tempco

SOLUZIONI PER L'ENERGIA TERMICA

SCHEDA TECNICA/TECHNICAL SHEET

Scambiatori di calore a piastre

T COIL

In-tank, Clamp plate heat exchanger

T COIL series heat exchangers are very versatile and efficient prime heat exchangers, which are made with simple and efficient methods: two metal sheets are welded together and, by means of spot welding, they are inflated through high pressure to obtain internal channels thatcreate a series of passages for the heat transfer fluid.

The remarkable mechanical resistance enables the use of material with extremely fine thicknesses. This characteristic enables us to contain costs, thus obtaining optimal heat exchange coefficients, less thermal inertia, and ultimately high efficiency.

T COIL series heat exchangers can be directly immersed in the fluid to heat or cool, or by means of external applications they can "clamp-on" to tanks, pipes, or machinery.

We produce T COIL heat exchangers in standard sizes, according to the size of the flattened sheet metal, or to the width of commercial coils.

Our machine shop can also make plate heat exchangers in customised sizes required for the most diverse applications, covering multiple shapes, sizes and geometries to adapt to specific client requirements and thermoregulated processes.

Tempco S.r.l.
via Lavoratori Autobianchi,1 • 20832 Desio (MB) Italy
Piva 03026390967

T +39 0362 300830
F +39 0362 300253

www.tempco.it
info@tempco.it

This particular construction flexibility enables us to extend the application of T COIL heat exchangers to a series of applications in the cooling and heating process sectors:

TYPICAL APPLICATIONS
- painting plants
- oxidisation plants
- food and dairy plants
- petrochemical
- pharmaceutical
- chemical
- m i x e r s
- immersion exchangers
- falling film coolers
- tank temperature control system
- fermenter
- mercury vapour rectifier
- silos
- energy recovery
- free cooling
- data center cooling
- cooling levels in autoclaves
- vacuum sterilisation plants
- oenology

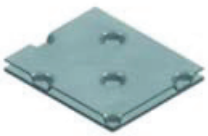
For "clamp-on" applications where heat exchange is a decisive factor, we supply T TRAC conductive paste, which increases thermal conductivity, efficiency and, consequently, saves energy.

TYPE OF STRUCTURE
Depending on the fluids that are used and the load losses available to recirculate the fluids, we can make the plates with two distinct construction types:
T COIL BULGE and T COIL DIMPLE.

T COIL BULGE

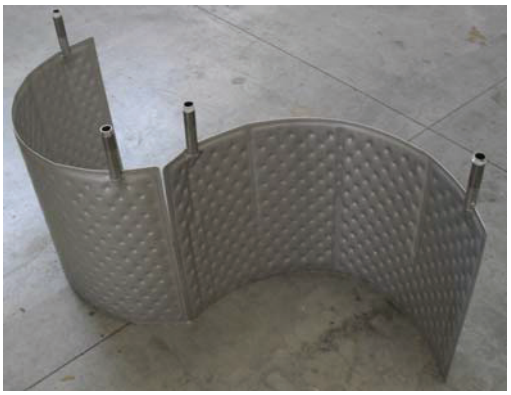
T COIL-BULGE: is the classic version with welded sheet metal, which is pressure inflated and very versatile; it is suitable for any type of application and is made in both single and double spinning versions.

T COIL DIMPLE

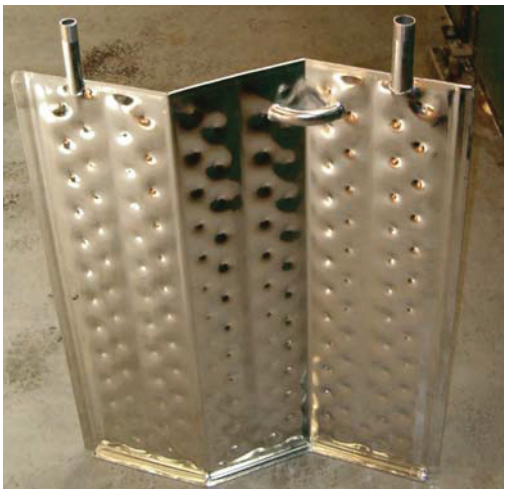


T COIL-DIMPLE: plates are pre-moulded and are used when load losses must be kept at low values, or when tank ferrules are made where the passage of fluid has to be excessive. It is made as a single spinning version.

CONSTRUCTION AND APPLICATION
T COIL heat exchangers may be furnished in single plates, to be assembled by the client, or already placed in accumulators complete with input and output fluid manifolds with relative clamps and lifting systems. Curved and shaped for linings or to be inserted into design tanks. Bank or calender immersion.



FLUIDS
The T COIL series heat exchangers can work with any type of fluid, the most commonly used are:
- W a t e r
- Diathermic oil
- S t e a m
- Pressurised water
- Nitrogen
- Hydraulic oil
- Lubricating oil
- Glycol
- Ammonia
- F r e o n



MATERIALS
The construction materials used to make T COIL plates are:
- AISI 304
- AISI 316
- TITANIUM
- 254SMO
- AISI 904

Upon specific request, and based on construction feasibility, it is also possible to make them with different materials.

THICKNESSES
Construction thicknesses depend on the work pressures, the standard ones used are:
8/10 mm
10/10 mm
12/10 mm
15/10 mm.
20/10 mm.
25/10 mm.
30/10 mm.

Different thicknesses are chosen on ferrules and with single spinning versions. Special thicknesses are made according to mechanical calculations.

FINISHING GRADE
Depending on the type of application, the plates may be furnished with different grades of finishing.
- R o u g h
- P i c k l e d
- Electropolished
- Polished

CONNECTIONS
Connections may be made according to the construction type and application environment.
- to weld
- Male/female threads
- DIN flanged
- ANSI flanged
- SAE flanged
- DIN 11851 feeders

TEMPERATURE/PRESSURE
The temperature range is from -46°C up to +300°C, subject to an assessment of the materials and mechanical stress.
Pressure can reach up to 50 bar with special processing.

REGULATIONS
All T COIL series heat exchangers are manufactured according to PED.

Upon request, they can be made according to ASME U STAMP, GOST standards.