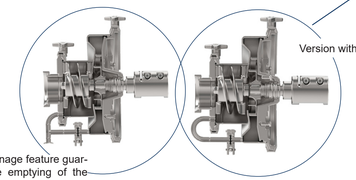
CNH series

Close-coupled construction made entirely from stainless steel with standard motor, shaft with compression locking, internal seal and open impeller based on CN series pumps.
The clamp casing and seal design allows quick disassembly for inspection,cleaning and maintenance. Protective motor shroud.

Series of pumps available in two different versions of liquid recirculation:



Version without drainage.

Version with drainage feature guarantees complete emptying of the pump.

Investment cast double vane rotor for creating the liquid ring inside the front section of the pump body.

Open reverse vane impeller with increased dimensions, designed in accordance with performance optimization criteria.

TECHNICAL DATA CNH series

Flow rate up to 65 m³/h
Head values up to 55 m
Maximum operating pressure 10 bar up to 100°C
Temperature range -10°C ÷ +121°C

Seals:

Hygienic mechanical seals with seat standardized to EN 12756, ISO 3069 standards

Connections:

DIN - SMS - IDF - BS / RJT - DS - CLAMP and EN 1092-1 PN 16 flanges and, on request, available in compliance with international standards.

Seal materials (FDA, Regulation (EC) No. 1935/2004):

Ethylene propylene (EPDM)
Special fluorocarbon seal
Fluorocarbon seal (FPM - FKM)
FFPM - FFKM

CN series (also for CNH pump).

Pump with integrated inverter and pressure sensor

Compact and functional application which includes a pressure sensor installed on the pump delivery so as to modulate its speed according to the pressure value detected.
The sensor is powered directly by the inverter and communicates with it via an analog signal. This allows a continuous modulation of the pump speed when the pressure detected at the delivery is within the range set on the sensor. Below the minimum pressure, the pump speed is not modulated, while once the maximum pressure is reached, the pump stops.
The pressure sensor can be parameterized through the IO-LINK® communication protocol with a specific interface and a dedicated software. The interface is available upon specific request.

Pump with integrated inverter and flow meter

Electromagnetic flow meter for conductive liquids. It is able to measure the instantaneous flow rate and temperature of the fluid and also acts as a liter counter (totalizer).

Thanks to the instrument's ability to generate digital, analog and pulse output signals, it allows integration into a wide variety of automations. It is possible to modulate the pump speed according to the set flow rate value, program automated filling cycles and communicate with PLC or inverter.

The flow meter features an IO-LINK® communication interface for direct access to process and diagnostic data and Bluetooth® connection via App.

Serie CN series (also for CNH pump).

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FLOW TECHNOLOGY COMPONENTS

CENTRIFUGAL PUMPS
CN series

Closed coupled single-stage centrifugal pumps. A range of 6 models with open impellers, independent shafts and IEC standard motors.
Optimised design to ensure high levels of hygiene - The absence of product hold-up and no dead-legs ensures efficient cleaning by standard CIP methods and effective sterilsation by SIP.
Wetted parts are in pressed polished plate and investment cast electropolished CF3M 1.4409 / AISI 316L (1.4404) stainless steel.
Investment cast and electro-chemical polishing. Internal finishes of 0,5 micron Ra are available on request.
ATEX-compliant versions also available on request.

HYGIENE BIOTECHNOLOGY INDUSTRIAL

Applications

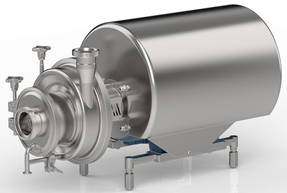
Food processing, dairy, beverage, chemical, cosmetics and pharmaceutical industries. The open impeller allows a large range of products such as purified water, juices, creams, ice-cream mix, milk, wine, spirits, whey and WFI to be safely transferred.

SELF-PRIMING CENTRIFUGAL PUMPS
CNH series

The CNH series is made up of single-stage centrifugal pumps with self-priming device, axial suction port, open centrifugal impeller and independent shaft.
The self-priming devices is made up of a helical rotor installed in front of the impeller and a rotor chamber which is off-centre in relation to the axis of the centrifugal stage.
The series is made up of range of 2 models with open impeller, independent shaft and standard IEC motor.
Mixed construction: pressed/cast stainless steel - AISI 316L (1.4404) - CF3M (1.4409).
Investment casting and electrochemical polishing treatment guarantee excellent levels of surface finish.

HYGIENE BIOTECHNOLOGY INDUSTRIAL

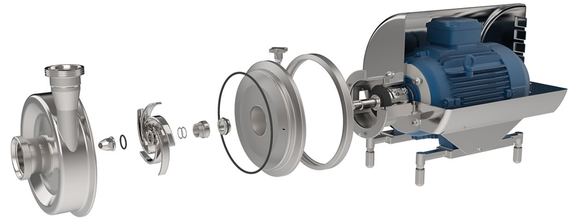
The pump incorporates a self-priming device which gives the centrifugal pump its suction capacity; this component guarantees continuous pump operation in applications handling biphasic fluids.
ATEX-compliant versions also available on request.



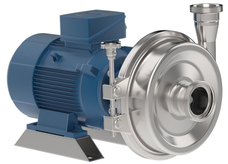
Applications

CNH self-priming centrifugal pumps can be used in industrial applications, for example in the food, dairy and beverage sectors, for tank emptying operations, CIP solution recirculation and for handling liquids with a high air content.

CN series



All stainless construction, with standard motor, separate pump shaft with clamp coupling, internal product seal and an open impeller.
The clamp casing and seal design allow quick disassembly for inspection, cleaning and maintenance. It also enables the delivery port to be rotated to any position for easy installation and drainage.
Motor shroud.



Pump without shroud and stainless steel motor shims.

Open impeller with reversed blades with vast expansion designed to optimize the hydraulic efficiency.

TECHNICAL DATA CN series

Flow rates up to 110 m3/h
Heads up to 70 m
Maximum operating pressure 10 bar up to 100°C
Temperature range -10°C ÷ +121°C
High performance, with low NPSH values.

Mechanical seals:

With seats to EN 12756, ISO 3069 standards.

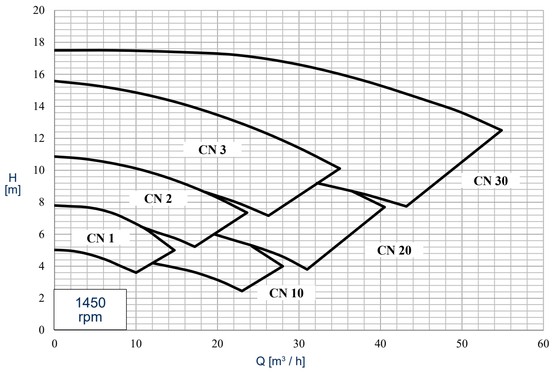
Connections:

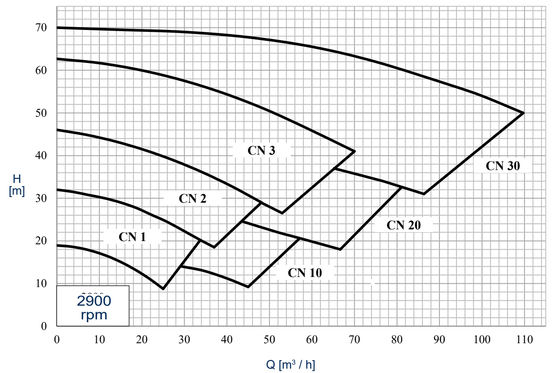
DIN - SMS - IDF - BS / RJT - DS - CLAMP and EN1092-1 PN16 flanges suitable for all international standards.

Elastomers (FDA Regulation (EC) No. 1935/2004):

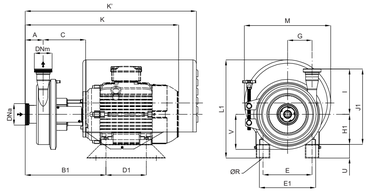
Ethylene propylene (EPDM)
Special fluorocarbon seal
Fluorocarbon seal (FPM - FKM)
FFPM - FFKM

GENERAL DIAGRAMS CN series
(Performance applies to H_2O at 20 °C, 1013 mbar, Data not binding)

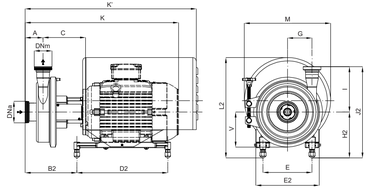




OVERALL DIMENSIONS CN series
Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors



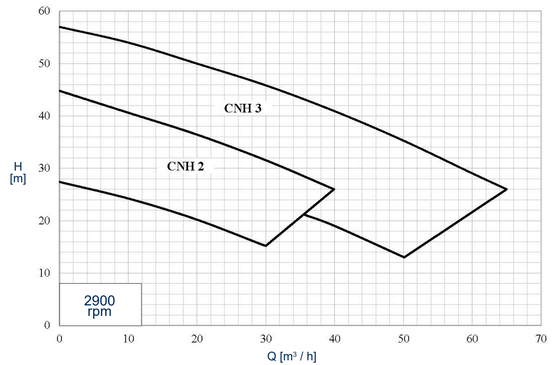
MOTOR "B3-B14"
EXEC. WITH SHIMS

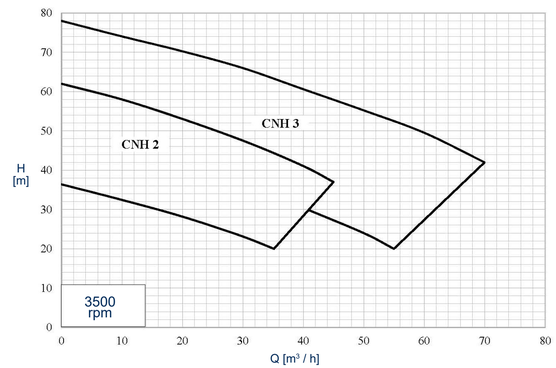


MOTOR "B3-B14"
EXEC. WITH ADJUSTABLE FEET

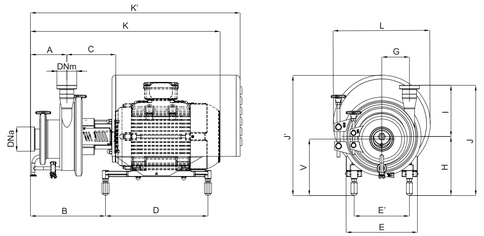
Pumps	IEC motors size:	DNa	DNm	A	B1	B2	C	D1	D2	E	E1	E2	G	H1	H2	K	K'	ØR	I	J1	J2	L1	L2	M	U	V
CN 1	80	50	40	73	276	186	155	100	220	125	155	160	86	80	158	462	-	10	183	263	341	-	-	-	40	127
	90				282	210		125	270	140	165	210		90	160	505,5	597			273	343	317,5	347,5	303		
	100				319	247	185	140	285	160	196	240		100	170	572	674	12		283	353	389,5	409,5	369	50	
	112				326	239			315	190	226			112	182	592				295	365	401,5	421,5			
	132				345	218		178	400	216	256	276		132	202	666	744			315	385	432	442	380	60	
CN 2	80	65	50	79	286	196	159	100	220	125	155	160	108	80	158	478	-	10	200	280	358	-	-	-	40	154
	90				292	219		125	270	140	165	210		90	160	515	607			290	360	317,5	347,5	303		
	100				129	257	189	140	285	160	196	240		100	170	582	684	12		300	370	389,5	432,5	369	50	
	112				336	249			315	190	226			112	182	600				312	382	401,5	444,5			
	132				355	228		178	400	216	256	276		132	202	675	754			332	402	432	442	380	60	
	160				404	251	219	254	475	254	300	326		160	210	821	912	14		360	410	536,5	526,5	473	70	
CN 3	90	80	65	81	295	223	159	125	270	140	165	210	129	90	160	521	611	10	255	315	415	317,5	378,5	303	40	179
	100				332	260	189	140	285	160	196	240		100	170	587	688	12		355	425	389,5	440,5	369	50	
	112				339	252			315	190	226			112	182	606				367	437	401,5	452,5			
	132				358	231		178	400	216	256	276		132	202	678	758			387	457	432	473	380	60	
	160				407	217,5	219	254	475	254	300	326		160	210	823	793	15		415	465	536,5	536,5	473	70	
CN 10	80	65	50	79	287	197	155	100	220	125	155	160	80	80	158	474	-	10	180	260	338	-	-	-	40	127
	90				286	215		125	270	140	165	210		90	160	517	608			270	340	317,5	347,5	303		
	100				320	252	185	140	285	160	196	240		100	170	583	686	12		280	350	389,5	409,5	369	50	
	112				237	244			315	190	226			112	182	601				292	362	401,5	421,5			
	132				346	224		178	400	216	256	276		132	202	676	756			312	382	432	442	380	60	
	160				405	252	215	254	475	254	300	326		160	210	821	912	14		340	390	536,5	340	473	70	
CN 20	80	80	65	84	299	299	145	100	220	125	155	160	98	80	158	485	606	10	218	298	376	-	-	-	40	154
	90				305	305		125	270	140	165	210		90	160	521	619			308	378	317,5	347,5	303		
	100				341	269	175	140	285	160	196	240		100	170	594	695	12		318	388	355	432,5	369	50	
	112				348	261			315	190	226			112	182	612				330	400	401,5	444,5			
	132				367	240		178	400	216	256	276		132	202	687	765			350	420	432	442	380	60	
	160				416	263	205	254	475	254	300	326		160	210	832	923	14		378	428	546,5	526,5	473	70	
	180				449	198	225	279	600	282,5	350	354,5		180	240	912	-	15		398	458	-	-	-	60	
CN 30	90	100	80	88	310	238	147	125	270	140	165	210	127	90	160	534	624	10	273	363	433	317,5	378,5	303	40	179
	100				347	275	177	140	285	160	196	240		100	170	600	701	12		373	443	389,5	440,5	369	50	
	112				354	267			315	190	226			112	182	618				385	455	401,5	452,5			
	132				273	246		178	400	216	256	276		132	202	693	771			405	475	432	473	380	60	
	160				423	269	207	254	475	254	300	326		160	210	800	929	14		433	483	546,5	536,5	473	70	
	180				452	201	227	279	600	282,5	350	354,5		180	240	918	-	15		453	513	-	-	-	60	

GENERAL DIAGRAMS CNH series
(Performance applies to H_2O at 20 °C, 1013 mbar, Data not binding)





OVERALL DIMENSIONS CNH series
Dimensions not binding - DN = DIN 11851 female connection with standard IEC/EN motors



Pump type	IEC motor dimensions:	DNa	DNm	A	B	C	D	E	E'	G	H	K	K'	I	J	J'	L	V
CNH 2	112	65	50	142	314	189	315	230	180	108	205	666	749	200	405	445	369	195
	132 S				293		400	279	279		230	702	818		430	470	380	220
	132 M											740						
CNH 3	132 S	80	65	164,5	314	188	400	216	216	129	230	723	840	255	455	470	380	217
	132 M											761						
	160				301	218	475	270	333		280	867	998		485	597	473	267