

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	Cooling capacity kW																					
	Water ^{c)}																						
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	m ³ /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	m ³ /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											
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	Cooling capacity kW				
	Water °C					
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	m ³ /h	3300				4500
Tank capacity	l	26				
Water pressure	bar	3.4	3.3	3.2	3.1	3.0
Nominal water flow	m ³ /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.