

**Z BOILER**  
**MIURA**

**FULL AUTOMATIC WATER SOFTENER**

**Z SOFTENER**

**MS SERIES**



# Stable supply of soft water

## High quality full automatic water softener

Miura is recognized as the world's most reliable and respected brand of once-through boilers. We can provide you with genuine Water Softener that will keep your boiler running in top condition for many years. The Miura MS series is satisfying international customers.

### Features

#### Variety of Models

The MS Series offer different types of water softeners designed especially to meet your needs.

#### Fully Automatic

With Miura Full Automatic Water Softeners, the water treatment process is fully automatic. You just have to set the timer for the regeneration cycle, according to the amount of water you need. The MS series can supply stable, good quality soft water at all times.

#### Regeneration Process

The whole regeneration cycle can be divided into 5 steps;

Feed water

Back wash

Brine Regeneration

Water washing

Quick water washing

#### Compact Design and Simple Control Valve

The MS Series is all compact and solid units. Because of its simple construction, it is very easy to check or repair.

#### Brine Control

This device automatically controls the amount of brine needed for regeneration and eliminates brine overflow. Corrosion is no longer a problem because both the brine tank and brine valve are made of plastic.

#### Easy-to-Operate

The MS series is equipped with easy-to-read dials and time indicators. In addition, it is easier to add brine tanks to the large opening for salt injection.



## Basic specification

Type		MS-5	MS-10	MS-15	MS-22N	MS-30N	MS-40	MS-65	MS-90	MS-120	MS-150	Remarks	
Item	Unit												
Main body													
Standard flow rate	m <sup>3</sup> /h	0.27	0.6	0.8	1.3	1.8	2.4	3.9	5.4	7.2	9.0		
Resin volume	L	4.6	10	15	22	30	40	65	90	120	150		
Sampling water volume	m <sup>3</sup> /regeneration	3.7	9.2	14	24	33	26~40	55~70	55~100	82~133	113~167	*1, 2	
Hardness removal mass	gCaCO <sub>3</sub> /regeneration	220	550	840	1440	1960	1.6~2.4	3.3~4.2	3.3~6.0	4.9~8.0	6.8~10.0	*2	
Salt per regeneration	kg/regeneration	1.2	2.4	3.75	5.3	7.2	3.2~8.9	7.6~13.9	7.6~20.7	9.5~29.9	14.0~34.9	*3	
Maximum salt storage volume	kg	7	21	40	20	45	48	95		146			
Raw water temperature range	°C	4~40 (No freezing)											
Raw water pressure range	MPa[kgf/cm <sup>2</sup> ]	0.15~0.49[1.5~5.0]					0.18~0.49[1.8~5.0]					*4	
Pressure loss	MPa[kgf/cm <sup>2</sup> ]	0.01[0.1]	0.03[0.3]	0.04[0.4]	0.06[0.6]	0.10[1.0]	0.02[0.2]	0.05[0.5]	0.10[1.0]	0.13[1.3]		*5	
Regeneration drain	Total discharge	L/regeneration	102	154	191	520		654	765	1280	1605	1681	*6
	Maximum Flow	L/min	3.3	5.3	6.6	10.0		13	14	20	23		
Power supply	—	AC100V 50/60Hz Single Phase											
Rated power consumption	W	2					2 (during 10 sec. regeneration: 120W)						
Timer	Days	7					12						
Overall dimensions (W×D×H)	mm	220×490×575	255×530×870	280×585×990	660×390×1010	740×445×1135	945×445×1535	1080×580×1535	1085×580×1815	1260×730×1815	1290×730×1865	*7	
Connection diameter													
Inlet	A	20 External thread			25 External thread			40 Internal thread					
Dry Mass	Resin tank	kg	10	25	37	31	39	68	88	117	151	216	
	Brine tank	kg	—	—	—	5	10	11	17		16		
Operating mass	Resin tank	kg	30	72	108	46	63	143	147	201	260	360	
	Brine tank	kg	—	—	—	54	103	112	231		335		

Type		MS-200	MS-250	MS-300	MS-450	MS-600	MS-750	MS-900	Remarks		
Item	Unit										
Body											
Standard flow rate	m <sup>3</sup> /h	15	19	24	25	27		28			
Resin volume	L	200	250	300	450	600	720	900			
Sampling water volume	m <sup>3</sup> /regeneration	118~182	153~218	172~270	273~402	443~563	497~665	547~790	*1, 2		
Hardness removal mass	gCaCO <sub>3</sub> /regeneration	7.1~10.9	9.2~13.1	10.3~16.0	16.4~24.1	26.6~33.8	29.8~39.9	32.8~47.4	*2		
Salt per regeneration	kg/regeneration	15.3~35.4	19.8~45.7	20.5~50.8	33.9~76.1	66.7~106.9	66.7~118.1	66.7~129.3	*3		
Maximum salt storage volume	kg	140		240			536				
Raw water temperature range	°C	4~40 (No freezing)									
Raw water pressure range	MPa[kgf/cm <sup>2</sup> ]	0.18~0.49[1.8~5.0]								*4	
Pressure loss	MPa[kgf/cm <sup>2</sup> ]	0.11[1.1]	0.18[1.8]		0.23[2.3]		0.19[1.9]	0.20[2.0]	0.22[2.2]	*5	
Regeneration drain	Total discharge	L/regeneration	3260	3290	4940	4990	10470	10500	10560	*6	
	Maximum Flow	L/min	55		75		155				
Power supply	—	AC100V 50/60Hz Single Phase									
Rated power consumption	W	2 (during 10 sec. regeneration: 120W)									
Timer	Days	12									
Overall dimensions (W×D×H)	mm	1705×1210×2035			2065×1370×2265			2600×1720×2690			*7
Connection diameter											
Inlet	A	50 Internal thread				65 Internal thread					
Dry Mass	Resin tank	kg	400	440	638	758	1298	1418	1538		
	Brine tank	kg	20		38			65			
Operating mass	Resin tank	kg	861	901	1103	1133	2555	2581	2606		
	Brine tank	kg	410		690			1170			

\*1 Raw water hardness at 60 mg/L as CaCO<sub>3</sub>.

\*2 Value corresponding to amount of salt per regeneration.

\*3 Shows allowed upper and lower limits of salt consumption. May differ slightly due to condition of water supply.

\*4 The minimum pressure value is the required water pressure for regeneration and the maximum water pressure value is the boiler's maximum allowable operating pressure.

\*5 For standard flow rate and water temperature of 20°C.

\*6 For raw water pressure of 0.18 MPa (0.38 kgf/cm<sup>2</sup>).

\*7 For brine tank diameter and boiler dimensions + 30mm.

# Network

We will make global proposals for energy and environmental problems.

We will offer greater satisfaction to customers by providing high-quality technologies and services. As a professional of heat and water, we would like to make proposals for energy and environmental problems. Miura's network of bases has spread globally, beyond national borders, and will continue to expand.



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