

INSTRUCTIONS – PARTS LIST

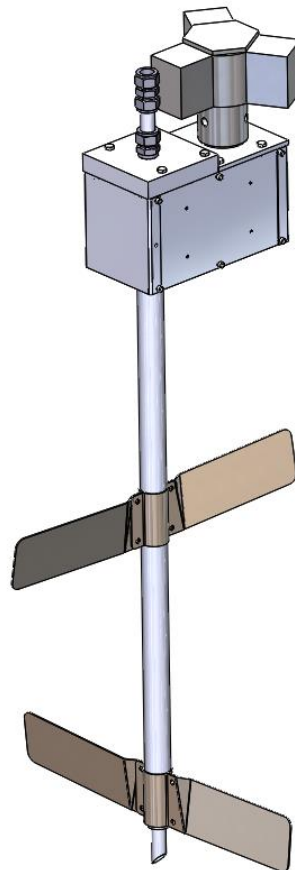
INSTRUCTIONS!

This manual contains important warnings and information.
READ AND KEEP FOR REFERENCE.



55 Gallon Back Geared Agitator

- (3092-BG55-103) – 55 Gallon Back Geared Agitator; 3:1 Gear Ratio
- (3092-BG55-101) – 55 Gallon Back Geared Agitator; 1:1 Gear Ratio
- (3092-BG55-102) – 55 Gallon Back Geared Agitator; 2:1 Gear Ratio



AUTOQUIP, INC.

N57 W13430 REICHERT AVENUE, MENOMONEE FALLS, WI 53051

©COPYRIGHT 2001, AUTOQUIP, INC.

Table of Contents

Warnings.....	2-3
Set-up.....	4
Operation.....	5
Maintenance Schedule.....	6
Maintenance.....	7-9
Parts & Hardware.....	10-11
Dimensions.....	12
Technical Data.....	13
Warranty.....	14

Symbols

Warning Symbol



This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

Caution Symbol



This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

WARNING

EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are not sure, call your Autoquip distributor.
- Do not alter or modify this equipment. Use only genuine Autoquip parts.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Use fluids and solvents that are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Always wear protective eyewear, gloves, clothing, and respirator as recommended by the fluid and solvent manufacturer.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.

WARNING

FIRE AND EXPLOSION HAZARD

Improper grounding, poor ventilation, open flames, or sparks can cause a hazardous condition and result in a fire or explosion and serious injury.

- Ground the equipment and the object being sprayed. Refer to **Grounding** on page 4.
- If there is any static sparking or you feel an electric shock while using the equipment, **stop spraying immediately**. Do not use the equipment until you identify and correct the problem.
- Do not use 1,1,1-trichloroethane, methylene chloride, other Halogenated hydrocarbon solvents, or fluids containing such solvents in aluminum components. Such use could result in a serious chemical reaction, with the possibility of explosion.
- Do not use kerosene or other flammable solvents or combustible gases to flush the unit.
- Provide fresh ventilation to avoid the buildup of flammable fumes from solvents or the fluid being sprayed.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Before operating this equipment, electrically disconnect all equipment in the spray area.
- Before operating this equipment, extinguish all open flames or pilot lights in the spray area.
- Do not smoke in the spray area.
- Do not turn on or off any light switch in the spray area while spraying or while there any fumes in the air.
- Do not operate a gasoline engine in the spray area.

MOVING PARTS HAZARD

Moving parts, such as the rotating blades of the agitator, can pinch or amputate your fingers or other body parts and can cause splashing in the eyes or on the skin.

- Keep clear of all moving parts when starting or operating the agitator.
- Always shut off the agitator and disconnect the air or electric power line before adjusting the angle of the agitator, removing the agitator from the drum or tank, or checking or repairing any part of the agitator.

HAZARDOUS VAPORS

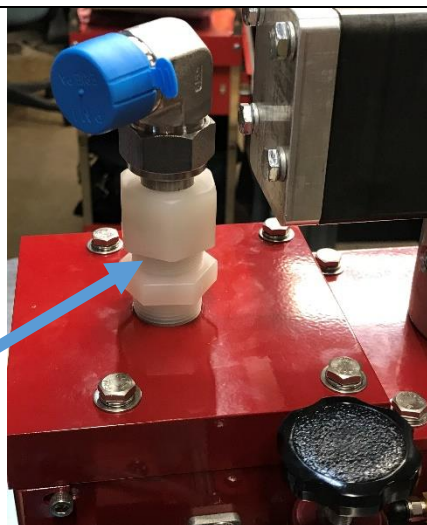
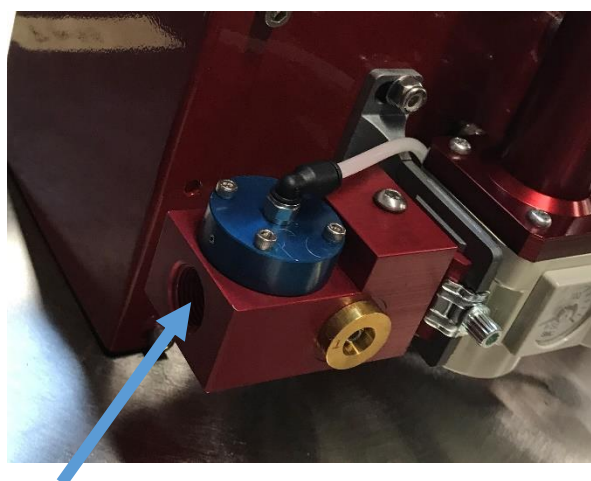
Hazardous fluids or toxic fumes from solvents or other chemicals can cause serious injury or death if splashed in the eyes or on the skin, swallowed, or inhaled. When flushing the air motor, keep your face away from the exhaust port. When handling hazardous materials, proper eye and skin protection should be worn.

United States Government safety standards have been adopted under the Occupational Safety and Health Act. You should consult these standards – particularly the General Standards, Part 1910, and the Construction Standards, Part 1926.

Set-up

The Autoquip 55 Gallon Back Geared Agitator is shipped 100% assembled from the factory! Please follow the following steps to set the unit up in your Facility.

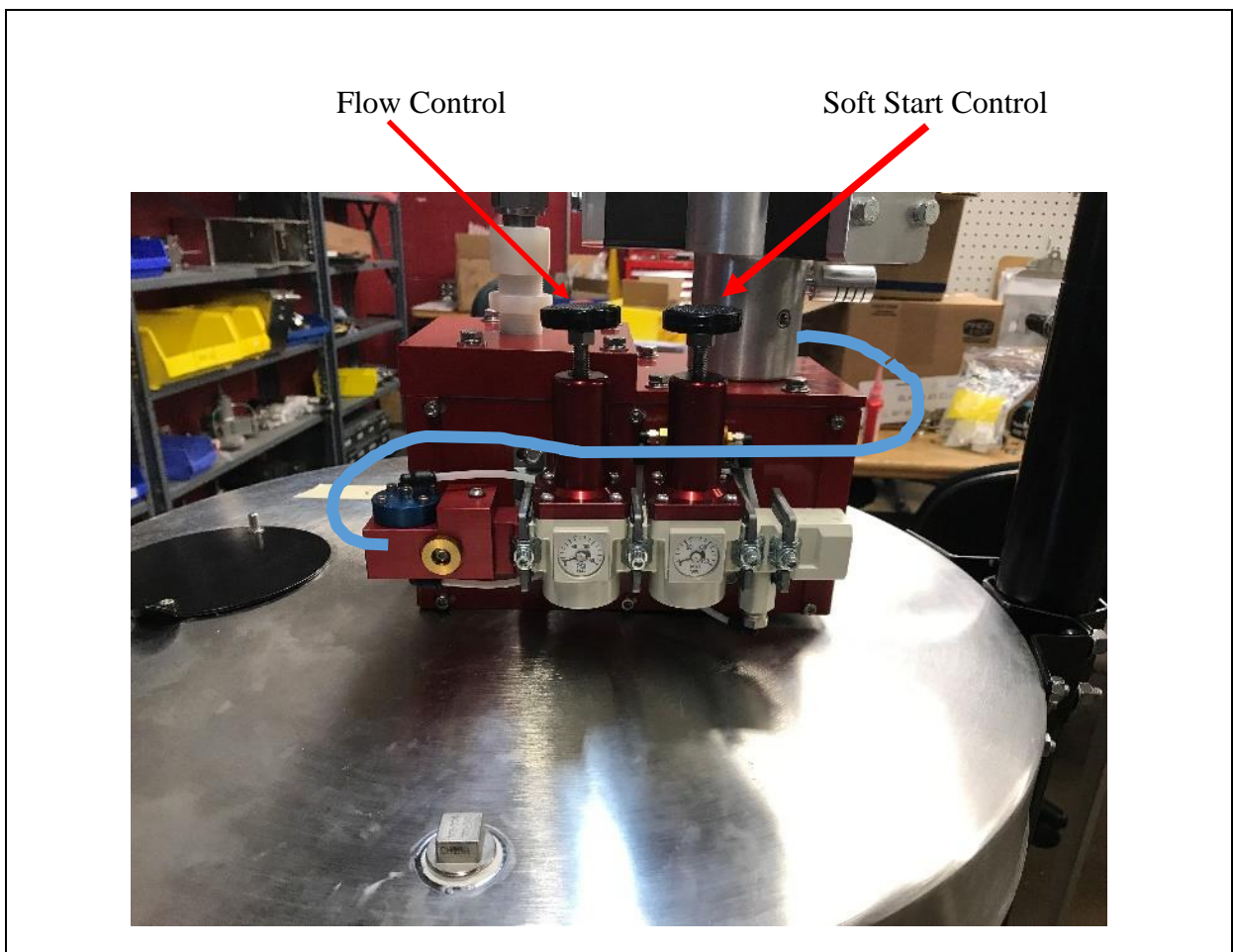
1. Install blades on agitator shaft at desired heights.
**If blades are preinstalled, blades are fastened to AQ recommended blade heights.*
2. If equipped with optional Eco-flow Controller, 3076-AFC3-000, install 3/8 NPT to 3/8 air push to lock fitting in the air flow control on the output side, or preferred plant style air fitting.
3. Set the suction tube to the desired height from the bottom of the agitator shaft by tightening the Jaco fitting on the suction tube.
**Suction tube should be shipped from factory at correct height. Adjust if needed.*
4. With the provided Grounding cable, ground the unit to specified grounding bar in facility. Ground clamp should be attached to grounding bar, and ground terminal to be attached to agitator.



Operation

Autoquip recommends the use of our Eco-Flow Controller (3076-AFC3-000) to properly maintain Air Flow. Please see instructions and diagram below for proper operation. *If the unit is not equipped with our Eco-Flow Controller, please contact your distributor for instructions on maintaining correct air flow.*

1. Soft start control will limit the MAX air pressure that will be able to flow to the output.
AQ recommends setting the soft start control for the back geared agitator no more the 40PSI as paint defect and mechanical failure are prone at any higher pressure.
2. Flow control will adjust the actual air flow allowed to exit the output. The back geared agitator will typically function at around 20-30 PSI depending on material being agitated.



CAUTION

Do not operate the agitator at a high speed for a long period of time. Excessive agitator speed can cause foaming of fluid, vibration and increased wear on the parts.


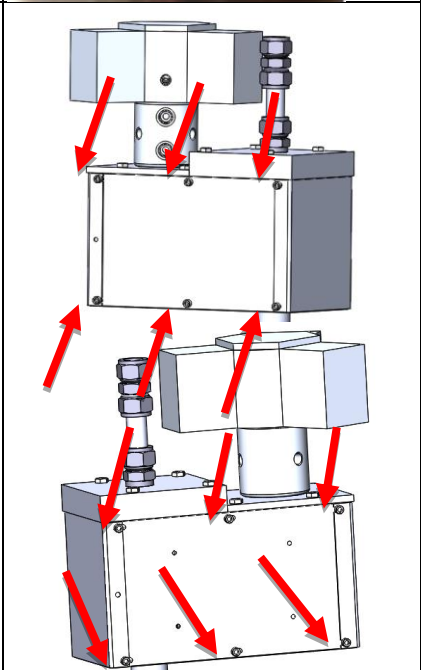
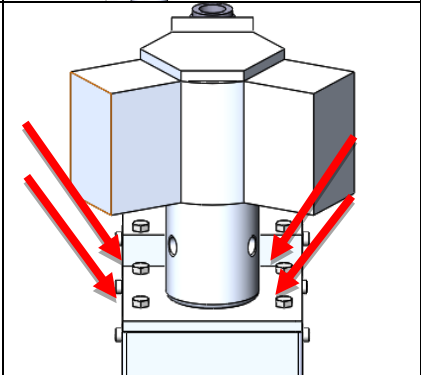
Recommended Maintenance Schedule

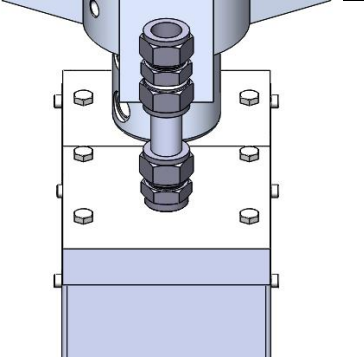
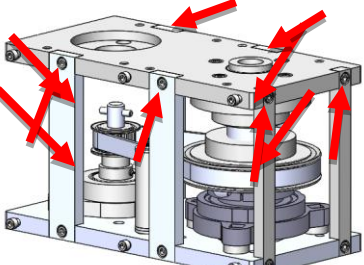
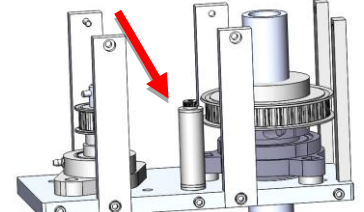
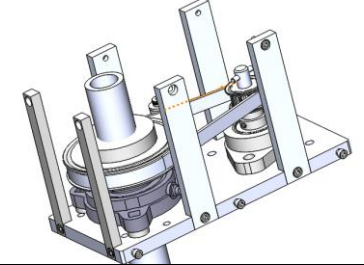
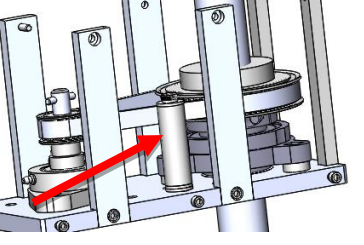
Back Geared Agitator Maintenance – recommended yearly

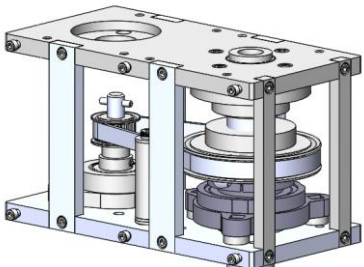
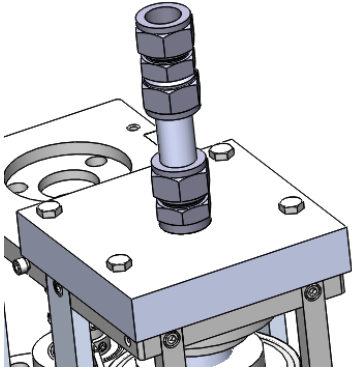
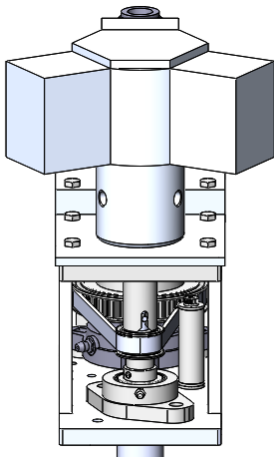
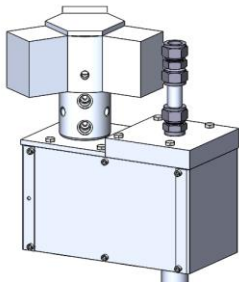
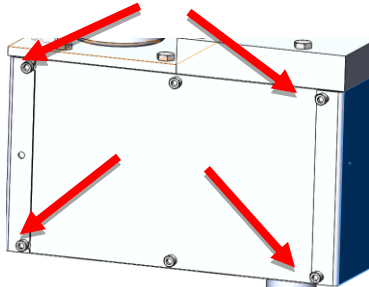
<u>Description</u>	<u>Part #</u>
Timing Belt	3092-BG55-212
Shaft Collar	3092-BG55-219
2 Bolt Flange Bearing	3092-BG55-220
3 Bolt Flange Bearing	3092-BG55-221
Idler	3092-BG55-227
Flanged Sleeve Bearing	3092-BG55-228
Gear Mount Shaft	3092-BG55-257
Flanged Shaft Bushing	3092-BG55-230 (Qty. 2 per assembly)
*all above parts included in kit #3099-BG55-250	
Suction Tube	3092-BG55-223

Maintenance

Belt replacement Instructions

STEP#	REQUIRED TOOLS	INSTRUCTIONS	PHOTOS
1		Remove the 3/8" Teflon air line from the Air motor.	
2	5/32" Allen wrench	Remove the (12) 10-32 socket head cap screws that attach the (4) access covers to the top and bottom block of the back geared agitator. <i>Note: If equipped, the AQ air flow control does not need to be removed from the side cover!</i>	
3	7/16" wrench	Remove the (4) 1/2"-20 hex head bolts that are fastening the air motor plate to the top block. Remove the plate with the air motor still attached, and the collet still attached to the air motor.	

4	7/16" wrench	Remove the (4) 1/4"-20 hex head bolts that are fastening the shaft plate to the top block. Remove the shaft plate with the compression fitting and suction tube still attached to plate.	
5	5/32" Allen wrench	Remove the top block of the back geared agitator by removing the (6) 10-32 socket head cap screws that are attaching it to the side rails.	
6	3/16" Allen wrench	Loosen the belt idler and move to the side to create clearance space for installing the belt.	
7	5/32" Allen wrench	Install the new belt onto the gears. It is easiest to start with the belt on the larger gear and stretch it over the smaller gear.	
8	3/16" Allen wrench	With the new belt installed, Adjust and tighten the Belt idler. The belt needs to be tightened with no more than a 1/4" of deflection. <i>Note: If the belt is too tight it will be difficult to spin the agitator shaft and may cause irregular wear to the belt. Be sure to also check that the idler is moving along with the belt, if it does not move it may be overtightened.</i>	

9	5/32" Allen wrench	Assemble the top block back onto the agitator side rails using the (6) 10-32 socket head cap screws.	
10	7/16" wrench	Loosely fasten the shaft plate back onto the top block using the (4) 1/4"-20 hex head screws. Note: Leave the screws loose as they will need to be tightened in an upcoming step.	
11	7/16" wrench	Assemble the air motor mount plate onto the top block and slide the collet back onto the gear shaft. Fasten using the (4) 1/4"-20 hex head screws. With the air motor mount plate fastened tight onto the top block, tighten the (4) 1/4"-20 hex head screws that were left loose when installing the shaft plate.	
12	5/32" Allen wrench	Using the (12) 10-32 socket head cap screws, reassemble the access covers to the back geared agitator. The end covers will slide into the 10-32 screws on the end of the agitator.	 <p><i>Additional image on next page.</i></p> 

Parts

<u>PART NO.</u>	<u>QTY</u>	<u>DESCRIPTION</u>
1. 3077-AM20-000	1	AQ AIR MOTOR
2. 3092-BG55-203	1	AQ BACK GEARED AGITATOR BLADE SHAFT
3. 3092-BG55-208	2	AQ BACK GEARED AGITATOR LOWER BLADE
4. 3092-BG55-217	1	AQ BACK GEARED AGITATOR AIR MOTOR MOUNTING PLATE
5. 3092-BG55-218	1	AQ BACK GEARED AGITATOR ROTATING SHAFT COVER PLATE
6. 3092-BG55-219	1	AQ BACK GEAR AGITATOR AIR MOTOR ADAPTER
7. 3092-BG55-220	1	2 BOLT FLANGE BEARING
8. 3092-BG55-221	1	3 BOLT FLANGE BEARING
9. 3092-BG55-223	1	AQ BACK GEARED AGITATOR SUCTION TUBE
10. 3092-BG55-225	1	10T PULLEY
11. 3092-BG55-226	1	32T PULLEY
12. 3092-BG55-228	2	AQ BACK GEARED AGITATOR LOWER BLADE
13. 3092-BG55-229	2	FLANGED SHAFT BRUSHING
14. 3092-BG55-229	1	IGUS SLEEVE BEARING
15. 3092-BG55-229	1	BELT IDLER
16. 3092-BG55-242	3	BEARING SPACER
17. 3092-BG55-243	2	AQ AGITATOR LIFT SHAFT LIP SEAL
18. 3092-BG55-251	1	AQ BACK GEARED AGITATOR BASE BLOCK
19. 3092-BG55-252	1	AQ BACK GEAR AGITATOR BEARING HOLDER
20. 3092-BG55-254	1	AQ BACK GEAR AGITATOR TOP BLOCK
21. 3092-BG55-255	2	AQ BACK GEAR AGITATOR END RAILS
22. 3092-BG55-256	4	AQ BACK GEAR AGITATOR SIDE RAILS
23. 3092-BG55-257	1	AQ BACK GEARED AGITATOR GEAR MOUNT SHAFT
24. 3092-BG55-261	2	AQ BACK GEARED AGITATOR SIDE ACCESS COVERS
25. 3092-BG55-262	1	AQ BACK GEARED AGITATOR SIDE ACCESS AFC MOUNT COVER
26. 3092-BG55-267	3	AQ BACK GEARED AGITATOR COVER ACCESS PLATE
27. 3092-BG55-281	1	DUOLOCK 3/4, 3/4 UNION
28. 3092-BG55-282	1	NYLON COMPRESSION FITTING THRU BORE 3/4 TUBE x 3/4 NPT
29.	1	3/16" SS DOWEL PIN
30.	1	1/4-20 2.5" SS SHOULDER BOLT
31.	8	1/4-20 S/S HEX NUT
32.	18	1/4" S/S FLAT WASHER
33.	8	1/4" S/S LOCK WASHER
34.	12	10-32 x .50 SS SHCS
35.	16	10-32 x .625 SS SHCS
36.	3	1/4-20 x .50 SS SHCS
37.	12	1/4-20 x .75 SS HEX HEAD
38.	4	1/4-20 x 1.50 S/S HEX HEAD
39.	3	FLAT WASHER SS
40.	1	1/4-20 SQUARE NUT SS

3:1 Ratio

3092-BG55-225 10T Pulley
3092-BG55-211 32T Pulley
3092-BG55-212 3:1 Timing Belt

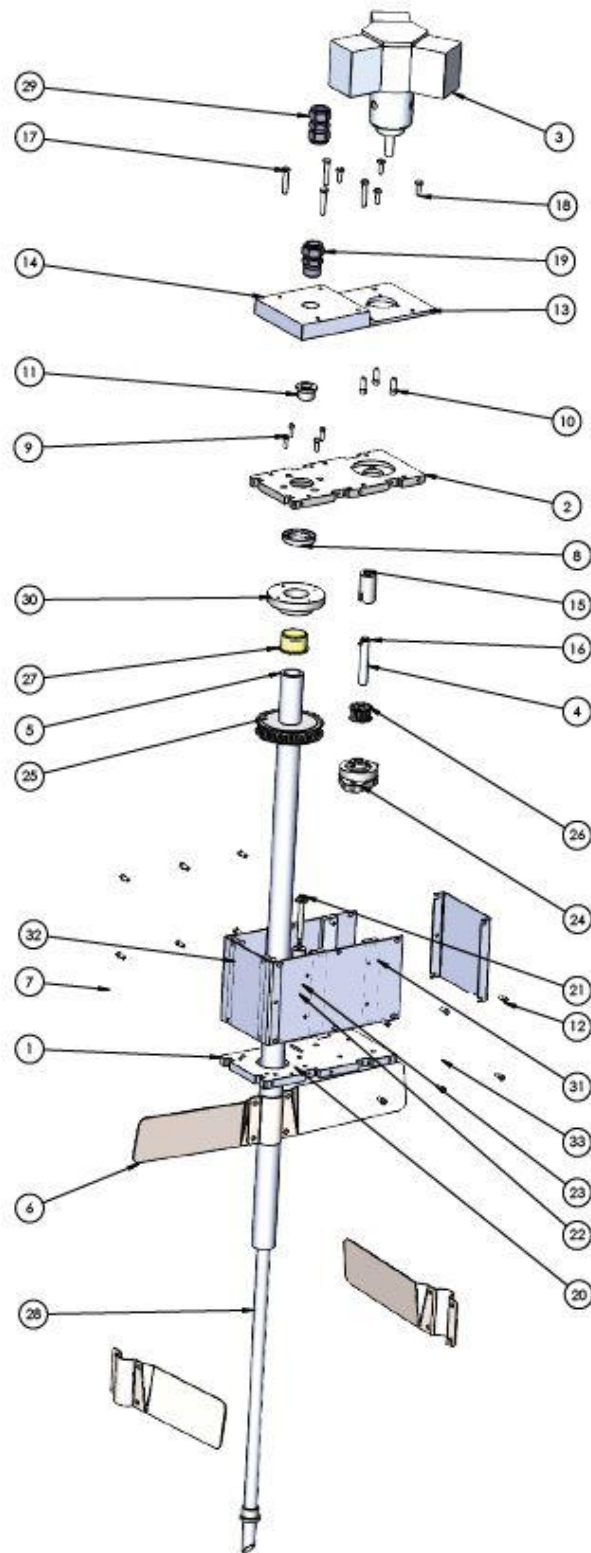
2:1 Ratio

3092-BG55-233 15T Pulley
3092-BG55-209 30T Pulley
3092-BG55-235 2:1 Timing Belt

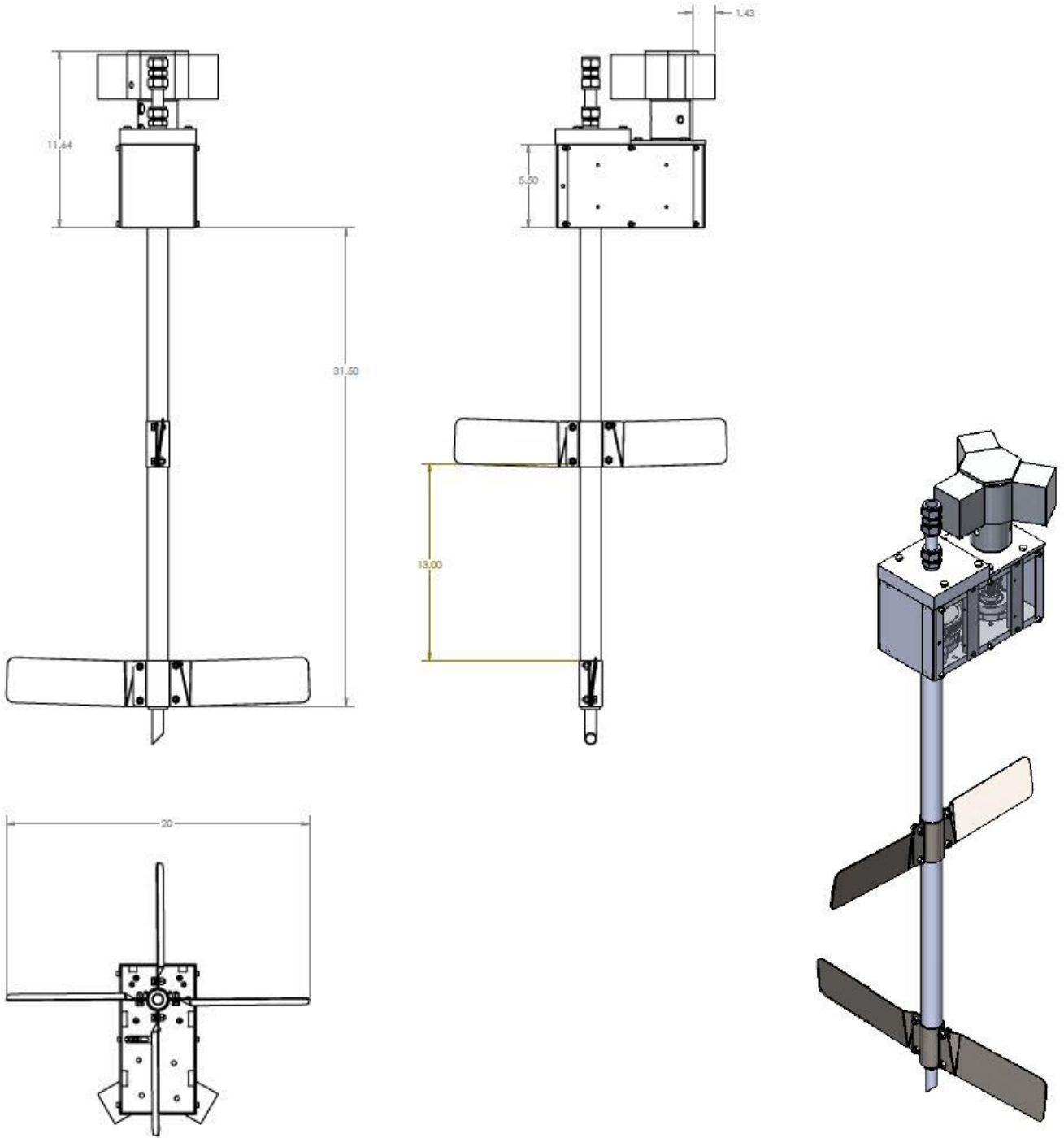
1:1 Ratio

3092-BG55-210 28T Pulley (Qty 2)
3092-BG55-232 1:1 Timing Belt

Parts



Dimensions



Technical Data

Standard air consumption:

- * 15 CFM (.99 m³/min) at 100 PSI
(6.9 bar) (MAX)

Air inlet size: Ø 3/8" tube

Fluid outlet size: Ø 3/4" tube

Air Motor/Gear reducer:

Speed Control: Variable by Control Pressure Input

Maximum Input Pressure: 90 PSI (6.9 bar)

Torque Output: 31.15 in-lbs @ 50 psi @ 150 RPM, 3.52 Nm @ 3.45 bars
20.23 in-lbs @ 50 psi @ 300 RPM, 2.29 Nm @ 3.45 bars

Output Shaft: 1/2" O.D.

Pneumatic Connection

Air Input: 3/8" O.D. Tube

Agitator:

Gear ratio: (3:1), (2:1), (1:1)

Weight: 32 lbs (14.5kg)

Height:

From top of air motor to end of agitator shaft (no nut): 43 in. (1092 mm)

From top of air motor to end of siphon tube (no fittings): 45 in. (1143 mm)

Span of agitator blades: 19.8 in. (503 mm)

Width of agitator blades: 3 in. (76 mm)

Air inlet: Mates with 1/4-in. NPT, (f) quick-disconnect recommended

Wetted parts:

- * 304 & 316 stainless steel
- * 6061 T6 aluminum
- * Polyethylene

304 SST, 304/304L SST, acetal, A/F, nylon, PTFE

Siphon tube I.D: 3/4 in. (19 mm)

Reference Information

Maximum storage time (varies with conditions): 10 years

Maximum lifetime (varies with operating conditions and maintenance): 10 years

Autoquip Standard Warranty

Autoquip Inc. warrants all equipment manufactured by Autoquip Inc. and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Autoquip Inc. distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Autoquip Inc., Autoquip Inc. will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Autoquip Inc. to be defective. This warranty only when the equipment is installed, operated, and maintained in accordance with Autoquip Inc.'s written recommendations.

This warranty does not cover, and Autoquip Inc. shall not be liable for general wear and tear, or any malfunction, damage, or wear and tear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Autoquip Inc. component parts. Nor shall Autoquip Inc. be liable for malfunction, damage or wear caused by the incompatibility of Autoquip Inc. equipment with structures, accessories, equipment or materials not supplied by Autoquip Inc., or the improper design, manufacture, installation, operation or maintenance of structure, accessories, equipment or materials not supplied by Autoquip Inc.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Autoquip Inc. distributor for verification of the claimed defect. If the claimed defect is verified, Autoquip Inc. will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Autoquip Inc.'s sole obligation and buyer's sole remedy for any breach of warranty shall be set forth above. The buyer agrees that no other remedy (including, but not limited to incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

Autoquip Inc. makes no warranty, and disclaims all implied warranties of merchantability and fitness for a particular purpose in connection with accessories, equipment, material or components sold but not manufactured by Autoquip Inc. These items sold, but not manufactured by Autoquip Inc. (such as electric motors, switches, hose, etc.) are subject to the warranty, if any, from their manufacturer. Autoquip Inc. will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Autoquip Inc. be liable for indirect, incidental, special or consequential damage resulting from Autoquip Inc. supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to breach of contract, breach of warranty, the negligence of Autoquip Inc., or otherwise.

FOR AUTOQUIP, INC. CANADA CUSTOMERS

The parties acknowledge that they required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présent document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Autoquip Phone Numbers

TO PLACE AN ORDER, contact your Autoquip distributor, or call this number to identify the distributor closest to you :
(262) 781-6133

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
Autoquip reserves the right to make changes at any time without notice.*

Sales Offices : MENOMONEE FALLS, WI (262) 781-6133

AUTOQUIP, INC. N57 W13430 REICHERT AVENUE MENOMONEE FALLS, WI 53216
<http://www.aqautomation.com>