

Mould Space Combo

MSC - Series



Working Principle

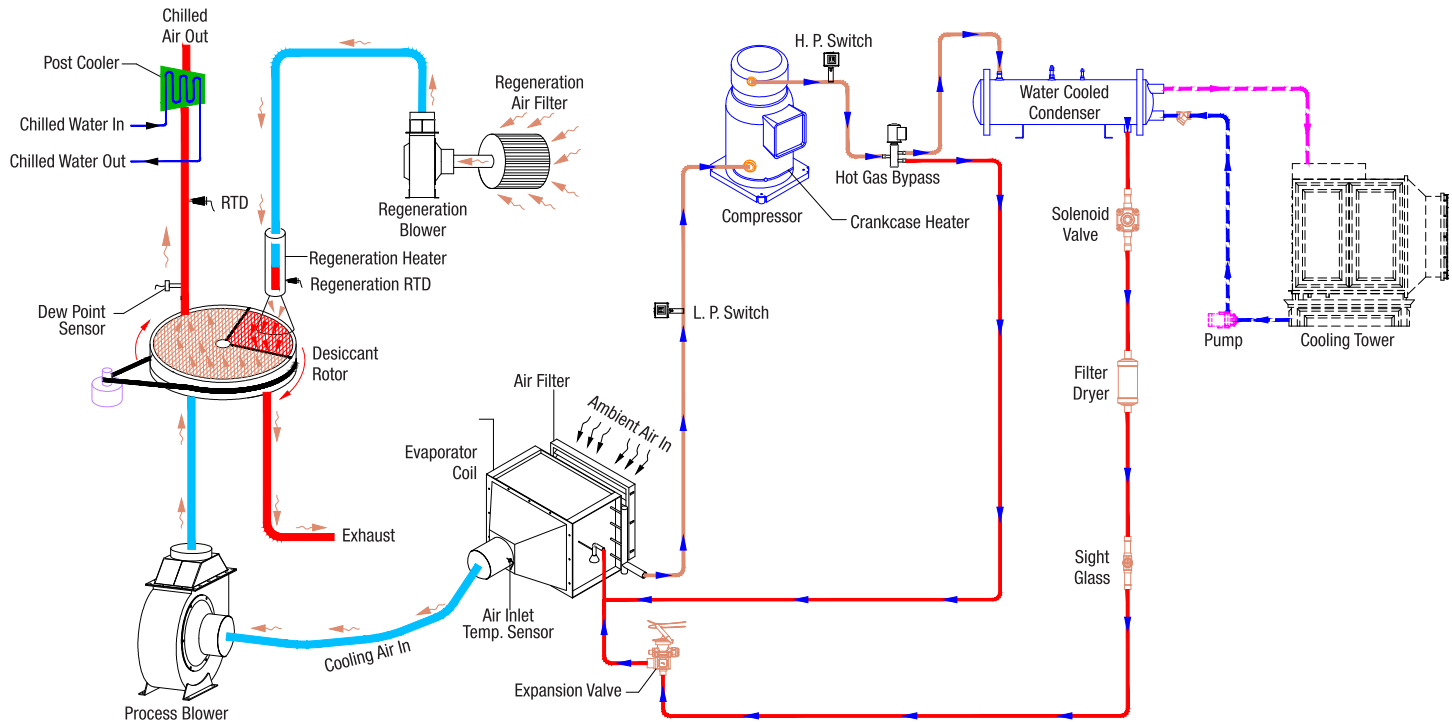
Process Blower gets air from ambient through Air Filter and Heat Exchanger (Evaporator). Inbuilt refrigeration based system removes the initial moisture from air by cooling air at constant temperature. Cooled and constant temperature of air then passes through a continuously rotating desiccant rotor for removing the moisture at dew point level of -3°C to -5°C. After removing the moisture, Process Blower supplies low dew point air to processing machine through post cooler to reduce the temperature of air below 25°C. A continuously rotating desiccant rotor removes the moisture at regeneration temperature of 140 Degree Celsius in open air.

Capacity Ranges

400 m³/hr • 600 m³/hr • 1200 m³/hr • 2400 m³/hr

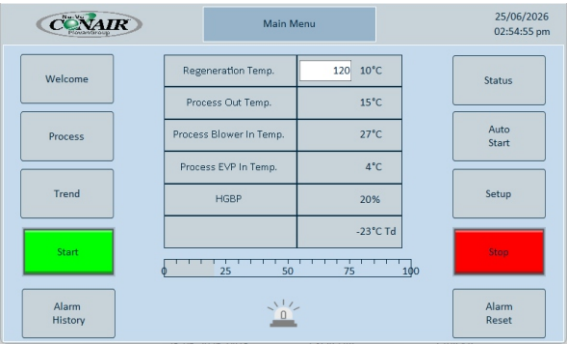
Unique Features

- Lower dew point at air outlet - 3°C to - 5°C to prevent condensation on mould which helps in improving productivity of the main processing machine
- Desiccant rotor based system instead of refrigerant based system
- Designed for higher static pressure at rated air flow
- Designed for Indian ambient conditions
- Proven component suppliers
- Compressor from Danfoss
- Ziehl-Abegg Germany make centrifugal blowers
- PLC based control
- Touch screen HMI of 7" size with color graphics
- Process and Regeneration blowers are protected against impurities with PP filter with easy access
- Lower pressure drop across the desiccant assembly
- Neat and clean component layout for easy access of major components
- Tabular fast response heater



Control

- User friendly design of touch screen HMI
- Display of temperature readings of air at various stages of process e.g.
 - Evaporator outlet temperature
 - Temperature at desiccant rotor outlet
 - Temperature going to process
 - Regeneration temperature
- Status of all DI & DO screen
- Trending screen to monitor the performance of Mould Space Combo
- Two different levels of password protection
- Audio visual alarm
- Display of air outlet temperature and humidity
- Solid state relay based heater control for frequent ON / OFF
- Real time clock with capability to record last 50 alarms
- Capable to communicate through Modbus TCP / IP platform
- Option of multiple outlet for multiple machines with central Mould Space Combo
- Optional dew point indication & control



Technical Specifications

Model	MSC 1	MSC 1.5	MSC 2	MSC 4	MSR 1.5	MSR 2
Performance Characteristics						
Air Flow M/Hr (CFM)**	400 (235)	600 (353)	1200 (705)	2400 (1411)	700 (353)	1200 (705)
Process Air Static Pressure Wc"(Pa)	2.4" (600 Pa)	1.5" (373 Pa)	2" (500 Pa)		1.5" (373 Pa)	2" (500 Pa)
Rated Air Outlet Dew Point** at 100 Deg. Cel. of Regeneration	Minus (-) 3 Degree Celsius				Plus (+) 4 Degree Celsius	
Rated Air Outlet Dew Point** at 140 Deg. Cel. of Regeneration	Minus (-) 6 Degree Celsius					
Process Air Outlet Temperature Degree Celsius	25					
Standard Process Blower KW	0.51		0.62	3	0.51	0.62
Standard Regeneration Blower KW	0.19	0.19	0.51	0.62		
Regeneration Heater KW	7.5		15	30		
Compressor Quantity / KW	1 / 2.4	1 / 4.1	1 / 6.1	1 / 9.95	1 / 4.97	1 / 7.9
Refrigerant	R 410 A					
Voltage	415V, 50 Hz, 3 phase					
Connected Load KW	10.6	12.3	22.3	43.57	5.48	8.52
Control Voltage	24V DC					
Dimension W x D x H (mm)						
W - Width	1650	1302		1400	1250	1250
D - Depth	1550	1700		2400	1700	1700
H - Height	2100	2200		2400	1500	1600
Process Connections						
Process Delivery Size ø inch (mm)	5 (127)	6 (152.4)	8 (203.2)	12 (304.8)	5 (127)	8 (203.2)
Regeneration Delivery Size ø inch (mm)	4 (101.6)	5 (127)		8 (203.2)		
Water Requirements (customer scope of supply)						
Cooling Tower Capacity Require KW (TR)	18 (5.1)	21.19 (6)	26.65 (7.5)	80 (23)	26.65 (7.5)	43.9 (12.5)
Temperature Degree Celsius	30					
Flow Rate M³/Hr (LPM)	3 (52)	5 (78)	6 (96)	17.5 (292)	6 (96)	8 (134)
Cooling Water Inlet / Outlet Connection	1-1/2" BSP					
Chilled Water Requirement for Post Cooler-LPM	10	20	30	60		
Chiller Capacity - TR	1	2	3	6		
Weight Kg						
Installed (NET)	310	400	435	675	280	340
Color	RAL 9005 Black / RAL 7047 Telegrey 4					

*Considering ambient condition: 35 degree celsius & 63% relative humidity.
All specifications are subject to change without prior notice.

LEADING MANUFACTURER OF PLASTIC AUXILIARY EQUIPMENT

Material Storage | Conveying | Drying | Blending | Heat Transfer | Size Reduction



(An ISO 9001:2015 Certified Organization)

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