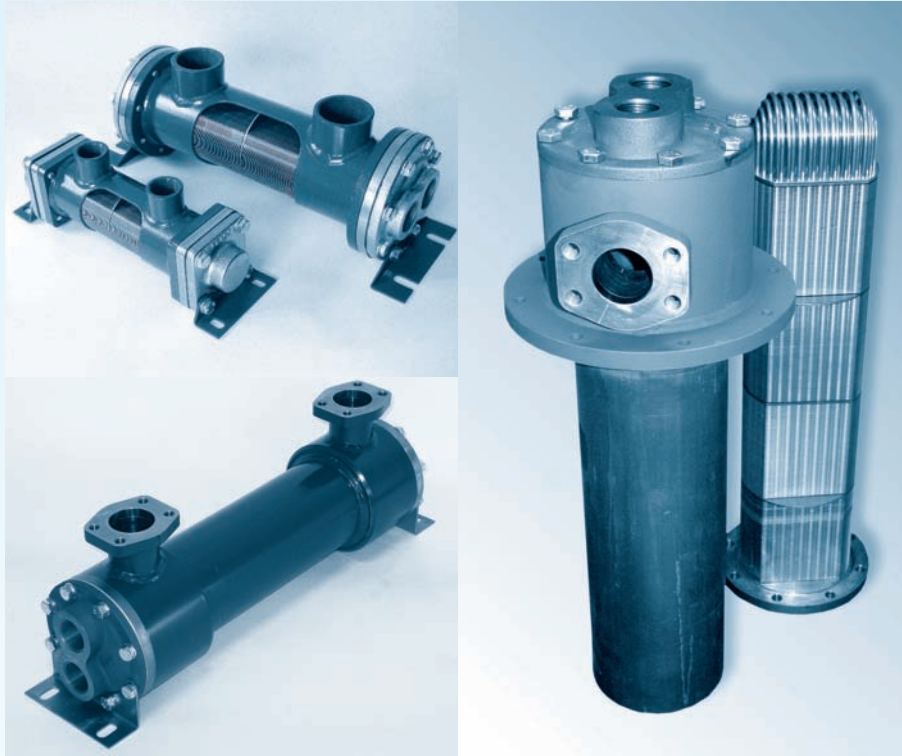


*advanced quality
customized designs
made in europe*

**UNIVERSAL
HYDRAULIK** 
Your Partner for coolers and systems

Oil/Water Heat Exchangers



Series

**EK/SC
UK/UKT**

For industrial use

**HYBRID
COOLING**

Features

- **Oil-side:**
High Efficiency due to plates (increased surface)
- **Waterside:**
Long life time due to plain tubes (instead of formed plates)
- Heat dissipation up to 2000 hp
- Flow rates up to 400 gal/min
- Cu-/CuNi-/SS-water tubes
- High pressure standard (max. 500 psi)
- Five different shell diameters
- -SC-: large water tubes
- -UK-: U-tube Bundle (Removable)

Optional: Bypass-valve integrated

- Designed for cold-start conditions
- Reduces pressure peaks of the hydraulic system
- Completely replaces the external bypass valve



Product description

Product description

The Hybrid-Cooler Series is our latest development in shell & tube heat exchangers for a wide range of industrial applications. This range is particularly effective due to the additional cooling area, and offers a heat exchange performance of 2000 hp. This is produced by aluminium fins, which are pushed over the tubes with metal-to-metal contact.

Options

- Sea water version
- Certifications for marine applications
- Compressed-air application
- Water-Water application
- Stainless steel version or chemically nickel plated
- Higher max. pressure oil and water side
- Connections can be customised

Performance data

Unit Size	Maximum flow rate (GPM)				Maximum Heat load up to (hp)
	Shell (oil)	Tubes (water)			
		One Pass	Two Pass	Four Pass	
EK - 5XX	20	16	8	-	60
EK - 7XX	59	32	16	8	120
EK - 10XX	87	73	37	18	450
EK - 12XX	172	148	74	37	950
EK - 14XX	224	139	69	34	1850
EK - 17XX	317	259	129	65	2000
SC - 10XX	87	85	42	22	300
SC - 12XX	172	198	99	39	800
SC - 17XX	317	304	152	75	1350
SC - 24XX	475	690	345	172	876
UK/UKT - 5XX	20	-	7	-	50
UK/UKT - 7XX	59	-	14	6	70
UK/UKT - 10XX	87	-	32	15	250
UK/UKT - 12XX	172	-	72	36	500

The performance data is based on maximum flow rates (for each series), water inlet temperature of 77 °F, oil outlet temperature of 122 °F and oil viscosity of 30 cSt.

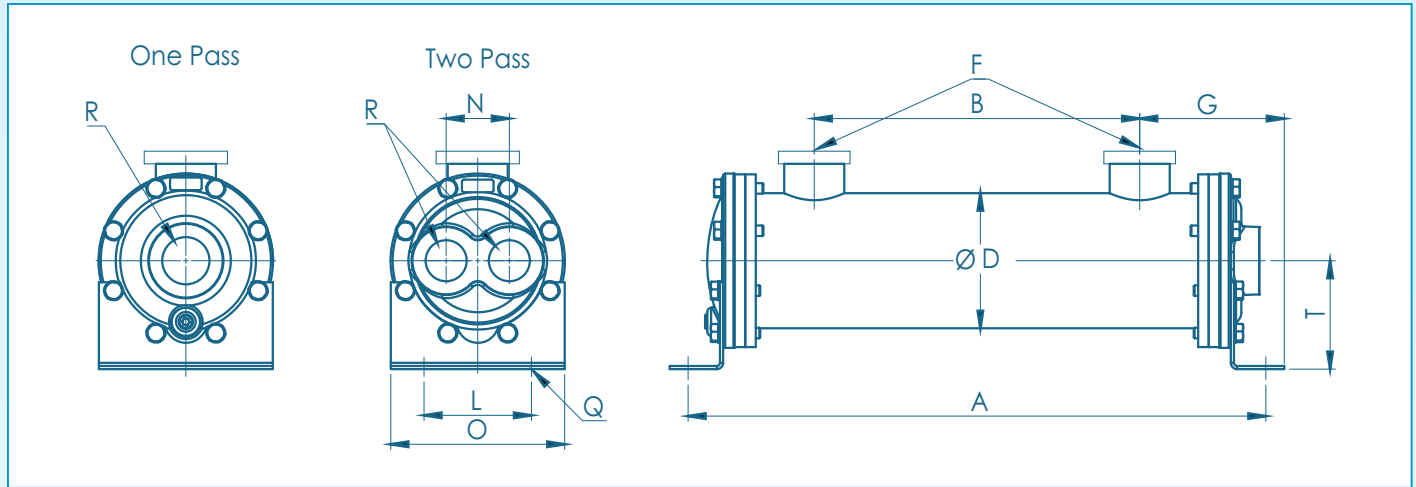
The flow data depends on the application and the selected tube material. Please consult the operating manual.

Materials/Construction

	STANDARD	STAINLESS	SEAWATER
SHELL	Steel	Stainless Steel	Steel
END CAPS	Cast iron	Stainless Steel	Nickel plated cast iron or gunmetal with Zinc Anode
WATER TUBES	Copper	Stainless Steel	CuNi (90:10)
MOUNTING BRACKETS	Steel	Stainless Steel	Steel
BAFFLES	Steel	Stainless Steel	Steel
TUBE SHEETS	Steel	Stainless Steel	Naval Brass
COOLING FINS	Aluminum	Aluminum	Aluminum

* Other materials or material combinations possible per request

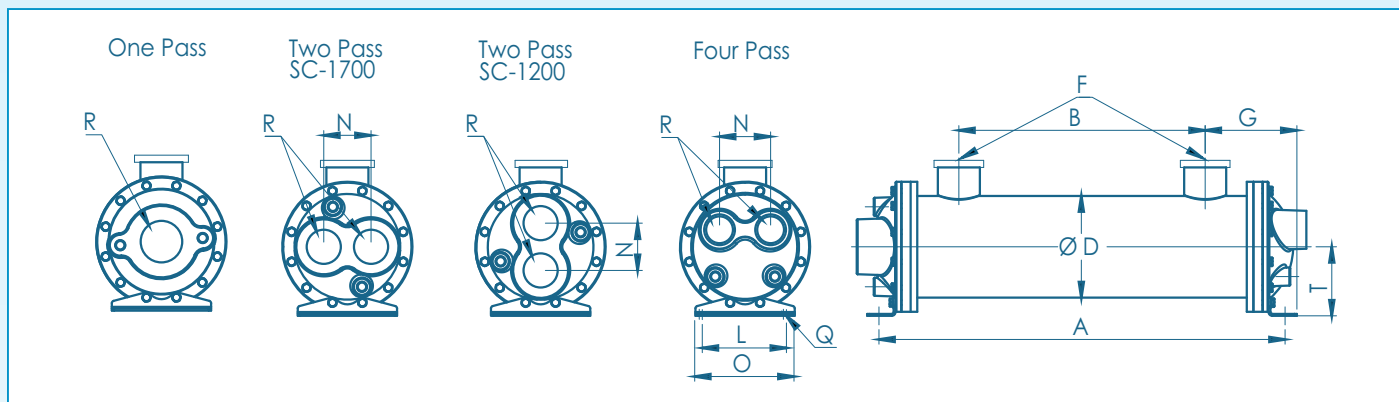
Unit Dimensions EK 5XX - EK 10XX (inch)



MODEL	A	B	D	F NPT	F SAE Flange	F SAE O-Ring	G	L	N	O	Q	R NPT		T	Net Weight		
												One Pass	Two Pass		Approx. (lbs)		
EK-505	7.44	2.17	2.09	1/2	-	#8 3/4-16 UNF-2B	3.78	2.50	1.10	3.50	0.35	3/4	3/8	1.61	7		
EK-508	10.43	3.82		3/4		#12									1 1/16-12 UN-2B	SLOT	8
EK-510	12.44	5.83															9
EK-512	14.45	7.83									10						
EK-514	16.46	9.84		11													
EK-518	20.43	13.82		12													
EK-524	26.46	19.84		13													
EK-536	38.43	31.81		18													
EK-708	11.14	2.99	2.24	1 1/2	#24 1 7/8-12	4.41	2.99	1.61	5.00	0.43	1 1/4	3/4	2.60	17			
EK-712	15.16	7.01												21.14	12.99	SLOT	19
EK-714	17.17	9.02															20
EK-718	21.14	12.99								22							
EK-724	27.17	19.02								26							
EK-736	38.43	30.98								34							
EK-1012	15.63	6.18	2.87	2	UN 2B	5.39	4.02	2.36	6.50	0.43	1 1/2	1	4.02	34			
EK-1014	17.64	8.19												21.61	12.17	SLOT	37
EK-1018	21.61	12.17															44
EK-1024	27.64	18.19								49							
EK-1036	39.61	30.16								68							
EK-1048	51.46	42.01								88							

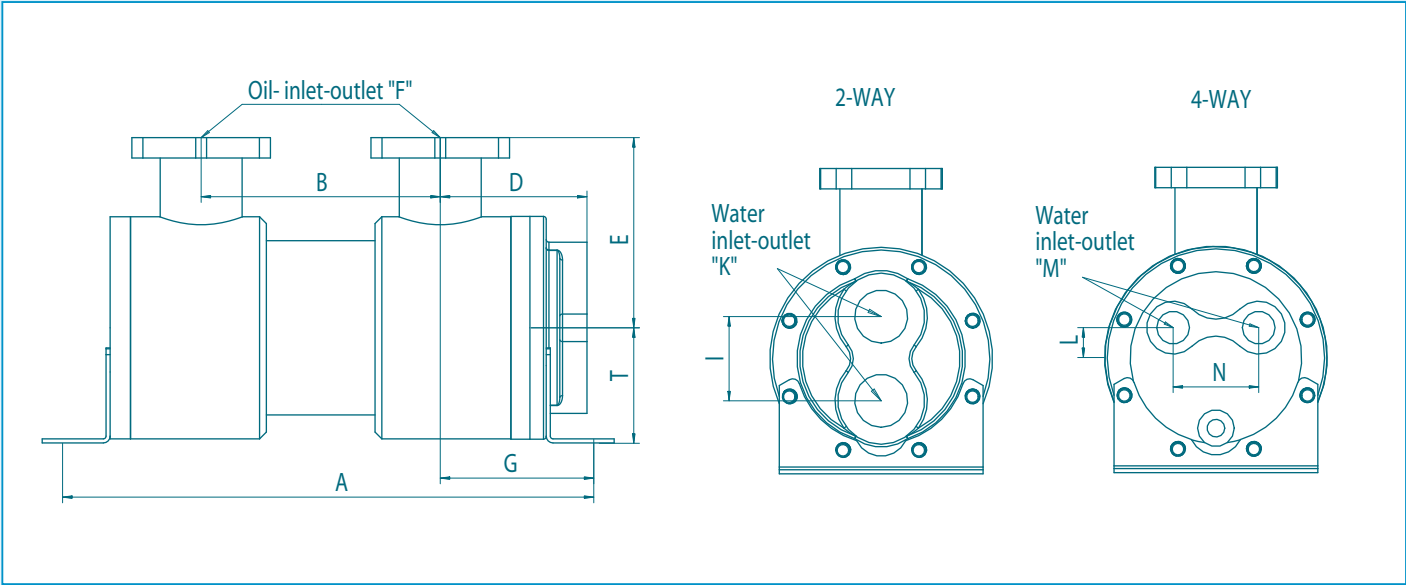
MODEL	A	B	D	F		G	L	N		O	Q	R			T	Net Weight Approx. (lbs)
				NPT SAE Flange	SAE O-Ring			NPT								
								One Pass	Two Pass			Four Pass				
EK-1218	20.63	11.42	6.30	2	#32 SAE	5.59	5.59	3.43	2.76	7.48	0.51 x 1.10 SLOT	2	2	1	4.72	77
EK-1224	26.61	17.40														88
EK-1230	32.64	23.43														99
EK-1236	38.62	29.41														110
EK-1242	44.65	35.43														121
EK-1248	50.63	41.42														132
EK-1254	56.61	47.40														143
EK-1260	62.64	53.43														154
EK-1266	68.62	59.41														165
EK-1272	74.61	65.39														176
EK-1278	80.63	71.42														187
EK-1284	86.61	77.40														198
EK-1424	27.60	16.14	6.18	2 1/2	-	5.75	5.51	3.70	3.15	8.27	0.43 x 1.61 SLOT	2	2	1 1/2	5.12	101
EK-1430	33.70	22.24														118
EK-1436	39.80	28.35														135
EK-1442	45.91	34.45														152
EK-1448	52.01	40.55														169
EK-1454	58.11	46.65														186
EK-1460	64.21	52.76														203
EK-1466	70.31	58.86														220
EK-1472	76.42	64.96														237
EK-1478	82.52	71.06														254
EK-1484	88.62	77.17														271
EK-1724	27.80	14.49														8.46
EK-1730	33.82	20.51	220													
EK-1736	39.80	26.50	243													
EK-1742	45.83	32.52	265													
EK-1748	51.81	38.50	287													
EK-1754	57.80	44.49	309													
EK-1760	63.82	50.51	331													
EK-1766	69.80	56.50	353													
EK-1772	75.79	62.48	375													
EK-1778	81.81	68.50	397													
EK-1784	87.80	74.49	419													

Unit Dimensions SC 10XX - SC 17XX (inch)

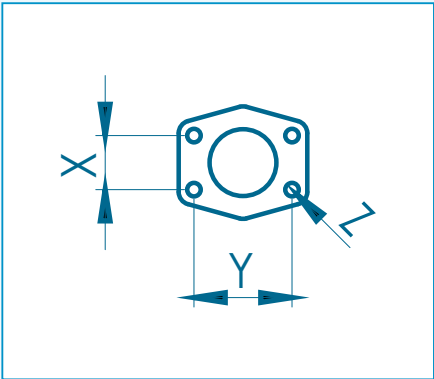


MODEL	A	B	D	F		G	L	N		O	Q	R NPT			T	Net Weight Approx. (lbs)
				NPT	SAE			Two Pass	Four Pass			One Pass	Two Pass	Four Pass		
				SAE Flange	SAE O-Ring											
SC-1012	15.63	6.18	2.87	2	#24 1 7/8-12 UN 2B	5.39	4.02	2.36	-	6.50	0.43 x 0.98 SLOT	1 1/2	1	-	4.02	34
SC-1014	17.64	8.19														37
SC-1018	21.61	12.17														44
SC-1024	27.64	18.19														49
SC-1036	39.61	30.16														68
SC-1048	51.46	42.01														88
SC-1218	20.63	11.42	6.30	2	#32 SAE	5.59	5.59	3.43	2.76	7.48	0.51 x 1.10 SLOT	2	2	1	4.72	77
SC-1224	26.61	17.40														88
SC-1230	32.64	23.43														99
SC-1236	38.62	29.41														110
SC-1242	44.65	35.43														121
SC-1248	50.63	41.42														132
SC-1254	56.61	47.40														143
SC-1260	62.64	53.43														154
SC-1266	68.62	59.41														165
SC-1272	74.61	65.39														176
SC-1278	80.63	71.42														187
SC-1284	86.61	77.40														198
SC-1724	27.80	14.49	8.46	3	-	7.64	7.01	3.94	4.25	8.27	0.63 x 1.50 SLOT	3	2	2	5.75	198
SC-1730	33.82	20.51														220
SC-1736	39.80	26.50														243
SC-1742	45.83	32.52														265
SC-1748	51.81	38.50														287
SC-1754	57.80	44.49														309
SC-1760	63.82	50.51														331
SC-1766	69.80	56.50														353
SC-1772	75.79	62.48														375
SC-1778	81.81	68.50														397
SC-1784	87.80	74.49														419
SC-2436	variable	26.49	18.82	5	-	-	13.86	6.5	2.17	15.75	0.87	5	4	3	12.64	on request
SC-2448	variable	38.50														on request
SC-2460	variable	50.51														on request
SC-2472	variable	75.78														on request
SC-2484	variable	87.79														on request

Unit Dimensions UK 5XX - UK 12XX (inch)



Dimensions flange



	X	Y	Z
SAE 1 1/2"	1.41	2.75	1/2 - 13
SAE 2"	1.69	3.06	UNC-2B
SAE 3"	2.44	4.19	5/8 - 11 UNC 2B

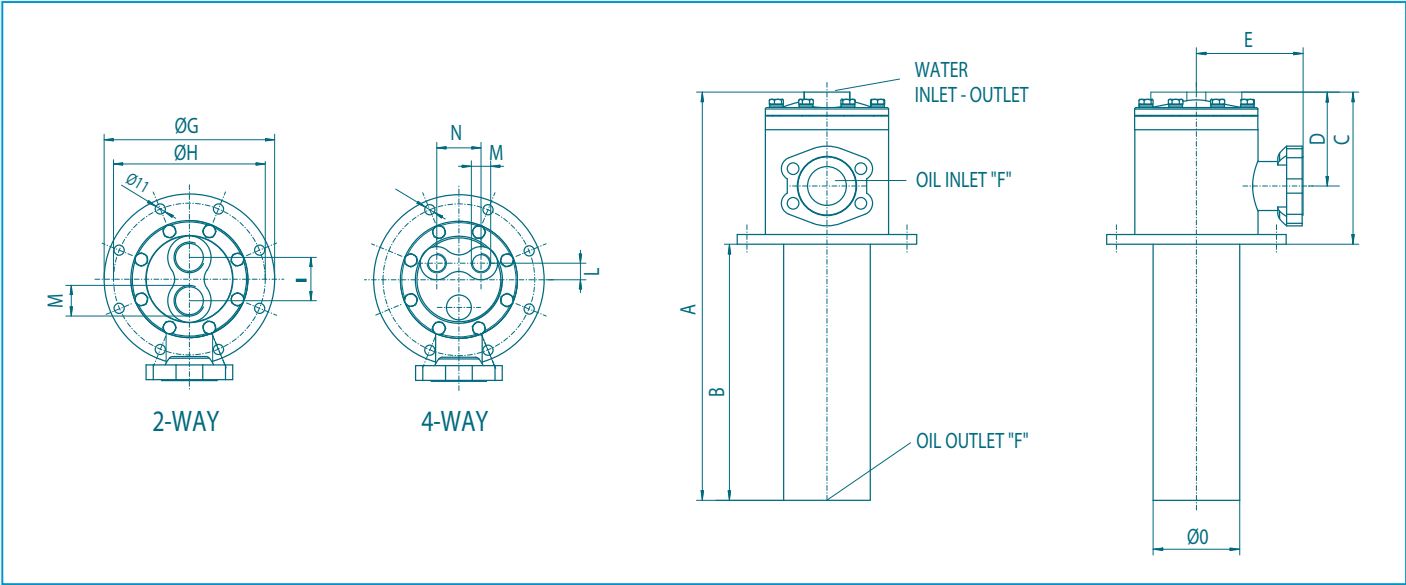
Unit Dimensions UK 5XX - UK 12XX (inch)

	Dimensions							2-ways			4-ways			foot	
in inches	A	B	D	E	G	F	T	I	K	L	M	N	O	P	Q (Ø)
UK-508	12.17	6.99								-	-	-			
UK-512	16.14	10.96								-	-	-			
UK-514	18.15	12.97								-	-	-			
UK-518	22.17	16.99	2.60	2.95	2.80	G 1"	2.17	1.38	G 1/2"	-	-	-	3.74	2.48	0.33x0.63
UK-524	18.15	22.97								-	-	-			
UK-536	40.16	34.98								-	-	-			
UK-708	12.76	6.10													
UK-712	16.73	10.08													
UK-714	18.74	12.09	3.35	3.54	3.50	G 1 1/2"	2.60	1.85	G 1"	0.71	G 1/2"	1.89	4.72	2.99	0.43x0.98
UK-718	22.76	16.10													
UK-724	28.74	22.09													
UK-736	40.75	34.09													
UK-1012	18.27	10.28													
UK-1014	20.28	12.28													
UK-1018	24.29	16.30													
UK-1024	30.28	22.28	4.13	5.51	4.25	G 1 1/2"	3.35	2.44	G 1 1/4"	0.87	G 3/4"	2.48	5.91	4.02	0.51x1.1
UK-1036	42.28	34.29													
UK-1048	54.29	46.30													
UK-1060	66.30	58.31													
UK-1218	24.33	15.35													
UK-1224	30.31	21.34													
UK-1230	36.34	27.36													
UK-1236	42.32	33.35													
UK-1242	48.35	39.37													
UK-1248	54.33	45.35	5.16	5.71	4.57	SAE 2 1/2"	4.72	3.43	G 2"	0.98	G 1"	2.76	7.48	5.59	0.51x1.1
UK-1254	60.31	51.34													
UK-1260	66.34	57.36													
UK-1266	72.32	63.35													
UK-1272	78.35	69.37													
UK-1278	84.37	75.39													
UK-1284	90.35	81.38													

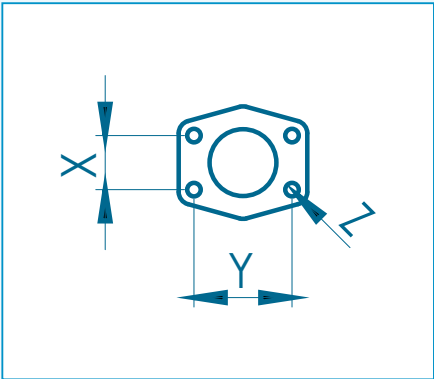
* Option: Unit size 500 + 700: SAE 1 1/2"; Unit size 1000: Thread

* Option: Unit size 1200: K - R 1", R 1 1/4", R 1 1/2"

Unit Dimensions UKT 5XX - UKT 12XX (inch)



Dimensions flange



	X	Y	Z
SAE 1 1/2"	1.41	2.75	1/2 - 13
SAE 2"	1.69	3.06	UNC-2B
SAE 3"	2.44	4.19	5/8 - 11 UNC 2B

Unit Dimensions UKT 5XX - UKT 12XX (inch)

	Basic dimensions								2-ways			4-ways		
in mm / BSPP	A	B	C	D	E	F*	G	O	H	I	K	L	M	N
UKT-508	11.22	5.51												
UKT-512	15.20	9.49												
UKT-514	17.20	11.50	5.71	3.62	1.89	G 1"	5.91	2.56	5.12	1.38	G 1/2"	-	-	-
UKT-518	21.22	15.51												
UKT-524	27.20	21.50												
UKT-536	39.21	33.50												
UKT-708	11.69	5.55												
UKT-712	15.67	9.53												
UKT-714	17.68	11.54	6.14	3.78	4.33	SAE 1 1/2"	7.28	3.50	6.50	1.85	G 1"	0.71	R 1/2"	1.89
UKT-718	21.69	15.55												
UKT-724	27.68	21.54												
UKT-736	39.69	33.54												
UKT-1012	16.73	9.45												
UKT-1014	18.74	11.46												
UKT-1018	22.76	15.47	7.28	4.33	4.92	SAE 2"	9.06	5.04	8.07	2.44	G 1 1/4"	0.87	R 3/4"	2.48
UKT-1024	28.74	21.46												
UKT-1036	40.75	33.46												
UKT-1048	52.76	45.47												
UKT-1218	23.31	15.35												
UKT-1224	29.29	21.34												
UKT-1230	35.31	27.36												
UKT-1236	41.30	33.35												
UKT-1242	47.32	39.37												
UKT-1248	53.31	45.35	7.95	5.00	5.71	SAE 2 1/2"	10.83	6.30	9.45	3.43	G 2"	0.98	G 1"	2.76
UKT-1254	59.29	51.34												
UKT-1260	65.31	57.36												
UKT-1266	71.30	63.35												
UKT-1272	77.32	69.37												
UKT-1278	83.35	75.39												
UKT-1284	89.33	81.38												

* Option: Unit size 500 + 700: SAE 1 1/2"; Unit size 1000: Thread

* Option: Unit size 1200: K - R 1", R 1 1/4", R 1 1/2"

advanced quality
customized designs
made in europe

**UNIVERSAL
HYDRAULIK** 
Your Partner for coolers and systems

Ordering code

SS - EKS R - 1036 - 6 - O - CN - R - W - SW

**Complete cooler
stainless steel**
(+ Aluminum fins)

Water tubes

small = **EK**

large = **SC**

U - tubes, on-tank cooler = **UK**

U - tubes, in-tank cooler = **UKT**

Connection type

NPT = **-**

SAE with O-Ring,

water side NPT/ = **S**

SAE flange = **FM**

BSPP = **M***

Removable bundle

Unit size

Baffle distances

Bonnet

SW = Seawater
(nickel plated end caps)

SWBZ = Seawater
(Gunmetal end caps,
zinc anode included)

SS = Stainless steel

Tube sheet

- = Steel

W = Naval brass

SS = Stainless steel

Shell side bypass

R = Bypass valve (partly opened)

RS = Bypass valve (fully opened)

Water tubes

CN = Copper/nickel

CU = Copper

SS = Stainless steel

Cooling water connection system

O = 1-pass (not UK- and UKT-series)

T = 2-pass

F = 4-pass (not available for 500 series)

**Please see our data sheet in SI-units (metric version)*

Technical data

Caution: Incorrect installation can lead to damage to the cooler.

Maximum working pressure for

standard hydraulic application up to:

Shell = 500 psi

Tubes = 230 psi

Operating temperature range:

= 41 - 203 °F

Option:

Higher pressure and temperatures on request

The technical data of this sheet is depending on the described operational conditions and individual cases. At different operational conditions and differing individual cases contact UniversalHydraulik.

Technical modifications reserved. Please also pay attention to our operation manuals and maintenance documentations.

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