SIMPSON **MULTI-COOLER**®

As foundry sand preparation and molding plants become increasingly high-speed and quality-oriented, the control of return sand temperature is essential. The Simpson Multi-Cooler is specifically designed to provide the mixer group with sand that is cooled to temperatures that allow optimal mulling, pre-mixed to eliminate return sand variations and with a moisture content controlled within tight tolerances. The result is optimal mulling and high-quality, profitable castings.

DESCRIPTION

Continuous sand cooler and pre-conditioning system operating on the principle of evaporative cooling.

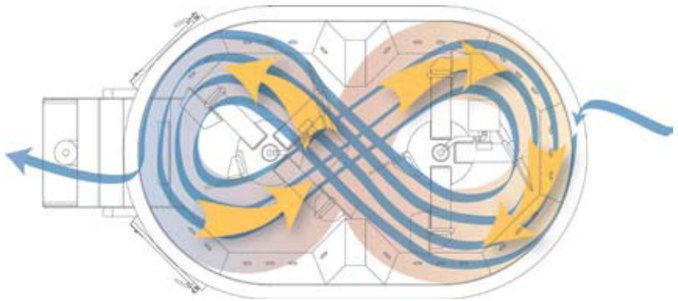
APPLICATION

Sand systems with return sand temperature above 49° C and/or wide variations in return sand properties.

FEATURES

- Pre-mixing with back-blending and controlled retention
- High-efficiency cooling to below 49° C or 10° C over ambient
- Discharge moisture of 2.0% +/-0.2%

Continuous back-blending of a large volume of retained sand from multiple molds eliminates any "first-in/first-out" effect and assures complete homogeneity of return sand prior to final mixing.



SIMPSON MULTI-COOLER TECHNICAL DATA

MODEL		MC-25	MC-50	MC-100	MC-150	MC-200	MC-250	MC-300
CAPACITY	tph	22	45	90	135	180	225	270
LENGTH	mm	2,400	3,680	4,360	5,300	6,140	7,440	7,440
WIDTH	mm	1,560	2,080	2,480	2,970	3,470	4,720	4,720
HEIGHT	mm	2,700	3,370	3,420	4,060	4,390	6,070	6,070
DRIVE MOTOR	HP	15	30	50	100	150	200	250
	kw	11	22	37	75	112	150	186
BLOWER MOTOR	HP	15	20	40	60	75	100	100
	kW	11	15	30	45	56	75	75
INLET BLOWER	m^3/hr	4,500	9,000	18,000	26,850	35,860	44,860	53,870
EXHAUST	m^3/hr	6,000	11,220	22,260	33,480	44,520	55,740	66,950
SHIPPING WEIGHT	kgs	2,700	4,945	7,415	12,020	19,600	29,250	29,250

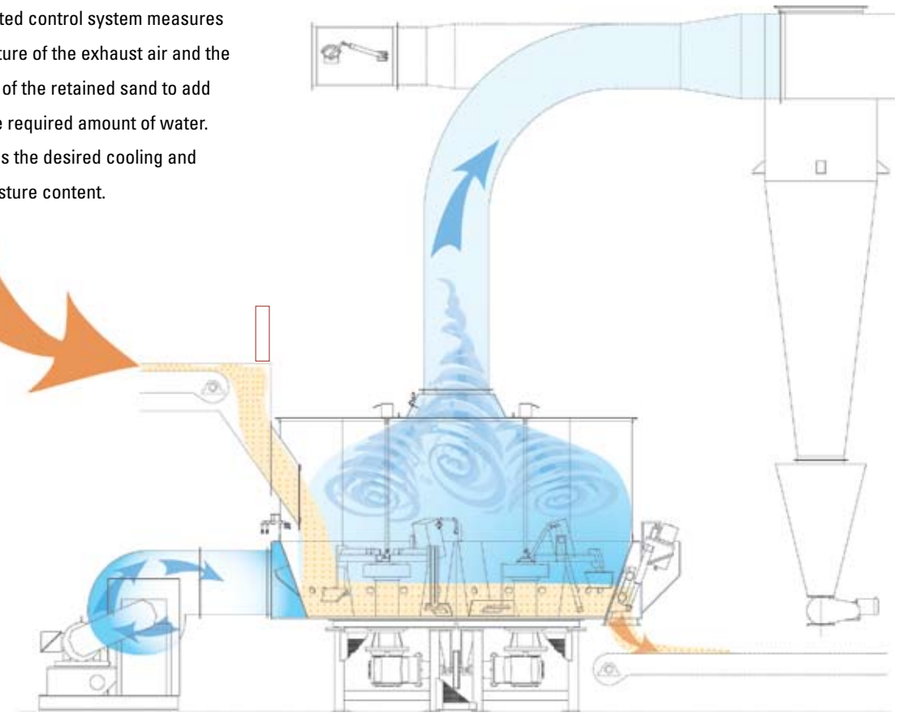
All figures are approximate and are subject to change depending upon your application.

PRE-CONDITIONING

MAKES YOU MORE COMPETITIVE

The mixer group can operate at **optimal performance** and **efficiency** when shakeout sand is continuously **cooled, pre-mixed** and the **moisture is increased** and **stabilized** within a narrow tolerance before final mixing.

1 A sophisticated control system measures the temperature of the exhaust air and the conductivity of the retained sand to add precisely the required amount of water. This achieves the desired cooling and residual moisture content.



2 Counter-rotating mixing tool sets mechanically fluidize the retained sand so that cooling air, provided by the inlet blower, and water can be in intimate contact with the sand; thus providing for efficient and effective cooling.

3 Based on sensors monitoring motor load, the control system adjusts the discharge door opening to maintain a constant volume of sand in the cooler at all times.

WANT TO KNOW MORE www.simpsongroup.com/sandprep/multicooler.htm