Cooling water recooling chillers HYFRA Sigma

Trouble-free. Flexible. Efficient.

A range of optional equipment allows the HYFRA Sigma series to adapt optimally to customer requirements. With a cooling capacity of 5 to 320 kW, HYFRA Sigma models are dimensioned to meet the major challenges of laser and machine tool applications.



Key data HYFRA Sigma

Power range:
5 – 320 kW

Medium:
Water

Footprint:
5 – 28 kW on footprint of 0.5 m²
Up to 160 kW power in only 1 m²
Up to 320 kW power in only 2 m²

Optimized:
Equipped with HYFRA FleXX Technology and various control options

Application:
Machine tool applications

Technical data HYFRA Sigma

HYFRA Sigma model no. (kW)		5	7	9	13	16	18	22	28	34	42	52	56	67	80	104	134	160	210	270	320
Performance data																					
Ambient °C	Refrigerant °C / Water [c]	Cooling capacity kW																			
32	15	4.0	6.2	7.8	11.5	13.9	16.6	20.0	25.3	29.9	37.0	45.5	50.7	59.9	71.3	91.0	119.8	142.6	182.0	239.6	285.2
	20	4.5	6.9	8.7	12.6	15.4	18.3	21.7	28.0	33.5	41.5	51.8	56.0	67.1	79.8	103.6	134.2	159.6	207.2	268.4	319.2
37	15	3.6	6.1	7.2	10.7	13.0	15.7	19.2	23.9	28.2	34.9	42.1	47.8	56.5	67.2	84.2	113.0	134.4	168.4	226.0	268.8
	20	4.1	6.7	7.9	11.8	14.4	17.2	20.5	26.2	31.1	37.9	49.0	52.4	62.4	73.0	98.0	124.8	146.0	196.0	249.6	292.0
42	15	3.4	5.7	7.1	10.2	11.4	15.4	18.5	22.9	27.4	30.9	40.2	45.8	54.9	59.7	80.4	109.8	119.4	160.8	219.6	238.8
	20	3.9	6.4	7.9	11.2	13.0	17.0	20.1	26.6	30.2	35.0	47.3	51.3	60.6	67.4	94.6	121.2	134.8	189.2	242.4	269.6
Technical data																					
Refrigerant		R134a	R410A																		
Refrigerant charge	kg	1.3	1.2	1.2	1.4	1.6	2.0	2.0	2.5	2.8	3.0	5.3	5.5	6.5	6.6	11.0	11.8	13.2	22.0	23.6	24.0
Sound pressure level [a] user side	dB(A)	68					66			64	71				72				77	79	80
Power consumption max. [b]	kW	3.4	4.4	5.0	6.4	7.3	7.3	9.2	12.0	13.3	17.8	19.5	20.9	27.3	31.1	40.5	53.9	61.6	81.8	107.0	135.0
Current consumption max. [b]	A	6.6	8.4	8.7	11.7	14.0	14.0	19.1	23.0	22.6	30.4	34.4	36.6	46.8	52.0	70.6	92.1	102.5	160.0	200.0	250.0
Condenser		1					2			1		2				4			8		
Max. airflow rate	m³/h	4500					5000			5500	10000	10800	15500			21600	31000		53000		64800
Tank capacity	l	120								330						450			470		
Water pressure	bar	3.2	3.1	3.0	3.5	3.3	3.0	2.5	2.8	2.8	2.5	2.5	4.0	3.2	3.9	3.0			3.2	3.0	2.8
Nominal water flow	m³/h	0.8	1.2	1.5	2.1	2.6	2.9	3.5	4.3	5.1	6.5	7.0	8.0	10.3	12.7	20.5			36.0	40.0	46.0
Water connection	inch	3/4					1 1/4					1 1/2			2	2 1/2			4	4	4
Fresh water connection	inch	3/4								3/8									3/8	3/8	3/8
Dimensions and weight																					
Length	mm	715								1000						2000			2200		
Width	mm	715								1000									2000		
Height	mm	1554								2000											
Empty weight	kg	170		180	190		200		210	340	350	370	380	420	440	810	830	880	1800	1900	1980

a) Sound pressure level measured in free field at 1 m distance and 1.2 m (tolerance +/- 1 dB (A)) incl. compressor operation without start / stop phase

b) at 42 °C ambient temperature and 20 °C medium temperature

c) For outlet temperatures below 15 °C please contact your HYFRA sales representative.

Cooling water recooling chillers HYFRA Sigma c

Compact. Cost-optimized. Plug-in.

Up to 40 % height reduction for improved integration into various plant layouts.



Key data HYFRA Sigma c

Power range:
5 – 16 kW

Medium:
Water

Footprint:
5 – 16 kW on footprint of 0.5 m²

Optimized:
Up to 40 % height reduction

Application:
Machine tool applications

Technical data HYFRA Sigma c

HYFRA Sigma c model no. (kW)		c 5	c 7	c 9	c 13	c 16
Performance data						
Ambient °C	Refrigerant °C / Water [c]	Cooling capacity kW				
32	15	4.4	6.4	7.4	10.7	12.7
	20	5.3	7.3	8.7	12.7	14.7
37	15	3.7	5.4	6.4	9.1	11.1
	20	4.7	6.7	8.0	10.7	13.3
42	15	3.1	4.7	5.8	7.7	10.4
	20	4.0	6.0	7.5	9.3	12.7
Technical data						
Refrigerant		R134a	R410A			
Refrigerant charge	kg	1.1				
Sound pressure level [a] user side	dB(A)	68				71
Power consumption max. [b]	kW	3.2	4.2	4.8	6.0	7.1
Current consumption max. [b]	A	6.0	7.8	8.1	10.5	13.4
Condenser		1				
Max. airflow rate	m³/h	3300				4500
Tank capacity	l	26				
Water pressure	bar	3.4	3.3	3.2	3.1	3.0
Nominal water flow	m³/h	1.2	1.5	1.8	2.1	2.4
Water connection	Zoll	3/4				
Fresh water connection	Zoll	3/4				
Dimensions and weight						
Length	mm	710				
Width	mm	820				
Height	mm	930				
Empty weight	kg	114	117	119	130	

a) Sound pressure level measured in free field at 1 m distance and 1.2 m (tolerance +/- 1 dB (A)) incl. compressor operation without start / stop phase

b) at 42 °C ambient temperature and 20 °C medium temperature

c) For outlet temperatures below 15 °C please contact your HYFRA sales representative.