

水式模温机

"OMT-W" Orste Mold Temperature Controllers (Water)

命名原则 NAMING PRINCIPLE

OMT - xxxx - xx

注 Notes:

HTW: 水式高温 D: 双段
HTW: Medium is Water with High temperature
D: Dual-heating Zone

前两码表示电热功率
First Two Numbers: Heater Power (kw)
后两码表示泵浦功率
Last Two Numbers: Pump Power (*10⁻¹ HP)

奥诗德模具控温机
Orste Mold Temperature Controller



产品特点 FEATURES

一周定时开关机功能，屏幕可中英文切换。

P. I. D. 分段式控温系统，可持续稳定模温，控温精度达 ±1℃。

高效水循环马达，适用于精密模具及小直径模具回路中的控温，能实现精密控温和高效热交换，马达内部不锈钢制造，高温防爆。

电源逆相保护、水泵过载保护、超温保护、低液位保护等多种安全装置，当故障发生时，本机可自动侦测到异常并发出警报。

标准型温度可达120℃，高温型温度可达160℃。

具有高压保护、安全泄压、自动补水及排气功能。

OMT-W标准型采用直接冷却方式，OMT-HTW高温型采用间接冷却方式，自动直接补水装置，可快速降温。

Equipped with the design of one week automatic start/stop timer, screen can be converted between Chinese and English.

P. I. D. multi-stage temperature control system can maintain a mold temperature with an accuracy of ±1℃.

Adopts high efficiency water cycle pump, which can meet the demands of temperature control for precise molds and mold loop with minor diameter to achieve precise temperature control and high efficiency heat exchange. Pump inside adopts stainless steel to avoid explosion.

Multiple safety devices including power reverse phase protection, pump overload protection, overheat protection and low level protection that can automatically detect abnormal performance and indicate this via visible alarm.

For standard OMT-W, the heating temperature can reach 120℃, while for OMT-HTW, it can reach 160℃.

Equipped with high pressure protection, safety pressure relieving, automatic water supplying and air exhausting.

For OMT-W, direct cooling is adopted, while for OMT-HTW, indirect cooling is adopted. Automatic water supplying device ensures fast heat exchange.

选配件 OPTIONS

水流分布器及铁弗龙管、磁力泵浦、模温及回水温度显示器。
OMT-W标准型可选配气吹排水功能。

Water manifolds and Teflon hose, magnetic pump, display of mold temperature and mold return water temperature, water-removing function of air blowing can be optical for standard OMT-W .

应用范围 APPLICATION

OMT-W系列水式模温机广泛应用于塑胶产品的生产之中，主要用于给模具加热并使之保持恒温，也可用于有类似需求的领域。通过热交换原理，加快产品成型周期，提高生产效率。

OMT-W series water heaters are widely used in the production of plastic product. They are mainly applied to heat up the mold and maintain temperature, also they can be used in other similar fields. Through the principle of heat exchange, they can shorten the product mold cycle and improve production efficiency.

中央供料系统
Central Conveying System

除湿干燥
Drying & Dehumidifying

供料输送
Feeding & Conveying

混合拌料
Dosing & Mixing

冷热交换
Heating & Cooling

粉碎回收
Granulating & Recycling

工作原理 FUNCTIONAL SCHEME

冷却水经过滤器进入模温机，经加热器加温至模具所需温度，后由水泵输送至模具，高温水从模具返回后再经加热器加温并送至模具，如此往复循环，达到控温效果。

Water enter into mold temp. controller through the filter, and then be heated to the required temp. of the mold. The high temp. water is conveyed to the mold to maintain its heat by pump, then the water returned from the mold is heated and pressured to the mold to continue the circulation, thus achieving the effect of temp. control.

技术参数 PARAMETERS

机型 Model	最高温度 Max Temp. (°C)	电热 Pipe Heater (kw)	泵浦功率 Pump Power (kw)	泵浦最大流量 Max. Pump Flow (L/Min)	压力 Max. Pump Pressure (bar)	加热管数量 Heating Tank Number	冷却方式 Cooling Method	冷却水配管 Cooling Water pipe (inch)	循环水配管 Circulating Water Pipe (inch)	外形尺寸 Dimensions (H*W*D) (mm)	净重 Weight (kg)
OMT-605-W	120	6	0.375	42	2.5	1	直接冷却 Direct Cooling	1/2"	3/8"	580*260*650	34
OMT-610-W		6	0.75	42		1				730*300*660	36
OMT-610-WD		6*2	0.75*2	42*2		2				980*390*860	72
OMT-910-W		9	0.75	56		1				730*300*660	36
OMT-910-WD		9*2	0.75*2	56*2		2				980*390*860	72
OMT-1220-W		12	1.5	235		1				980*390*860	68
OMT-2430-W		24	2.2	315		2				980*390*860	75
OMT-3650-W		36	3.75	495		3				980*390*860	83
OMT-1010-HTW	160	10	0.75	78		1	间接冷却 Indirect Cooling		980*390*860	70	

产品参数如有变更，恕不另行通知。

We reserve the right to change parameters without prior notice.

注 Notes:

- (1) “D”表示双段，“HTW”表示高温水式。
- (2) 为确保加热温度的稳定性(120°C)，冷却水压力不得低于2bar 便不能超过5bar。
- (3) 泵浦参数测试条件：50Hz, 20°C纯净水(最大流量和最大压力允许±10%的偏差)。
- (4) 机器电压规格为：3φ, 400VAC, 50Hz。

模温机选型参考公式：

电热(kw)=模具重量(kg) * 模具比热(kcal/kg°C) * 模环温差(°C) * 安全系数 / 加热时间(h) / 860。

注：安全系数在1.3-1.5之间选择。

流量(L/min)=电热功率(kw) * 860 / [热媒比热(kcal/kg°C)

* 热媒密度(kg/L)* 进出温差(°C) * 时间(60)]

注：

水比热=1kcal/kg°C 热媒油比热=0.49kcal/kg°C

水密度=1kg/L 热媒油密度=0.843kg/L

加热时间=常温加热至设定温度所需时间

“D” stands for dual-heating zones, “HTW” means that Medium is Water with High temperature.

In order to maintain stable temp. of heat transfer media (120°C), cooling water pressure should be no less than 2kgf/cm², but also no more than 5kgf/cm².

Pump testing standard: Power of 50/60Hz, purified water 20°C.

Power supply: 3φ, 230/400/460/575VAC, 50/60Hz.

Reference formula of Mold Controllers model selection:

Heater Power (kw) = mold weight (kg) * mold specific heat (kcal/kg°C) * temperature difference between mold and environment (°C) * safety coefficient / heating duration (h) / 860

Notes: safety coefficient range 1.3 - 1.5

Flow Rate (L/min) = heater power (kw) * 860 / [heating medium specific (kcal/kg°C) * heating medium density (kg/L) * in/outlet temperature difference (°C) * time (60)].

Notes:

Water specific heat = 1kcal/kg°C

Heating medium oil specific heat = 0.49kcal/kg°C

Water density = 1kg/L

Heating medium oil density = 0.843kg/L

Time for heating = the time needed to heat from room temperature to set temperature.