TCU • TEMPERATURE CONTROL UNIT

SMART W TS

Water temperature control unit for industrial aplications up to 90ºC in the field of plastic injection moulding, extrusion, chemical, pharmaceutical, cosmetics or steel.

Water
FLUID

90ºC
MAX. TEMP.

MAIN FEATURES

- Pump works under pressure and reverse operation feature
- Solid State relays for heating
- Frontal cooler for solid state relays
- PID temperature control in cooling and heating process
- Hose breakage and leakage monitor
- Sensor failure monitor
- Automatic water filling
- Standard pump 60 l/m 3,8 bar
- Indirect cooling system
- Two independent solenoide valves one for cooling one for filling
- Entire cooling sytem, heaters, tank, process pipes and thermocouple in stainless steel
- Water level sensor through electrode
- Acoustic alarm
- Castors
- Pressure transducer
- Thermocouple in process return
- User friendly touch screen pcb card

OPTIONS

- *Analogic Input/Output temperature 4...20mA / 0-10 volt* OPT.
- *Interface TTY 20mA, OPC UA, Profinet, RS 485* OPT.
- *Multi polar connector for external signals* OPT.
- *Electronic flow measurement* OPT.
- *Plate exchanger 20 plates (standard 10 plates substitution)* OPT.
- *Plate exchanger 40 plates (standard 10 plates substitution)* OPT.
- *By pass* OPT.
- *Manual mould drain* OPT.
- *Automatic mould drain* OPT.

EQUIPMENT TYPE

WATER
WITH TANK

EQUIPMENT IMAGE

KEY DATA

Water
Fluid

90 ºC
Max. temp.

400/3/50hz
Power supply

CERTIFICATION
Industry 4.0 Ready

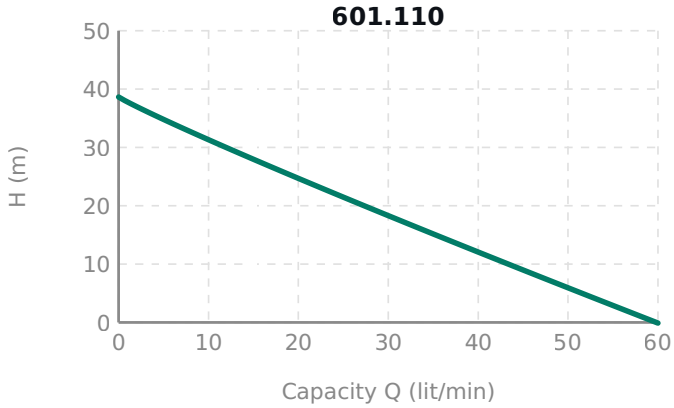
TECHNICAL DATA

PARAMETER	UNIT	SMART W TS
SMART W TS		
Fluid		**Water**
Maximum temperature	ºC	**90**
PID temperature control heating / cooling		**Yes**
Solid state relays + frontal cooler		**Yes**
Heating power	kW	**6 or 9**
Cooling power at 15ºC (E5Tx10)	kW	**65**
Cooling power at 15ºC (E5Tx20) OPT	kW	**90**
Cooling power at 15ºC (E5Tx40) OPT	kW	**120**
Tank capacity	Lit.	**12**
Expansion volume	Lit.	**4**
Pump TM 601.110	Max.Flow Max.Pressure Motor power	**60 lit/min 3,8 bar 0,5 kw**
Pump TM 602.130 OPT	Max.Flow Max.Pressure Motor power	**60 lit/min 5,8 bar 1 kw**
Hydraulic process connections	inlet / outlet	**3/4"**
Hydraulic cooling connections	inlet / outlet	**1/2"**
PCB card	Touch screen	**TG 111**
Thermocouple type		**PT1000**
Dimensions	mm	**285 x 570 x 500h**
Color	RAL	**7016 – 7035**
Max.electrical cabinet temperature	ºC	**40**
Sound pressure level	db (A)	**< 70**
Weight	kg	**35**
Voltage	V/Ph/Hz	**400/3/50hz** **480/3/60hz** OPT

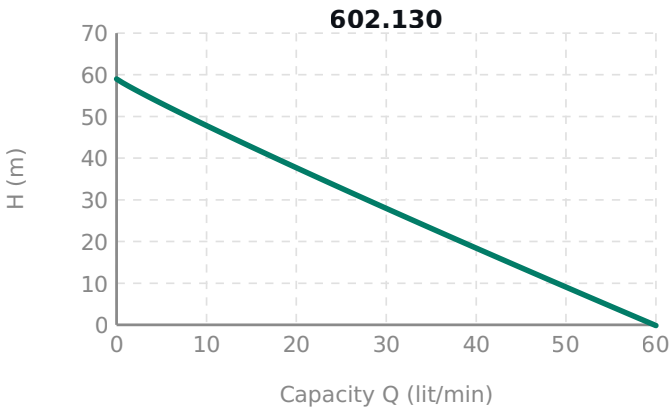
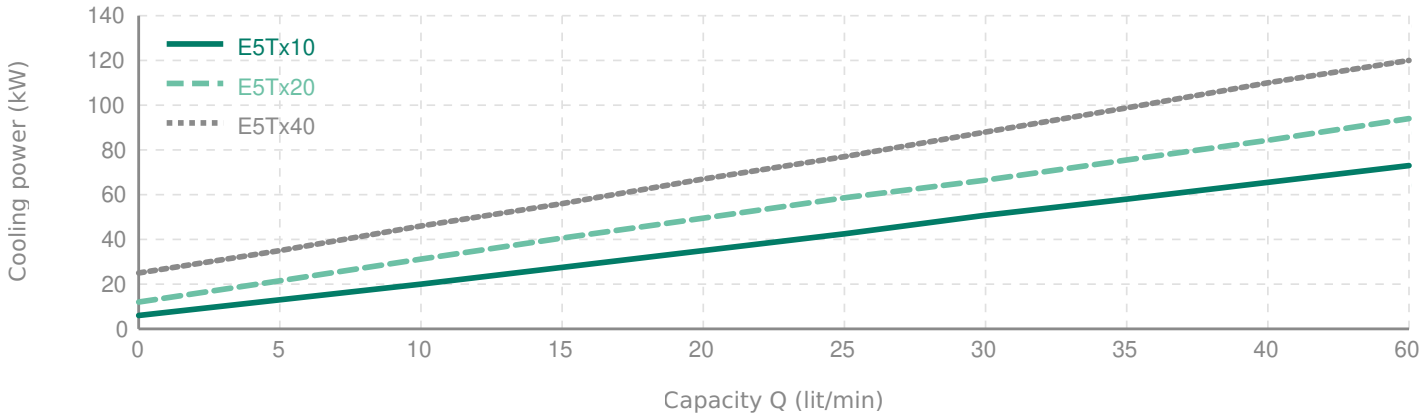
Note: Technical data subject to change. For custom specifications, contact the Marse technical department.

PUMP CURVES

601.110 STANDARD



602.130 OPT



COOLING CURVES