

cuprofin® -WIELAND-L10

Inner-grooved seamless drawn cupronickel tubes for seawater applications

Application

Wieland cuprofin-L10 tubes are highly efficient heat transfer tubes, which are especially qualified for seawater applications and other saline water, as well as their environment (e.g. coastal area).

This is due to the very high resistance of L10 to corrosion and erosion through fast-flowing, saline water, in particular seawater, and also to the insensitivity to stress corrosion and corrosion fatigue in these fluids.

Form of delivery

Level-wound coils		
Material	Cupronickel CuNi10Fe1Mn	Cupronickel C 70600
Standard	Wieland R-1191	ASTM B 359
Temper	annealed R290 (EN 12451*)	annealed O61
Straight lengths		
Material	Cupronickel CuNi10Fe1Mn	Cupronickel C 70600
Standard	Wieland R-1190	ASTM B 359
Temper	annealed R290 (EN 12451*)	annealed O61
	hard	on request

* Particular material appraisal 3.2 required for conformity to the Pressure Equipment Directive PED 97/23/EC.

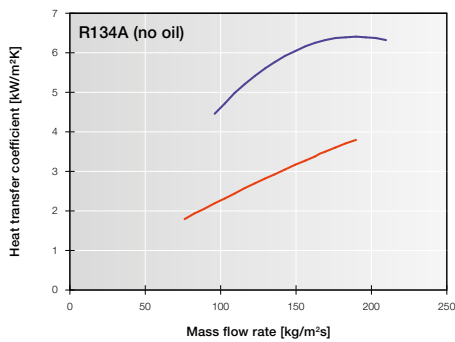
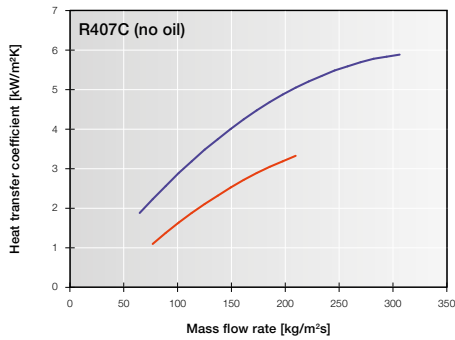
d ₁		s _k	h	n	α	Tube code
mm	inch	mm	mm	-	°	
7.94	5/16	0.40	0.18	50	18	S2AD-79440/50/18/18
8.00		0.40	0.18	50	18	S2AD-80040/50/18/18
9.52	3/8	0.45	0.20	60	18	S2AD-95245/60/18/20
12.00		0.50	0.25	70	18	S2AD-12050/70/18/25
12.70	1/2	0.50	0.25	70	18	S2AD-12750/70/18/25
15.00		0.56	0.30	75	18	S2AD-15056/75/18/30
15.87	5/8	0.58	0.30	75	18	S2AD-15858/75/18/30

Other types upon request.

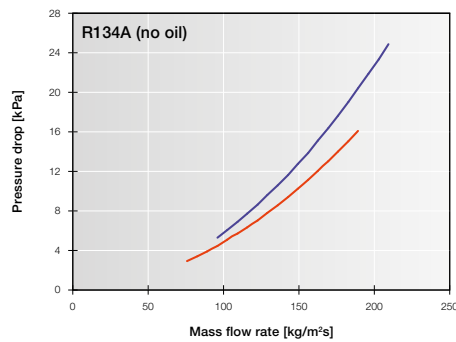
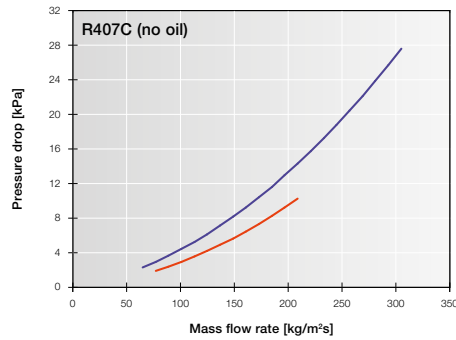
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EVAPORATION

Heat transfer performance

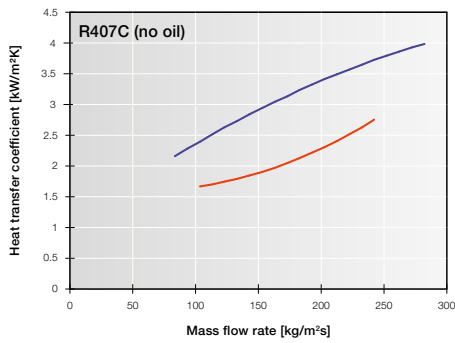


Pressure drop

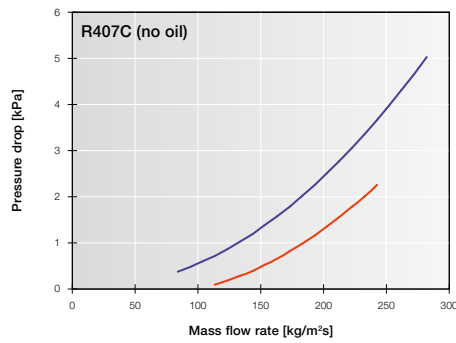


CONDENSATION

Heat transfer performance



Pressure drop



Test conditions Evaporation – 9.52 mm tubes
 $t_o = 0\text{ °C}$
 superheat ~5 K, inlet quality 20 %
 tube length 2 m

Condensation – 9.52 mm tubes
 $t_c = 35\text{ °C}$
 subcooling ~2 K, inlet superheat ~5 K
 tube length 2 m

— Plain tube
 — cuprofin-L10

Tube Type	Standard	E	EDX	C	G	This leaflet L10
Tube Application	evaporation condensation	evaporation	evaporation	condensation	single phase heat transfer	evaporation condensation
Process Application	fin coils shell & tube	fin coils	shell and tube evaporators	fin coils	highly viscous liquids	seawater
Material	copper	copper	copper	copper	copper	cupro nickel

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