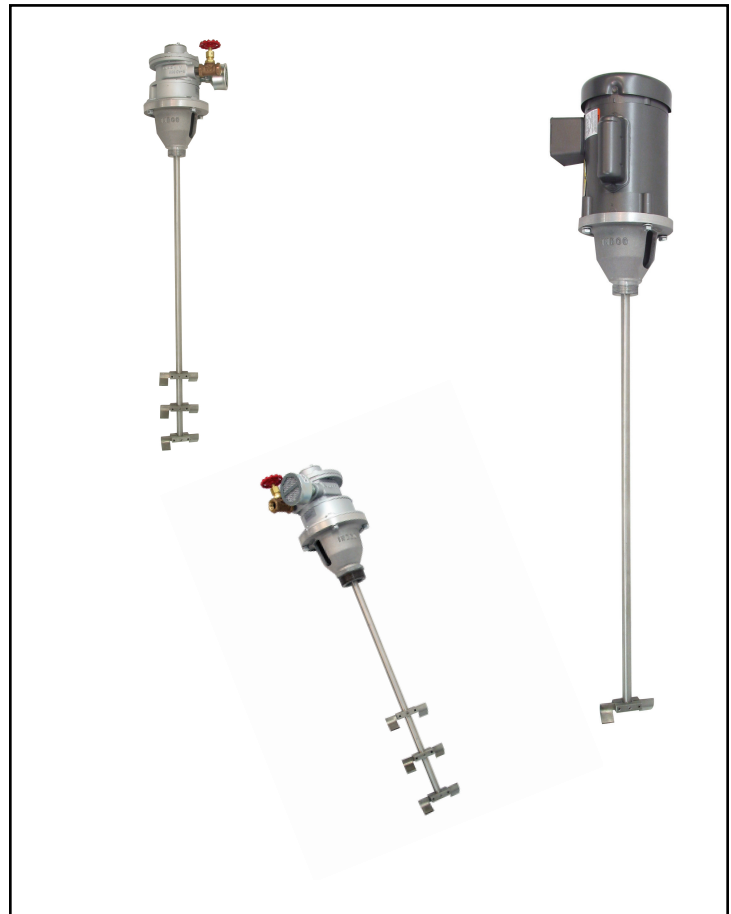


Bung Mount Series Mixers

OWNERSMANUAL

Warranty

Our products are guaranteed against defective materials and workmanship, we will repair or replace such items as may prove defective at our option. Warranty period is one year on items manufactured by INDCO, except for the MixMaster Series Shakers which carries a two year warranty. On items not manufactured by INDCO, the manufactures warranty applies. All component parts of our products are covered by this warranty, except for normal wear items such as belts or impellers. We cannot be responsible for damage or abuse to equipment caused by improper installation or operation. Warranties can also be voided by unauthorized disassembly of equipment. For warranty repairs, equipment is returned to INDCO at the customer's expense; we will repair and return to customer at our expense. Under no circumstances will we allow labor charges or other expense to repair defective merchandise. This warranty is exclusive and is in lieu of all other warranties, whether express or implied. INDCO shall not be liable for any other damages, whether consequential, indirect, or incidental, arising from the sale or use of its products.



Bung Mount Series Mixers Handheld Air Motor Drive

TABLE OF CONTENTS:

Safety & General	3
Operation.....	5
Maintenance.....	5
Parts List	6-9

4040 Earnings Way • New Albany, IN 47150
P: 812-941-5954 F: 812-944-9742
INDCO.COM • INFO@INDCO.COM

BU(G) Series Bung Mount Mixers

Model: _____

Serial No.: _____

Date: _____

Order No.: _____

100 - Motor:

Part No.: _____

HP: _____ RPM: _____

volts: _____ cycles: _____ phase: _____

frame: _____ enclosure: _____

200 - Gear Box: (BUG series only)

G.Box Part No.: _____

RPM output _____

300 - Shaft:

Diameter _____

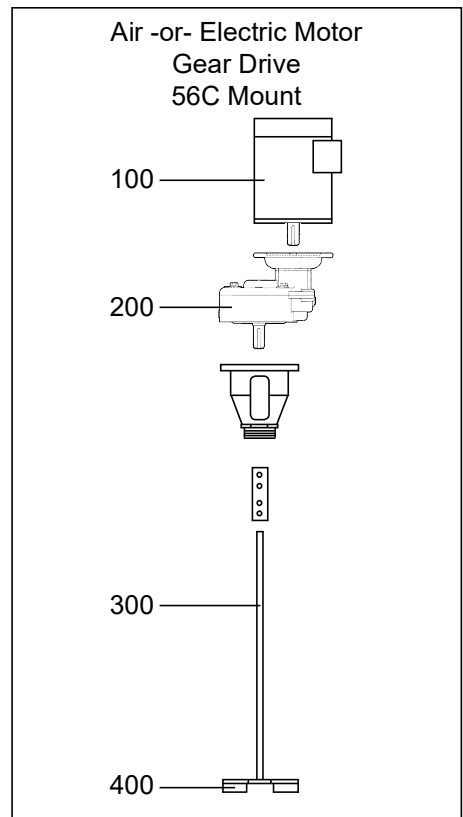
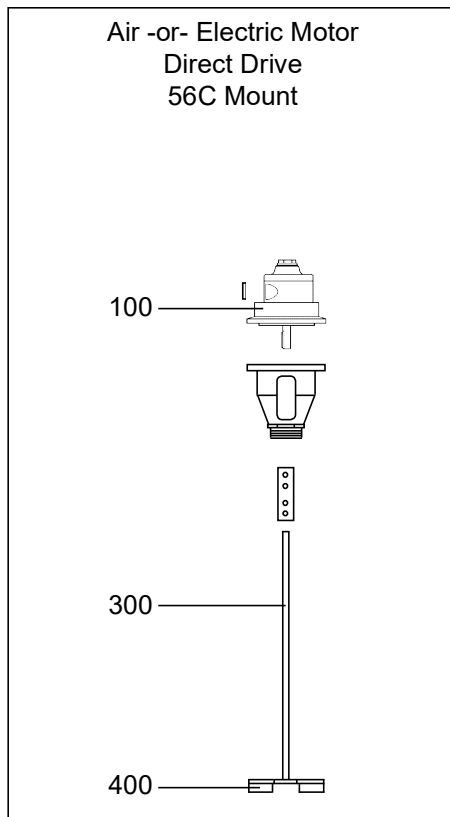
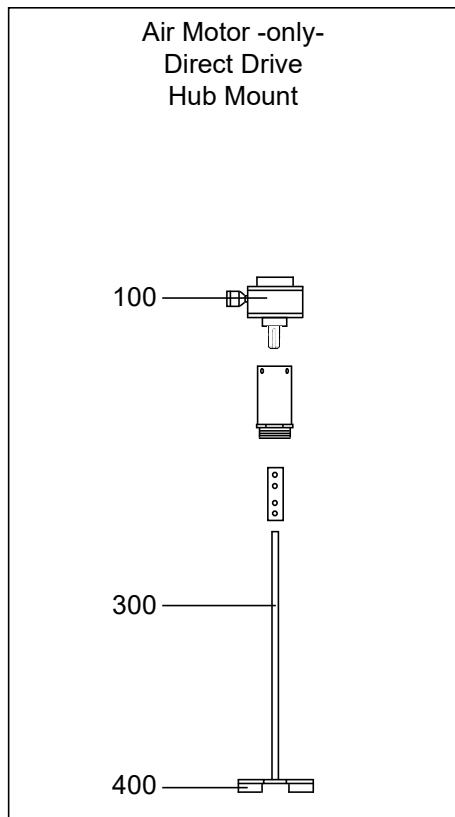
• Total length _____

• Length exposed _____

400 - Impellers:

Diameter _____

Type _____



Safety

Please follow the below safety precautions. If there are any questions, please call INDCO at 800-942-4383.

Please read this complete manual before trying to operate your mixer. Failure to follow these instructions could result in serious bodily injury or death.

- Do not touch moving parts while mixer is operating. Do not wear loose-fitting clothes or jewelry around an operating mixer. Keep all hands, feet, clothes, neckties, necklaces and other objects clear of moving parts.
- Never move the unit without a suitable lifting device.
- Have a qualified individual bring power to your unit.
- Always ground the unit. Never use an extension cord.
- Never run the unit in open air.
- Never adjust the speed without the unit running.
- Always lockout the power when working on the unit.

Electric Motor Safety:

Motors should be installed, protected and fused in accordance with latest issue of National Electrical Code, NEMA Standard Publication No. MG 2 and local codes. Frames and accessories of motors should be grounded in accordance with National Electrical Code (NEC) Article 430. For general information on grounding refer to NEC Article 250.

Not all rotating parts are guarded. Keep hands and clothing away from moving parts.

Trained, qualified personnel should make electrical repairs and non-standard connections.

If environment has hazardous combustible fumes present, use only explosion-proof electric motors.

Air Motor Safety:

The air motor is designed to be driven by compressed air and under no circumstances be driven with any other gases. Fluids, particles, solids or any substance mixed with air, particularly combustible substances likely to cause explosions, must not drive air motor.

- Do not drive with flammable or explosive gases or operate unit in an atmosphere containing them.
- Air motor is designed for air only. Do not allow corrosive gases or particulate material to enter motor. Water vapor, oil-based contaminants, or other liquids must be filtered out.
- Do not use a hammer or force coupling or drive pulley onto shaft when installing drive onto air motor. This causes end thrust that could damage air motor.
- Ambient temperature should not exceed 250°F.
- Beware of any exposed and/or movable parts. Proper guards should be in place to prevent personal and/or property damage.
- Solid or liquid material exiting unit can cause eye or skin damage. Keep away from air stream.
- Always disconnect air supply before servicing.
- Do not allow air motor to "run free" at high speeds with no loads. Excessive internal heat build-up, loss of internal clearances and rapid motor damage will result.
- Some models may exceed 85dB(A) sound level.

General

- Single-phase TEFC models include cord, plug and switch.
- EP models must be wired in the field by the user.
- DC-Variable-Speed electric models have a controller mounted to the mixer and they are pre-wired.
- Air motors include exhaust muffler.

BU - Bung Mount Series

Direct Drive Models - These direct drive mixers are ideal for mixing and blending low to medium viscosity materials or for resuspending settled solids. They screw directly into a 2" NPT bung opening allowing quick mounting on almost any steel drum. All models come with 2-blade folding impellers, which fit easily through all 2" NPT openings.

BUG - Bung Mount Series

Gear Drive Models - The heavy duty 5:1 ratio helical gearbox drive provides plenty of torque for all sorts of tough jobs. They will quickly mix drums of higher viscosity liquids like heavy paints, resins, polymers, etc., as well as resuspend settled materials. As with the direct drive models above, they screw into a 2" NPT bung opening. They too, come with stainless steel folding impellers that will fit through the

Receiving

Before removing any packing, visually inspect the exterior of the shipment for any sign of damage. Should there be any damage, bring it to the attention of the delivering UPS or truck line and note the same on the receiving ticket. Should there be damage you must place a claim with the truck line.

They are the only ones who will pay for the damage done and you are the only one who can place that claim.

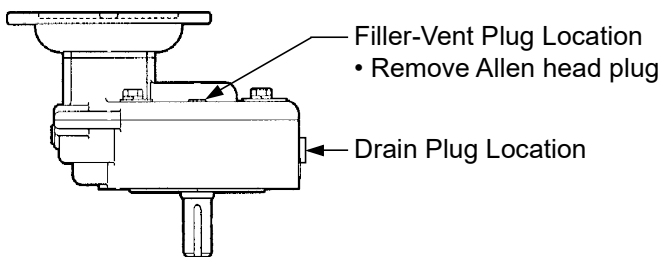
Installation

Your new mixer is supplied assembled complete except for the impeller(s) and impeller-shaft which have to be fitted to the machine before it's operational.

For more information, see the parts list pages for general arrangement drawings.

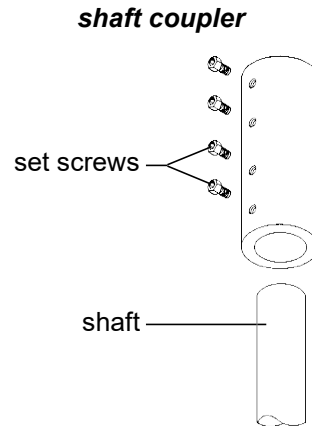
Gear Drive, BUG Series

- The gear box is filled with oil.
 - The brass plug supplied loose is a Filler-Vent Plug.
- After mounting the mixer, install the Filler-Vent Plug in the highest filler point as shown below.



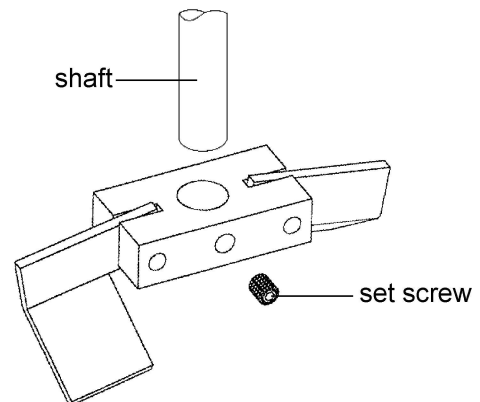
Shaft & Coupler

To install mixer shaft, back off the set screws as far as possible without removing them. Insert mixing shaft into the coupler as far as it will go. Tighten the set screws firmly to secure the shaft to the coupler.



Impellers

To install the impeller, back off the set screw(s) as far as possible without removing them. Insert mixing shaft into the bore and tighten the set screw(s) firmly to secure the shaft to the impeller.



Impeller Placement

For mixers with ONE impeller, mount it 1 to 2 impeller diameters distance off the bottom of mixing container.
For mixers with TWO or more impellers, mount the lowest impeller 1 to 2 impeller diameters distance off the bottom of mixing container. Mount the other impellers 1 to 2 impeller diameters apart. The uppermost impeller should be positioned approximately 1 impeller diameter under the surface of the liquid.

The above guidelines are "rules of thumb" and may not be the best for your situation. Experimenting with impeller placement may provide your best results.

Operation

Electric Power: Once the electric motor has been wired, check rotation to be sure the mixer shaft is rotating in a clockwise direction, looking downward into the container.

Air Power: Check to ensure the air valve is in the closed position, then connect air supply. Check rotation to be sure the mixer shaft is rotating in a clockwise direction, looking downward into the container.

Once the mixer is in the container, it is now safe to operate.

CAUTION:

- ✓ ***Never run mixer without a propeller.***
- ✓ ***Never run the propeller in open air.***
- ✓ ***Never run propeller outside a container.***
- ✓ ***Do not use Teflon Tape on any section of the air line or on the motor. Use of Teflon tape will void the warranty.***

Maintenance

Maintaining your mixer is not difficult if you follow these guidelines:

- Keep the mixer clean.
- Check all set-screws and fasteners, tighten as needed.
- Check all wiring on a regular basis and repair as needed.
- Air motor powered units:
 - Keep air supply dry and oil in the lubricator.

Lubrication:

Gear Drive Models:

The gear box contains oil from the factory. The recommended replacement oil is:

- Gearbox models #RPQ1 and RPQ2:
 - Mobil Extra Hecla
 - Shell Oil Omala 680
 - Texaco Meropa 680
 - or equivalent to above
 - For 50°F to 125°F ambient.
 - RPQ1 Oil capacity is 11 ounces.

Parts List - Drive Motors

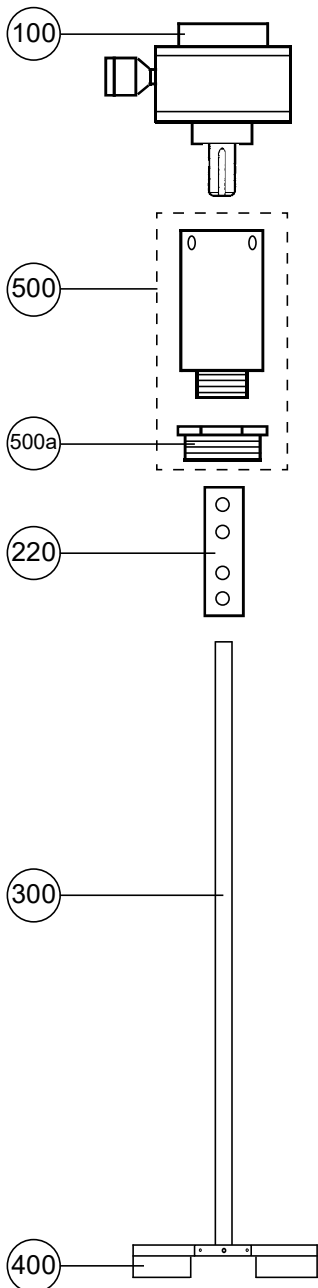
Item 100	Part No.	Description				
Air Motors	3/4 HP	MTR-3/4-HUB-AIR-CCW N-K202	Hub Mount - 3/4 HP Repair Kit*	(2AM-NCC-16) (2AM-NCC-16)	CCW rotation only	
		MTR-3/4-56C-AIR N-K510	56C Mount - 3/4 HP Repair Kit*	(2AM-NRV-90) (2AM-NRV-90)	bi-rotational	
		HDW-1/4-VALVE HDW-2502-SNB N-AL445 N-AC980	Needle valve, brass - 1/4" Pipe nipple, steel - 1/4" X 2" Muffler, plastic Muffler, metal			
	1.5 HP	MTR-1.5-HUB-AIR N-K205	Hub Mount - 1.5 HP Repair Kit*	(4AM-NRV-22B) (4AM-NRV-22B)	bi-rotational	
		MTR-1.5-56C-AIR N-K206A	56C Mount - 1.5 HP Repair Kit*	(4AM-NRV-50C) (4AM-NRV-50C)	bi-rotational	
		HDW-1/4-VALVE HDW-25-CNG N-AL445 N-AC980	Needle valve, brass - 1/4" Pipe nipple, steel - 1/4" X 7/8" Muffler, plastic Muffler, metal			
	4 HP	MTR-4-56C-AIR N-K208	56C Mount - 4 HP Repair Kit*	(6AM-NRV-11A) (6AM-NRV-11A)	bi-rotational	
		HDW-1/2-VALVE HDW-50-CNG N-AC990	Needle valve, brass - 1/2" Pipe nipple, steel - 1/2" X 1-1/8" Muffler, metal * Repair Kits include: Vanes, shaft seal, o-rings, DE & NDE bearings, body & end cap gaskets.			
	Electric Motors	1/4 HP	MTR-1/4-56C-1-EP	56C, fixed speed	1/4 HP Explosion-Proof	115/230VAC 1-phase
			MTR-1/4-56C-1-TEFC CPG-INLINE-18/3	56C, fixed speed Cord 18/3 - 6', plug and in-line ON-OFF switch	1/4 HP TEFC	115/230VAC 1-phase
		1/3 HP	MTR-1/3-56C-1-EP	56C, fixed speed	1/3 HP Explosion-Proof	115/230VAC 1-phase
			MTR-1/3-56C-1-TEFC CPG-INLINE-18/3	56C, fixed speed Cord 18/3 - 6', plug and in-line ON-OFF switch	1/3 HP TEFC	115/230VAC 1-phase
MTR-098004 MTR-DC-CONTROL CPG-18/3 MET-VSO-BRACKET			56C, variable speed DC motor controller, variable speed - 1/3 thru 2HP Cord 18/3 - 6' with plug Angle brackets, mounts v.s. controller to motor (2 req'd)	1/3 HP TEFC	115VAC to 90VDC 1-phase	

Parts List - Drive Motors (continued)

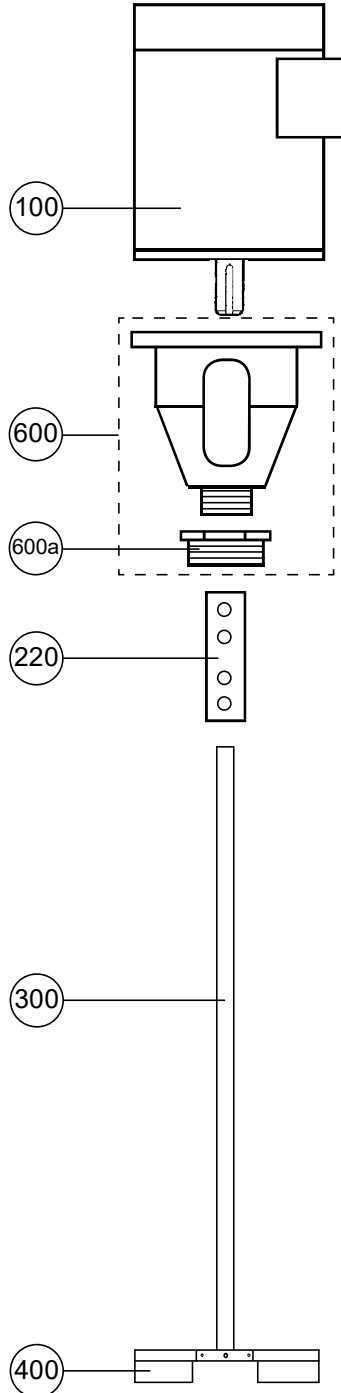
Item 100	Part No.	Description				
Electric Motors	1/2 HP	MTR-1/2-56C-1-EP	56C, fixed speed	1/2 HP Explosion-Proof	115/230VAC	1-phase
		MTR-1/2-56C-1-TEFC CPG-INLINE-18/3	56C, fixed speed	1/2 HP TEFC	115/230VAC	1-phase
		MTR-098000 MTR-DC-CONTROL CPG-18/3 MET-VSO-BRACKET	56C, variable speed	1/2 HP TEFC	115VAC to 90VDC	1-phase
			DC motor controller, variable speed - 1/3 thru 2HP			
	3/4 HP	MTR-3/4-56C-1-EP	56C, fixed speed	3/4 HP Explosion-Proof	115/230VAC	1-phase
		MTR-3/4-56C-1-TEFC CPG-14/3 SWT-TOGGLE SWT-GUARD	56C, fixed speed	3/4 HP TEFC	115/230VAC	1-phase
		MTR-108018 MTR-DC-CONTROL CPG-14/3 MET-VSO-BRACKET	56C, variable speed	3/4 HP TEFC	115VAC to 90VDC	1-phase
			DC motor controller, variable speed - 1/3 thru 2HP			
	1 HP	MTR-1-56C-1-EP	56C, fixed speed	1 HP Explosion-Proof	115/230VAC	1-phase
		MTR-1-56C-1-TEFC CPG-14/3 SWT-DP-TOGGLE SWT-GUARD	56C, fixed speed	1 HP TEFC	115/230VAC	1-phase
		MTR-108022 MTR-DC-CONTROL CPG-14/3 MET-VSO-BRACKET	56C, variable speed	1 HP TEFC	115VAC to 90VDC	1-phase
			DC motor controller, variable speed - 1/3 thru 2HP			

Parts List: BU(G) Series

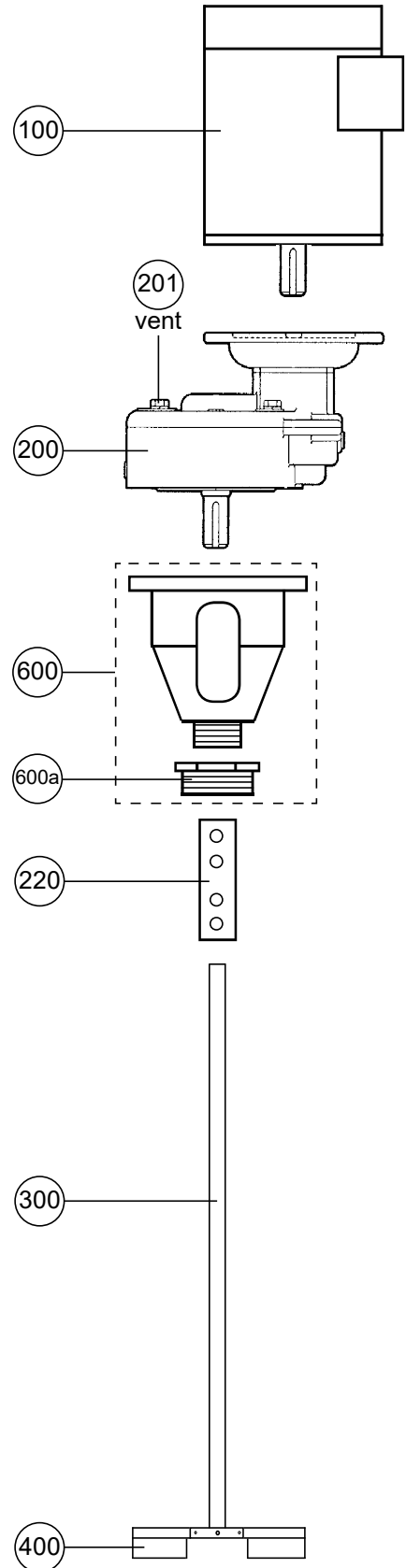
Air Motor -only-
Direct Drive
Hub Mount



Air -or- Electric Motor
Direct Drive
56C Mount



Air -or- Electric Motor
Gear Drive
56C Mount



Parts List: BU(G) Series

Item	Description	Part No.	Qty.
100.	Motor, air	see 'Parts List - Drive Motors'	1
100.	Motor, electric	see 'Parts List - Drive Motors'	1
200.	Gear Box, 5:1 ratio	HDW-GB-56C	1
200.	Gear Box, 5:1 ratio for: BUG-4A only	HDW-GB-56C-LG	1
201.	Vent, 1/4" MNPT - brass 1	HDW-4704-0004	
220.	Coupling - shaft, 1/2" bore x 5/8" bore - stainless	CPL-5062	1
220.	Coupling - shaft, 5/8" bore x 5/8" bore - stainless	CPL-6262	1
300.	Shaft - impeller, 5/8" dia. x 32" long - stainless	SS632	1
400.	Folding Impeller, 4" diameter with 5/8" bore - stainless	FP334	1,2,3
401.	Set screw, 1/4"-20 x 1/4" long - stainless	N-HARDWARE	2,4,6
Mounting Flange Assembly:			
500.	Hub Mount, air motors - cast aluminum w/ hex bushing	N-MNT-BUA	1
500a.	Hex Bushing, 1.5" x 2" - galvanized	HDW-2150-HB	1
600.	56C Face Mount, Air & Electric motors - cast alum. w/ hex bushing	N-MNT-BUE	1