

Duramix 8000GM Series Steam & Cold Water Mixing Station (8000GM-B, 8000GM-B-T, 8000GM-S, 8000GM-S-T)

The Duramix 8000GM series is designed with safety and efficiency in mind.

- Its unique design prevents live steam from passing in the scenario that water pressure drops, or the water supply is cut.
- Jam nut design on the steam globe valve allows for adjustment of maximum flow rate of live steam in situations where the steam to water ratio is greater than 2:1.
- The unit works within the full range of water and steam pressure specified without the need to change internal parts.
- The strategic dual output design, one at the bottom for a hose and one at the top for hard pipe installation provides users with the ability to supply two individual terminals with their own hot water supply.
- Easy to adjust the temperature of the hot water. The temperature control wheel adjusts the cold water flow rate into the mixing

chamber and can be used alone to set the desired temperature after desired steam flow rate is set with the jam nut.

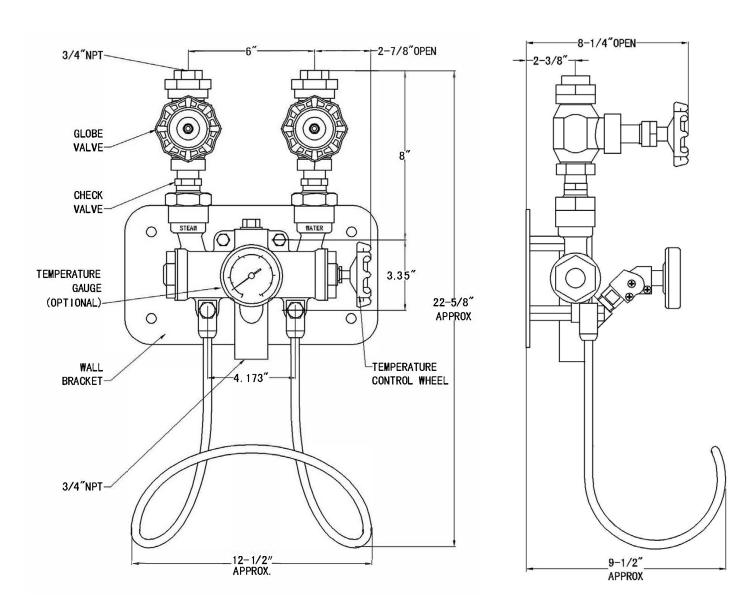


	8000GM-B, 8000GM-B-T	8000GM-S, 8000GM-S-T
Inlet/Outlet Diameter:	3/4" NPT	3⁄4" NPT
Globe Valves:	Bronze	304 Stainless Steel
Mixer Body:	Bronze	304 Stainless Steel
Check Valves: 304 Stainless Steel	Bronze / Stainless Steel	304 Stainless Steel
Hose Rack: 304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Temperature Gauge (Optional):	Stainless Steel	Stainless Steel
Weight:	24.3 lbs. (11 kg)	26.5 lbs. (12 kg)
Recommended Operative Conditions		
Working Steam Pressure (Saturated Only):	30-150 PSI	30-150 PSI
Working Water Pressure:	30-150 PSI	30-150 PSI
Maximum Temperature:	200 °F (93 °C)	200 °F (93 °C)
Maximum Pressure:	150 PSI	150 PSI
		<u> </u>

(If steam to water ratio is more than 2:1, please refer to page 3)

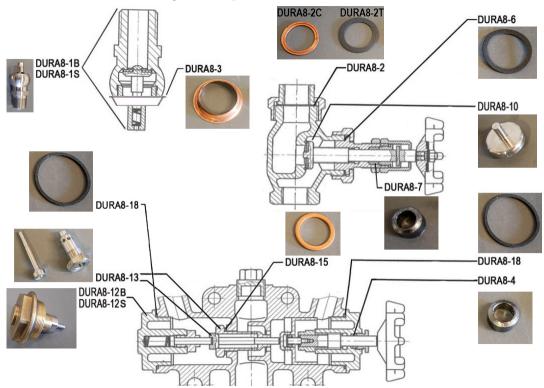


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Part #	Description
DURA8-1B	Check valve assembly. Includes check valve poppet, spring, and copper connection gasket. Bronze.
DURA8-1S	Check valve assembly. Includes check valve poppet, spring, and copper connection gasket. Stainless Steel.
DURA8-2-T	Globe valve connection gasket. Teflon. Cold water.
DURA8-2-C	Glove valve connection gasket. Copper. Steam.
DURA8-3	Check valve connection gasket. Copper.
DURA8-4	Temperature control stem guide. Teflon filling.
DURA8-6	Globe valve stem guide nut gasket. Teflon.
DURA8-7	Globe valve stem guide Teflon filling.
DURA8-10S	Globe valve poppet. Stainless steel.
DURA8-12B	Steam chamber cover plate assembly. Bronze
DURA8-12S	Steam chamber cover plate assembly. Stainless Steel.
DURA8-13	Steam poppet and poppet seat. Stainless steel
DURA8-15	Steam poppet seat copper gasket.
DURA8-18	Temperature control chamber plate gasket. Teflon.
HAND WHEEL-(BLUE)	Globe valve hand wheel (Blue)
HAND WHEEL-(RED)	Globe valve hand wheel (Red)
GV-STEAM	Globe valve for steam and cold water mixing unit. Bronze. Steam side.
GV-STEAM-SS	Globe valve for steam and cold water mixing unit. Stainless steel. Steam side.
GV-WATER	Globe valve for steam and cold water mixing unit. Bronze. Water side.
GV-WATER-SS	Globe valve for steam and cold water mixing unit. Stainless steel. Water side.

(Charts below are for reference purposes only)
(Saturated Steam Only)

For example, provided you have the following:

1. Inlet water: 60 PSI @ 50°F (10°C)

Inlet steam: 75 PSI

3. Desired output: 12 GPM @ 105°F (41°C)

Temperature rise in F° should be converted to temperature rise in C° using the following formula:

Temp. Rise C° = (Temp. High F° - Temp. Low F°)/1.8

Temperature Rise = 105-50 = 55°F. By examining the table with 55°F temperature rise, we discover that a water output of 12.1 GPM can be achieved with 60 PSI water and 75 PSI steam. This means that one Duramix 8000 unit will be able to produce 12.1 GPM@105°F at the outlet, thus satisfying the requirements. Please note that in some cases it will be necessary to install multiple Duramix 8000 units if the desired outflow is higher than what is indicated on this chart.

0°F (0°C) Temperature Rise Flow Rate: (30 PSI water pressure) 13.1 GPM, (45PSI water pressure) 13.3 GPM, (60 PSI water pressure) 13.6 GPM, (75 PSI water pressure) 13.8 GPM

55°F (31°C) Temperature Rise (Inlet Water Temperature + 55°F (31°C) Temperature Rise = Outlet Temperature Output)

STEAM	45 PSI (3 Bar)	75 PSI (5 Bar)	100 PSI (7 Bar)	125 PSI (9 Bar)	150 PSI (10 Bar)
30 PSI (2 Bar)	10.0 gal/min	11.8 gal/min	13.0 gal/min	14.1 gal/min	15.2 gal/min
	37.9 l/min	44.7 l/min	49.2 l/min	53.4 l/min	57.5 l/min
45 PSI (3 Bar)	10.0 gal/min	12.0 gal/min	13.2 gal/min	14.2 gal/min	15.3 gal/min
	37.9 l/min	45.4 l/min	50.0 l/min	53.8 l/min	57.9 l/min
60 PSI (4 Bar)	10.2 gal/min	12.1 gal/min	14.0 gal/min	14.3 gal/min	15.6 gal/min
	38.6 l/min	45.8 l/min	53.0 l/min	54.1 l/min	59.1 l/min
75 PSI (5 Bar)	10.3 gal/min	12.3 gal/min	14.2 gal/min	14.5 gal/min	15.7 gal/min
	39.0 l/min	46.6 l/min	54.9 l/min	54.9 l/min	59.4 l/min

100°F (56°C) Temperature Rise (Inlet Water Temperature + 100°F (56°C) Temperature Rise = Outlet Temperature Output)

STEAM	45 PSI (3 Bar)	75 PSI (5 Bar)	100 PSI (7 Bar)	125 PSI (9 Bar)	150 PSI (10 Bar)
30 PSI (2 Bar)	6.5 gal/min	8.0 gal/min	8.5 gal/min	9.4 gal/min	10.2 gal/min
	24.6 l/min	30.3 l/min	32.2 l/min	35.6 l/min	38.6 l/min
45 PSI (3 Bar)	6.5 gal/min	8.2 gal/min	9.0 gal/min	9.6 gal/min	10.5 gal/min
	24.6 l/min	31.0 l/min	34.1 l/min	36.3 l/min	39.7 l/min
60 PSI (4 Bar)	6.8 gal/min	8.2 gal/min	9.9 gal/min	10.0 gal/min	10.7 gal/min
	25.7 l/min	31.0 l/min	37.5 l/min	37.9 l/min	40.5 l/min
75 PSI (5 Bar)	6.9 gal/min	8.3 gal/min	10.1 gal/min	10.3 gal/min	10.9 gal/min
	26.1 l/min	31.4 l/min	38.2 l/min	39.0 l/min	41.3 l/min

135°F (75°C) Temperature Rise

(Inlet Water Temperature + 135°F (75°C) Temperature Rise = Outlet Temperature Output)

STEAM	45 PSI (3 Bar)	75 PSI (5 Bar)	100 PSI (7 Bar)	125 PSI (9 Bar)	150 PSI (10 Bar)
30 PSI (2 Bar)	4.6 gal/min	6.7 gal/min	7.2 gal/min	8.3 gal/min	9.5 gal/min
	17.4 l/min	25.4 l/min	27.3 l/min	31.4 l/min	36.0 l/min
45 PSI (3 Bar)	4.8 gal/min	7.0 gal/min	7.6 gal/min	8.5 gal/min	9.7 gal/min
	18.2 l/min	26.5 l/min	28.8 l/min	32.2 l/min	36.7 l/min
60 PSI (4 Bar)	4.8 gal/min	7.2 gal/min	7.8 gal/min	8.6 gal/min	9.8 gal/min
	18.2 l/min	27.3 l/min	29.5 l/min	32.6 l/min	37.1 l/min
75 PSI (5 Bar)	4.9 gal/min	7.3 gal/min	8.0 gal/min	8.9 gal/min	10.1 gal/min
	18.5 l/min	27.6 l/min	30.3 l/min	33.7 l/min	59.4 l/min