



IMPORTANT READ ME FIRST



Thank you for purchasing your Kushlan Mixer. We hope that you will enjoy using it for many years to come.

SHOULD YOU REQUIRE ANY SET-UP OR OPERATING ASSISTANCE WITH YOUR PRODUCT,

DO NOT RETURN TO ORIGINAL PLACE OF PURCHASE.

- After referring to the operation manual, if you still require assistance, please consult our web site @ www.kushlanproducts.com
- From our web site you will be able to e-mail us directly.
- If you still require assistance, you may call our customer service department at:
- 1-800-469-4178.

Model 350W

Model 350WSB

and

Model 600W

MAY 2004



Kushlan Poly Pro Mixers



**ASSEMBLY & OPERATING
INSTRUCTIONS and
PARTS MANUAL**

For

Model 350W

&

Model 350WSB

&

Model 600W

!WARNING!

**DO NOT ATTEMPT TO START OR OPERATE THIS
MACHINE UNTIL ALL THE INSTRUCTIONS HAVE
BEEN READ AND UNDERSTOOD BY THE
OPERATOR. FAILURE TO DO SO COULD RESULT
IN SERIOUS BODILY INJURY AND/OR PROPERTY
DAMAGE**



! SAFETY ALERT SYMBOL

This safety alert symbol is used to attract your attention

! PERSONAL SAFETY IS INVOLVED

When you see this symbol, PAY EXTRA ATTENTION, BECOME ALERT – BE SURE TO HEED ITS MESSAGE. Failure to do so may lead to serious personal injury or damage may occur.

! WARNINGS AND SAFETY INSTRUCTION

If these warnings and safety instructions are not read and carefully followed, serious personal injury could occur.

WARNINGS

1. Do not use, start, or attempt to operate this machine until all of the instructions have been read and fully understood.
2. NEVER allow anyone to operate this machine unless the person is well acquainted with these rules of safe operation.
3. NEVER operate this machine without all guards in place and firmly attached to the machine.
4. Make certain that the mixing drum is clear of obstructions and stand clear of the machine while making power cord connections.
5. When cleaning, lubricating, or adjusting the mixer, disconnect the power plug.
6. Keep all people (except operator) a minimum of five (5) feet away from the machine during operation.
7. ALWAYS MAKE CERTAIN THAT THE MIXER IS CONNECTED TO A PROPERLY GROUNDED ELECTRIC CIRCUIT TO PROTECT THE OPERATOR FROM POSSIBLE ELECTRIC SHOCK.
8. DO NOT plug or unplug the motor while standing in or around damp or wet ground.
9. DO NOT start the motor if the drum is fully loaded.

10. DO NOT OVERLOAD THE MIXER.

11. NEVER attempt to move the mixer while the motor is on.

SAFETY INSTRUCTIONS

For the safety of yourself and others around you, it is extremely important that you observe the following notes.

1. Keep hands and clothing away from moving parts at all times.
2. DO NOT operate this machine under the influence of alcohol or while taking medication that impairs the senses or reactions.
3. Make certain that the work area around the machine is clear of debris and obstructions to prevent tripping and/or falling onto the machine.
4. Keep all unauthorized and untrained people away from the machine at all times.
5. NEVER let the mixer run unattended even for a brief moment. Turn off the motor when you leave the machine.
6. Only use or operate the mixer on level ground to prevent the mixer from tipping over.
7. DO NOT abuse the power cord; i.e. NEVER yank on the cord to disconnect it. Keep the cord away from heat, oil, and sharp edges.
8. DO NOT overreach while working with the mixer. Keep proper footing and balance at all times when loading or unloading the mixer.
9. NEVER allow children or inexperienced operators to operate or repair the mixer.
10. Use only factory authorized parts for replacement
11. Keep these operating instructions with the machine at all times.
12. ALWAYS wear safety glasses and safety shoes when operating and moving equipment.
13. SAFETY DECALS – Replace missing or damaged safety decals.



KUSHLAN PRODUCTS, INC
 MODEL: 350W & 350WSB & 600W
 PART LIST

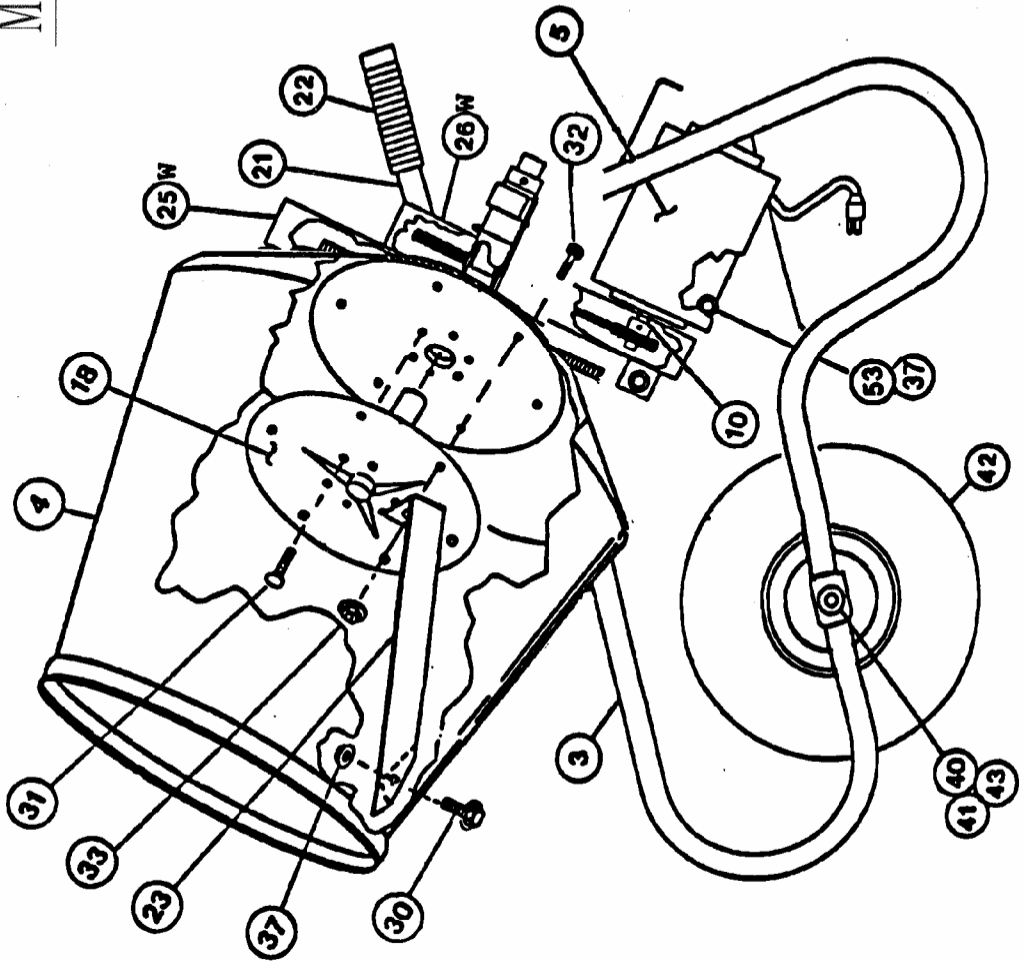
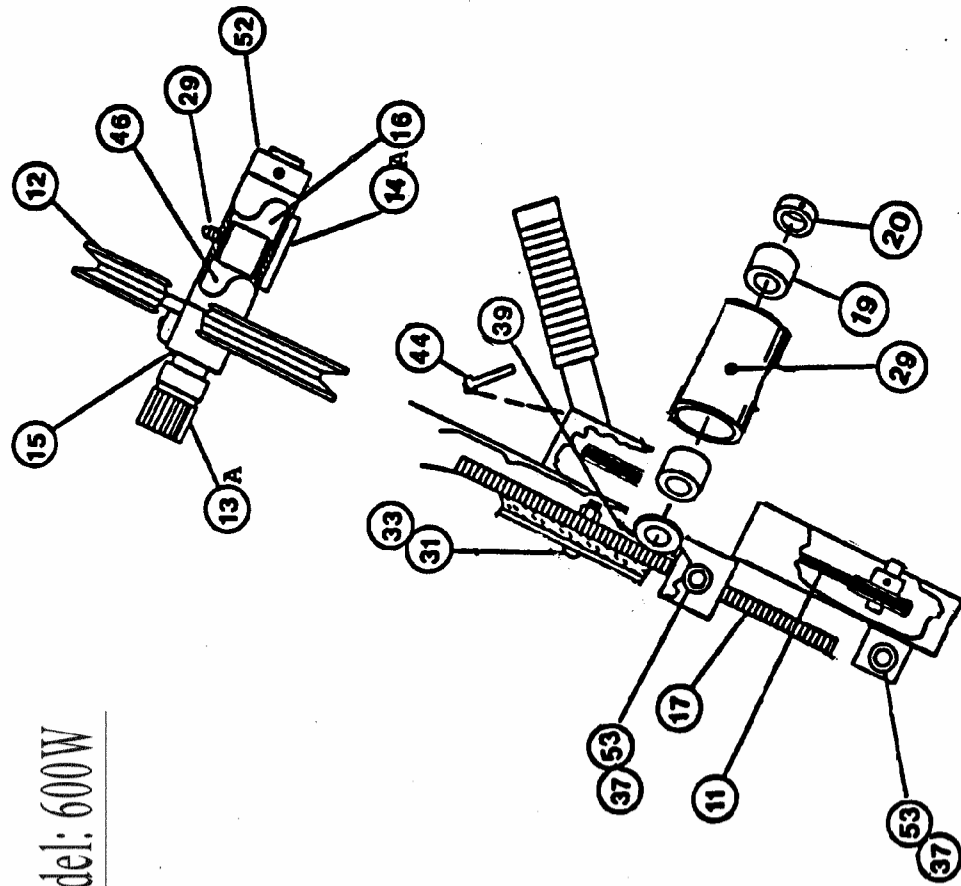


ITEM	PART NO	DESCRIPTION	350W	350WSB	600W
			QTY	QTY	QTY
	350W-003504	350W Wheelbarrow	X		
	350WSB-125350	350WSB Wheelbarrow		X	
	600W-053509	600W Wheelbarrow			X
3	28873-001	Frame assembly	1	1	
3	28874-001	Frame Assembly			1
4	28760-004	Polyethylene 3.5 drum	1		
4	28760-004A	Polyethylene drum with side holes		1	
4	28874-004	Polyethylene 6.0 drum			1
5	28872-001	1/3 hp Electric motor with cord	1		
5	28874-014	1/2 hp Electric motor with cord		1	
5	28872-003	3/4 hp Electric motor with cord			1
10	28760-007	2" pulley	1	1	1
11	07055-028	28" v-belt	1	1	1
12	28760-008	6" pulley	1	1	1
13A	28760-009	Jackshaft with pinion	1	1	1
14A	28760-010	Jackshaft housing with plain & flange bushing	1	1	
14A	28874-010	Jackshaft housing with plain & flange bushing			1
15	10057-005	3/16 square key	1	1	1
16	28760-011	Jackshaft plain bushing - SEE 14A	1	1	1
17	28760-012	Ring gear & plate assembly	1	1	
17	28874-012	Ring gear & plate assembly			1
18	28760-013	Drum plate & shaft assembly	1	1	
18	28874-013	Drum plate & shaft assembly			1
19	28760-014	Drum shaft bushing	2	2	2
20	23266-002	1" locking collar	1	1	1
21	28873-004	Wheelbarrow handle	2	2	2
22	21380-001	Handle grip	2	2	2
23	28874-016	Mixing Blades			3
25W	28873-006	Poly ring gear guard	1	1	1
26W	28873-007	Guard for pulley	1	1	1
29	07745-001	Grease fitting	2	2	2
30	28760-025	5/16 x 1" whizlock screw	3	3	3
31	17985-010	3/8 x 1-1/4" carriage screw	12	9	9
32	17986-011	3/8 x 1-1/2" carriage screw		3	3
33	28760-030	Hex flange lock nut 3/8"	15	15	15
37	28760-026	Hex flange lock nut 5/16"	8	8	11
39	07030-016	Thrust washer	1	1	1
40	28873-009	Wheelbarrow axle	1	1	1
41	28873-010	Spacer tube for axle	1	1	
41	28874-012	Spacer tube for axle			1
42	28873-011	Wheel 400 x 6	2	2	
42	28874-001	Wheel 400 x 8			2
43	28873-012	5/8" locking collar	2	2	2
44	28873-013	locking pin	2	2	2
46	28760-022	Jackshaft flange bushing - SEE 14A	1	1	1
52	28873-014	3/4" locking collar	1	1	1
53	28760-029	Hex screw 5/16 x 3/4"	8	8	8
53	17984-111	Hex screw 3/8 x 3/4"	3	3	3
*NS		WARNING LABEL	1	1	1
*NS		GREASE LABEL	1	1	1
*NS		SERIAL # LABEL	1	1	1

Model: 350W

Model: 350WSB

Model: 600W





A. LUBRICATION: There are two grease fittings (Item 29) on all models. Apply any type EP grease. Apply grease until grease begins to come out of the bushings. On new mixers and mixers that have been stored for over 3 months apply grease and allow mixer to run unloaded for about 10 minutes. After test run apply grease again into grease fittings until grease begins to come out of Jackshaft Housing and Drum shaft housing area. (Item 29)

LUBRICATE ALL FITTINGS BEFORE USE .

B. EXTENSION CORD: Use only outdoor approved grounded extension cords. The cords must be 14 gauge or larger

C. GEAR ADJUSTMENT: If the Gear on the Jackshaft (Item 13A) is not meshing properly with the Ring Gear and Plate (17), adjustment can be made by loosening the Hex Flange Screws attaching the Jackshaft Housing (14A) and sliding the housing tube until proper mesh is obtained. If removal of Pulley Guard was necessary, make certain it is reattached to the machine.

D. MOTOR ADJUSTMENT/BELT TENSIONING:

1. To adjust belt tension. Loosen the four screws that attach the motor to the frame. Make adjustments and retighten screws.
2. V-BELT TENSIONING: Retighten V-belts after the first 20 hours of use. The belt should be tightened until the belt deflects approximately 1/4" with regular thumb pressure.
3. Replace covers and guards before using the machine.

E. CONCRETE MIXING

! CAUTION: DO NOT insert sharp objects into the plastic mixing drum. Doing so will damage the drum.

! WARNING: KEEP HANDS & CLOTHING AWAY FROM MOVING PARTS.

! Wear protective gloves when cleaning sharp edges.

Loading: NOTE: Always start the mixer before loading.

F. CLEANING

! WARNING: DO NOT spray water on or into the motor.

THOROUGH CLEANING OF THE MIXER AFTER EACH USE IS RECOMMENDED AND WILL ADD TO THE SERVICE LIFE OF THE MACHINE.

G. GENERAL: Check all screws for tightness before each use, especially those securing guards and drive mechanisms.



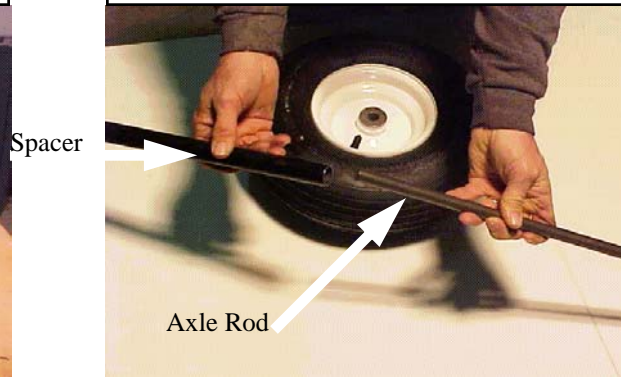
PARTS LIST		TOOLS NEEDED
<p>2 ea Handle bars #21 1 ea Wheelbarrow Axle #40 1 ea Axle Spacer #41 1 ea Electric motor #5 1 ea Pulley Guard #26W 1 ea Drum plate & Shaft #18 1 ea Ring Gear #17 2 ea Wheels & Tires #42 1 ea Ring Gear Guard #25W 1 ea Drum #4</p>	<p>2 ea Handle grips #22 8 ea 5/16" X 3/4" Screws #53 8 ea 5/16" nuts #37 2 ea Locking Pins #44 2 ea Locking Collar #20 2 ea 2" pulley #10 1 ea V-belt #11 1 ea Thrust Washer #39 12 ea 3/8" X 1 1/4" Carriage Screws #31 12 ea 3/8" Nuts #33</p>	<p>! Warning: whenever assembling, lubricating, or adjusting any part of the mixer, disconnect the power.</p> <p>Tools Required: 8" Adjustable Wrench 1/2" & 9/16" Box Wrench Pliers 5/64" Allen wrench Grease Gun <i>Optional 1/2" & 9/16" Socket & ratchet</i></p>

Step 1 Wheel & Frame Assembly



Wheel & Frame Assembly

Step 2 Wheel & Frame Assembly



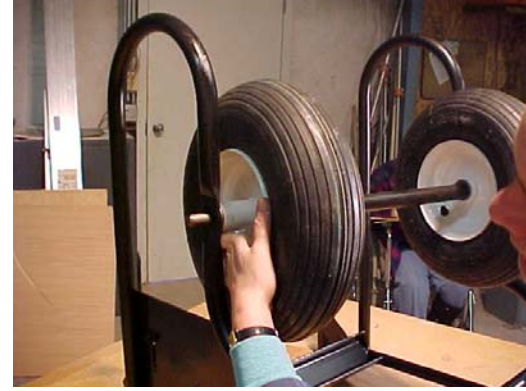
Slide Spacer on axle rod.

Step 3 Wheel & Frame Assembly



Put wheels on each axle rod end with hub out and stem inside

Step 4 Wheel & Frame Assembly



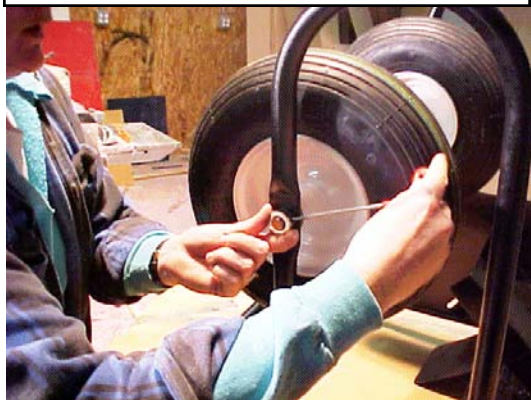
Push axle shaft so that axle extends out of frame hole.

Step 5 Wheel & Frame Assembly



Place other end of axle assembly into frame.

Step 6 Wheel & Frame Assembly



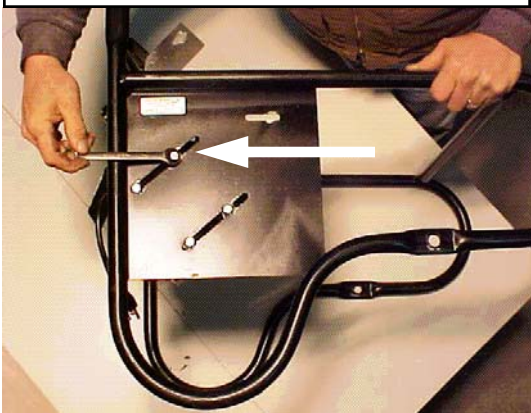
Place lock collars on axle shaft and tighten with Allen Wrench.

Step 1 Electric Motor Assembly



Electric Motor Assembly: Slide pulley onto motor shaft and tighten with Allen Wrench.

Step 2 Electric Motor Assembly



Attach electric motor to mounting plate with hex screws (53) and hex flange locknuts. Tighten screw shown snug so motor will pivot. Leave other 3 screws loose to allow motor to pivot for tension adjustment.

Step 3 Electric Motor Assembly



After installing belt onto 2" pulley on motor and 6" pulley on frame, tighten belt by sliding motor assembly down away from 6" pulley. Tighten hex screws with 1/2" wrench.

Step 4 Electric Motor Assembly



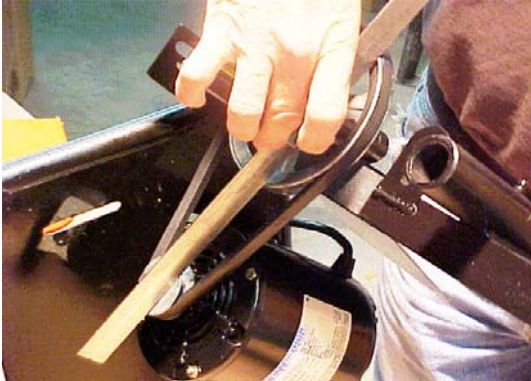
Tighten upper and lower screws on motor mounting plate.

Step 5 Electric Motor Assembly



To adjust alignment of belt, loosen the 2" pulley on the motor.

Step 6 Electric Motor Assembly



Use a straight edge to help attain proper alignment. Once alignment has been achieved, tighten set screws on the 2" pulley. Do not adjust 6" pulley, pre-adjusted at factory.

Step 1 Pulley & Ring Gear Guard Assembly



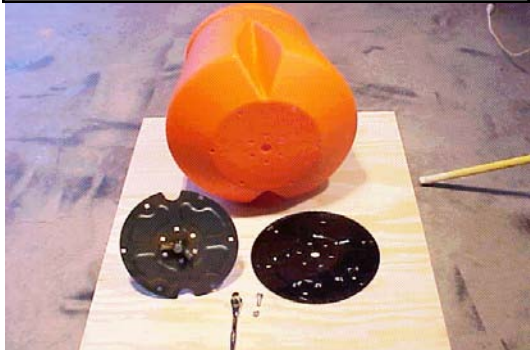
Install pulley guard (26W) using (4) 5/16" hex screws and nuts. Tighten guard securely.

Step 2 Pulley & Ring Gear Guard Assembly



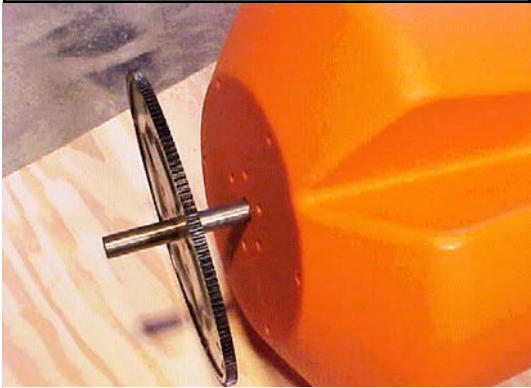
Install poly ring gear guard (25W). Put center screw all the way through housing. Do not tighten screws securely at this time.

Step 1 Drum & Ring Gear Assembly



Drum plate and shaft assembly
(Best performed with 2 people)

Step 2 Drum & Ring Gear Assembly



Slide drum plate and shaft onto drum shaft. Rotate until shaft slides into bottom of drum smoothly. Non-painted side facing drum.



Step 3 Drum & Ring Gear Assembly



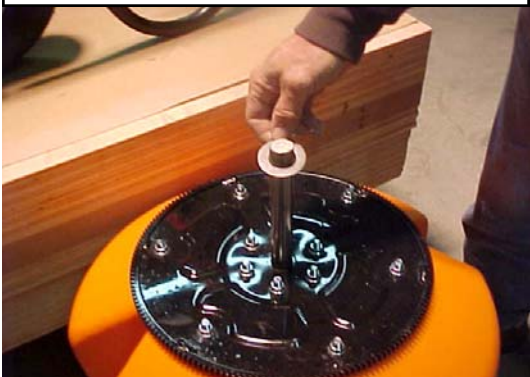
With ring gear plated side out, slide drum shaft against drum and secure with 12 screws and nuts.

Step 4 Drum & Ring Gear Assembly



Tighten ring gear screws evenly. Torque to 20 foot pounds, or so 1/4" of thread is extending through the nut.

Step 1 Drum Installation



Put thrust washer (39) on main shaft.

Step 2 Drum Installation

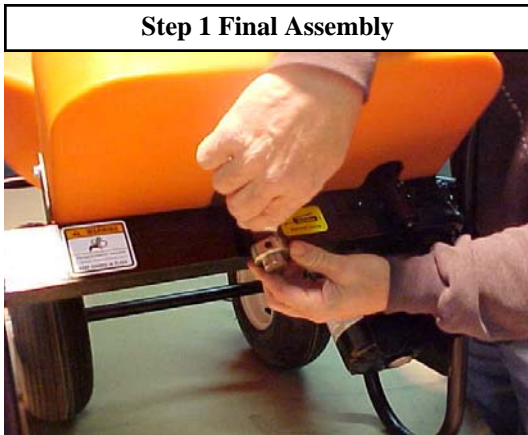


Place drum into drum shaft hole until ring gear engages with pinion gear.

Step 3 Drum Installation

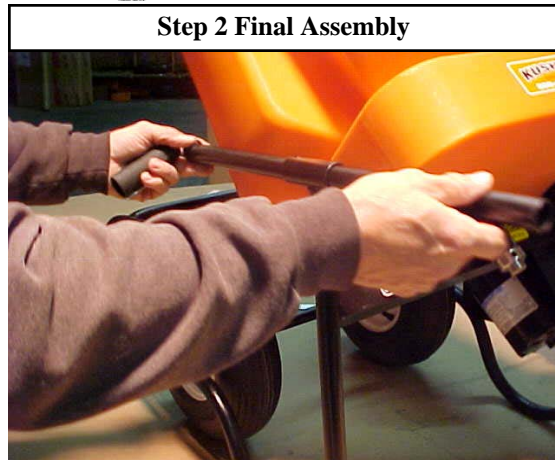


Adjust poly ring gear guard within 1/4" of drum and tighten screws until secure.



Step 1 Final Assembly

Install locking collar (20) to drum shaft.



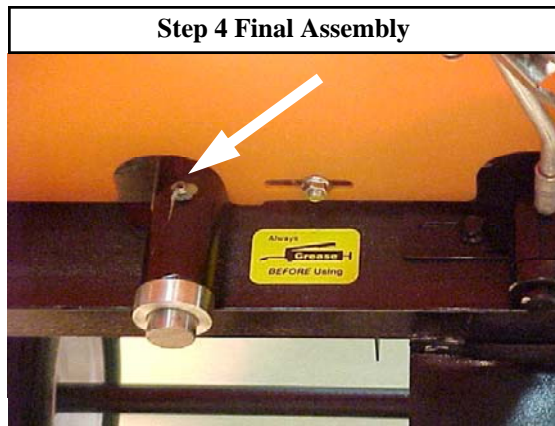
Step 2 Final Assembly

Attach handlebars. Slide from front to back. Install grips on end of handlebars.



Step 3 Final Assembly

Attach lock pins to each side.



Step 4 Final Assembly

Grease fittings. **(Very Important)**

1. Turn on Motor
2. While motor is running, add grease to both grease fittings until grease begins to come out of the bushings.

Extension Cord: Use only outdoor approved grounded extension cords. The cords must be 14 gauge or larger.

NOTE: Quantities are for 350W mixer & 350WSB mixer and may be doubled for Model 600W mixer

How to Mix Concrete

1. You will need approx. 2 1/2 gallons of water.
2. 2-80 lb bags of pre-mix concrete
3. Start Mixer in motion
4. Put in 2-gallons of water.
5. Add 1-80 lb bag of pre-mix concrete
- NOTE: Mixture will be very sloppy**
6. Slowly add 2nd bag of concrete.
7. Add 1/2 gallon of water slowly to obtain desired thickness.

***GREASE TWO (2) FITTINGS BEFORE EVERY USE.**

How to Mix Sand & Gravel

1. Use an 8 1/2 X 12" square point shovel
2. Portland cement, gravel or round stone and masonry sand.
3. Start mixer in motion
4. Put in 2 gallons of water.
5. Add 6 shovels full of gravel or round stone
6. Add 2 shovels full of Portland Cement
7. Slowly add 4 shovels full masonry sand.

NOTE: Water will vary according to moisture content of sand & gravel.

***GREASE TWO (2) FITTINGS BEFORE EVERY USE.**

Kushlan Products, Inc.
KUSHLAN PRODUCTS, INC.



745 Railroad Avenue
Goldendale WA 98620
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www.kushlanproducts.com

GREASE BEFORE EACH USE!

How To Mix Concrete - 600W

You will need approximately 6 gallons water

- 4 to 5 – 80 pound bags pre-mix concrete
- Start mixer in motion
- Add 4 gallons water

Add 3 – 80 pound bags of pre-mix concrete

NOTE: MIXTURE WILL BE VERY SLOPPY

- Slowly add remaining (2) bags of pre-mix concrete

Add 1 gallon water slowly to obtain desired thickness

WILL YIELD 3 CUBIC FEET CONCRETE

How To Mix Sand & Gravel

Use an 8-1/2x 12” square point shovel

Portland cement, gravel or round stone

And masonry sand

- Start mixer in motion
- Put in 4 gallons water
- Add 12 shovels full of gravel or round stone
- Add 4 shovels full of Portland cement

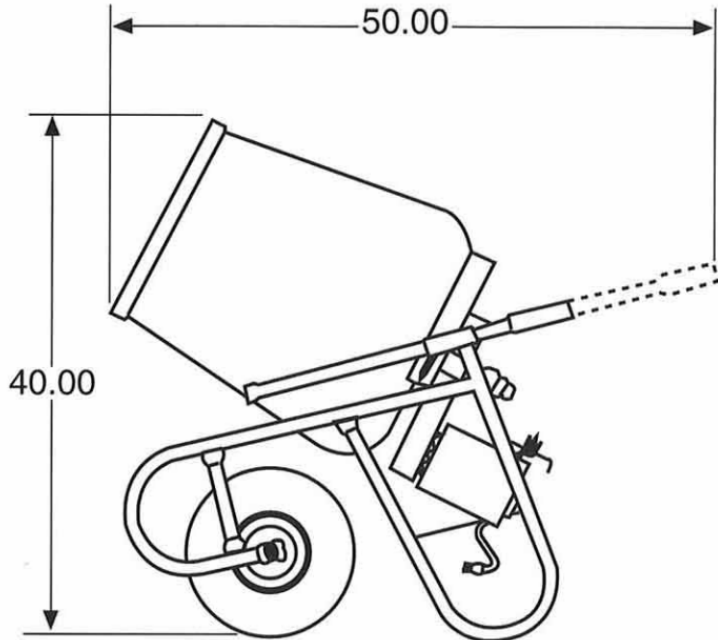
Slowly add 8 shovels full masonry sand

NOTE: WATER WILL VARY ACCORDING
TO MOISTURE CONTENT OF SAND & GRAVEL

WILL YIELD 3 CUBIC FEET CONCRETE



Model 350W



General Specifications 350W

Capacity	up to 225 lbs.
Motor (H.P.)	1/3
Motor (RPM)	1725
Voltage	115
Frequency (HZ)	60
Phase	Single
Drum (RPM).....	31
V-Belt (4L Section)	
Length	28"
Weight (lbs.)	110

BE SURE WATER IS ADDED FIRST !

HOW TO MIX CONCRETE

Average Load = 200 lbs.

Start with water

1 shovel cement

2 shovels sand

3 shovels gravel or small stone

CONVERSION CHARTS

- 3 cu. ft. = 9 sq. ft. 4" thick
- 3 cu. ft. = 12 sq. ft. 3" thick
- 1 yard = 27 cu. ft.
- 1 yard = 80 sq. ft. 4" thick
- 1 yard = 108 sq. ft. 3" thick

**Kushlan Products, Inc., 745 West Railroad Street
Goldendale, WA 98620**

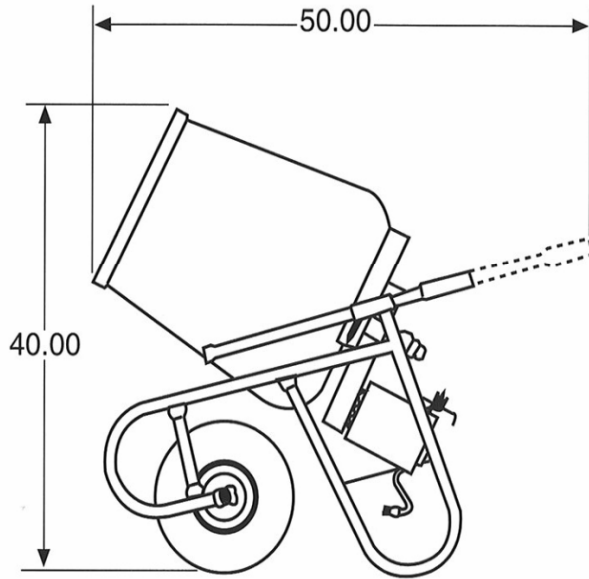
Phone (509) 773-4800 FAX (509) 773-4848

E-mail: customerservice@kushlanproducts.com

www.kushlanproducts.com



Model 350WSB



General Specifications 350WSB

Capacityup to 225 lbs.
 Motor (H.P.)1/2
 Motor (RPM)1725
 Voltage115
 Frequency (HZ)60
 PhaseSingle
 Drum (RPM).....31
 V-Belt (4L Section)
 Length28"
 Weight (lbs.)110

BE SURE WATER IS ADDED FIRST !

HOW TO MIX CONCRETE

Average Load = 200 lbs.

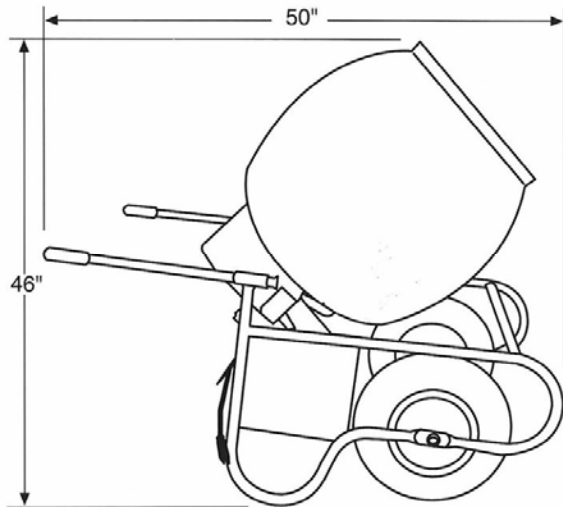
- Start with water
- 1 shovel cement
- 2 shovels sand
- 3 shovels gravel or small stone

CONVERSION CHARTS

- 3 cu. ft. = 9 sq. ft. 4" thick
- 3 cu. ft. = 12 sq. ft. 3" thick
- 1 yard = 27 cu. ft.
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- 1 yard = 108 sq. ft. 3" thick

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 www.kushlanproducts.com**

Model 600W



GENERAL SPECIFICATIONS 600W (WHEEL)	
CAPACITY	3 cu. ft. up to 500 lbs.
MOTOR H.P.	
MOTOR RPM	1725
VOLTAGE	115
FREQUENCY (Hz)	60
PHASE	Single
DRUM RPM	31
V-BELT (4L SECTION) LENGTH	28"
WEIGHT (LBS.)	132

HOW TO MIX CONCRETE

Average Load = 400 lbs.

Start with water

1 shovel cement

2 shovels sand

3 shovels gravel or small stone

CONVERSION CHARTS

- 3 cu. ft. = 9 sq. ft. 4" thick
- 3 cu. ft. = 12 sq. ft. 3" thick
- 1 yard = 27 cu. ft.
- 1 yard = 80 sq. ft. 4" thick
- 1 yard = 108 sq. ft. 3" thick

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Kushlan Products, Inc. Limited Warranty Policy



Kushlan Products, Inc. makes every effort to assure that its products meet high quality and durability standards and warrants to the original retail consumer purchaser of our products (you) that each such product be free from defects in materials and workmanship as follows:

ONE (1) YEAR limited warranty on all Kushlan products.

This warranty does not apply to defects due, directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities or the lack of maintenance. WE LIMIT ALL IMPLIED WARRANTIES TO THE PERIOD SPECIFIED ABOVE FROM THE DATE OUR PRODUCT WAS PURCHASED AT RETAIL. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. WE SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY OR FOR INCIDENTAL, CONTINGENT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

To take advantage of this warranty, the product or part must be returned for examination, postage prepaid, to Kushlan Products, Inc. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will either repair or replace the product, at our election, or we may elect to refund the purchase price if we cannot readily and quickly provide you with repair or replacement, if you are willing to accept such refund. We will return the repaired product or replacement at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of storing and returning this product. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. For service, contact Kushlan Products, Inc.

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