

**YD-GS/GSF  
Series**

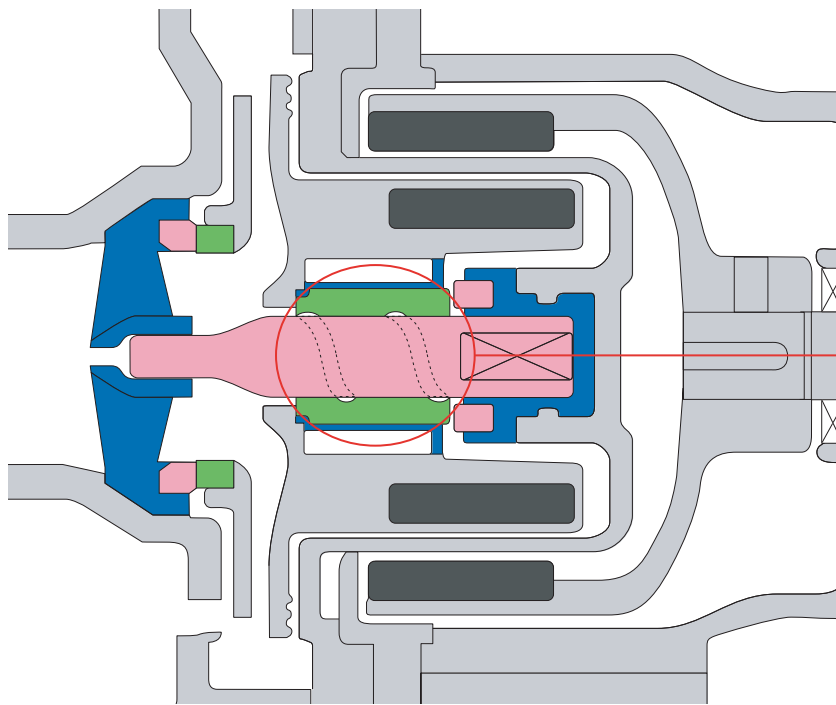
 **WORLD CHEMICAL USA, INC.**

## **Polypro and ETFE Construction Sealless Magnetic Drive Pump**

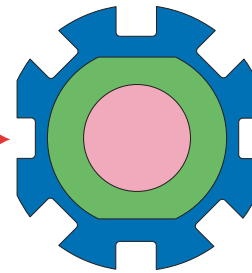


For a wide range of industrial processing and transfer of  
acids, caustics, corrosives and wastewater

## HEAT RESISTANT BUSHING (INTERNATIONALLY PATENTED)



Cross Section



- Shaft -  
Alumina  
Ceramics
- Bushing -  
GFR PPS or  
CFR ETFE
- Carbon  
Ceramics or  
PTFE

### PATENTED WORLDWIDE

USA: No. 5154587  
 JAPAN: No. 2550398  
 No. 2064519  
 KOREA: No. 15494  
 EUROPE: No. 0447709B1

Dry running of pumps leads to failure of the shaft or bushing from excess heat caused by friction in the sliding portion. Our internationally patented construction of the GS/GSF series use heat-releasing and heat-resistant materials in the sliding portion, lowering the temperature of pump parts to prevent thermal deformation.

## FEATURES

### 1. Bushing : Capable of handling a wide range of chemicals

- Bushings can be selected by chemical type and presence of slurry. (Carbon, PTFE, Ceramic or SiC.)

### 2. Impeller & Magnet : Neodymium magnet for a compact design (2HP or above)

- Powerful Neodymium magnet allows a compact design with excellent performance.

### 3. Flange : ANSI adjustable flanges for easy setup

- The GS/GSF series come with adjustable flanges which can be turned easily by hand, making setup of the pump effortless.

### 4. Shaft : The two-point support construction of the shaft for durability

- Durability is enhanced by the two-point stationary ceramic shaft.
- Optional SiC shafts for additional resistant to frictional wear from abrasives.

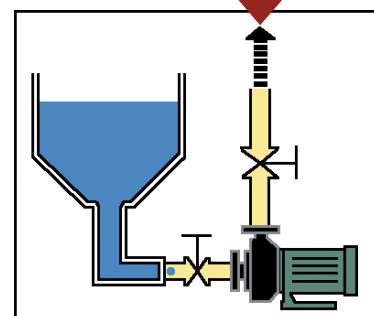
### 5. Base : Durable epoxy coated cast iron base or polypropylene base

- Base lifts and protects the motor from chemical puddles and corrosion.

## APPLICATIONS

- Chemical processing
- Etchings
- Filters
- Heat exchangers
- High specific gravity liquids to 2.0
- RO and DI water
- Washers
- Waste water treatment

Max Head  
**140 ft. (60Hz)**  
 405GS



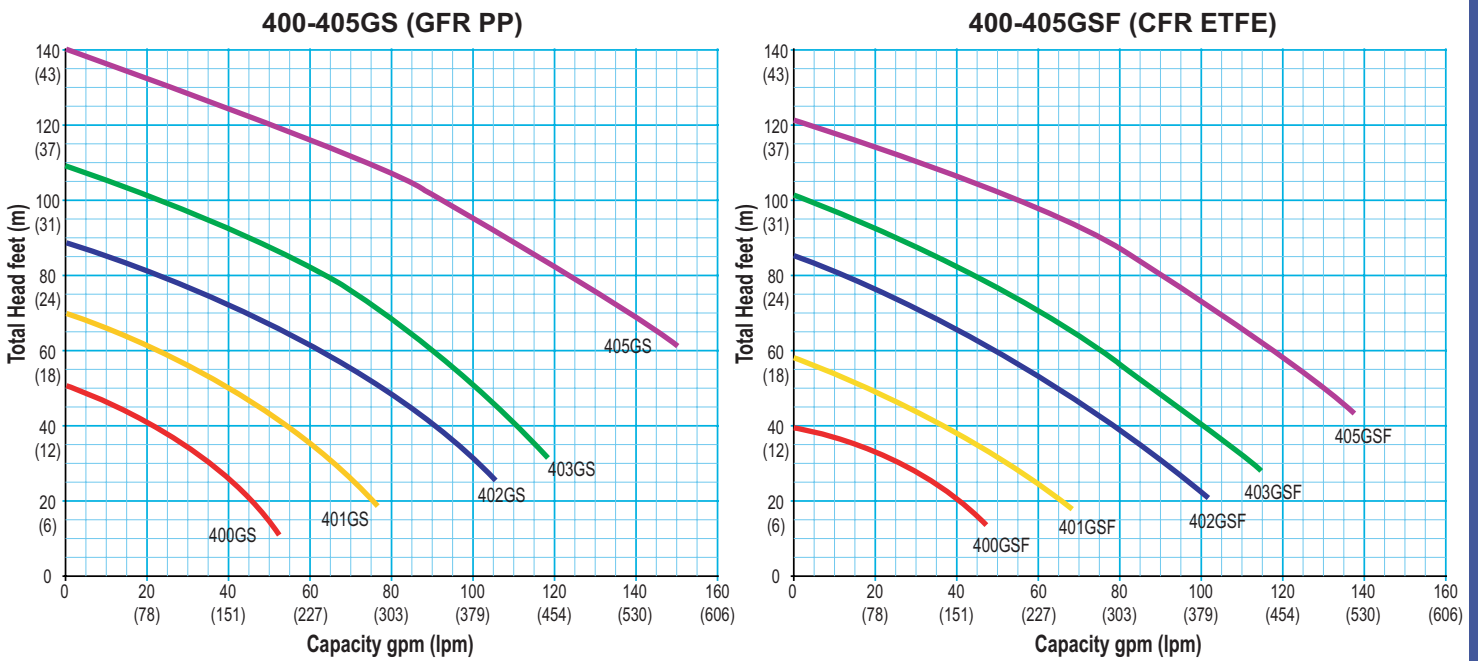
**MODEL DESIGNATION**

**Y D - 4 0 2 G S - A D 6 - F**  
 (1) (2) (3) (4) (5) (6) (7)

- |  |  |  |   |                                   |   |
|--|--|--|---|-----------------------------------|---|
| <b>(1) Discharge Bore</b><br>40 : 1.5" | <b>(3) Type</b><br>GS : GFR PP<br>GSF : CFR ETFE | <b>(4) Bushing Material</b><br>A : Ceramics<br>C : Carbon<br>R : PTFE<br>T : SiC bushing w/ceramic shaft<br>TT : SiC bushing w/SiC shaft | <b>(5) O-ring Material</b><br>D : FPM<br>E : EPDM | <b>(6) Frequency</b><br>6 : 60 Hz | <b>(7) Front Casing</b><br>F : Flanged Type<br>None : NPT Threaded Type |
|--|--|--|---|-----------------------------------|---|

Note: GFR PP-Glass Fiber Reinforced Polypropylene    CFR ETFE-Carbon Fiber Reinforced Tetrafluoroethylene

**PERFORMANCE CURVES 60Hz**



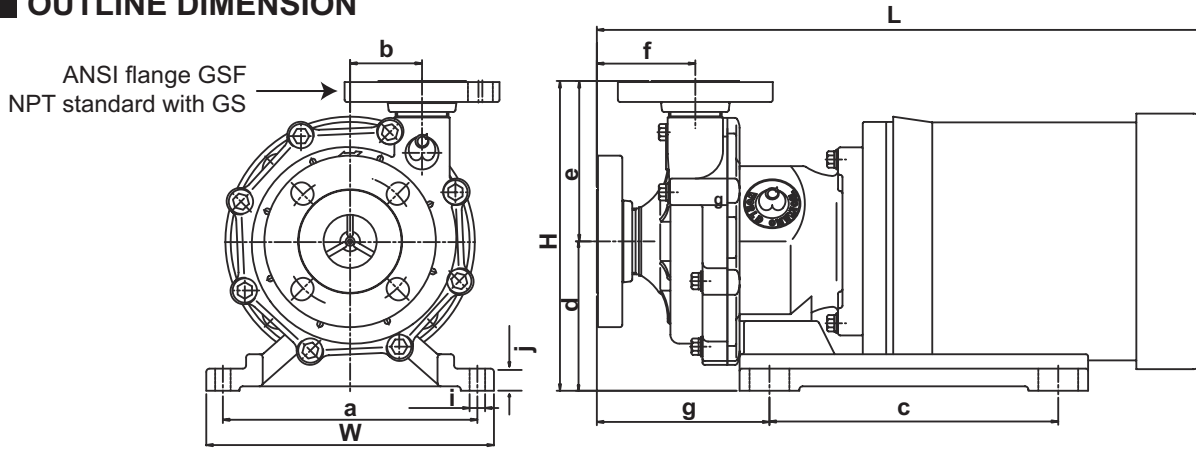
Note: High Specific Gravity curves upon request.

**SPECIFICATION (60Hz)**

MODEL	SUC. x DISC.	HP	MAX GPM	MAX TDH (ft.)	MAGNET	BUSHING	O-RING
YD-400GS	1.5" x 1.5"	3/4	53	50	Ferrite	<ul style="list-style-type: none"> <li>• Carbon</li> <li>• Ceramic</li> <li>• PTFE</li> <li>• SiC</li> </ul>	<ul style="list-style-type: none"> <li>• FPM</li> <li>• EPDM</li> </ul>
YD-401GS	1.5" x 1.5"	1	77	69			
YD-402GS	2.0" x 1.5"	2	106	88	Neodymium		
YD-403GS	2.0" x 1.5"	3	119	108			
YD-405GS	2.0" x 1.5"	5	150	140	Ferrite		
YD-400GSF	1.5" x 1.5"	3/4	48	39			
YD-401GSF	1.5" x 1.5"	1	69	58	Neodymium		
YD-402GSF	2.0" x 1.5"	2	102	85			
YD-403GSF	2.0" x 1.5"	3	115	101	Neodymium		
YD-405GSF	2.0" x 1.5"	5	137	121			

Note: Max GPM and Max TDH for the GS series are based on specific gravity, 1.1; for the GSF series, 1.2.

**OUTLINE DIMENSION**

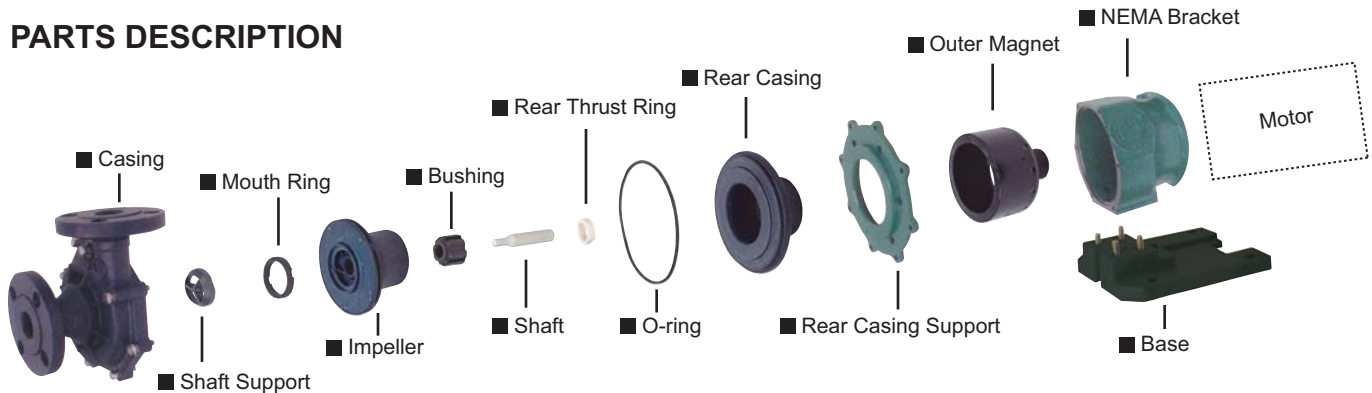


Unit: inch (mm)

MODEL	W	H	L	a	b	c	d	e	f	g	i	j
YD-400GS(F)	5.5 (140)	8.5 (216)	16.7 (423)	4.3 (110)	2.0 (51)	3.9 (98)	3.7 (95)	4.8 (121)	3.4 (87)	5.9 (150)	φ 0.5 (φ 12)	0.7 (18)
YD-401GS(F)	6.3 (160)	10.0 (254)	18.4 (468)	5.1 (130)	2.3 (57.5)	5.1 (130)	4.5 (115)	5.5 (139)	4.1 (103)	7.2 (184)	φ 0.5 (φ 12)	0.7 (18)
YD-402GS(F)	10.2 (260)	10.3 (261)	19.3 (490)	8.2 (208)	2.6 (65)	7.9 (200)	4.6 (116)	5.7 (145)	3.5 (89)	6.1 (156)	φ 0.6 (φ 14)	0.8 (20)
YD-403GS(F)	10.2 (260)	10.3 (261)	19.3 (490)	8.2 (208)	2.6 (65)	7.9 (200)	4.6 (116)	5.7 (145)	3.5 (89)	6.1 (156)	φ 0.6 (φ 14)	0.8 (20)
YD-405GS(F)	10.2 (260)	11.0 (280)	22.0 (560)	9.1 (230)	2.6 (65)	10.3 (261)	5.3 (135)	5.7 (145)	3.5 (89)	6.1 (156)	φ 0.6 (φ 14)	0.8 (20)

\* Measurements are subject to change without notice.

**PARTS DESCRIPTION**



PART NAME	MATERIAL	
	GS	GSF
Casing	GFR PP	CFR ETFE
Shaft Support	Alumina Ceramics + GFR PPS	Alumina Ceramics + CFR ETFE
Mouth Ring	CFR PTFE	
Impeller	GFR PP + Magnet	CFR ETFE + Magnet
Bushing	Carbon / Ceramic / PTFE / SiC	
Shaft	Alumina Ceramics / SiC	
Rear Thrust Ring	Alumina Ceramics / SiC	

PART NAME	MATERIAL	
	GS	GSF
O-ring	EPDM / FPM	
Rear Casing	GFR PP + GFR PPS	CFR ETFE
Rear Casing Support	Epoxy Coated Cast Iron	
Outer Magnet	Epoxy Coated Steel	
NEMA Bracket	Epoxy Coated Cast Iron	
Base 400-403	GFR Polypropylene	
Base 405	Epoxy Coated Cast Iron	

NORTH / SOUTH AMERICA

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