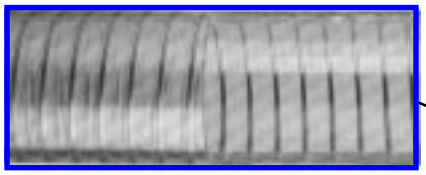
HELICOOL

CLEANABLE WATER CHILLERS

HeliCOOL cleanable water chillers are designed to utilise any primary refrigerants or alternatively any Secondary Refrigerants including SlurryICE solutions in order to provide near **0 DegC** chilled water supply for process and food cooling applications.

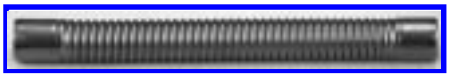
FEATURES



Non-Toxic Heavy Duty Hose

Heavy duty transparent PVC hose, allowing easy visual inpection. UV compounded to maintain clarity. Suitable for temperatures down to - 15 DegC with working pressures up to 8 Barg.

Patent Pending
9916736.3



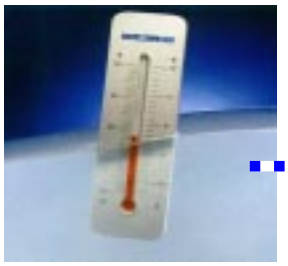
Heat Transfer Pipe

Corrugated Stainless Steel flexible tubes provide the cooling surface which can receive either direct or alternatively secondary refrigerants. Extended surface design offers excellent heat transfer efficiency and large gap between the inner tube and outer shell ensures freeze-free low temperature water supply.

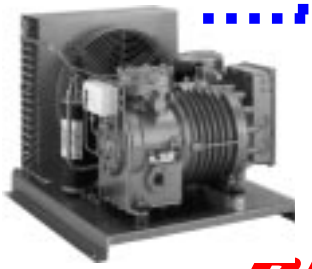
APPLICATIONS

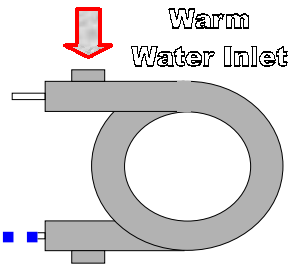
Refrigeration Source

Any Secondary Refrigerants (e.g. Glycols, Tyfoxit, Hycool, Temper, Pekasol including Slurry-ICE solutions) can be used as a cooling source.



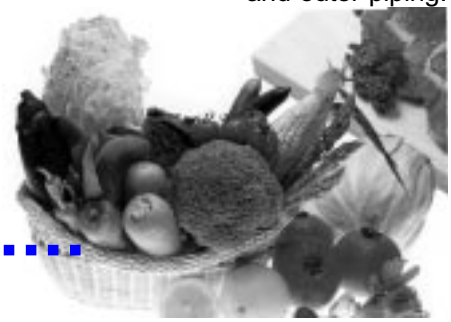
Any type of condensing unit using any refrigerant including natural refrigerants can be used as a cooling source. EPS offers a wide range of ready to operate fully factory finished chillers.





System Connections

Mechanical seals can be easily removed to gain access for cleaning the outer hose.
The cooling source can also be isolated and effectively the inner tube can be pulled out in order to fully clean both the inner and outer piping.



BENEFITS

*** Low cost.**
*** Freeze free operation.**
*** High efficiency.**
*** Hygenic low temperature water supply.**
*** Easy retrofit application.**

Applications

As low as 0 DegC low temperature water supply can be used for food processing, industrial / process cooling and tap water cooling applications.

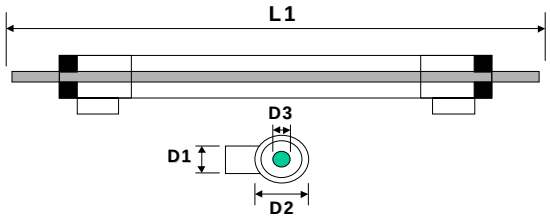
TECHNICAL SUPPORT

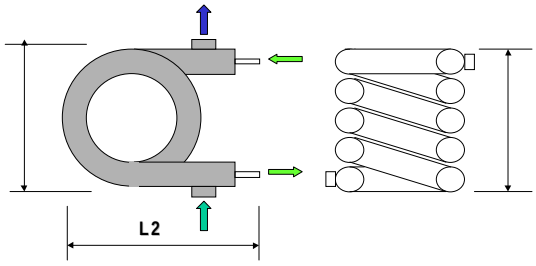
EPS offers full system design support to assist in proper selection and integration into existing or new installations as part of our customer commitment. Please consult our technical sales team at **sales@epsltd.co.uk** for your specific application or visit our website **www.epsltd.co.uk**

EPS
Unit 32, Mere View Industrial Estate, Yaxley, Cambridgeshire
PE7 3HS, UNITED KINGDOM
Tel. :+44-(0)1733-243400
Fax.:+44-(0)1733-243344

HeliCOOL CLEANABLE WATER CHILLERS

DESIGN DATA





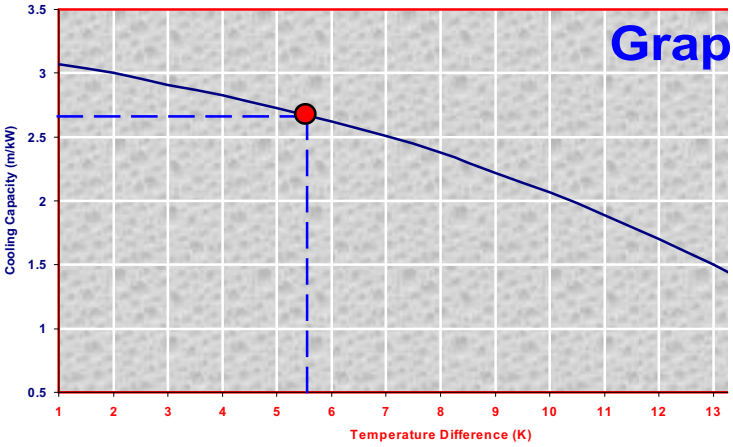
Model	Nominal Capacity (kW)	L1 (mm)	L2 (mm)	L3 (mm)	H (mm)	D1 (mm)	D2 (mm
HC-500	0.50	500	-	-	-	50	50
HC-1000	1.00	1000	500	500	54	50	50
HC-1500	1.50	1500	750	600	81	50	50
HC-2500	2.50	2500	750	600	135	50	50
HC-5000	5.00	5000	750	600	270	50	50
HC-10000	10.00	10000	750	600	540	50	50
HC-15000	15.00	15000	750	600	810	50	50

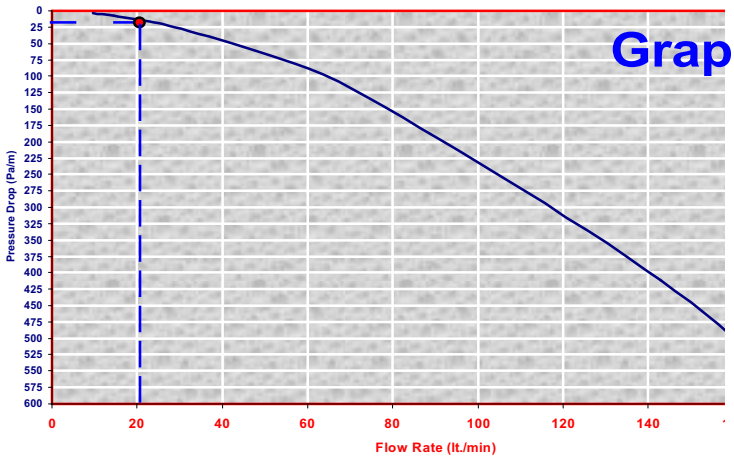
Table 1

APPLICATION DATA

HeliCOOL units can be applied for both conventional direct expension systems as well as any secondary cooling media. The design of HeliCOOL is based on cold fluid circulation inside the corrugated Stainless Steel (15 mm) tube which is positioned in the middle of outer PVC (2") hose for water flow.

The cooling effect from the inner tube is transfered to water along the tube length. HeliCOOL coolers are specifically designed to form a Helical coil to save space but they can be also applied as a straight length.





Selection Example;

20 lt./min water flow with 5 C (inlet) and 1 C (Outlet) with R134a condensing unit @ -3 C evaporation temperature.

Step 1 - ***Calculate Duty;***

Q = (20/60) x 4.2 x (5 - 1) = 5.6 kW

Step - 2 ***Required Length;***

Calculate logaritmic mean temperature difference (LMTD) value

LMTD = (8-4) / ln(8/4) = 5.77 K

From Graph 1 establish load ratio(2.6m/kW)

Length = 5.6 x 2.6 = 14.56 m

Step - 3 ***Model Selection;***

From Table 1 select the next size unit using L1 (15m > 14.56m)

Model: HC-15000.

Step - 4 ***Water Pressure Drop;***

Flow rate of 20 lt/min correspondence to pressure drop factor (PDF) of 19 pascal per metre (Pa/m).

PD =(7 + (8 x No of Rows) + L1) x PDF

PD =(7 + (8 x 10) + 15) x 19 = 1938 Pa

TECHNICAL SUPPORT

EPS offers full system design support to assist in proper selection for alternative fluid combinationsand integration into existing or new installations as part of our customer commitment. Please consult our technical sales team for your any specific application or possibility of using existing machinery / system.

Web Page : www.epsltd.co.uk

e-mail : info@epsltd.co.uk