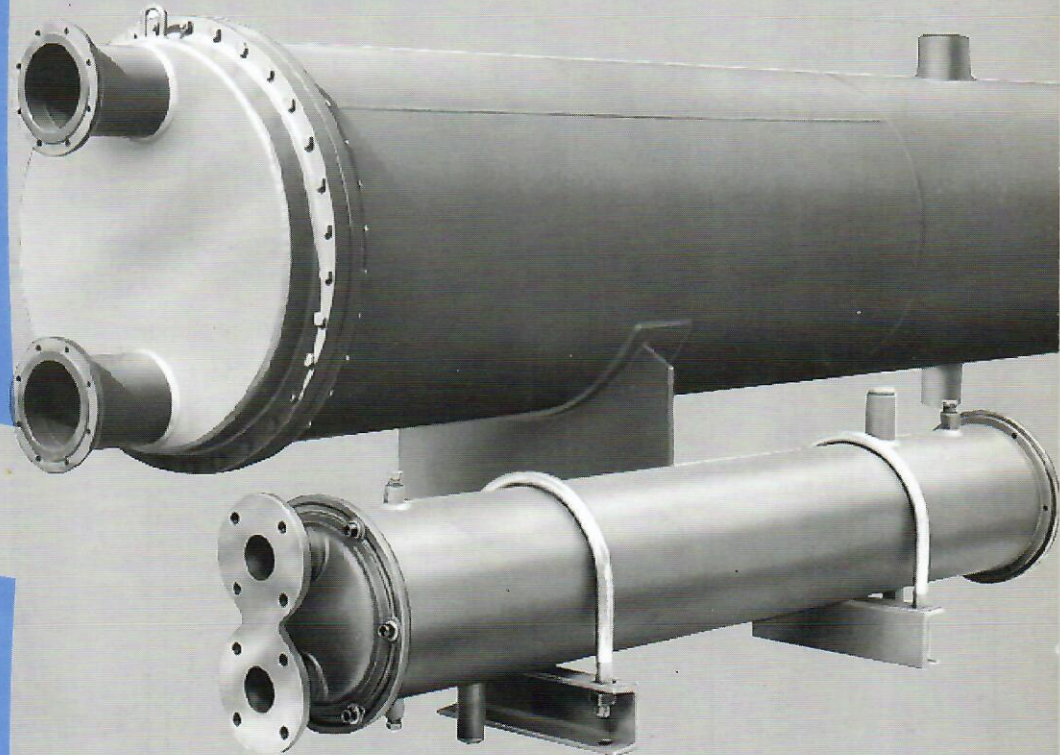


- H(C)FC models HBX, HBX-V, HC, HD and HE
- Ammonia condensers HBN and HN
- Selection programme available on request

# *Water Cooled* **Condensers**

*Models HBX, HBX-V, HC, HD, HE, HBN and HN*



**HELPMAN**



ISO-9001 CERTIFICATED FIRM



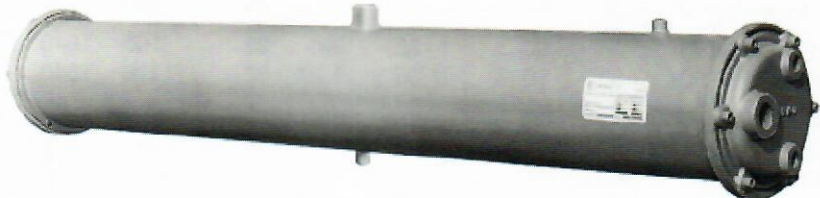
# Water Cooled Condensers

# HC

## Model indication

**Example :** HC 10 - 165 - KSG

- HC** : Condenser with plain tube diameter 19 mm
- 10** : Shell diameter code
- 165** : Effective length of the tube in cm (nominal length)
- K** : Tube material code
- S** : Tube plate material code
- G** : End cover material code



## General information

The HC model water cooled condensers form an extensive standard series for both inland and marine cooling installations. There are 6 shell diameters in 10 standard lengths available. The condensers are suitable for all halocarbon refrigerants for a capacity range of 2 up to 165 kW at 10 K lmtd.

Due to the application of plain tubing these condensers are less sensitive to fouling. At identical capacity, the refrigerant volume of a plain tube condenser is greater than that of a finned tube condenser.

This often makes it possible to use the condenser as a liquid receiver.

## Design

The condensers are built up of :

- seamless steel shell
- tube plates: steel or cupro-aluminium
- water tubes: plain tube  $\varnothing 19$  mm material: copper or aluminium-brass
- End covers: cast iron or plastified cast iron. Water connections on one end cover. The other end cover has two connections G  $\frac{1}{4}$ " for purging and drainage.
- Supports are available at extra cost.
- Completely coated version available at extra cost.

For construction and testing authorities see page 3.

## Material code indication

### Water tubes :

- K** : copper  
**A** : aluminium-brass

### Tube plates :

- S** : steel  
**I** : cupro-aluminium

### End covers :

- G** : cast iron  
**P** : plastified cast iron

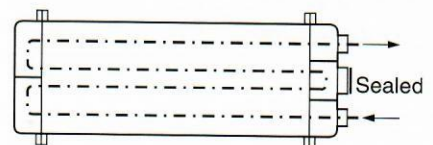
## Choice of water connections

With the exception of the HC-6, the condenser end covers are suitable for two water flows.

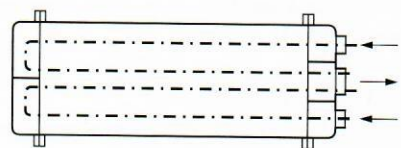
When less water is available the outer connections are used for in-and outlet purposes and the central connection must be sealed off (single water flow).

For a higher water flow (or half the water velocity) the outer connections are designed as water inlet and the central connection as water outlet (double water flow).

### Small water volume



### Large water volume



# Water Cooled Condensers

# HC

## Technical Data

Type	Dimensions mm											
	A	B	D	d	E	F	G	H BSP female	J BSP female	M kg	N kg/m	V dm <sup>3</sup> /m
HC 6	40	35	200	159	92	20		1/2"		16	24	9.0
HC 7	47	39	219	168	108	26		1/2"	3/4"	21	29	11.4
HC 8	55	40	260	219	142	28	64	3/4"	1 1/4"	28	48	17.2
HC 10	56	42	308	267	162	54	84	1"	1 1/4"	42	65	24.6
HC 12	63	44	345	298	220			1 1/4"	2"	54	82	30.5
HC 13	65	47	372	324	220	38	113	1 1/2"	2"	62	98	34.1

M Weight of endcovers (kg)

N Weight of shell (kg/m)

V Pump down capacity (dm<sup>3</sup>/m).  
Pump down capacities are based on 70 % of the tubes below the liquid level.

Dimensions X and Y, and the size of the refrigerant connections to be given with order.

