



**CPE SYSTEMS
INCORPORATED**

HYGINOX SEN-15 CENTRIFUGAL PUMP ASSEMBLY (1 - 2 HP)

FOR CRAFT FOOD AND BEVERAGE INDUSTRIES

PUMPS

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HOSES

-

HEAT EXCHANGERS

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FLOW METERS

-

GASKETS

-

VALVES

-

FITTINGS

-

THERMOMETERS

-

PORTABLE SYSTEMS

-

AND MORE



Hyginox SEN is our line of internally sealed, close-coupled centrifugal pumps. These pumps are perfect for brewing and brewers, providing increased seal life-time and decreased maintenance, while still offering the same performance and ease-of-use benefits you would expect from a centrifugal pump. It is designed specifically for the dairy, beverage, and food-processing industries, and is assembled according to NEMA standards.

DESIGN

The design of the Hyginox SEN seal makes it both balanced and hygienic, with a stationary part made of carbon and a rotary part made of silicon carbide, with EPDM gaskets. The entire mechanical seal can also be provided in silicon carbide, and the gaskets FPM. Pump components in contact with food are polished AISI 316L stainless steel, and the unit is fully food safe.

FEATURES

- Mechanical seal: C/SiC or SiC/SiC.
- Gaskets: EPDM and FPM
- Stainless steel motor.
- Nema High Efficiency motors up to 2 HP.

Horsepower

Horsepower	Flow Rate	Head
1	50 GPM	45ft
1 1/2	60 GPM	60ft
2	70 GPM	70ft



Technical Specifications

Materials

Parts in contact w/ product:	Stainless steel AISI 316L
Other steel parts:	Stainless steel AISI 304
Gaskets in contact w/ product:	EPDM

Mechanical seal

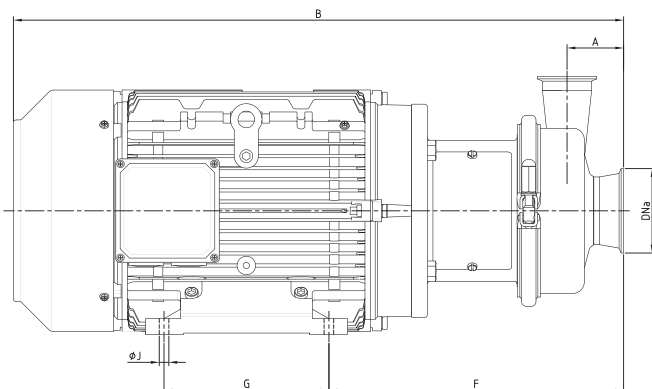
Rotary Seal:	Silicon carbide (SiC)
Stationary Seal:	Carbon (C) EPDM
External surface finish:	Bright polish
Internal surface finish:	Ra<0,8 µm
Connections:	1 1/2" x 1 1/2" CLAMP

Motor:	S.S Premium Efficiency Nema C Face
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Operating limits

Nominal pressure:	10 bar 145 PSI
Temperature range:	14 °F to 248 °F 284 °F (SIP, max. 30 min.)

Maximum flow:	100 m ³ /h 70US GPM
Maximum differential head:	21 m 70 ft
Maximum speed:	3500 rpm





Technical Specifications

Horsepower	1/2 to 3 HP
1Ø Input	115/230/460 VAC, 50/60 Hz
3Ø Output	230 VAC
Dimensions approx.	9.8" X 7.6" X 7.3"
Enclosure	NEMA-4X/IP-65

Our AC VFDs provide variable speed for 3ph AC Induction motors from 1/8 through 5 horsepower. They are available in 115, 208/230, and 400/460 VAC - 50/60 Hz with 1ph and 3ph input. All KB's AC Drives contain Sensorless Flux Vector Compensation with Static-Auto-Tune. This provides excellent speed regulation from zero to full load over a wide frequency range. These drives provide auto energy savings at light loads and smooth motor torque operation.

FEATURES

- Rugged Die-Cast Aluminum Enclosure with hinged cover
- Powerful 200% Starting Torque
- Digital Display with LED Status Indicators
- Sensorless Flux Vector Control
- Electronic Inrush Current Limit (EICLTM) Protection
- Run/Fault Relay Output Contacts
- Jog-Local Remote
- Built-in Potentiometer
- Holding Torque at Zero Speed in "Stop" mode
- Undervoltage and Overvoltage Protection
- Short Circuit Protection, phase to phase
- Ride-Through momentary power loss
- Regeneration eliminates tripping

Pump Cart



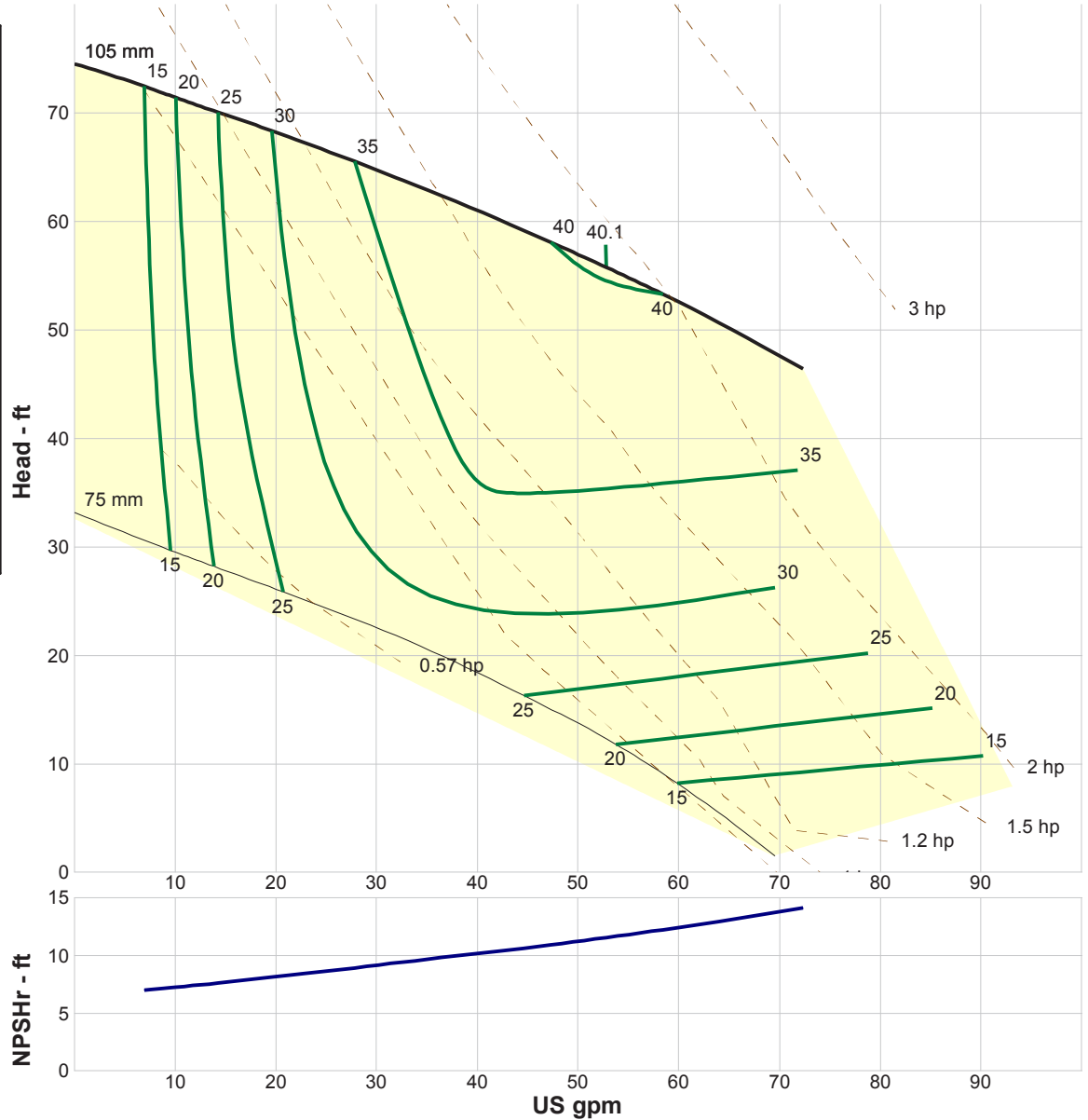
Custom designed for the craft food and beverage industry, this is our smallest pump cart built for pumps up to 2HP. This cart is ergonomic, tilt draining, has a small footprint and has easy maneuverability. All parts hand welded in Canada for quality assurance and durability.

Material

Frame	16 ga stainless steel square tube
Handle	16 ga stainless steel square tube
	*Removable handle for easy shipping
Platform	14 ga Stainless steel AISI 304
	*Pre-drilled to fit 56 and 143 Nema frame motors
Axle	1/2 ga Stainless steel rod axle
Wheels	5" non marking neoprene wheels with sliding pin clips



---- Data Point ----	
Flow:	69.7 US gpm
Head:	47.7 ft
Eff:	37%
Power:	2.25 hp
NPSHr:	13.8 ft
---- Design Curve ----	
Shutoff head:	74.5 ft
Shutoff dP:	32.3 psi
Min flow:	---
BEP:	40% @ 52.8 US gpm
NOL power:	2.31 hp @ 72.3 US gpm
-- Max Curve --	
Max power:	2.31 hp @ 72.3 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
69.4	3600	47.8	37	2.24	13.7
57.8	3600	53.6	40	1.95	12.2
46.2	3600	58.5	40	1.71	10.8
34.7	3600	63	38	1.46	9.66
23.1	3600	67.1	32	1.21	8.48