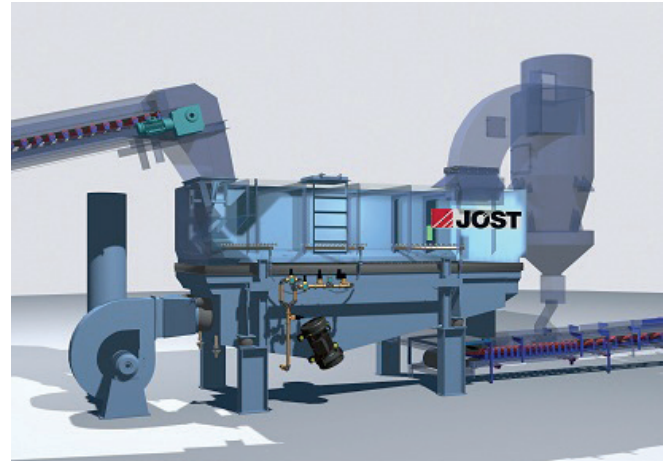


# Sand Cooler

Used sand coolers Type DWFA serve for the cooling of hot foundry sand. The DWFA type used sand cooler consists of a vibrating conveyor made with an air-permeable bottom, a stationary exhaust hood, a moisturizing unit, a fan and a control unit.

The sand is cooled under optimum heat transfer conditions in the fluidised bed by evaporation of water. The final moisture level is adjusted by the precisely controlled addition of water according to the temperature and throughput.



### ADVANTAGES

- ✓ Highly consistent final sand moisture adjustable to 1.6 – 2.2% ± 0.3%, even with fluctuating inlet moisture
- ✓ Good and homogenous sand quality through fluidization and continuous operation of the cooler
- ✓ High cooling effect and low energy consumption with compact design
- ✓ Automatic throughput control with continuous level in the hot sand hopper
- ✓ Continuous operation with the throughput adaptation (EP) on fluctuating sand inlet rates from 40% to 100% of the normal capacity
- ✓ Compact design alternative with integrated hot sand hopper for easy installation in existing plants
- ✓ PLC process control with LCD display and integrated fault analysis of all major equipment functions
- ✓ Few wear parts, low maintenance
- ✓ Homogenization device inside the cooler inlet

### OPTIONS

- External hot sand bunker with reversible and speed controlled extraction belt
- Moisture control and display with final moisture measurement at the outlet
- Cyclone separator with rubber lined suction duct and pneumatic operated double flap valves
- Automatic air circulation control to prevent undesirable low sand temperatures in winter time
- Addition of bentonite after cooler outlet into the mixing screen conveyer
- Updating of earlier cooler generations by the application of the latest throughput and moisture control functions



### APPLICATION

- Green Sand Molding Process

**TECHNICAL DATA**

Sand Cooler		Performance in t/h with cooling			Water consumption <sup>3)</sup>	Supply air	Exhaust air	Zyclone
Type	Width x Length drive	120° -40°	100 -40°	80° -40°	max. liter/h	Nm <sup>3</sup> /h	Bm <sup>3</sup> /h	Type (Option)
DWFA <sup>1)</sup>	850 x 2400 JX 136	14,5	17	21	600	3550	5500	Z 750
DWFA	850 x 4000 JX 136	26,5	31	37	1100	5900	8300	Z 950
DWFA	1300 x 3600 JX 158	37	42	50	1550	8200	11000	Z 1050
DWFA	1300 x 4400 JX 158	45	52	60	1900	10000	14200	Z 1150
DWFA	1750 x 4000 JX 178	55	63	76	2300	122250	17400	Z 1300
DWFA	1750 x 4400 JX 178	60	69	84	2500	13500	19200	Z 1300
DWFA	2100 x 4000 JX 208	66	76	91	2750	14700	20800	Z 1450
DWFA	2100 x 4800 JX 208	79	91	108	3300	17600	25800	Z 1550
DWFA	2100 x 5600 JX 208	92	107	125	3900	20600	30800	Z 1650
DWFA	2500 x 5600 JX 248	110	126	148	4650	24500	36100	Z 1850
DWFA	2500 x 6400 JX 248	125	145	169	5300	27900	40600	Z 2050
DWFA	2500 x 7200 JX 278	142	163	190	6000	31600	45400	Z 2050
DWFA	2500 x 8000 JR 408	157	182	215	6650	35100	50300	Z 2300
DWFA	2500 x 8800 JR 608	173	199	230	7300	38500	54800	Z 2300
DWFA	2500 x 9600 JR 608	197	229	260	8350	44500	62500	Z 2800 <sup>2)</sup>
DWFA	2500 x 11200 JR 808	230	267	303	9750	5200	70100	2 Z 2300 <sup>2)</sup>
DWFA	2500 x 12800 2 JR 408	262	305	346	11100	59600	82500	2 Z 2300 <sup>2)</sup>

1) Type 850 x 2400 without performance regulation! Only with integrated pre-hopper in old shape (without drum)

2) Zyclone only as low-pressure execution available

3) Water pressure has to be steady at min. 4.0 bar. Performance data of cooler are valid at a dew-point temperatur of the supply air of max. 18°C !