

Pressurised-water temperature control units up to 320 °F.

Temperature control of plastic injection moulds,
die-casting dies, rollers, extruders and mixers.

Optimum heat transfer has a direct effect upon the
output of your production plant.



Pressurised water units can
be recommended wherever the
advantages of water as heat
transfer fluid are important, even
over 200 °F.

Patented low-scale cooling
system «SK».

Standard equipment

- Operating temperature independent of water mains pressure → Flexible operation.
- RT 22 (model P 140), RT 30 (model P 140 S) or control system RT 45.
→ Optimal fit for practically every application. For technical data see page 16.
- All components exposed to water are made of non-rusting materials (except model P 141) → Long service life.
- Specially-treated heater elements for greater corrosion resistance
→ Safe operation, long service life.
- Sturdy and powerful centrifugal pump with maintenance-free rotating mechanical seal with long service life. Pump with special coating for corrosion resistance
→ Long service life.
- Model P 160 with pump with magnetic drive (models P 140 S, P 140 optional) → Leak-free operation due to the elimination of the mechanical seal.
- Small filling quantity and high pump capacity → Quick compensation of disturbances, good regulating behaviour, economical operation.
- Safety cut-outs → No fuses to be replaced in case of failure (if heating cap. > 10 kW).
- Electric control in accordance with IEC standards. Degree of protection IP 40. Tropic-proof up to 90% humidity. Completely separated from the pumping section and protected against direct contact
→ Safe operation.
- One-way check valve in cooling water outlet → Less scaling in the cooler by back-flow water due to pressure in the drainage system.
- Safety valve → Prevents excessive pressure in the unit.
- Safety thermostat → Protection against overheating.
- Automatic fluid level control
→ Protection against running dry.
- Automatic water refill.
- Filter in water mains inlet.
- Pressure gauge for system pressure indication.
- Fail-safe circuit in case of heat contactor malfunction. Current to the heater is interrupted by an overriding main contactor
→ Protection against overheating of the unit.
- Castors.

- In accordance with the following standards:
 - EU Machine Guidelines 89/392/EEC.
 - Electrical equipment of industrial machines EN 60204-1, 1997.
 - EU Guidelines Electro-Magnetic Compatibility 89/336/EEC.
 - Low voltage standards 73/23/EWG, 1997.
 - Low voltage switchgear and controlgear assemblies. Part 1. EN 60439-1, 1999.→ High degree of operational reliability.

P 140 S

P 140

P 141

P 160

Optional features

- P 140 and P 160 with low-scale cooler SK for calciferous cooling water.
- Direct cooling for low consumer temperatures.
- Solid-state relay (SSR) instead of heating contactor.
- Internal/external sensor switch-over (only RT 22, RT 30/Pt 100).
- Fluid level acoustic alarm (model P 140 S standard).

Further options
see control system
RT 45, page 16.

Selection of the unit

- Necessary data see page 21.



Quality assurance: At Regloplas, all units, whether standard or customised, undergo all phases of rigorous final testing.

Technical data		P 140 S		P 140		P 141		P 160	
Outlet temperature	max.	°F	285		285		285		320
Heat transfer fluid			Water		Water		Water		Water
Filling quantity		Gal	0.3		1.5		3		1.5
Expansion volume	max.	Gal	-		1		1.5		1
Heating capacity	at 400 V		kW		6		9; 12		18
Cooling capacity/type			kW		35		35		43
at outlet temperature			°F		265		265		195
Cooler (K)			1		1		2; SK		1
Diagram (Fig.)			1		1		1		2
Pump capacity/type			B 501 SM 20		SG 51 SM 51		S 52		SM 51
Flow rate	max.	GPM	12 7		12 12		23		12
Pressure	max.	psi	87 65		88 102		88		102
Motor		HP	1.1 0.7		1.0 1.3		2.0		1.3
Diagram (Fig.)			3		3		4		3
Control			RT 30 RT 45		RT 22 RT 45		RT 45		RT 45
Measuring mode (standard)			Pt 100		Pt 100		Pt 100		Pt 100
Operating voltage	(standard)		V/Hz		220-575 V/60 Hz/3 PE				
Connections			NPT 1/2"		NPT 1/2"		NPT 1"		NPT 1/2"
Outlet/inlet			NPT 1/2"		NPT 1/2"		NPT 1/2"		NPT 1/2"
Cooling water mains									
Dimensions	W/H/D		in		8/22/26		13/30/32		17/44/40
Weight	approx.		lb		100		165		350
Color	Grey		RAL		9006/7016		7035/7024		
Ambient temperature	max.		°F		105				
Noise level			dB (A)		< 70				

Models

Unit	Heating capacity (kW)	Pump	Cooler (K)	Control
P 140 S	6	B 501; SM 20	1	RT 30; RT 45
P 140	9; 12	SG 51; SM 51	1; 2; SK	RT 22; RT 45
P 141	18	S 52	1	RT 45
P 160	9; 12	SM 51	1; 2; SK	RT 45

Example for ordering P 140/9/SG 51/1K/RT 45

Cooling capacity P as a function of outlet temperature ϑ .

Cooling water data:
 Inlet temperature 68 °F.
 Flow rates 1K: 3 GPM; 2K; SK: 5 GPM;
 P 141: 4 GPM.

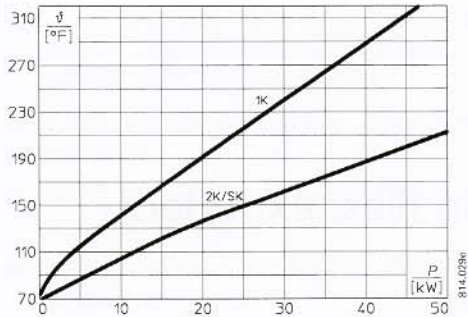


Fig. 1: P 140 S; P 140; P 160

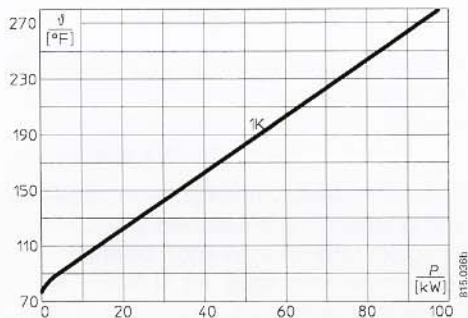


Fig. 2: P 141

Pump capacity. Flow rate V as a function of pressure p .

By-pass not included.

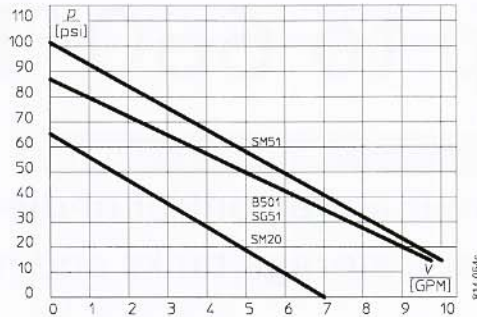


Fig. 3: P 140 S; P 140; P 160

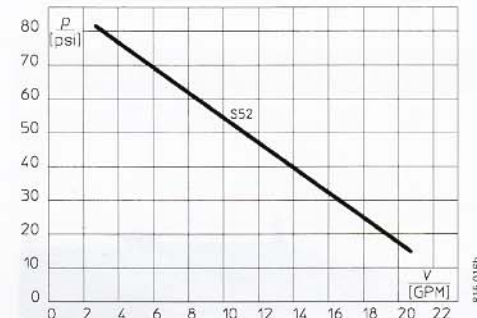


Fig. 4: P 141

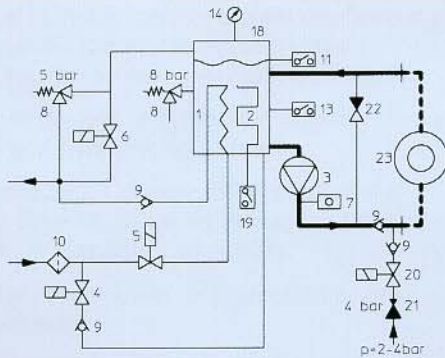


Fig. 5: Principle P 140 S

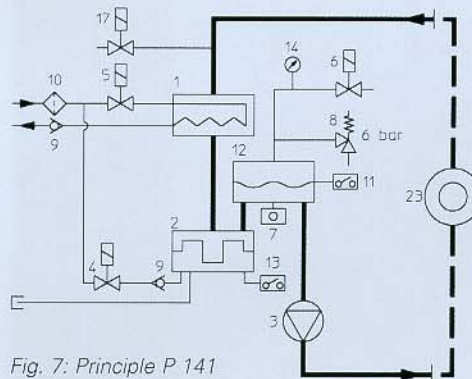


Fig. 7: Principle P 141

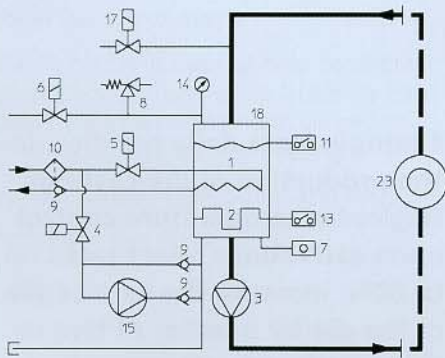


Fig. 6: Principle P 140, P 160

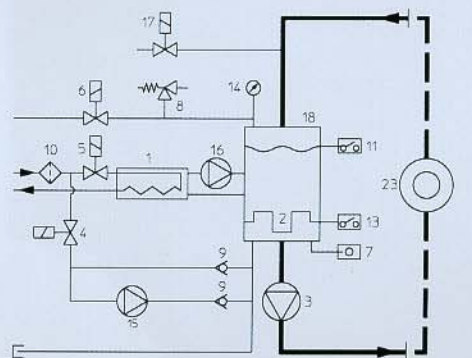


Fig. 8: Principle P 140, P 160 with Cooler SK

- 1 Cooler
- 2 Heater
- 3 Pump
- 4 Solenoid valve, automatic water refilling
- 5 Solenoid valve, cooling
- 6 Solenoid valve, pressure release
- 7 Temperature sensor
- 8 Safety valve
- 9 One way check-valve
- 10 Filter, water mains
- 11 Level control
- 12 Expansion vessel
- 13 Safety thermostat
- 14 Pressure gauge
- 15 Filling pump (P 160)
- 16 Cooling pump (cooler SK)
- 17 Solenoid valve, consumer drainage (optional)
- 18 System
- 19 Thermal cut-off
- 20 Blow out solenoid valve (optional)
- 21 Pressure reducing valve
- 22 By-pass
- 23 Consumer

P 140 S
P 140
P 141
P 160