solutions for every process



Metal working and general engineering

- Hydraulic Presses
- Die Casting
- Platens Test Rigs

- Soft Drinks

Bakeries



- Breweries
- Dairy
- Cereals

Jacketed Vessels

Chemical and pharmaceutical

- Reactor Vessels
- Other industries
- Printing

Laminating

- Birmingham B6 7RT T + 44 (0)121 326 7771 Paint Manufacture F + 44 (0)121 327 4114
- Floor 3, Caspian House East Parade, Little Germany Bradford BD1 5EP

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Tricool is part of the ICS Group of Companies **ic**svstems 0121 3267771 01489 584006 01425 625900

Is your process temperature out of control?

Call Tricool FREE today on 0800 977 5709

> Process chillers and air conditioning National refrigeration service support COOLENERGY Chiller rental and comfort cooling (TRICOOL) Bespoke design and manufacture





Tricool water & oil process

temperature controllers.

30 years of precision process

temperature control.



One word. Precision.

Tricool Heating



Heating & cooling your process temperature

With over **30 years experience** of manufacturing temperature control equipment here in the UK, we have a proven track record for quality and precision temperature control where you need it most – on your process. We can heat and cool from one unit and can offer equipment from stock or purpose build a unit for you to meet your specific site requirements.

We can also offer you or your clients the following supply and service:

Water Heaters (3-96kW) offering temperatures up to 95°C and suitable for food production processes, chemical and pharmaceutical, including jacketed vessels.

Oil Heaters (3-96kW) offering temperatures up to 350°C and suitable for extrusion and die casting.

Pressurised Water Heaters (3-96kW) offering temperatures up to 160°C and suitable for injection

Custom Built Oil Skids (100kW-2mW) offering temperatures up to 350°C.

Dual Heating & Cooling units to help control variable temperature production.

Rental Equipment – we can offer you a temporary unit to manage breakdowns or short-term R&D trials and noncapital funded projects.

Installation & Service – we have a nationwide team of engineers providing 24/7 cover.



Tricool have been manufacturing temperature control equipment for over 30 years and we have built our reputation on this. This is supported and controlled by our ISO 9001 accreditation within our production process to exacting CE standards.

Therefore, you can be rest assured that when you buy from Tricool, you will receive not only a superb product but the support and credibility of our proven range of equipment.





Tricool temperature controllers

High quality temperature controllers built for precision and reliability to satisfy the increasing demands of today's industrial

A proven 30 year record of design and manufacture to high standards for use in many diverse applications such as:

Plastic and rubber processing

- Injection Moulding
- Extrusion
- Blow Moulding
- Thermo Forming
- Cable Manufacture
- Calendar Rolls (rubber)

Email sales@tricool.com www.tricool.com Freephone 0800 977 5709 Email sales@tricool.com www.tricool.com

Combi

9-18kW Water up to 95°C Oil up to 150°C



Diagnostic controller

 Helps maintenance by showing knowledge of any faults that occur

Solid state relays

- Energy savings due to pulsing every 0.3 seconds (contactors generally every 16 • Enables easy manoeuvrability seconds)
- Increased accuracy
- No wear and tear due to no moving parts
- Lower sheath temperature on heating elements (enables 9kW on oil)

3 Large volume tank

More stable temperatures can be achieved

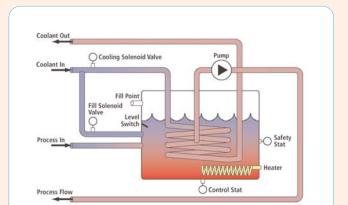
4 Direct acting self cleaning solenoid valves

• Low maintenance due to minimal cleaning required (no diaphragm)

Non ferrous internal

 Keeps system clean, no rust from internal materials of unit

 Standard feature that enables operator to stop minor leaks and carry on production



Options

- Controller available with a number of language chips Tool Purge
- Switchable remote and local sensing
- Process machines protocol interface
- IP 55 rated electrical specification
- Stainless Steel Panels
- Various flow and pressure options
- Bespoke machines made to order

Model	C6 9	C6 12	C5 18
Heating kW	9	12	18
Single Coil 80°C TD	18 kW	18 kW	18 kW
Dual Coil 80°C TD	35 kW	35 kW	35 kW
Max Flow/Pressure IMP/Bar	60/4	60/4	70/6
Designed Flow@Pressure IMP@Bar	30@2	30@2	35@3
Connections Process	1/2"	1/2"	3/4"
Connections Cooling	1/2"	1/2"	1/2"
FLA Amps	18	22	30

3-96kW Water up to 160°C

Direct acting self cleaning solenoid valves

 Low maintenance due to minimal cleaning required (no diaphragm)

2 Diagnostic controller

 Helps maintenance by showing knowledge of any faults that occur

3 Air release bottle

· Protects the heating elements and pump where large amounts of air could be present in the process

4 Stainless steel heat exchanger · More efficient with large gaps between plates

which reduces the risk of blocking due to contamination

5 Pressure sustaining accumulator

Reduces the use of pressure relief valves

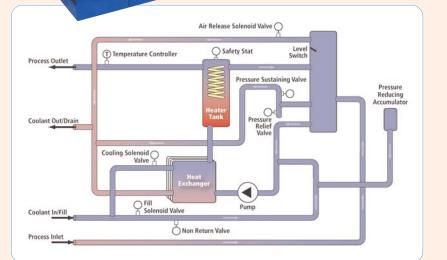
6 Non-ferrous internal parts

 Keeps system clean, no rust from internal materials of unit

• Enables easy manoeuvrability

Auto shutdown system

will stop and lock the supply water system down to prevent any leaks



• If a pipe breaks the machine

Low volume tank

• Low volume individual tubular heater tanks, which reduce the liquid volume in circulation, resulting in a reduced power input required for heating

Solid state relays

- Energy savings due to pulsing every
- 0.3 seconds (contactors generally every 16 seconds)
- Increased accuracy No wear and tear due to no moving parts

Direct Cool

Options

- Switchable Remote and Local Sensing
- Process Machines Protocol Interface
- IP55 rated electrical specification
- Stainless Steel Panels
- Controller available with a number of language chips
- Pneumatic Tool Purge
- Various flow/pressure options
- Increased Cooling
- · Bespoke machines built to order

V5-3 V5-6 V5-9 V5-12 V5-18 V5-24 V5-27 V5-36 V5-48 V5-60 V5-72 V5-96 40/3.8 40/3.8 40/3.8 40/3.8 130/3 130/3 130/3 220/3.2 220/3.2 220/3.2 400/2.5 Designed Flow 25@2 25@2 25@2 25@2 80@2.5 80@2.5 80@2.5 80@2.5 110@3 140@2.7 160@2.5 220@2.0 ¹/₂" ¹/₂" ¹/₂" ¹/₄" ¹/₄" ¹/₄" ¹/₄" ¹/₄" ¹/₂" ¹/₂" ²" FLA Amps 6 12 18 22 30 40 50 55 75 92 110 144

Sheik

3-96kW Oil up to 350°C

1 Stainless steel heat exchanger

 More efficient with large gaps between plates which reduces the risk of blocking due to contamination

2 Magnetic drive pump on units over 200°C

Seal-less, so low maintenance alleviates any

3 Non ferrous internal parts

 Keeps system clean, no rust from internal materials of unit

4 Direct acting self cleaning solenoid valves

 Low maintenance due to minimal cleaning required (no diaphragm)

5 Low volume tank

 Low volume individual tubular heater tanks, which reduce the liquid volume in circulation, resulting in a reduced power input required for heating

Options

• Switchable Remote and Local Sensing

Controller available with a number of language chips

• Process Machines Protocol Interface

• IP55 rated electrical specification

Various flow/pressure options

• Bespoke machines built to order

• Stainless Steel Panels

Increased Cooling

6 Diagnostic controller

 Helps maintenance by showing knowledge of any faults that occur

Solid state relays

- Energy savings due to pulsing every 0.3 seconds (contactors generally every 16 seconds)
- Increased accuracy No wear and tear due to no moving parts

Castors

Enables easy manoeuvrability

Cooling 200°C TD

Model	Heating kW	Standard kW	Max Flow/Pressure Ipm/bar	Designed Flow@Pressure lpm@bar	Connections Process	Connections Cooling	FLA Amps
S6 -300/350	6	100	70/6	40@3	1"	1"	14
S9-300/350	9	100	70/6	40@3	1"	1"	20
S12-300/350	12	100	70/6	40@3	1"	1"	24
S18-300/350	18	100	100/6.5	80@3	11/4"	1"	37
S24-300/350	24	100	100/6.5	80@3	1 ¹ / ₄ "	1"	48
S36-300/350	36	100	200/7.0	140@3	1 ¹ /2"	1"	65
S48-300/350	48	100	200/7.0	140@3	1 ¹ /2"	1	84
S60-300/350	60	100	600/3.4	240@3	2"	1"	100
S72-300/350	72	100	600/3.4	280@3	2"	1"	122
S96-300/350	96	100	600/3.5	380@3	2"	1"	158

Thermoregulators

3-96kW Water up to 95°C

1 Stainless steel heat exchanger

 More efficient with large gaps between plates which reduces the risk of blocking due to contamination

2 Diagnostic controller

 Helps maintenance by showing knowledge of any faults that occur

3 Non ferrous internal parts

 Keeps system clean, no rust from internal materials of unit

4 Low volume tank

 Low volume individual tubular heater tanks, which reduce the liquid volume in circulation, resulting in a reduced power input required for heating

Direct acting self cleaning solenoid valves

 Low maintenance due to minimal cleaning required (no diaphragm)

- · Energy savings due to pulsing
- Increased accuracy

• Controller available with a number of language chips • Various flow/pressure options Increased Cooling Bespoke machines built to order

Options

Interface

Switchable Remote and Local

Process Machines Protocol

• Stainless Steel Panels

• IP55 rated electrical specification

- every 0.3 seconds (contactors generally every 16 seconds)
- No wear and tear due to no movino

Enables easy manoeuvrability

Cooling 70°C TD Heating kW Standard kW Increased kW 130/3 80@2.5 1 ¹/₄" 130/3 80@2.5 220/3.2 110@3.2 140@2.7 1¹/₂" 220/3.2 160@2.5 1¹/₂" 220/3.2

Bespoke 3kW-2mW temperatures up to 350°C

Tricool are able to offer temperature controllers of every range equipped for specific industry related requirements. Below are some examples of the special options available:

- Ex protected units for the chemical industry.
- · Complete units in stainless steel with IP65 controllers as required by the food industry.
- Equipment with highly sensitive temperature control systems employed in electrical engineering and the manufacturing of semi conductors.
- Temperature controllers to customers specifications including special dimensions or structures. These may consist of multi circuit units or equipment requiring separate control

Oil skids and gas fired models are also available for units requiring more than 150kW of power.

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