KALAMAZOO INDUSTRIES, INC.

MODEL S8W

8" x 60" Industrial Vertical

Wet Belt Sander

EQUIPMENT MANUAL

KALAMAZOOINDUSTRIES, INC.
Kalamazoo, Michigan
Toll-Free: 1-800-592-2050
www.kalamazooind.com
Made in the USA

1. Introduction

Thank you for choosing the Kalamazoo Industries S8W 8-Inch x 60-Inch Industrial Vertical Wet Belt Sander. This heavy-duty wet deburring machine is designed for industrial sanding, grinding, and finishing applications where controlled heat, reduced dust, and extended belt life are essential.

The S8W features a powerful 7-1/2 HP motor with a flood coolant system that keeps workpieces cool while preventing dust accumulation. Built with a heavy-duty steel stand and precision components, this machine delivers reliable performance in demanding shop environments.

Please read this manual thoroughly before operating the equipment. Proper understanding of the machine's features, safety requirements, and maintenance procedures will ensure optimal performance and longevity.

1.1 Intended Use

The S8W is specifically designed for wet sanding, deburring, and finishing of various materials including:

- Ferrous and non-ferrous metals
- Stainless steel and heat-sensitive alloys
- Plastics and composites
- General deburring and surface finishing applications

2. Safety Information

> **⚠ WARNING**
>
> WARNING: TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN, LIQUID, OR MOISTURE BEYOND THE DESIGNED COOLANT SYSTEM.
>
> Read all safety instructions before operating this equipment. Failure to follow safety guidelines may result in serious injury or death.

2.1 General Safety Precautions

1. Always wear appropriate personal protective equipment (PPE) including safety glasses, hearing protection, and work gloves.
2. Keep the work area clean and well-lit. Cluttered or dark areas invite accidents.
3. Do not operate the sander under the influence of drugs, alcohol, or medication that may impair judgment.
4. Keep bystanders at a safe distance from the operating machine.
5. Never leave the machine running unattended.
6. Ensure proper ventilation when operating the machine.
7. Disconnect power before changing belts or performing maintenance.
8. Securely position all workpieces before sanding.

2.2 Electrical Safety

- Ensure proper grounding of the machine before operation.
- Verify voltage requirements match your facility's electrical supply (230V or 460V, three phase).
- Use only qualified electricians for electrical connections and repairs.
- Keep electrical components away from coolant spray and splashes.

2.3 Abrasive Belt Safety

- Use only 8" x 60" abrasive belts rated for wet sanding applications.
- Inspect belts for tears, damage, or excessive wear before each use.
- Replace damaged or worn belts immediately.
- Allow the belt to reach full speed before beginning work.
- Select the appropriate belt grit for your specific material and application.

2.4 Coolant System Safety

- Maintain proper coolant levels in the 10-gallon tank.
- Use appropriate coolant mixtures as recommended by the coolant manufacturer.
- Clean and replace coolant regularly to prevent bacterial growth.
- Keep coolant away from electrical components.

3. Technical Specifications

3.1 Motor and Performance

Motor Power	7-1/2 HP, 3 Phase
Voltage Options	230V or 460V
Drive System	Twin V-belt driven
Controls	Magnetic controls with 24V on/off push buttons

3.2 Belt Specifications

Belt Size	8" x 60"
Belt Tension	Air belt tension system (40-50 PSI required)
Belt Tracking	One-knob belt tracking adjustment

3.3 Construction

Stand	Heavy-duty steel stand
Bearings	Sealed ball bearings in idler and drive pulleys
Platen	Replaceable and reversible steel platen
Platen Working Surface	8" x 13"
V-Belt Guard	Included for enhanced safety

3.4 Coolant System

Tank Capacity	10 gallons
Tank Material	Steel
Pump	Recirculating pump included
Coolant Distribution	Coolant splash bar for effective cooling

3.5 Dimensions and Weight

Shipping Length	64 inches
Shipping Width	40 inches
Shipping Height	63 inches
Shipping Weight	1000 lbs (subject to change)

4. Features and Components

4.1 Key Features

The S8W incorporates several features designed for industrial performance and operator convenience:

Flood Coolant System

The integrated 10-gallon coolant system with recirculating pump delivers consistent cooling to the work surface. The coolant splash bar ensures effective distribution, preventing heat buildup, extending belt life, and reducing airborne dust.

Air Belt Tension System

The pneumatic belt tension system (requiring 40-50 PSI) provides consistent, optimal belt tension for precise sanding results and extended belt life.

One-Knob Belt Tracking

Simple single-knob adjustment allows for quick, precise belt tracking to ensure the belt runs true and centered.

Replaceable Steel Platen

The 8" x 13" steel platen is both replaceable and reversible, providing extended service life and consistent backing support for precision finishing.

Heavy-Duty Steel Stand

The robust steel stand provides exceptional stability and vibration dampening for smooth operation in demanding industrial environments.

Sealed Ball Bearings

High-quality sealed ball bearings in both idler and drive pulleys ensure smooth operation and extended service life with minimal maintenance requirements.

4.2 Available Options and Accessories

- 8" x 60" abrasive belts in various grits
- Replacement V-belts
- Replacement steel platen
- Sealed ball bearing sets

5. Installation and Setup

5.1 Unpacking and Inspection

9. Carefully remove all packing materials and inspect the machine for shipping damage.
10. Verify all components are present according to the packing list.
11. Report any damage or missing items to Kalamazoo Industries immediately.
12. Remove any protective coatings from machined surfaces.

5.2 Location Requirements

- Place the machine on a level, stable surface capable of supporting the machine weight (approximately 1000 lbs).
- Ensure adequate clearance around all sides for operation and maintenance.
- Provide adequate lighting and ventilation.
- Consider coolant drainage and splash management when positioning the machine.
- Ensure compressed air supply (40-50 PSI) is available for belt tension system.

CAUTION: Electrical connections must be performed by a qualified electrician in accordance with local electrical codes.

5.3 Electrical Connection

13. Verify the voltage requirements match your facility's power supply (230V or 460V, three phase).
14. Connect to an appropriately rated circuit with proper overcurrent protection.
15. Ensure proper grounding according to electrical code requirements.
16. Check motor rotation direction before operating. The belt should travel in the correct direction relative to the work rest.

5.4 Air System Connection

17. Connect compressed air supply to the belt tension system.
18. Ensure air pressure is regulated to 40-50 PSI.
19. Check all air fittings for leaks before operation.

5.5 Coolant System Setup

20. Fill the 10-gallon coolant tank with appropriate water-soluble coolant mixture.
21. Follow coolant manufacturer's guidelines for proper mixing ratios.
22. Verify the recirculating pump is operational.
23. Adjust the coolant splash bar for proper coverage of the work area.

5.6 Belt Installation

24. Disconnect power from the machine.
25. Release air pressure from the belt tension system.
26. Install the 8" x 60" abrasive belt onto the pulleys, ensuring proper orientation.
27. Apply air pressure to tension the belt (40-50 PSI).
28. Adjust tracking using the one-knob tracking adjustment.
29. Reconnect power and verify proper belt operation.

6. Operation Instructions

6.1 Pre-Operation Checklist

- Inspect the abrasive belt for damage, tears, or excessive wear
- Verify the belt is properly tensioned and tracking correctly
- Check coolant level and ensure pump is operational
- Verify air pressure is within 40-50 PSI range
- Ensure the work area is clean and free of obstructions
- Put on required personal protective equipment

6.2 Sanding Procedure

30. Turn on the coolant pump to begin coolant flow.
31. Turn on the machine using the 24V push button control.
32. Allow the belt to reach full operating speed.
33. Position the workpiece against the work rest for support.
34. Apply the workpiece to the belt with consistent, moderate pressure.
35. Move the workpiece smoothly across the belt surface as needed.
36. Upon completion, turn off the machine and wait for the belt to stop completely.
37. Turn off the coolant pump.

6.3 Tips for Best Results

- Use consistent, moderate pressure; let the belt do the work.
- Select the appropriate belt grit for your material and desired finish.
- Keep the workpiece moving to prevent heat concentration and uneven wear.
- Ensure adequate coolant flow to prevent overheating.
- For best surface finish, progress through finer grits sequentially.

7. Maintenance

7.1 Daily Maintenance

- Clean metal debris and particles from the machine after each use
- Inspect the abrasive belt for damage or wear
- Check coolant level and add as necessary
- Verify work rest is properly positioned and secure

7.2 Weekly Maintenance

- Clean the coolant tank and remove accumulated debris
- Inspect V-belts for wear, cracks, or proper tension
- Check all fasteners for tightness
- Verify air system connections and check for leaks

7.3 Monthly Maintenance

- Drain and replace coolant according to manufacturer guidelines
- Inspect bearings for noise or rough operation
- Clean motor housing to prevent debris accumulation
- Check wiring and electrical connections for wear or loose contacts
- Inspect the platen for wear and flip or replace if necessary
- Verify motor mounting hardware is secure

7.4 Belt Replacement

Replace belts when they show signs of wear, visible damage, tears, or reduced cutting performance. Follow the belt installation procedure in Section 5.6.

8. Troubleshooting

Problem	Possible Cause	Solution
Motor will not start	Power disconnected	Check power supply and connections
	Faulty magnetic control	Replace magnetic control switch
Belt tracking issues	Improper tracking adjustment	Adjust tracking using one-knob control
	Belt worn unevenly	Replace belt
Poor finish quality	Worn belt	Replace belt
	Wrong grit selection	Select appropriate grit for application
	Insufficient coolant flow	Check coolant pump and flow rate
Belt slipping	Insufficient air pressure	Verify 40-50 PSI air supply
	Worn V-belts	Replace V-belts
Overheating	Excessive feed pressure	Reduce pressure on workpiece
	Insufficient coolant	Check coolant level and flow
Excessive vibration	Worn bearings	Replace sealed ball bearings
	Loose mounting hardware	Tighten all fasteners
Coolant pump not working	Clogged intake	Clean coolant tank and intake
	Pump failure	Replace recirculating pump

9. Replacement Parts

Genuine Kalamazoo Industries replacement parts are kept in stock and shipped from Kalamazoo, Michigan. Using genuine parts ensures optimal machine performance and maintains warranty coverage.

9.1 Recommended Spare Parts

We recommend keeping the following parts on hand to minimize downtime:

Part Number	Description	Quantity
Various	8" x 60" Abrasive Belts (Various Grits)	5-10
051-011	Replacement V-Belts	2
044-014	Sealed Ball Bearing Set	1
441-016ASSY	Tracking Knob Assembly	1

9.2 Ordering Parts

To order replacement parts, contact Kalamazoo Industries directly or visit the online parts store at www.kalamazooind.com. Have your machine model number (S8W) ready when ordering.

10. Warranty Information

10.1 Warranty Coverage

Parts warranty is guaranteed for one year from the original date of purchase by the original purchaser, covering defects in material or workmanship under normal use. This warranty covers the replacement of defective parts. Some exclusions may apply.

10.2 Warranty Exclusions

This warranty does not cover:

- Normal wear items including abrasive belts, V-belts, and bearings
- Damage resulting from misuse, abuse, or improper maintenance
- Damage from processing inappropriate materials
- Modifications or alterations to the machine
- Damage from improper electrical connection
- Damage from improper coolant use or maintenance

10.3 Return Authorization

Obtain written authorization before returning any merchandise by contacting Customer Service at (269) 382-2050. Unauthorized returns may not be accepted.

11. Contact Information

KALAMAZOOINDUSTRIES, INC.

Kalamazoo, Michigan

Toll-Free: 1-800-592-2050

Local: (269) 382-2050

Website: www.kalamazooind.com

Office Hours: Monday – Friday, 8:00 AM – 4:30 PM EST

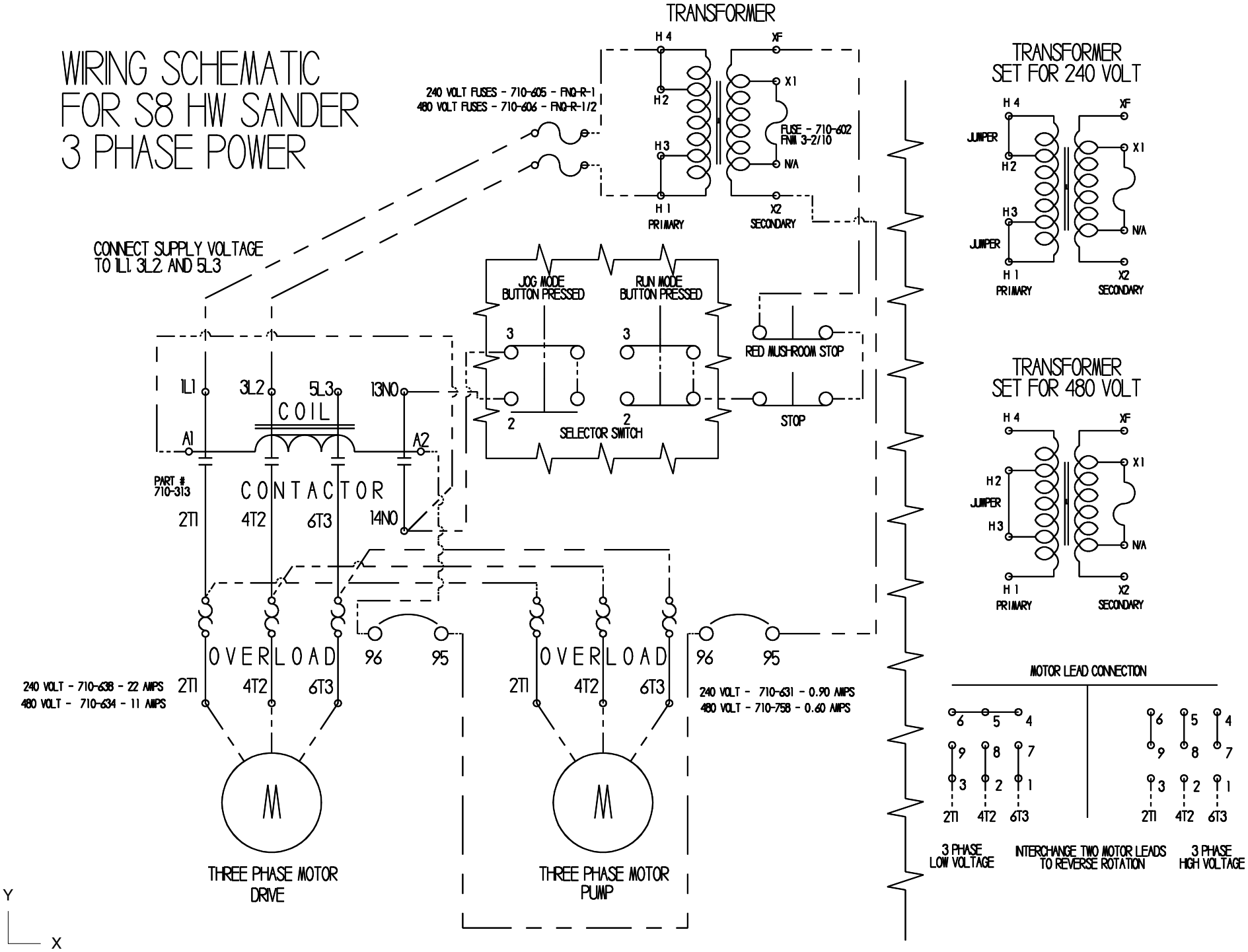
Online Resources

- Product Registration: www.kalamazooind.com/product-registration
- Parts Orders: www.kalamazooind.com/parts-by-category
- Technical Videos: www.kalamazooind.com/videos
- Contact Form: www.kalamazooind.com/contact-us

Thank you for choosing Kalamazoo Industries!

Made in the USA

WIRING SCHEMATIC FOR S8 HW SANDER 3 PHASE POWER



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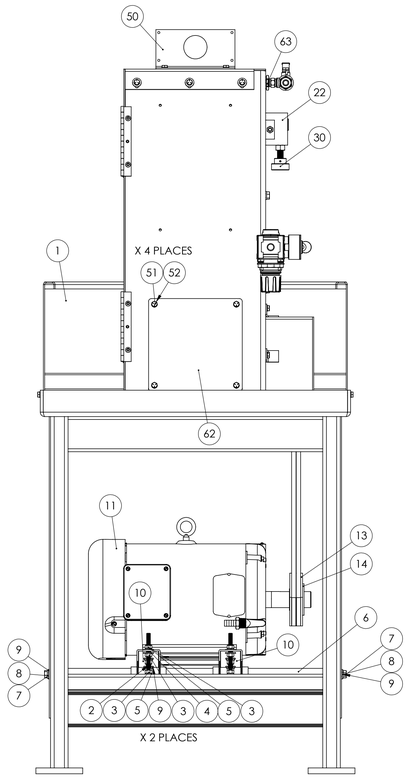
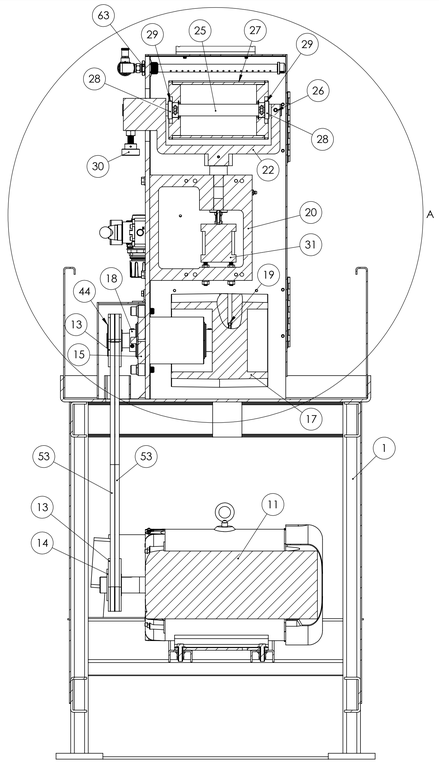
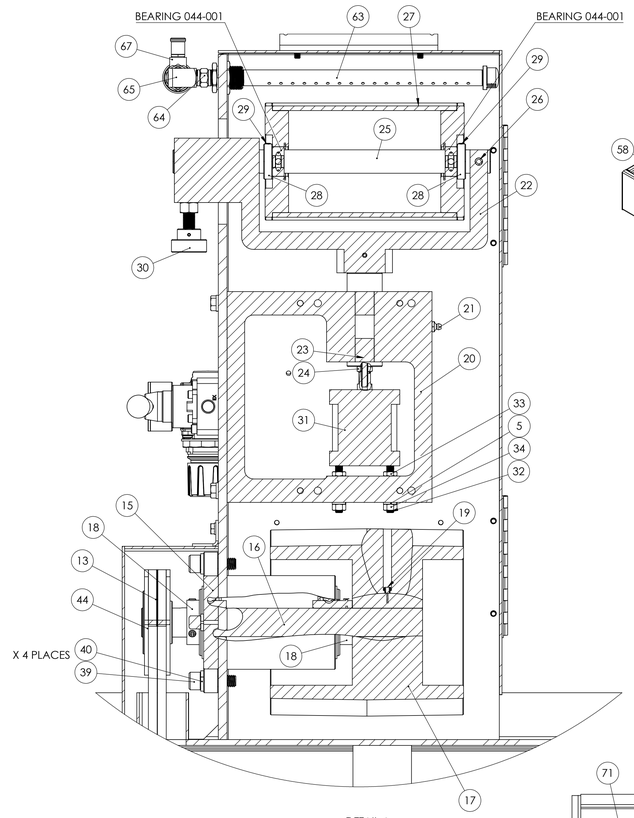


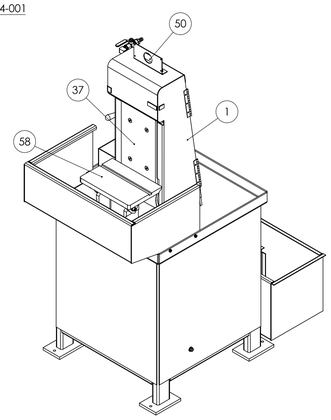
BACK VIEW

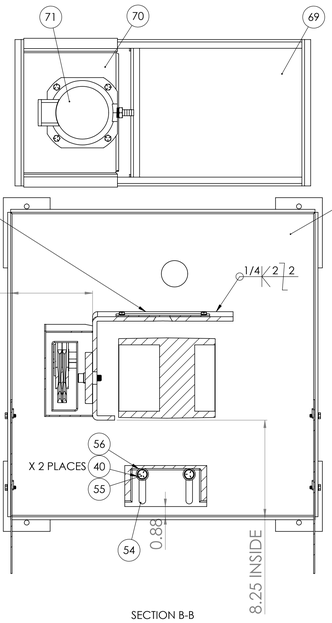


INTERIOR VIEW FROM
FRONT SIDE



DETAIL A
SCALE 2 : 5

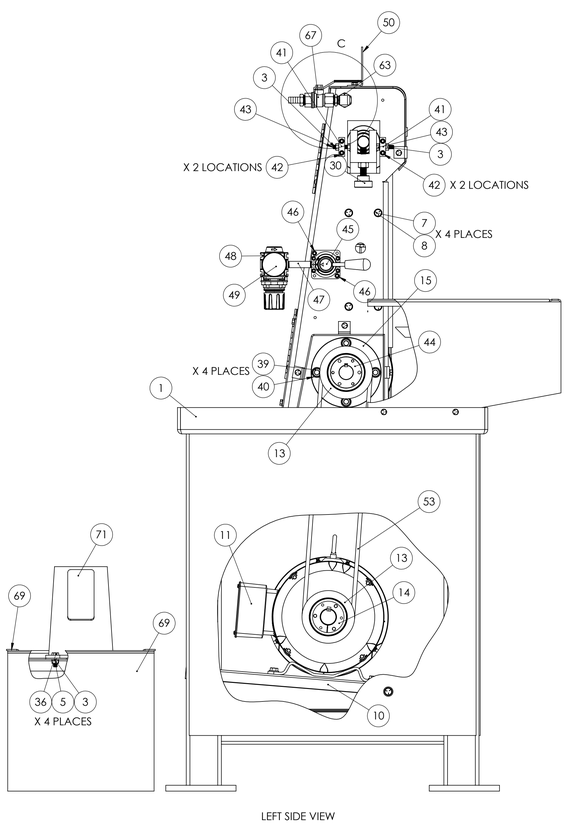




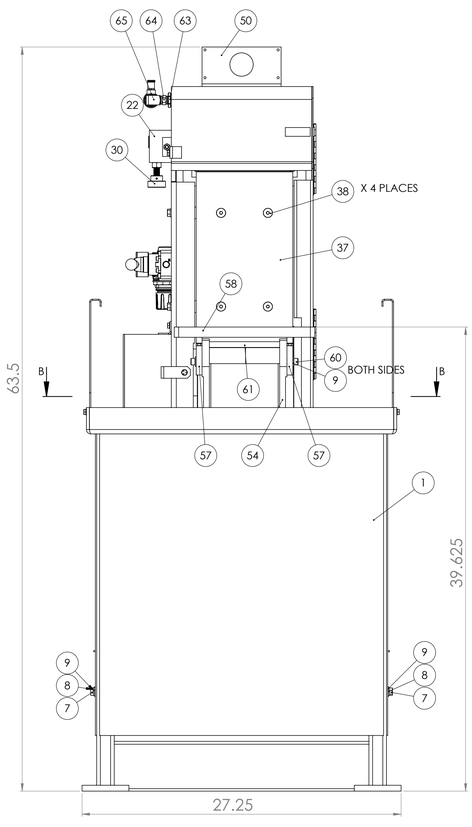
SECTION B-B

TOP VIEW

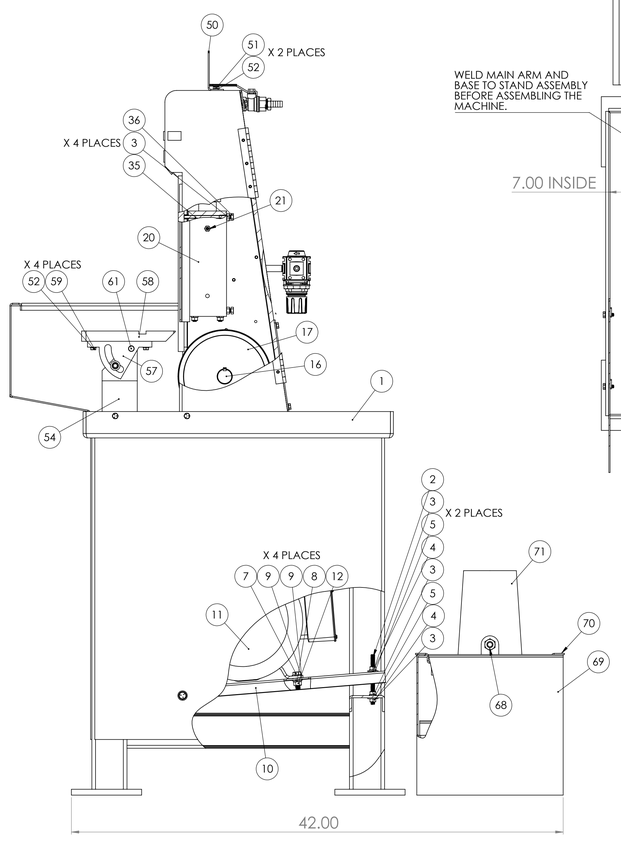
ATTACHMENT OF MAIN ARM/ BASE
TO STAND



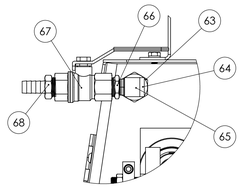
LEFT SIDE VIEW



FRONT VIEW



RIGHT SIDE VIEW



DETAIL C
SCALE 2 : 5

COOLANT VALVE
DETAILS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	716-010	STAND FOR S8W	1
2	RND-0.3125-18THRDX4.25	4-1/4 INCHES OF 5/16-18 THREADED ROD	2
3	FHN5031	5/16-18 FHN GR5 ZINC	18
4	UFWZ031	5/16 USS F/W Z	6
5	SLWZ031	5/16 SPLIT L/W Z	12
6	700-043	S8 MOTOR MOUNT PIVOT SHAFT	1
7	HHC5037020	3/8-16 X 1-1/4 HHCS GR5 Z	10
8	SLWZ037	3/8 SPLIT L/W Z	10
9	UFWZ037	3/8 USS F/W Z	12
10	690-014	RAIL, MOTOR MOUNT FOR S 460, S6, S8 SANDERS	2
11	486-032	7-1/2 HP MOTOR FOR S8D	1
12	FHN5037	3/8-16 FHN GR5 Z	4
13	560-060	MOTOR AND SPINDLE PULLEY SHEAVE FOR S8 SANDERS	2
14	049-017	MOTOR PULLEY BUSHING FOR K20SSF-20,HP K20SW-20HP, K20E, KM20-22W-20HP	1
15	386-016	HOUSING, BEARING FOR S8 SANDERS	1
16	701-022	SPINDLE, DRIVE FOR S8 SANDERS	1
17	560-023	DRIVE PULLEY FOR S8 SANDERS	1
18	044-014	SPINDLE BEARING FOR S8 DRIVE PULLEY AND S10	2
19	SSSA031012	5/16-18 X 3/4 SOC SET CUP PT	1
20	291-025	PLATEN SUPPORT FRAME FOR S8D SANDERS	1
21	ZERK012000	1/8-27 X 11/16 STRT LUBE FITTING	1
22	960-007ASSY	S8 SERIES YOKE AND YOKE SHAFT ASSEMBLY	1
23	709-010A	3/8-24 X 1-1/4 STUD FOR S8D SANDERS	1
24	FJNZ038	3/8-24 F H JAM NUT	1
25	701-023	SPINDLE, IDLER FOR S8 SANDERS	1
26	ROLA031032	5/16 X 2 ROLL PIN	1
27	560-024	IDLER PULLEY WITH BEARINGS FOR S8 SANDERS	1
28	123-016	S6 IDLER PULLEY LOCK COLLAR	2
29	SSKA025004	1/4-20 X 1/4 SOC SET KNURL PT.	2
30	441-016ASSY	TRACKING KNOB ASSEMBLY FOR S8 AND S10 SANDERS	1
31	131-010	2500B-1.50 2.50X1.50 AMERICAN MINI PAK CYLINDER FOR S8, S10 SANDERS	1
32	SSSA032036	5/16-24 X 2-1/4 SOC SET CUP PT	4
33	FJNZ032	5/16-24 F H JAM NUT Z	4
34	FHN5032	5/16-24 FHN GR5 Z	4
35	645-022	PUSH ROD FOR S8 SANDERS	4
36	HHC5031016	5/16-18 X 1 HHCS GR5 Z	8
37	563-004	PLATEN FOR S8 SANDERS	1
38	FSCA037024	3/8-16 X 1-1/2 FSHCS	4
39	SHCA050024	1/2-13 X 1-1/2 SHCS	4
40	SLWZ050	1/2 SPLIT L/W Z	6
41	053-009	TRACKING BLOCK- 5/16 THREADED HOLE	2
42	SHCA025016	1/4-20 X 1 SHCS	4
43	HHC5031020	5/16-18 X 1-1/4 HHCS GR 5 Z	2
44	049-005	SPINDLE PULLEY BUSHING FOR S8 SANDERS	1
45	912-014	HVN4200-8 PARKER 1/4 WAY VALVE, 3P ROTARY HAND VALVE	1
46	SHCA025024	1/4-20 X 1-1/2 SHCS	2
47	02530040BLN	02530040BLN 1/4 X 3 BLACK PIPE NIPPLE	1
48	641-021	P32RB92BNNP PARKER REGULATOR 1/4" 125PSI RELIEVING MODULAR REGULATOR	1
49	18-013-212	18-013-212 1.5- 1/8 CBM-O-160	1
50	041-112	SWITCH BRACKET FOR E2PB BUTTON ENCLOSURE	1
51	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	6
52	SLWZ025	1/4 SPLIT L/W Z	10
53	051-011	V-BELT FOR S8 SERIES	2
54	711-009	SUPPORT, TABLE FOR S8 SANDERS	1
55	HHC5050032	1/2-13 X 2 HHCS GR5 Z	2
56	UFWZ050	1/2 USS F/W Z	2
57	831-017	TRUNNION, TABLE FOR S8 SANDERS	2
58	829-015	TABLE, WORK FOR S8 SANDERS	1
59	HHC5025016	1/4-20 X 1 HHCS GR5 Z	4
60	SHCA037016	3/8-16 X 1 SHCS	2
61	711-009ROD	8-1/4 OF 1/2 ROD RN-1/2 CF C1018	1
62	291-008A	VACUUM PLATE FOR S8 UPPER HEAD ASSEMBLY	1
63	389-020	SPLASH BAR FOR S8 WET SANDERS	1
64	3325X6	3/8 HEX NIPPLE	1
65	3400X6	3400X6 BRASS STREET ELBOW-90 DEG- 3/8M X 3/8F	1
66	3220X8X6	3220X8X6 BRASS PIPE BUSHING	1
67	912-030	JOM 100-703 BRONZE BALL VALVE FULL PORT-1/2	1
68	1020808C	102-0808C 1/2" MALE NTP TO 1/2" HOSE BRASS BARBED FITTING-STRAIGHT	2
69	716-011	COOLANT TANK ASSEMBLY FOR S460W, S6MW, S660MW, K12-14MS, K12-14W	1
70	041-114	1/4 TO 1/2 H.P. COOLANT PUMP MOUNTING BRACKET FOR WET SANDERS	1
71	577-002	1/4HP COOLANT PUMP AND MOTOR	1

PLEASE CONSULT S8 UPPER HEAD ASSEMBLY DRAWING
FOR MORE DETAILED INFORMATION ON THE UPPER
HEAD ASSEMBLY

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <INSERT COMPANY NAME HERE>. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <INSERT COMPANY NAME HERE> IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL
FINISH
NEXT ASSY | USED ON
APPLICATION | DO NOT SCALE DRAWING

	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

KALAMAZOO INDUSTRIES, INC.

TITLE:
S8 VERTICAL WET SANDER

SIZE DWG. NO. REV
E S8W ASSEMBLY

SCALE: 1:5 WEIGHT: SHEET 1 OF 1