TCU • TEMPERATURE CONTROL UNIT

SMART 5A 180TS

Oil temperature control unit for industrial aplications up to 180ºC in the field of plastic injection moulding, extrusion, chemical, pharmaceutical, cosmetics or steel.

Oil
FLUID

180ºC
MAX. TEMP.

MAIN FEATURES

- Pump works under pressure
- 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
- Manual oil filling
- Standard pump 60 l/m 6 bar
- Indirect cooling system
- One solenoide valve for cooling
- Entire heaters, tank, process pipes and thermocouple in stainless steel
- Oil level sensor through stainless steel buoy
- Electronic flow measurement
- Expansion tank
- 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.
- *Flow sensor SBT 646* OPT.
- *Pump frequency converter* OPT.

EQUIPMENT TYPE

OIL
CLOSED CIRCUIT

EQUIPMENT IMAGE

KEY DATA

Oil
Fluid

180 ºC
Max. temp.

400/3/50hz
Power supply

CERTIFICATION
Industry 4.0 Ready

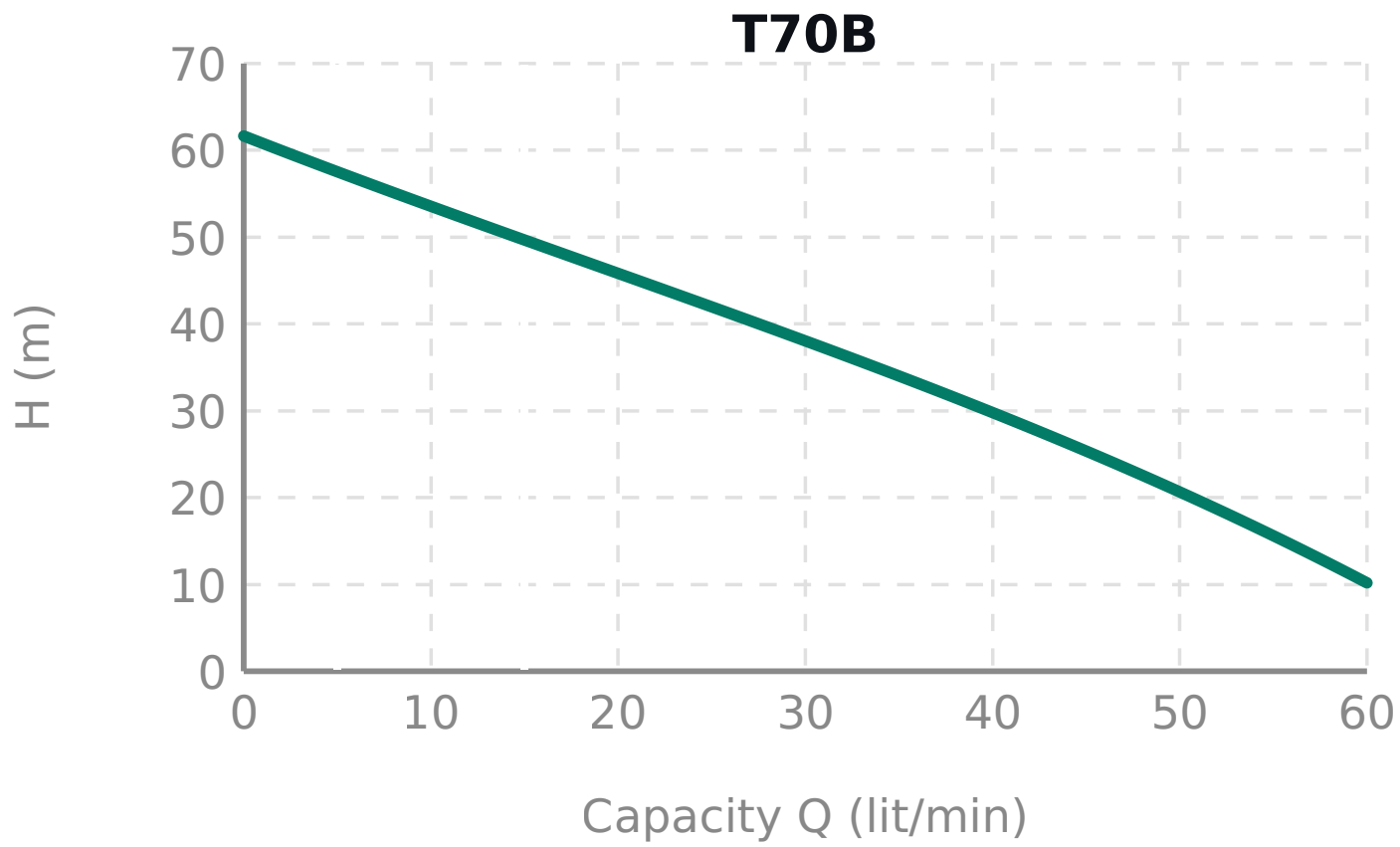
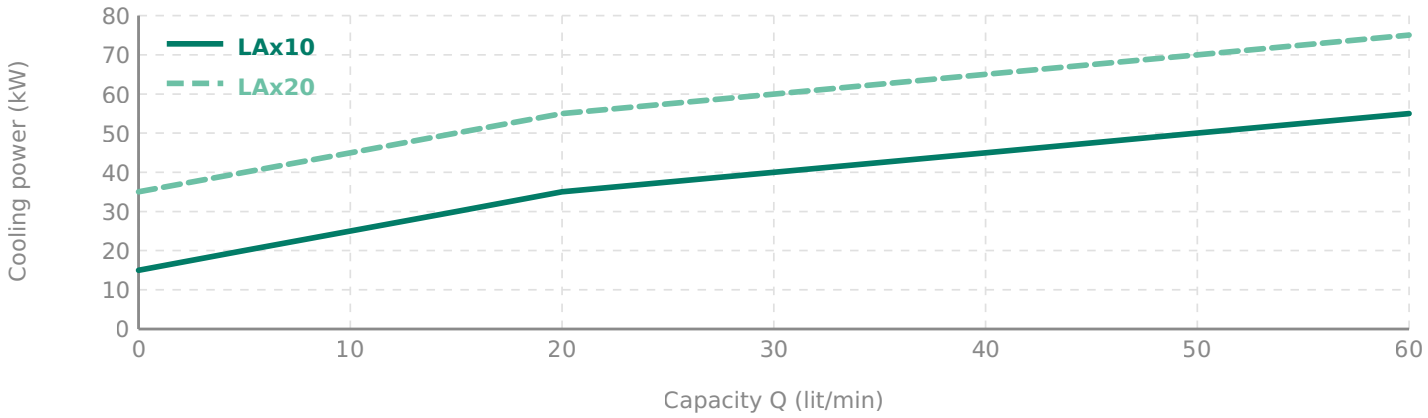
TECHNICAL DATA

PARAMETER	UNIT	SMART 5A 180TS
SMART 5A 180TS		
Fluid		**Oil**
Maximum temperature	ºC	**180**
PID temperature control heating / cooling		**Yes**
Solid state relays + frontal cooler		**Yes**
Heating power	kW	**9 – 16**
Cooling power at 15ºC (LAx10)	kW	**40**
Cooling power at 15ºC (LAx20) OPT	kW	**60**
Capacity heating cylinder	Lit.	**5**
Capacity expansion tank	Lit.	**9**
Centrifugal pump T70B	Max.Flow Max.Pressure Motor power	**60 lit/min 6 bar 1 kw**
Hydraulic process connections	inlet / outlet	**¾”**
Hydraulic cooling connections	inlet / outlet	**½”**
PCB card	Touch screen	**TG 111**
Thermocouple type		**PT1000**
Dimensions	mm	**510 x 1000 x 930h**
Color	RAL	**7016 – 7035**
Max. electrical cabinet temperature	ºC	**40**
Sound pressure level	db (A)	**< 70**
Weight	kg	**120**
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

T70B STANDARD



COOLING CURVES