual nozzle system, made up of multiple flat and hollow cone nozzles, to efficiently vary the mass of the water droplets. This unique nozzle system allows for full penetration into the steam flow at a wide range of turndown capabilities and assures an evenly distributed downstream temperature profile. The water injection system is further optimized by machining a patented "flow profiler" to create a vena contracta adjacent to the point of water injection. The purpose of the flow profiler is to increase turbulence and decrease the impact of spray water impingement on the downstream pipe wall, which can result in heat stress and thermal fatigue.

Tight Shutoff

Both class IV and class V tight shutoff options are available with multiple best-fit options based upon valve size and design conditions.

Valve Sizes	CV and Travel Table ANSI 150 - ANSI 600			
	Standard Trim		Reduced Trim	
	Cv	Travel (Inch)	Cv	Travel (Inch)
3 Inch	125	2	95	2
4 Inch	195	2	150	2
6 Inch	300	2.5	230	2.5
8 Inch	500	3	380	2.5
10 Inch	650	3.5	520	3.5
12 Inch	1100	5	840	4
14 Inch	1450	5.5	1100	4
16 Inch	1800	6	1360	4
18 Inch	2430	7	1850	5
20 Inch	3000	8	2280	6
24 Inch	4320	10	3280	7.5

Valve Sizes	CV and Travel Table ANSI 900 - ANSI 2500			
	Standard Trim		Reduced Trim	
	Cv	Travel (Inch)	Cv	Travel (Inch)
3 Inch	95	2.5	70	2
4 Inch	165	3.5	120	2.5
6 Inch	230	4	165	3
8 Inch	380	5	270	3.5
10 Inch	560	6	400	4
12 Inch	860	7.5	610	5
14 Inch *	1200	9	840	6
16 Inch *	1450	9.5	1020	6.5
18 Inch *	1900	11	1350	7.5
20 Inch *	2300	12	1600	8
24 Inch *	3600	12	2500	8.5

* Maximum Pressure Class Rating is ANSI 1500

The Masoneilan SteamForm is a custom engineered product. Design features may vary in order to provide the best fit solution for each application. For specific product information please consult the factory and provide complete application process data.