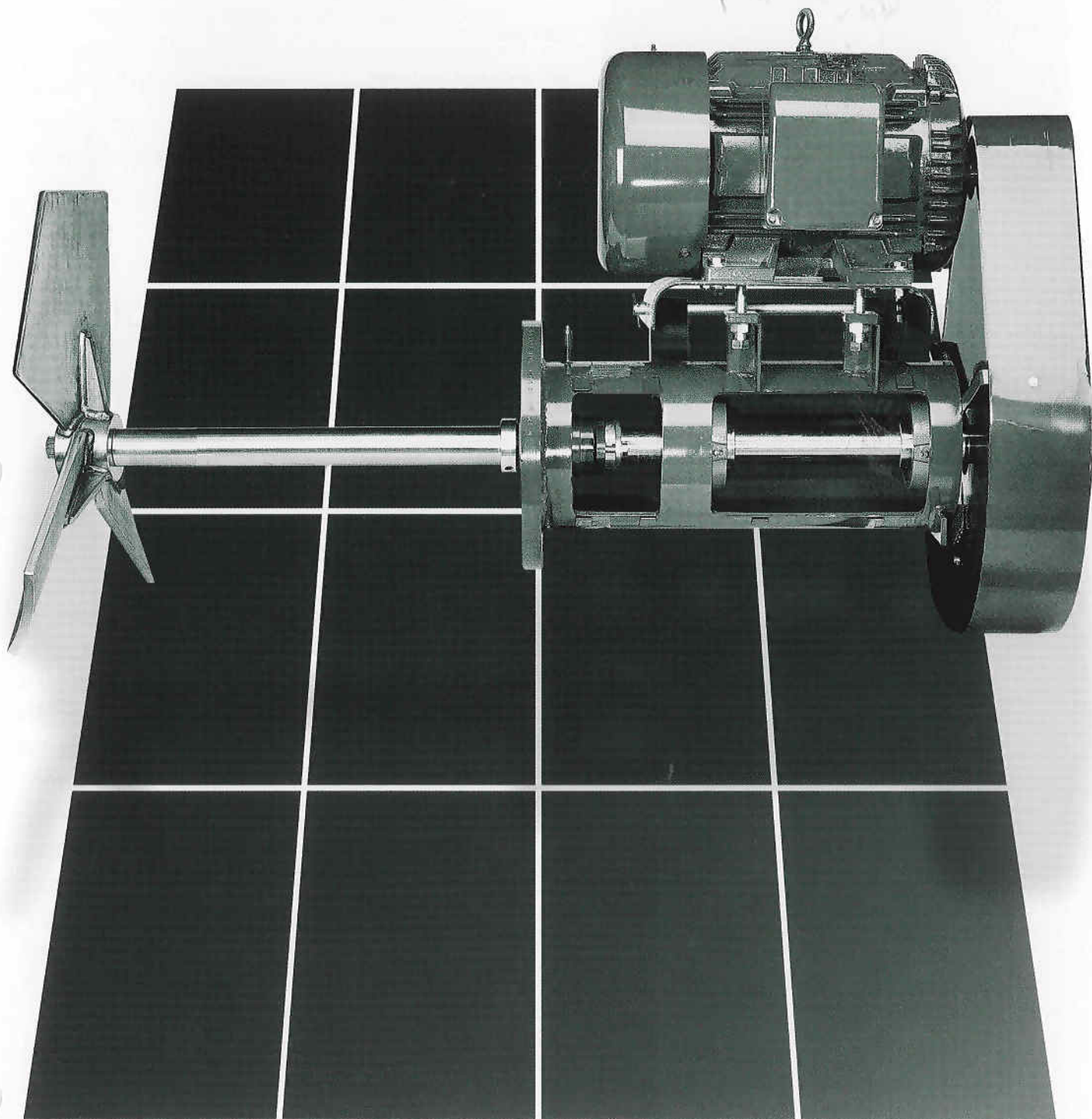
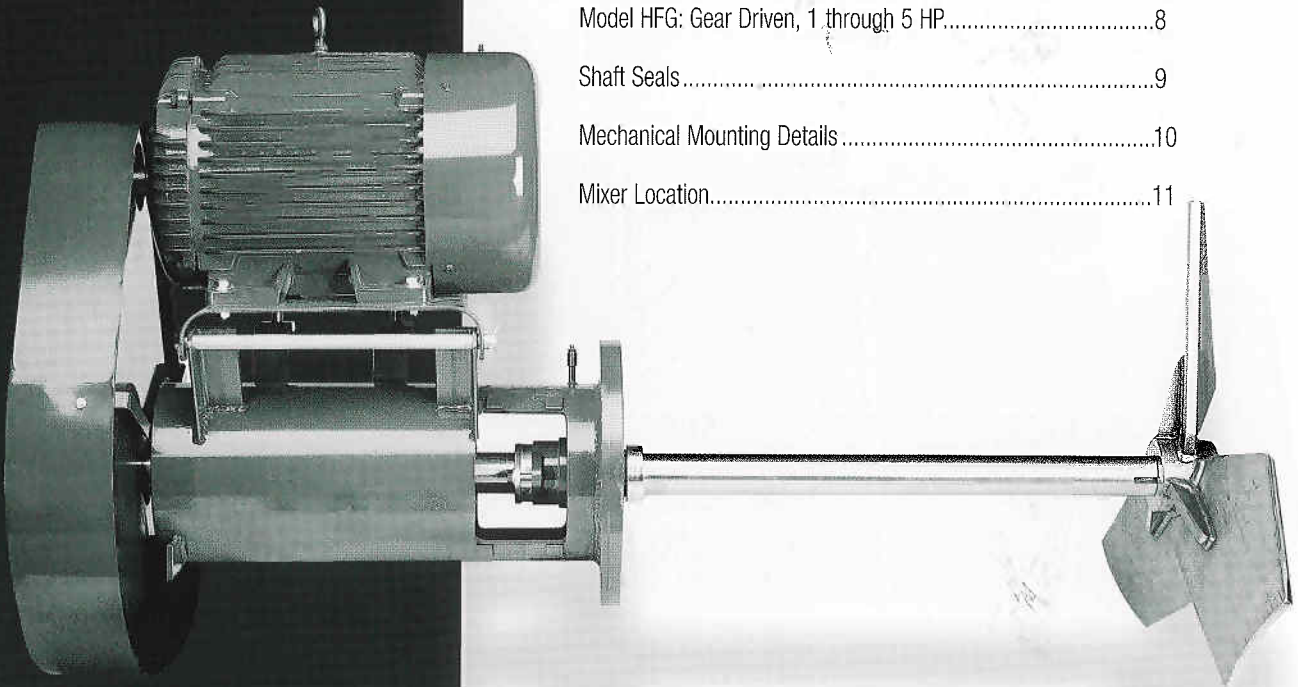


# SIDE ENTERING MIXERS...

**MixMOR**®



Agriculture  
 Automotive  
 Asphalt  
 Brewing & Distilling



## TABLE OF CONTENTS

Model HV: Belt Driven, 1 through 60 HP.....4  
 Model HG: Gear Driven, 1 through 60 HP.....6  
 Model HFG: Gear Driven, 1 through 5 HP.....8  
 Shaft Seals.....9  
 Mechanical Mounting Details.....10  
 Mixer Location.....11

Chemical &  
 Petrochemicals  
 Dairy  
 Explosives & Munitions  
 Fats & Oils  
 Fertilizers  
 Food & Beverage  
 Petroleum Refining  
 Pulp & Paper  
 Soap Products  
 Water Treatment  
 Wastewater Treatment

## SIDE ENTERING MIXERS

Side entering mixers are well suited for blending, storage and off-bottom solid suspension applications. They are commonly used in industries such as asphalt, petroleum, crude oil, gasoline, chemical, edible oil and paper mills. Because of their low initial cost and easy installation, side entering mixers are often preferred for larger tanks where mixing is easily accomplished or for large storage tank applications.

## PROVEN PERFORMANCE

Performance has been our doctrine for five decades because we understand that our users' profits are adversely affected when mixer problems lead to substandard products or production downtime.

Consequently, we build every MixMor mixer to the highest design and manufacturing standards, which enable us to guarantee its performance when used in accordance with our recommendations. Here are some of the reasons behind our confidence in our mixers.

### **Process Performance**

We provide the optimum energy efficient mixer for each application while, at the same time, providing the degree of agitation necessary for the required process results. We do not oversize the mixer to protect our process warranty. In today's energy-conscious world, our recommended mixers conserve energy while minimizing your operating cost. Our representatives will provide engineering assistance to define the application requirements and accurately outline the process.

### **Performance in Design**

All designs are based on conservative engineering standards, simplicity, and ease of maintenance. Modified or special mixers are designed and manufactured to the same standards.

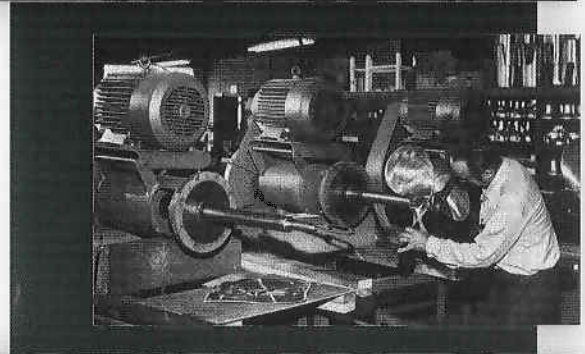
### **Manufacturing Performance**

We manufacture all MixMor mixer components at our own plant rather than trust them to outside job shops. All work is performed under strict quality control procedures and every mixer is test-run before final approval for shipment.

### **After-the-Sale Performance**

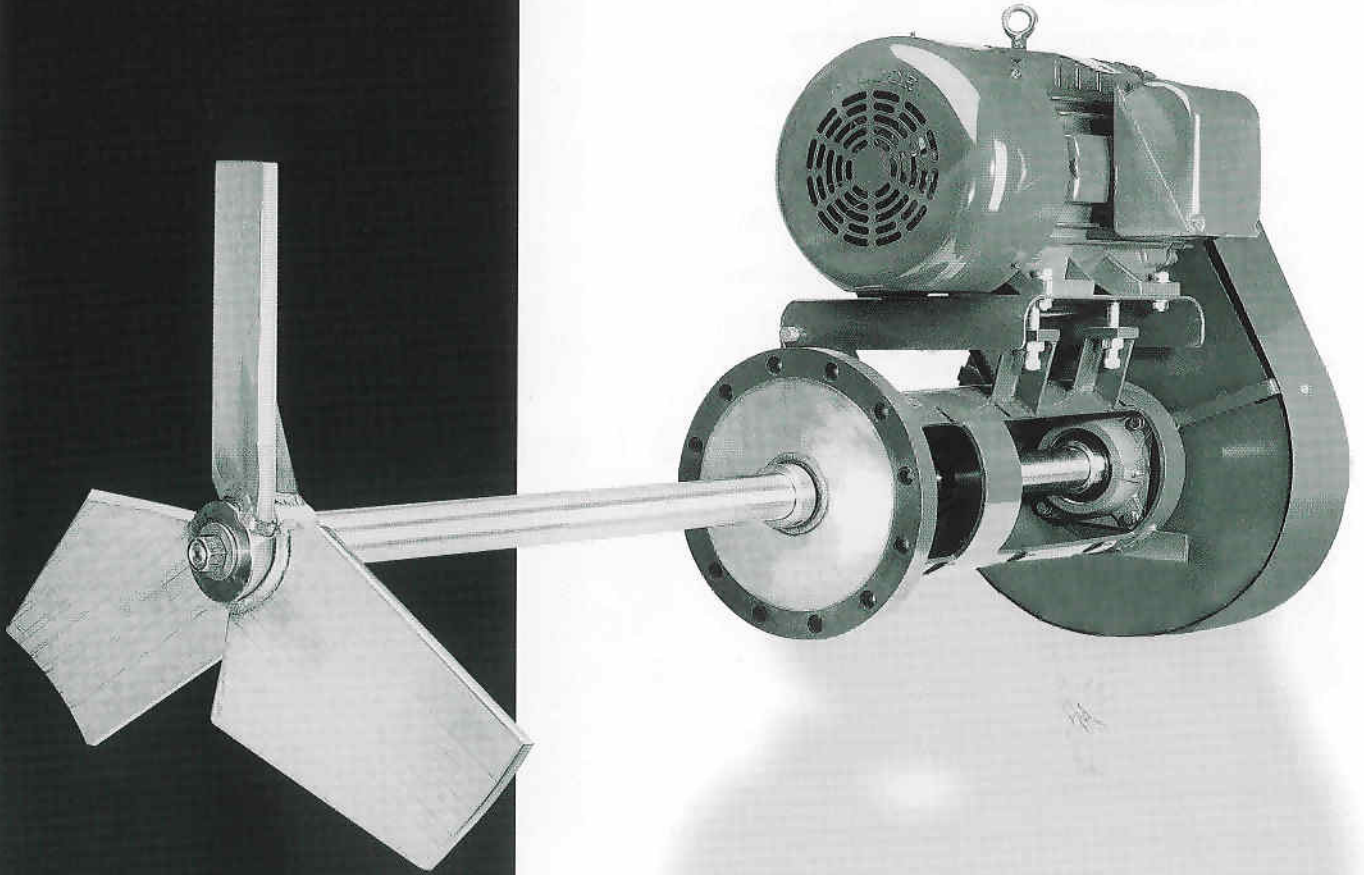
Comprehensive service instructions and spare parts lists are furnished with every mixer. All commercially available parts, such as, standard NEMA frame motors, bearings, belts, and sheaves can be replaced from our stock or purchased from your local power transmission parts house. When requested, MixMor representatives will provide start-up assistance.

These are just a few of the reasons why MixMor mixers stay on the job when the going gets tough...and why satisfied users consistently come back to MixMor for their mixer requirements. They know they can count on MixMor for dependable performance.

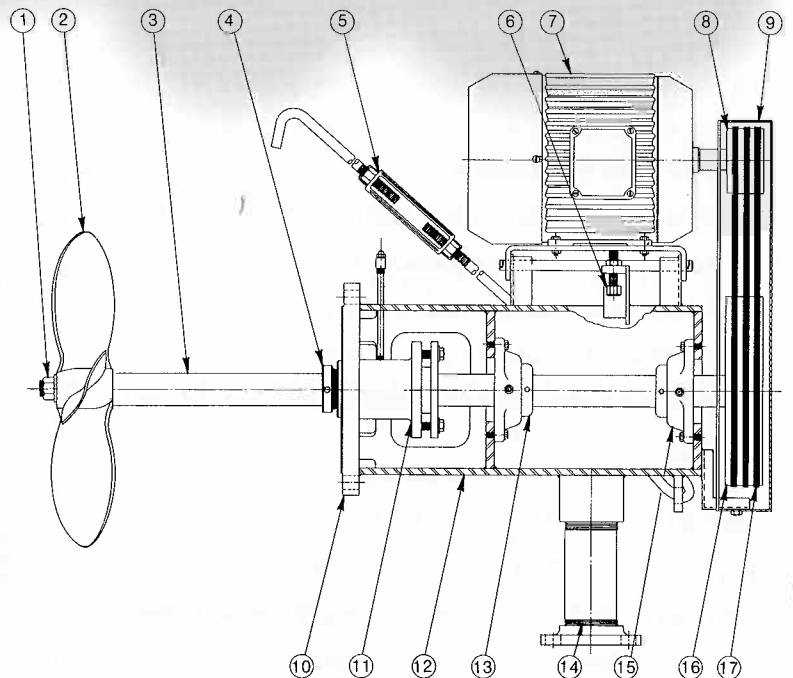


# MODEL HV

Belt Driven - 1 to 60 HP



- 1. Self-locking Nut
- 2. Impeller
- 3. Shaft
- 4. Seal-off Collar
- 5. Tie Rod & Turnbuckle
- 6. Belt Adjustment Screw
- 7. Motor
- 8. Drive Sheave
- 9. Guard
- 10. ANSI Mounting Flange
- 11. Shaft Bearing
- 12. Welding Housing
- 13. Shaft Bearing
- 14. Pedestal Base (optional)
- 15. Shaft Bearing
- 16. Driven Sheave
- 17. "V" Belts



# RUGGED & VERSATILE

The MixMor Model HV is an all-welded construction, "V" belt driven mixer which simplifies maintenance. It is extensively used in asphalt, chemical, food and other processing industries. Its heavy-duty construction assures long life with minimum maintenance. Standard output speeds are 280 and 420 rpm; however, other speeds are available as required by the application.

## Standard Components

Contributing to the success of the Model HV is the fact that many of its components, such as motors, "V" belts, bearings, and sheaves are commercially available and can be purchased locally.

## Built-in Reliability

All components are selected for maximum reliability and durability. Motors are NEMA standard 1800 and 1200 rpm foot mounted manufactured by well-known companies and furnished in all enclosures. Bearings are heavy-duty, deep-groove ball bearings which provide high radial and thrust load capacity. Every Model HV is run during final inspection before shipment.

## Impellers

Mixing applications have different process requirements and that is why MixMor uses a variety of impeller types. FloMor FM3 and FM3W high-efficiency foil impellers, Square Pitch PS3, and Hi-Pitch PH3 propellers are utilized to suit the process.

## Safety

The Model HV runs quietly, meeting or exceeding noise level standards. Belts and sheaves are enclosed in guards designed to comply with safety standards.

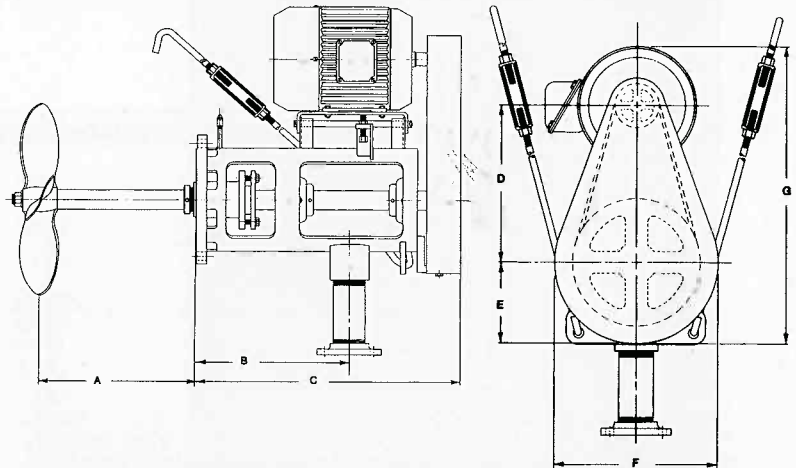
## Seals

Mixers can be furnished with single or double mechanical seals or conventional packed stuffing boxes with quenching, flushing or water jacket options. Optional designs facilitate seal maintenance with a full tank.

## Highly Adaptable

Wetted parts can be furnished in special alloys as required. Mixer is furnished with tie rods and turnbuckles for mounting; however, pedestals of special supports including special mounts including types suitable for fiberglass tanks are available.

420 RPM OUTPUT												
MODEL	H.P.	SHAFT DIA.	PROP. DIA.	FLANGE SIZE	A	B	C	D	E	F	G	WT., LBS.
HV-1	1	1.5		8-150#	24	14	26	15.5	9	18	30	325
HV-1.5	1.5	1.5		8-150#	24	14	26	15.5	9	18	30	325
HV-2	2	1.5		8-150#	24	14	26	15.5	9	18	30	330
HV-3	3	1.5		8-150#	24	14	26	15.5	9	18	30	335
HV-5	5	2		8-150#	24	17.5	32	15.5	9	18	30	370
HV-7.5	7.5	2		8-150#	24	17.5	32	15.5	9	18	30	375
HV-10	10	2	To Suit Application	8-150#	24	17.5	32	15.5	9	18	30	380
HV-15	15	2.5		8-150#	24	17.5	32	15.5	12	24	32	390
HV-20	20	2.5		8-150#	24	17.5	32	15.5	12	24	32	420
HV-25	25	2.5		8-150#	24	17.5	34	17.5	12	24	34	420
HV-30	30	2.5		10-150#	30	25	40	25	18	36	56	440
HV-30	30	3		12-150#	30	25	40	25	18	36	56	475
HV-40	40	3		12-150#	30	25	40	25	18	36	56	490
HV-50	50	3		12-150#	30	25	40	25	18	36	56	520
HV-60	60	3		12-150#	30	25	40	25	18	36	56	525

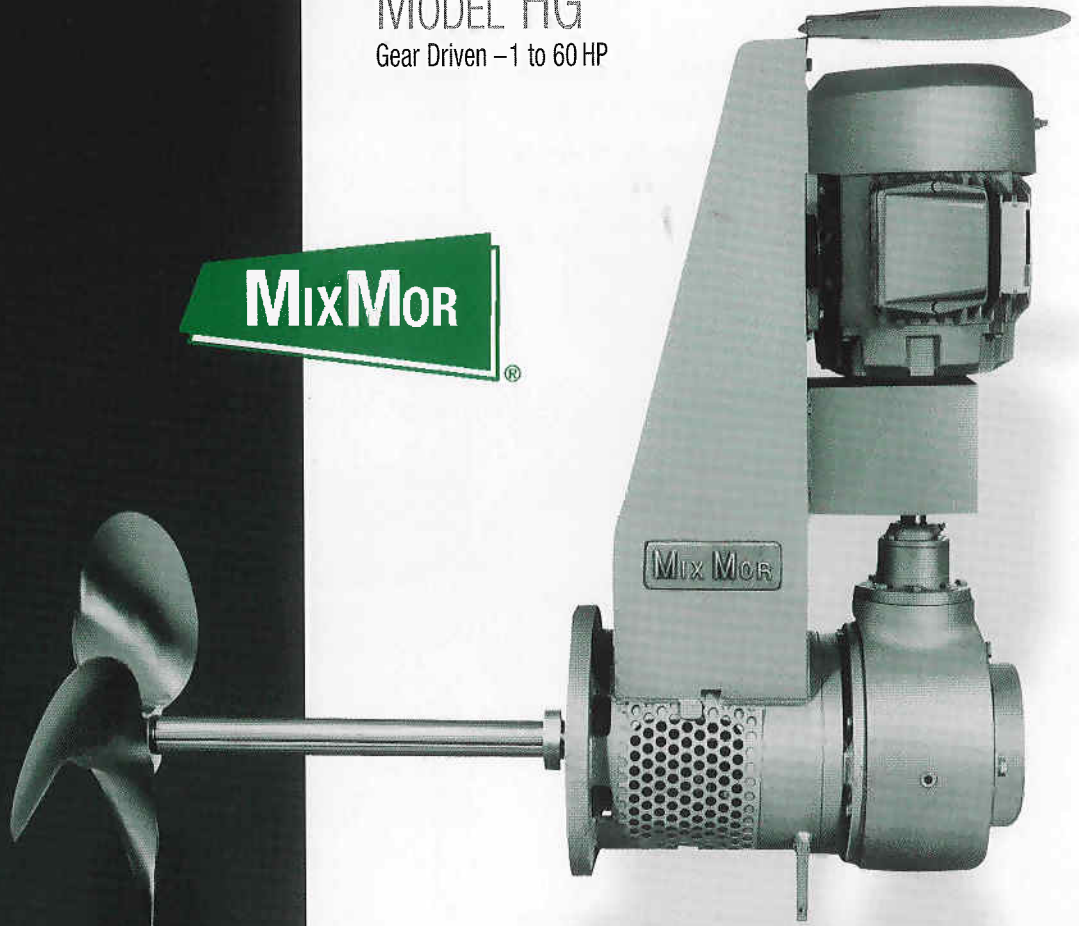


280 RPM OUTPUT												
MODEL	H.P.	SHAFT DIA.	PROP. DIA.	FLANGE SIZE	A	B	C	D	E	F	G	WT., LBS.
HV-1	1	2		8-150#	24	17.5	32	15.5	9	18	30	365
HV-1.5	1 1/2	2		8-150#	24	17.5	32	15.5	9	18	30	365
HV-2	2	2		8-150#	24	17.5	32	15.5	9	18	30	370
HV-3	3	2		8-150#	24	17.5	32	15.5	9	18	30	375
HV-5	5	2		8-150#	24	17.5	32	15.5	9	18	30	410
HV-7.5	7.5	2		8-150#	24	17.5	32	15.5	12	18	32	415
HV-10	10	2	To Suit Application	8-150#	24	17.5	32	15.5	12	24	32	420
HV-10	10	2.5		10-150#	24	17.5	32	15.5	12	24	32	430
HV-15	15	2.5		10-150#	24	17.5	34	15.5	12	24	34	430
HV-20	20	2.5		10-150#	26	17.5	34	17.5	12	24	34	460
HV-25	25	2.5		10-150#	26	25	40	25	21	42	56	460
HV-25	25	3		12-150#	30	25	40	25	21	42	56	480
HV-30	30	3		12-150#	30	25	41	25	21	42	56	480
HV-40	40	3		12-150#	30	25	42	25	21	42	56	530
HV-50	50	3		12-150#	30	25	42	25	21	42	56	560

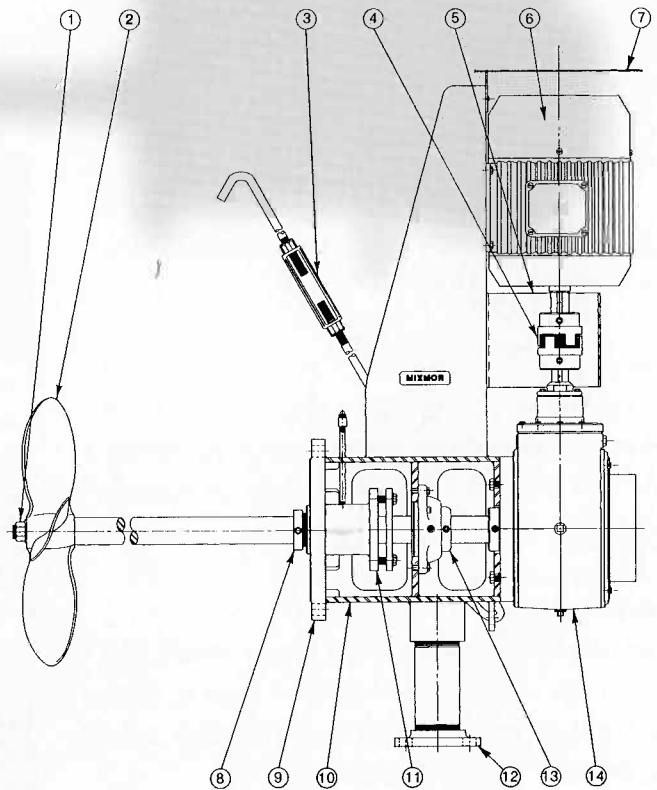
Dimensions, Inches. Dimensions are approximate.  
Certified dimensional prints furnished upon request. Weights are less motor.

# MODEL HG

Gear Driven - 1 to 60 HP



- 1. Self-locking Nut
- 2. Impeller
- 3. Tie Rod & Turnbuckle
- 4. Flexible Coupling
- 5. Guard
- 6. Motor
- 7. Motor Cover
- 8. Seal-off Collar
- 9. ANSI Mounting Flange
- 10. Welding Housing
- 11. Shaft Seal
- 12. Pedestal Base (optional)
- 13. Shaft Bearing
- 14. Gear Reducer



# DEPENDABLE & PROVEN

The MixMor Model HG is a dependable, rugged, gear driven side entering mixer which will provide years of continuous trouble-free service while efficiently handling a wide range of applications. Standard output speeds are 280 to 420 rpm; however, other speeds are available as required by the application.

## Motors

All motors are NEMA standard 1800 and 1200 rpm manufactured by well known companies and furnished in all enclosures to suit the environment.

## Frame

The frame is an all-welded fabricated steel assembly guaranteeing accurate alignment of all components. The gear reducer and shaft bearing have rabbet fits to ensure ease of maintenance and concentric running shafts through the seal area.

## Gear Reducer

All reducers are heavy-duty spiral bevel. They are designed and manufactured specifically for high loads, which are found in mixer service. Housings are cast iron and the shafts run on oversize, heavy-duty bearings. Lubrication oil in the housing reservoir is automatically directed by splash to bearings and gears. The reducer is manufactured to AGMA standards and is conservatively applied to assure extended gear and bearing life.

## Seals

Mixers can be furnished with single or double mechanical seals or conventional packed stuffing boxes with quenching, flushing or water jacket options. Optional designs facilitate seal maintenance with a full tank.

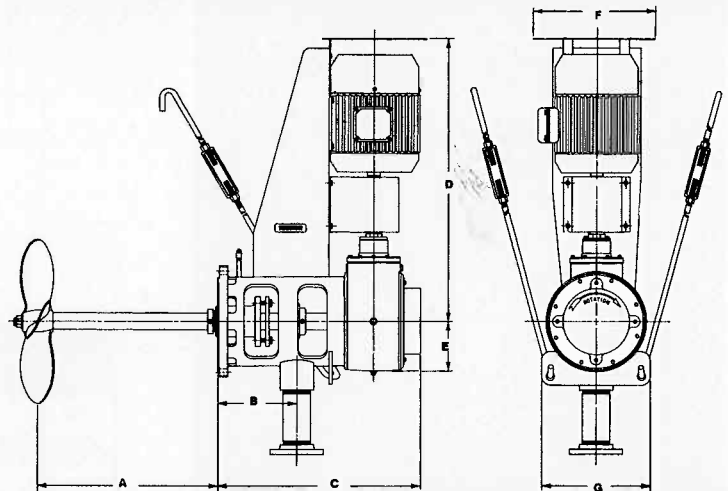
## Impellers

Mixing applications have different process requirements and that is why MixMor uses a variety of impeller types. FloMor FM3 and FM3W high-efficiency foil impellers, Square Pitch PS3 and Hi-Pitch PH3 propellers are utilized to suit the process.

## Flexibility

The Model HG, as all MixMor Mixers, can be furnished with a large variety of options and special modifications to meet any process, mechanical or environmental condition. Shafts and impellers are available in any machinable alloy.

420 RPM OUTPUT												
MODEL	H.P.	SHAFT DIA.	PROP. DIA.	FLANGE SIZE	A	B	C	D	E	F	G	WT., LBS.
HG-1	1	1.5	To Suit Application	8-150#	24	8.5	23	27.5	5	7.5	13	415
HG-1.5	1.5	1.5		8-150#	24	8.5	23	27.5	5	7.5	13	415
HG-2	2	1.5		8-150#	24	8.5	23	27.5	5	7.5	13	420
HG-3	3	1.5		8-150#	24	8.5	23	31	5	9.5	13	425
HG-5	5	2		8-150#	24	8.5	23	31	6	9.5	13	513
HG-7.5	7.5	2		8-150#	24	8.5	23	33	6	10.5	13	518
HG-10	10	2		8-150#	24	8.5	23	33	6	10.5	13	523
HG-15	15	2.5		8-150#	24	8.5	24	41	6	12.5	13	633
HG-20	20	2.5		8-150#	24	8.5	24	41	6	12.5	13	563
HG-25	25	2.5		8-150#	24	8.5	24	43	6	14	13	563
HG-30	30	2.5		10-150#	30	8.5	28	49	9	14	16	780
HG-30	30	3		12-150#	30	8.5	49	53	9	14	16	795
HG-40	40	3	12-150#	30	11	28	53	9	16	16	830	
HG-50	50	3	12-150#	30	11	28	53	9	16	16	860	
HG-60	60	3	12-150#	30	11	28	56	9	17.5	18	865	

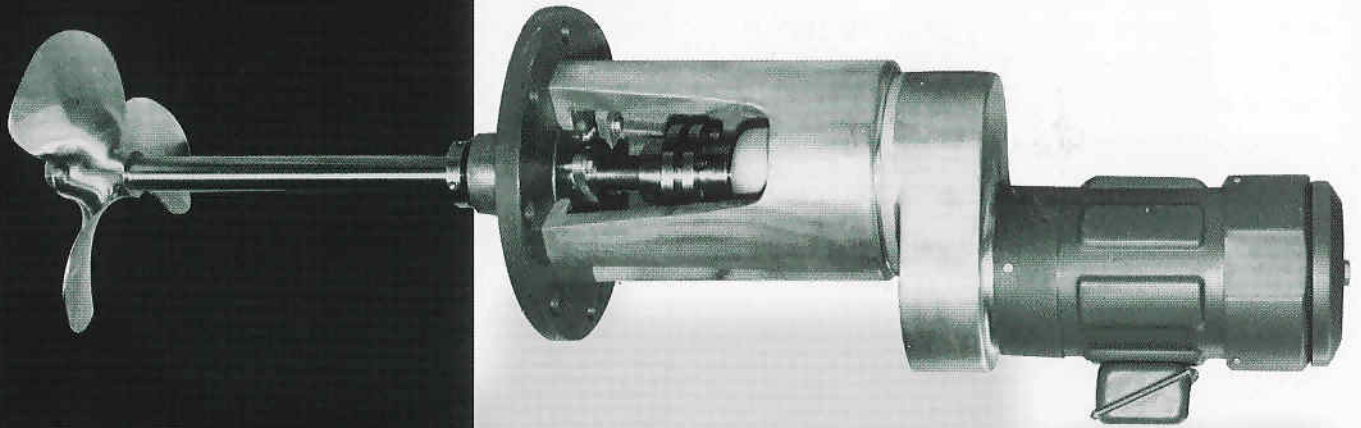


280 RPM OUTPUT												
MODEL	H.P.	SHAFT DIA.	PROP. DIA.	FLANGE SIZE	A	B	C	D	E	F	G	WT., LBS.
HG-1	1	2	To Suit Application	8-150#	24	8.5	23	27.5	6	7.5	13	508
HG-1.5	1 1/2	2		8-150#	24	8.5	23	31	6	9.5	13	508
HG-2	2	2		8-150#	24	8.5	23	31	6	9.5	13	513
HG-3	3	2		8-150#	24	8.5	23	33	6	10.5	13	518
HG-5	5	2		8-150#	24	8.5	23	33	6	10.5	13	553
HG-7.5	7.5	2		8-150#	24	8.5	23	41	6	12.5	13	558
HG-10	10	2.5		8-150#	24	8.5	23	41	6	12.5	13	563
HG-10	10	2.5		10-150#	24	8.5	24	41	6	12.5	16	573
HG-15	15	2.5		10-150#	24	8.5	24	43	6	14	16	573
HG-20	20	2.5		10-150#	26	8.5	24	53	6	14	16	603
HG-25	25	2.5		10-150#	26	11	26	53	9	16	16	800
HG-25	25	3		12-150#	30	11	28	53	9	16	16	820
HG-40	40	3	12-150#	30	11	28	53	9	16	16	820	
HG-50	50	3	12-150#	30	11	28	56	9	17.5	16	870	
HG-60	60	3	12-150#	30	11	28	66	9	17.5	16	900	

Dimensions, Inches. Dimensions are approximate. Certified dimensional prints furnished upon request. Weights are less motor.

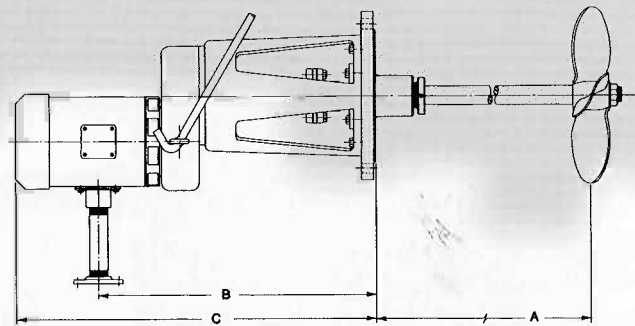
# MODEL HFG

Gear Driven -1 to 5 HP



## Model HFG Efficient & Compact

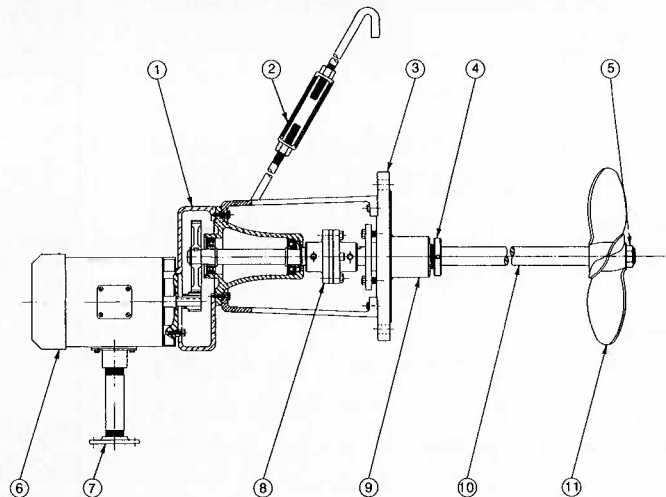
The MixMor Model HFG occupies a minimum of space utilizing a single reduction helical reducer. The reducer is grease lubricated for life with output speeds of 280, 350 & 420 rpm. Motors are NEMA "C" face available in all enclosures. The Model HFG offers the same impellers, seals and high quality as our other models.



MODEL	H.P.	SHAFT DIAMETER	IMPELLER DIAMETER	FLANGE SIZE	A	B	C	WT., LBS.
HFG-1	1	1 1/2	To Suit Application	8-150#	22	23	30	150
HFG-1.5	1 1/2	1 1/2		8-150#	22	23	30	155
HFG-2	2	1 1/2		8-150#	22	24	30	163
HFG-3	3	1 1/2		8-150#	22	24 1/2	31	190
HFG-5	5	1 1/2		8-150#	22	24 1/2	31	202

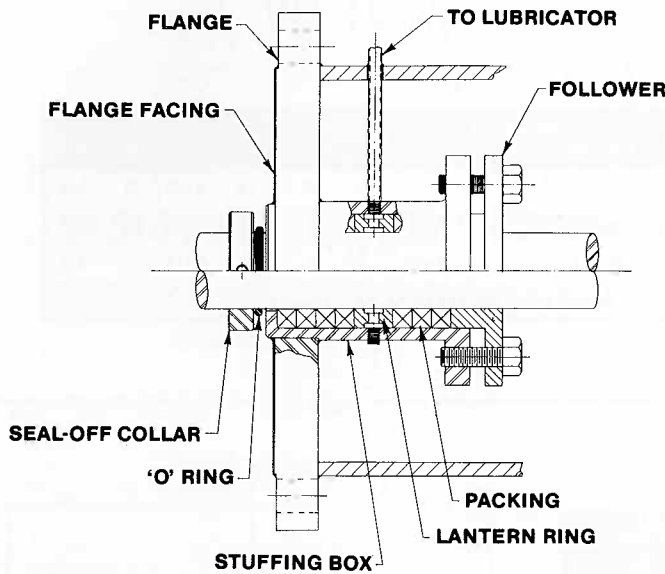
Dimensions, Inches. Dimensions are approximate.  
Certified dimensional prints furnished upon request.

- 1 Gear Reducer
- 2 Tie Rod & Turnbuckle
- 3 ANSI Mounting Flange
- 4 Seal-off Collar
- 5 Self-locking Nut
- 6 Motor
- 7 Pedestal Base (optional)
- 8 Flange Coupling
- 9 Shaft Seal
- 10 Shaft
- 11 Impeller



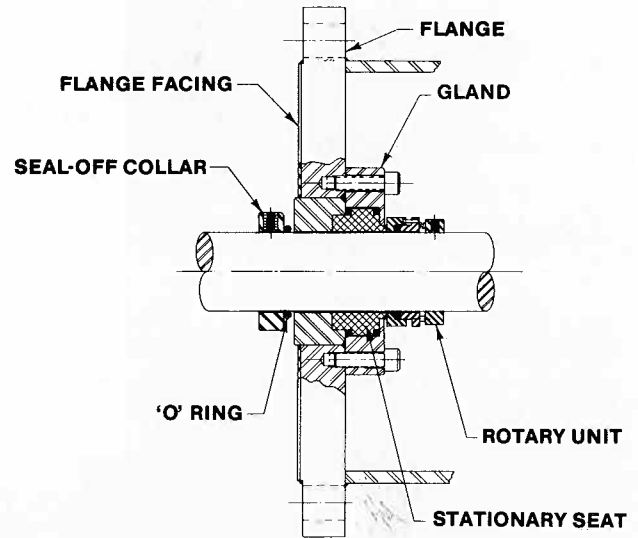
# SHAFT SEALS

Mixers can be furnished with single or double mechanical seals or a conventional packed stuffing box. Customer preference to the manufacturer or type of mechanical seal or packing can normally be accommodated. A seal-off device to permit replacement of the seal, while the tank is full, is standard with packed stuffing boxes, optional with mechanical seals.



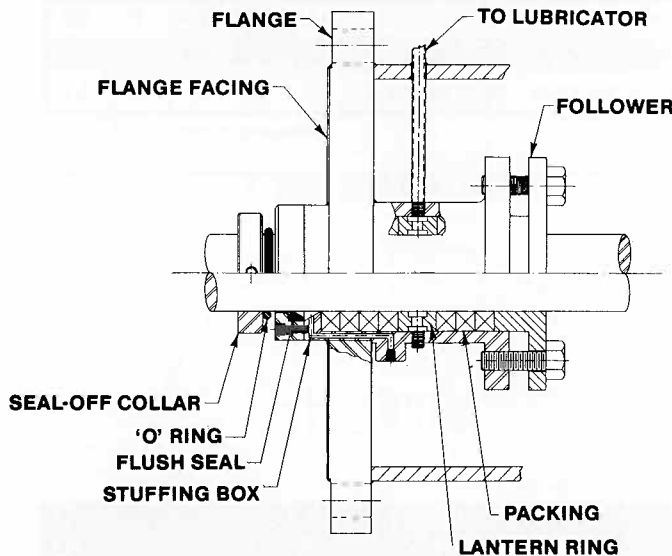
**Packed Stuffing Box**

Packed stuffing box uses 7 rings of packing, a lantern ring for lubricant distribution and follower for packing adjustment. Packing can be replaced while the tank is full. Different packing types and designs are available for practically any application.



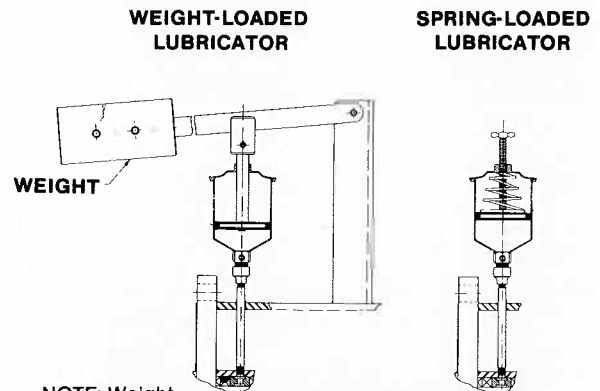
**Mechanical Seal**

Single balanced outside mechanical seals can be furnished on any of the mixer models. Models HV and HG are available with a seal design which permits their replacement without the need to empty the tank. Double mechanical seals are also available.



**Waterflush Stuffing Box**

This seal design is the same as the packed stuffing box with the addition of a waterflush feature. It is designed to assist in keeping solids that are in the product from entering the stuffing box and causing premature shaft and/or packing failure due to abrasion.

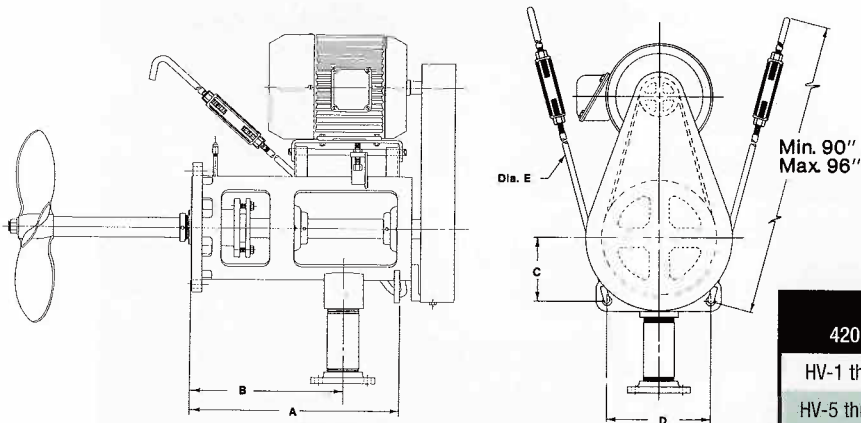


NOTE: Weight arm rotated 90° for illustration.

**Stuffing Box Lubricators**

Either of these optional lubricators are available on any of the mixer models. They maintain constant pressure on the packing lubricant, forcing it into the lantern ring for the best possible packing/shaft life. The weight loaded lubricator gives an inherent visual aid in checking the amount of lubricant in the cup.

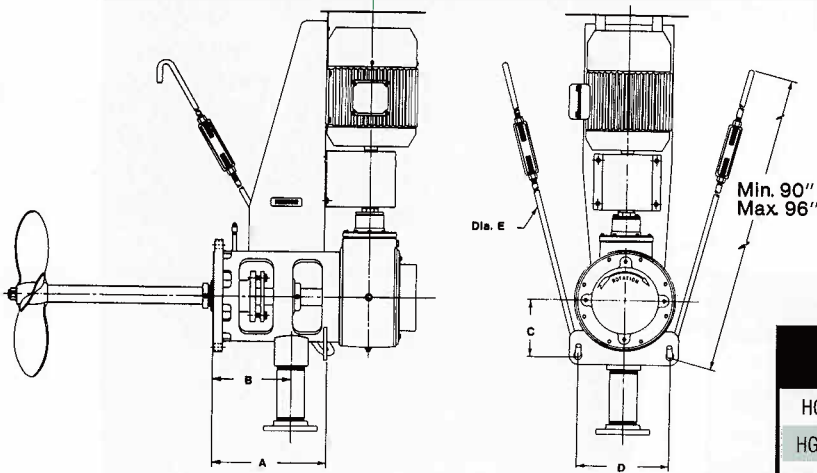
# MECHANICAL MOUNTING DETAILS



## MODEL HV

MIXER MODEL		A	B	C	D	E
420 RPM	280 RPM					
HV-1 thru HV-3		20	14	65/8	11	5/8
HV-5 thru HV-30	HV-1 thru HV-20	26	17 1/2	65/8	11	5/8
	HV-40	30	21 1/2	91/4	13	3/4
HV-50 thru HV-60	HV-30 thru HV-60	32	23 1/2	91/4	13	3/4

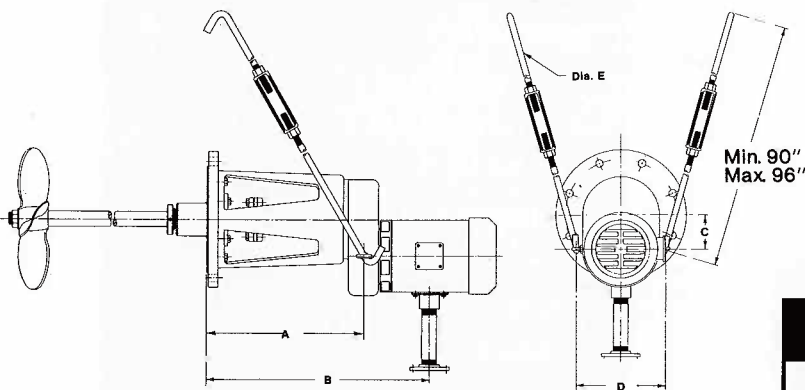
Dimensions, Inches



## MODEL HG

MIXER MODEL		A	B	C	D	E
420 RPM	280 RPM					
HG-1 thru HG-3		11 1/2	8 1/2	65/8	11	5/8
HG-5 thru HG-30	HG-1 thru HG-20	11 1/2	8 1/2	65/8	11	5/8
HG-40 thru HG-60	HG-25 thru HG-50	14	11	91/4	13	3/4

Dimensions, Inches



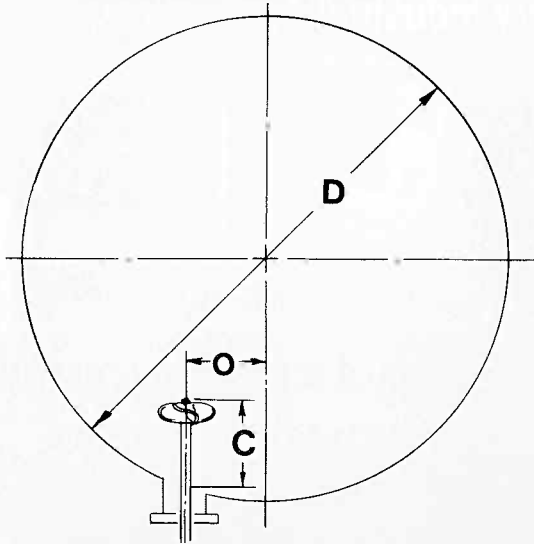
## MODEL HFG

MIXER MODEL	A	B	C	D	E
HFG-1 thru HFG-1.5	16 1/2	23	4 1/4	9 3/4	3/8
HFG-2	16 1/2	24	4 1/4	9 3/4	3/8
HFG-3 thru HFG-5	16 1/2	24 1/2	4 1/4	9 3/4	3/8

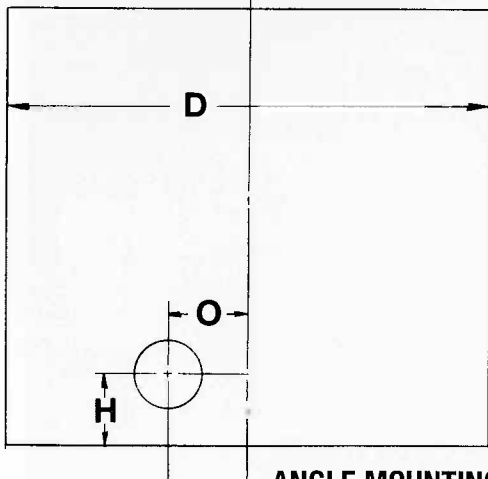
Dimensions, Inches

# MIXER LOCATION

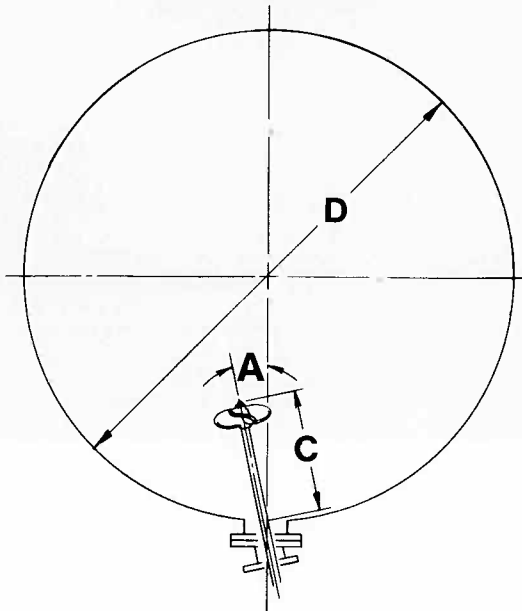
**OFF-SET MOUNTING**



**SIDE VIEW**



**ANGLE MOUNTING**



Side-entering mixers must be positioned correctly to insure top to bottom circulation and elimination of dead areas. Multiple mixers are used on large tanks. Two alternate methods of location are shown, angle and offset mount. Maximum efficiency is achieved when these parameters are followed.

"D" TANK DIAMETER	"O" OFFSET INCHES	"A" ANGLE	"H" BOTTOM CLEARANCE	"C" SIDEWALL CLEARANCE
Up to 40'	D/16	7°	1 Impeller Diameter Note 3	.75 Impeller Diameter Minimum
41' to 60'	D/14	8°		
61' to 90'	D/12	9°		
91' & Larger	D/11	10°		

**Notes:**

- 1) Angle is to left of tank centerline with right-hand impeller in clockwise rotation.
- 2) Distance from liquid level to mixer shaft centerline should be at least 2 impeller diameters.
- 3) Measured from tank bottom or tangent line to shaft centerline.

# GUARANTEE

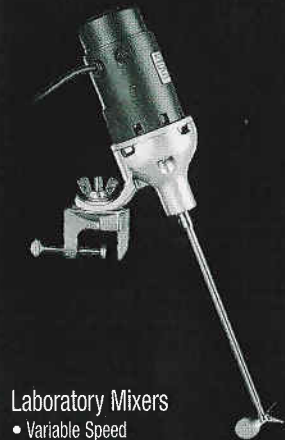
## MECHANICAL

MixMor guarantees materials and workmanship of all products for one year from date of shipment.

## PROCESS

All mixers are guaranteed for performance when their installation and use is in accordance with engineering recommendations made by MixMor.

## For Every Industrial Application



### Laboratory Mixers

- Variable Speed
- Constant Speed
- Speed Ranges 2 to 6000rpm
- Air and Electric
- Clamp and Stand Mounted



### Portable Clamp-on Mixers

- 1/4 to 5 HP... Electric, Air and Hydraulic Motors
- Direct Drive... 1150 & 1750 rpm
- Gear Drive... 230, 290, 350 & 420 rpm
- Constant and Variable Speed
- Clamp & Cup Mounted
- USDA Accepted Designs

### Fixed Mount-Top Entering Mixers

- 1/4 to 5 HP... Electric, Air and Hydraulic Motors
- Direct Drive... 1150 & 1750 rpm
- Gear Drive... 230, 290, 350 & 420 rpm
- Constant & Variable Speed
- Baseplate & Flange Mounted
- Low and High Pressure Stuffing Boxes
- Mechanical Seal Designs



# MixMor

3131 Casitas Avenue  
 Los Angeles, CA 90039  
 Tel: 323.664.1941  
 Fax: 323.660.5677  
 E-mail: info@mixmor.com  
 Website: www.mixmor.com



### Turbine Mixers

- 1/4 to 150 HP... Electric and Hydraulic Motors
- Constant & Variable Speed... 1 to 350 rpm
- Worm Gear, Helical/Worm... All Helical... Helical/Spiral Bevel
- Baseplate & Flange Mounted
- High & Low Pressure Stuffing Boxes
- Single & Double Mechanical Seals

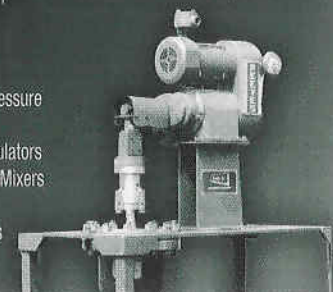
### Side Entering Mixers

- Chemical & Petrochemical Plant Designs
- 1 to 75 HP... Electric & Hydraulic Motors
- Belt & Gear Drives... 280, 350 & 420 rpm
- Constant & Variable Speed
- Fixed & Swivel, Flange & Cover Plate Mounted
- Stuffing Box & Mechanical Shaft seals



### Custom Mixers

- Pilot Plant Mixers
- High Temperature & Pressure Laboratory Reactors
- Redwood Paddle Flocculators
- Anchor, Ribbon & Gate Mixers
- Inline mixers
- Bottom Entering Mixers



## NATIONAL REPRESENTATIVES

Your Local Representative Is: