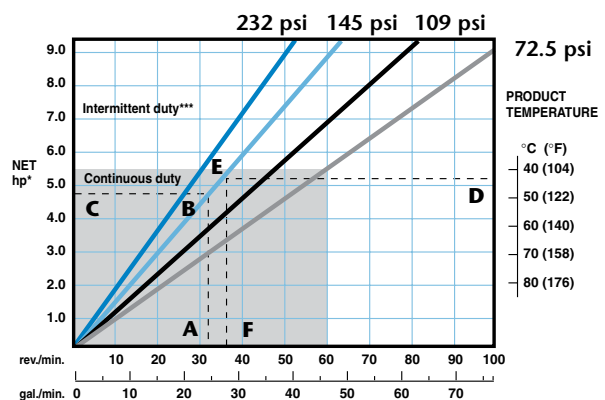


## SP/50 CIP High Performance Clean-In-Place Hosepumps

### Features and Benefits

- Cam actuated retractable shoes allowing true Clean-In-Place (CIP) operation for sanitary processes
- Electric, pneumatic, or manual actuator allowed automated CIP operation
- NBR/Buna N and Bioprene hoses are manufactured in conformity with the FDA's regulations and stainless steel sanitary connectors are available for food industry applications. Natural Rubber, EPDM, or Hypalon hoses for other industries.
- Can run dry continuously
- Most suitable for handling shear sensitive products
- Accurate (+1%) dosing (metering) capabilities
- Smooth liquid passage without valves, dead corners, or glands
- The material to be pumped does not contact mechanical parts of seals
- Easy maintenance, low cost, short down time
- Only one wearing part: the hose
- Easily and completely cleanable
- Easily adjustable and reversible rotation
- Suitable for high viscosity and densities
- No metal contact or valves
- Safe for use in explosive environments
- No internal back flow (slip)
- Designed to pump liquids containing particles (abrasion is no restriction)
- Self priming to 95% vacuum
- One year comprehensive warranty

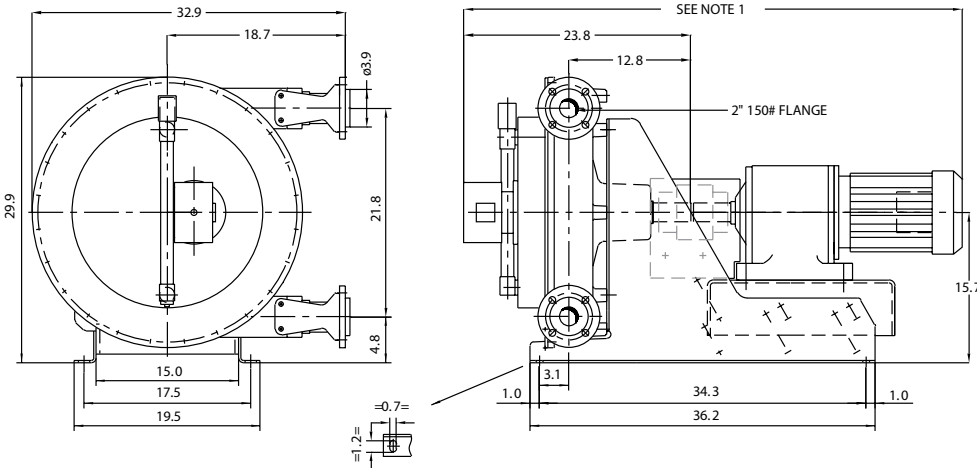
### Performance Chart



#### How to calculate speed/horsepower

- A** Flow required, indicates pump speed
- B** Calculated discharge pressure
- C** Horsepower required
- D** Fluid temperature
- E** Calculated discharge pressure
- F** Maximum recommended pump speed\*\*

\* Minimum starting torque 5,490 in lbs. based on starting unloaded at atmospheric discharge pressure. Starting torque can be 2-3X running torque if starting under the load of higher discharge pressures. \*\* For maximum hose life, speed point (A) should be lower than temperature adjusted speed point (F). See example points (A) thru (F). \*\*\* Intermittent duty = 2 hrs max continuous running, 1 hr stop before restart.



NOTE 1: LENGTH WILL VARY DEPENDING ON GEARMOTOR USED  
ALL DIMENSIONS IN INCHES AND FOR REFERENCE ONLY  
PUMP SHOWN IN POSITION 2 WITH 2" 150# FLANGES, TRI CLAMP STYLE FLANGES ALSO AVAILABLE

### Dimensions

A	475	P (st. steel)	100
A1	835	P (PVC, PP)	90
Amax	522	P (PVDF)	90
Amin	462	S	172
B	554	T	466
B1	123	T1	346
B2	760	T2	380
C	720	T3max	170
D	223	T4	112
E1	512	V	400
F	102	X	920
F1	78	X1	870
G	440	Y	25
G1	444	Y2	50
G2	496	Z1	18
H	M12	Z2	30
Hmax	251	Od	50k6
Hmin	149	e (manual operation)	525
K	50	e (air operation)	621
L	125	e (electric operation)	758
M	165	I	100
nxN	4x18	u	14
O (st. steel)	3	t	53.5
O (PVC, PP, PVDF)	10		

The information contained in this document is believed to be correct, but Watson-Marlow Bredel Pumps accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

# SP/50 CIP Clean-In-Place Hosepumps

## Technical Specifications

**Displacement:** 0.766 gal/rev  
**Supply:** 230/460 or 575 VAC 3-phase  
**Operating Speeds:** Up to 60 rpm continuous  
Up to 990 rpm intermittent  
**Fluid Temperature Range\*:** 14°F to 176°F  
**Ambient Temperature Range\*\*:** -4°F to 113°F  
**CIP Mode:**

Max initiation speed: 60 rpm  
Max CIP fluid temperature: 248F  
Actuators: Manual, Pneumatic, Electric

**Hose Lubricant Volume:** 2.6 gallon

**Flow Range:** Up to 69 GPM

**Discharge Pressure:** Up to 232 psi

**Suction Pressure:** 28 ft. lift to 38 psi

**Hose Materials:** BUNA N, Natural Rubber, EPDM, Hypalon, Bioprene\*\*\*

**Fittings:** 2" 150# flange or 316SS 2" tri clamp style

**Flange Insert Materials:** 316SS, Polypropylene, PVC, PVDF

**Optional High Level Hose Leak Sensor:** NO or NC:  
1A max, 250V max, 50 V A max

When installing, allow min 54" linear clearance from ports to facilitate hose changing

## Materials of Construction

**Pumphead:** Cast Iron

**Rotor:** Cast Iron

**Shoes:** Aluminum or Epoxy

**Shims:** Galvanized Steel or 304SS

**Cover:** Mild steel

**Flange Brackets:** 304SS

**Base and Supports:** Galvanized steel or 304SS

**Hardware:** Zinc plated steel or 316SS

**Hose Clamps:** Steel, 304SS or 316SS

**Shaft:** Alloy Steel

**Seals:** Buna

**Coupling Guard:** 304SS

\*Consult Watson-Marlow Bredel for lower or higher temperature operation

\*\*Allowable ambient temperature is based on pump capabilities and may be further limited by gearmotor ambient capabilities.

\*\*\*Please contact Watson-Marlow Bredel Pumps Application Engineering for sizing.

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