



A LENNOX INTERNATIONAL  
COMPANY

# HYFRA FleXX Technology


- Energy efficiency: up to 30% energy savings
- High operational reliability through PLC control
- Flexible power supply
- Temperature precision of up to  $\pm 0.1$  K
- Made in Germany


# FleXX Technology


Flexibility and adaptability to different market requirements and operating conditions make the new FleXX Technology into a key competitive advantage for machine manufacturers and operators. Due to the demand-based operation of various components, the chillers not only are highly energy-efficient, economical, and quiet; they also operate with very little wear, greatly reducing lifecycle costs. Series with six models in each case and different cooling capacities for different media are available for flexible use in various industrial applications.



For cooling capacities up to 64 kW, various HYFRA series with FleXX Technology are available:

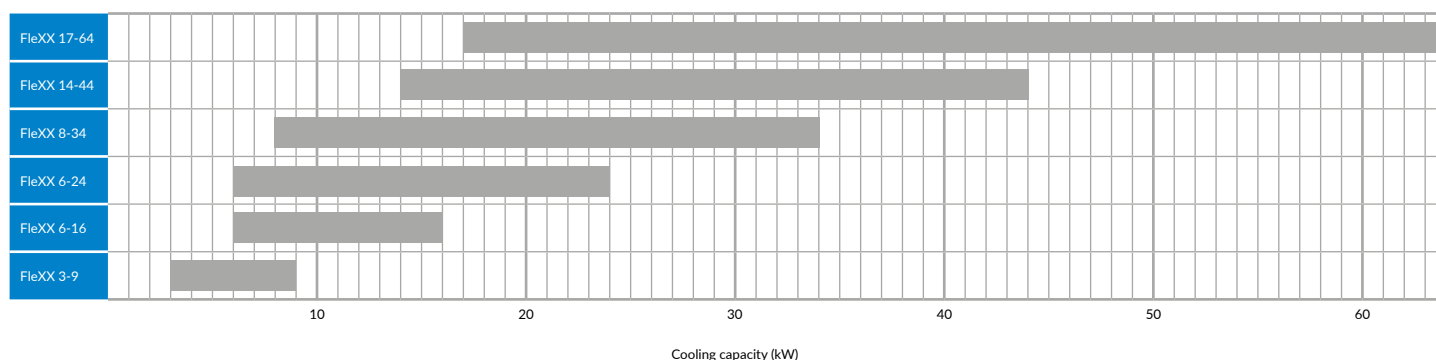
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**Cooling water recharger**  
**HYFRA Sigma FleXX**  
 Water
- 

**Circulating chiller**  
**HYFRA Alpha FleXX**  
 Oil and emulsion
- 

**Immersion chillers**  
**HYFRA Gamma FleXX**  
 Oil and emulsion

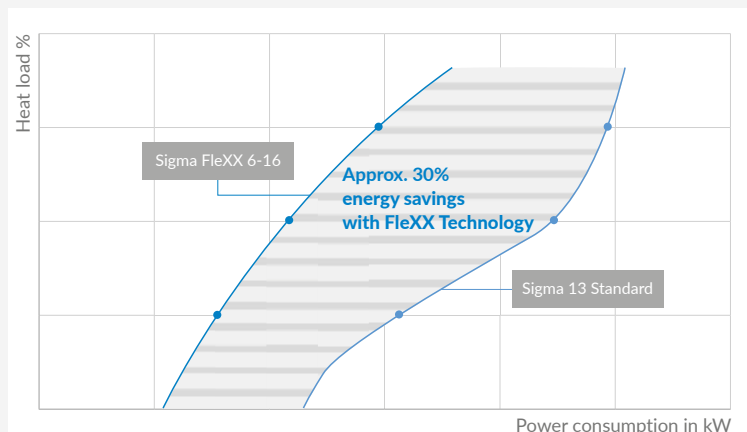
## Overview of cooling capacity



## Chillers with innovative technology

The flexibility, efficiency, and reliability of HYFRA chillers are the result of unique technical innovation. With demand-based operation and the microchannel condenser, HYFRA offers intelligent answers to the challenges of tomorrow.

- Low operating costs
- Reduced use of refrigerants
- Temperature precision of up to  $\pm 0.1$  K
- Operational reliability
- Operating data acquisition and evaluation
- High transparency of service times and costs



### Efficiency through speed control

The demand-based operation of the EC compressor, the EC fan, and the electronic expansion valve considerably reduce the power consumption of the chiller compared to unregulated technology. For ideal chiller operation, the PLC reliably detects the heat load of the application and precisely adjusts the relevant components. Machine manufacturers and operators can be sure that the cooling is always operating with the ideal efficiency.

### Safety and trouble-free operation

Continuously variable, smooth starting or braking of the compressor avoids high stresses on the components, preventing wear. Continuous recording of operating data enables establishment of preventive maintenance and fault rectification. If required, the control system can also be accessed using remote maintenance. The service cost is significantly reduced and downtime of the system is effectively prevented.

### Flexibility for international use

HYFRA chillers are prepared for international use. Their inclusion of a frequency converter enables easy changeover of the power supply. The chiller does not need to be retrofitted in such a case. Warehousing and model diversity is reduced considerably for machine manufacturers, simplifying distribution and logistics.

The displays of the chillers are multilingual and can be intuitively switched on and changed. The operator can choose from seven languages.



HYFRA Sigma FleXX HYFRA Alpha FleXX HYFRA Gamma FleXX

## FleXX Technology overview of models

Models	3-9	6-16	6-24	8-34	14-44	17-64
Cooling capacity (kW), T <sub>U</sub> 32°C	9.9	16.5	24.5	34.6	44.7	64.0
Refrigerant	R410A					
Max. ambient temp. (°C)	42					
Max. temperature (°C)	40					
Power consumption (kW) <sup>a)</sup>	2.77	5.47	7.22	12.46	14.39	17.8
Sound pressure level (dBA)	66.4	67.1	69.3	70.1	72.6	74.4
Voltage	3 × 380–480 V +6/-10% 50/60 Hz (depending on the pump)					

HYFRA Sigma FleXX	Re-chillers for water 20°C					
Air flow rate (m <sup>3</sup> /h)	5600		8000		12,000	16,200
Max. temperature (°C)	40					
Tank capacity (l)	120			300		
Flow rate (m <sup>3</sup> /h)	1.6	2.6	4.6	5.1	8.0	10.5
Pump pressure (bar)	2.8	3.0	2.8	2.5	2.5	3.5
Weight (kg)	200	210	350	370	380	480
Length (mm)	855			1160		1500
Width (mm)	715			1000		
Height (mm)	1555			2055		

HYFRA Gamma FleXX	Immersion chiller for emulsion 25°C or oil 30°C					
Air flow rate (m <sup>3</sup> /h)	5600		8000		12,000	16,200
Weight (kg)	160/170 <sup>b)</sup>	170/190 <sup>b)</sup>	290/340 <sup>b)</sup>	310/390 <sup>b)</sup>	320/420 <sup>b)</sup>	500/500 <sup>b)</sup>
Length (mm)	890			1210		1605
Width (mm)	785			1085		
Height (mm)	1420			2000		

HYFRA Alpha FleXX	Circulating chiller for emulsion 25°C or oil 30°C					
Air flow rate (m <sup>3</sup> /h)	5600		8000		12,000	16,200
Flow rate (m <sup>3</sup> /h)	3.5/5.0 <sup>b)</sup>		6.5/10.0 <sup>b)</sup>		13.0 /20.0 <sup>b)</sup>	
Pump pressure (bar)	1.0					
Weight (kg)	190	210	290	310	320	390
Length (mm)	855			1160		1500
Width (mm)	715			1000		
Height (mm)	1555			2055		

<sup>a)</sup> Without pump/stirrer. Nominal conditions T<sub>U</sub>/T<sub>Med</sub>: 32°C/20°C water; 32°C/25°C emulsion; 32°C/30°C oil

<sup>b)</sup> Values for medium oil 30°C

Technical changes reserved.

Options:

Numerous options and accessories for the HYFRA series are available on request.

More information and your contact persons for further questions can be found online at: [www.hyfra.com](http://www.hyfra.com)

HYFRA Industriekühlanlagen GmbH  
 Industriepark 54  
 56593 Krunkel, Germany  
 +49 2687 898-0  
 info@hyfra.com  
 www.hyfra.com

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 COMPANY

