

## cuprofin<sup>®</sup> -EDX

### Inner-grooved seamless drawn copper tubes

#### Application

cuprofin-EDX tubes are highly efficient heat transfer tubes for shell-and-tube dry expansion evaporators. cuprofin-EDX light is a new weight-optimised tube designed for less pressure drop with the same performance level. The grooves on the

inside of the tubes are designed for optimised heat transfer for a number of refrigerants, allowing the development of more compact heat exchangers.

#### Form of delivery

Level-wound coils			
Material	Copper Cu - DHP	Copper C 12200	Copper SF - Cu
Standard	EN 12735-2*	ASTM SB 359	VdTÜV 420/6
Temper	annealed Y040	light annealed O50	annealed F22
Straight lengths			
Material	Copper Cu - DHP	Copper C 12200	Copper SF - Cu
Standard	EN 12735-1*	ASTM SB 359	VdTÜV 420/7
Temper	hard R 290	hard drawn H80	hard F 36

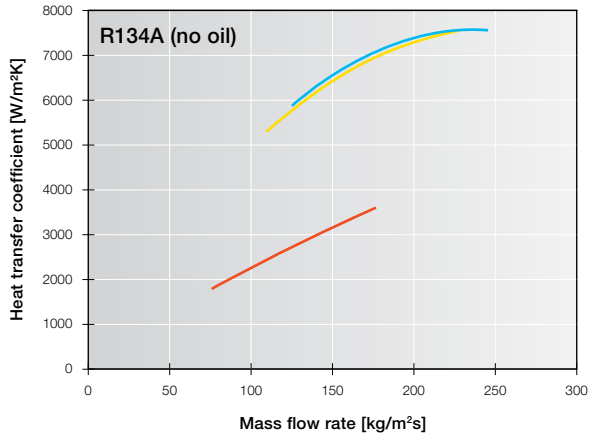
\*Conforms to the Pressure Equipment Directive PED 97/23/EC.

$d_1$		$d_2$	$s_k$	$h$	$n$	$\alpha$	Tube Code
mm	inch	mm	mm	mm	-	°	
7.94	$\frac{5}{16}$	6.86	0.32	0.22	65	18	X2AD-79432/65/18/22
9.52	$\frac{3}{8}$	8.22	0.40	0.25	60	18	X2AD-95240/60/18/25
9.52	$\frac{3}{8}$	8.22	0.40	0.25	60	18	X2CD-95240/60/18/25
9.52	$\frac{3}{8}$	8.32	0.40	0.20	74	19	X2LD-95240/74/19/20
9.52	$\frac{3}{8}$	8.22	0.45	0.20	74	19	X2LD-95245/74/19/20
9.52	$\frac{3}{8}$	8.12	0.45	0.25	60	18	X2AD-95245/60/18/25
9.52	$\frac{3}{8}$	8.12	0.45	0.25	60	18	X2CD-95245/60/18/25

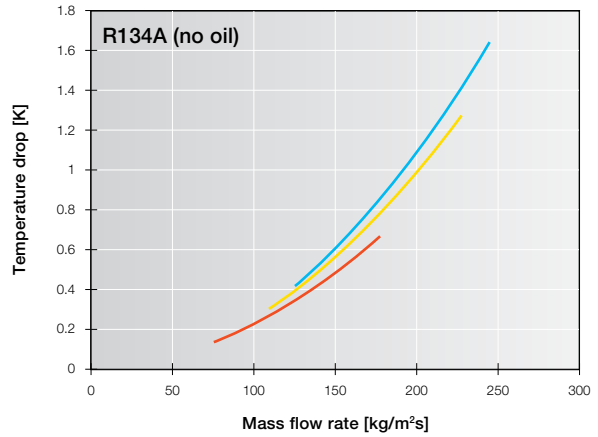
EDX light: new weight-optimised tube; other types upon request.

## EVAPORATION

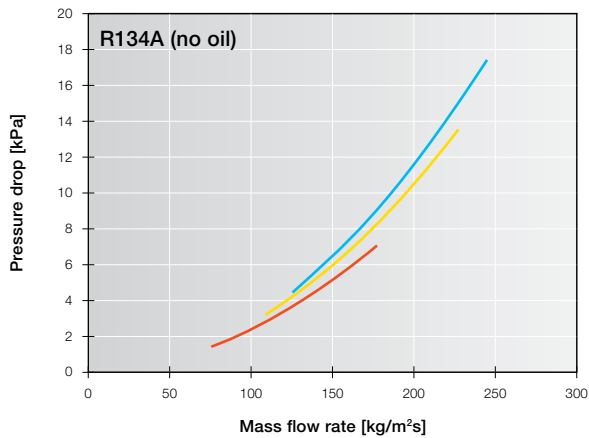
### Heat transfer performance



### Temperatur drop related to pressure drop



### Pressure drop



**Test conditions** Evaporation – 9.52 mm tubes  
 $t_0 = 0 \text{ °C}$   
 superheat ~5 K, inlet quality 20 %  
 tube length 2 m

— cuprofin-EDX light  
 — cuprofin-EDX  
 — plain tube

Tube Type	Standard	E	This leaflet EDX	C	G	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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