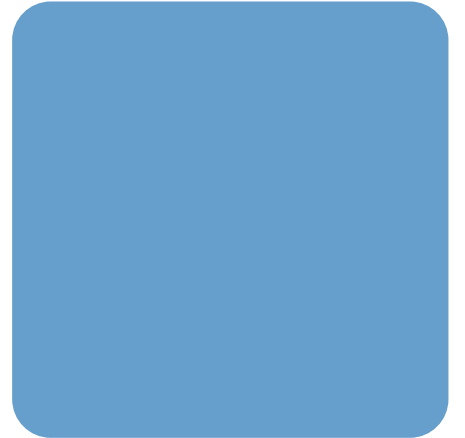


SHELL&TUBE EVAPORATORS

HR SERIES

HR SERIES U-TUBE EVAPORATORS
HR SERİSİ U BORULU EVAPORATÖRLER



HR SERİSİ U BORULU EVAPORATÖRLER

HR SERIES U-TUBE EVAPORATORS



HR Serisi U-Tube Evaporatörler; endüstriyel soğutma sistemlerinde soğuk su ihtiyacını karşılamak amacıyla 20kW - 1500kW soğutma kapasitesi aralığında yüksek mukavemetli, titreşime ve korozyona dayanıklı, sızdırmaz contalı ve yüksek ısı transfer kabiliyetine sahip yivli bakır borulu olarak imal edilmektedir.

HR Series Shell&Tube Evaporators are manufactured with high durability, vibration and corrosion resistance, leak-proof gaskets and high heat transfer rate grooved copper tubes in the range of 20kW - 1500kW to meet cold water demand in industrial cooling systems.

Teknik Detaylar

Technical Details

Boru Tarafı Tube Side	Test Basıncı / Test Pressure	40 Bar
	Maks. Basınç / Max. Pressure	30 Bar
Kovan Tarafı Shell Side	Test Basıncı / Test Pressure	12 Bar
	Maks. Basınç / Max. Pressure	10 Bar
Çalışma Sınırları / Operation Limits		-10°C / +90°C
Soğutucu Akışkan / Refrigerant		R407C
Su Giriş - Çıkış / Water Inlet-Outlet Temperature		12°C / 7°C
Evaporasyon / Evaporation Temperature		2°C
Kondenzasyon / Condensation Temperature		45°C
Aşırı Kızdırma / Superheating		5K
Kirlilik Faktörü / Fouling Factor		0,000043 m ² k/W
Renk Kodu / Color Code		RAL 7021



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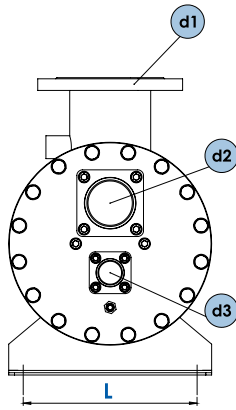
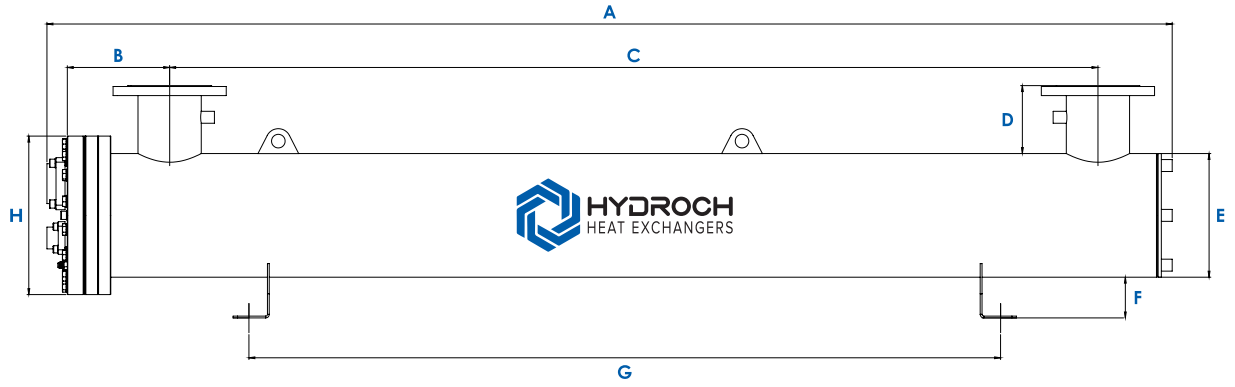
HR SERIES U-TUBE EVAPORATORS

HR Serisi U Borulu Evaporatörler için Kapasite Tablosu
Capacity Table for HR Series U-Tube Evaporators

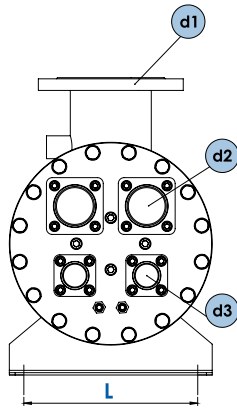
MODEL	Devre Sayısı Circuit Number	Kapasite Capacity	Kapasite Capacity	Akış Hızı Flow Rate	Basınç Kaybı Pressure Drop	Gaz Hacmi Freon Volume	Su Hacmi Water Volume	Ağırlık Weight
		kW	Tons (RT)	m ³ /h	kPa	L	L	kg
HR 20	1 - 2	18,9	5,4	3,4	2,49	3,3	14,5	50,50
HR 33	1 - 2	29,9	8,5	5,7	6,46	4,0	13,7	50,85
HR 52	1 - 2	45,4	12,9	8,9	15,5	4,8	12,7	53,00
HR 60	1 - 2	59,9	17,0	10,3	13,03	5,1	24,4	62,00
HR 74	1 - 2	69,0	19,6	12,7	19,63	5,4	23,7	65,00
HR 85	1 - 2	83,0	23,6	14,6	20,85	5,9	23,0	66,00
HR 102	1 - 2	93,5	26,6	17,5	29,81	6,5	22,3	67,50
HR 125	1 - 2	121,4	34,5	21,5	43,63	8,0	27,8	76,00
HR 144	1 - 2	141,7	40,3	24,7	35,71	8,8	26,9	78,00
HR 168	1 - 2	154,4	43,9	27,8	45,01	9,6	25,8	78,50
HR 200	1 - 2	216,7	61,6	34,3	29,46	11,7	50,8	135,00
HR 250	1 - 2	249,0	70,8	42,9	44,58	14,9	47,0	137,00
HR 296	1 - 2	285,0	81,0	50,8	36,96	17,9	43,2	140,00
HR 345	1 - 2 - 3 - 4	373,6	106,2	59,2	46,31	23,0	100,7	185,00
HR 396	1 - 2 - 3 - 4	438,9	124,8	68,0	58,62	27,1	95,6	190,00
HR 452	1 - 2 - 3 - 4	483,1	137,3	77,6	36,17	30,9	207,8	265,00
HR 505	1 - 2 - 3 - 4	520,4	148,0	86,7	49,08	34,7	203,0	265,00
HR 580	1 - 2 - 3 - 4	606,4	172,4	99,9	62,14	40,1	196,2	280,00
HR 670	2 - 3 - 4	681,4	193,8	115,0	49,75	46,2	335,2	395,00
HR 777	2 - 3 - 4	767,1	218,1	133,4	41,28	52,4	327,5	410,00
HR 924	2 - 3 - 4	928,1	263,9	158,6	33,01	64,4	312,4	425,00
HR 1053	2 - 3 - 4	1121,2	318,8	180,7	45,3	77,3	296,3	460,00
HR 1148	2 - 3 - 4	1282,1	364,5	197,0	41,51	91,0	386,1	530,00
HR 1255	2 - 3 - 4	1373,6	390,6	215,4	49,61	94,9	381,2	535,00
HR 1350	2 - 3 - 4	1450,6	412,5	231,7	46,32	101,1	489,7	600,00
HR 1500	2 - 3 - 4	1685,0	479,1	257,5	57,58	116,6	469,0	630,00

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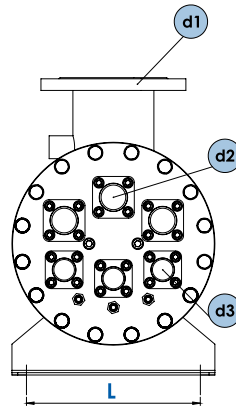
HR SERIES U-TUBE EVAPORATORS



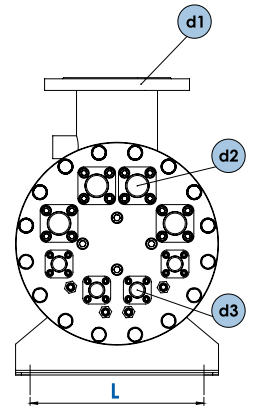
Tek Devre / Single Circuit



Çift Devre / Double Circuit



Üç Devre / Triple Circuit



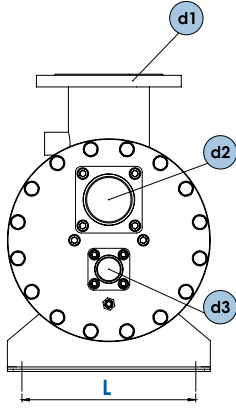
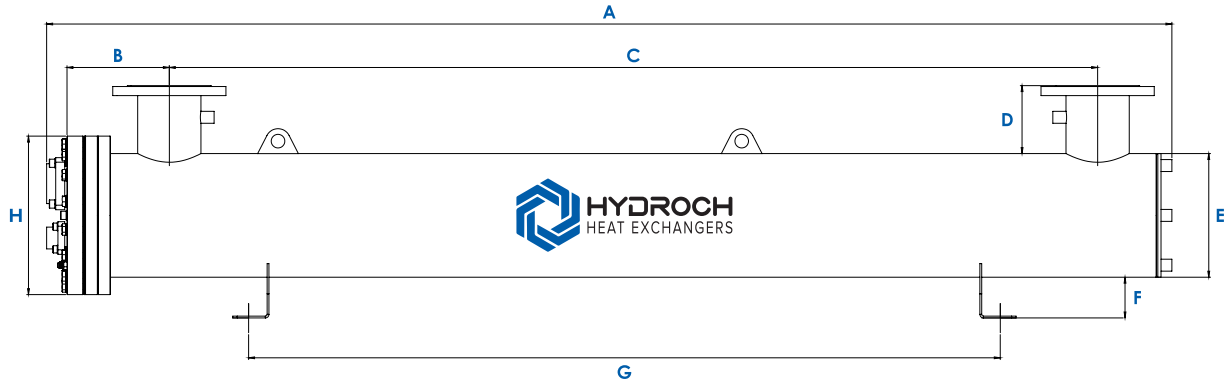
Dört Devre / Quadruple Circuit

	HR 20	HR 33	HR 52	HR 60	HR 74	HR 85	HR 102	HR 125	HR 144	HR 168	HR 200	HR 250	HR296
A (mm)	1066	1066	1066	1641	1641	1641	1641	2016	2016	2016	2020	2020	2020
B (mm)	152	152	152	162	162	162	162	167	167	167	193	193	193
C (mm)	765	765	765	1330	1330	1330	1330	1685	1685	1685	1655	1655	1655
D (mm)	130	130	130	130	130	130	130	140	140	140	150	150	150
E (mm)	168	168	168	168	168	168	168	168	168	168	219	219	219
F (mm)	80	80	80	80	80	80	80	80	80	80	90	90	90
G (mm)	600	600	600	1040	1040	1040	1040	1250	1250	1250	1250	1250	1250
H (mm)	230	230	230	230	230	230	230	230	230	230	300	300	300
L (mm)	180	180	180	180	180	180	180	180	180	180	250	250	250
d1 (mm)	2" - DN50	2" - DN50	2" - DN50	2 1/2" - DN65	2 1/2" - DN65	2 1/2" - DN65	2 1/2" - DN65	3" - DN80	3" - DN80	3" - DN80	4" - DN100	4" - DN100	4" - DN100
Tek Devre / Single Circuit													
d2 (mm)	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø54	Ø54	Ø54	Ø67	Ø67	Ø67
d3 (mm)	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø42	Ø42	Ø42
Çift Devre / Double Circuit													
d2 (mm)	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø54	Ø54	Ø54
d3 (mm)	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø22	Ø35	Ø35	Ø35

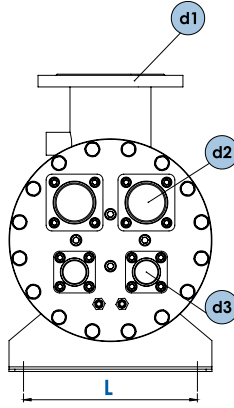
Tüm teknik bilgiler, açıklamalar ve fiyatlar önceden haber vermeksizin değiştirilebilir.
All technical information, descriptions and prices are subject to change without notice.

HR SERİSİ U BORULU EVAPORATÖRLER

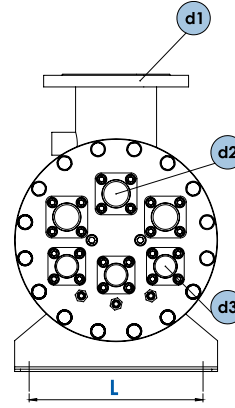
HR SERIES U-TUBE EVAPORATORS



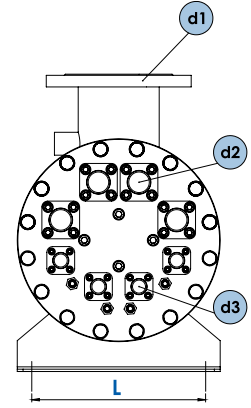
Tek Devre / Single Circuit



Çift Devre / Double Circuit



Üç Devre / Triple Circuit



Dört Devre / Quadruple Circuit

	HR 345	HR396	HR452	HR 505	HR 580	HR 670	HR 777	HR 924	HR 1053	HR 1148	HR 1255	HR 1350	HR 1500
A (mm)	2485	2485	3290	3290	3290	3310	3310	3310	3310	3330	3330	3330	3330
B (mm)	226	226	241	241	241	266	266	266	266	276	276	276	276
C (mm)	2050	2050	2815	2815	2815	2785	2785	2785	2785	2785	2785	2785	2785
D (mm)	150	150	150	150	150	180	180	180	180	180	180	180	180
E (mm)	273	273	324	324	324	406	406	406	406	457	457	508	508
F (mm)	90	90	90	90	90	90	90	90	90	90	90	90	90
G (mm)	1660	1660	2190	2190	2190	2110	2110	2110	2110	2190	2190	2190	2190
H (mm)	350	350	400	400	400	490	490	490	490	530	530	585	585
L (mm)	300	300	370	370	370	460	460	460	460	450	450	450	450
d1 (mm)	5"-DN125	5"-DN125	6"-DN-150	6"-DN-150	6"-DN-150	8"-DN200	8"-DN200	8"-DN200	8"-DN200	8"-DN200	8"-DN200	8"-DN200	8"-DN200
Tek Devre / Single Circuit													
d2 (mm)	Ø80	Ø80	Ø80	Ø80	Ø80	—	—	—	—	—	—	—	—
d3 (mm)	Ø42	Ø42	Ø42	Ø42	Ø42	—	—	—	—	—	—	—	—
Çift Devre / Double Circuit													
d2 (mm)	Ø67	Ø67	Ø67	Ø67	Ø67	Ø80	Ø80	Ø80	Ø80	Ø105	Ø105	Ø105	Ø105
d3 (mm)	Ø42	Ø42	Ø42	Ø42	Ø42	Ø42	Ø42	Ø42	Ø42	Ø42	Ø42	Ø54	Ø54
Üç Devre / Triple Circuit													
d2 (mm)	Ø42	Ø42	Ø54	Ø54	Ø54	Ø67	Ø67	Ø67	Ø67	Ø80	Ø80	Ø80	Ø80
d3 (mm)	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø42	Ø42	Ø42	Ø42
Dört Devre / Quadruple Circuit													
d2 (mm)	Ø35	Ø35	Ø42	Ø42	Ø42	Ø54	Ø54	Ø54	Ø54	Ø54	Ø54	Ø67	Ø67
d3 (mm)	Ø22	Ø22	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35	Ø35

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Ferizli OSB Mah. 1. Cad.
No:9/1 Ferizli - Sakarya
Türkiye

www.hydroch.com
info@hydroch.com

