

Series SR

Compact Centrifugal

Mag-Drive Pumps

Providing environmentally safe sealless, magnetic pumps of the highest quality for over 30 years.

Our company goal is to provide the solutions that protect our surroundings, raise the environmental awareness, and promote the growth of the community.



Applications

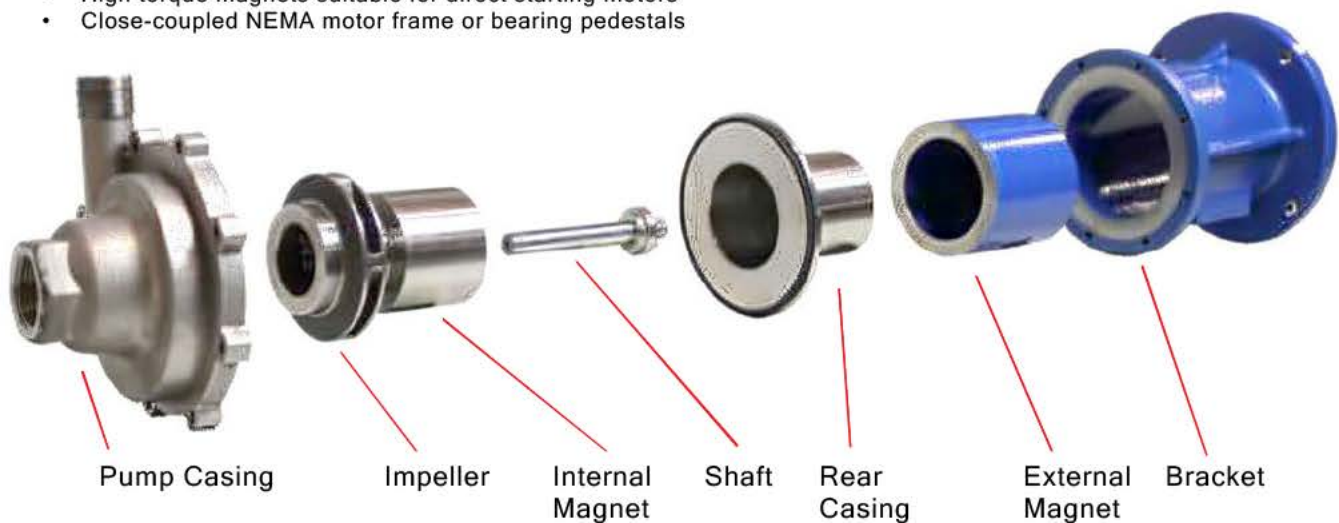
- Refrigeration Circulation & Transfer
- Chemical Processing
- OEM Systems

WARRENDER Series SR End Suction Centrifugal Mag-Drive Pumps

WARRENDER Series SR alloy centrifugal mag-drive pumps provide the advantages of a heavy-duty seal-less process pump in a compact, cost effective design. SR pumps are equipped with zero leakage magnetic couplings to meet the latest toxic emissions regulations. The absence of mechanical seals eliminates costly pump maintenance, lost production time and process contamination.

Technical Design Features

- Seal-Less magnetic drive coupling
- Rugged alloy casing and pump components
- Heavy duty alloy containment shell
- High efficiency enclosed impeller design
- Silicon carbide sleeve vs. carbon journal bearings with intermittent dry-run capability
- High torque magnets suitable for direct starting motors
- Close-coupled NEMA motor frame or bearing pedestals



SR Series Pump- Exploded View w/caption

Commercial Benefits

- Avoid production downtime and maintenance due to mechanical seal failures
- Eliminates catastrophic seal leakage and potential fines
- Meets EPA regulations- exempt from constant seal monitoring
- Magnetic coupling allows for servicing the motor or power frame without exposing process fluid to atmosphere
- Extends life of power frame bearings
- Enhances plant and worker safety
- Prevents the loss of precious liquids

Typical Applications

- Hot water
- Heat transfer liquids
- Refrigerants & cryogenics
- Hydrocarbons & solvents
- Acidic & corrosive solutions
- Caustics & air hardening liquids
- Hazardous & dangerous chemicals
- Toxic and carcinogenic liquids
- Precious & expensive chemicals
- Flammables & pyrophorics
- Biological pathogens

Materials of Construction

Liquid End Components

- 316-SS Stainless Steel
- Hastelloy-C276
- Internal Sleeve - Carbon, PTFE-C, Tungsten Carbide, Silicon Carbide

Internal Shaft

- Silicon Carbide or Cr/316-SS

Casing O-Ring

- All elastomers, FEP (Encapsulated Viton, Silicon or 316-SS)

Performances

- 5 Models for Complete Hydraulic Coverage
- Flows: to 220 GPM
- Heads: to 170' TDH
- Horsepower range: 1/2 to 15 HP
- Pressure Rating: 150 PSI to 300 PSI (MAWP)*
- Temperature Ratings:
 - Standard Design (240°F)
 - High Temp. Design (450°F)
 - Sub-Zero Temp. Design (0°F)

Options:

- Internal Bearing Options: Carbon, PTFE-C, Silicon Carbide, Tungsten Carbide
- Steam Jacketed Casing

Specifications

| MODEL | PORT SIZE (NPT or Flanged) | *MAX GPM | *MAX TDH-FT | HP | FRAME |
|--------|-------------------------------|-------------|----------------|--------|----------------|
| SR 6.0 | 1" x 3/4" | 30 | 40 | 0.5 | 56C |
| SR 7.0 | 1-1/2" x 1" | 65 | 52 | 1.5 | 56C or 143/5TC |
| SR 7.5 | 1-1/2" x 1-1/4" | 110 | 90 | 2-3 | 143/5TC |
| SR 8.0 | 2" x 1-1/2" | 170 | 110 | 5-7.5 | 182/4TC |
| SR9.0 | 2.5"x2" | 220 | 170 | 7.5-15 | 213/5-TC |

Standard SR Wetted Materials: 316L/-SS front casing, impeller and rear casing, PTFE-C sleeve and Thrust bearings, single confined o-ring.

- Note: *Maximum GPM and FT references limits of the curve.

Series "SR" Model Selection & Impeller Sizing

SR Pump Series

Pump Size

6.0
7.0
7.5
8.0
9.0

Mag Coupling

H = High Torque

Bearing Material & Shaft

1= 316-SS & PTFE-C
2= 316-SS & Carbon
3= SIC & PTFE-C
4= SIC & Carbon
5= Tungsten Carbide vs SIC

Impeller Size

*1,2,3,4 - (see curves)

Pump Casing & Impeller

S= 316-SS
H= Hastelloy C
T= 316-SS High Temp Design

Pipe Connections

T= Threaded
F= Flanged

Motor Type

T= TEFC
X= EXP
C= Chemical Duty
W= Without

Motor Voltage

1= 115/230/60-Single Phase
2= 208/230/460/60-Three Phase
3= Alternate

Motor RPM

1= 3450
2= 1750

ORDERING EXAMPLE
SR 7.0 H 1 1 S T T 3 1



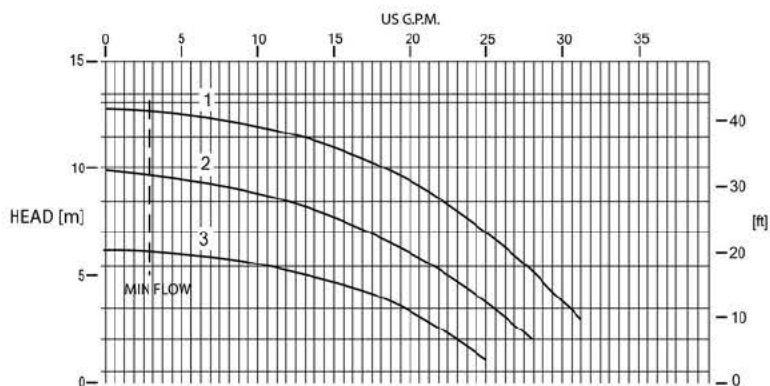
SR 6.0

3500 RPM

Impeller (1) 3-1/8"

Impeller (2) 2-7/8"

Impeller (3) 2-5/8"



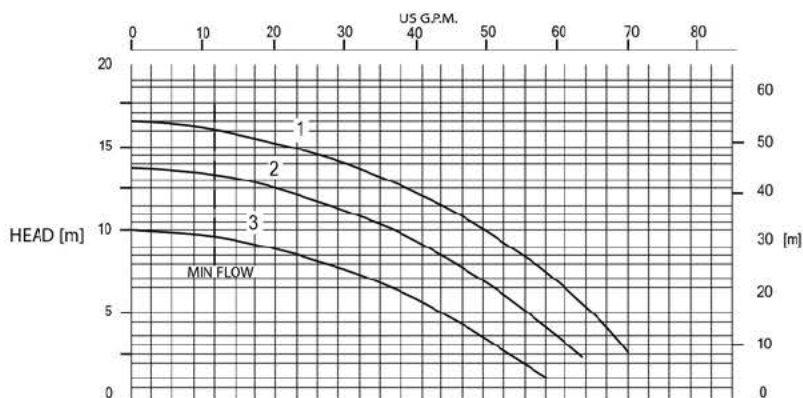
SR 7.0

3500 RPM

Impeller (1) 3-3/4"

Impeller (2) 3-7/16"

Impeller (3) 3-1/16"



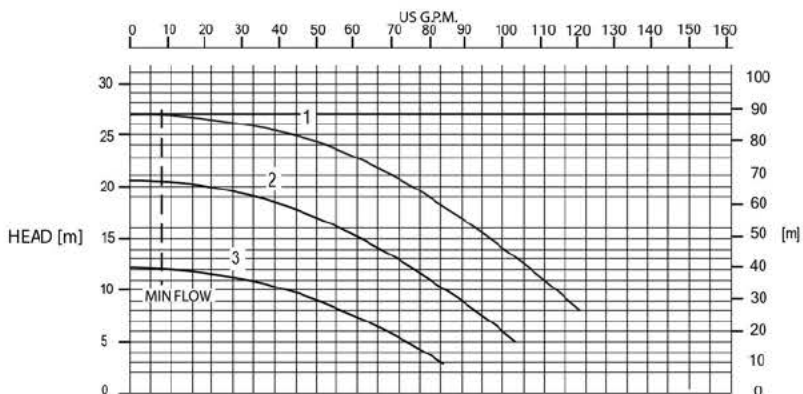
SR 7.5

3500 RPM

Impeller (1) 4-3/4"

Impeller (2) 4-1/8"

Impeller (3) 3-7/16"



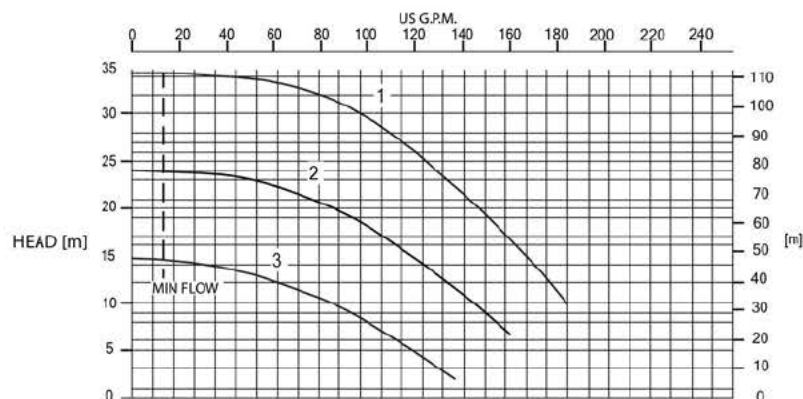
SR 8.0

3500 RPM

Impeller (1) 5-1/4"

Impeller (2) 4-1/2"

Impeller (3) 3-3/4"



SR 9.0

3500 RPM

Impeller (1) 6.57"

Impeller (2) 5.98"

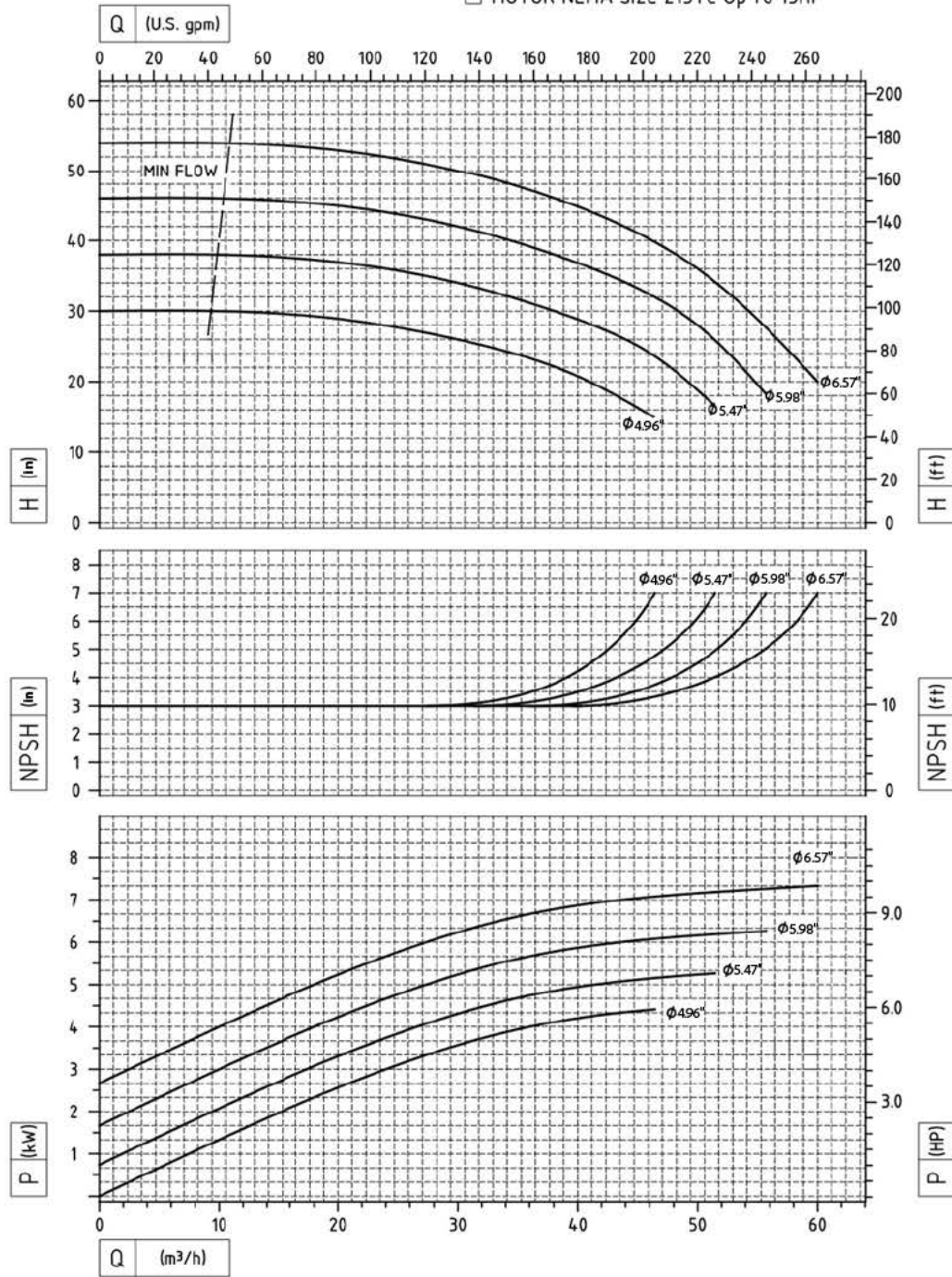
Impeller (3) 5.47"

Impeller (4) 4.96"

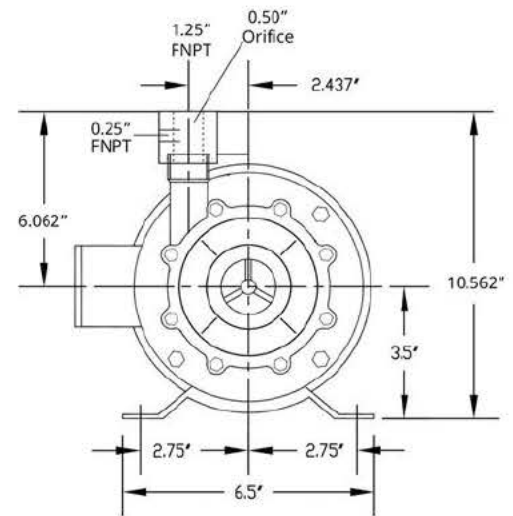
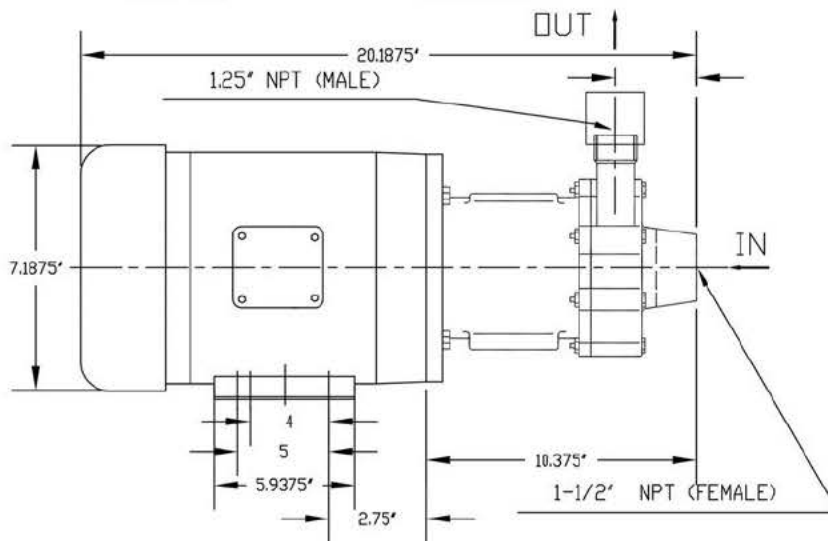
SR9.0HTSS316 PUMP SERIES
MAGNETIC DRIVE SEALESS PUMPS

SR9.0HT SS316 3500 RPM (60Hz)

□ MOTOR NEMA size 215TC Up to 15HP

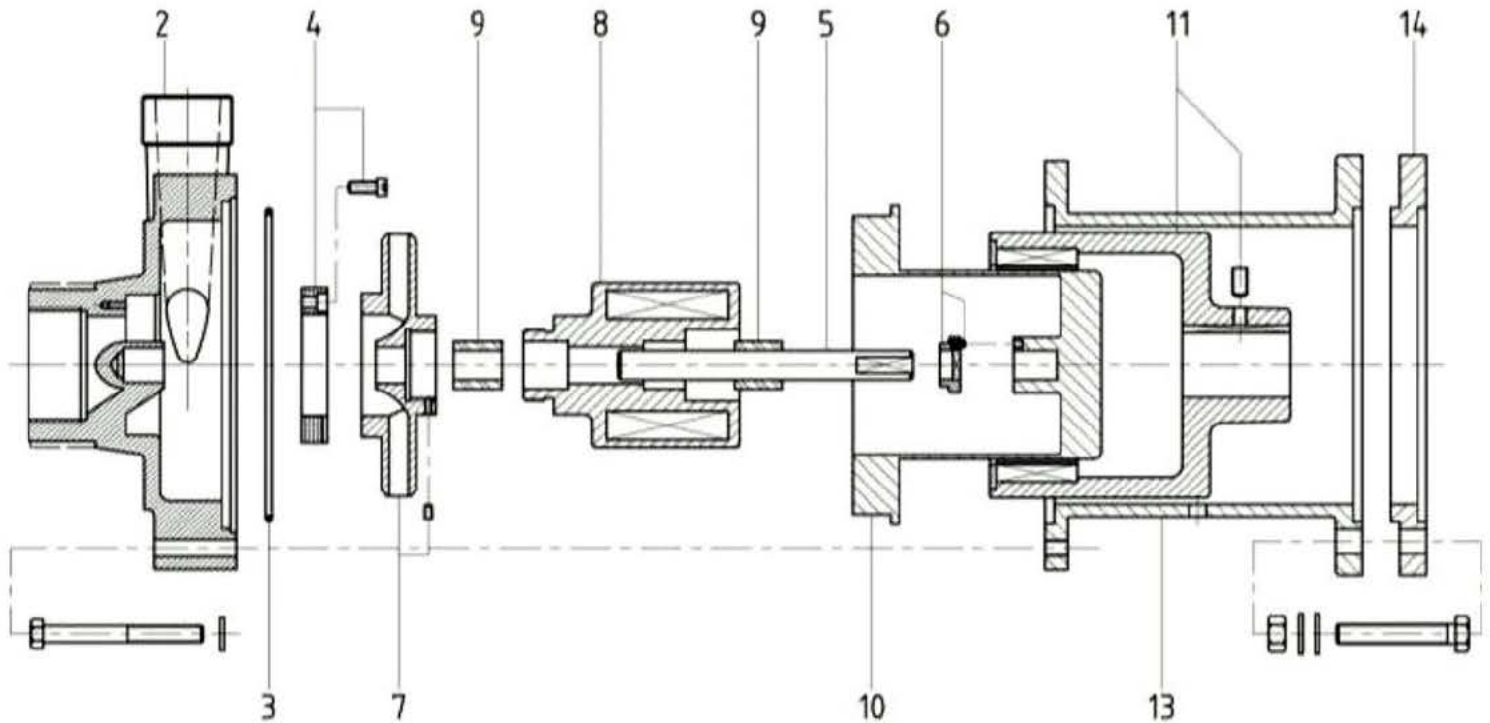


- Motor power depends on specific gravity of pumped liquid.
- IEC motor power has been calculated considering 440V, for different voltage consult the factory.

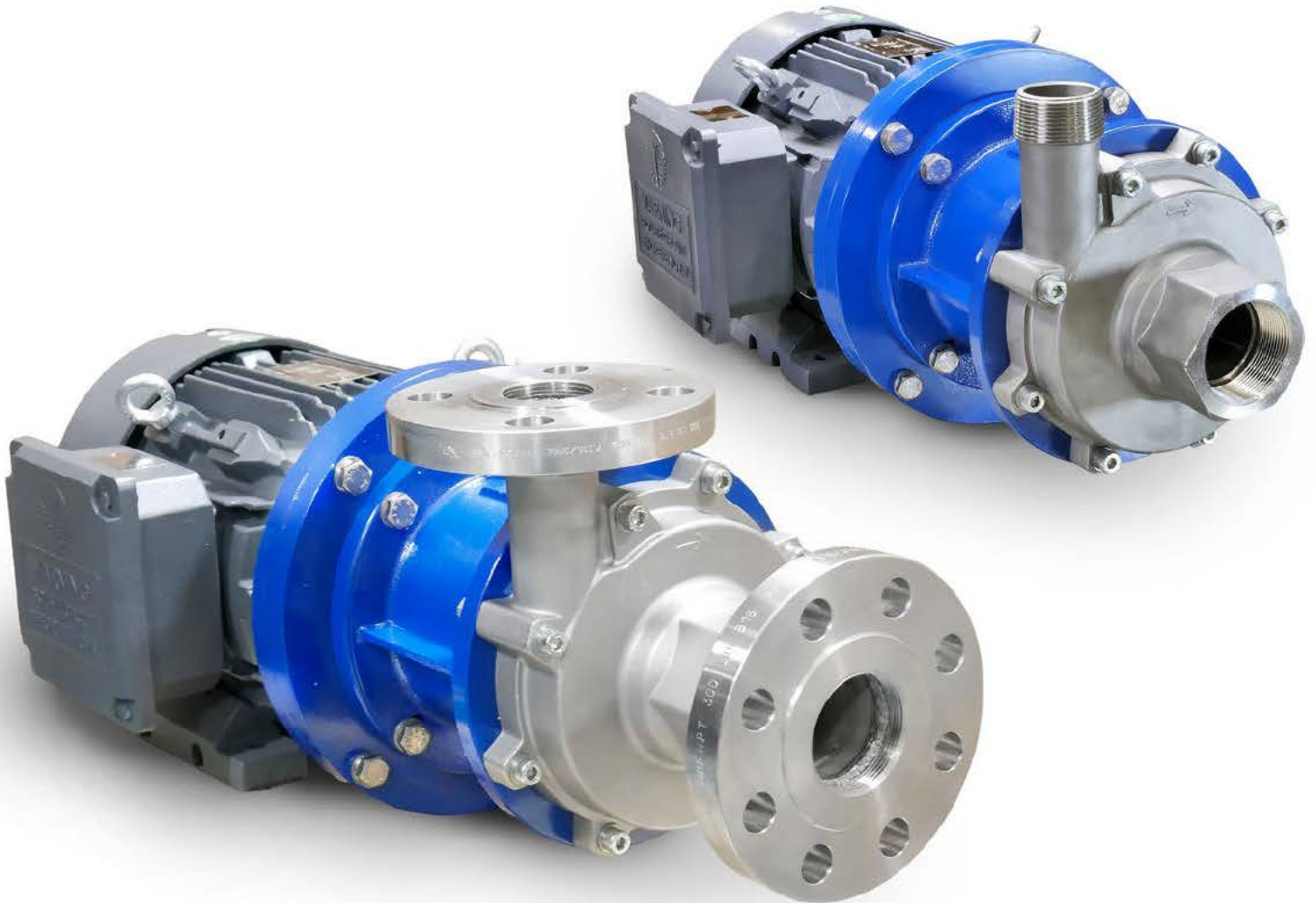

SR 7.5


| Type | I Q | | Dimensions In | | | | | | | | | | | | |
|--------|--------|--------|---------------|-------|------|---|-----|-----|------|--------|------------|------|------|------|------|
| | Gas | Gas | A | B | C | D | E | F | G | L | Motor Size | M | N | O | P |
| SR 6.0 | 1" | 3/4" | 6.10 | 8.34 | 4.88 | 3 | 3.5 | .34 | 2.24 | 9.29~ | 56C | 1.77 | 2.75 | 3.50 | 6.65 |
| SR 7.0 | 1 1/2" | 1" | 6.255 | 8.975 | 4.88 | 3 | 3.5 | .34 | 2.72 | 9.29~ | 56C | 1.73 | 2.75 | 3.86 | 6.65 |
| SR 7.5 | 1 1/2" | 1 1/4" | 7 | 10.15 | 5.5 | 5 | 3.5 | .34 | 3.15 | 11.17~ | 145TC | 2.44 | 2.25 | 4.92 | 7.87 |
| SR 8.0 | 2" | 1 1/2" | 8.01 | 11.31 | * | * | * | * | 3.31 | * | * | 2.64 | * | 5.51 | 7.87 |

General reference - Consult factory for dimensional drawing



| Ref | Description | Material | Code |
|-----|----------------------------------------------------|---------------------------------|------|
| 2 | Pump Head | 316-SS | |
| 3 | O-Ring | Viton (Standard) | |
| 4 | Casing Thr. Bushing (incl. of screws) | PTFEC 316-SS | |
| 5 | Shaft | 316-SS or SIC | |
| 6 | Ring | 316-SS | |
| 7 | Impeller | 316-SS | |
| 8 | Int. Magnet (incl. of 9) | 316-SS / CoSm | |
| 9 | Sleeve Bearings | PTFEC SIC, Carbon, or PTFE-C | |
| 10 | Rear Casing | 316-SS | |
| 11 | Ext. Magnet | Neodym./Steel | |
| 13 | Bracket (includes #14 if required) | Cast Iron | |
| 14 | Motor Adaptor Flange (required on SR 7.5 & 8.0) | Steel | |
| 15 | Rear Wet End (3+5+6+7+8+9+10) | / | |
| 16 | Wet End (2+3+4+5+6+7+8+9+10) | / | |



SR0526