

FREDERICK CROWTHER AND SON LTD

**CROMAR**

EST 1955



### Advantages

- ✓ Stand-alone solution
- ✓ Compact design
- ✓ Easy to clean
- ✓ High-power pumps with flow monitoring
- ✓ HYFRA FleXX technology

## HYFRA Chillers

### Alpha Range - Recirculation Chiller

Circulating chillers for process cooling with water, oil or emulsions.

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# HYFRA Chillers

## Alpha Range - Circulating Chillers

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### How it works

The HYFRA Alpha series was developed as a stand-alone solution for process cooling with water, oil and emulsions. It is mainly used in filtration technology.

These circulating chillers are equipped with high-power pumps featuring flow monitoring. At an adequate input pressure level, they keep the refrigerant in circulation. These chillers can be set up within a generous radius around the machine to be cooled.

*70 % refrigerant savings with microchannel*

Thanks to sector-leading HYFRA microchannel technology, machines in the HYFRA Alpha series use up to 70 % less refrigerant. Power levels of up to 28 kW (8 Tons) are possible on a footprint of only 0.5 m<sup>2</sup> (5.39 sq.ft) – due to their compact design.

This results in significant flexibility advantages when planning production area layouts and boosts productivity as well.

*Flex technology for demand-based operation*



HYFRA Chillers - Alpha Range

Depending on the performance class, easy-to-clean plate heat exchangers or solid shell & tube heat exchangers are installed in the HYFRA Alpha series. HYFRA Alpha models are also available with the innovative HYFRA Flex technology that ensures energy-efficient, extremely precise operation with demand-based controls. The attached control cabinet is equipped with an ST120 controller that reliably monitors compression pressure and temperature.



### Key data

- ✓ **Power range:** 5 – 160 kW (1 - 45 Tons)
- ✓ **Medium:** Water, oil and emulsion
- ✓ **Footprint:** 5 – 28 kW on footprint of 0.5 m<sup>2</sup>; (1 - 8 Tons on 5.4 sq.ft)  
Up to 80 kW power in only 1 m (23 Tons on 10.8 sq.ft)
- ✓ **Optimized:** Equipped with HYFRA Flex technology and various control options
- ✓ **Application:** Filtration and mechanical engineering

## C Circulating Chillers

### How it works

Our HYFRA Alpha c series for cooling water, oil and emulsions offers reliable cooling power of up to 16 kW (5 Tons) in a compact design. They are up to 40 % lower than the standard models in the HYFRA Alpha series. An entrylevel model, it also uses our energy-efficient HYFRA microchannel technology, thanks to which the refrigerant used can be reduced by up to 70 %. The frame and plate heat exchangers are made of durable stainless steel.

Otherwise, the HYFRA Alpha c series is equipped only with essential components, making it the cost-optimized alternative. The new, continuously variable pressure transducer keeps the system from freezing. HYFRA Alpha c devices can be modified with a FreeSmart controller. Further equipment options are available upon request.



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

### Key data:

- ✓ **Power range:** 5 – 16 kW (1 - 5 Tons)
- ✓ **Medium:** Water, oil and emulsion
- ✓ **Footprint:** 5 – 28 kW on footprint of 0.5 m<sup>2</sup> (1 - 8 Tons on 5.4 sq.ft)
- ✓ **Optimized:** Up to 40 % height reduction
- ✓ **Application:** Mainly filtration

# HYFRA Chillers

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### HYFRA FleXX technology

With its FleXX technology, HYFRA is reacting to the various market requirements of machine manufacturers and operators.

Thanks to its high level of flexibility and adaptability, the technology ensures a decisive competitive advantage. Due to the demand-based operation of various components, chillers with FleXX technology are not only highly energy-efficient, economical, and quiet; they also operate with very little wear, greatly reducing life cycle costs.












### Optional controllers

The chillers in the HYFRA Gamma series are equipped with FreeSmart controllers – and with a cooling capacity of 160 kW (45 Tons), they come with FreeEvolution controllers. The two variants are freely programmable and have both analog and digital inputs and outputs, an external display (FreeEvolution) and an FDO (fast digital output) interface for quickly reading out operating data.

FreeEvolution is available in three design variants: basic, professional and expert. For example, they offer menu navigation in multiple languages or remote maintenance linkup. Of course we can flexibly integrate special customer requirements into each of the variants.

# Reliable. Efficient. Stand-alone.

### HYFRA chillers in comparison

		HYFRA Alpha  Circulating chillers	HYFRA Gamma  Immersion chillers	HYFRA Sigma  Recooling systems	HYFRA eChilly  Recooling systems
	Reduced footprint	✓	✓	✓	
	Compact version	✓		✓	
	FleXX technology	✓	✓	✓	
	Medium Water	✓	✓	✓	✓
	Oil	✓	✓		
	Emulsion	✓	✓		
	Cooling capacity	5 – 80 kW / 1 - 23 Tons 	5 – 160 kW / 1 - 45 Tons 	5 – 320 kW / 1 - 91 Tons 	1 – 6 kW / 0.3 - 2 Tons 

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