

## Low Temperature Baths

### 3.4 Tamson Cooling Circulators – TLC Line TLC40, TLC80, TLC90




The TLC40-14 cooling circulator can be used for multiple heat removal purposes such as replacement of tap water, fast cool down, flash point, distillation, density or cloud and pour point testing. Also, this unit can be used to cool down water baths and viscosity baths which have a large bath volume. TLC80-14 and TLC90-14 baths can be used for general low temperature use, but shows excellent heat removal performance i.e. combination cloud and pour point tests, cold filter plugging point tests, or pour point tests.

#### Main Characteristics

The apparatus holds a bath containing 14 litres and the filling opening measures 240 x 170 mm. Due to its special design the system is extremely quiet, compact and saves costly laboratory space. With the TLC40-14 the minimum temperature which can be reached is -40°C. With the TLC80-14 the minimum temperature which can be reached is -80°C. At -80°C the heat removal capacity is 300 Watts. With the TLC90-14 the minimum temperature which can be reached is -90°C. Readout is in degrees °C or in °F. A pump provides circulation in the bath or pumps the flow to an external circuit. The pump offers 7 litres per minute with a maximum counter pressure of 300 mBar. Optional is a performance pump which offers 16 litres per minute.



TLC40-14

	TLC40-14	TLC80-14	TLC90-14
			
Range	-40..+20°C*/-40..+68 °F	-80..+20°C/-112..+68°F	-90..+20°C/-130..+68°F
Reading	Standard °C, °F on request		
Used materials inside bath	Stainless steel 304		
Setting ±	0.1°C		
Stability ±	Better than 0.05 K		
Heating	1550 W		
Bath volume	14 .. 15 L		
Opening bath	240 x 170 mm		
Depth bath	150 mm		
Pump (mBar)	Max pressure 300 (optional 1 bar)		
Pump (L/min)	Max flow 7 (optional 16)	Max flow 10 (optional 16)	Max flow 10 (optional 16)
Dimension LxWxH	810 x 460 x 770 mm		
Weight	65 kg	80 kg	80 kg
Heat removal	See § 3.1		

\* On request the TLC40-14 can have an optional working range from -45..+20°C.

- ▶ TLC40-14 **REF** 00T0520 (230V/50Hz) • **REF** 00T0522 (230V/60Hz) • **REF** 00T0525 (115V/60Hz)
- ▶ TLC80-14 **REF** 00T0530 (230V/50Hz) • **REF** 00T0532 (230V/60Hz) • **REF** 00T0535 (115V/60Hz)
- ▶ TLC90-14 **REF** 00T0580 (230V/50Hz) • **REF** 00T0585 (230V/60Hz) • **REF** 00T0590 (115V/60Hz)

▶ For options and spare parts, please see section TLC80-14DP