



Shell and tubes Dry expansion evaporator

Corrugated tubes for
enhanced heat transfer
Refrigerant *grade* components
range of *optimised* units



Cooling capacity : 50 to 3000 kW

USE

This generation of shell and tubes evaporator has been designed for integration into high and medium power cooling systems.

DESCRIPTION

FYN

To be used with all halogenised, zeotrope or azeotrope refrigerant fluids (R507, R134a, R404A, R407C...). The bundle tubes are of copper.

FYN BT

Low temperature : 316 L stainless steel shell

FYH

Adapted for the NH₃ (R 717). The bundle tubes are of steel.

FYH IN

Low temperature and corrosive fluids : stainless steel 316 L shell, tubular plates and tubes.

QUICK SELECTION

WATER inlet Temp = 12 °C

Evaporating temperature
Temp. of fluid before expansion

> 0 °C
35°C

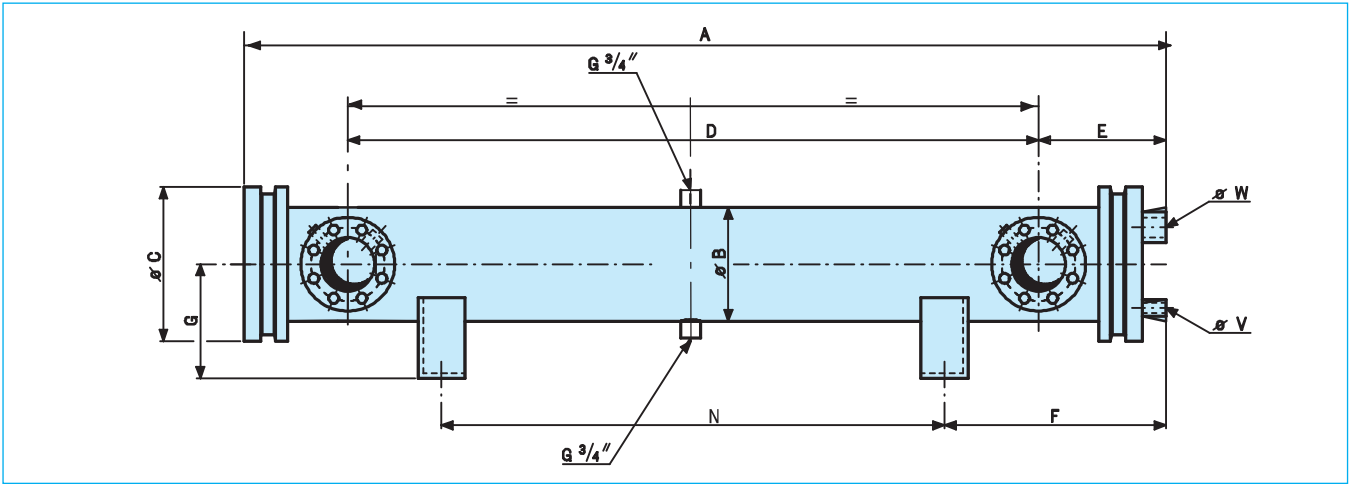
Superheating of gases
Fouling factor

4 K
0,00005 m² °C/W

Power kW	R404A			NH ₃		
	FYN	Water flow m ³ /h	Water pressure drop kPa	FYH	Water flow m ³ /h	Water pressure drop kPa
100	168 20 4B	17	35	168 20 4B	16	34
200	219 25 4B	39	45	219 25 4B	34	45
300	273 20 4B	51	38	273 20 4B	51	50
450	355 20 4B	77	23	273 30 4B	67	75
600	355 25 4B	103	54	355 25 4B	103	32
750	406 25 4B	129	50	406 25 4M	129	39
1000	457 30 4B	172	31	457 30 4B	172	28
1500	508 30 4B	257	47	558 40 4B	257	56
2000	660 40 4B	343	86	660 40 4B	343	67

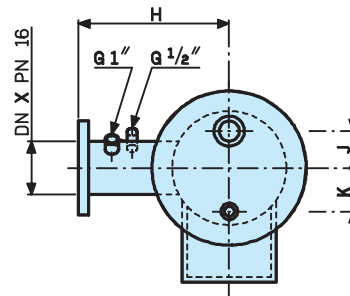
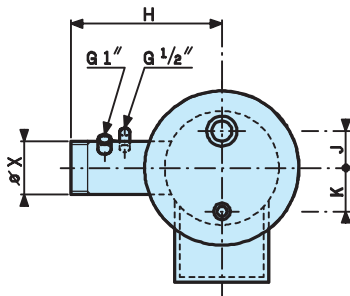
Nota : The lubrication oil must be PERFECTLY MISCIBLE with the refrigerant fluid for the mentioned nominal conditions

DIMENSIONS



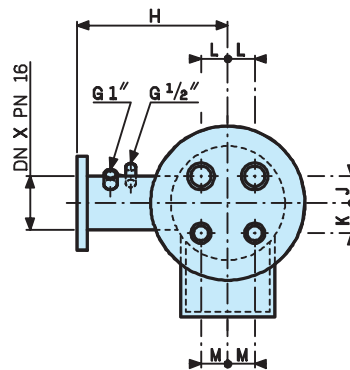
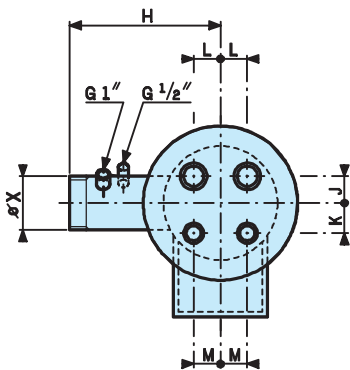
- 1 refrigerant circuit

1V1

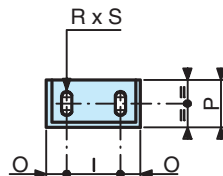


- 2 independant refrigerant circuits

2V2



- Supports





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DIMENSIONS

Models	A	B	C	D	E	F	G	H	N	I	O	P	RXS	FYN - FYH					
														1V1		2V2			
														J	K	J	K	L	M
168 20	2128	168	240	1790	197	342	194	249	1500	70	35	60	8 x 17	52	60	-	-	-	-
219 20	2133	219	290	1780	204	344	220	275	1500	110	35	60	8 x 17	65	75	65	76	40	40
219 25	2633	219	290	2280	204	594	220	275	1500	110	35	60	8 x 17	65	75	65	76	40	40
219 30	3133	219	290	2780	204	844	220	275	1500	110	35	60	8 x 17	65	75	65	76	40	40
273 20	2144	273	355	1740	227	347	247	310	1500	110	35	60	8 x 17	72	97	78	100	48	40
273 25	2644	273	355	2240	227	597	247	310	1500	110	35	60	8 x 17	72	97	78	100	48	40
273 30	3144	273	355	2740	227	847	247	310	1500	110	35	60	8 x 17	72	97	78	100	48	40
355 20	2167	355	445	1720	244	354	288	355	1500	170	35	60	8 x 17	100	135	89	126	62	62
355 25	2667	355	445	2220	244	604	288	355	1500	170	35	60	8 x 17	100	135	89	126	62	62
355 30	3167	355	445	2720	244	854	288	355	1500	170	35	60	8 x 17	100	135	89	126	62	62
406 25	2672	406	495	2180	264	604	313	376	1500	230	35	60	8 x 17	-	-	108	151	71	67
406 30	3172	406	495	2680	264	854	313	376	1500	230	35	60	8 x 17	-	-	108	151	71	67
406 35	3672	406	495	3180	264	1104	313	376	1500	230	35	60	8 x 17	-	-	108	151	71	67
406 40	4172	406	495	3680	264	1354	313	376	1500	230	35	60	8 x 17	-	-	108	151	71	67
457 30	3217	457	550	2500	397	857	338	402	1500	230	35	60	8 x 17	-	-	125	175	100	55
457 40	4217	457	550	3500	397	1107	338	402	2000	230	35	60	8 x 17	-	-	125	175	100	55
508 30	3242	508	610	2500	397	866	364	450	1500	230	35	60	8 x 17	-	-	130	190	95	70
508 40	4242	508	610	3500	397	1116	364	450	2000	230	35	60	8 x 17	-	-	130	190	95	70
558 30	3229	558	660	2594	343	888	425	475	1500	300	50	100	23 x 30	-	-	150	210	105	75
558 40	4229	558	660	3594	343	1138	425	475	2000	300	50	100	23 x 30	-	-	150	210	105	75
558 50	5229	558	660	4594	343	1138	425	475	3000	300	50	100	23 x 30	-	-	150	210	105	75
610 40	4315	610	715	3420	445	1155	455	530	2000	350	50	150	23 x 30	-	-	178	210	110	105
610 50	5315	610	715	4420	445	1155	455	530	3000	350	50	150	23 x 30	-	-	178	210	110	105
660 40	4325	660	765	3514	464	1123	474	520	2000	400	50	150	23x 30	-	-	190	235	120	102
660 50	5325	660	765	4514	464	1123	474	520	3000	400	50	150	23 x 30	-	-	190	235	120	102
711 40	4343	711	835	3444	503	1117	506	540	2000	400	50	150	23 x 30	-	-	195	250	120	115
711 50	5343	711	835	4444	503	1117	506	540	3000	400	50	150	23 x 30	-	-	195	250	120	115

CONNECTIONS – CAPACITIES – WEIGHT

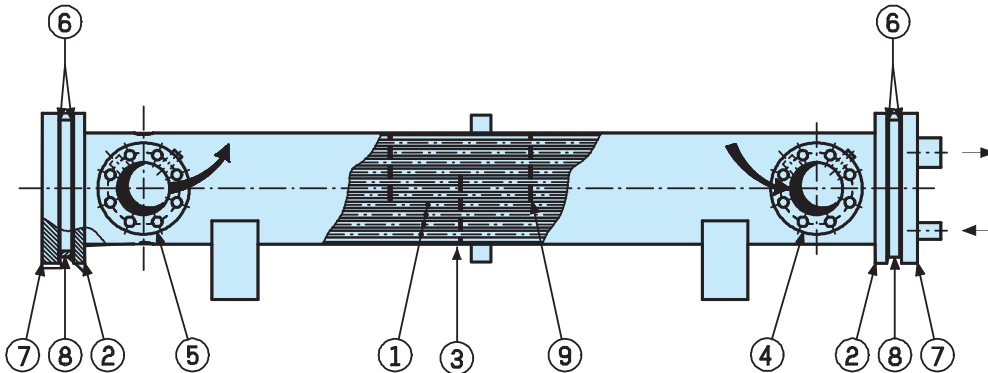
Models	Connections					FYN			FYH		
	Refrigerant dm ³				Water	Volumes		Weight	Volumes		Weight
	1V1		2V2			Internal	External		Internal	External	
	v	w	v	w	x			dm ³			dm ³
168 20	7/8"	1"5/8	-	-	G2"1/2	16	19	93	14	21	110
219 20	1"1/8	2"1/8	7/8"	1"5/8	G3"	28	35	138	26	33	177
219 25	1"1/8	2"1/8	7/8"	1"5/8	G3"	35	44	159	33	41	208
219 30	1"1/8	2"1/8	7/8"	1"5/8	G3"	42	53	179	40	49	237
273 20	1"5/8	2"5/8	1"1/8	2"1/8	DN100	47	55	228	42	51	285
273 25	1"5/8	2"5/8	1"1/8	2"1/8	DN100	59	69	259	52	64	330
273 30	1"5/8	2"5/8	1"1/8	2"1/8	DN100	71	83	287	62	77	373
355 20	2"1/8	3"1/8	1"5/8	2"5/8	DN125	81	94	401	72	85	502
355 25	2"1/8	3"1/8	1"5/8	2"5/8	DN125	102	117	452	90	106	577
355 30	2"1/8	3"1/8	1"5/8	2"5/8	DN125	122	140	503	108	128	653
406 25	-	-	1"5/8	3"1/8	DN150	136	156	574	116	143	730
406 30	-	-	1"5/8	3"1/8	DN150	164	188	636	140	172	824
406 35	-	-	1"5/8	3"1/8	DN150	191	219	697	163	201	917
406 40	-	-	1"5/8	3"1/8	DN150	219	251	760	186	230	1010
457 30	-	-	1"5/8	4"1/8	DN200	206	231	845	156	222	1180
457 40	-	-	1"5/8	4"1/8	DN200	273	308	1125	208	299	1479
508 30	-	-	1"5/8	4"1/8	DN200	245	271	977	194	276	1475
508 40	-	-	1"5/8	4"1/8	DN200	327	374	1215	259	370	1836
558 30	-	-	1"5/8	4"1/8	DN200	309	331	1396	-	-	-
558 40	-	-	1"5/8	4"1/8	DN200	408	445	1694	314	427	2392
558 50	-	-	1"5/8	4"1/8	DN200	507	560	1992	393	536	2865
610 40	-	-	2"1/8	4"1/8	DN250	508	541	1905	380	531	2741
610 50	-	-	2"1/8	4"1/8	DN250	628	680	2203	475	667	3248
660 40	-	-	2"1/8	168.3	DN250	586	625	2394	454	586	3422
660 50	-	-	2"1/8	168.3	DN250	725	786	2783	568	737	4068
711 40	-	-	2"1/8	168.3	DN300	718	694	2926	529	683	4089
711 50	-	-	2"1/8	168.3	DN300	889	872	3377	661	859	4831



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COREVA FYN - FYH

TECHNICAL DATA



(1) High performance corrugated tube bundle secured by flanging on 2 steel tubular plates (2).

(3) Casing equipped with :

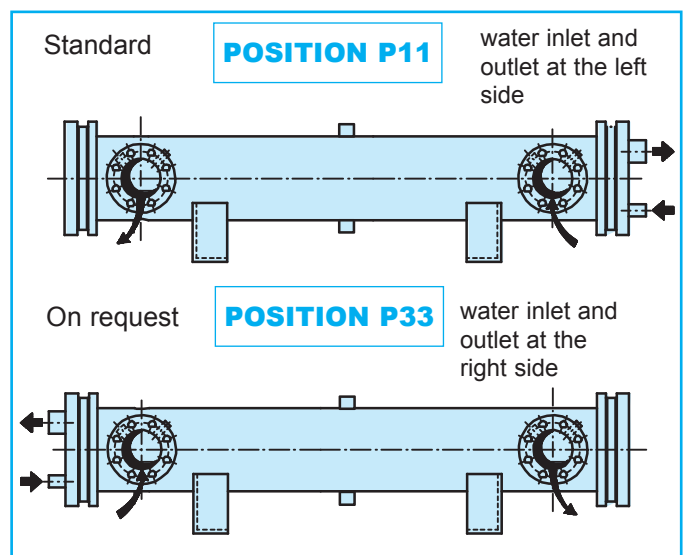
- External circuit inlet/outlet tubes (4) (5), each equipped with a 1" connector for instrumental devices
- 3/4" connectors for drainage of the external circuit tubing
- Support feet

(6) Set of gaskets between :

- Plug (7) and insert (8),
- Insert and tubular plate,

NOTE : The refrigerant circuit connectors are fitted on the front plug.

(9) Anti-corrosion baffles.



OPERATING LIMITS

Unit	Circuit inside core		Circuit outside core	
	Coolant	PS	Liquid	PS
Evaporators COREVA FYN	-40 / 50 °C	20 b	-20 / 50 °C	10 b
Evaporators COREVA FYH	-16 / 50 °C		-16 / 50 °C	
Evaporators COREVA FYN "low T°"	-40 / 50 °C		-40 / 50 °C	
Evaporators COREVA FYH "low T°"	-40 / 50 °C		-40 / 50 °C	

PS : Maximum allowable pressure

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