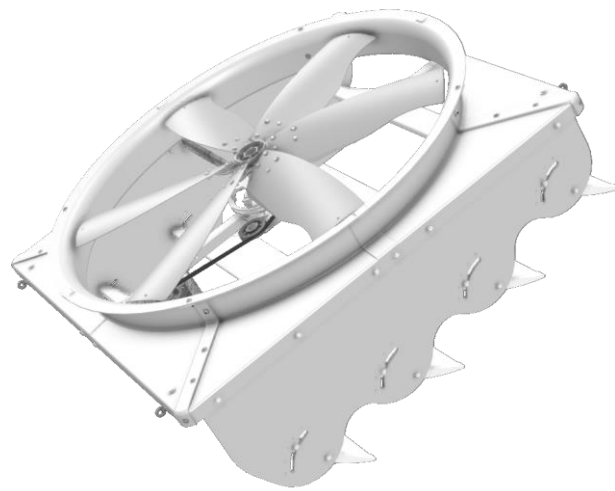


55" Storm Belt Drive

PUM-009-55Storm_Belt_Drive-01

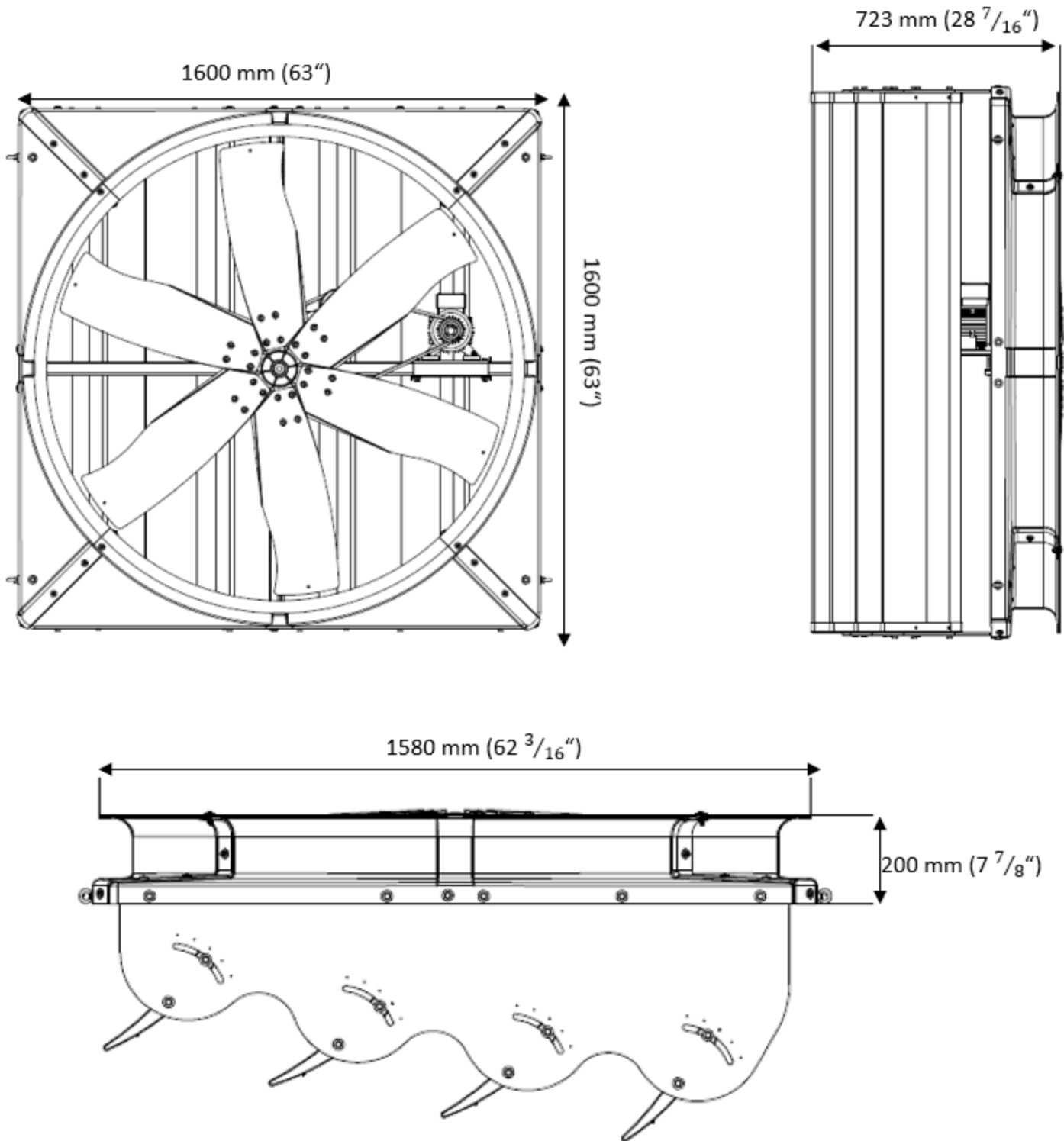


- 2.2.1 – Dimensional Drawing
- 2.2.2 – Exploding Parts View
- 2.2.3 – Parts Breakdown
- 2.2.4 – Air Flow Velocity Maps
- 2.2.5 – Assembly Overview
- 2.2.6 – Maintenance Procedure

55" Storm Belt Drive

Dimensional Drawing

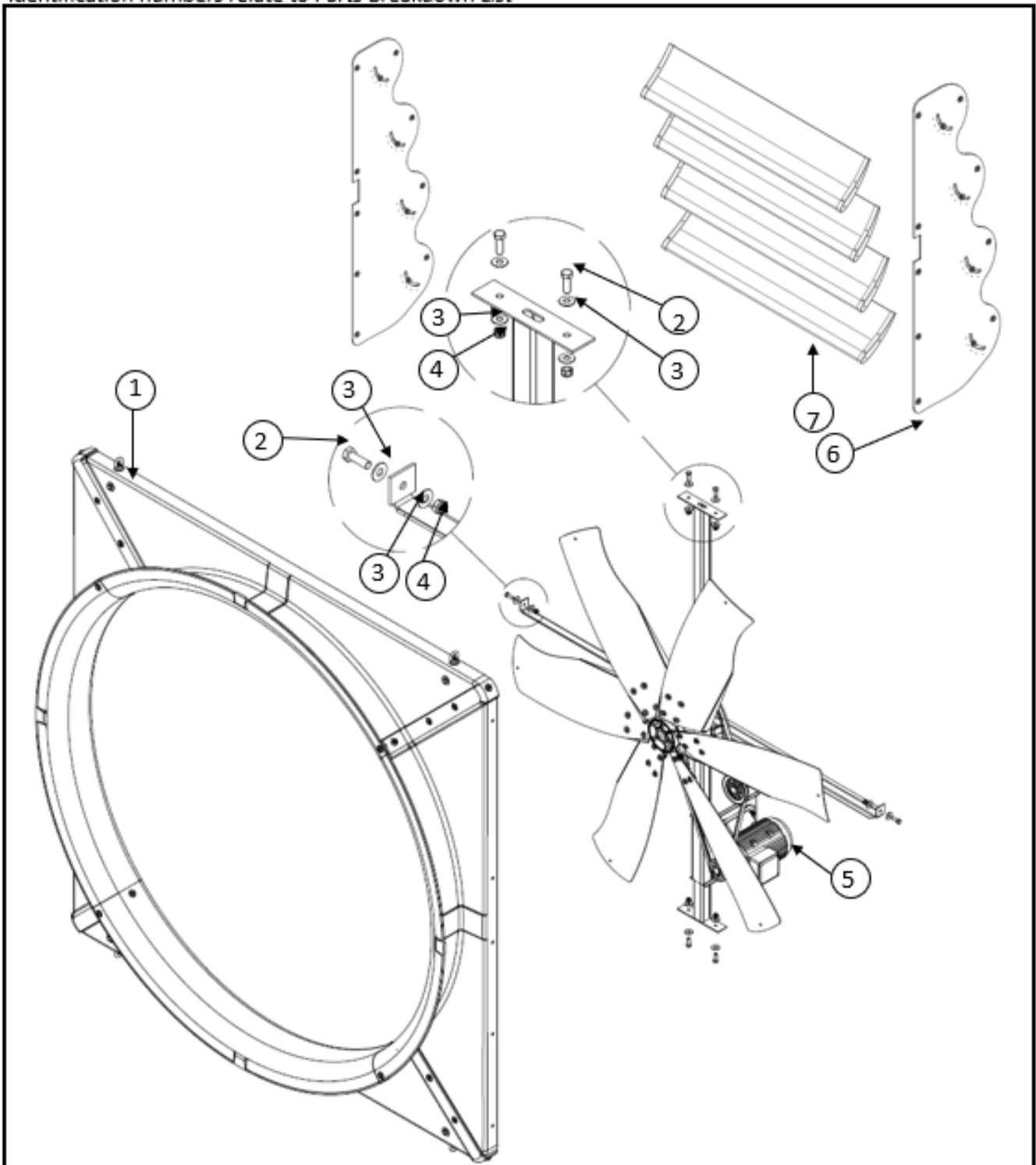
108652, 105928, 108651, 108653, 108570



55" Storm Belt Drive

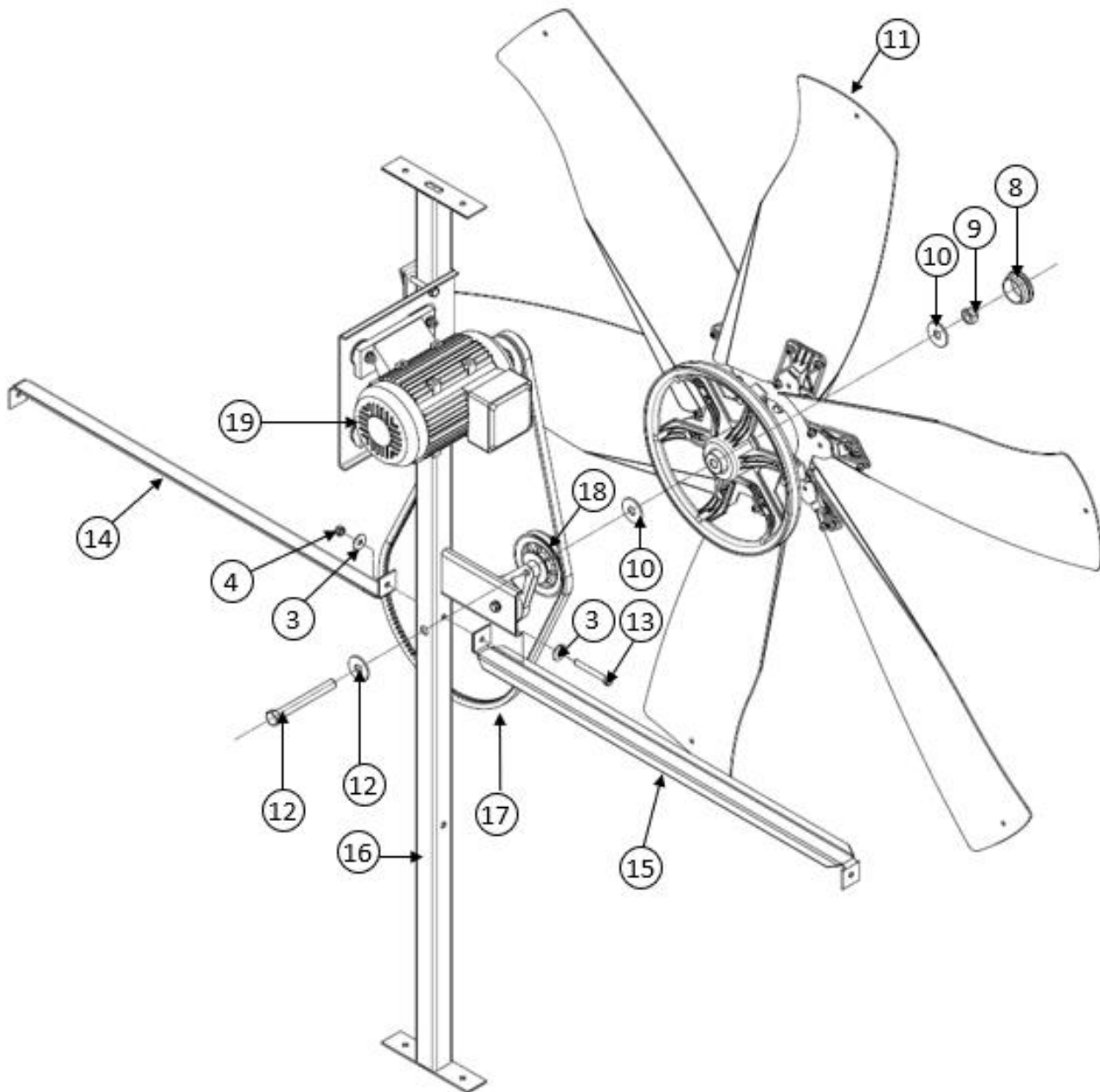
55" Storm Fans Exploded Parts View

Identification numbers relate to Parts Breakdown List



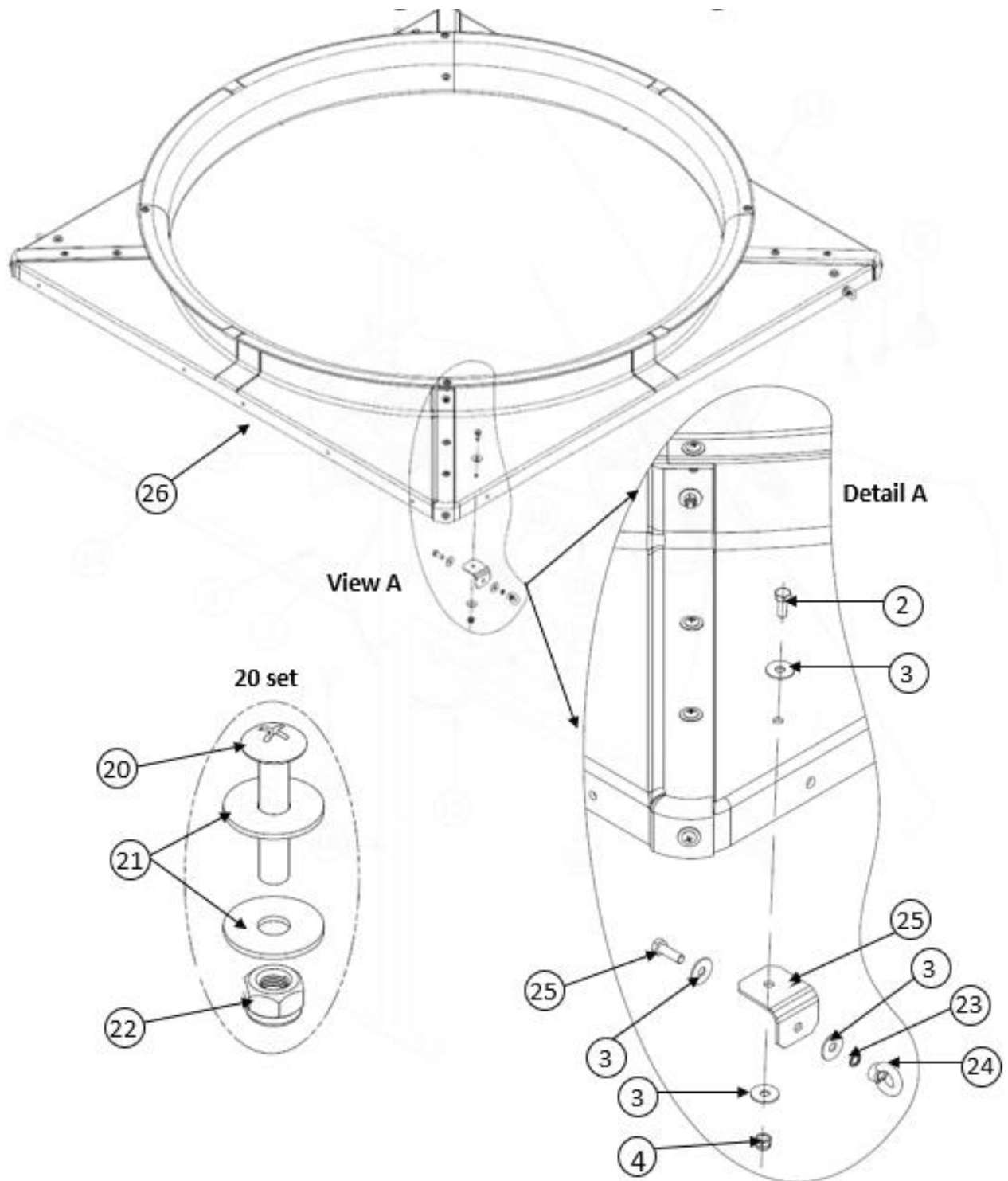
55" Storm Belt Drive

55" Storm Fans Exploded Parts View- Frame Support



55" Storm Belt Drive

55" Storm Fans Exploded Parts View- Housing



55" Storm Belt Drive

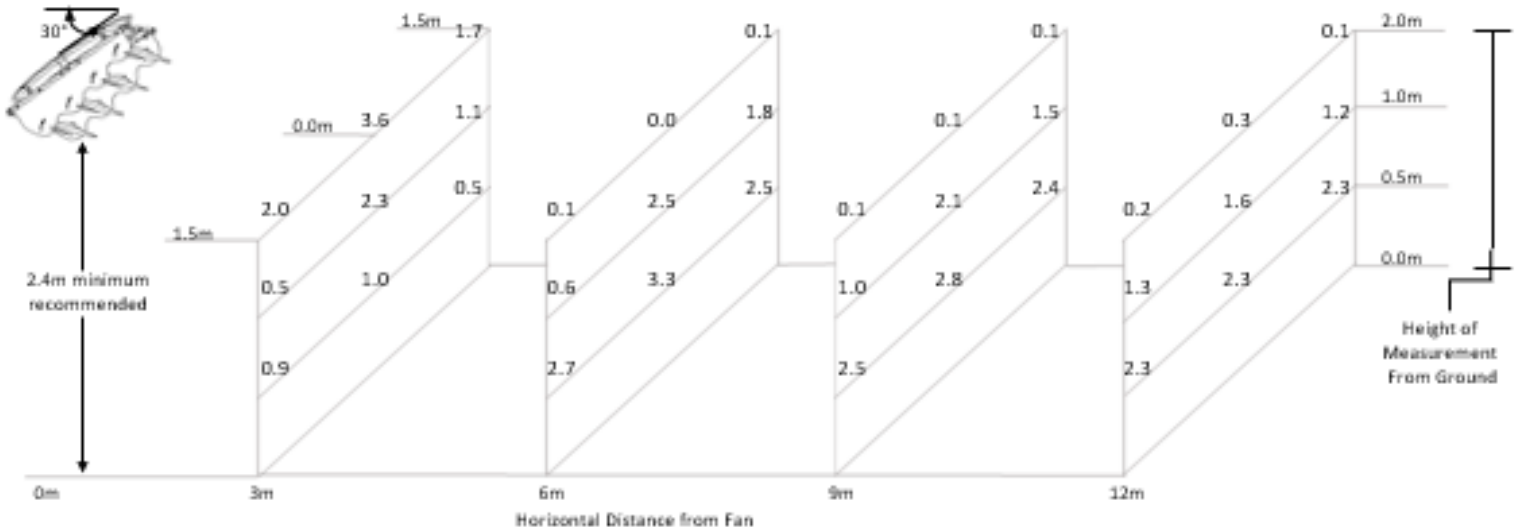
55" Storm Fans Parts Breakdown

Item	Part #	Description	Qty
1	See item 26 & view A	SMC Housing Assembly	1
2	97052	Bolt - M8 x 25mm Hex Head	14
3	97047	Washer, M8 x 25mm	30
4	97048	Locking Nut, M8	18
5	See items 8-19	Complete Support Frame with blade assembly and motor	1
6	109067	Hanger, 55" Storm Fan	2
7	97054	Deflector, 55" Storm Fan	4
8	109065	Black Hub Cover, Blade Kit	1
9	108421	Nut, Locking, 14mm (50/55" Fan Center Bolt)	1
10	108420	Washer, 14x40-3mm, (50/55" Fan Center Bolt)	3
11	108575	Complete Blade Assembly	1
12	108419	Hex Bolt, 14x120mm (50/55" Fan Center Bolt)	1
13	97046	Bolt - M8 x 60mm Hex Head	1
14	97049	Left Frame, 55" Storm Fan	1
15	97050	Right Frame, 55" Storm Fan	1
16	97051	Mid-Post Welding Part, 55" Storm Fan	1
17	108407	Belt, 50" Fans, XPA1732, (Long)	1
18	108405	Tensioner Arm, for 50/55" Fans, Long Belt, Incl. 101mm (4") Single Groove Pulley	1
19	See chart	Motor Assembly	1
20	97055	Machine Screw, M6 x 25mm	20
21	97056	Washer, M6 x 20mm	40
22	97057	Locking Nut, M6	20
23	97058	Spring Washer, 8.5 x 2.5	4
24	97059	Eye Nut, M8	4
25	97060	Turning, 55" Storm Fan	4
26	97061	SMC Housing 1/4", 55" Storm Fan	4

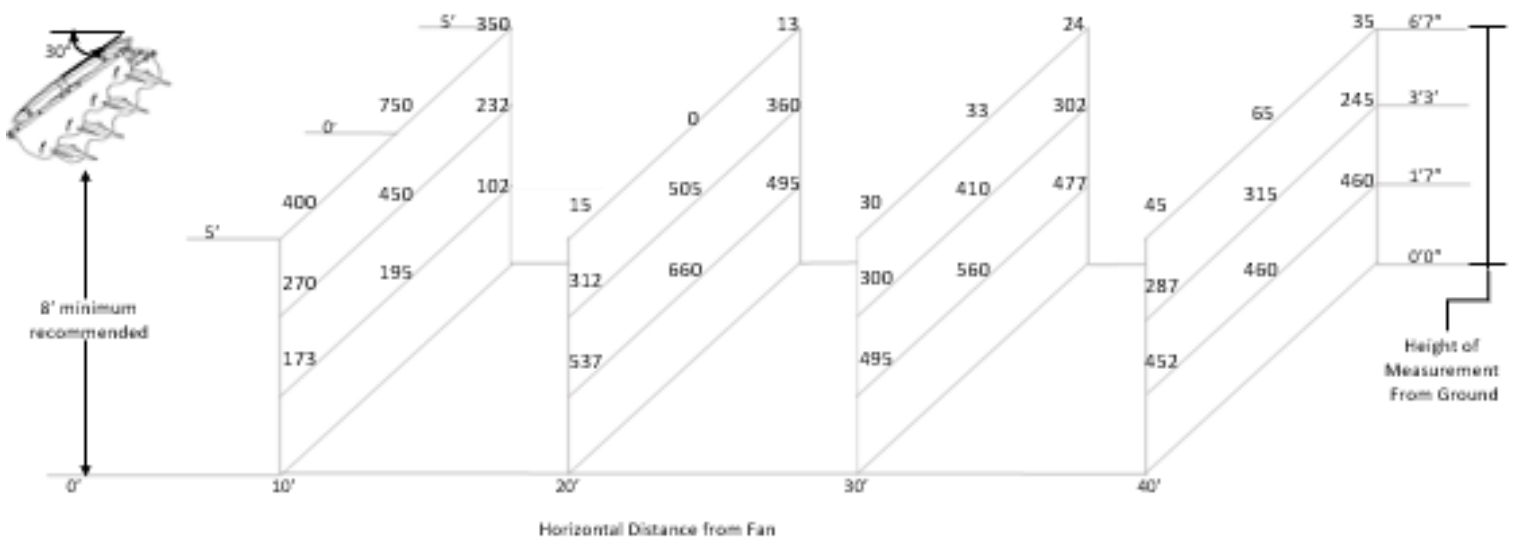
55" Storm Belt Drive

55" Storm Fans Air Flow Velocity Maps

Air Flow Velocity Map in Metric Units (m/s)



Air Flow Velocity Map in Standard Units (ft/min)

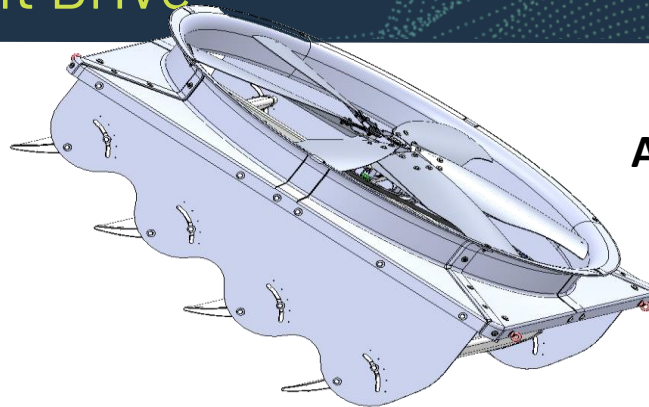


55" Storm Belt Drive

Motor Assembly

Air Flow 1 Phase Motor Configuration (108652)						
Fan #	Fan Description	Motor	Pulley	Bushing	Plate	Complete Motor Kit*
108652	55" Storm Fan, SMC Housing, 110/220V, 1PH, 1HP, 4 Louver, E Series	108363	108366	Not Required	108453	108493
		Motor, 115/230V, 1PH, 1HP, 1.4SF, 1725RPM, Rigid Base	Pulley, Motor, Set Screw Lock, SPA67 - 5/8"		Motor Base Plate	
3 Phase Motor Configuration (108651, 105928, 108653, 108570)						
Fan #	Fan Description	Motor	Pulley	Bushing	Plate	Complete Motor Kit*
108651 105928	55" Storm Fan, SMC Housing, 230/460V, 3PH, 1.5HP, 4 Louver, E Series	108374	108375	Not Required	108453	108641
		Motor, 230/460V, 3PH, 1.5HP, 1725RPM, IE2	Pulley, Motor, Set Screw Lock, SPA67-19mm, for 50/55"Fans, 3PH		Motor Base Plate	
108653	55" Storm Fan, SMC Housing, 400V, 3PH, 1.5HP, 4 Louver, CE, E Series	108423	108479	Not Required	108453	Available Upon Request
		Motor, 230/400V, 3PH, 1.5HP, 1725 RPM, IE2, Rigid Base, CE	Pulley, Motor, Set Screw Lock, SPA80-19mm, 3PH		Motor Base Plate	
108570	55" Storm Fan, SMC Housing, 460V, 1.5HP, 3PH, IE3	108775	108375	Not Required	108453	Available Upon Request
		Motor, 230/460V, 3PH, 1.5HP, 1725RPM, IE3	Pulley, Motor, Set Screw Lock, SPA67-19mm, for 50/55"Fans, 3PH		Motor Base Plate	

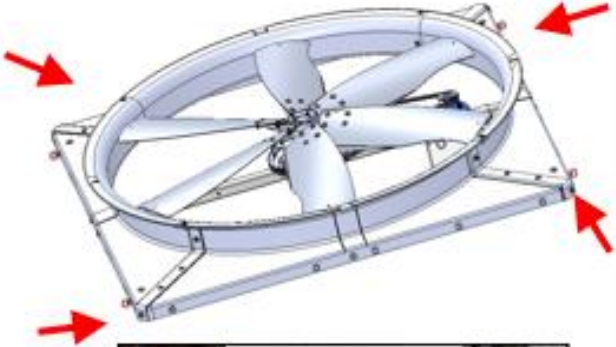

55" Storm Belt Drive



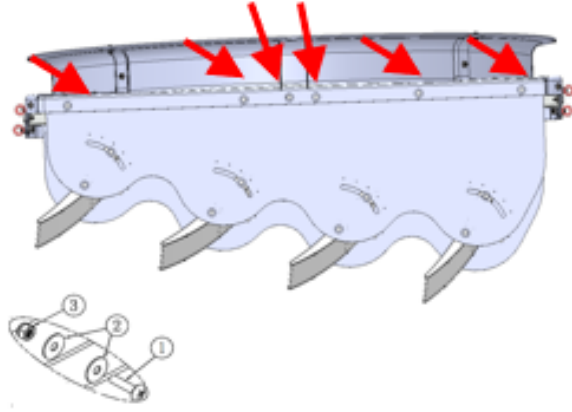
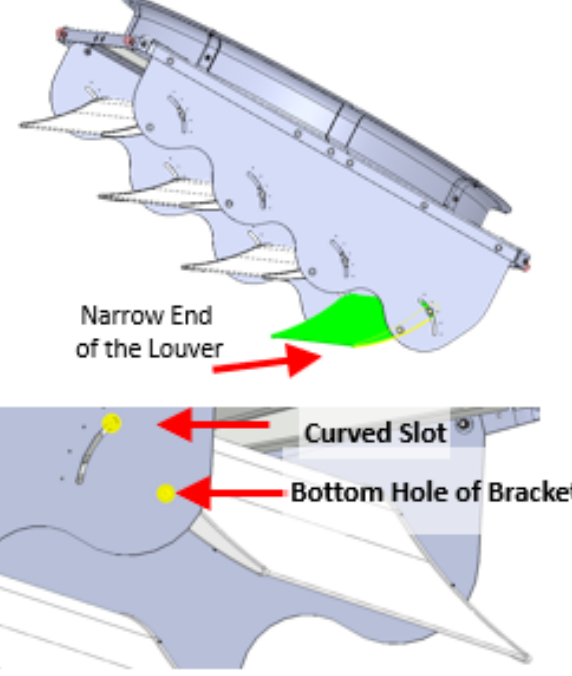
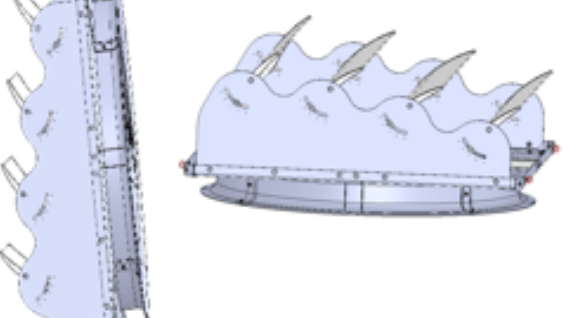
55" Storm Fans Assembly Overview

The instructions and information below are the guidelines to use when assembling an Artex 55" Belt Drive Storm Fan. When you are complete, your fan should look like the picture above.

Procedure – Assemble the Storm Fan

<p>1.</p>	<p>The storm fan will come in 7 separate pieces</p> <p>NOTE: When assembling the fan, this process is easiest with two people, one on the outside holding the screw head with a screwdriver and the inside person tightening the nut with a socket wrench or electric driver.</p> <p>Take care not to over tighten the bolts, which will damage the fiberglass.</p>	<p>Refer to the installation manual for list of parts and tools required.</p>
<p>2.</p>	<p>Attach 8mm chain to each of the eye bolts on the corners of the fan.</p> <p>Secure the chain to either a forklift or overhead winch system.</p> <p>Lift the fan high enough off the ground so that the side panels can be easily attached to the fan.</p> <p>*If no lifting device is available at assembly simply flip fan over and complete assembly with the blade side on the ground, essentially assembling fan upside down.</p>	 

55" Storm Belt Drive

<p>3.</p>	<p>Install the two side panels to the main housing assembly, one per each side.</p> <p>Use the 6X25mm screws and washers provided.</p> <p>The side panels will fit on the inside of the fan housing.</p> <p>NOTE the side panels will fit inside the main housing, line up the <u>6 pre drilled holes</u></p>	
<p>4.</p>	<p>Install the louver assemblies onto the side plates.</p> <p>Starting at the back of the fan, hold the first louver in place with the pointed end of the louver facing down toward the ground</p> <p>Place each bolt through the bottom hole of the bracket and into the middle of the louver.</p> <p>Only hand tighten</p> <p>Place second bolt into curved slot and line up with second hole in louver</p> <p>NOTE: the louvers will face the narrow end of the side plate</p>	
<p>4(cont)</p>	<p>Repeat for all 4 louvers</p>	
<p>5.</p>	<p>Fan can be stored in an upright or <u>upside down</u> position until hung.</p> <p>Louver adjustment to be once fans hung in place, review installation manual.</p>	

55" Storm Belt Drive

55" Storm Fans Maintenance

Many application factors determine proper fan maintenance intervals;

- Variation in hours of use
- Operating performance
- Variable operating load (50%-100%)
- Application environment can affect maintenance schedules.

Every application should be evaluated and serviced based on its own requirements.

The following checklist is intended as a reference guide only.



Before any maintenance is done, ensure that fans are turned off and that all appropriate safety measures are in place.

	Weekly	850 hrs OR monthly	5,000 hrs OR 6 months	10,000 hrs OR Annually
1. Visual Inspection	X			
2. Light Cleaning of housing, guards, louvers, etc		X		
3. Full Cleaning and washing of fan			X	
4. Check Belt Tension and Belt and Pulley wear			X	
5. Grease Main Bearing				X

55" Storm Belt Drive

1. Visual Inspection
 - Check fan for any physical damage to blades, housing, guards, louvers and shutters
 - Listen for any belt or bearing squeal
 - Check for belt wear
 - Check that all louvers, guards and shutters are in place and working properly
2. Light Cleaning
 - Remove the dust build up from the fan blades, louvers, guards, shutters and housings
 - This can be done with compressed air, a rag and stiff brush, or a shop vac
3. Full Cleaning using water and degreaser (can be done with compressed air if available)
 - Protect any electrical equipment from water
 - Remove blades, guards, louvers, shutters and wash them in a wash bay
 - Keep water out of bedding and feed as required
 - Dry fans using compressed air, or rag.
4. Check Belt Tension and Wear
 - Check for proper belt tension
 - Check idler pulley for wear
5. Grease Main Bearing
 - Artex Barn Solutions recommends the use of Raremax Super N grease, or something with the equivalent properties.

Test Item	Test Method	Raremax Super N
Operating Temperature	-40°C -> 180 °C	
Worked Penetration	ASTM D 217	260
Dropping point, °C	ASTM D 566	255
Coper strip Corrosion (100°C/24hr)	ASTM D 4048	Pass
Evaporation Loss, Mass % (99°C/22hr)	ASTM D 972	0.3
Oil Separation, Mass % (100°C/24hr)	FTMS 791C-321 Mod.	0.6
Oxidization Stability kPa (99°C/100hr)	ASTM D 942	10
Worked Stability	FTMS 791C-313	345
Water washout, Mass % (79°C/1hr)	ASTM D 1264	2.0
Low Temp Torque @ -40°C, nM*m	Start Run	1050 280
Bearing Lubrication life, H (160°C, 10,000 RPM)	ASTM D 3336 Mod.	1,680