

DURAMIX 8000 TEMPERATURE RISE VS. GPM

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

For example, provided you have the following:

1. Input water temperature: 50°F (10°C)
2. Desired output water flow: 12 GPM
3. Desired output temperature: 105°F (41°C)

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

$$\text{Temp. Rise C}^\circ = (\text{Temp. High F}^\circ - \text{Temp. Low F}^\circ) / 1.8$$

By reading the first table, the required steam pressure has to be 75 PSI. The required water pressure has to be 45 PSI. The first table is used because the desired temperature rise is 55° F (50° F + 55° F = 105° F).

0°F (0°C) Temperature Rise Flow Rate: (30 PSI water pressure) 13.1 GPM, (45 PSI 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 \ WATER	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 37.9 l/min	11.8 gal/min 44.7 l/min	13.0 gal/min 49.2 l/min	14.1 gal/min 53.4 l/min	15.2 gal/min 57.5 l/min
45 psi (3 Bar)	10.0 gal/min 37.9 l/min	12.0 gal/min 45.4 l/min	13.2 gal/min 50.0 l/min	14.2 gal/min 53.8 l/min	15.3 gal/min 57.9 l/min
60 psi (4 Bar)	10.2 gal/min 38.6 l/min	12.1 gal/min 45.8 l/min	14.0 gal/min 53.0 l/min	14.3 gal/min 54.1 l/min	15.6 gal/min 59.1 l/min
75 psi (5 Bar)	10.3 gal/min 39 l/min	12.3 gal/min 46.6 l/min	14.2 gal/min 53.8 l/min	14.5 gal/min 54.9 l/min	15.7 gal/min 59.4 l/min

100°F (56°C) Temperature Rise

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

STEAM \ WATER	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 24.6 l/min	8.0 gal/min 30.3 l/min	8.5 gal/min 32.2 l/min	9.4 gal/min 35.6 l/min	10.2 gal/min 38.6 l/min
45 psi (3 Bar)	6.5 gal/min 24.6 l/min	8.2 gal/min 31.0 l/min	9.0 gal/min 34.1 l/min	9.6 gal/min 36.3 l/min	10.5 gal/min 39.7 l/min
60 psi (4 Bar)	6.8 gal/min 25.7 l/min	8.2 gal/min 31.0 l/min	9.9 gal/min 37.5 l/min	10.0 gal/min 37.9 l/min	10.7 gal/min 40.5 l/min
75 psi (5 Bar)	6.9 gal/min 26.1 l/min	8.3 gal/min 31.4 l/min	10.1 gal/min 38.2 l/min	10.3 gal/min 39 l/min	10.9 gal/min 41.3 l/min

135°F (75°C) Temperature Rise

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

STEAM \ WATER	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 17.4 l/min	6.7 gal/min 25.4 l/min	7.2 gal/min 27.3 l/min	8.3 gal/min 31.4 l/min	9.5 gal/min 36 l/min
45 psi (3 Bar)	4.8 gal/min 18.2 l/min	7.0 gal/min 26.5 l/min	7.6 gal/min 28.8 l/min	8.5 gal/min 32.2 l/min	9.7 gal/min 36.7 l/min
60 psi (4 Bar)	4.8 gal/min 18.2 l/min	7.2 gal/min 27.3 l/min	7.8 gal/min 29.5 l/min	8.6 gal/min 32.6 l/min	9.8 gal/min 37.1 l/min
75 psi (5 Bar)	4.9 gal/min 18.5 l/min	7.3 gal/min 27.6 l/min	8.0 gal/min 30.3 l/min	8.9 gal/min 33.7 l/min	10.1 gal/min 38.2 l/min