DANFOSS PAH

High-quality, low maintenance pumps

High-pressure pumps Plunger pumps Positive displacement pumps

Description

Danfoss PAH high-pressure pumps are specially designed for working with clean water. Danfoss PAH pumps are positive displacement pumps, with axial pistons that move a fixed amount of water in each cycle. Flow is proportional to the number of input shaft revolutions (RPM). Unlike centrifugal pumps, they produce the same flow at a given speed, no matter what the discharge pressure is. The principle of axial located pistons is very efficient, compact in construction and offers long-lasting maintenance free operation. PAH pumps are suitable for drinking and surface water.

Advantages

- compact construction form
- maintenance free due to water lubrication
- no belt drive
- high yield
- negligible pressure pulses, no pulse dampers required
- internal circulation without overheating (up to 90% at 20 °C)
- large range in revolutions
- completely from stainless steel
- meets the requirements for the food industry (HACCP)

Pre-filtering

The water must be filtered through a filter of 10 µm with a ß10- value >5000.

Service

Danfoss PAH pumps are designed for long periods of service-free operation to provide customers with low maintenance and life cycle costs. Provided that the pump is installed and operated according to Danfoss specifications, Danfoss PAH pumps typically run 8,000 hours between service routines. However, the service schedule for your Danfoss PAH pump may vary according to the application and other factors. The life of a pump may be greatly shortened if Danfoss recommendations concerning system design and operation are not followed. Poor filtration is the number one cause of pump damage, appears from our experience.

We recommend inspecting your pump after 8,000 hours of operation even if it is running without any noticeable problems. Replace any worn parts as necessary, including pistons and shaft seals, to keep your pump running efficiently and to prevent break-down. If worn parts are not replaced, then our guidelines recommend more frequent inspection.

Models

Different models of this pump, with custom made capacities and pressure, are available on request.

PAH pumps

PUMP TYPE		PAH 2	PAH 4	PAH 6.3	PAH 10	PAH 12.5	PAH 20	PAH 25
PUMP HOUSING		AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304
GEOMETRIC DISPLACEMENT	cm³/rpm	2	4	6.3	10	12.5	20	25
	in³/rpm	0.12	0.24	0.38	0.6	0.75	1.22	1.53
PRESSURE								
MIN. PRESSURE	barg	30	30	30	30	30	30	30
MAX. OUTLET PRESSURE	barg	140	140	140	160	160	80	160
INLET PRESSURE, CONTINUOUS	barg	0-4	0-4	0-4	0-4	0-4	0-4	0-4
SPEED								
MIN. SPEED, CONTINUOUS	rpm	700	700	700	700	700	700	700
MAX. SPEED, CONTINUOUS	rpm	1800	1800	1800	1800	1800	1800	1800
CAPACITY								
1000 RPMAT MAX. PRESSURE	l/min	1	3.2	5.6	8.4	11	18.8	22.5
1500 RPM AT MAX.PRESSURE	l/min	2	5.2	8.7	13.4	17.2	28.9	35.2
RATED POWER								
1500 RPM AT MAX. PRESSURE	kW	0.9	1.7	2.6	4.5	5.6	4.4	10.8
MEDIA TEMPERATURE	°C	2-50	2-50	2-50	2-50	2-50	2-50	2-50
AMBIENT TEMPERATURE	°C	0-50	0-50	0-50	0-50	0-50	0-50	0-50
SOUND LEVEL	dB(A)	76	76	76	75	75	79	79
WEIGHT	kg	4.4	4.4	4.4	7.7	7.7	16	16
PUMP TYPE		PAH 32	PAH 50	PAH 63	PAH 70	PAH 80	PAH 100	
PUMP HOUSING		AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	
GEOMETRIC DISPLACEMENT	cm³/rpm	32	50	63	70	80	100	
	in³/rpm	1.95	3.05	3.84	4.27	4.88	6	
PRESSURE								
MIN. PRESSURE	barg	30	30	30	30	30	30	
MAX. OUTLET PRESSURE	barg	160	80	160	160	160	80	
INLET PRESSURE, CONTINUOUS	barg	0-4	0-4	0-4	0-4	0-4	0-4	
SPEED								
MIN. SPEED, CONTINUOUS	rpm	700	700	700	700	700	700	
MAX. SPEED, CONTINUOUS	rpm	1800	1800	1800	1800	1800	1500	
CAPACITY								
1000 RPMAT MAX. PRESSURE	l/min	29.7	47	56.2	63.4	73.9	96.7	
1500 RPM AT MAX.PRESSURE	l/min	45.9	72.1	87.9	98.5	114.1	146.9	
RATED POWER								
1500 RPM AT MAX. PRESSURE	kW	13.8	10.6	26.8	29.8	34	42.6	
MEDIA TEMPERATURE	°C	2-50	2-50	2-50	2-50	2-50	2-50	
AMBIENT TEMPERATURE	°C	0-50	0-50	0-50	0-50	0-50	0-50	
SOUND LEVEL	dB(A)	79	80	80	80	80	81	
WEIGHT	kg	16	31	31	31	31	31	

* at 450 rpm
** at 1250 rpm