



CPE SYSTEMS INC



C+216MD

CENTRIFUGAL PUMP



The C+216 is CPE's next generation centrifugal pump targeted at medium sized applications. This pump takes the popular C-216 pump and adds design improvements to increase capability and durability. It is attached to our efficient stainless steel washdown motor.

DESIGN

The C+216 is designed to offer high capacity without compromising reliability or durability. The C+ series maintains general compatibility with the C-216 line, while bringing new innovation in pump design. This includes a collar that clamps down on the drive shaft over the full 360° degrees removing the minor wobble that can occur from set screwed shafts and an impeller nut that secures the impeller. The C+ is equipped with a single mechanical external seal. Most parts are interchangeable with other C-216 pumps.

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 C+216:

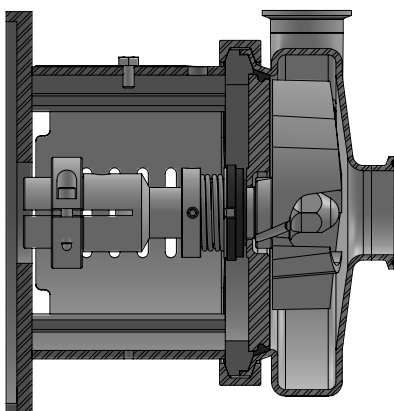
D Seal: Standard external mechanical seal.

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 #1537, 02-11 (centrifugal pumps) for CIP
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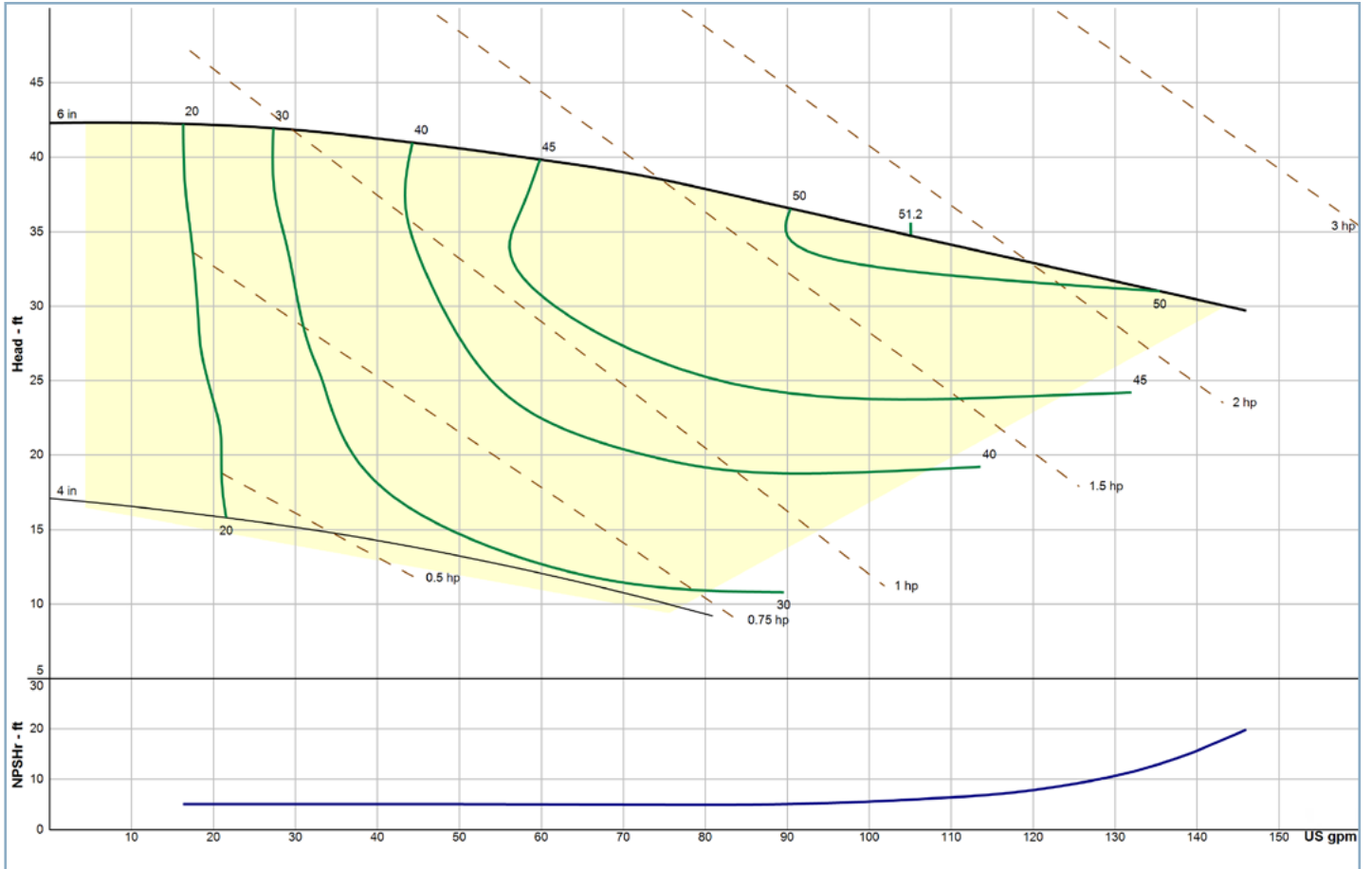
Capacity Curves

MODEL: C+216

Frequency: 60hz

RPM: 1750

Size: 2" x 1.5" x 6"





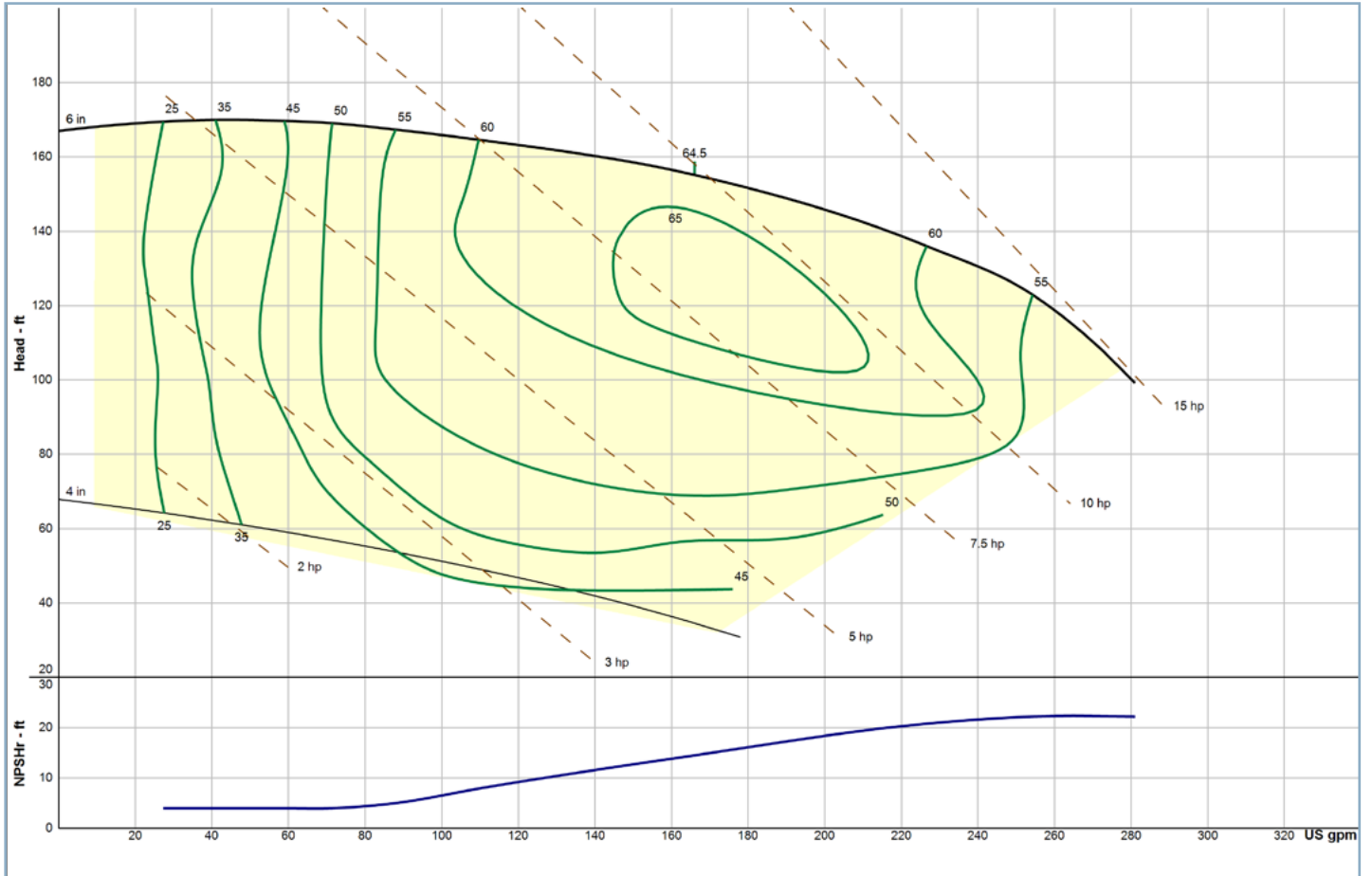
Capacity Curves

MODEL: C+216

Frequency: 60hz

RPM: 3500

Size: 2" x 1.5" x 6"



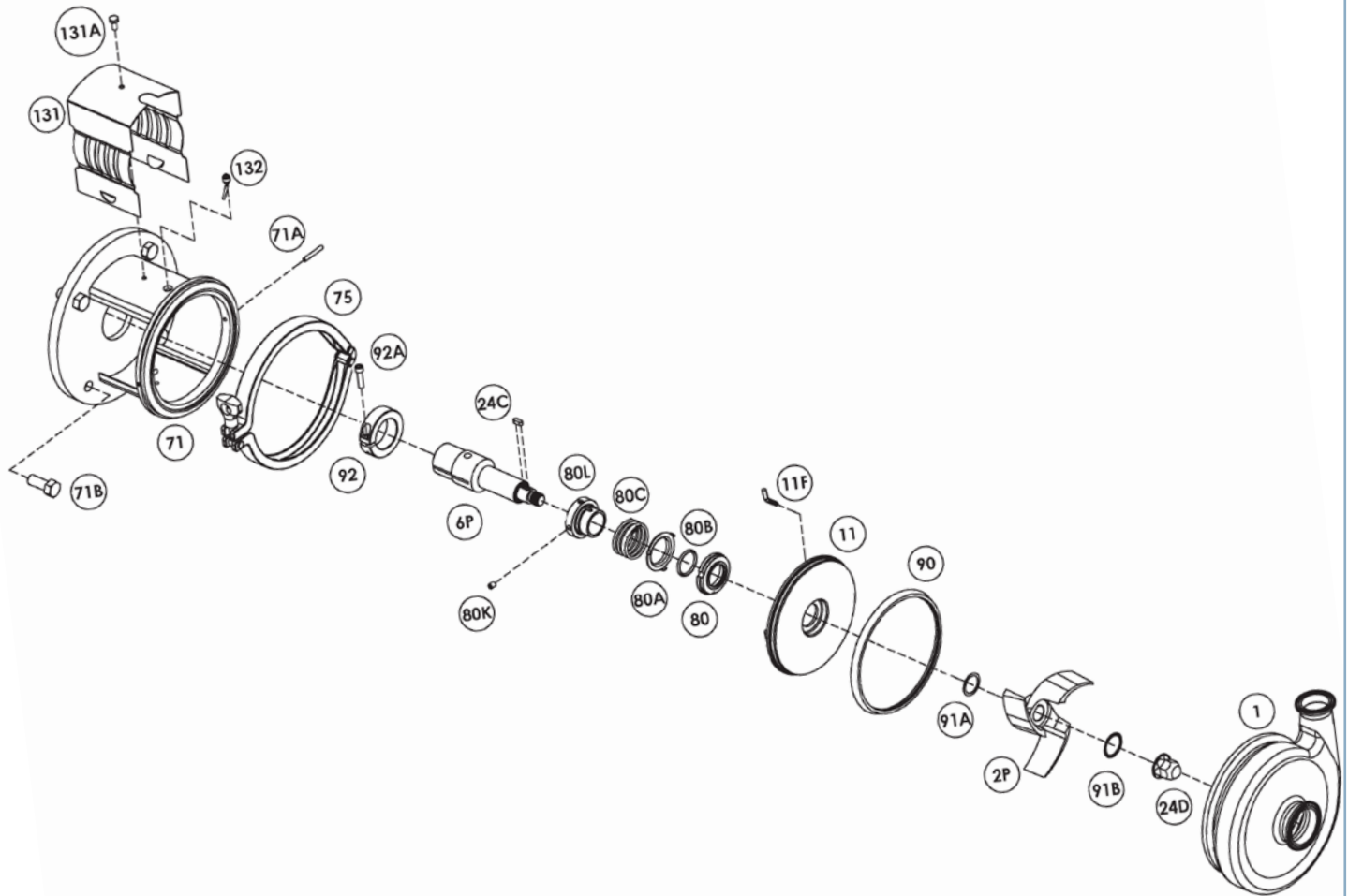


Viscosity and Specific Gravity Table

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 0.99 0.99	73 SSU 140 SSU 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

Figure 5: Expanded View



Part #	Part Name
1.	Casing
2P.	Impeller
6P.	Stub Shaft
11.	Backplate
11F.	Backplate Pin
24D.	Impeller Nut
91B.	Impeller Nut Gasket
91A.	Impeller Back Gasket
92.	Shaft Collar
24C.	Impeller Key
40.	Deflector
71.	Adapter

Part #	Part Name
71A.	Adapter Pin
71B.	Adapter Mounting Screws
75.	Tri-Clamp
80.	Carbon Seal
80A.	Cup
80B.	Seal O-ring
80C.	Spring
80K.	Set Screw Drive Collar
80L.	Drive Collar
90.	Casing Gasket
131.	Seal Guard Assembly