



CPE SYSTEMS INC



C216MD

PORTABLE PUMP ASSEMBLY



C-series (close coupled) centrifugal pumps are the most common pumps used in craft industries. Our C-series pumps are made in North America, are 3A approved, and provide high capacity at a low price. They feature heavy duty stainless steel construction with a stainless steel washdown motor that makes cleaning easier. If well maintained, these pumps will last a lifetime and give you years of excellent service. When needed, parts are easy to replace and interchangeable with most major brands of C-series pumps.

DESIGN

The CPE C216 Pump features a simple open impeller design and an external mechanical seal. There are three different seal types to choose from: DG, D, and F seal. The external seal can be easily cleaned with CIP methods or manually. This pump is reliable, while remaining both easy to clean and to maintain.

FEATURES

- 2" X 1.5" Tri-Clamp connections
- Stainless steel washdown motor
- 316L stainless steel construction
- 304 stainless steel adapter

SEALS

There are three seal types available for the 216:

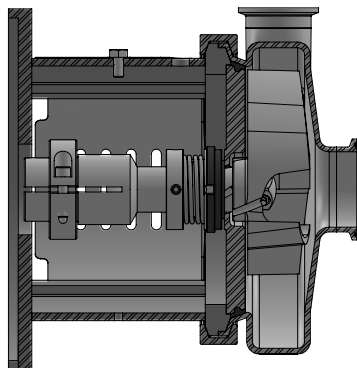
D Seal: Standard external mechanical seal.

DG Seal: External mechanical seal with a silicon carbide seat stationary seal.

F Seal: External mechanical seal with a water cascade.

HORSEPOWER

Horsepower	Max. Flow Rate	Shut Off Head
3 HP	150 GPM	70 ft
5 HP	200 GPM	100 ft
7.5 HP	200 GPM	175 ft
10 HP	250 GPM	175 ft
15 HP	275 GPM	175 ft



TECHNICAL SPECIFICATIONS

Materials	
Parts in Contact With Product:	316L Stainless Steel
Other Steel Parts:	304 Stainless Steel
Gaskets in Contact With Product:	EPDM
Weight Without Motor:	22 lbs
Mechanical Seal	
Rotary Seal:	Carbon
Stationary Seal:	Stainless Steel
External Surface Finish:	Bright Polish
Internal Surface Finish:	32 RA
Connection Type:	Tri-Clamp
Connection Size:	2" x 1.5"
Max. Impeller Diameter:	6"
Motor	
Type:	S.S Premium Efficiency
Motor Frame Size:	NEMA 14T - 25T
Speeds:	1750 & 3450 RPM
Operating Limits	
Nominal Pressure:	10 bar (145 PSI)
Temperature Range:	14°F (-10°C) to 248°F (120°C)
Maximum Flow:	275 GPM (62.5 m³/h)
Maximum Differential Head:	175 ft (53 m)
Maximum Speed:	3500RPM - 60Hz
Viscosity:	0-600 cPs
Optimum Operating System	
Flow:	275 GPM
Head:	175 ft
Approvals	
Certification:	3A- Authorization #1004, 02-11 (centrifugal pumps) for CIP



Variable Speed Controller

The Lenze i550 Protec is our new inverter series in the ½ HP to 20 HP range. The slim and sleek casing is also extremely durable, featuring both impact resistance and IP66 washdown protection. A micro USB interface is provided for more efficient programming. This user-friendly VFD is programmable and has scalable functionality. This trustworthy and powerful VFD can be implemented into your operations with ease. The i550 can be controlled by the keypad, a potentiometer, or a remote control (the remote control is available at additional cost). Our portable pump assemblies feature this VFD to achieve optimal efficiency.



FEATURES

- IP66 (NEMA 4X) approved; it is both dust and water resistant.
- Equipped with a Micro USB interface for programming and diagnostics.
- Full onboard PID programming for interfacing with flow meters, level controls, pressure sensors, and can/bottle fillers.
- The i550 Protec has a sensorless vector control for synchronous motors.
- Equipped with multiple digital and analog inputs for remote control and safety interlocks.
- Compatible with our wireless remote controls, pressure switches, and run dry protection.
- Equipped with a potentiometer (optional).

TECHNICAL SPECIFICATIONS

Horsepower:	3 to 15 HP
3Ø Input:	3Ø 230/460 VAC
3Ø Output:	208-230/460 VAC
Ambient Temperature:	-22°F - 131°F (-30°C - 55°C)
Standard IO:	5x digital input, 1x digital output, 2x analog input, 1x analog output
Communication Networks: (optional)	CANopen, Modbus RTU, Modbus TCP, IO-Link, EtherCAT, EtherNet/IP, PROFINET
Approvals:	CE, UL, CSA, EAC, RoHS

Pump Cart



Custom designed for the craft food and beverage industry, this is our mid-sized pump cart, built for pumps 3 to 5 HP. This cart is aerodynamic, tilt draining, maneuverable, and has a small footprint. All parts are hand welded in Canada for quality assurance and durability. Motors 7.5 HP and higher are mounted on a 4-wheel heavy duty cart.

Frame:	16 ga stainless steel round tube with foot
Handle:	16 ga stainless steel round tube
Platform:	11 ga Stainless steel AISI 304 Pre-drilled to fit 184 and 213 NEMA frame
Axle:	1/2 " Stainless steel rod axle
Wheels:	8" Duraflex rubber wheels



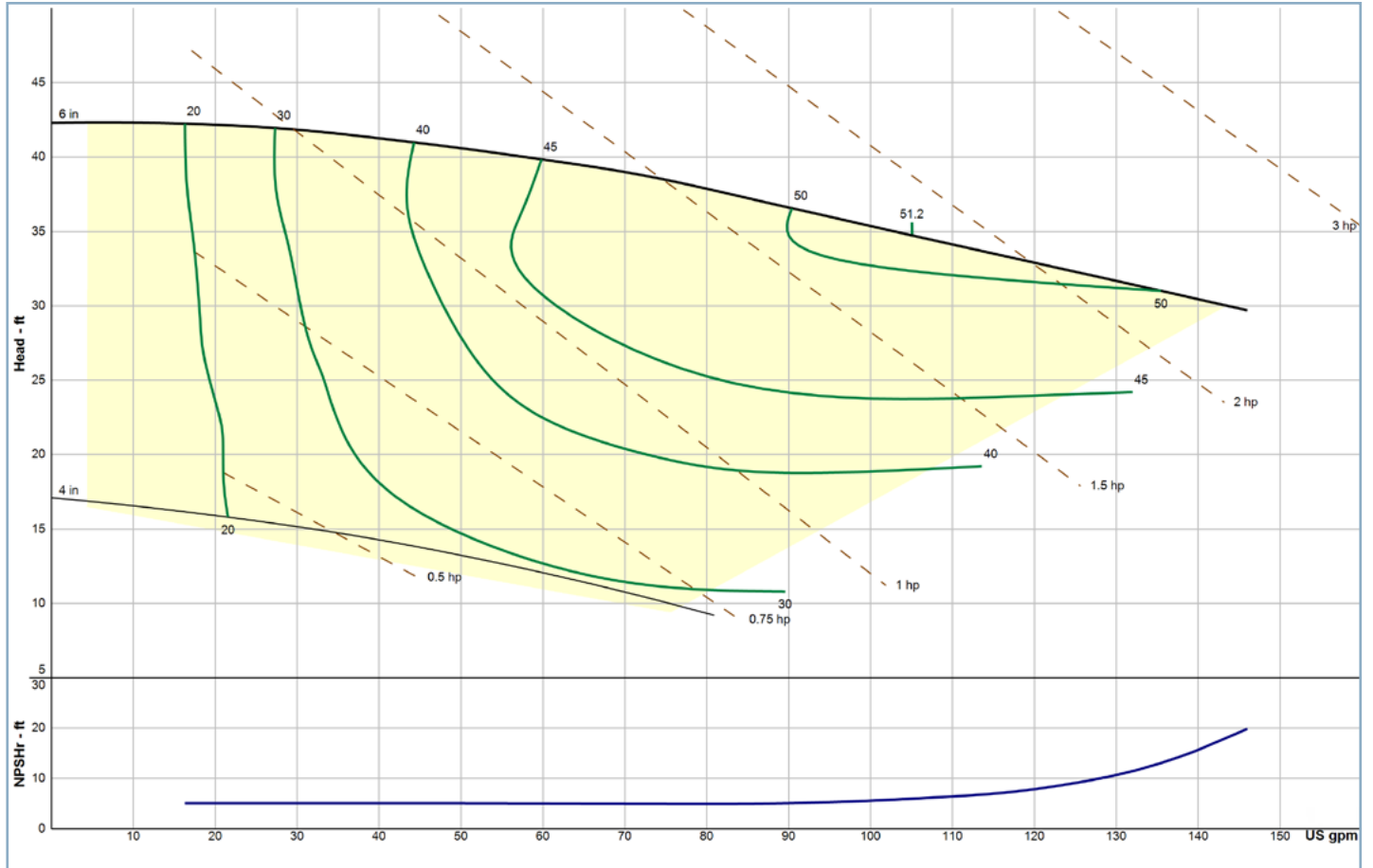
Capacity Curves

MODEL: C216

Frequency: 60hz

RPM: 1750

Size: 2" x 1.5" x6"





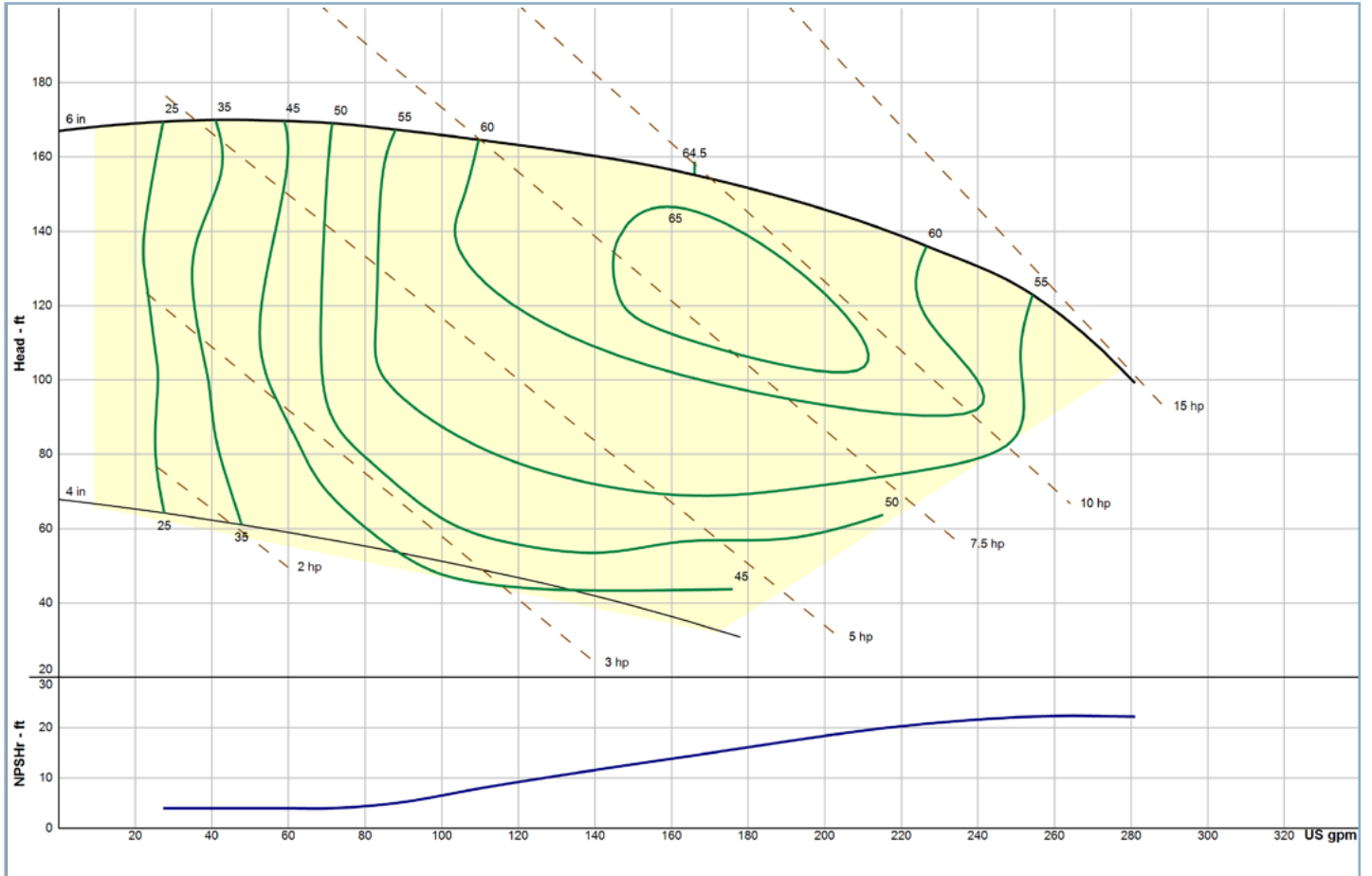
Capacity Curves

MODEL: C216

Frequency: 60hz

RPM: 3500

Size: 2" x 1.5" x 6"



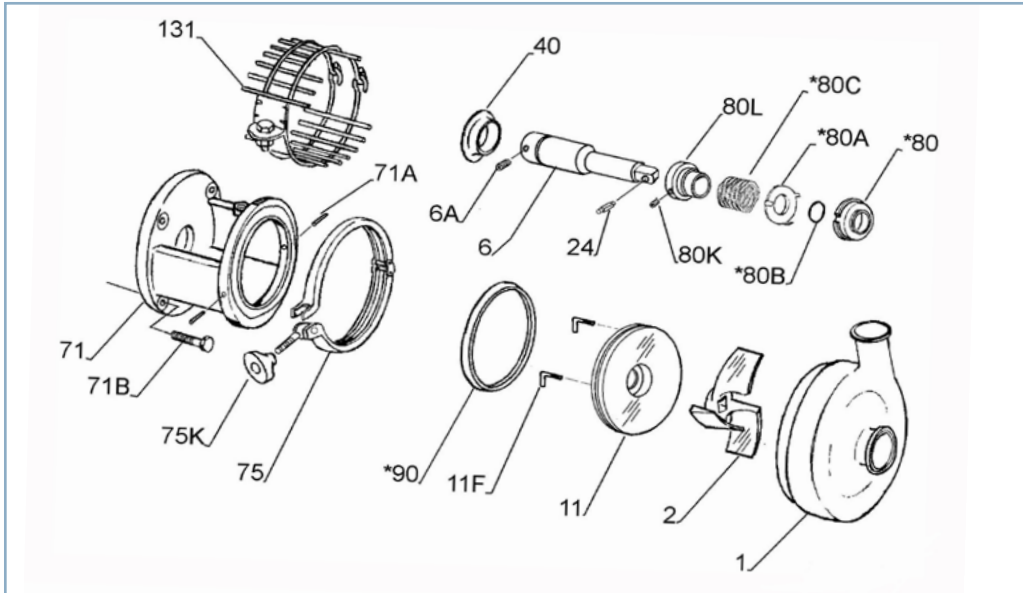


Viscosity and Specific Gravity Table

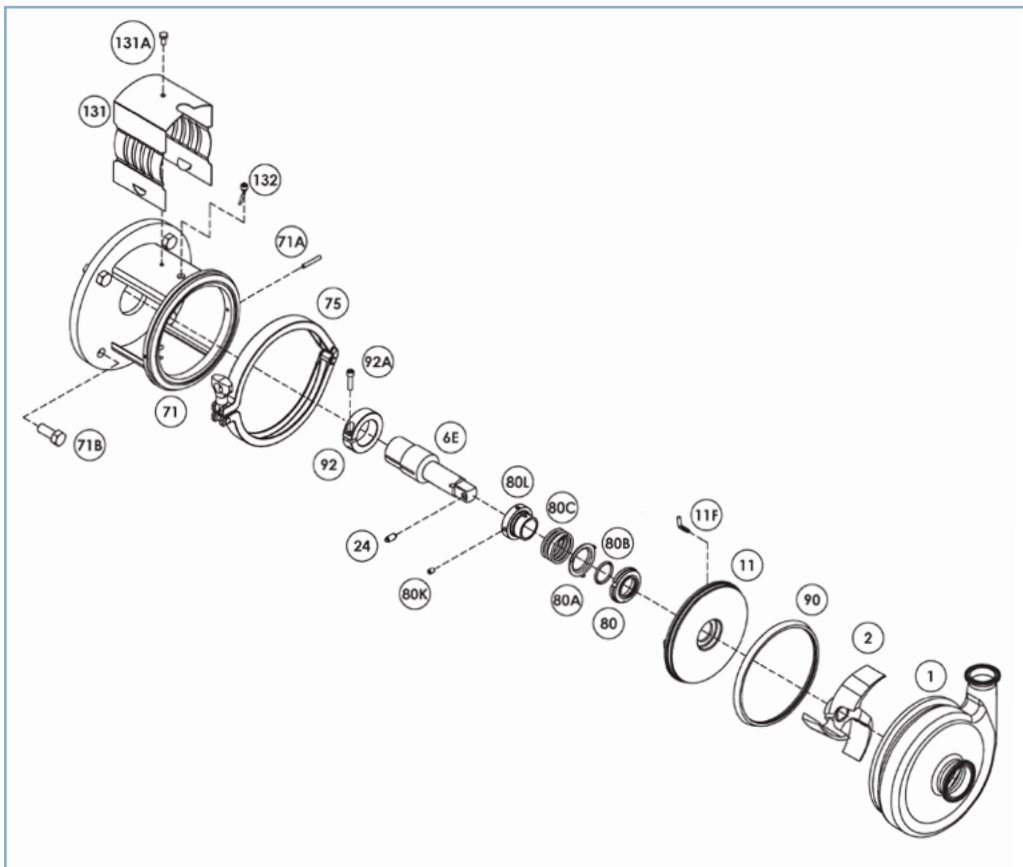
Product	Specific Gravity	Viscosity
Acetic Acid		
5%	1.01	
10%	1.01	31.7 SSU @ 59°F
50%	1.06	33.0 SSU @ 59°F
80%	1.08	35.0 SSU @ 59°F
Animal Fat	0.9	130 SSU @ 115°F 50 SSU @ 200°F
Barbecue Sauce	1.05	11,500 SSU @ 40-75°F
Beer	1.02	32 SSU @ 68°F
Blood - Animal	0.93-0.98	15,000 SSU @ 55°F
Butter	0.93-0.98	15,000 SSU @ 55°F 440 SSU @ 90°F 220 SSU @ 115°F
Coconut Oil	0.92	125 SSU @ 106°F
Corn Oil	0.92	135 SSU @ 130°F 54 SSU @ 212°F
Corn Starch Solutions		
22 Baume	1.18	150 SSU @ 70°F 130 SSU @ 100°F
24 Baume	1.2	600 SSU @ 70°F 440 SSU @ 100°F
25 Baume	1.21	1400 SSU @ 70°F 800 SSU @ 100°F
Cottage Cheese	1.02	4,300 SSU
Cream (sweet)	1	73 SSU
	0.99	140 SSU
	0.99	215 SSU
Egg Yolk	1.12	21,500 @ 35°F
Gelatin	1.01	1,380-2,580 SSU @ 160°F
Glucose	1.35 - 1.44	35M-100M SSU @ 100°F 4M-11M @ 150°F
Honey	1.3	1250-1425 SSU @ 100°F
Ice Cream Mix	1.15	1050 SSU @ 46°F
Lard	0.96	287 SSU @ 100°F
Linseed Oil	0.92 - 0.94	143 SSU @ 100°F 93 SSU @ 130°F
Malt Syrup	1.41	85,400 SSU @ 77°F
Maple Syrup	1.37	2,000 SSU @ 68°F

Margarine	0.93	13,900 SSU @ 84°F
Milk	1.02 - 1.05	31.5 SSU @ 68°F
Molasses		
A. First	1.4 - 1.46	1,300 - 23,500 SSU @ 100°F 700 - 8,160 SSU @ 130°F
B. Second	1.43 - 1.48	6,536 - 61,180 SSU @ 100°F 3058 - 15,294 SSU @ 130°F
C. Blackstrap	1.46 - 1.49	12,190 - 23,500 SSU @ 100°F
Mustard	1	17,000 SSU @ 85°F
Olive Oil	0.91 - 0.92	200 SSU @ 100°F
Peanut Butter	1.2	77,400 SSU @ 110-140°F
Sesame Seed Oil	0.92	184 SSU @ 100°F 110 SSU @ 130°F
Soy Bean Oil	0.91	500 SSU @ 44°F
Tomato Paste	1.14	60M-80M SSU 21M SSU Approx.
Water	1	31 SSU @ 68°F

C216 with Set Screw



C216 with Shaft Collar



Part #	Part Name
1.	Casing
2.	Impeller
11.	Backplate
11F.	Backplate Pin
*90.	Casing Gasket
75.	Tri-Clamp
75K.	Wingnut
71B.	Adapter Mounting Screws
71.	Adapter
*80.	Carbon Seal
*80A.	Cup
*80B.	O-ring Seal
*80C.	Spring
80K.	Drive Collar Screw
80L.	Drive Collar
24.	Impeller Retainer
6.	Shaft
6E.	Shaft
6A.	Set Screw
40.	Deflector
92.	Shaft Collar
92A.	Shaft Collar Screw
131.	Seal Guard Assembly

* These items are included in the CPE Ultimate Seal Kit