



Operating Instructions and Parts Manual Wide Belt Sander

Models WBS-37, WBS-37V, WBS-37H, and WBS-37VH



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1.0 IMPORTANT SAFETY INSTRUCTIONS

You — the stationary power tool user — hold the key to safety.

Read and follow these simple rules for best results and full benefits from your machine. Used properly, Baileigh machinery is among the best in design and safety. However, any machine used improperly can be rendered inefficient and unsafe. It is mandatory that those who use our products be properly trained in how to use them correctly. They should read and understand the Operating Instructions and Parts Manual as well as all labels affixed to the machine. Failure to follow these warnings can cause serious injuries.

General Operational Safety

1. Before installing and using this machine, read, understand, and follow the instructions in this Operating Instructions and Parts Manual.
2. For safe operation, this machine must be set up, used, and serviced properly. Misuse of this machine can cause serious injury or death.
3. Know the tool you are using, its application, limitations, and potential hazards.
4. When mounting on or over a combustible surface, a floor plate of at least 1.43 mm galvanized or 1.6 mm uncoated steel must be installed and extended at least 150 mm beyond the equipment on all sides.
5. Wear proper apparel. Never wear loose clothing, gloves, jewelry, or unrestrained hair which can get caught in moving parts. Rubber-soled, non-slip footwear is recommended for the best footing.
6. Keep children away. All visitors should be kept at a safe distance from the work area. Make your workshop completely safe by using padlocks, master switches, and by locking out the Main Power Switch.
7. Install the machine in a dedicated workspace to isolate operations and reduce the risk of accidents.
8. Keep the work area clean. Cluttered and dirty areas invite accidents from tripping and slips.
9. Provide good lighting. A well-lit area allows operators to have a clear view of the machine operations.
10. Avoid dangerous working environments. Do not use stationary machine tools in wet or damp locations.
11. Avoid accidental starts by ensuring the Main Power Switch is in the "OFF" position and locked using a small padlock (not supplied) before plugging in the machine.
12. Never leave this machine running while unattended. Padlock the Main Power Switch in the "OFF" position whenever this machine is not being used.
13. Remove adjusting keys and wrenches (if used) before turning the machine on.
14. Use the right tool. Don't force a tool or attachment to do a job it was not designed for.
15. Use only recommended accessories and follow manufacturer's instructions pertaining to them.
16. Do not operate this machine while tired or under the influence of drugs, alcohol, or medication.
17. Disconnect the machine from the electrical power source before adjusting, cleaning, repairing, changing accessories, or performing general servicing and maintenance.
18. Never stand on this machine. Serious injury could occur if the tool is tipped or if the abrasive belt is accidentally contacted.

Abrasive Sanding Machine Safety

Abrasive sanding can be hazardous to operators and bystanders. Sanding sparks, chips, and dust particles thrown off by the abrasive belt can cause serious injury if contacted or inhaled. To avoid such injuries, you must comply with the following safety requirements:

1. Always wear approved protective eyewear and/or face shield when operating machinery that complies with ANSI Z87.1 specifications. Eyewear and face shield shall be impact-resistant. Make sure protective safety glasses have side shields. Use of eyewear or face shield that does not comply with ANSI Z87.1 specifications could result in severe injury from the breakage of the eye protection.
2. Wear an approved dust mask when operating this machine.
3. Wear proper hearing protection while operating the machine.
4. All dusts are potentially explosive. Read and understand the safety information below under *Fire and Explosion Safety*, below.
5. Keep hands away from all moving parts, including abrasive belt, revolving rollers, chains, and conveyor belt.
6. Never place hands or fingers between workpieces and the conveyor belt. Your hand may become pinched and pulled into the sander.
7. Do not create a pinch point when adding, feeding, and/or unloading material.
8. Kickback and kickout are conditions when the workpiece is ejected at high speed toward the infeed or outfeed of the machine. Avoid Kickback or kickout by never allowing workpieces to overlap, double feed, or ride on top of each other. Also make sure the sander opening is not too small for the workpiece. The workpiece must be firmly held to the feed conveyor belt to control the part. Do not stand directly in front or behind the

conveyor. Stand to the side to stay out of the workpiece path.

9. Do not force or jam the workpiece into the abrasive belt. It will do the job better and safer at the rate for which it was designed.
10. Do not overreach. Failure to maintain a proper working position can cause you to fall into the machine or cause your clothing to get caught — pulling you into the machine.
11. Keep all doors, covers, and guards in place and in proper working order. Do not operate the machine with the doors, covers, or guards damaged or removed.
12. Check damaged parts. A guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment or moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. Properly repair or replace any guard or other part that is damaged.
13. Before sanding, always allow the motor to come up to operating speed, then check the abrasive belt for tracking, alignment, or any unbalanced condition. If the belt is not operating accurately and smoothly, immediately stop the motor and make adjustments before attempting any sanding operations.
14. A rotating abrasive belt will cause severe injury if touched by any part of your body. Keep your body, especially your hands and fingers, and clothing away from moving parts.
15. Abrasive belts must be stored in a controlled environment. Failure to do so could cause premature belt failure. Follow all manufacturers' requirements and specifications for storing belts.
16. Examine the face of the abrasive belt carefully. Excessive sanding that wears down to the backing material can tear the belt. Never use a belt which shows backing, nicks or cuts on the surface or edge, or damage due to creasing or poor handling.
17. Never clean the abrasive belt while it is on the sander. Turn the Main Power Switch "OFF", remove the abrasive belt, and clean separately.
18. When installing a new belt, be certain the belt is properly installed, aligned, and adjusted. Failure to do so could cause a serious unbalanced condition.
19. Safety shoes which comply with ANSI Z41.1 should be worn.
20. Personal hearing protection such as earplugs or earmuffs should be used to protect against the effects of noise exposure.

Fire and Explosion Safety

Particles of all materials are potentially combustible or explosive. Never generate sparks or hot particles in the presence of easily combustible material. Non-metallic and non-ferrous particles and flammable substances are particularly dangerous. Examples: aluminum, magnesium, zinc, and their alloys; and petroleum finishing lubricants or compounds.

If your machine has been used for sanding light metal, do not sand sparking material (steel) without thoroughly cleaning the machine first. The residual light metal dust could be ignited by sparks. An explosion could result.

Do not sand mixed materials in your sander. The sander, ductwork, and dust collector must be thoroughly cleaned before switching material.

You must comply with the following safety requirements:

1. Proper dust collection is essential for the safe operation of this machine. Do not operate without a dust collection system. The National Fire Protection Association (NFPA) has established standards for dust collection. Obtain a copy of NFPA 65 and NFPA 91 to see these standards. See *Section 7.0 Dust Collection* for more information.
2. Even while using a dust collection system, provide good ventilation in the machine operation area. This ensures that any metal dust and particles not removed by the dust collection system do not build up.
3. Sparks can be generated while sanding. Do not store or use flammable materials, liquids, or vapors near this machine. Have fire extinguishing equipment nearby.
4. Clean the sander daily of combustible particles from the entire system, including this machine, the hood, the dust collector ducts, and the dust collector machine. Properly dispose of the particles.
5. Keep sparks and flames (smoking, welding, etc.) at least 20 feet from the sander and dust collection ductwork.
6. Never process short workpieces or workpieces that are too thick, which could cause jams, forcing the hold-down shoes/rolls into the abrasive belt and creating sparks.
7. Additional precautions may be necessary for sanding materials which are flammable or have other hazardous properties. You should always consult the manufacturer of such materials for instructions on sanding and handling.
8. Ground machine and ductwork in accordance with National Fire Protection Association (NFPA) electrical codes.

General Electrical Safety

This machine should be grounded in accordance with the National Fire Protection Association (NFPA) electrical code and local codes and ordinances. The work should be done by a qualified electrician. The machine should be grounded to protect the user from electrical shock.

1. Hazardous voltage inside electrical enclosures. High voltage can shock, burn, or cause death due to arcing or contact. Disconnect power before servicing this machine. Only qualified personnel should open electrical enclosures.

2. **DANGER!** Before servicing this machine, the capacitor circuit must be de-energized. Wait 10 minutes after disconnection from electrical power for capacitors to discharge to safe voltage levels. Touching an energized capacitor can cause serious injury or death due to electrical shock.
3. This machine does not provide branch circuit protection. You must provide branch circuit protection in accordance with the National Electrical Code or Canadian Electrical Code.
4. Only replace a fuse with a new fuse of the same type and rating.

Wire Size

CAUTION: For circuits far from the electrical service box, increase the wire size to ensure adequate voltage to the motor. To minimize power losses and to prevent motor overheating and burnout, the supply conductors shall be 6 AWG minimum with suitable voltage and temperature ratings for the intended application.

Servicing and Maintenance Safety

1. Disconnect the machine from the electrical power source before adjusting, cleaning, repairing, changing accessories, or performing general servicing and maintenance.
2. Always follow the instructions in this Operating Instructions and Parts Manual when changing abrasive belts, accessory tools, or parts.
3. Maintain all machine tools with care. Follow all maintenance instructions for lubrication and accessory changes. Do not modify the machine or have makeshift repairs done to it. This not only voids the warranty but also renders the machine unsafe.
4. If there is any risk of tipping or sliding, the machinery must be bolted to the floor.
5. Never brush chips away while the machine is in operation.

 **WARNING:** This product can expose you to chemicals including titanium dioxide which is known to the State of California to cause cancer, and lead which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

 **WARNING:** Drilling, sawing, sanding or machining wood products generates wood dust and other substances known to the State of California to cause cancer. Avoid inhaling dust generated from wood products or use a dust mask or other safeguards for personal protection.

Wood products emit chemicals known to the State of California to cause birth defects or other reproductive harm. For more information, go to <http://www.p65warnings.ca.gov/wood>.

Familiarize yourself with the following safety notices used in this manual:

 **CAUTION** This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

 **WARNING** This means that if precautions are not heeded, it may result in serious, or possibly even fatal, injury.

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3.0 Product Overview

This manual covers the safe operation and maintenance procedures for a Baileigh WBS-37, WBS-37H, WBS-37V, and WBS-37VH Wide Belt Sander. This manual contains instructions for installation, safety precautions, general operating procedures, maintenance, and a parts breakdown. Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions as set forth in this document.

Technical Support handles questions about setup, operation, schematics, warranty issues, and individual parts. Our Technical Support department can be reached at 920-684-4990.

If you have any questions or comments, please contact your local supplier or Baileigh Industrial. We can also be reached at our website: www.baileigh.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

Register your product online -

<https://baileigh.com/product-registration>



3.1 Safety Features

Your sander has several safety features built in. These features should be periodically examined to ensure they are functioning properly. Operation without these features can be dangerous.

Safety features include:

- Control Buttons: On or near the control panel.
- Enclosed Abrasive Belt Assembly: Shields personnel from abrasive belt, rollers, and other moving parts during operation.
- Emergency-Stop Bar and Button: Operator-activated emergency-stop bar and button are located within reach of operator's workstation. – When activated, the machine stops within 4 to 7 seconds.
- Various Machine Guards: Restrict access to pinch points and moving parts.
- Attached DANGER, WARNING, and CAUTION Labels: Alerts operators of potential hazards.
- Abrasive Belt Access Door Micro Switch: When the abrasive belt access door is open and is not contacting the switch, the machine will not start. If this door is opened during operation, the machine's emergency stop system stops the machine within 4 to 7 seconds.
- Thickness Limiting Plate Micro Switch: The thickness limiting plate is located at the bottom of the abrasive belt housing and just above the conveyor belt on the inlet side. When this plate is pressed, it contacts the switch and activates the machine's emergency stop system. Stops the machine within 4 to 7 seconds.
- Stop Rod Micro Switch: The stop rod is located in front of the conveyor belt. When the stop rod is pressed towards the conveyor belt, it contacts the switch and activates the machine's emergency stop system. Stops the machine within 4 to 7 seconds.

If any of these features are missing or not functioning, do not operate the machine. Notify your supervisor, safety director, and/or the machine manufacturer immediately.



Emergency-Stop Button:

The emergency-stop button is located on the operator's panel at the front of the machine. When the emergency stop is engaged, the machine will immediately shut down.

To release the emergency-stop button, rotate the button clockwise.

⚠ WARNING

Do not reset the machine until you have confirmed that the cause of the emergency has been completely resolved.



Finger Protection Flap and Emergency Stop Bar:

At the infeed end, the machine is equipped with a finger protection flap. An emergency stop bar is installed beneath the conveyor table, in front of the infeed opening. If either of these safety devices is activated, the machine will immediately stop operating.

Side Access Door Switch (Interlock):

The machine is fitted with an interlock door switch on the side access door. Opening this door will trigger an automatic shutdown of the machine, activating the emergency stop.

Electronic Braking of Main Motors:

The sanding heads are brought to a stop through an electronic braking system when any of the following conditions occur:

- The emergency stop button is engaged.
- The side access door is opened.
- The abrasive belt breaks.
- The abrasive belt stop switch is activated.

Conveyor Belt Stopping Conditions:

The conveyor belt will stop under any of the following circumstances:

- The emergency stop button is engaged.
- The finger protection flap is pressed.
- The emergency stop bar is activated.

Conditions for Starting the Sanding Heads:

A sanding head can only be started when:

- The abrasive belt is properly tensioned.
- No emergency stop is engaged.
- The side access door is securely closed.

3.2 Product Identification

Familiarize yourself with the names and locations of the controls and features.

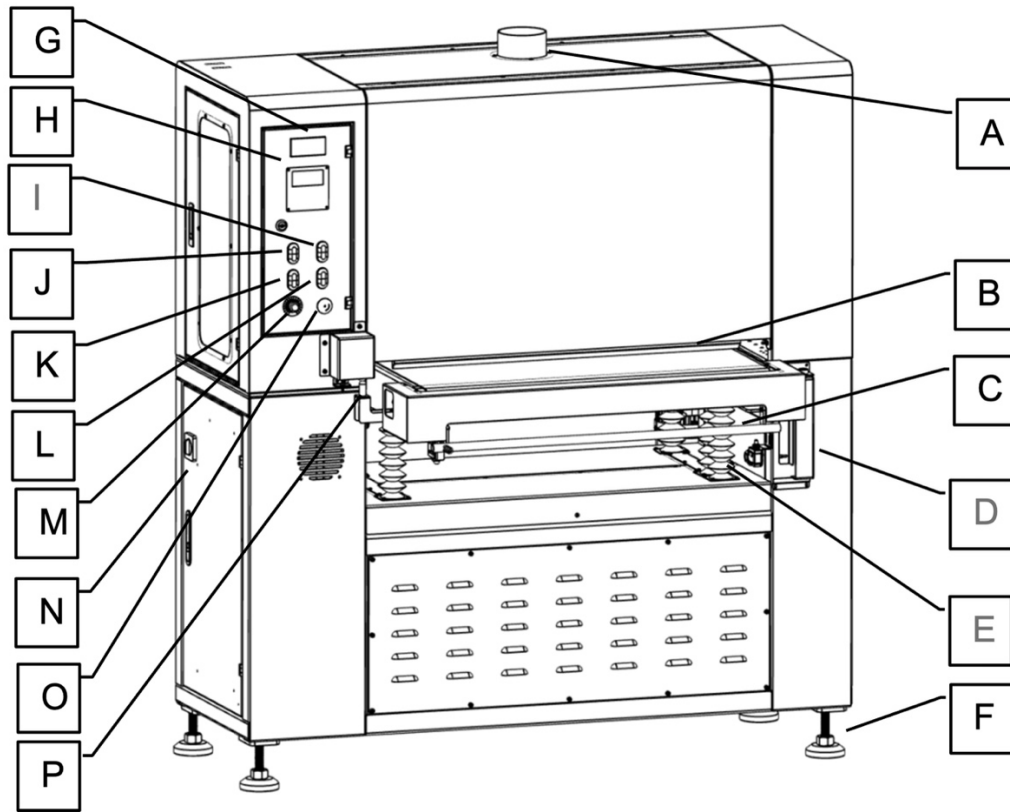


Figure 3-1

A	Dust Port	I	Conveyor Vacuum Start / Stop (models WBS-37V & WBS-37VH only)
B	Finger Protection Flap	J	Conveyor Table Up/ Down
C	Emergency Stop Bar	K	Conveyor Start / Stop
D	Magnetic Scale Cover	L	Abrasive Belt Start/ Stop
E	Lifting Screw	M	Conveyor Speed Adjustment Knob
F	Adjustable Foot	N	Main Power Switch
G	Ampere Meter	O	Emergency Stop Button
H	Digital Controller	P	Thickness Gauge

3.3 Product Dimensions

Refer to the diagrams below to better determine the space needed for installation. Make sure you provide enough space for operation, servicing, and maintenance.

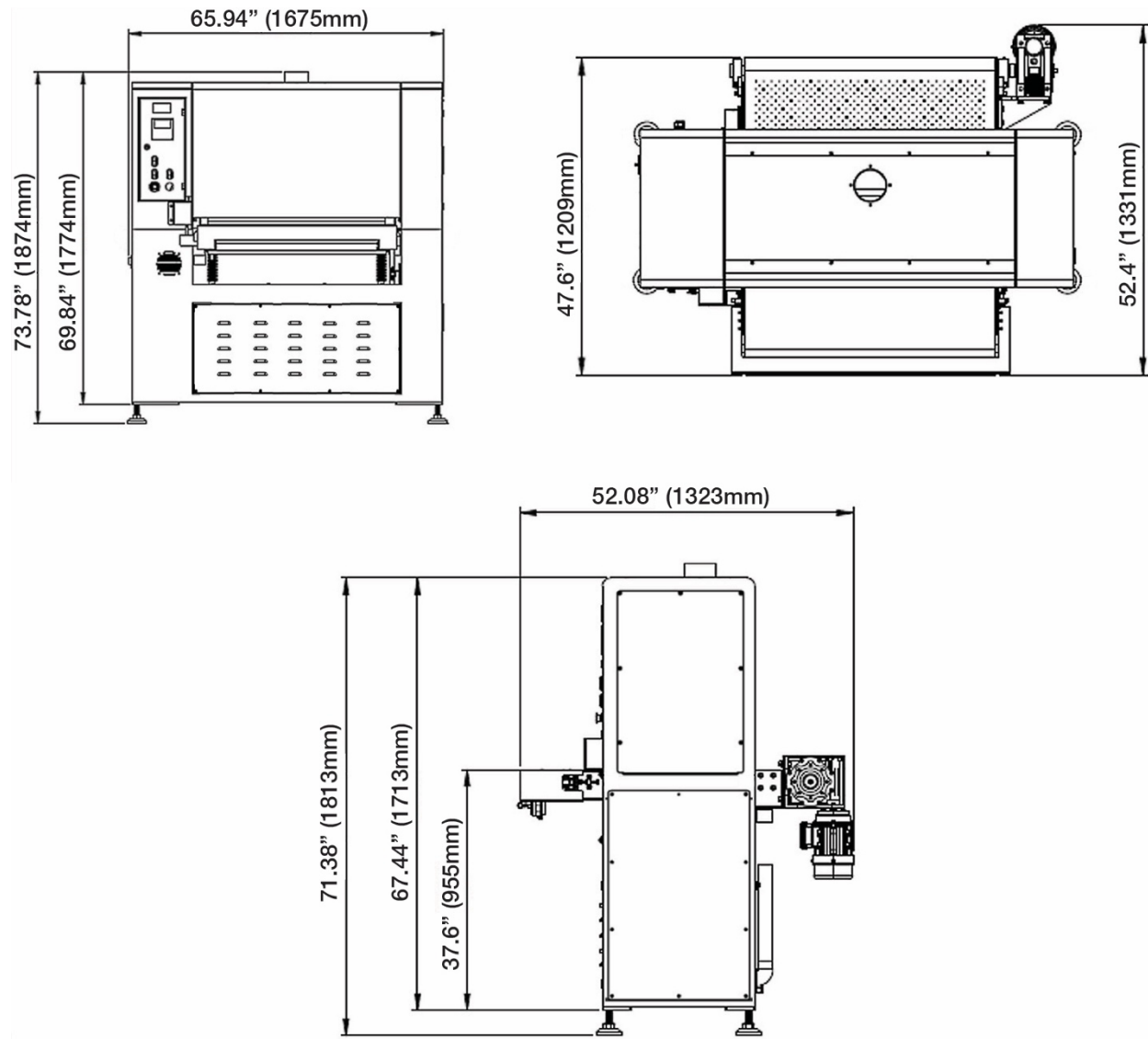


Figure 3-2

3.4 Operator's Position

When operating this machine, stand to the side of the infeed belt and in front of the operation panel (see Figure 3-3). This position allows the operator to see and use the control panel without being in line with the infeed belt, reducing the risk of kickback injuries.

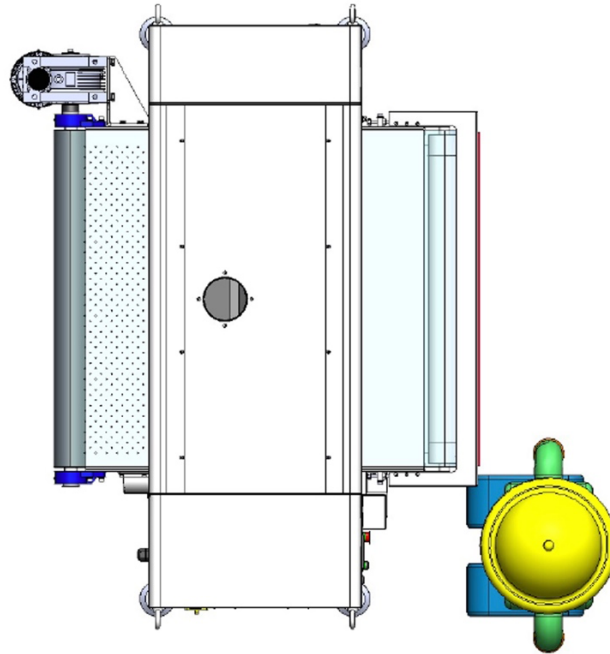


Figure 3-3

4.0 Specifications

Table 1

Model number	WBS-37 / WBS-37V	WBS-37H / WBS-37VH
Stock number	BA1-11225 / BA1-12446	BA1-11226 / BA1-12447
Motor and Electrical		
Main Motor	10HP, 3Ph, 4P, 60Hz, 230V (24.8A)	10HP, 3Ph, 4P, 60Hz, 460V (14.3A)
Conveyor Motor	1HP, 3Ph, 4P, 60Hz 230V (3.04A)	1HP, 3Ph, 4P, 60Hz 460V (1.75A)
Conveyor Lift Motor	1/2HP, 3Ph, 4P, 60Hz 230V (1.85A)	1/2HP, 3Ph, 4P, 60Hz 460V (1.06A)
Vacuum Motor (WBS-37V & WBS-37VH Only)	6HP, 3Ph, 2P, 60Hz, 230V (16A) / 460V (8A)	
Power Source Voltage	230V, 3Ph	460V, 3Ph
Power Source Fuse	60A (WBS-37) / 80A (WBS-37V)	45A (WBS-37H) / 40A (WBS-37VH)
Full Load Ampere	33A (WBS-37) / 49A (WBS-37V)	19A (WBS-37H) / 27A (WBS-37VH)
General Specifications		
Abrasive Belt	37" Wide x 60" Long, #80 grit standard	37" Wide x 60" Long, #80 grit standard
Sanding Tension Roller (upper)	D 4.7" x L 38.5" (120 x 980mm)	D 4.7" x L 38.5" (120 x 980mm)
Sanding Drive Roller (Lower)	D 6.0" x L 38.5" (150 x 980mm)	D 6.0" x L 38.5" (150 x 980mm)
Hold-Down Press Roller Size	D1.5" x L40.5" (39 x 1030mm) two pieces on front / two pieces on back of sanding roller	D1.5" x L40.5" (39 x 1030mm) two pieces on front / two pieces on back of sanding roller
Pass Line Height	0~6" (0~152mm)	0~6" (0~152mm)
Max Working Width	37" (940mm)	37" (940mm)
Max Working Thickness	6" (152mm)	6" (152mm)
Min Thickness Capacity	WBS-37: 0.0625" (1.6mm) WBS-37V: 0.016" (0.4mm)	WBS-37H: 0.0625" (1.6mm) WBS-37VH: 0.016" (0.4mm)
Max Thickness Capacity	6" (152mm)	6" (152mm)
Max Sanding Thickness Limit	0.008" (0.2mm)	0.008" (0.2mm)
Min Workpiece Length (model WBS-37 & WBS-37H)	8" (200mm)	8" (200mm)
Min Workpiece Length (model WBS-37V & WBS-37VH)	2" x 2" (51 x 51mm)	2" x 2" (51 x 51mm)
Max Workpiece Weight	1764 lbs. (800kg)	1764 lbs. (800kg)
Sanding Speed	2650 FPM	2650 FPM
Conveyor Drive Speeds	2-26 FPM Inverter Driven	2-26 FPM Inverter Driven
Conveyor Feed Gear Box Rate	1/60	1/60
Conveyor Vacuum Working Area (models WBS-37V & WBS-37VH)	37" x 1.77" (940 x 45mm)	37" x 1.77" (940 x 45mm)
Conveyor Working Area	37" x 41.73" (940 x 1060mm)	37" x 41.73" (940 x 1060mm)
Conveyor Height at Lowest Setting	0 ~ 6" (0~152mm)	0 ~ 6" (0~152mm)
Conveyor Rubber Specification	D 3.6" x L 37" (92 x 940mm)	D 3.6" x L 37" (92 x 940mm)
Table Height (from ground)	31" ~ 37" (787 ~ 940mm)	31" ~ 37" (787 ~ 940mm)
Dust Ports (Diameter x Quantity)	5" x 1 (inner dia. is 121.8mm/ out dia. 125mm)	5" x 1 (inner dia. is 121.8mm/ out dia. 125mm)
Weights and Dimensions		
Net Weight	1847 lbs. (838kg) / 1982 lbs. (899kg)	1847 lbs. (838kg) / 1982 lbs. (899kg)
Gross Weight	2233 lbs. (1013kg) / 2372 lbs. (1076kg)	2233 lbs. (1013kg) / 2372 lbs. (1076kg)
Machine Overall Dimension (L x W x H)	65.94" x 52.4" x 73.78" (1675 x 1331 x 1874mm)	65.94" x 52.4" x 73.78" (1675 x 1331 x 1874mm)
Packaging Overall Dimension (L x W x H)	70.87" x 59.05" x 83.46" (1800 x 1500 x 2120mm)	70.87" x 59.05" x 83.46" (1800 x 1500 x 2120mm)

WARNING

Read and understand the entire contents of this manual before attempting assembly or operation. Failure to comply may cause serious injury.

5.0 Unpacking and Installing

WARNING

Before setting up, adjusting, or operating this machine, read, understand, and follow the instructions and safety information in this owner's manual.

This machine is designed to operate at a high-performance level. When properly installed and operated, it will give you years of service. Read and understand this chapter before you unpack and set up this machine.

5.1 Unpacking

Inspect contents of crate for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the machine is assembled and running properly.

5.2 Cleanup

The unpainted surfaces of the machine are coated with a waxy oil to protect them from corrosion during shipment. Remove the protective coating with a solvent cleaner or a citrus-based degreaser.

For optimum performance, clean all moving parts and sliding-contact surfaces coated with rust-preventive products.

Avoid chlorine-based solvents, such as acetone or brake parts cleaner. These solvents will damage painted surfaces and strip metal. Always follow the manufacturer's instructions when using any type of cleaning product.

5.3 Installation Location and Site Preparation

When selecting the site for the machine, consider the largest workpiece you will process through it. Provide enough space around the machine for operating it safely. Provide additional space if installing auxiliary equipment. Leave enough space around the machine to open or remove doors/covers as required for maintenance and servicing.

The machine is intended for use in an ambient temperature of 32°F to 104°F (0°C to 40°C). Keep away from fire or oily areas.

5.4 Lifting Instructions

WARNING

This machine is extremely heavy. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate.

Ensure access to the installation site is clear and that doors and ceilings are sufficiently high and wide enough to receive the machine.

5.5 Leveling the Machine

The machine is equipped with adjustable leveling feet to ensure stability and proper alignment during operation.

Verify the machine is stable and not rocking. If the machine is unstable, unlevel, or rocking, adjustment is required.

To adjust the machine level, locate the four leveling feet at the base of the machine. Using a wrench, rotate the foot clockwise to lower or counterclockwise to raise. Adjust each foot until the machine is level and stable.

Recheck the machine level periodically, especially if it has been moved or relocated.

5.6 Securing Machine to Floor

Secure the machine to the floor using the through-holes on the adjustable feet.

5.7 Connecting to Dust Collection System

WARNING

Do not operate this machine unless it is connected to a properly sized dust collection system rated for metal sanding.

There is a 5" dust chute located on top of the machine. Connect dust chute to dust collection system using metal dust pipes and adapters. See *Section 7.0 Dust Collection* for detailed information.

6.0 Electrical Connections

WARNING

All electrical connections and service work on your sander should be performed by a qualified, licensed electrician who is familiar with all safe standard electrical installation practices and all applicable electrical codes. This includes local electrical codes which may affect the connection and operation of the sander in your specific manufacturing operation.

CAUTION

Do not use extension cords with this machine. Using extension cords can reduce the longevity of this machine's electrical components.

CAUTION

Make sure the power supply breaker capacity is 60A for model WBS-37, 80A for model WBS-37V, 45A for model WBS-37H, or 40A for model WBS-37VH.

CAUTION

To minimize power losses and prevent motor overheating and burnout, the supply conductors shall be 6 AWG minimum with suitable voltage and temperature ratings. The recommended maximum length of wire is 100 feet.

CAUTION

Follow all electrical codes. This machine is tested at the factory before shipment. **HOWEVER**, before attempting any electrical hookup, you should be certain:

1. The electrical characteristics of the service branch meet the motor's requirements.
2. The service branch is equipped with wires of the required gauge.
3. The branch circuit intended for the machine is protected by a time-delay fuse or circuit breaker rated at just slightly more than the motor's full-load current.

6.1 Electrical Grounding

We recommend that you obtain a current copy of the National Electrical Codes and that you consult a licensed electrical contractor to assist you in connecting your electrical service and grounding system.

WARNING

Connect your machine to an electrical ground in accordance with the National Electrical Codes, Article 250.

This recommendation is for your safety and on findings that static electric charges can be created by a moving abrasive belt or conveyor belt.

Two areas of this machine can be affected by a static charge:

- The abrasive belt sometimes attracts abraded particles. This causes streaks of particles to form on the inside or outside surface of the belt. This may show on the finished surface of your workpiece. Changing the abrasive belt usually fixes this condition. A properly grounded machine will reduce the frequency of abrasive belt changes and improve the finish of the sanding process.
- Reducing static charges can extend the life of machine bearings. Static charges that build up can erode bearing balls and races.

The exact method of grounding cannot be totally described here, as it is dependent on local factors:

- Soil type and moisture content of your soil
- Local codes
- ANSI/NFPA 70
- Your manufacturing process

(FPN No. 1): Systems and circuit conductors are grounded to limit voltages due to lightning, line surges, or unintentional contact with higher voltage lines, and to stabilize the voltage to ground during normal operation. Equipment grounding conductors are bonded to the system grounded conductor to provide a low-impedance path for fault current, facilitating the operation of overcurrent devices in ground-fault conditions. (ANSI/NFPA 70, Article 250)

(FPN No. 2): Conductive material enclosing electrical conductors or equipment, or forming part of such equipment, is grounded to limit the voltage to ground on these materials and to facilitate the operation of overcurrent devices in ground-fault conditions. (ANSI/NFPA 70, Article 250)

6.2 Full-Load Current Rating

The full-load current specification indicates the current drawn by the machine when operating at its rated output power. In instances where the machine has multiple motors, the full-load current is the sum of the amperage drawn by the largest motor or the cumulative current from all motors and electrical devices that could be active simultaneously under standard operating conditions.

The Full-Load Current Rating at 230V is 33A for model WBS-37, 49A for model WBS-37V, 19A for model WBS-37H, and 27A for model WBS-37VH.

It is important to clarify that the full-load current rating is not the upper limit of current the machine may consume. If the machine experiences overload, it can draw more current than its full-load rating, potentially leading to motor and circuit damage, overheating, or even fire.

This risk is elevated if the machine is connected to an inadequate circuit or a lengthy extension cable. To minimize these hazards, ensure that the machine is not overloaded during use and is connected to an electrical circuit that satisfies the necessary requirements.

6.3 Power Connection

Before connecting to power, make sure the voltage (V), frequency (Hz), and phase (Ph) of the power source are compatible with this machine. The supply conductors L1/L2/L3/PE shall be 6AWG minimum with suitable voltage and temperature ratings for intended application.

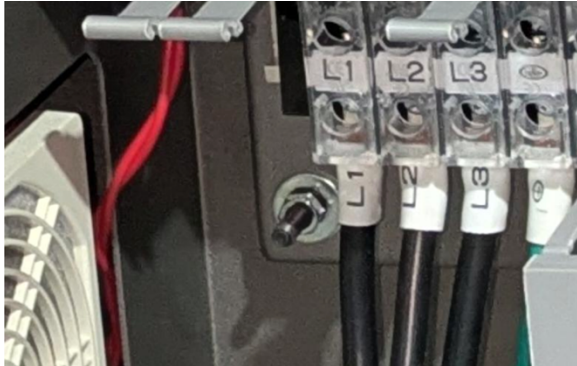


Figure 6-1: Electrical Connections

7.0 Dust Collection

A dust collection system must be purchased separately. Proper dust collection is essential for the safe operation of this machine. Do not operate without a dust collection system. The National Fire Protection Association (NFPA) has set up standards on dust collection. Obtain a copy of NFPA 65 and NFPA 91 to see these standards.

The dust hood outlet in this machine must be connected to a properly-designed and properly-sized dust collection system. This dust collection system will supply the sander with the recommended static pressure and CFM. When these conditions are met, the dust hood will perform efficiently and maintain the proper pick-up and conveying velocities.

⚠ DANGER

The small particle size of most dusts makes them potentially explosive. A properly-designed and properly-sized dust collection system is essential to minimize the hazard of fire and explosion.

⚠ DANGER

Connect dust hood outlet to a properly-designed and properly-sized dust collection system supplying the sander with the recommended static pressure and CFM. Inadequate dust collection will present a hazard of fire or explosion.

⚠ WARNING

Long-term exposure to some dusts (including wood and metal dust) may cause adverse health effects. An efficient dust collection system is necessary to reduce exposure to these dusts.

7.1 Before Purchasing and Setting Up Your Dust Collection System

1. Consult OSHA, NFPA, and state and local codes related to dust collection systems.
2. Contact a reputable, qualified industrial ventilation contractor.
3. Contact a dust collector manufacturer, such as Baileigh Industrial.
4. Know the fire hazards of the material being processed. Some materials, such as aluminum and magnesium, require special fire extinguishing equipment. Use of standard firefighting equipment will intensify the fire.
5. Notify the local fire department of the dust collector location and materials being processed.

7.2 For Metal Finishing Applications

- Maintain a minimum carrying velocity of 4500 FPM. (NFPA 65, 2-2.1)
- Oil, preservatives, and lubricants from previous operations supply fuel for a fire. They must be removed before sanding. (NFPA 91, 2-2.1)
- Duct systems, dust collectors, and dust-producing equipment must be bonded and grounded to minimize accumulation of static charge (NFPA 65, 2-2.6).
- The manufacturer and the NFPA recommend a spark detection and extinguishing system be installed in your dust collection ductwork.
- Good housekeeping and an efficient dust collection system, installed by a reputable qualified industrial ventilation contractor, will effectively remove dust build-up that is potential fuel for a fire.
- Consult NFPA codes when installing or modifying any dust collection system.

7.3 Connecting Dust Hood Outlet to Dust Collection System

Use anti-fire, flexible dust collection hoses to connect to the dust collection system.

1. Connect the anti-fire, flexible dust collection hoses to the machine's dust chute. You may use sheet metal screws or rivets to fasten the ducting to the dust hood outlets. The screws must be the minimum length needed to hold the ducting in place.

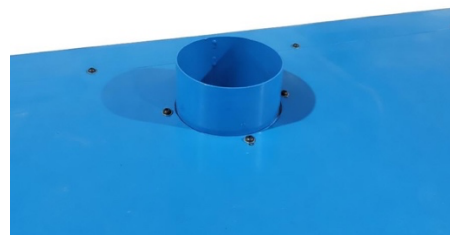


Figure 7-1: Dust Chute Outlet

8.0 Equipment Lockout

WARNING

To prevent personal injury or equipment damage when the machine is being inspected or repaired, you must lockout the machine. Follow the instructions below to properly lockout this machine.

1. Every power source that can produce the movement of any machine part shall be shut off at the closest possible power source.
2. The mechanical energy of all parts of the machine must be reduced to a zero-energy state. The opening of any pipe, tube, hose, or the actuation of any valve must not produce any movement that could cause injury.
3. Holding a machine member against gravity or a spring force by a blocking member, by suspension, or by brackets or pins designed specifically for that purpose is permissible if:
 - o All machine members are at a zero-energy state.
 - o All machine members are secured against accidental motion.
4. A workpiece or material supported or retained by the machine shall be considered part of the machine.
5. Any power source that can produce a machine movement will be locked and identified by the person signing the lockout tag and working on the machine.
6. When power sources have been locked out, a test must be performed to ensure that machine movement cannot be initiated.
7. The width of the working space provided in front of control cabinets and compartments shall be the width of the control cabinet or compartment but shall be not less than 1 meter.
8. The minimum headroom of working spaces around equipment where bare energized parts are exposed at any time shall be 7.3 feet (2.2 m), measured from the grade, floor, or platform, as appropriate.



Figure 8-1: Lockout Tags

Machine Lockout Procedure

1. Personnel authorized to lockout equipment must have the necessary number of locks to perform the job function.
2. Before proceeding with repair or inspection work, the employee must do the following:

- a. Physically disconnect all electrical power to the machine or lockout the appropriate breakers or disconnect switches.
- b. Close all valves for air hydraulic sources and bleed off any pressure that could result in any machine movement.
- c. Physically block all machine members that could move from gravity or spring pressure.
- d. Test lockout for power by attempting to start with the machine controls.
- e. Identify the Lockout Condition with a tag on the electrical disconnect and pneumatic shutoff valve.
- f. When the work is complete, restore the machine to its original state and remove all tags.
- g. Remove only the tags and the lock(s) you installed. If other personnel have placed additional locks on the machine, do not disturb or remove them.

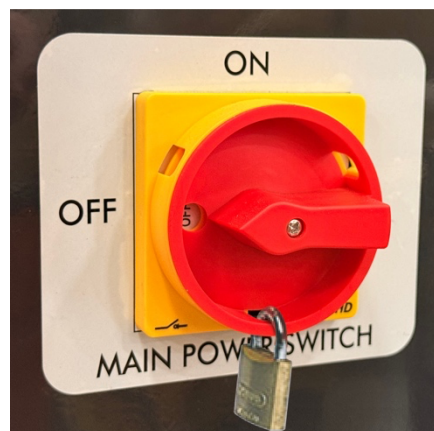


Figure 8-2: Typical Lockout

9.0 Setup and Adjustments

⚠ DANGER

Operation without proper alignment can result in product kickout, which can cause severe injury or death. Check machine alignment.

⚠ WARNING

Before setting up, adjusting, or operating this machine, read, understand, and follow the instructions and safety information in this owner's manual.

⚠ WARNING

Disconnect machine from electrical power source before adjusting, cleaning, repairing, changing accessories, or when general servicing and maintenance is done.

9.1 Abrasive Belt Installation

1. Make sure the Main Power Switch is in the "OFF" position. Lock out the switch using a small padlock.
2. Lower the conveyor table to ensure a clearance of at least 0.39" (10mm) from the contact roller (B, Figure 9-1). This prevents the abrasive belt from touching and damaging the conveyor belt surface during installation.
3. Locate the belt tension control switch (A, Figure 9-1) near the sanding direction label. Turn the belt tension control switch to the "down" position to release the tension roller.

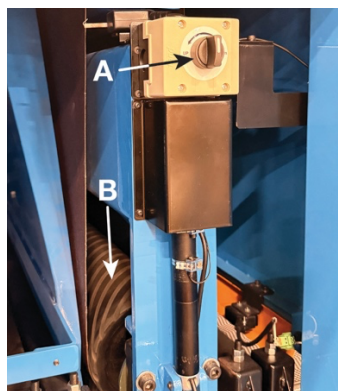


Figure 9-1

4. Move the locking bolt lever (C, Figure 9-2) to the center position and lift the locking bolt/washer (D, Figure 9-2) upward to remove the abrasive belt support base (E, Figure 9-2).

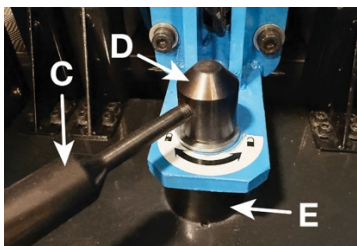


Figure 9-2

5. Install the new abrasive belt by first sliding it onto the tension roller guide and then around the contact roller. Handle the belt carefully to avoid damaging its edges. The inside of the belt has an arrow indicating the correct rotation direction, which must match the arrow on the sanding direction label.
6. Put the abrasive belt into the tracking bracket of the oscillation system on the opposite side of the machine. At this point, the tension roller should begin moving left and right. Pull the belt back slightly to find the oscillation turning point.
NOTE: Before continuing, make sure the tension roller moves when the belt is slid in and out of the tracking bracket. Each time you replace the abrasive belt, check that the oscillation system is functioning correctly, as proper oscillation is essential for stable belt operation.
7. Reinstall the abrasive belt support base and secure it with the locking bolt/washer.
8. Turn the tension control switch (A, Figure 9-1) to the "Up" position. The tension roller will move up to tension the belt. This system uses an electric actuator to automatically control belt tension, so no manual tension adjustment is needed. If you forget to set it to the "Up" (tension) position, the abrasive belt will not operate when the sanding head is activated.
9. Make sure the tensioned belt does not touch the belt-tracking optical sensors or the mistracking limit switches on either side of the machine.
10. Check the belt-tracking optical sensors and mistracking limit switches to make sure they are aligned and operating properly. See *Section 9.10 Testing Belt-Tracking Optical Sensors and Mistracking Limit Switches*.
11. Rotate the abrasive belt by hand to check that the tension roller is aligned with the contact roller and properly tensioned.

9.1.1 Verifying Belt Tensioning

To check for proper belt tension:

1. Rotate the abrasive belt by hand to check that the tension roller is aligned with the contact roller and properly tensioned.
2. Check the lateral oscillation of the tension roller. The normal oscillation range is 5/32 in. (4mm).

9.2 Setting Conveyor Bed Zero Point

⚠ WARNING

Ensure the machine is not operating during calibration. Follow all safety procedures.

The zero point is pre-set at the factory. The operator only needs to adjust the conveyor table until the abrasive belt lightly touches the conveyor table, then perform the F0 reset to complete the thickness reference setting.

Any time you change the thickness of the abrasive belt, you must recalibrate the conveyor bed's zero point.

Zero point setting and sensor calibration must be performed by personnel familiar with the machine's structure and safety regulations.

After using the machine, if the thickness value displayed on the digital controller does not match the actual gap between the abrasive belt and the conveyor table, you must recalibrate the conveyor bed's zero point. *Example:* If the controller displays 10.5mm but the actual measured gap is 10mm, the reference must be recalibrated so that the display value matches the machine's actual position.

Calibration Procedure Preparation

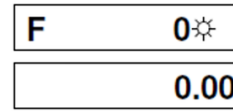
1. Ensure the machine is completely stopped and the main drive power is disconnected, keeping only the control system powered.
2. Clean the abrasive belt and conveyor table to ensure no debris interferes with measurement.

Adjusting Conveyor Table to Zero Point

1. Use the lifting system to raise the conveyor table until the contact point between the abrasive belt contact drum surface and the conveyor belt surface is lightly touching.
2. Gently rotate the abrasive belt by hand; when a slight resistance is felt between the conveyor table and the belt, this is the zero point position.
3. Do not over-raise the conveyor table to avoid damaging the abrasive belt or conveyor table.

Reset Display Value on Controller

1. On the digital controller, access function code F0.
2. Press the confirmation key (↵) twice to reset the display value to 0.00 mm.

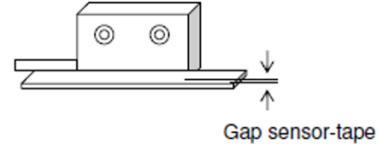


3. Confirm that the display value is now zero.

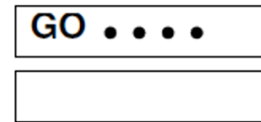
Perform Sensor Calibration

After resetting the zero point, perform a sensor calibration to ensure measurement accuracy.

1. Check that the sensor gap from the magnetic scale tape is 1mm (recommended value).



2. On the controller, enter F99 to enter calibration mode (Target value display GO...).



3. Press and hold the conveyor table down button, and move the conveyor table for approximately 120 mm until calibration is completed.

Display: GO ■■■■■ (Detecting)

Display: GO ■■■■■ (Almost complete)

4. Upon completion, the LED display will flash and show the thickness number.

Troubleshooting of calibration:

Symptom	Possible Cause	Correction *
 Display: GAP LO	The gap is too narrow	Please enlarge the gap. Press and follow step 2 calibration again.
Display: GAP Hi Display: GAP Hi	The gap is too big	Please reduce the gap. Press and follow step 2 calibration again.
Display: GO ■■■■■ ,or GO ■■■■■ ,or GO ■■■■■ 	The gap is too big or the machine surface is not flat/smooth	Adjust the gap or improve the machine surface.

After calibration, press to exit.

9.3 Contact Drum Adjustment

This machine was preset and aligned at the factory. However, the alignment may shift during shipping. Verify the alignment before operation. Accurate parallel alignment of the conveyor table, hold-down rollers, and the abrasive belt unit is essential for achieving high-quality results, ensuring safe machine operation, and preventing issues such as workpiece jamming or ejection.

Contact Drum Position Adjustment Procedure

Ensure the contact drum is correctly aligned so the abrasive belt runs evenly across its width and maintains proper contact with the workpiece surface.

Required Tools:

- 10mm Allen key
- 16mm open-end wrench
- 8mm open-end wrench
- 3 mm Allen key
- Dial gauge with base
- Torque wrench (for re-tightening bolts to specification)

1. Move the conveyor belt at least 10mm away from the contact drum and remove the abrasive belt.
2. Lower the conveyor table until the dial gauge can just measure the contact drum surface. Measure both the leftmost and rightmost sides of the contact drum to ensure the parallelism with the conveyor belt is within 0.03mm (see Figure 9-4).

When the contact drum is found to be misaligned with the conveyor table, the adjustment is usually made on the left side of the contact drum (the side where the abrasive belt is replaced) to correct the parallelism (see Figure 9-3).

3. Refer to Figure 9-4. When adjusting the parallelism between the conveyor table and the contact drum, first loosen screw #3, then use nut #1 or #2 for adjustment (the side where the abrasive belt is replaced). If there is a large deviation from left to right, loosen screw #6 and then use screw #4 or #5 to make the adjustment.

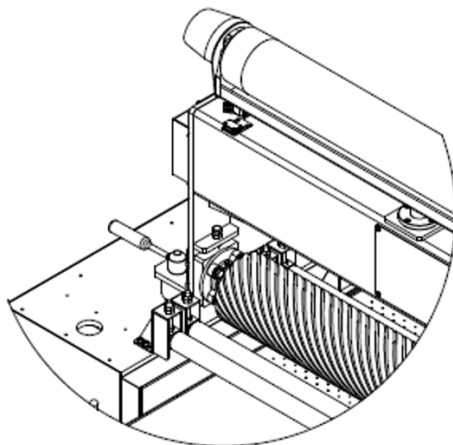


Figure 9-3

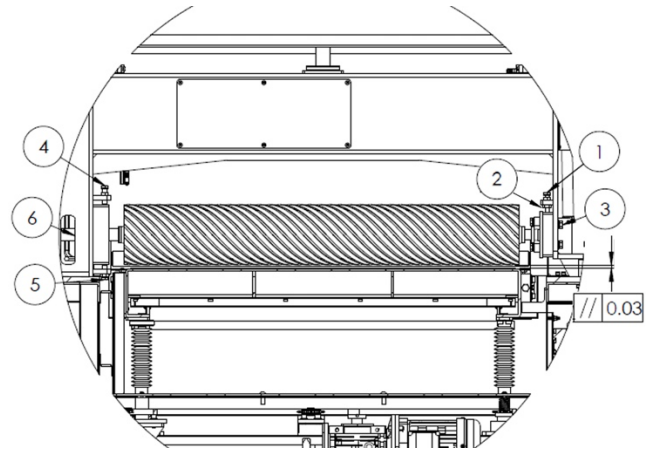
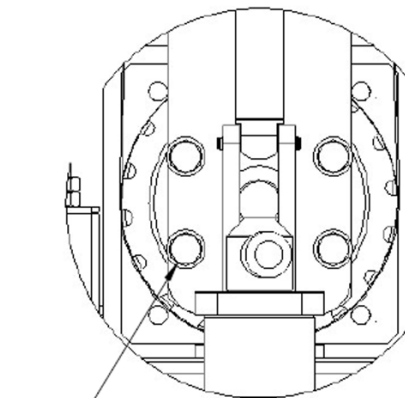
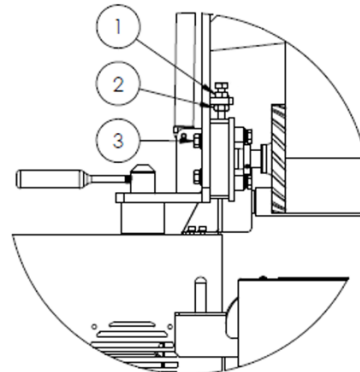


Figure 9-4

Contact Drum Adjustment (Left Side)

Refer to Figures 9-5 & 9-6.

1. Loosen the four screws (3).
2. **Raising the Contact Drum:** Loosen the lower nut (2). Turn the upper nut (1) clockwise until the required height is reached, then tighten the lower nut (2).
3. **Lowering the Contact Drum:** Loosen the upper nut (1). Turn the lower nut (2) counterclockwise until the required height is reached, then tighten the upper nut (1).
4. Retighten the four screws (3) loosened in step 1.



Screws No. 3.

Figure 9-5

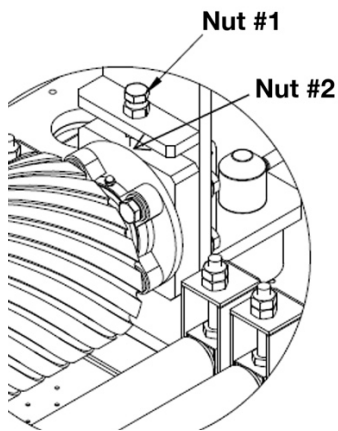


Figure 9-6

Contact Drum Adjustment (Pulley Side)

Refer to Figures 9-7 through 9-9.

1. Loosen the four screws (6).
2. **Raising the Contact Drum:** Loosen the upper nut (4). Turn the lower nut (5) until the required height is reached, then tighten the upper nut (4).
3. **Lowering the Contact Drum:** Loosen the lower nut (5). Tighten the upper nut (4) until the required height is reached, then tighten the lower nut (5).
4. Retighten the four screws (6) loosened in step 1.

Loosen screw
No. 6 using
a hex
wrench.

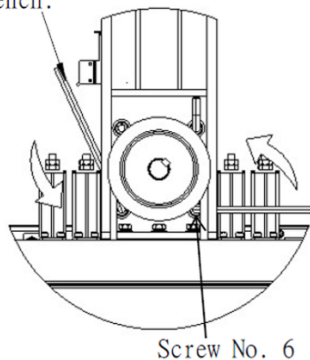
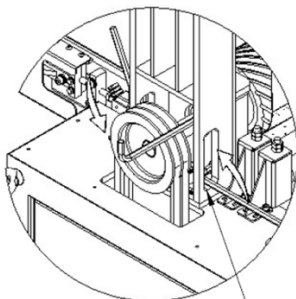


Figure 9-7



Insert the hex
wrench through
this opening to
adjust the
screw.

Figure 9-8

Adjustment screws (No.
4 and No. 5) of the
contact drum

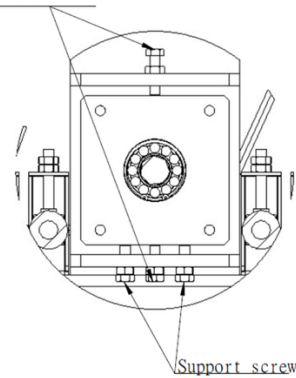


Figure 9-9

9.4 Conveyor Belt Tracking Adjustment

The conveyor system operates using a feeding roller that drives the belt and a tensioning roller that applies the necessary tension, allowing the workpieces to move through the machine. It is essential to keep the conveyor belt surface parallel to the pressure elements and sanding heads, and to ensure that the belt maintains balanced tension on both sides. The balanced tension is crucial for keeping the conveyor belt running correctly in the center of the conveyor table.

When the tension is too high, the conveyor belt will be overloaded; when it is too low, the conveyor feed roller will slip on the belt.

When the conveyor belt is running on the conveyor table, it may drift to one side. This condition can be corrected by adjusting the belt to bring it back to its proper path, a process known as conveyor belt tracking (or "adjusting the conveyor belt tracking").

The conveyor belt must be adjusted while it is running. Before making adjustments, ensure that no objects are placed on the conveyor belt.

Use the adjustment bolts on both sides of the conveyor infeed for tracking adjustment:

- Tightening the right-side adjustment bolt will shift the belt to the left.
- Tightening the left-side adjustment bolt will shift the belt to the right.

Do not overtighten the conveyor belt. The belt should only be tensioned enough to run properly without slipping. If one side feels too tight, loosen the adjustment bolt on the opposite side.

To Adjust Conveyor Belt Tracking on Left Side of Conveyor:

Refer to Figures 9-10.

Follow the steps below to increase conveyor belt tension and shift the belt to the right. To reduce tension and shift the belt to the left, apply the opposite adjustment by moving the conveyor roller seat inward.

1. Loosen the two screws (A).

- Loosen the hex nut (B), then use a hex wrench to tighten the hex screw (C) in order to push the conveyor roller.

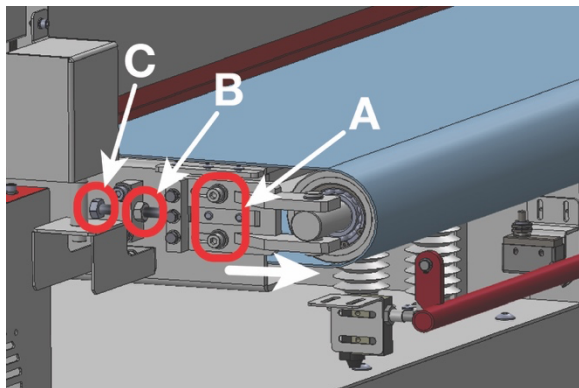


Figure 9-10

To Adjust Conveyor Belt Tracking on Right Side of Conveyor:

Refer to Figure 9-11.

Follow the steps below to increase conveyor belt tension and shift the belt to the left. To reduce tension and shift the belt to the right, apply the opposite adjustment by moving the conveyor roller seat inward.

- Loosen the two screws (D).
- Loosen the hex nut (E), then use a hex wrench to tighten the hex screw (F) in order to push the conveyor roller.

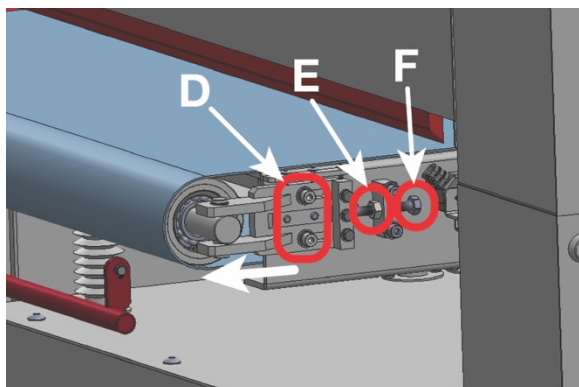


Figure 9-11

9.5 Automatic Thickness Setting

Refer to Figures 9-12 and 9-13.

With the automatic thickness-setting device, the conveyor table adjusts to the thickness of the workpieces to be sanded. The workpiece thickness can be displayed on the operator's panel with an accuracy of 0.1mm.

To set the conveyor table height according to the thickness of the workpiece:

- Lower the conveyor table using the table height adjustment switch (A) on the control panel.
- Place the workpiece (B) on the conveyor belt (C), positioning it directly beneath the switch of the automatic thickness setting device (D).
- Raise the conveyor table using the table height adjustment switch. When the workpiece activates

the switch of the thickness setting device, the table will stop at the correct working height



Figure 9-12

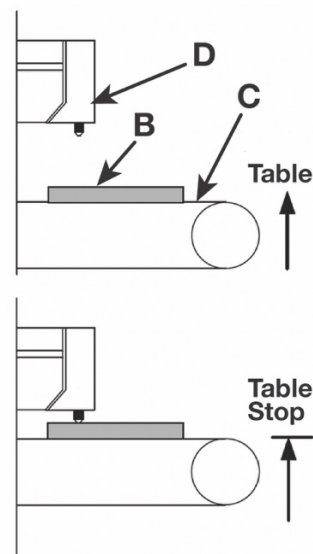


Figure 9-13

9.6 Testing the Emergency Stop Button

Make sure the emergency stop button is working correctly.

- Twist the red emergency stop button clockwise to make sure it is deactivated.
- Start the machine. After it is running, depress the emergency stop button. The machine should stop operating. If the machine cannot be restarted, the emergency stop button is functioning.
- To release the emergency stop, turn the button clockwise and the button will pop out.



Figure 9-14

9.7 Replacing Abrasive Belt of Different Thicknesses

When replacing an abrasive belt with a different thickness (such as a different grit size or material), the conveyor zero point must be recalibrated. See *Section 9.2 Setting Conveyor Bed Zero Point*.

The abrasive belt is driven by the contact drum, while the tension drum provides belt tension and tracking through oscillating movements.

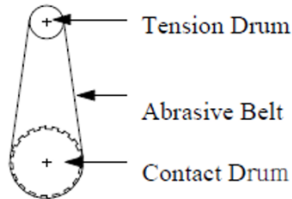


Figure 9-15

9.8 Fast Program

Fast Program Setting

Pre-set program 10 sets, enter program # 0~9 to execute. *Example:* Program 1 = 10mm, Program 2 = 20.00mm.

- Press **F** **5** **5** **←**.
Select a key (0-9, total of 10 sets).
- To enter program 1=10, press **1** **←**.
Then press **1** **0** **←**.
- Target value display ProG at present,
Enter program 2=20.00mm, press to exit.

Fast Program Initiate

For frequently used positions, the keys 0 through 9 have associated preset target values. The positioning can be started immediately. *Example:* Program 1 = 10mm, program 2 = 20mm. To execute program 2, follow the steps below.

- Select single mode LED lamp off.

- Press **2**, target value display: 20.00mm
 LED blinking to wait for start.

NOTE: To execute program 1, press #1.

100.00
100.00
20.00
100.00

Fine Adjustment

Increase and decrease to reach fine adjustment.

Example: M15 target value display 100.78mm, increase / decrease target value 0.10mm. To execute, follow the steps below.

- Increase target value: press , display 0.00
 LED blinking.
 Decrease: press twice, display -0.00 LED blinking.
 0.00
 100.78
- Press **0** **.** **1** **0**, press **←** to complete.
 NOTE: Target value display: 100.88mm, current value. Current value display: 100.78mm for target value increase 0.10mm.
 0.10
 100.78

9.9 Digital Controller Battery Replacement and Datum Value Calibration

Battery Type: C.

When the battery needs to be changed, the display will read:

CHANGE
bAtt

IMPORTANT: To avoid having to recalibrate the position value on the M15 controller, make sure the machine is powered ON during the battery replacement. Replacing the battery with the machine powered ON will retain the stored position values. If the battery is replaced while the machine is powered OFF, the stored position values will be lost and recalibration will be necessary.

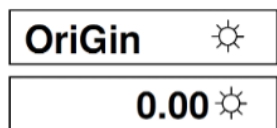
Calibration Procedure

On the controller, press F2 to enter the Datum Value setting mode.

Press **F** **2** **←** , and

press **0** **←** to exit.

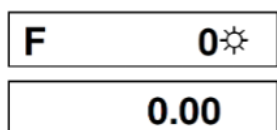
The default Datum Value is 0mm, which represents the point where the abrasive belt just contacts with the conveyor belt.



Move the abrasive belt downward until it lightly touches the conveyor surface. Once contact is made, manually rotate the abrasive belt to confirm slight contact. Then press F0 on the controller to read and set the new Datum Value.

Press **F** **0** , press **←** twice

This action calibrates and updates the displayed position value on the controller.



9.10 Operation Mode LED Light Strips

Refer to Figure 9-15.

The machine's operation mode LED light strips are located inside the side access door. Their illuminated colors are visible through the side access door window and show the machine's current operation mode.

Models WBS-37 and WBS-37H

For models WBS-37 and WBS-37H, there is only one LED light strip, and it is white.

WHITE LED On: The machine's main power switch is turned ON.

Models WBS-37V and WBS-37VH

For models WBS-37V and WBS-37VH, there are three LED light strips.

GREEN LED On: Machine is in Standby Mode when the main power switch is turned ON.

RED LED On: Machine is in Warning Mode because the emergency-stop button, emergency-stop bar, finger protection flap, door safety limit switch, or belt mistracking limit switches have been triggered.

WHITE LED On: Machine is in Operation Mode after the abrasive belt Start/Stop button is turned ON.
NOTE: The WHITE LED light can also indicate Abrasive Belt Maintenance Mode. This happens when the machine is in Standby Mode (GREEN LED on). The user opens the side access door, triggering Warning Mode (RED LED on). Next, the user turns the belt tension control switch to the DOWN position, releasing

the belt tension. This turns the RED LED strip off and turns the WHITE LED strip on, indicating Abrasive Belt Maintenance Mode. When belt maintenance is completed and the belt tension is restored, the WHITE LED strip turns off, and the RED LED strip turns on until the side access door is closed. When the side access door is closed, the GREEN LED strip turns on, indicating Standby Mode.

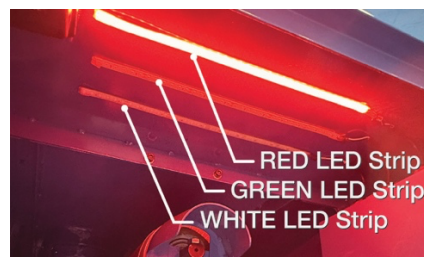


Figure 9-15

9.11 Testing Belt-Tracking Optical Sensors and Mistracking Limit Switches

9.11.1 Belt-Tracking Optical Sensors

Refer to Figures 9-16 and 9-19.

There are two sets of belt-tracking optical sensors, one set on each side of the abrasive belt assembly (see Figure 9-16). Each set of sensors produces a tracking beam. When that beam is broken by the belt's edge, the machine adjusts the tension roller to move the belt in the opposite direction. Both sets of belt-tracking optical sensors work together to keep the abrasive belt tracking properly between them.



Figure 9-16

To test for proper operation of the belt-tracking optical sensors:

1. Open the side access door on the electrical panel end of the machine.
2. Unlock and turn the Main Power Switch to the ON position (see Figure 9-17).



Figure 9-17

3. Locate the belt tension control switch (A, Figure 9-18) near the sanding direction label. Turn the belt tension control switch to the "DOWN" position to release the tension roller. NOTE: Hold switch in the "DOWN" position until the tensioning cylinder reaches full travel and automatically stops.

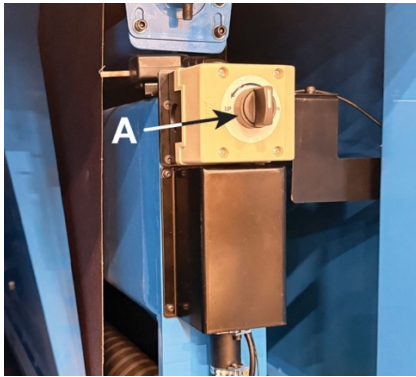


Figure 9-18

4. With the tension released from the abrasive belt, grab the belt and pull it back towards you until its edge crosses the beam of the belt-tracking sensor set (A, Figure 9-19). NOTE: When sliding the abrasive belt towards you, do not make contact with the ceramic sensing tip of the abrasive belt mistracking limit switch (B, Figure 9-19).

If the sensor is operating properly, you will see the tension roller pivot to the right, attempting to move the abrasive belt away from the optical sensor (C, Figure 9-19).

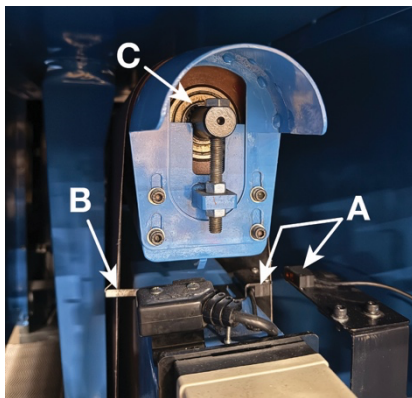


Figure 9-19

5. Perform this same test for the other sensor set by pushing the belt away from you until its edge crosses the sensor set's beam.
6. When the test is complete, turn the belt tension control switch to the "UP" position to raise the tension roller and apply belt tension. NOTE: Hold switch in the "UP" position until the tensioning cylinder reaches full travel and automatically stops.

Belt-Tracking Optical Sensor Not Operating Properly

If either set of belt-tracking optical sensors is not operating properly, follow the steps below to troubleshoot the problem.

1. Check for dirt, debris, or sanding material covering the optical sensors. Clean the sensor lenses to ensure the sensor beam is not obstructed.
2. Check for sensor set alignment. Both sensors must be aligned and pointing to one another. Adjust the sensors or sensor brackets as needed. Set the minimum clearance from the belt edge to each optical sensor face at 7/16 in. (11mm).
3. If the sensor sets are clean and properly aligned but still are not working, they must be replaced.

9.11.2 Checking Mistracking Limit Switches

! WARNING

Testing the mistracking limit switches requires that the side access door be open and the main power switch to be in the ON position. The access door has a safety limit switch that only allows the machine to operate when the door is closed. When the door is open, the limit switch disengages, cutting off power to the control panel circuit. To test the mistracking limit switches, you must override the open access door limit switch.

THIS IS THE ONLY TIME YOU MAY OVERRIDE THIS LIMIT SWITCH!

During this process, it is essential that you keep everyone away from the machine's control panel. You should also take steps to block access to the control panel buttons to prevent accidental starting of the abrasive belt, conveyor belt, or table height adjustment. Severe injury could occur from contact with the moving abrasive belt or from being caught in other moving parts.

Refer to Figures 9-20 and 9-23.

The mistracking limit switches are important safety devices. If the automatic tracking system fails, the abrasive belt will contact the ceramic arm of the mistracking limit switch, activate the switch, and shut the machine off. There is a mistracking limit switch located on either side of the abrasive belt assembly.

To test for proper operation of the mistracking limit switches:

1. Open the side access door on the electrical panel end of the machine and remove the side access panel on the opposite end of the machine to access the mistracking limit switches (see A, Figure 9-20).

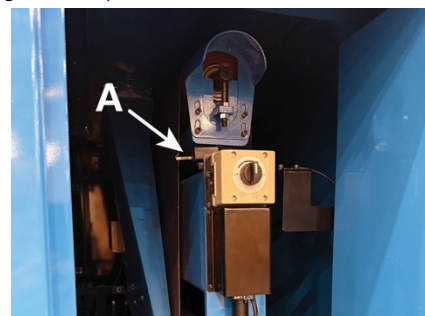


Figure 9-20

2. Visually inspect each mistracking limit switch (A, Figure 9-21). Make sure the switches are properly installed and aligned. The space between each switch's ceramic arm and the edge of the belt should be 3/8 in. to 9/16 in. (10- 15mm). Make sure the ceramic arm (B, Figure 9-21) is not missing or damaged. If the ceramic arm is missing or damaged, replace the limit switch immediately.

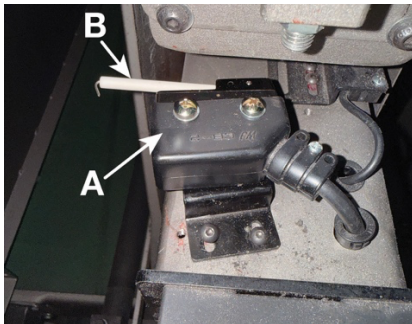


Figure 9-21

3. Unlock and turn the Main Power Switch to the ON position.

4. **⚠ WARNING** Do not start the abrasive belt of the machine while performing this operation. Doing so could cause serious injury.

On the side access door frame (electrical panel end of the machine), there is a limit switch with a spring plunger (A, Figure 9-22). Using one hand, press the limit switch spring plunger in. This will allow the control panel circuit to be operational. DO NOT start the abrasive belt or any other internal function of the machine.

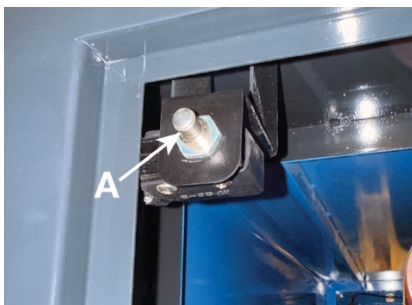


Figure 9-22

5. With the access door limit switch pressed in, use your other hand to move the mistracking limit switch ceramic arm back towards you. If the mistracking limit switch is operating properly, you will hear a 'click' from the electrical panel. For models WBS-37V and WBS-37VH, the red LED indicator will also come on (see Figure 9-23).
6. Close the side access door on the electrical panel end of the machine and go to the open access area on the opposite end of the machine. Move the mistracking limit switch ceramic arm back towards you. If the mistracking limit switch is operating properly, you will hear a 'click' from the electrical panel. For models WBS-37V and WBS-37VH, the red LED indicator will also come on (see Figure 9-23).

7. If you don't hear the 'click' (all models), and the green LED indicator light remains lit (models WBS-37V and WBS-37VH only), the mistracking limit switch is not operating. Replace the limit switch immediately.
8. Turn the Main Power Switch to the OFF position and lock. Replace the side access panel removed in step 1.



Figure 9-23 – Red LED Light Activated (models WBS-37V and WBS-37VH only)

10.0 Operating Instructions

⚠ WARNING

Before setting up, adjusting, or operating this machine, read, understand, and follow the instructions and safety information in this owner's manual.

⚠ DANGER

Operation without proper alignment can result in product kickout, which can cause severe injury or death. Check machine alignment.

⚠ WARNING

Disconnect the machine from the electrical power source before adjusting, cleaning, repairing, changing accessories, or performing general servicing and maintenance.

⚠ WARNING

Keep hands away from all moving parts including abrasive belt, revolving rollers, chains, and conveyor belt.

⚠ WARNING

Do not process workpieces shorter than 8" long (non-vacuum units) or 2" x 2" (vacuum units).

This sander can be used to remove stock from a wide variety of machinable materials. Different materials require different grit types and grades to achieve the desired stock removal rate and surface finish. Please consult with your abrasive materials supplier for

specific recommendations on the correct grit material and grade required for your specific needs.

When the workpiece enters the machine from the infeed side, the conveyor belt moves it through the entire system. During this process, the hold-down pressure rollers press the workpiece firmly against the conveyor to maintain proper positioning. Models WBS-37V and WBS-37VH have a vacuum conveyor table that holds the workpiece in place during the sanding process.

The wide belt sanding unit is driven by motors and V-belts. This assembly includes a contact drum and a tension drum. The abrasive belt runs around the contact drum and the tension drum. The tension drum provides belt tension and, together with the oscillation system, automatically tracks belt alignment. The abrasive belt is driven by the contact drum. After processing, the workpiece exits the machine from the outfeed side. The conveyor table features adjustable height settings, allowing it to accommodate workpieces of varying thicknesses. Dust generated during the grinding process is effectively extracted through the integrated dust hood system.

Before operating your sander, please read the basic instructions on safe machine usage in this manual.

If an abrasive belt is not installed, do so now. Refer to *Section 9.1 Abrasive Belt Installation* for instructions.

10.1 Machine Starting and Stopping

IMPORTANT: Before sanding workpieces, read the entire operating instructions and ensure the machine is properly adjusted and aligned. See *Section 9.0 Setup and Adjustments*. Also make sure you understand how to safely operate this machine.

Control Panel Functions

Before starting this machine, make sure you know what function is controlled by each control panel button, knob, or switch. See Figure 10-1.



Figure 10-1: Control Panel

1. Table Height Adjustment
2. Vacuum Start / Stop Button (WBS-37V & WBS-37VH only)
3. Conveyor Belt Start/Stop Button
4. Abrasive Belt Start/Stop Button

5. Conveyor Belt Speed Control
6. Emergency Stop Button – All machine functions stop when this button is pressed.

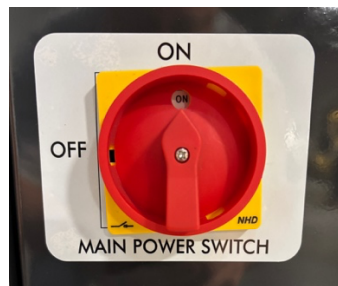


Figure 10-2: Main Power Switch

Starting the Machine

Refer to Figure 10-3.

1. Make sure the machine is properly adjusted and aligned. See *Section 9.0 Setup and Adjustments*.
2. Unlock and turn the Main Power Switch to the ON position (see Figure 10-2).
3. Set the machine for sanding your workpiece. For the automatic thickness feature, see *Section 9.5 Automatic Thickness Setting*. To manually adjust the thickness, press the up or down button of the Table Height Adjustment (#1).
4. For models WBS-37V and WBS-37VH, press the Conveyor Vacuum Start Button (#2).
5. Press the Abrasive Belt Start Button (#4).
6. Press the Conveyor Belt Start Button (#3) and adjust the belt speed with the Conveyor Belt Speed Control (#5).
7. If the workpiece is at least 8" long (non-vacuum unit) or 2" x 2" (vacuum unit), it may be safely sanded. Feed the workpiece into the machine with the longest dimension running parallel to the conveyor belt edge.
8. The machine is now ready to receive workpieces.

Stopping the Machine

IMPORTANT: Wait for the abrasive belt to come to a complete stop before turning the Main Power Switch to the OFF position or unplugging the machine.

Refer to Figures 10-3 and 10-4.

1. After the last workpiece has been sanded, press the Abrasive Belt Stop Button (#4).
2. Press the Conveyor Belt Stop Button (#3).
3. For models WBS-37V and WBS-37VH, press the Conveyor Vacuum Stop Button (#2).
4. When all machine movement has stopped, turn the Main Power Switch to the "OFF" position. Lock out the switch using a small padlock.
5. Release the tension on the abrasive belt by turning the tension control switch to the "DOWN" position (see Figure 10-4).
6. Clean the machine of debris and sanding particles to ready it for the next use. Remove any particles from the machine and dust collection system that may cause a fire or explosion. See safety information under *Fire and Explosion Safety* in *Section 1.0 Important Safety Instructions*.

7. Clean any debris that has accumulated around the machine.



Figure 10-3: Control Panel

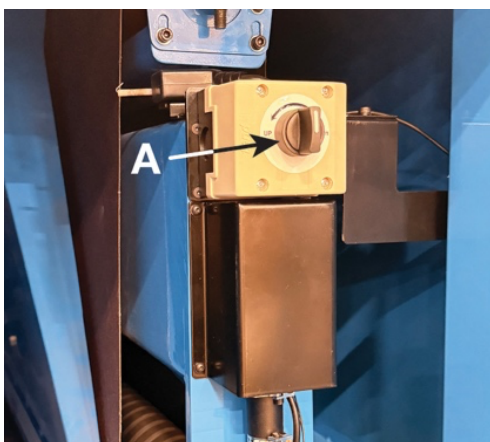


Figure 10-4: Releasing Abrasive Belt Tension

End of Day Shutdown

1. Follow the steps 1 through 7 under *Stopping the Machine*, above.
2. Disconnect the machine from the electrical power source.
3. Perform any needed preventative maintenance. See *Section 10.0 User Maintenance*.

10.2 General Operating Tips

! WARNING

Kickback and kickout are conditions in which the workpiece is ejected at high speed toward the machine's infeed or outfeed. Avoid kickback or kickout by never allowing workpieces to overlap, double feed, or ride on top of each other. Also, make sure the sander opening is not too small for the workpiece. The workpiece must be firmly held to the feed conveyor belt to control the part. Do not stand directly in front or behind the conveyor. Stand to the side to stay out of the workpiece path.

IMPORTANT: Keep your machine clean. A dirty machine can cause feed hesitation, stock slippage, poor tolerance, etc.

Release tension on the conveyor belt when not in use for long periods of time. Do not over-tension the conveyor belt. Use only enough tension to properly drive and track the belt. Excessive tension will cause early failure.

Feed hesitation generally shows up as a rippled or wavy surface on the sanded product. The causes are readily identified by their length and location. A ripple is sometimes caused by the abrasive belt sanding longer over one part of the product, due to hesitation.

10.2.1 Chatter Calculation Formulas

The following formulas will help you in identifying the cause of defect marks for various drum diameters at different feed speeds. This should enable you to immediately identify any drum rotation or belt splice patterns.

1. Determine the conveyor speed in feet per minute (fpm).
2. Determine the contact drum speed in revolutions per minute (rpm).
3. Run a workpiece through the machine.
4. Measure the distance between each defect mark.
5. Do each formula calculation.

If the drum is the cause of the marks on the workpiece, the measurement you took will equal "Sd".

EQ 1

$$((Cfpm \times 12) \div (Drpm)) = Sd$$

<i>Cfpm</i>	Conveyor speed in feet per minute
12	Is inches in a foot (a conversion factor)
<i>Drpm</i>	Drum revolutions per minute
<i>Sd</i>	Spacing of marks on work part in inches

If the abrasive belt splice is the cause of the marks of the workpiece, the measurement you took will equal "Sb"

$$((Cfpm \times 12) \times A) \div \{D\phi \times 3.14\} \times Drpm = Sb$$

<i>Cfpm</i>	Conveyor speed in feet per minute
12	Is inches in a foot (a conversion factor)
<i>A</i>	Length of the abrasive belt in inches
<i>Dφ</i>	Is the diameter of the contact drum in inches
3.14	(pi), a diameter to circumference conversion
<i>Drpm</i>	Drum revolutions per minute
<i>Sb</i>	Spacing of marks on work part in inches

IMPORTANT: There may be more than one position of drum or belt causing marks, so check to see if some mark recurs cyclically at spacing shown.

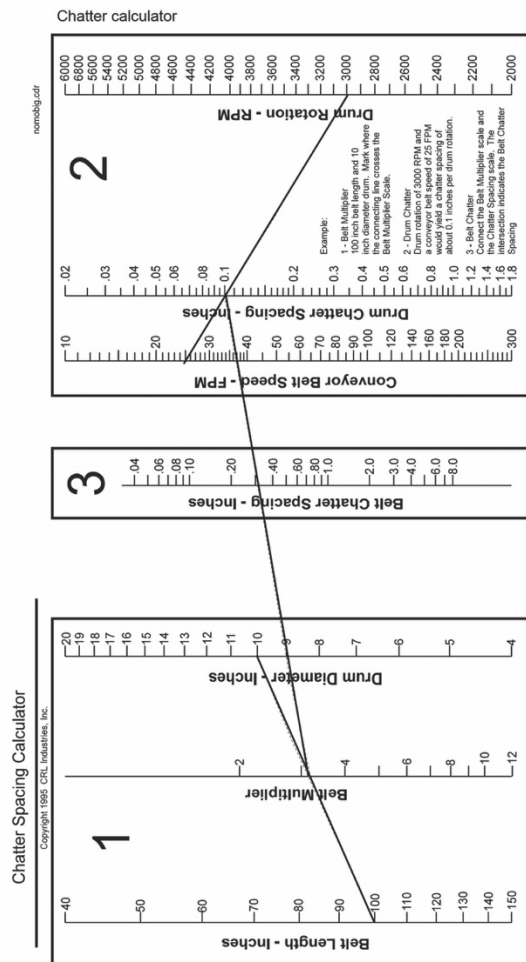


Figure 10-5: Chatter Calculator

10.2.2 Feed Hesitation and Workpiece Slipping

Feed hesitation generally shows up as a rippled or wavy surface on the sanded product. The causes are readily identified by their length and location. A defect on the surface of the product is sometimes caused by the abrasive belt sanding one part of the product too long due to hesitation or stock slippage.

1. A long depression near the leading edge of the product is most likely due to insufficient pressure on the infeed hold-down rollers.
2. A long depression near the trailing edge of the product is most likely due to insufficient pressure on the outfeed hold-down rollers.
3. Erratic waviness may be caused by one or more of the following:
 - A flat spot on the hold-down rollers. Do not allow material to build up on the hold-down rollers.
 - If your machine is equipped with U-joints: A bad U-joint on the hold-down roller(s), billy roll(s), or sanding drive roller. Replace damaged U-joint(s).
 - A feed drive or head drive connector hub that is out of alignment. Realign the hub.
 - Improper setting of the conveyor belt rollers or hold-down rollers.
 - Conveyor belt rollers or hold-down rollers that are glazed or coated with product dust buildup.
 - A glazed, hard, or saturated conveyor belt that has lost its feeding quality. See *Section 11.7 Abrasive Belt Care*.
 - The conveyor belt is slipping. If it is loose, tighten the take-up bolts and keep the conveyor belt and bed clean.
 - Variable speed drive belt for feed drive reducer slipping. Check for a worn belt and replace if necessary.

10.2.3 Typical Finish Defects

Chatter marks run crosswise, the full width of the workpiece surface. The six usual causes of chatter are:

- Lack of sanding pressure.
- Vibration in the machine.
- Uneven conveyor feed speed.
- Bad bearings on any roll or contact drum.
- Bad abrasive belt splice.
- Out-of-round or flat spot in contact and/or main drive roller.

Inadequate Sanding Pressure

If marks show up in spots on the workpiece, it is probably due to inadequate sanding pressure or an uneven surface on the product. Close the machine opening to increase sanding pressure. If marks run across the full width of the workpiece and are evenly spaced over its full length, the problem is probably not

pressure. Consider problems with vibration, part feed hesitation or the contact roll.

Vibrations

If the machine is part of a new installation, check the floor on which it is mounted to determine whether it is level. If it is not level, adjust so the machine operates in a level condition.

Vibrations in the machine generally result from an out-of-balance idler, contact rollers, or an out-of-balance motor. If this develops, check the V-belts. Then check the contact, feed roll, and motor bearings. If the contact or idler roller has been changed or the contact roll dressed, check them for balance and adjust as necessary.

Part Feeding Hesitation

After vibration has been ruled out as a problem, check the conveyor feed. Run a piece of material through the machine at any feed speed and measure the distance between the defect marks. Change the feed speed and run a second piece of material through the machine and measure the distance between the defect marks. If the distance between the marks on each part is the same, the problem is in the feed drive. Clean the conveyor. Check the conveyor belt and rollers for feed quality. Check to make sure there is not excessive backlash in the chain or the gear reducer. Correct the condition if it exists.

Contact Roll

The contact roll should be checked for roundness if it has recently been dressed or changed. Use a dial indicator for accurate measurement. A rough roundness indication can also be made. Manually rotate the roll while holding a piece of chalk lightly and steadily against the roll. Move the chalk across the face of the roll as it rotates. It will touch the high spots on the roll, marking them. This does not show the depth of the low spots as does a dial indicator. If the drum is slightly out, it can be dressed. If the drum cannot be dressed, it may need to be replaced.

Chatter Marks

Chatter marks on the product are most often caused by the abrasive belt splice. A good way to check is to use a black crayon to mark the splice. Run a new, clean workpiece through the machine. If the belt splice is the problem, the black crayon will mark the workpiece with chatter marks. Most of the time, using more pressure or making a heavier cut into the product will cure chatter. An exception to this guideline is a product application on a machine with a hard contact drum that is not designed for finishing.

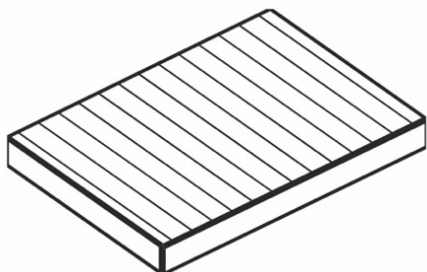


Figure 10-6: Chatter Marks

Causes

- Belt Splice.
- Worn contact drum bearing.
- Vibration in the machine.
- Worn drive motor bearings.
- Worn Idler roller bearings.
- Loose or worn drive belts.
- Flat spots on the drum.
- Out-of-balance drive roller or tension roller.
- Conveyor bed not feeding at a constant rate.

Remedies

- Use an abrasive belt with a butt splice.
- Replace the contact drum bearing.
- Identify and stop the machine vibration.
- Replace the drive motor bearings.
- Replace the Idler roller bearings.
- Tighten the drive belts.
- Replace or dress the contact drum.
- Balance the contact drum.
- Check the conveyor bed drive coupler/drive belt.
- Relieve tension from the abrasive belt when it is not in use to avoid flat spots on drums.

Streaks – Wavy Type

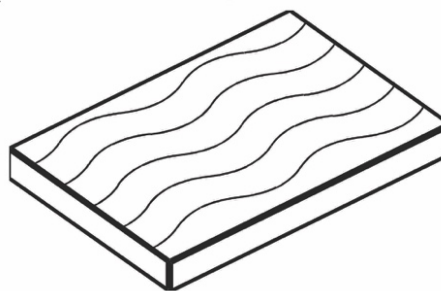


Figure 10-7: Streaks – Wavy Type

Causes

- Loaded or damaged abrasive belt.

Remedies

- Replace the abrasive belt.
- Use a lighter cut.
- Use another type of abrasive belt (open coat).
- Slow the conveyor bed speed (belt will not load).
- Stagger part on bed (do not use only one area of abrasive belt).
- NOTE: At first, you may need to run parts using a coarser grit for part clean-up.

Streaks – Straight Type

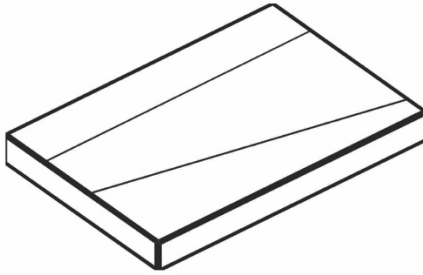


Figure 10-8: Streaks – Straight Type

Causes

- Mark on drive roller.
- All of the abrasive material on the abrasive belt is worn in a straight line (with belt set to a narrow track).
- Hold-down roller(s) not turning.

Remedies

- Replace the drive roller and bearings.
- Remove large burrs or sharp edges on the product before sanding.
- Grind with a coarser grit sandpaper first.
- Replace the hold-down roller(s) or the hold-down roller bearings.

Dubbing Leading and/or Trailing Ends

Dubbing is caused by incorrect hold-down roller spring tension or height adjustment.

1. If a dubbing leading edge should occur, lower the infeed shoe or roll slightly.
2. If a dubbing trailing edge should occur, lower the outfeed shoe or roll slightly.
 - A dubbing trailing edge could be caused by excessive infeed shoe or roll pressure.
 - Dubbing on the leading end of material is caused when the part is forced into the outfeed hold-down roller, which is too low, or has too much spring tension.
 - Dubbing on the trailing end of material is caused when the part comes out of the infeed hold-down rollers, which are too low or have too much spring tension.
 - NOTE: Dubbing on the trailing edge could be caused by excessive infeed shoe or roll pressure.

CAUTION

There may be more than one position of drum or belt causing marks. Check to see if some marks recur periodically at spacing shown.

11.0 User Maintenance

WARNING

Before doing any maintenance or repairs on the machine, turn main power switch to “OFF” position, lock main power switch, and disconnect machine from electrical supply. Failure to comply may cause serious injury.

Routine maintenance should be performed by trained and authorized personnel. We recommend that the employer review the following codes to ensure employee safety compliance:

JIC: Joint Industrial Council

OSHA: Occupational Safety and Health Act 1970

NFPA: National Fire Protection Association. Federal, State, or Local Codes, as applicable.

The practices and procedures described in the above codes and regulations are intended to be implemented by employees, but employers are responsible for ensuring that their employees use these safety-related work practices.

Always be alert when working near exposed energized parts and work situations where unexpected electrical hazards may exist.

Do not reach blindly into areas that may contain energized parts.

Do not permit employees to work in areas containing exposed energized parts or other electrical hazards if their ability to be alert is impaired due to illness, fatigue, under the influence of drugs, or any other reason.

Before power is restored to the machine, alert all personnel in the area to stand clear.

11.1 Daily Machine Checks

Before, during, and after each use:

1. Clean dust from machine daily or more frequently, if needed.

DANGER

The small particle size of most dusts makes them potentially explosive. A properly designed and properly sized dust collection system is essential to minimize the risk of fire and explosion. See **Section 7.0 Dust Collection**.

2. Clean the conveyor belt thoroughly with an explosion-proof industrial vacuum cleaner.
3. Clean the metal dust and grinding swarf daily to avoid accumulation.
4. Examine the condition of the conveyor belt. The conveyor belt is considered low maintenance when used as intended.
 - Machine jam-ups or **processing thin parts can shorten the conveyor's useful life.**
 - Processing thin parts exposes the conveyor to the abrasive belt, accelerating wear. In thin-part processing, the conveyor must be treated

as an expendable item and will require more frequent replacement.

The conveyor bed is a primary factor in holding machine processing tolerance and must remain in an acceptable condition. Early detection of accelerated wear is important. Replace the belt when required. The useful life should be determined based on monthly inspection, and a replacement belt should be ordered before the machine can no longer produce an acceptable product.

11.2 Weekly Safety System Check

Test and Verify

1. Door interlock micro switch:
 - a. Visually check the micro switch for manual bypass, which would make the system nonfunctional.
 - b. Verify that the circuits and equipment are in proper working condition.
 - c. The following procedure should be used to check out this system:
 - o Have all personnel stand clear of the machine.
 - o Start machine abrasive belt and conveyor belt.
 - o Carefully open the abrasive belt access door. If the micro switch is operating correctly, the machine will shut down.
 - d. The safety interlock system was designed to perform the following:
 - o Turn off sanding heads.
 - o Turn off conveyor feed drive.
 - e. The door safety interlock system is a vital element in protecting the operators from hazardous moving components and must be maintained in proper operating condition (NFPA 70E).
2. Verify machine safety guards are in place.
3. Test the Emergency Stop Button, Emergency Stop Bar, and Finger Protection Flap. When these devices are activated, the system was designed to perform the following:
 - a. Turn off all sanding and/or brush heads.
 - b. Turn off conveyor feed drive.
4. Check machine safety decals and operating instruction tags for legibility and make sure that they are in place.
5. Inspect the conveyor belt and V-belts weekly and adjust the tension if needed. After each adjustment or replacement, verify the conveyor belt runs smoothly and correctly. The conveyor belt must be properly tensioned. Excessive tension may overload and damage the conveyor belt. Insufficient tension may cause slipping on the conveyor roller. If the conveyor belt is not adjusted correctly, it may become severely damaged during operation. Do not operate an untested conveyor belt.
6. Inspect the hold-down roller at least once a week and whenever they have been subjected to an overload. Proper adjustment of the hold-down

rollers is essential to ensure uniform feeding of workpieces through the machine and to minimize the risk of ejection. A workpiece ejected at high speed can cause serious injury or even death. Metal dust and grinding swarf on the contact drum can transfer onto the workpiece and damage the surface finish.

7. Clean the contact drum using a brush or cloth.
8. Apply lubricant to the tension roller bearings.
9. Remove and clean the electrical cabinet and vacuum motor dust filters. Mixing dust from different metals can cause chemical reactions or explosion hazards. Always keep them separated.

11.3 Monthly Machine Checks

1. Examine the rubber-covered rollers for wear, delamination, grooving, or gouging. Roll-covering defects on contact drums will be transferred to the product being sanded and could render your product commercially unmarketable.
2. Inspect all the rubber-covered rollers in the machine. If there is excessive wear or damage, contact Baileigh Technical Service at 920-684-4990 for the best course of action.
3. Clean the chains and lifting screws to remove metal dust and grinding swarf.
4. Inspect and test the safety equipment supplied on this machine to ensure the safety of personnel operating this machine.
5. Inspect the belt-tracking optical sensors to confirm they are clean, properly positioned, undamaged, and operating correctly. See *Section 9.11.1 Belt-Tracking Optical Sensors*.
6. Inspect the abrasive belt's mistracking limit switches to confirm the ceramic sensing tips are correctly positioned, allowing the system to detect any belt misalignment. Each time a new abrasive belt is installed, verify that the mistracking switches are functioning properly. If any ceramic arm is missing or damaged, replace it immediately. See *Section 9.11.2 Checking Mistracking Limit Switches*.

We recommend that you observe the machine while it is in operation. Production downtime can be minimized if problems are detected early. This will allow you to obtain replacement parts and schedule maintenance at appropriate times.

We strongly recommend that you keep a maintenance logbook as a permanent machine record. Using the history of a machine is a good method to determine future replacement part needs.

11.4 Lubrication

Use a good grade of multi-purpose, medium-high-temperature, extreme-pressure grease for normal to heavy-duty applications. Example: Mobil XHP222.

The amount of operation or running time controls the frequency of lubrication cycles. A machine that is operated on a three-shift basis will consume three times as much grease as a machine used on one shift only.

Lubricate the Following Components as Indicated:

Chains

- Once a year.
- Apply chain oil or multipurpose grease (NLGI #2). Avoid excess oil to prevent dust accumulation.

Lifting Screws

- Once a year
- Apply lithium-based grease evenly along the screw threads after cleaning. Run lift system to distribute grease.

Contact Drum Bearing

- Every 6 months
- Apply high-temperature bearing grease (lithium complex, NLGI #2) via grease fitting. Wipe off excess.

Conveyor Roller Bearing

- Every 6 months.
- Lubricate with sealed bearing grease or check for pre-sealed type (no additional greasing if sealed).

Tension Roller Bearing

- Every 6 months.
- Grease with multipurpose bearing grease. Check for wear or looseness.

11.5 Cleaning Machine

Your machine is designed to operate at a high-performance level. Proper care and maintenance are required to keep this machine in top working condition. The method and care used to maintain this sander affect its sanding performance and ability to hold tolerances.

The frequency of cleaning will depend on the environment where the sander is used and how often you use it. We recommend cleaning your sander daily.

Use a brush to clean surfaces, conveyor holes, lifting screws, dovetails, etc.

NOTICE

Cleaning this sander is considered normal maintenance, and danger exists if not performed according to instructions. Follow the instructions below to clean the sander.

1. Turn off all power to abrasive head and feed drive.
2. Turn main power switch to "OFF" position and lock out. Disconnect the machine from the power source. Wait for the machine to come to a complete stop.
3. Turn on your dust collection system. This will help collect the dust you will stir up when cleaning the sander.
4. Open the side access door (electrical panel end of machine).
5. Move slide valve(s) or tension cylinder air valve(s) to retract Idler roller(s).

11.6 Cleaning Filter (Models WBS-37V and WBS-37VH only)

! WARNING

When cleaning the filter, wear a respirator and safety goggles. Failure to do so can cause serious personal respiratory injury or injury to eyes.

! WARNING

Compressed air can be dangerous. Always bleed off the airline before disconnecting from the compressor. Do not use compressed air to blow dust from clothes.

The machine is fitted with a filter between the vacuum motor and the inlet. This ensures that large dust particles are captured before they enter the motor, thereby extending the motor's life.

To clean the filter:

1. Disconnect the machine from the power.
2. Open the access door on the bottom rear of the machine.
3. Release the three clips on the filter cover and remove the cover (see Figure 11-1).
4. Remove the filter cartridge from the filter housing (see Figure 11-2).
5. Take the filter outside or find a well-ventilated area, then clean it with compressed air or a cloth.
6. After cleaning, place the filter cartridge back into the filter housing and replace the cover.

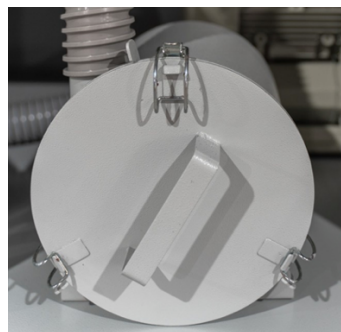


Figure 11-1

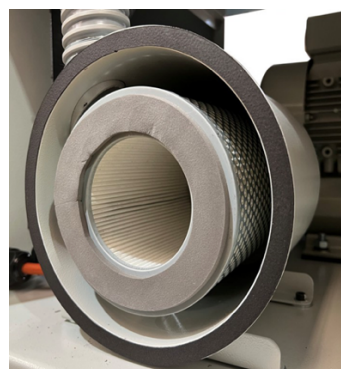


Figure 11-2

11.7 Abrasive Belt Care

! WARNING

Never clean the abrasive belt while it is in the machine. Severe bodily injury can occur. Remove the abrasive belt from the machine before attempting to clean.

Consult your abrasive belt sales representative to determine the correct type, backing, and grit needed.

- Consult your abrasive belt sales representative for recommendations on storing and handling the abrasive belts.
- Low humidity causes abrasive belts to become brittle. A brittle belt is easily nicked and will break.
- High humidity causes abrasive belts to become limp and prone to creasing.
- Distribute wear on the abrasive belt by staggering products across the full width of the conveyor during sanding.
- Schedule to sand wide products first, then narrower, etc., to the narrowest product last. This reduces the possibility of an objectionable mark caused by the product being sanded with both used and unused portions of the abrasive belt simultaneously.
- When a narrow product is being run, use the unused portions of the abrasive belt by placing each piece in a different area of the conveyor belt.

- A nick or tear along the edge will cause premature belt breakage. Replace the belt.
- Install the abrasive belt carefully before starting the main motor and turn the belt by hand to check the alignment between the idler roller and the contact drum.
- A cocked belt may crease or break under power.
- Release tension on the abrasive belt when not in use.
- Store abrasive belts in a controlled environment. Follow the manufacturer's recommendations.
- Store abrasive belts on a rack for best results and longer belt life (see Figure 11-3). Use one rack per abrasive grit grade.

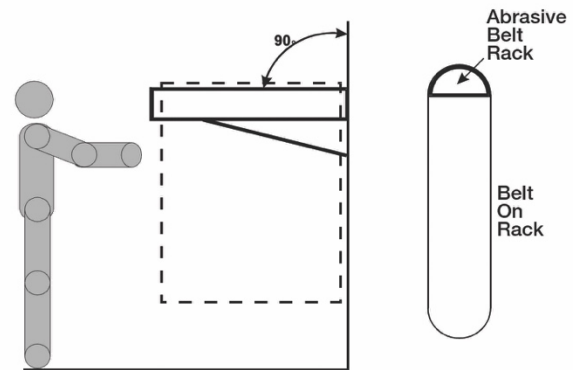


Figure 11-3: Storing Belts

12.0 Troubleshooting

⚠ WARNING

Before doing any maintenance or repairs on the machine, turn the main power switch to the “OFF” position, lock the main power switch, and disconnect the machine from the electrical supply. Failure to comply may cause serious injury.

Table 2

Symptom	Possible Cause	Correction
Machine does not start	Main power switch OFF.	Turn main power switch ON.
	Emergency stop button activated.	Release the emergency stop and reset.
	Fuse blown or overload relay tripped.	Replace fuse or reset overload protector.
	Belt mistracking limit switch activated.	See <i>Section 9.11.2 Checking Mistracking Limit Switches</i> .
Abrasive belt not running	Belt is not switched to tension mode.	Switch to the tension mode.
	Magnetic reed switch disconnected.	Check whether the magnetic reed switch of the linear actuator is properly engaged.
	Sanding motor failure.	Inspect and repair the sanding motor.
Abrasive belt mistracking	Belt-tracking optical sensors are dirty, misaligned, or damaged.	Clean, realign, or replace sensors. See <i>Section 9.11.1 Belt-Tracking Optical Sensors</i> .
	Linear actuator malfunction.	Check whether the linear actuator extends and retracts normally.
	Belt joint uneven or damaged.	Replace damaged abrasive belt.
Uneven sanding or streaks on workpiece	Worn or clogged abrasive belt.	Replace or clean abrasive belt.
	Hold down roller misalignment.	Recalibrate hold down rollers.
	Conveyor belt contaminated.	Clean the conveyor belt surface.
Workpiece feed irregular or slipping	Conveyor belt tension too low.	Adjust conveyor belt tension.
	Conveyor speed unstable.	Check the inverter (frequency drive) for proper function.
	Hold down rollers worn.	Replace worn hold down rollers.
Abnormal noise during operation	Bearing worn or sprocket loose.	Lubricate or replace bearings or retighten the sprocket.
	Chain insufficiently lubricated.	Lubricate chain with grease
Conveyor belt running off-center	Improper tracking adjustment.	Adjust conveyor tracking system.
	Feed rollers not parallel.	Realign feed rollers.
	Workpiece not centered on Conveyor	Feed workpieces centrally.
Excessive vibration	Loose mounting bolts.	Tighten all mounting bolts.
	Damaged bearings.	Replace worn bearings.
Sanding Motor or	Excessive grinding depth.	Reduce sanding depth.

sanding drum overheating	Poor ventilation.	Clean ventilation openings at the machine cabinet.
	Bearing lubrication insufficient.	Check and regrease bearings.
Burn marks on workpiece	Belt too fine or clogged.	Replace abrasive belt.
	Feed speed too slow.	Increase conveyor speed.
	Sanding depth too deep.	Reduce sanding depth.
Conveyor belt damaged or torn	Excessive belt tension.	Reduce conveyor belt tension.
	Incorrect operation causing contact between abrasive belt and conveyor.	After adjusting the conveyor table height, open the side access door and manually rotate the abrasive belt to confirm no contact with the conveyor belt surface.
	Misaligned rollers.	Realign conveyor rollers.
Abnormal or jerky motion in lifting chain	Chain dry or worn.	Clean and lubricate chain.
	Lifting screws are dirty.	Clean and apply grease to the lifting screws.
	Insufficient lubrication.	Check for chain elongation or wear.

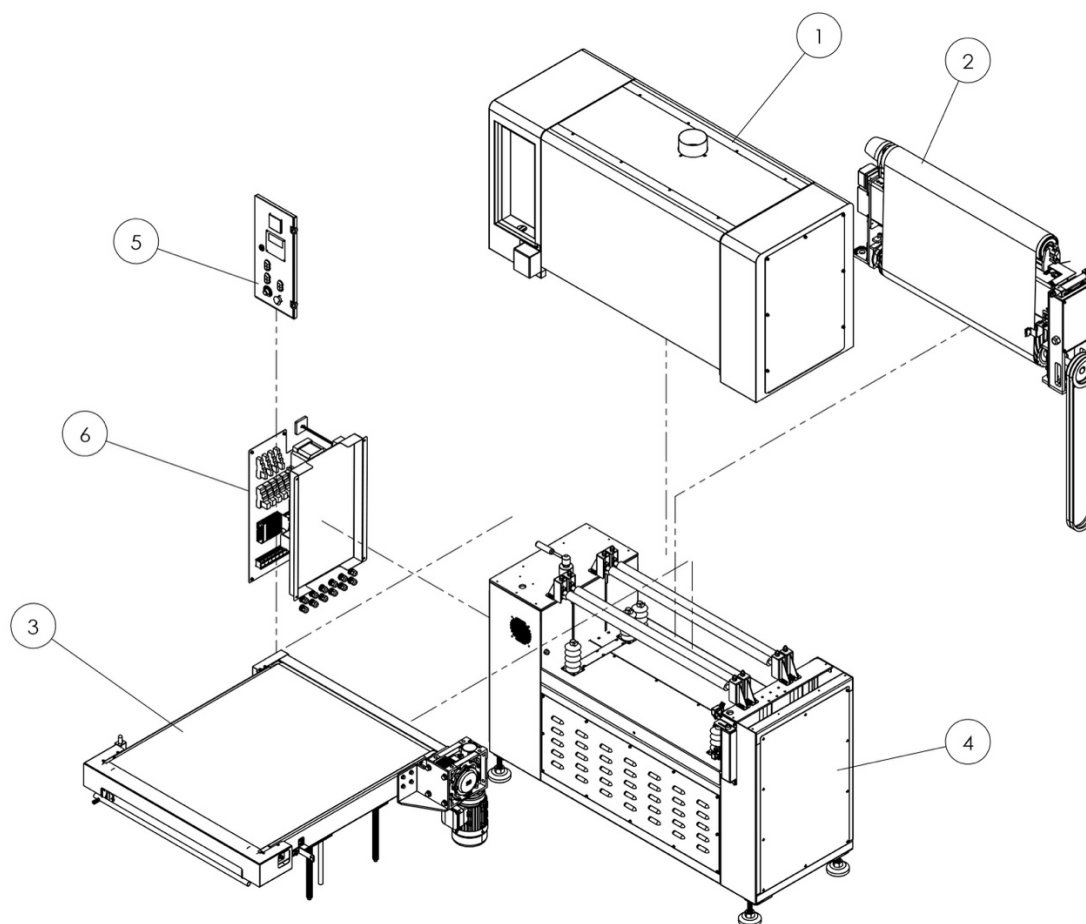
* **WARNING:** Some corrections may require a qualified electrician.

13.0 Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. Central Time. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

13.1 Replacement Parts for Models WBS-37 / WBS-37H

13.1.1 WBS-37 / WBS-37H Main Assemblies – Exploded View

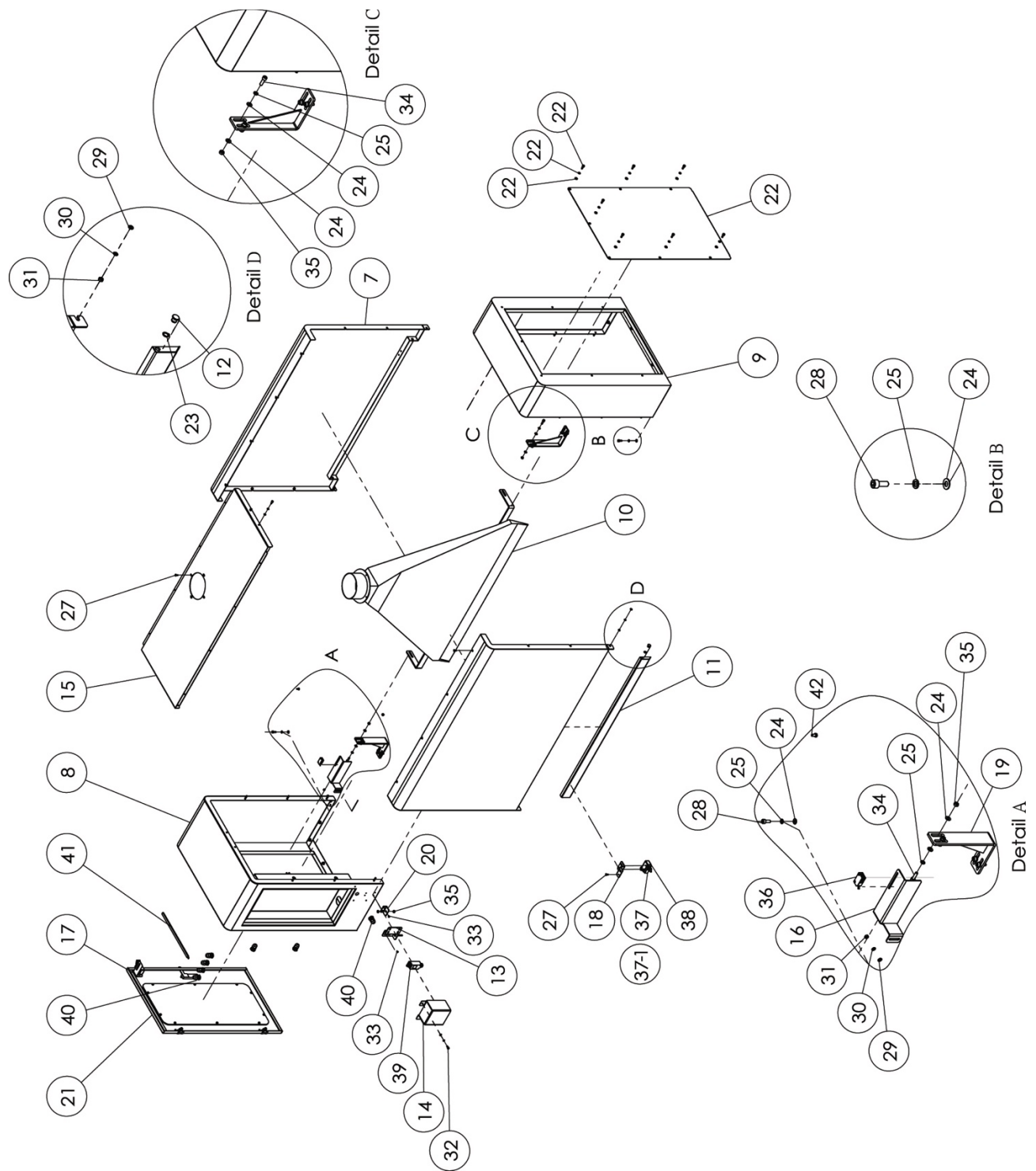


13.1.2 WBS-37 / WBS-37H Main Assemblies – Parts List

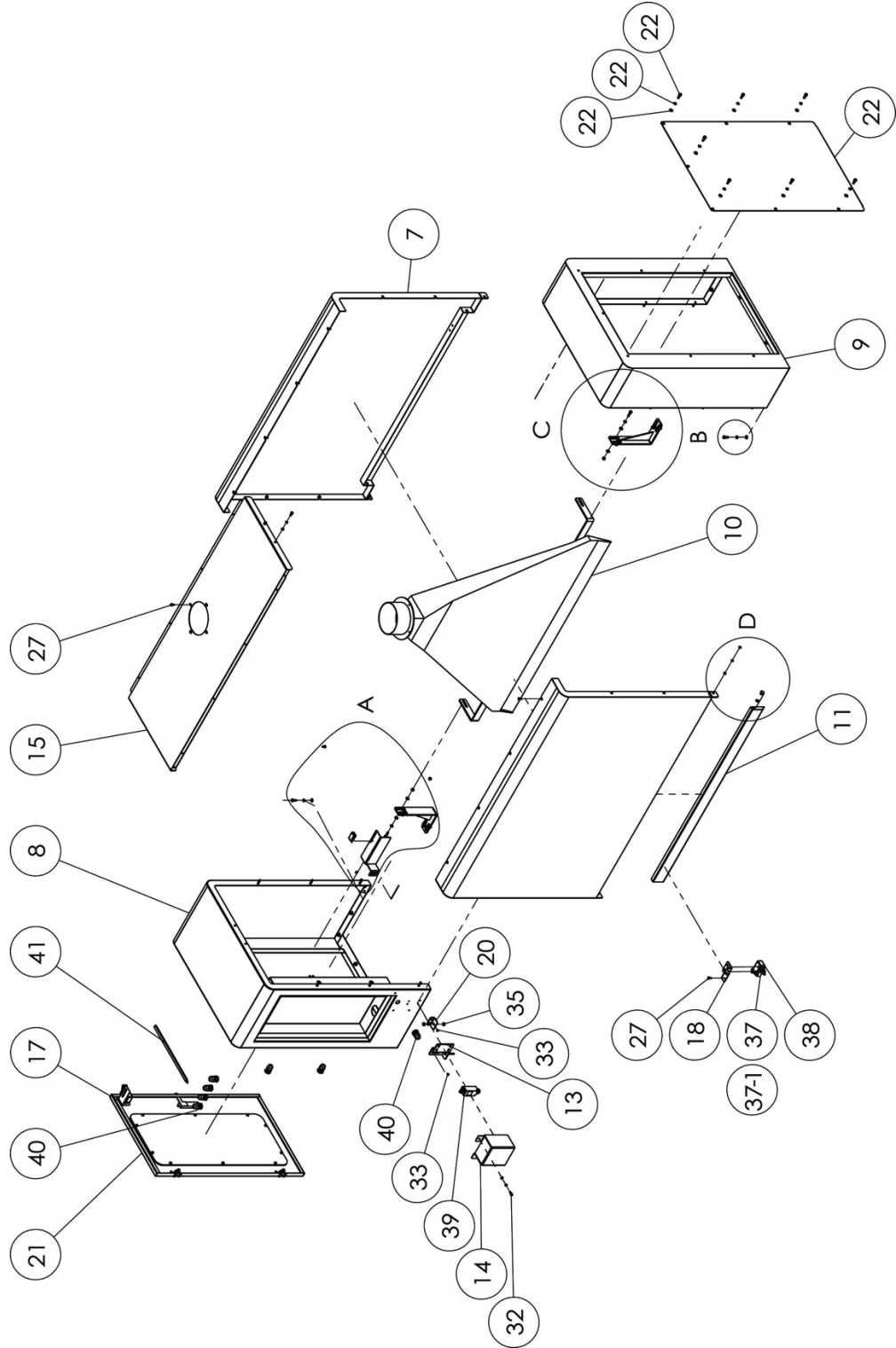
Index No	Part No	Description	Size	Qty
1	BA1-12969	Upper Housing Assembly		1
2	BA1-12970	Abrasive Belt Assembly		1
3	BA1-12971	Conveyor Assembly		1
4	BA1-12972	Base Frame Assembly		1
5	BA1-12973	Control Panel Assembly		1
6	BA1-12974	Control Box Assembly	230V	1
	BA1-12975	Control Box Assembly	460V	1

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

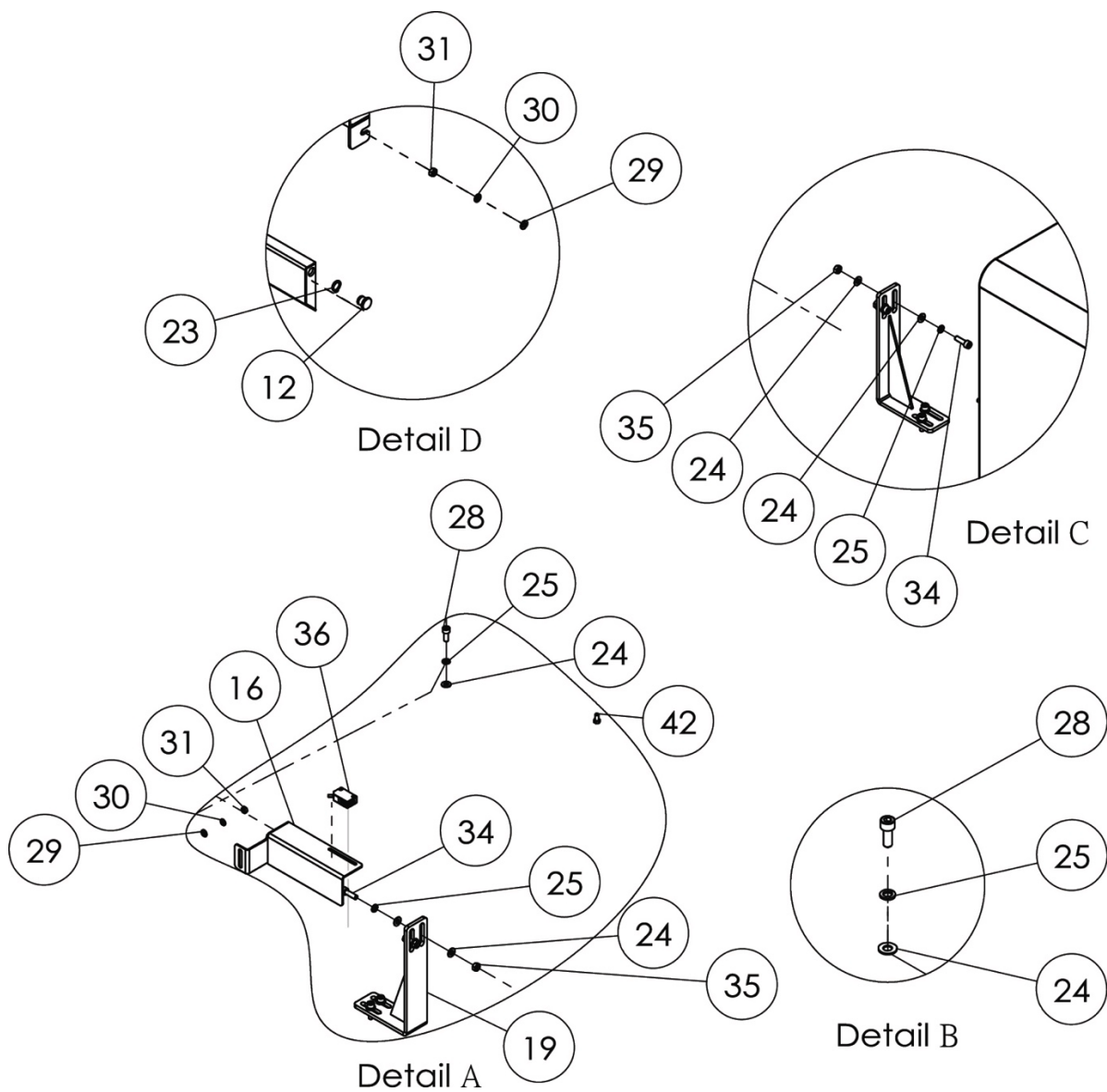
13.1.3 WBS-37 / WBS-37H Housing Assembly – Exploded View 1



13.1.4 WBS-37 / WBS-37H Housing Assembly – Exploded View 2



13.1.5 WBS-37 / WBS-37H Housing Assembly – Exploded View 3

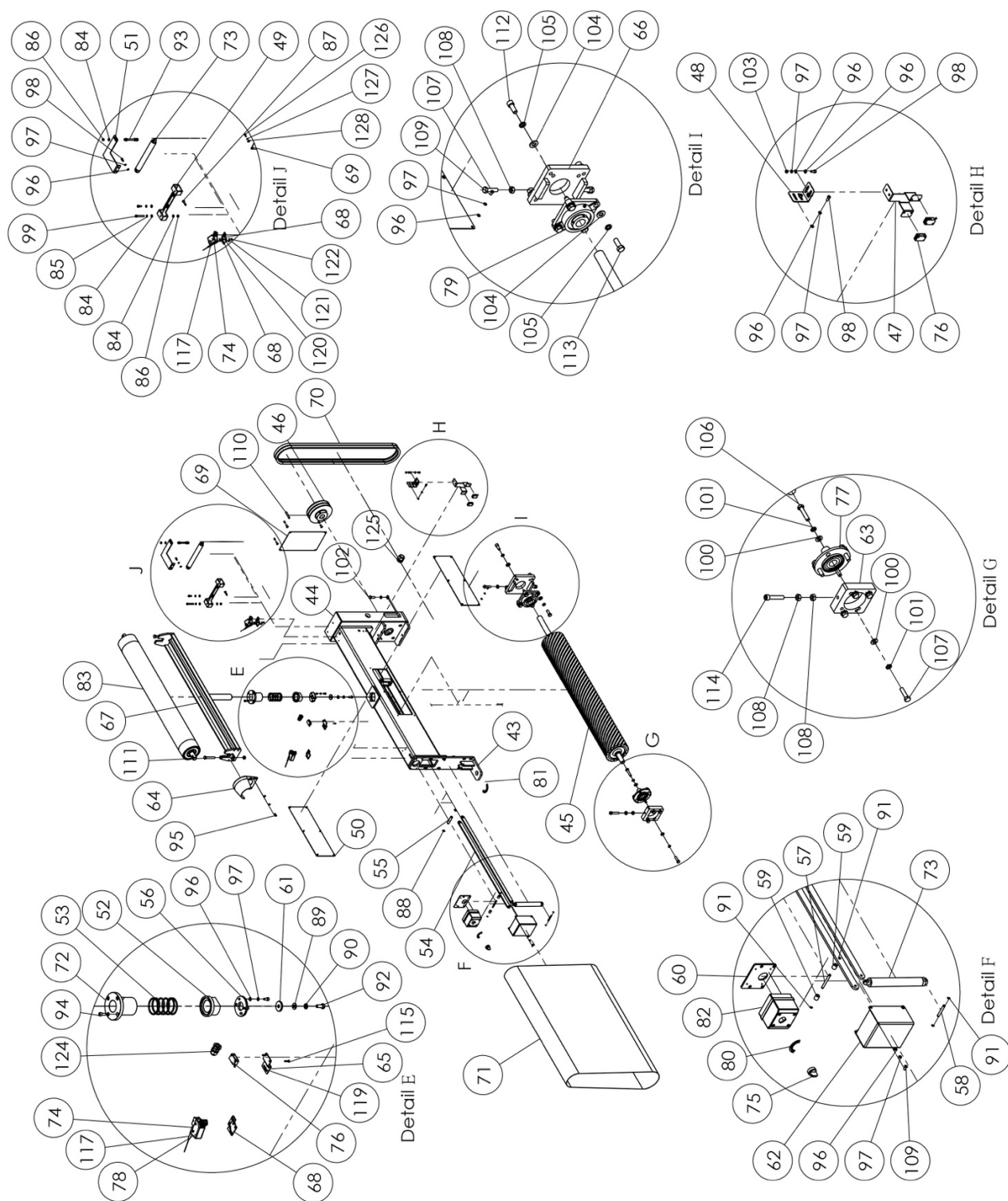


13.1.6 WBS-37 / WBS-37H Housing Assembly – Parts List

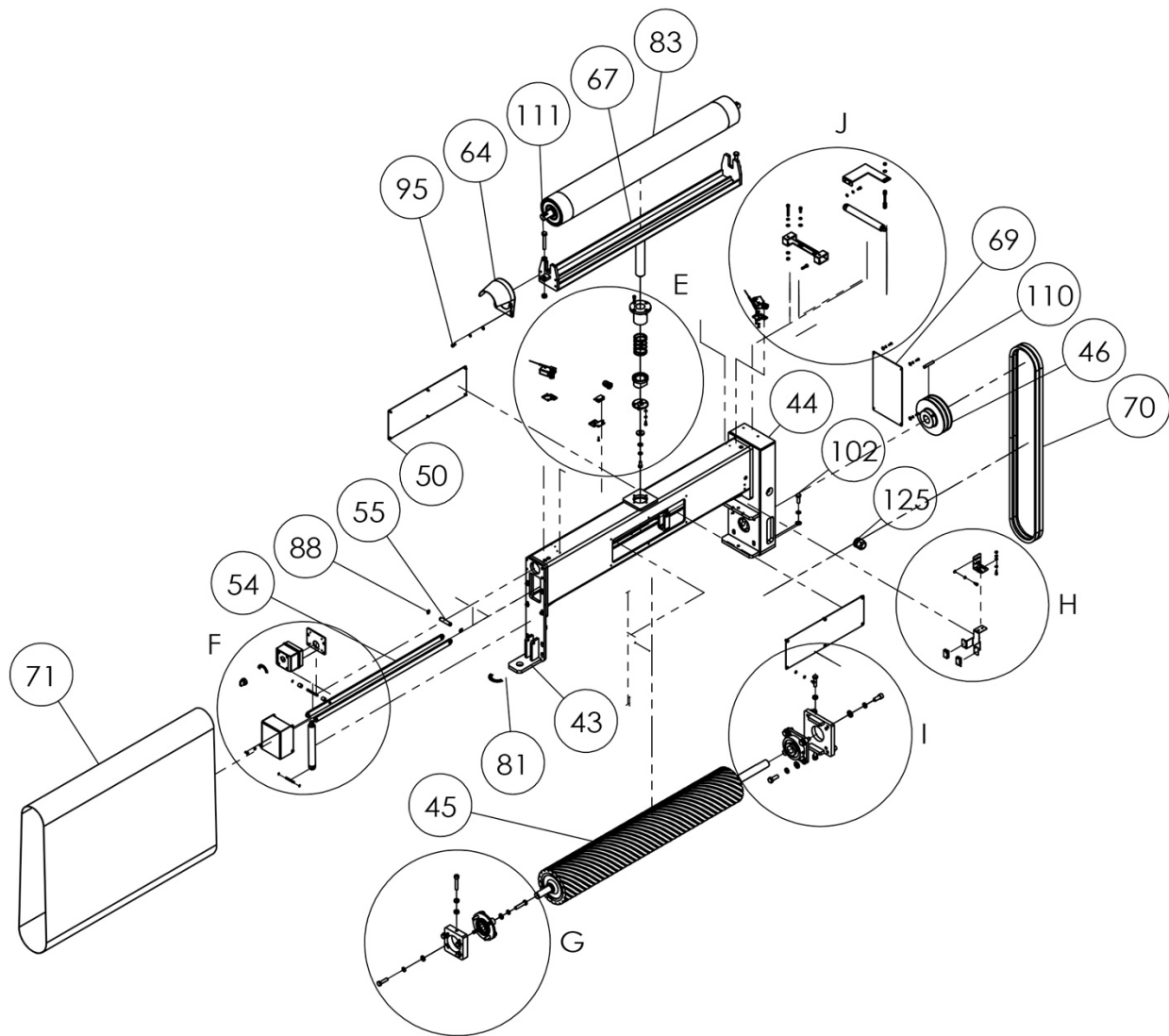
Index No	Part No	Description	Size	Qty
7	BA1-12976	Front Cover		2
8	BA1-12977	Left Housing		1
9	BA1-12978	Right Housing		1
10	BA1-12979	Dust Hood		1
11	BA1-12980	Safety Flap		1
12	BA1-12981	Rivet		2
13	BA1-12982	Limit Switch Mounting Plate		1
14	BA1-12983	Thickness Gauge Housing		1
15	BA1-12984	Top Cover		1
16	BA1-12985	Proximity Sensor Bracket		1
17	JT1-1082	Door Micro Switch Bracket		2
18	BA1-13047	Micro Switch Mounting Plate		1
19	BA1-12986	Dust Hood Bracket		2
20	BA1-12987	Thickness Gauge Bracket		1
21	BA1-12988	Left Door		1
22	BA1-12989	Upper Right Plate Assembly		1
23	BA1-13040	C-ring	CS010	2
24	**	Flat Washer	M6	28
25	**	Lock Washer	M6	24
26	**	Socket Head Cap Screw	M6x10	2
27	**	Socket HD Button Screw	M5x12	14
28	**	Socket Head Cap Screw	M6x12	14
29	**	Flat Washer	M5	20
30	**	Lock Washer	M5	21
31	**	Hex Nut	M5	14
32	**	Socket Head Cap Screw	M5x12	7
33	**	Socket HD Button Screw	M4x6	4
34	**	Socket Head Cap Screw	M6x20	8
35	**	Nut	M6	6
36	JT1-573	J948WBSV-164 SENSOR SET	IDEC SA2E-TN3-2M	1
37	JT1-567	J948WBSV-120 MICRO SWITCH	MJ-1307	2
37-1	**	Phillips HD Button Screw + Lock Washer Assy	M4x30 + M4	2
38	JT1-1269	Micro Switch Protector	WJ-CB-2	2
39	BA1-12545	WBS37-39 Limit Switch	TEND TZ-8111	1
40	BA1-13064	Cable Gland	PG9	7
41	BA1-12546	WBS37-41 LED	GTF2-24-T White	1
42	**	Hex Cap Screw	M5x10	1

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

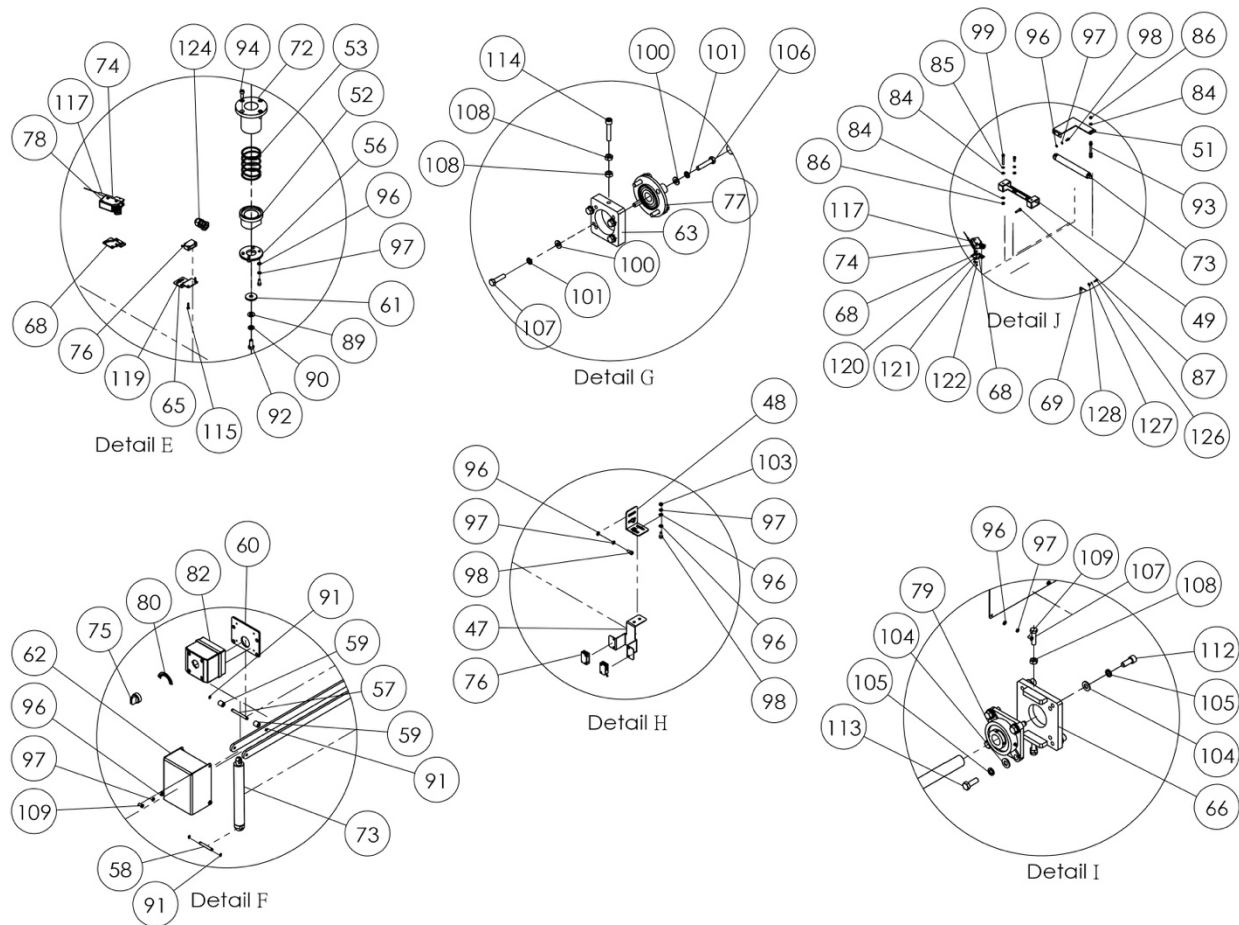
13.1.7 WBS-37 / WBS-37H Abrasive Belt Assembly – Exploded View 1



13.1.8 WBS-37 / WBS-37H Abrasive Belt Assembly – Exploded View 2



13.1.9 WBS-37 / WBS-37H Abrasive Belt Assembly – Exploded View 3



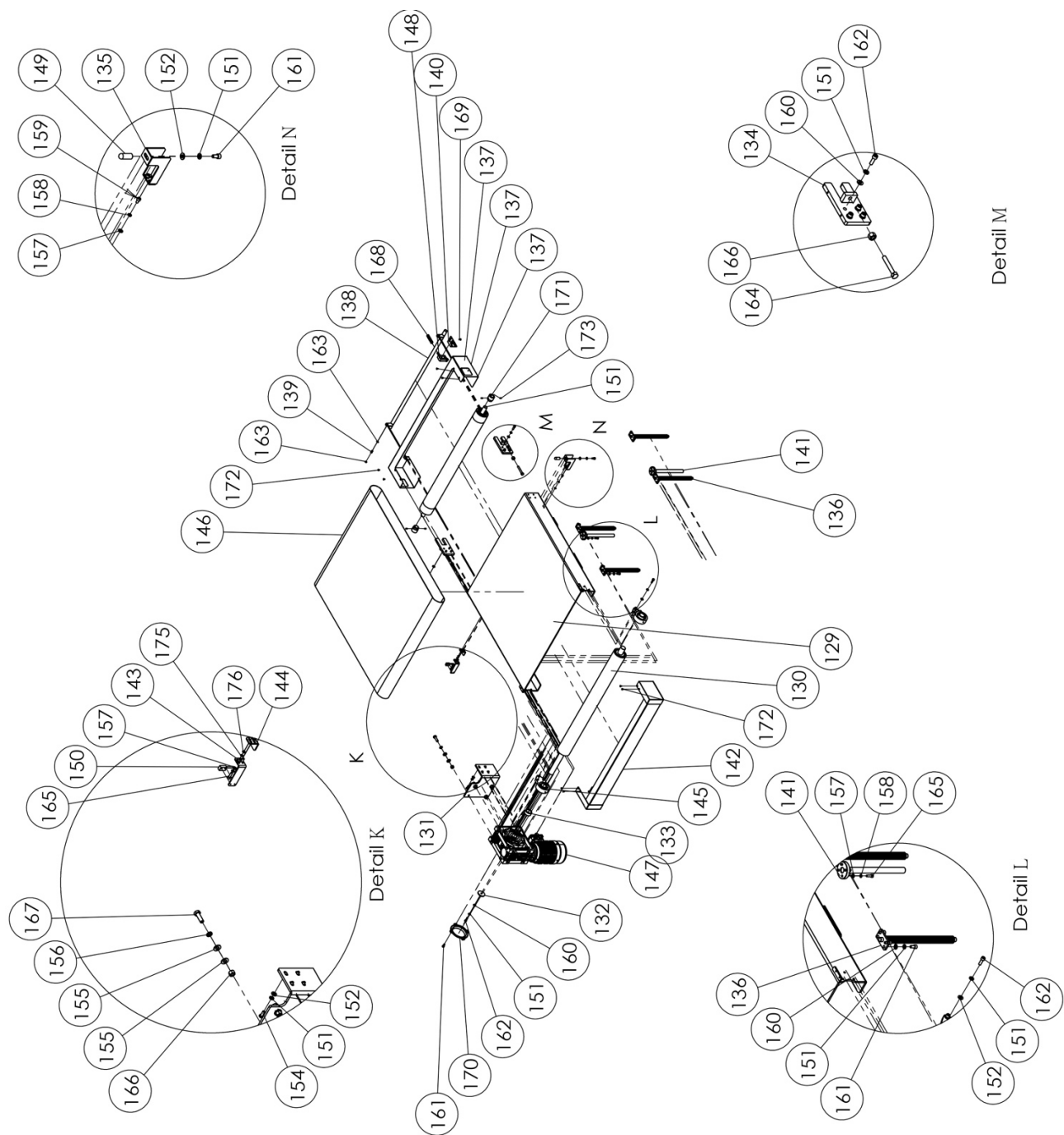
13.1.10 WBS-37 / WBS-37H Abrasive Belt Assembly – Parts List

Index No	Part No	Description	Size	Qty
43.....	BA1-12990.....	Gantry Frame Assembly		1
44.....	BA1-12991.....	Frame Column		1
45.....	BA1-12547.....	WBS37-45 Drive Roller Assembly	D150x 980	1
46.....	BA1-12548.....	WBS37-46 Drive Roller Pulley	6"	1
47.....	BA1-12992.....	Optical Sensing Bracket.....		1
48.....	BA1-12993.....	Micro Switch Bracket.....		1
49.....	BA1-12994.....	Electric Linear Actuator Bracket.....		1
50.....	BA1-12995.....	Gantry Frame Cover		2
51.....	BA1-12996.....	Electric Linear Actuator Retainer		1
52.....	BA1-12997.....	Swivel Base.....		1
53.....	BA1-12998.....	Spring.....		1
54.....	BA1-12999.....	Upper Roller Supporting Arm.....		2
55.....	BA1-13000.....	Supporting Arm Shaft.....		1
56.....	BA1-13001.....	Swivel Base Cover.....		1
57.....	BA1-13002.....	Supporting Arm Shaft.....		1
58.....	BA1-13003.....	Supporting Arm Shaft.....		1
59.....	BA1-13004.....	Shaft Retainer		2
60.....	BA1-13005.....	Tension Switch Panel.....		1
61.....	BA1-13006.....	Swivel Base Cover.....		1
62.....	BA1-13007.....	Electric Linear Actuator Cover		1
63.....	BA1-13008.....	Driver Roller Bearing Retainer		1
64.....	BA1-13009.....	Abrasive Belt Guider		1
65.....	BA1-13010.....	Proximity Switch Bracket.....		1
66.....	BA1-13011.....	Driver Roller Bearing Retainer		1
67.....	BA1-13012.....	Upper Roller Bracket.....		1
68.....	BA1-13013.....	Limit Switch Bracket.....		2
69.....	BA1-13014.....	Junction Box Plate		1
70.....	BA1-12549.....	WBS37-70 V-Belt.....	Type-B 79"	2

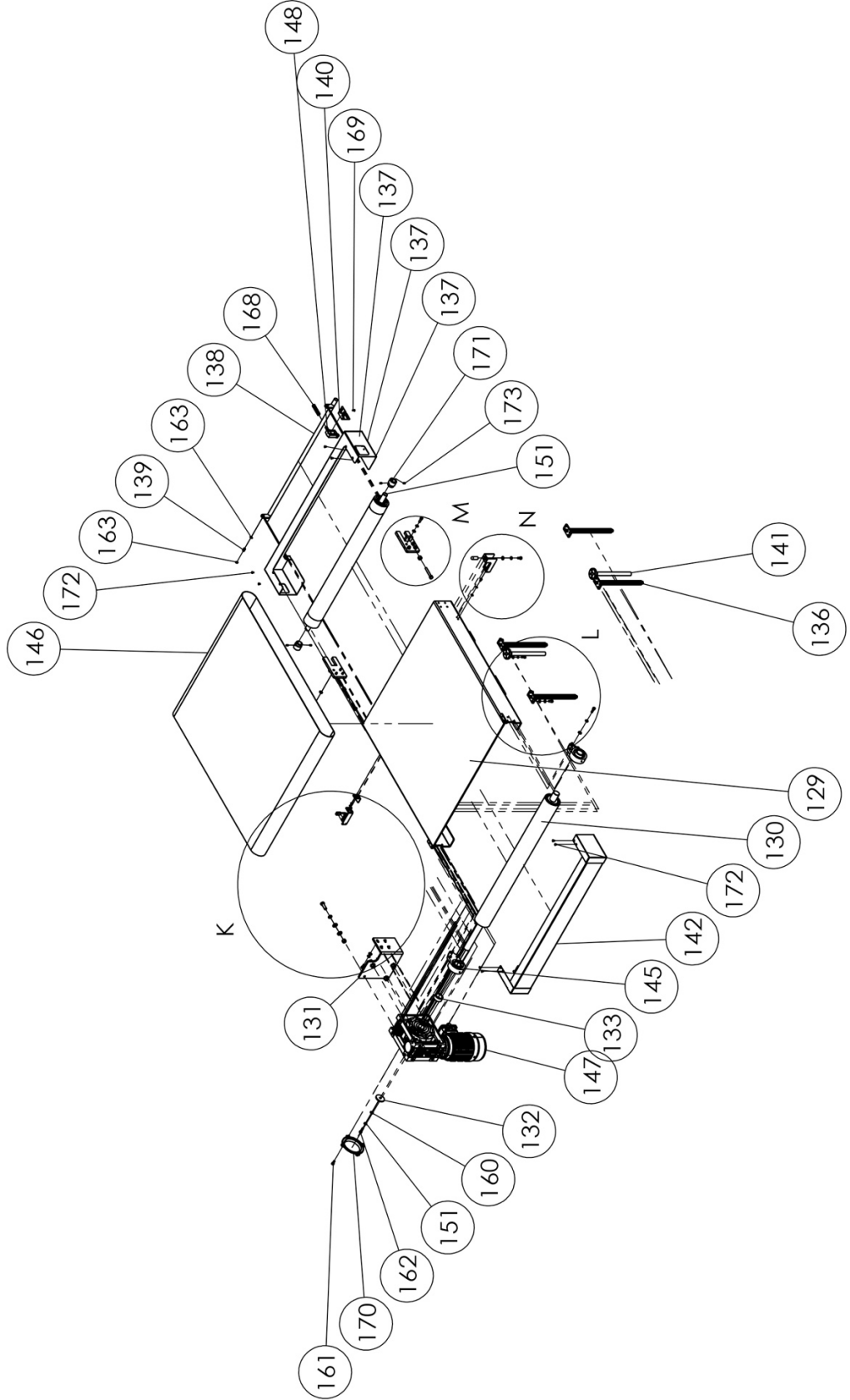
71.....	BA1-12550.....	WBS37-71 Abrasive Belt	37"x60" (1525mm) A74S ..	1
72.....	BA1-13015.....	Linear Bushing	LMF35LUU 70L	1
73.....	BA1-12551.....	WBS37-73 Electric Linear Actuator.....	LAS1-1-1-X1-24GE.....	2
74.....	BA1-12552.....	WBS37-74 Micro Switch	TM-1705	2
75.....	BA1-12553.....	WBS37-75 Tension Switch		1
76.....	JT1-573	J948WBSV-164 SENSOR SET	SA2E-TN3-2M	3
77.....	BA1-13016.....	Pillow Block Bearing.....	HDMC25	1
78.....	JT1-1269	Micro Switch Protector	WJ-CB-2	2
79.....	BA1-13017.....	Square Pillow Block Bearing	UKF207D1	1
80.....	BA1-13018.....	Belt Tension Switch Label.....		1
81.....	BA1-13019.....	Supporting Base Fastening Label		1
82.....	BA1-13020.....	Switch Junction Box.....	TEND BOX	1
83.....	BA1-12554.....	WBS37-83 Upper Roller Assembly		1
84.....	**	Flat Washer	M6	16
85.....	**	Lock Washer	M6	11
86.....	**	Hex Nut	M6	5
87.....	**	Hex Cap Screw	M6x25	1
88.....	BA1-13021.....	C-ring	CS012	2
89.....	**	Flat Washer	M8	1
90.....	**	Lock Washer	M8	1
91.....	BA1-13022.....	C-ring	CS06	4
92.....	**	Hex Cap Screw	M8x20	1
93.....	**	Hex Cap Screw	M6x75	1
94.....	**	Socket Head Cap Screw	M6x12	6
95.....	**	Socket Head Cap Screw	M6x12	8
96.....	**	Flat Washer	M5	28
97.....	**	Lock Washer	M5	26
98.....	**	Socket Head Cap Screw	M5x12	10
99.....	**	Socket Head Cap Screw	M6x45	1
100.....	**	Flat Washer	M10	14
101.....	**	Lock Washer	M10	14
102.....	**	Hex Cap Screw	M10x30	7
103.....	**	Hex Nut	M5	2
104.....	JT1-1260	Flat Washer	M12	14
105.....	JT1-1261	Lock Washer	M12	14
106.....	**	Hex Cap Screw	M10x50	4
107.....	**	Hex Cap Screw	M10x30	5
108.....	**	Hex Nut	M10	8
109.....	**	Socket HD Button Screw	M5x12	16
110.....	BA1-13023.....	Single Round End Key	D10x50	1
111.....	**	Hex Bolt.....	M10x70	2
112.....	**	Socket Head Cap Screw	M12x30	4
113.....	**	Hex Bolt.....	M12x35	10
114.....	**	Socket Head Cap Screw	M10x60	1
115.....	**	Phillips HD Button Screw + Lock Washer Assy	M3x15 + M3	2
116.....	**	Flat HD Socket Screw	M4x12	8
117.....	JT1-1129	Ceramic Tube.....		2
118.....	**	Phillips HD Button Screw	M4x8	8
119.....	**	Socket HD Button Screw	M4x6	2
120.....	**	Phillips HD Button Screw	M4x30	4
121.....	**	Lock Washer Assy	M4	4
122.....	**	Screw Plate	M4	4
123.....	**	Socket Set Screw	M10x12	8
124.....	BA1-13064.....	Cable Gland	PG9	1
125.....	BA1-13063.....	Cable Gland	MGB32A-22-ST	1
126.....	**	Socket Head Cap Screw	M4x12	4
127.....	**	Lock Washer	M4	4
128.....	**	Flat Washer	M4	4

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

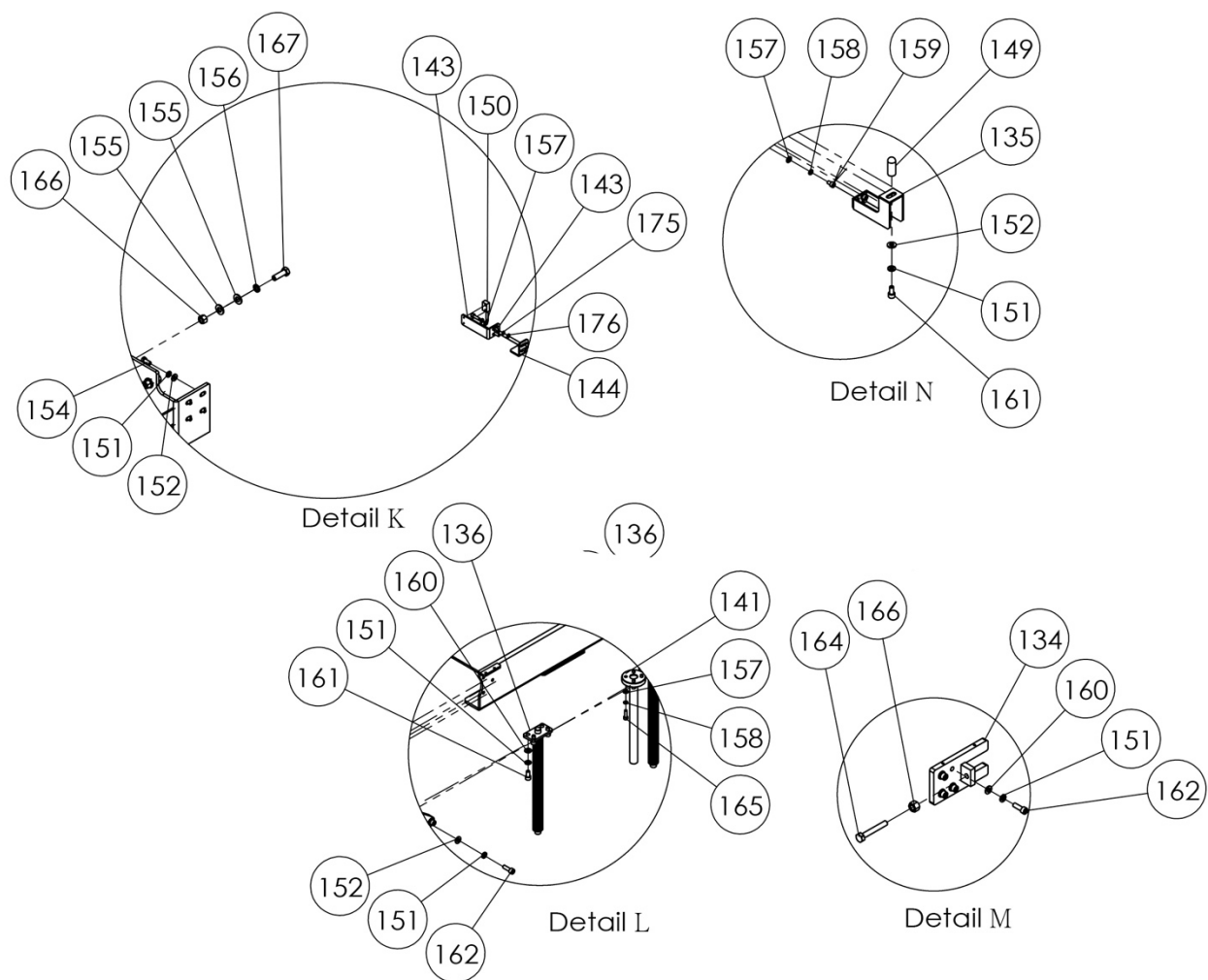
13.1.11 WBS-37 / WBS-37H Conveyor Assembly – Exploded View 1



13.1.12 WBS-37 / WBS-37H Conveyor Assembly – Exploded View 2



13.1.13 WBS-37 / WBS-37H Conveyor Assembly – Exploded View 3

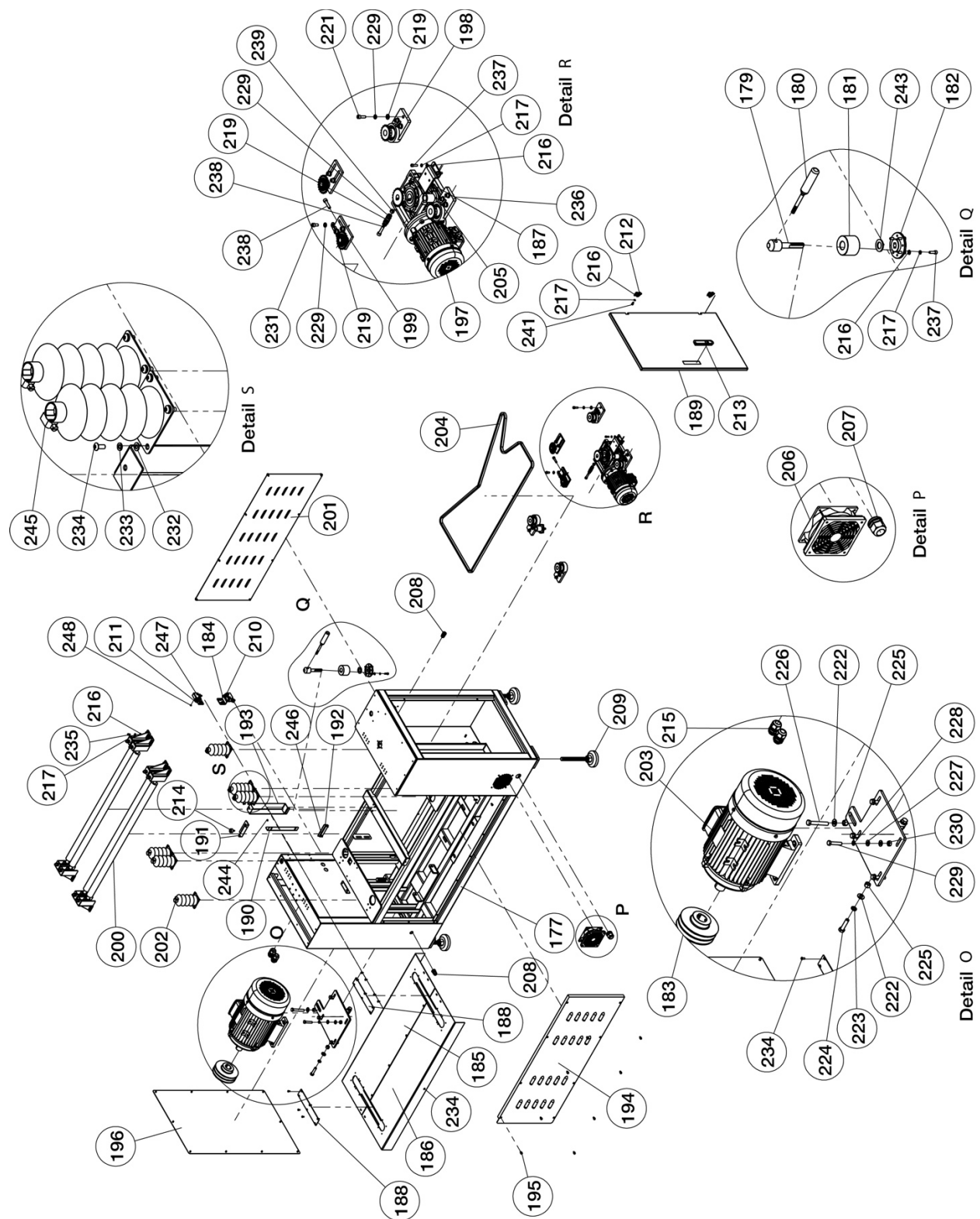


13.1.14 WBS-37 / WBS-37H Conveyor Assembly – Parts List

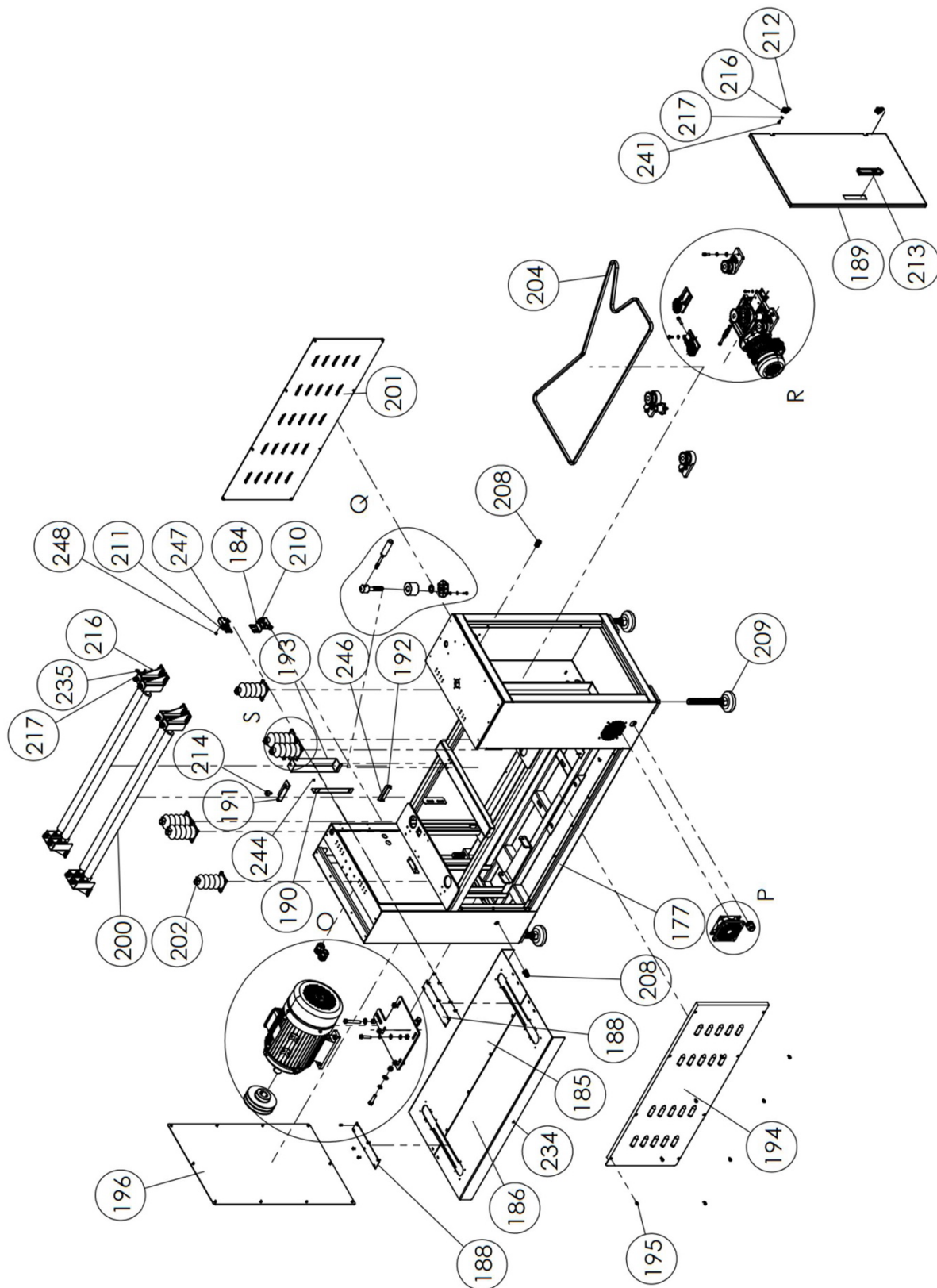
Index No	Part No	Description	Size	Qty
129.....	BA1-13024.....	Conveyor Table Assembly.....		1
130.....	BA1-12508.....	WBS37-130 Conveyor Rubber Roller Assembly.....		1
131.....	BA1-13025.....	Motor Bracket.....		1
132.....	**.....	Motor Mounting Washer.....		1
133.....	BA1-13026.....	Motor Spacer Ring.....		1
134.....	BA1-13027.....	Conveyor Roller Bracket.....		2
135.....	BA1-13028.....	Thickness Gauge Lower Bracket.....		1
136.....	**.....	Lifting Screw.....		4
137.....	BA1-13029.....	Conveyor Front Guard.....		1
138.....	BA1-13030.....	Emergency Stop Bar.....		1
139.....	BA1-13031.....	Emergency Stop Bar Shaft.....		2
140.....	BA1-13032.....	Micro Switch Bracket.....		1
141.....	BA1-13033.....	Lifting Guider.....		2
142.....	BA1-13034.....	Conveyor Back Cover.....		1
143.....	BA1-13035.....	Magnetic Scale Sensor Bracket.....		1
144.....	BA1-13036.....	Limit Switch Limiter.....		1
145.....	BA1-13037.....	Pillow Block Bearing.....	UCFK-207.....	2
146.....	BA1-12509.....	WBS37-146 Conveyor Belt.....		1
147.....	BA1-12510.....	WBS37-147 Conveyor Motor Assembly.....	1HP 230/460V 3Ph (1:60) .	1
148.....	JT1-561.....	J948WBSV-63 MICRO SWITCH.....	TM7311.....	1
149.....	BA1-13038.....	Thickness Gauge Positioning Post.....		1
150.....	BA1-12511.....	WBS37-150 Magnetic Scale Sensor.....	M15S-AT.....	1
151.....	BA1-13039.....	Conveyor Front Roller Assembly.....		1
.....	BA1-12512.....	WBS37-151-1 Conveyor Front Roller Shaft.....		1
.....	BA1-12513.....	WBS37-151-2 Ball Bearing.....		2
.....	BA1-12514.....	WBS37-151-3 Front Roll Assy No Shft/Brng.....		1
152.....	**.....	Flat Washer.....	M8.....	11
153.....	**.....	Lock Washer.....	M8.....	36
154.....	**.....	Hex Cap Screw.....	M8x20.....	4
155.....	JT1-1260.....	Flat Washer.....	M12.....	8
156.....	JT1-1261.....	Lock Washer.....	M12.....	4
157.....	**.....	Flat Washer.....	M6.....	12
158.....	**.....	Lock Washer.....	M6.....	12
159.....	**.....	Socket Head Cap Screw.....	M6x10.....	2
160.....	**.....	Flat Washer.....	M8.....	25
161.....	**.....	Socket Head Cap Screw.....	M8x16.....	21
162.....	**.....	Socket Head Cap Screw.....	M8x25.....	15
163.....	BA1-13040.....	C-ring.....	CS010.....	4
164.....	**.....	Hex Cap Screw.....	M10x70.....	2
165.....	**.....	Socket Head Cap Screw.....	M6x20.....	10
166.....	**.....	Hex Nut.....	M12.....	6
167.....	**.....	Hex Cap Screw.....	M12x40.....	4
168.....	BA1-13041.....	Compression Spring.....	d1.5xD13xL70.....	1
169.....	**.....	Socket HD Button Screw.....	M5x12.....	2
170.....	BA1-13042.....	Conveyor Gear Box Cover.....		1
171.....	BA1-13043.....	Conveyor Roller Locating Ring.....		2
172.....	**.....	Flat Head Socket Screw.....	M5x10.....	8
173.....	**.....	Socket Set Screw.....	M6x12.....	4
174.....	**.....	Socket Head Cap Screw.....	M5x12.....	2
175.....	**.....	Lock Washer.....	M5.....	2
176.....	**.....	Flat Washer.....	M5.....	2

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

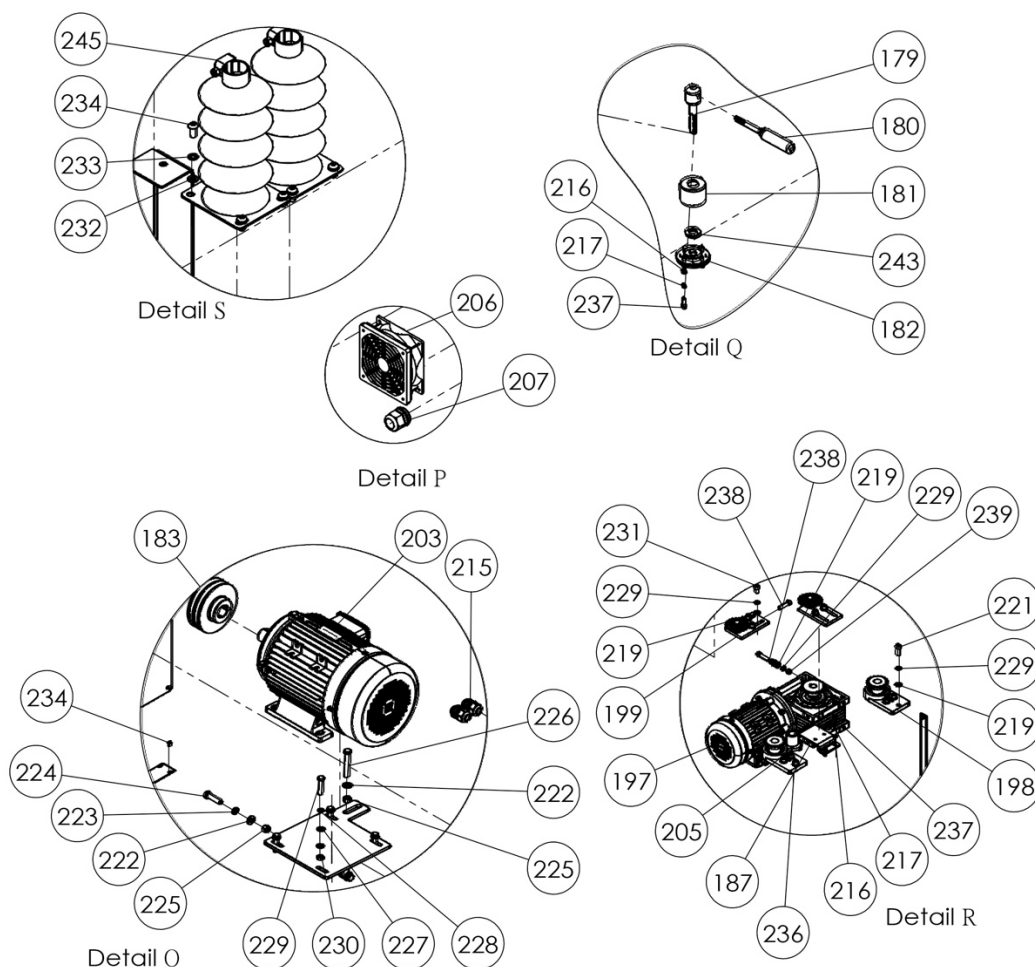
13.1.15 WBS-37 / WBS-37H Base Frame Assembly – Exploded View 1



13.1.16 WBS-37 / WBS-37H Base Frame Assembly – Exploded View 2



13.1.17 WBS-37 / WBS-37H Base Frame Assembly – Exploded View 3



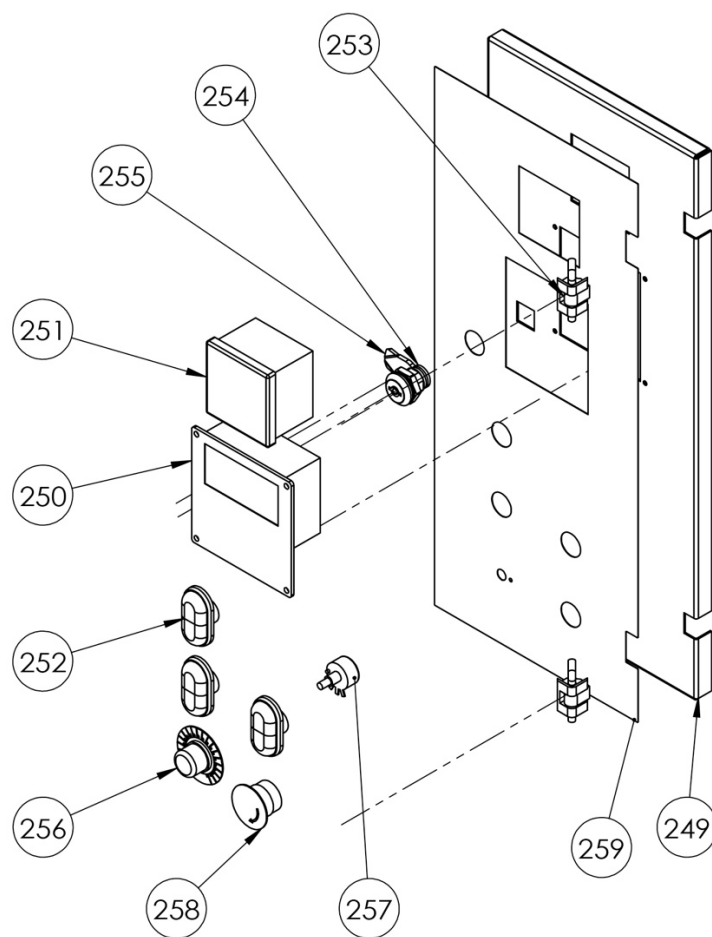
13.1.18 WBS-37 / WBS-37H Base Frame Assembly – Parts List

Index No	Part No	Description	Size	Qty
177.....	BA1-13044.....	Base Frame		1
178.....	BA1-13045.....	Sanding Motor Mounting Plate.....		1
179.....	BA1-12515.....	WBS37-179 Fastening Shaft.....		1
180.....	BA1-13046.....	Handle.....		1
181.....	BA1-12517.....	WBS37-181 Abrasive Belt Supporting Base.....		1
182.....	**.....	Supporting Base Nut.....		1
183.....	BA1-12516.....	WBS37-183 Sanding Motor Pulley		1
184.....	BA1-13047.....	Micro Switch Mounting Plate.....		2
185.....	BA1-13048.....	Base Frame Cover.....		1
186.....	BA1-13049.....	Base Frame Cover.....		1
187.....	BA1-13050.....	Supporting Plate.....		1
188.....	BA1-13051.....	Base Frame Cover Connector		2
189.....	BA1-13052.....	Control Box Door		1
190.....	BA1-12518.....	WBS37-190 Magnetic Scale Strip Assembly		1
191.....	BA1-13053.....	Magnetic Scale Slider		1
192.....	BA1-13054.....	Magnetic Scale Cover Mount.....		1
193.....	BA1-13055.....	Magnetic Scale Cover.....		1
194.....	BA1-13269.....	Rear Plate		1
195.....	**.....	Socket HD Button Screw.....	M6x12.....	12
196.....	BA1-13058.....	Lower Right Plate Assembly		1
197.....	BA1-12519.....	WBS37-197 Lifting Motor Assembly	0.5HP 230/460V 3Ph.....	1
198.....	BA1-12520.....	WBS37-198 Sprocket Assembly		4
199.....	BA1-12521.....	WBS37-199 Idler Assembly		2
200.....	BA1-13059.....	Hold-Down Roller Assembly		4
.....	BA1-12522.....	WBS37-200-1 Hold-Down Roller		4

.....	BA1-12523	WBS37-200-2 Hold-Down Roller Assembly No Roll		4
201.....	BA1-13060	Lower Front Plate Assembly		1
202.....	BA1-13061	Telescopic Sleeve		6
203.....	BA1-12524	WBS37-203 Sanding Motor	10HP 230V/460V 3Ph	1
204.....	BA1-12525	WBS37-204 Chain		1
205.....	BA1-13062	Round Flange Linear Bearing	MDRA20	2
206.....	JT1-1242	Exhaust Fan	4" AC24V	1
207.....	BA1-13063	Cable Gland	AG-32	1
208.....	BA1-13064	Cable Gland	PG9	2
209.....	BA1-13065	Adjustable Leveling Foot	Z011-90-20-200	4
210.....	JT1-1271	Micro Switch	MJ-1307	2
211.....	JT1-1269	Micro Switch Protector	WJ-CB-2	2
212.....	JT1-1110	Hinge	6x40	2
213.....	BA1-13066	Door Lock	RV-220-1	1
214.....	**	Hand Screw	M6x16L J002-D01	1
215.....	BA1-13067	Cable Gland	PGB13.5	2
216.....	**	Flat Washer	M6	43
217.....	**	Lock Washer	M6	42
218.....	**	Socket HD Button Screw	M6x12	1
219.....	**	Flat Washer	M8	26
220.....	**	Lock Washer	M8	26
221.....	**	Socket Head Cap Screw	M8x25	12
222.....	JT1-1260	Flat Washer	M12	3
223.....	JT1-1261	Lock Washer	M12	2
224.....	**	Hex Cap Screw	M12x50	2
225.....	**	Hex Nut	M12	5
226.....	JT1-1140	Hex Cap Screw	M12x80	1
227.....	**	Flat Washer	M10	8
228.....	**	Lock Washer	M10	4
229.....	**	Hex Cap Screw	M10x50	4
230.....	**	Hex Nut	M10	4
231.....	**	Socket Head Cap Screw	M8x16	4
232.....	**	Flat Washer	M5	32
233.....	**	Lock Washer	M5	32
234.....	**	Socket HD Button Screw	M5x12	49
235.....	**	Socket Head Cap Screw	M6x10	32
236.....	**	Socket Head Cap Screw	M5x20	8
237.....	**	Socket Head Cap Screw	M6x20	8
238.....	**	Socket Head Cap Screw	M8x35	8
239.....	**	Hex Nut	M8	7
240.....	**	Socket Head Cap Screw	M8x20	2
241.....	**	Socket Head Cap Screw	M6x12	2
242.....	**	Flat Washer	M4	4
243.....	**	Flat Washer	M20	1
244.....	**	Socket HD Button Screw	M4x6	2
245.....	BA1-13068	Hose Clamp	22MIN,30MAX	6
246.....	**	Socket Head Cap Bolt	M5x12	8
247.....	**	Phillips HD Button Screw	M4x30	4
248.....	**	Hex Nut	M4	4

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

13.1.19 WBS-37 / WBS-37H Control Panel Assembly – Exploded View

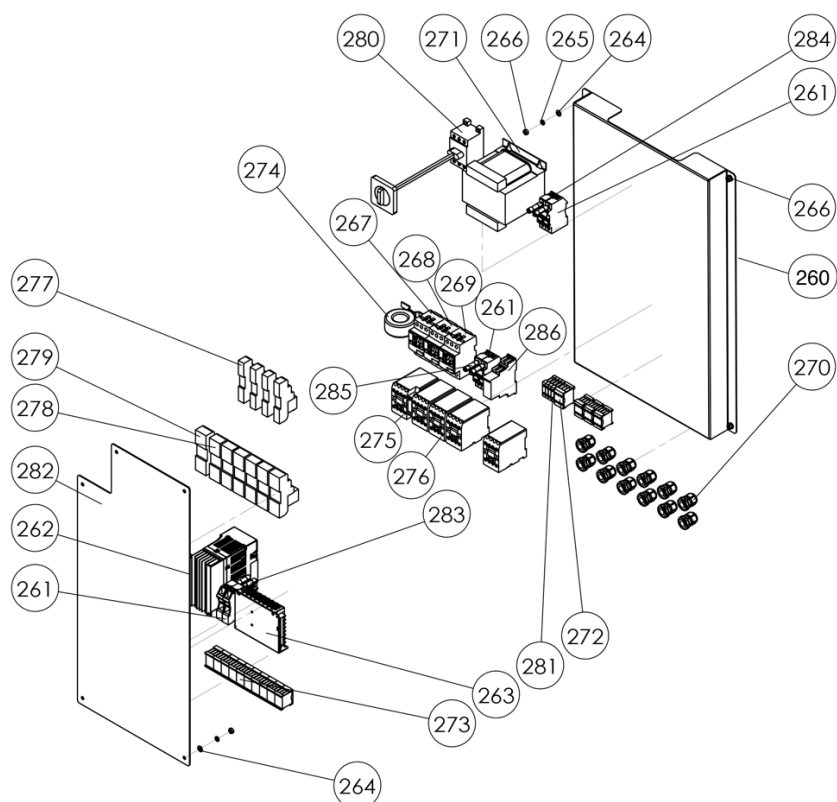


13.1.20 WBS-37 / WBS-37H Control Panel Assembly – Parts List

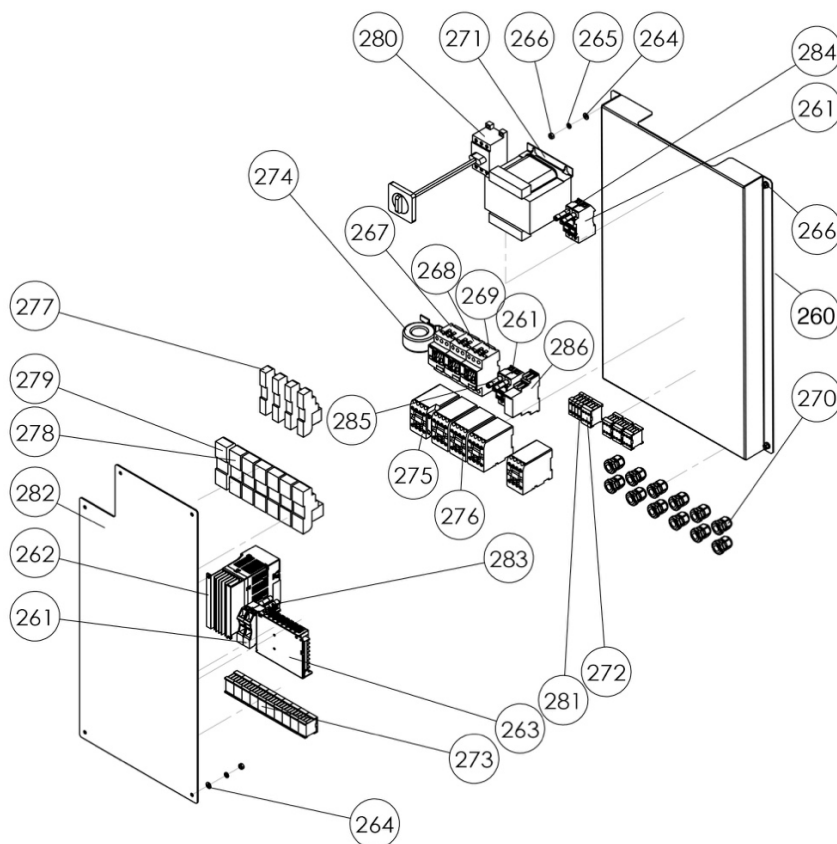
Index No	Part No	Description	Size	Qty
249.....	BA1-13069.....	Control Panel Door.....		1
250.....	BA1-12527.....	WBS37-250 DRO for Workpiece Thickness	M15-CS.....	1
251.....	BA1-12528.....	WBS37-251 Sanding Motor Ammeter.....	SR72.....	1
252.....	BA1-12529.....	WBS37-252 Dual Push Button Switch	1A 1B	3
253.....	JT1-1110	Hinge.....	6x40	2
254.....	BA1-13070.....	Control Panel Key Latch	D20	1
255.....	BA1-13071.....	Key Latch Clip.....		1
256.....	JT1-1273	J948WBSV-1-9 Conveyor Feed VR Switch	RV24Y-20S-2K	1
			B202/RN-99D	1
257.....	BA1-12530.....	WBS37-257 Conveyor Feed VR	RV24YN-20S	1
			B202-25-2C	1
258.....	JT1-1132	J948WBSV-1-4 Emergency Stop Switch (SB1).....	1B	1
259.....	BA1-13072.....	Control Panel Sticker	Matt Black.....	1

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

13.1.21 WBS-37 / WBS-37H Control Box Assembly, 230V – Exploded View



13.1.22 WBS-37 / WBS-37H Control Box Assembly, 460V – Exploded View



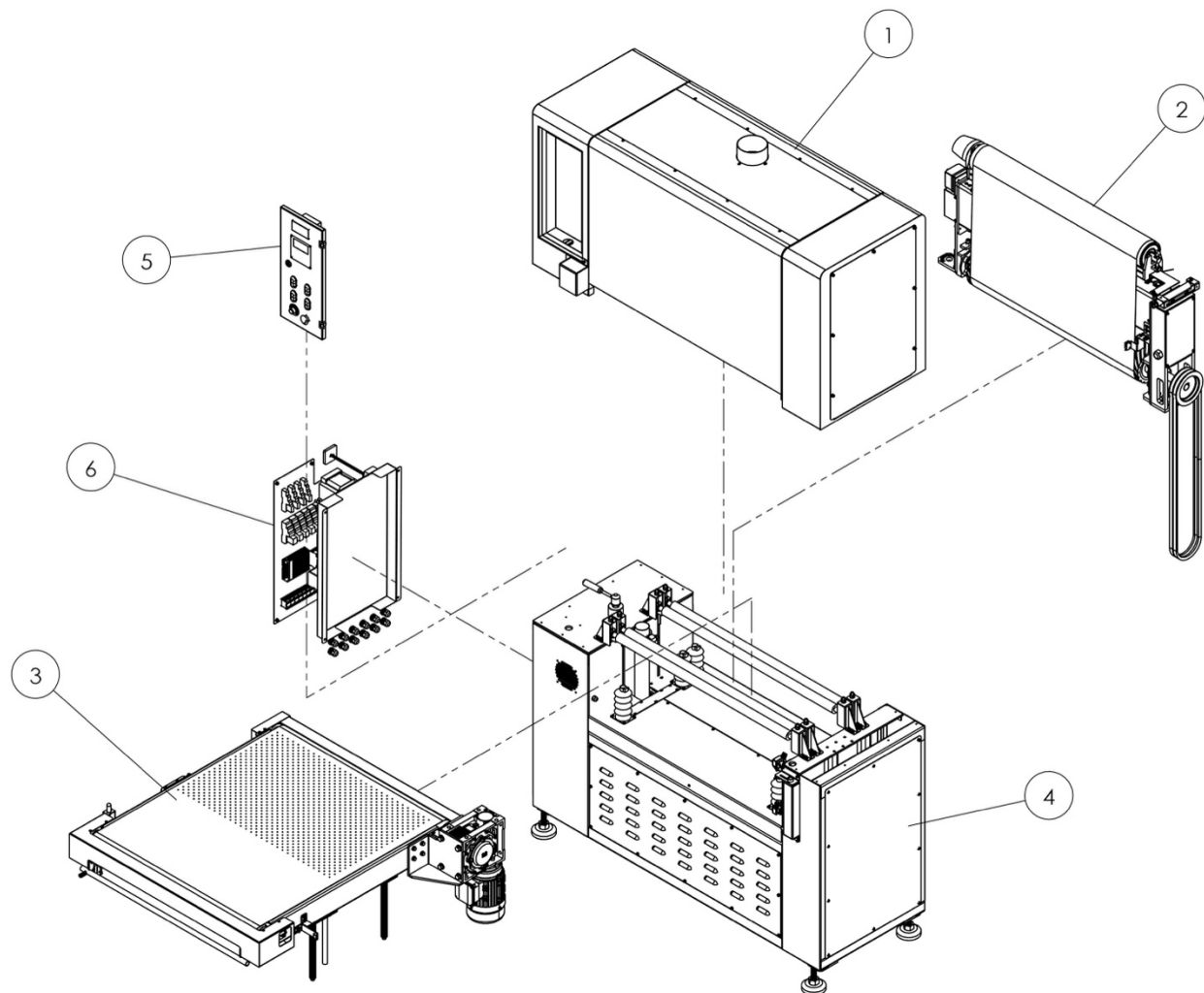
13.1.23 WBS-37 / WBS-37H Control Box Assembly, 230V – Parts List

Index No	Part No	Description	Size	Qty
260.....	BA1-13073.....	Control Box Mounting Plate		1
261.....	BA1-13074.....	Fuse Seat.....	DF 102.....	3
262.....	BA1-12531.....	WBS37-262 Inverter.....	DELTA VFD4A8MS23A-NSAA 1HP (230V).....	1
.....	BA1-12532.....	WBS37-262-460 Inverter	DELTA VFD-2A7MS43A-NSAA 1HP (460V).....	1
263.....	BA1-12533.....	WBS37-263 Power Supply Unit	MW LRS-150-24 (230/460V).....	1
264.....	**.....	Flat Washer.....	M6.....	9
265.....	**.....	Lock Washer.....	M6.....	9
266.....	**.....	Hex Nut	M6.....	9
267.....	BA1-12534.....	WBS37-267 Sanding Motor Overload Switch	SHIHLIN MR-32S-32 (230V).....	1
.....	BA1-12535.....	WBS37-267-460 Sanding Motor Overload Switch	SHIHLIN MR-32S-18 (460V).....	1
268.....	BA1-12536.....	WBS37-268 Conveyor Motor Overload Switch.....	SHIHLIN MR-32S-10 (230V).....	1
.....	BA1-12537.....	WBS37-268-460 Conveyor Motor Overload Switch	SHIHLIN MR-32S-6.3 (460V).....	1
269.....	BA1-12538.....	WBS37-269 Lifting Motor Overload Switch.....	SHIHLIN MR-32S-2.5 (230V).....	1
.....	BA1-12539.....	WBS37-269-460 Lifting Motor Overload Switch	SHIHLIN MR-32S-1.6 (460V).....	1
270.....	BA1-13075.....	Cable Gland	AG-25.....	12
271.....	BA1-12540.....	WBS37-271 Transformer	LCE 580VA (230V/460V) ...	1
272.....	BA1-13076.....	Terminal Block	IN30BK-C 3P-50A.....	1
273.....	BA1-13077.....	Terminal Block	IN13SBK-C 3P-20A	13
274.....	BA1-12541.....	WBS37-274 Current Transformer	CL-25CT 30:5A.....	1
275.....	BA1-12544.....	WBS37-275 Magnetic Contactor (KM1).....	TECO CU32.....	1
276.....	JT1-1125	J948WBSV-KM2/3 Mag. Contactor (KM) (KM2/3A/3B) ..	TECO CU11.....	4
277.....	JT1-1117	J948WBSV-3 Relay (KM5A/5B/7A/7B).....	IDEC RJ1S-CL-D24.....	4
278.....	JT1-1118	J948WBSV-3-1 Relay (KA3/4/6/7/8/9).....	IDEC RN2S-HNL-D24	6
279.....	BA1-12542.....	WBS37-279 Relay (KA2)	IDEC RN2S-HNL-A24.....	1
280.....	BA1-12543.....	WBS37-280 Rotary Power Switch	NHD NDS-603-G5DL3 3P-60A	1
281.....	BA1-13078.....	Terminal Block	IN411SB-C 1P-60A.....	4
282.....	BA1-13079.....	Control Box Mounting Plate		1
283.....	BA1-13080.....	Fuse (FU3).....	KTK-R 3A.....	2
284.....	BA1-13081.....	Fuse (FU1).....	FNQ-R 3A.....	2
285.....	BA1-13082.....	Fuse (FU2).....	FNQ-R 4A.....	2
286.....	JT1-1122	J948WBSV-PMR Phase Monitoring Relay (PSP).....	RM22TG20 183-528VAC (230/460V).....	1
.....	BA1-12526.....	WBS37-230V-460V 230-460V CHANGE KT		1

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

13.2 Replacement Parts for Models WBS-37V / WBS-37VH

13.2.1 WBS-37V / WBS-37VH Main Assemblies – Exploded View

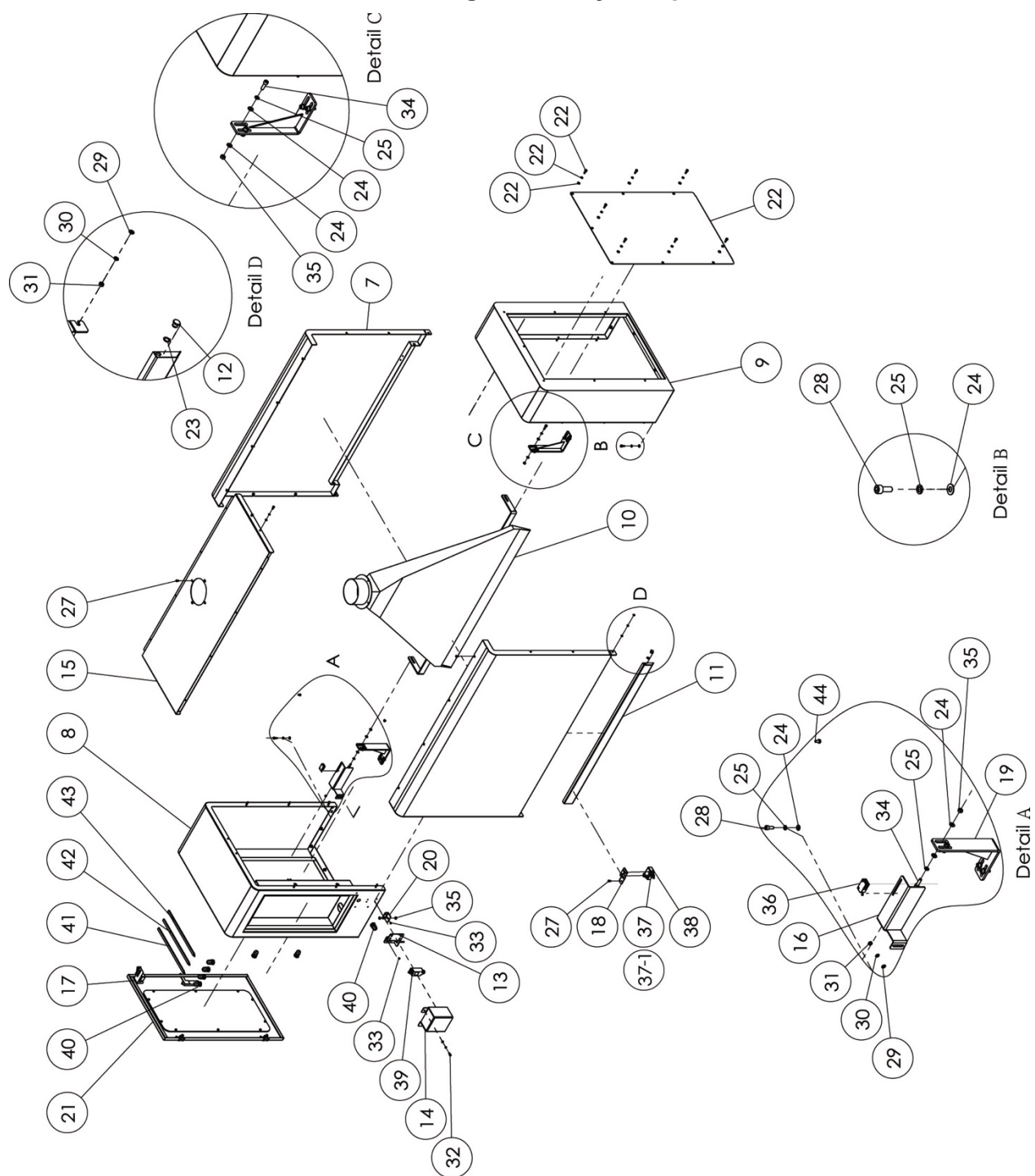


13.2.2 WBS-37V / WBS-37VH Main Assemblies – Parts List

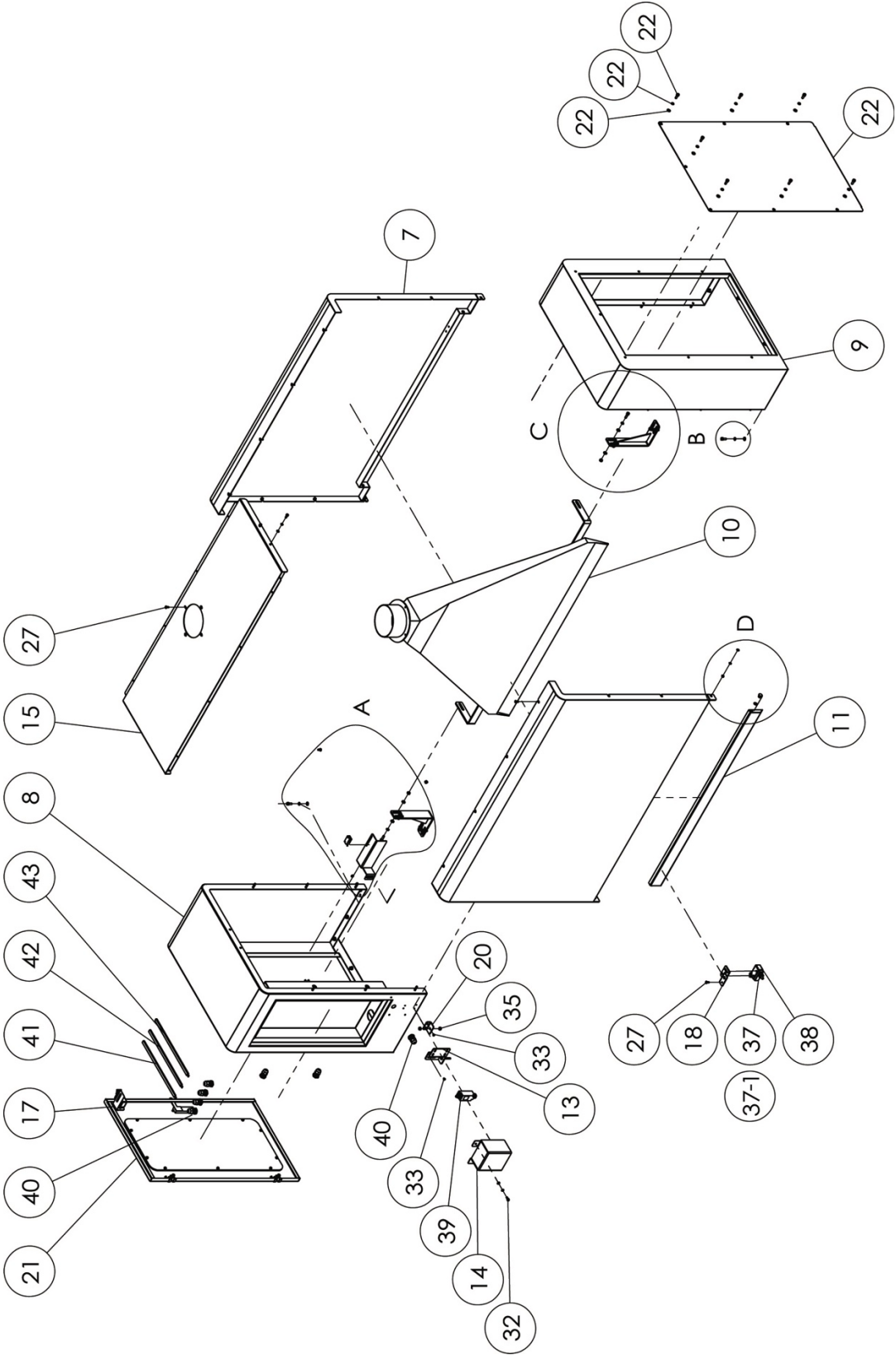
Index No	Part No	Description	Size	Qty
1.....	BA1-12949.....	Upper Housing Assembly.....		1
2.....	BA1-12950.....	Abrasive Belt Assembly		1
3.....	BA1-12951.....	Conveyor Assembly		1
4.....	BA1-12972.....	Base Frame Assembly		1
5.....	BA1-12953.....	Control Panel Assembly.....		1
6.....	BA1-12954.....	Control Box Assembly	230V	1
	BA1-12955.....	Control Box Assembly	460V	1

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

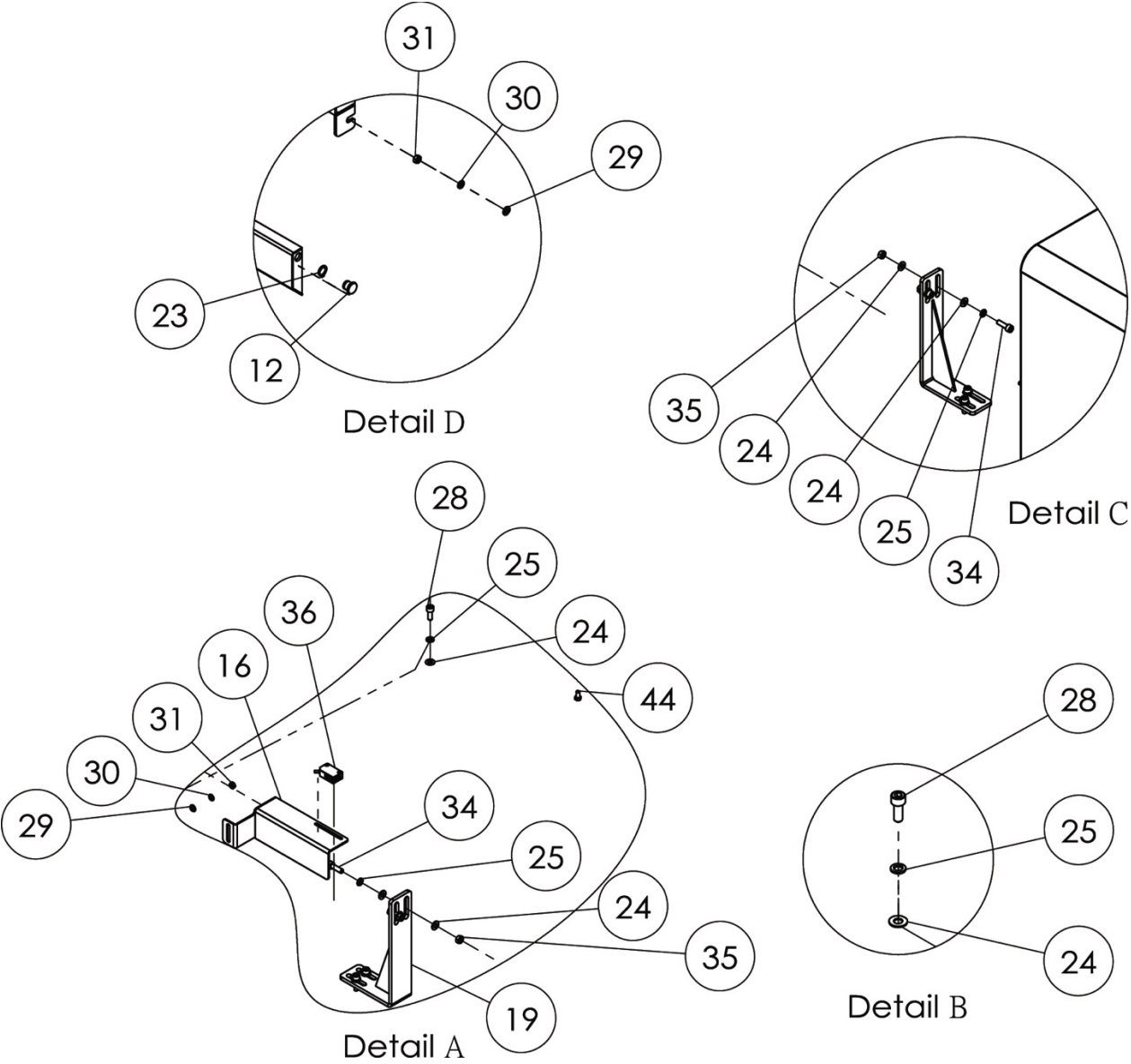
13.2.3 WBS-37V / WBS-37VH Housing Assembly – Exploded View 1



13.2.4 WBS-37V / WBS-37VH Housing Assembly – Exploded View 2



13.2.5 WBS-37V / WBS-37VH Housing Assembly – Exploded View 3

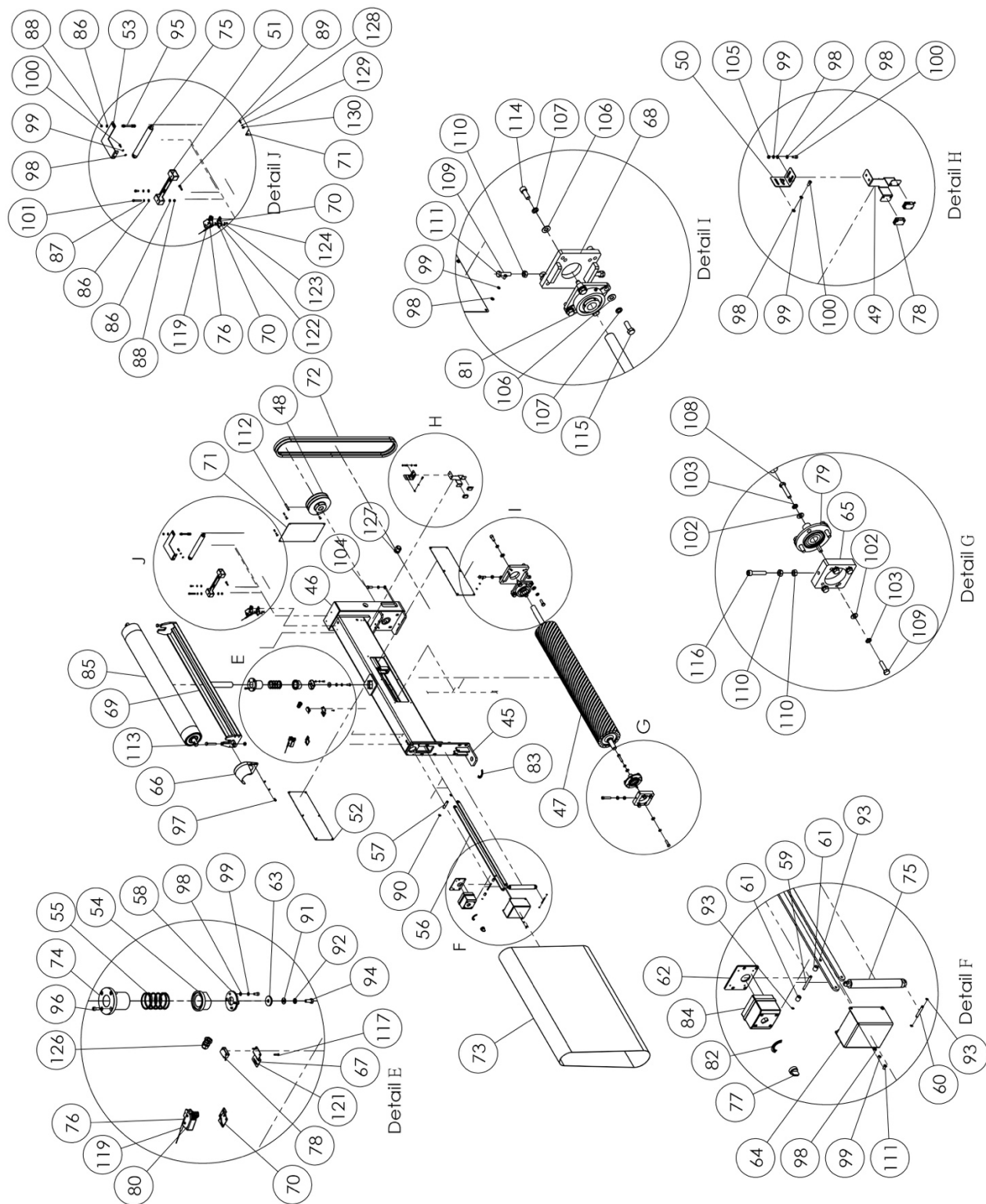


13.2.6 WBS-37V / WBS-37VH Housing Assembly – Parts List

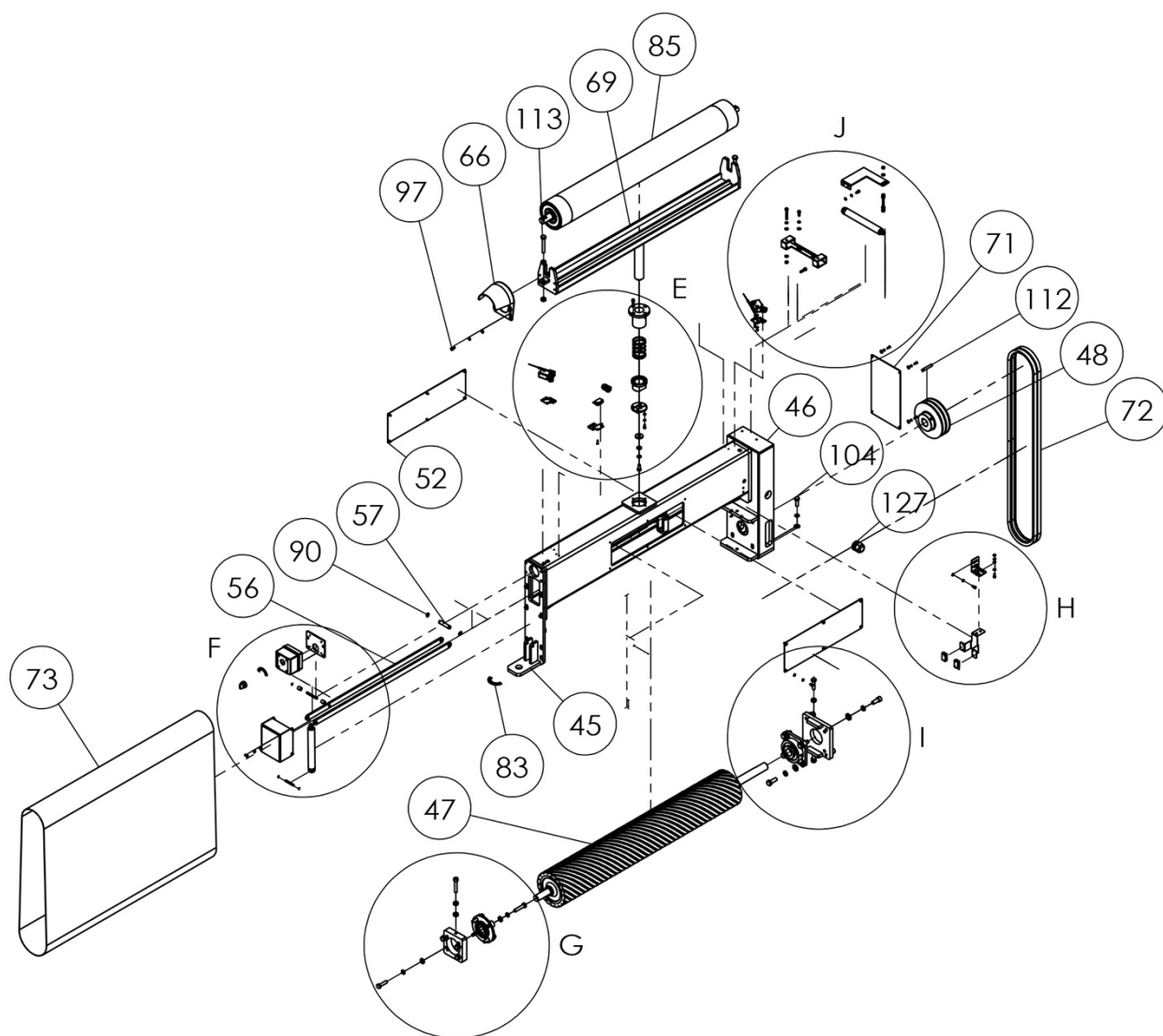
Index No	Part No	Description	Size	Qty
7	BA1-12976	Front Cover		2
8	BA1-12977	Left Housing		1
9	BA1-12978	Right Housing		1
10	BA1-12979	Dust Hood		1
11	BA1-12980	Safety Flap		1
12	BA1-12981	Rivet		2
13	BA1-12982	Limit Switch Mounting Plate		1
14	BA1-12983	Thickness Gauge Housing		1
15	BA1-12984	Top Cover		1
16	BA1-12985	Proximity Sensor Bracket		1
17	JT1-1082	Door Micro Switch Bracket		2
18	BA1-13047	Micro Switch Mounting Plate		1
19	BA1-12986	Dust Hood Bracket		2
20	BA1-12987	Thickness Gauge Bracket		1
21	BA1-12988	Left Door		1
22	BA1-12989	Upper Right Plate Assembly		1
23	BA1-13040	C-ring	CS010	2
24	**	Flat Washer	M6	35
25	**	Lock Washer	M6	31
26	**	Socket Head Cap Screw	M6x10	2
27	**	Socket HD Button Screw	M5x12	14
28	**	Socket Head Cap Screw	M6x12	14
29	**	Flat Washer	M5	20
30	**	Lock Washer	M5	21
31	**	Hex Nut	M5	14
32	**	Socket Head Cap Screw	M5x12	7
33	**	Socket HD Button Screw	M4x6	4
34	**	Socket Head Cap Screw	M6x20	8
35	**	Nut	M6	6
36	JT1-573	J948WBSV-164 SENSOR SET	IDEC SA2E-TN3-2M	1
37	JT1-1271	J948WBSV-120 MICRO SWITCH	MJ-1307	2
37-1	**	Phillips HD Button Screw + Lock Washer Assy	M4x30 + M4	2
38	JT1-1269	Micro Switch Protector	WJ-CB-2	2
39	BA1-12545	WBS37-39 Limit Switch	TEND TZ-8111	1
40	BA1-13064	Cable Gland	PG9	7
41	BA1-12563	WBS37V-41 LED	GTF2-24-T Red	1
42	BA1-12546	WBS37-41 LED	GTF2-24-T White	1
43	BA1-12564	WBS37V-43 LED	GTF2-24-T Green	1
44	**	Hex Cap Screw	M5x10	1

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

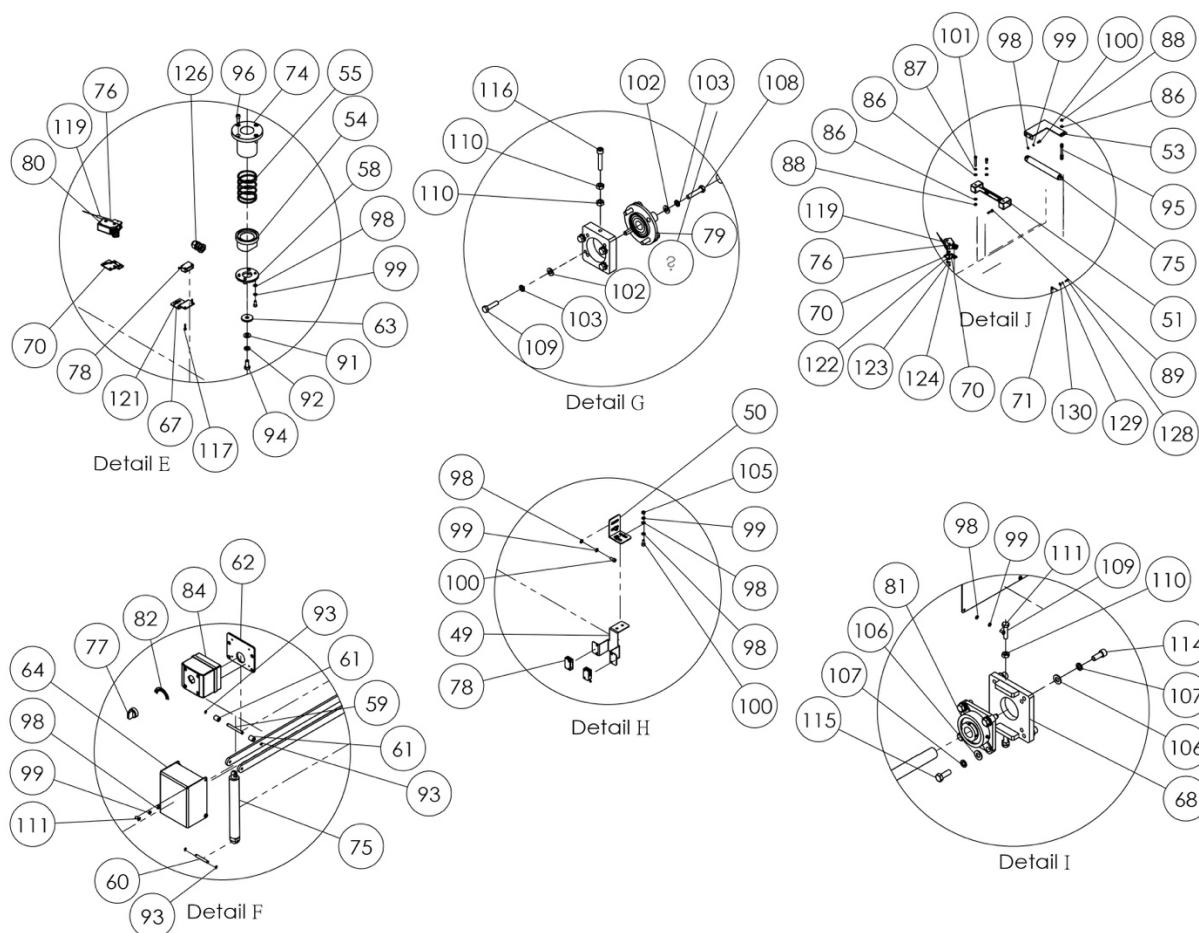
13.2.7 WBS-37V / WBS-37VH Abrasive Belt Assembly – Exploded View 1



13.2.8 WBS-37V / WBS-37VH Abrasive Belt Assembly – Exploded View 2



13.2.9 WBS-37V / WBS-37VH Abrasive Belt Assembly – Exploded View 3



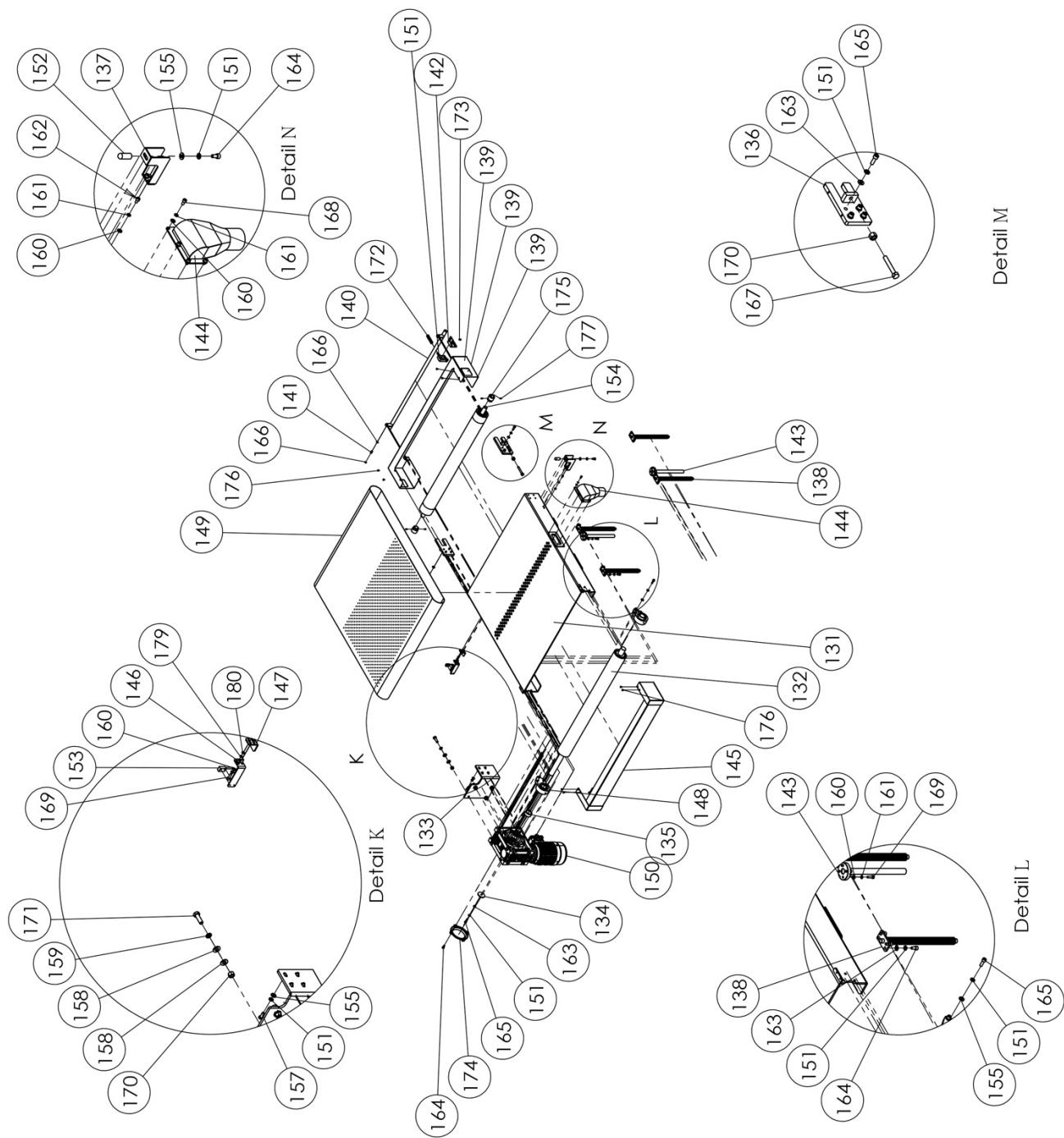
13.2.10 WBS-37V / WBS-37VH Abrasive Belt Assembly – Parts List

Index No	Part No	Description	Size	Qty
45.....	BA1-12990.....	Gantry Frame Assembly		1
46.....	BA1-12991.....	Frame Column		1
47.....	BA1-12547.....	WBS37-45 Drive Roller Assembly	D150x 980	1
48.....	BA1-12548.....	WBS37-46 Drive Roller Pulley	6"	1
49.....	BA1-12992.....	Optical Sensing Bracket.....		1
50.....	BA1-12993.....	Micro Switch Bracket.....		1
51.....	BA1-12994.....	Electric Linear Actuator Bracket.....		1
52.....	BA1-12995.....	Gantry Frame Cover		2
53.....	BA1-12996.....	Electric Linear Actuator Retainer		1
54.....	BA1-12997.....	Swivel Base.....		1
55.....	BA1-12998.....	Spring.....		1
56.....	BA1-12999.....	Upper Roller Supporting Arm		2
57.....	BA1-13000.....	Supporting Arm Shaft.....		1
58.....	BA1-13001.....	Swivel Base Cover.....		1
59.....	BA1-13002.....	Supporting Arm Shaft.....		1
60.....	BA1-13003.....	Supporting Arm Shaft.....		1
61.....	BA1-13004.....	Shaft Retainer		2
62.....	BA1-13005.....	Tension Switch Panel.....		1
63.....	BA1-13006.....	Swivel Base Cover		1
64.....	BA1-13007.....	Electric Linear Actuator Cover		1
65.....	BA1-13008.....	Driver Roller Bearing Retainer		1
66.....	BA1-13009.....	Abrasive Belt Guider		1
67.....	BA1-13010.....	Proximity Switch Bracket.....		1
68.....	BA1-13011.....	Driver Roller Bearing Retainer		1
69.....	BA1-13012.....	Upper Roller Bracket.....		1
70.....	BA1-13013.....	Limit Switch Bracket.....		2
71.....	BA1-13014.....	Junction Box Plate		1
72.....	BA1-12549.....	WBS37-70 V-Belt	Type-B 79"	2

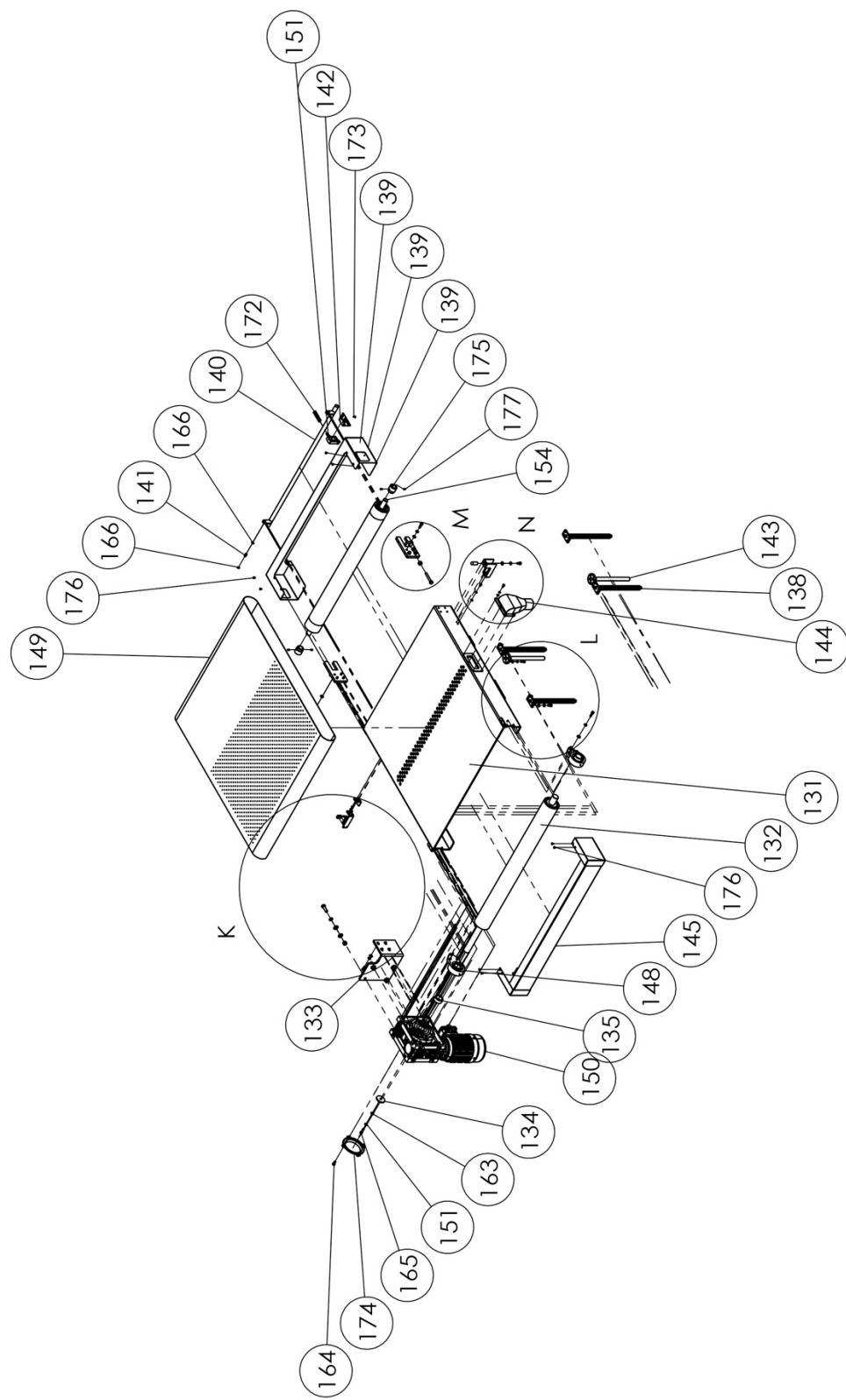
73.....	BA1-12550.....	WBS37-71 Abrasive Belt	37"x60" (1525mm) A74S ..	1
74.....	BA1-13015.....	Linear Bushing	LMF35LUU 70L	1
75.....	BA1-12551.....	WBS37-73 Electric Linear Actuator.....	LAS1-1-1-X1-24GE.....	2
76.....	BA1-12552.....	WBS37-74 Micro Switch	TM-1705	2
77.....	BA1-12553.....	WBS37-75 Tension Switch		1
78.....	JT1-573	J948WBSV-164 SENSOR SET	SA2E-TN3-2M	3
79.....	BA1-13016.....	Pillow Block Bearing.....	HDMC25	1
80.....	JT1-1269	Micro Switch Protector	WJ-CB-2	2
81.....	BA1-13017.....	Square Pillow Block Bearing	UKF207D1	1
82.....	BA1-13018.....	Belt Tension Switch Label.....		1
83.....	BA1-13019.....	Supporting Base Fastening Label		1
84.....	BA1-13020.....	Switch Junction Box.....	TEND BOX	1
85.....	BA1-12554.....	WBS37-83 Upper Roller Assembly		1
86.....	**	Flat Washer	M6	16
87.....	**	Lock Washer	M6	11
88.....	**	Hex Nut	M6	5
89.....	**	Hex Cap Screw	M6x25	1
90.....	BA1-13021.....	C-ring	CS012.....	2
91.....	**	Flat Washer	M8	1
92.....	**	Lock Washer	M8	1
93.....	BA1-13022.....	C-ring	CS06.....	4
94.....	**	Hex Cap Screw	M8x20	1
95.....	**	Hex Cap Screw	M6x75	1
96.....	**	Socket Head Cap Screw	M6x12	6
97.....	**	Socket Head Cap Screw	M6x12	8
98.....	**	Flat Washer	M5	28
99.....	**	Lock Washer	M5	26
100.....	**	Socket Head Cap Screw	M5x12	10
101.....	**	Socket Head Cap Screw	M6x45	1
102.....	**	Flat Washer	M10	14
103.....	**	Lock Washer	M10	14
104.....	**	Hex Cap Screw	M10x30	7
105.....	**	Hex Nut	M5	2
106.....	JT1-1260	Flat Washer	M12	14
107.....	JT1-1261	Lock Washer	M12	14
108.....	**	Hex Cap Screw	M10x50	4
109.....	**	Hex Cap Screw	M10x30	5
110.....	**	Hex Nut	M10	8
111.....	**	Socket HD Button Screw	M5x12	16
112.....	BA1-13023.....	Single Round End Key	D10x50	1
113.....	**	Hex Bolt.....	M10x70	2
114.....	**	Socket Head Cap Screw	M12x30	4
115.....	**	Hex Bolt.....	M12x35	10
116.....	**	Socket Head Cap Screw	M10x60	1
117.....	**	Phillips HD Button Screw + Lock Washer Assy	M3x15 + M3	2
118.....	**	Flat HD Socket Screw	M4x12	8
119.....	JT1-1129	Ceramic Tube.....		2
120.....	**	Phillips HD Button Screw	M4x8	8
121.....	**	Socket HD Button Screw	M4x6	2
122.....	**	Phillips HD Button Screw	M4x30	4
123.....	**	Lock Washer Assy	M4	4
124.....	**	Screw Plate	M4	4
125.....	**	Socket Set Screw	M10x12	8
126.....	BA1-13064.....	Cable Gland	PG9	1
127.....	BA1-13063.....	Cable Gland	MGB32A-22-ST	1
128.....	**	Socket Head Cap Screw	M4x12	4
129.....	**	Lock Washer	M4	4
130.....	**	Flat Washer	M4	4

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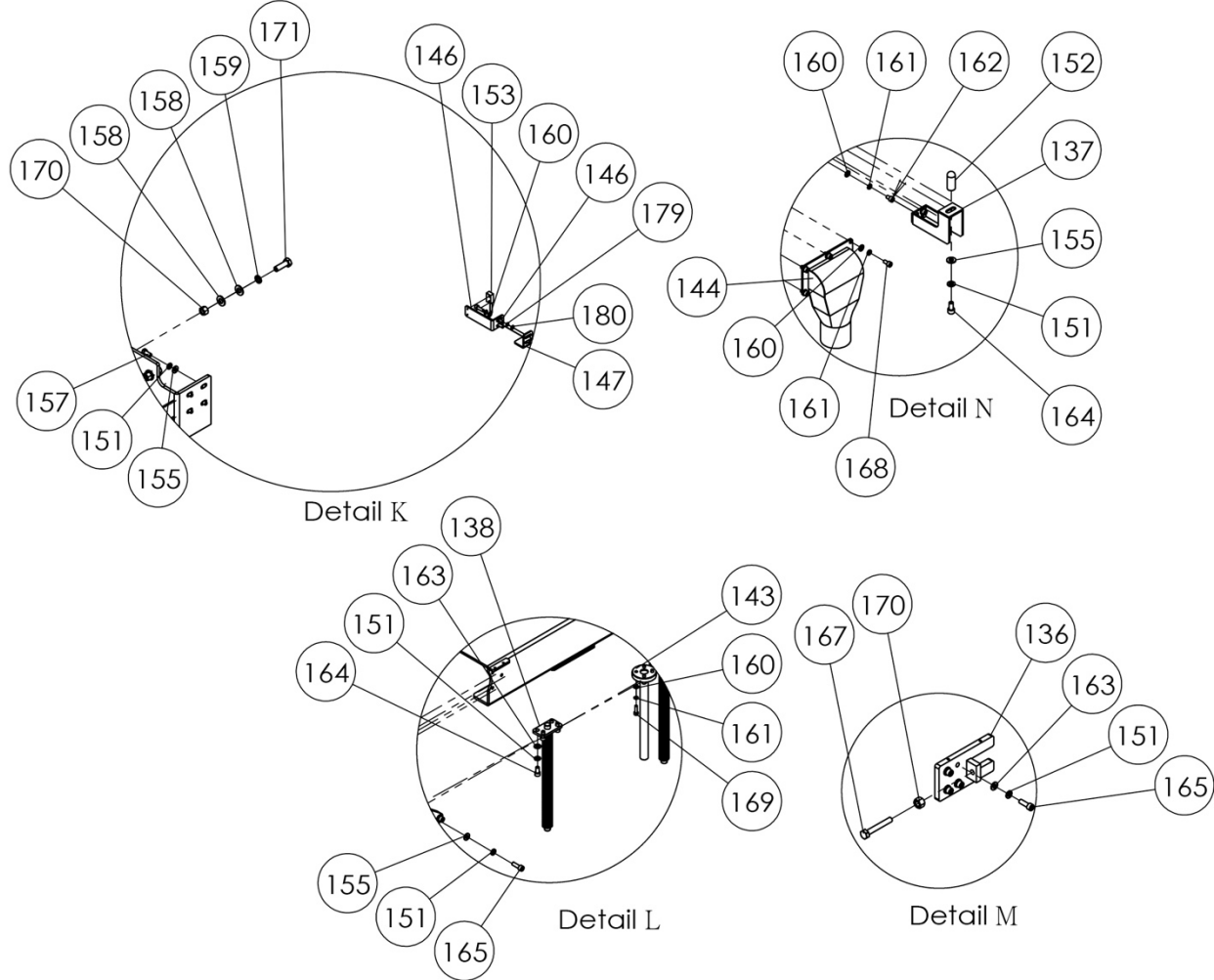
13.2.11 WBS-37V / WBS-37VH Conveyor Assembly – Exploded View 1



13.2.12 WBS-37V / WBS-37VH Conveyor Assembly – Exploded View 2



13.2.13 WBS-37V / WBS-37VH Conveyor Assembly – Exploded View 3

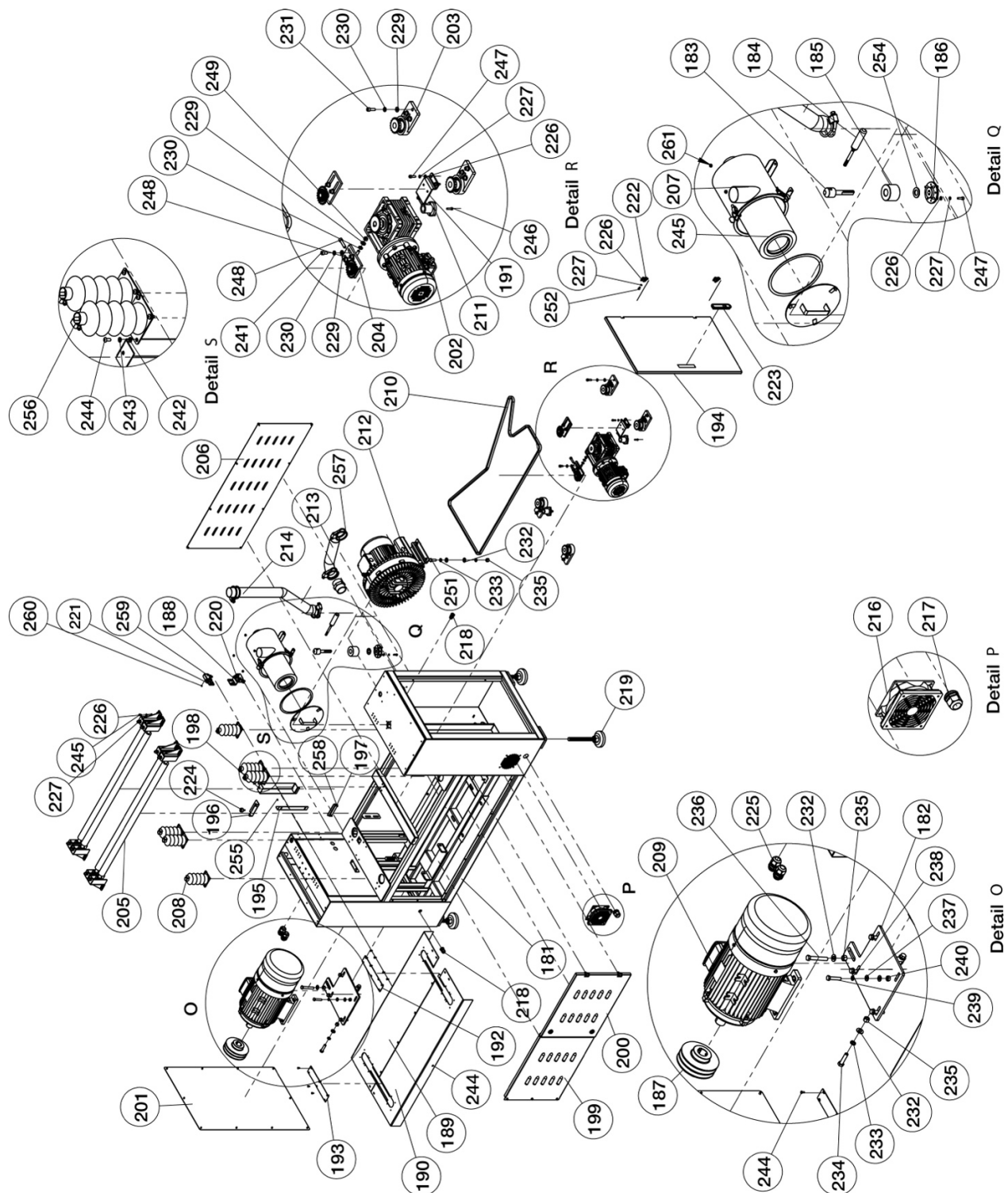


13.2.14 WBS-37V / WBS-37VH Conveyor Assembly – Parts List

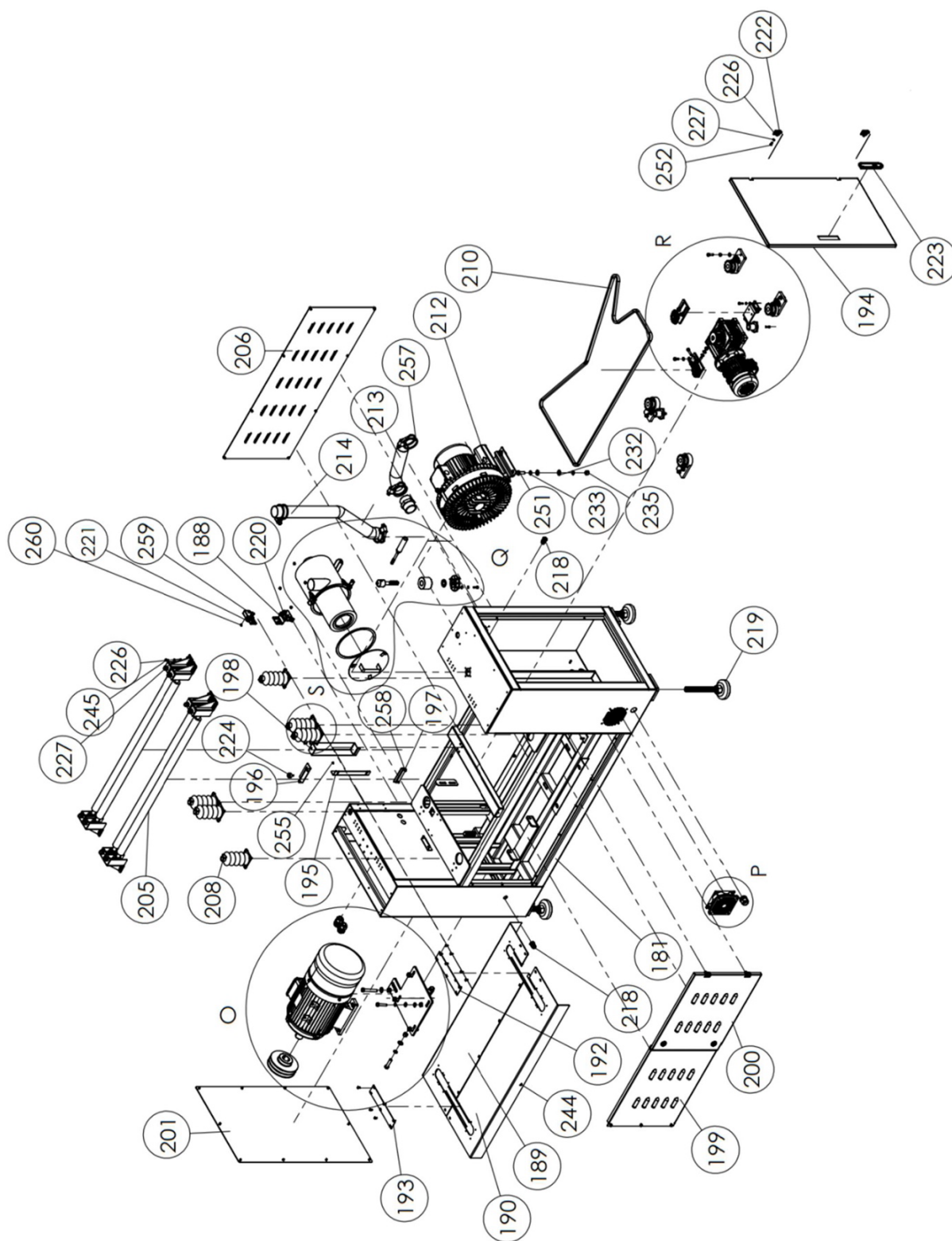
Index No	Part No	Description	Size	Qty
131.....	BA1-12956.....	Conveyor Table Assembly.....		1
132.....	BA1-12508.....	WBS37-130 Conveyor Rubber Roller Assembly.....		1
133.....	BA1-13025.....	Motor Bracket.....		1
134.....	**.....	Motor Mounting Washer.....		1
135.....	BA1-13026.....	Motor Spacer Ring.....		1
136.....	BA1-13027.....	Conveyor Roller Bracket.....		2
137.....	BA1-13028.....	Thickness Gauge Lower Bracket.....		1
138.....	**.....	Lifting Screw.....		4
139.....	BA1-13029.....	Conveyor Front Guard.....		1
140.....	BA1-13030.....	Emergency Stop Bar.....		1
141.....	BA1-13031.....	Emergency Stop Bar Shaft.....		2
142.....	BA1-13032.....	Micro Switch Bracket.....		1
143.....	BA1-13033.....	Lifting Guider.....		2
144.....	BA1-12957.....	Vacuum Hood.....		1
145.....	BA1-13034.....	Conveyor Back Cover.....		1
146.....	BA1-13035.....	Magnetic Scale Sensor Bracket.....		1
147.....	BA1-13036.....	Limit Switch Limiter.....		1
148.....	BA1-13037.....	Pillow Block Bearing.....	UCFK-207.....	2
149.....	BA1-12555.....	WBS37V-149 Conveyor Belt.....		1
150.....	BA1-12510.....	WBS37-147 Conveyor Motor Assembly.....	1HP 230/460V 3Ph (1:60)...	1
151.....	JT1-561.....	J948WBSV-63 MICRO SWITCH.....	TM7311.....	1
152.....	BA1-13038.....	Thickness Gauge Positioning Post.....		1
153.....	BA1-12511.....	WBS37-150 Magnetic Scale Sensor.....	M15S-AT.....	1
154.....	BA1-13039.....	Conveyor Front Roller Assembly.....		1
.....	BA1-12512.....	WBS37-151-1 Conveyor Front Roller Shaft.....		1
.....	BA1-12513.....	WBS37-151-2 Ball Bearing.....		2
.....	BA1-12514.....	WBS37-151-3 Front Roll Assy No Shft/Brn.....		1
155.....	**.....	Flat Washer.....	M8.....	11
156.....	**.....	Lock Washer.....	M8.....	36
157.....	**.....	Hex Cap Screw.....	M8x20.....	4
158.....	JT1-1260.....	Flat Washer.....	M12.....	8
159.....	JT1-1261.....	Lock Washer.....	M12.....	4
160.....	**.....	Flat Washer.....	M6.....	17
161.....	**.....	Lock Washer.....	M6.....	17
162.....	**.....	Socket Head Cap Screw.....	M6x10.....	2
163.....	**.....	Flat Washer.....	M8.....	25
164.....	**.....	Socket Head Cap Screw.....	M8x16.....	21
165.....	**.....	Socket Head Cap Screw.....	M8x25.....	15
166.....	BA1-13040.....	C-ring.....	CS010.....	4
167.....	**.....	Hex Cap Screw.....	M10x70.....	2
168.....	**.....	Socket Head Cap Screw.....	M6x12.....	5
169.....	**.....	Socket Head Cap Screw.....	M6x20.....	10
170.....	**.....	Hex Nut.....	M12.....	6
171.....	**.....	Hex Cap Screw.....	M12x40.....	4
172.....	BA1-13041.....	Compression Spring.....	d1.5xD13xL70.....	1
173.....	**.....	Socket HD Button Screw.....	M5x12.....	2
174.....	BA1-13042.....	Conveyor Gear Box Cover.....		1
175.....	BA1-13043.....	Conveyor Roller Locating Ring.....		2
176.....	**.....	Flat Head Socket Screw.....	M5x10.....	8
177.....	**.....	Socket Set Screw.....	M6x12.....	4
178.....	**.....	Socket Head Cap Screw.....	M5x12.....	2
179.....	**.....	Lock Washer.....	M5.....	2
180.....	**.....	Flat Washer.....	M5.....	2

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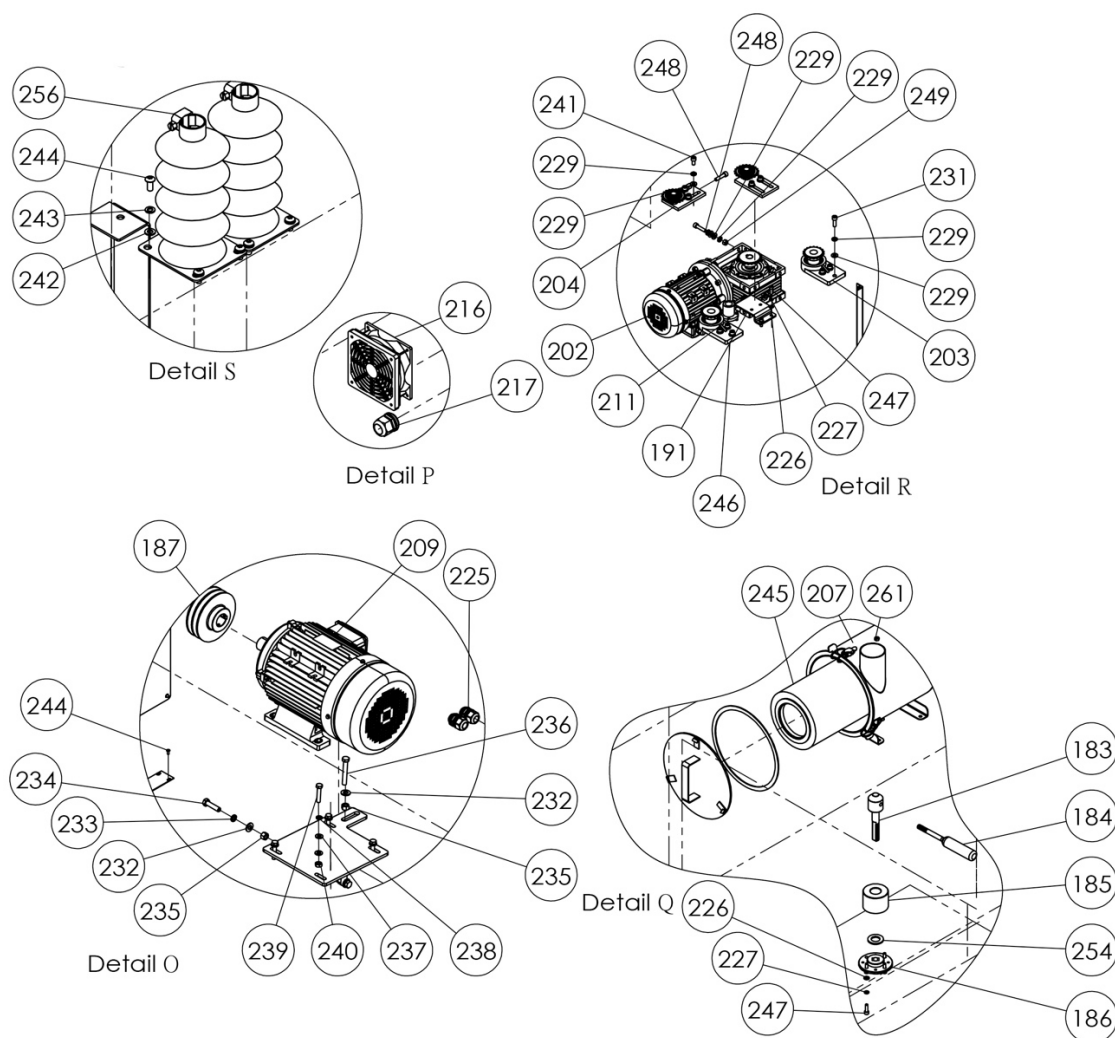
13.2.15 WBS-37V / WBS-37VH Base Frame Assembly – Exploded View 1



13.2.16 WBS-37V / WBS-37VH Base Frame Assembly – Exploded View 2



13.2.17 WBS-37V / WBS-37VH Base Frame Assembly – Exploded View 3



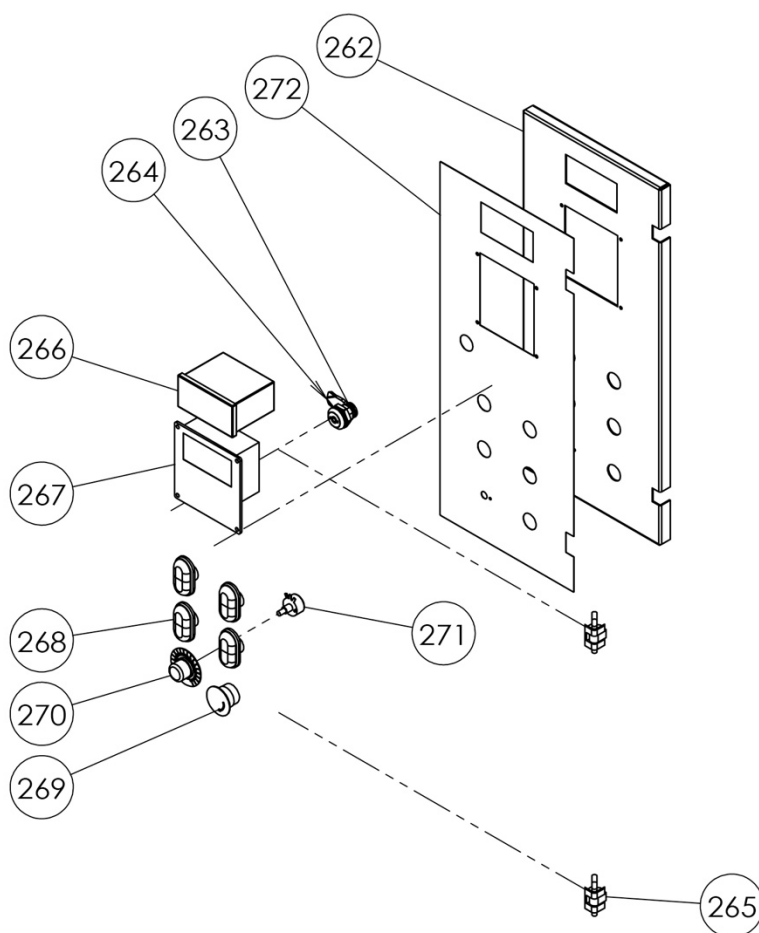
13.2.18 WBS-37V / WBS-37VH Base Frame Assembly – Parts List

Index No	Part No	Description	Size	Qty
181.....	BA1-13044.....	Base Frame Assembly.....		1
182.....	BA1-13045.....	Sanding Motor Mounting Plate.....		1
183.....	BA1-12515.....	WBS37-179 Fastening Shaft.....		1
184.....	BA1-13046.....	Handle.....		1
185.....	BA1-12517.....	WBS37-181 Abrasive Belt Supporting Base.....		1
186.....	**.....	Supporting Base Nut.....		1
187.....	BA1-12516.....	WBS37-183 Sanding Motor Pulley.....		1
188.....	BA1-13047.....	Micro Switch Mounting Plate.....		2
189.....	BA1-12958.....	Base Frame Cover.....		1
190.....	BA1-12959.....	Base Frame Cover.....		1
191.....	BA1-13050.....	Supporting Plate.....		1
192.....	BA1-12960.....	Base Frame Cover Connector.....		1
193.....	BA1-13051.....	Base Frame Cover Connector.....		1
194.....	BA1-13052.....	Control Box Door.....		1
195.....	BA1-12518.....	WBS37-190 Magnetic Scale Strip Assembly.....		1
196.....	BA1-13053.....	Magnetic Scale Slider.....		1
197.....	BA1-13054.....	Magnetic Scale Cover Mount.....		1
198.....	BA1-13055.....	Magnetic Scale Cover.....		1
199.....	BA1-13056.....	Rear Plate Assembly.....		1
200.....	BA1-13057.....	Right Door Assembly.....		1
201.....	BA1-13058.....	Lower Right Plate Assembly.....		1
202.....	BA1-12519.....	WBS37-197 Lifting Motor Assembly.....	0.5HP 230/460V 3Ph.....	1
203.....	BA1-12520.....	WBS37-198 Sprocket Assembly.....		4
204.....	BA1-12521.....	WBS37-199 Idler Assembly.....		2

205.....	BA1-13059.....	Hold-Down Roller Assembly		4
	BA1-12522.....	WBS37-200-1 Hold-Down Roller		4
	BA1-12523.....	WBS37-200-2 Hold-Down Roller Assembly No Roll		4
206.....	BA1-13060.....	Lower Front Panel Assembly		1
207.....	BA1-12961.....	Filter Tank Assembly.....		1
	BA1-12556.....	WBS37V-207-1 Filter Cartridge		1
	BA1-12962.....	Filter Tank Assembly Less Filter Cartridge		1
208.....	BA1-13061.....	Telescopic Sleeve		6
209.....	BA1-12524.....	WBS37-203 Sanding Motor	10HP 230V/460V 3Ph.....	1
210.....	BA1-12525.....	WBS37-204 Chain		1
211.....	BA1-13062.....	Round Flange Linear Bearing	MDRA20	2
212.....	BA1-12557.....	Vacuum Motor Assembly	6HP 230/460V 3Ph	1
213.....	BA1-12963.....	Vacuum Hose.....	2"	1
214.....	BA1-12964.....	Vacuum Hose.....	2"	1
215.....	BA1-12965.....	Threaded Coupling Pipe	2"	5
216.....	JT1-1242	Exhaust Fan	4" AC24V	1
217.....	BA1-13063.....	Cable Gland	AG-32	1
218.....	BA1-13064.....	Cable Gland	PG9	2
219.....	BA1-13065.....	Adjustable Leveling Foot.....	Z011-90-20-200	4
220.....	JT1-1271	Micro Switch.....	MJ-1307	2
221.....	JT1-1269	Micro Switch Protector	WJ-CB-2	2
222.....	JT1-1110	Hinge.....	6x40	2
223.....	BA1-13066.....	Door Lock	RV-220-1	1
224.....	**	Hand Screw.....	M6x16L J002-D01	1
225.....	BA1-13067.....	Cable Gland	PGB13.5	2
226.....	**	Flat Washer	M6	43
227.....	**	Lock Washer	M6	42
228.....	**	Socket HD Button Screw	M6x12	1
229.....	**	Flat Washer	M8	32
230.....	**	Lock Washer	M8	32
231.....	**	Socket Head Cap Screw	M8x25	12
232.....	JT1-1260	Flat Washer	M12	11
233.....	JT1-1261	Lock Washer	M12	10
234.....	**	Hex Cap Screw	M12x50	2
235.....	**	Hex Nut	M12	9
236.....	JT1-1140	Hex Cap Screw	M12x80	1
237.....	**	Flat Washer	M10	8
238.....	**	Lock Washer	M10	4
239.....	**	Hex Cap Screw	M10x50	4
240.....	**	Hex Nut	M10	4
241.....	**	Socket Head Cap Screw	M8x16	4
242.....	**	Flat Washer	M5	32
243.....	**	Lock Washer	M5	32
244.....	**	Socket HD Button Screw	M5x12	49
245.....	**	Socket Head Cap Screw	M6x10	32
246.....	**	Socket Head Cap Screw	M5x20	8
247.....	**	Socket Head Cap Screw	M6x20	8
248.....	**	Socket Head Cap Screw	M8x35	8
249.....	**	Hex Nut	M8	7
250.....	**	Socket Head Cap Screw	M8x20	2
251.....	**	Hex Bolt.....	M12x35	4
252.....	**	Socket Head Cap Screw	M6x12	2
253.....	**	Flat Washer	M4	4
254.....	**	Flat Washer	M20	1
255.....	**	Socket HD Button Screw	M4x6	2
256.....	BA1-13068.....	Hose Clamp	22MIN,30MAX	6
257.....	BA1-12966.....	Hose Clamp	2-3/4"	4
258.....	**	Socket Head Cap Bolt.....	M5x12	8
259.....	**	Phillips HD Button Screw	M4x30	4
260.....	**	Hex Nut	M4	4
261.....	**	Hex Nut	M6	4

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

13.2.19 WBS-37V / WBS-37VH Control Panel Assembly – Exploded View

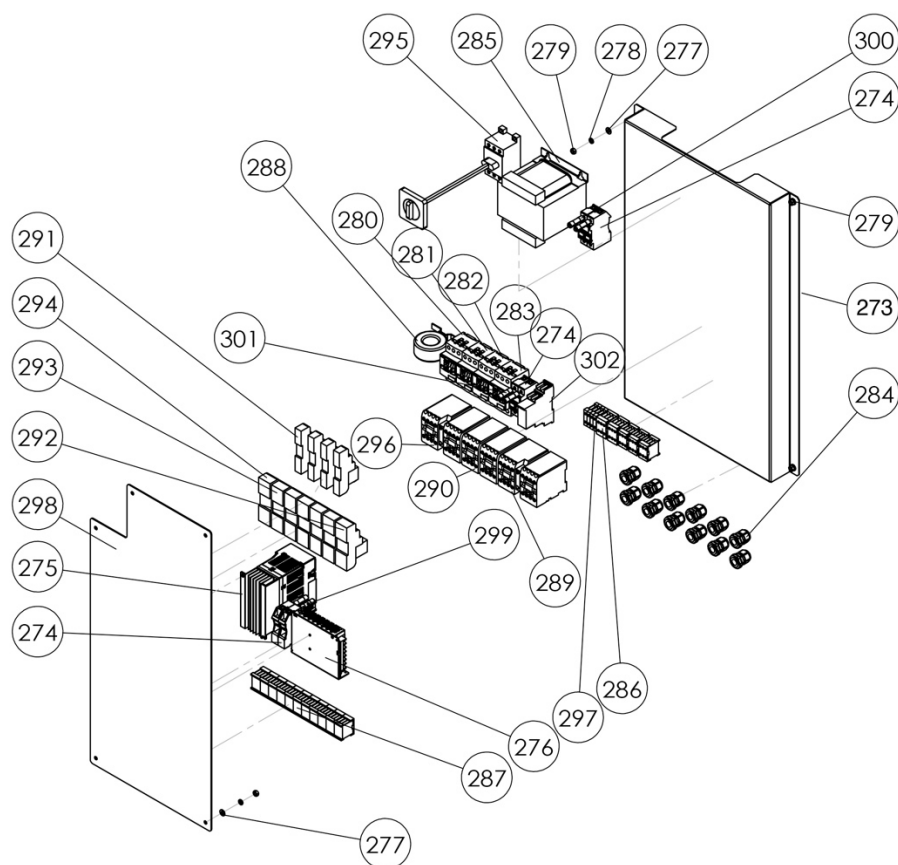


13.2.20 WBS-37V / WBS-37VH Control Panel Assembly – Parts List

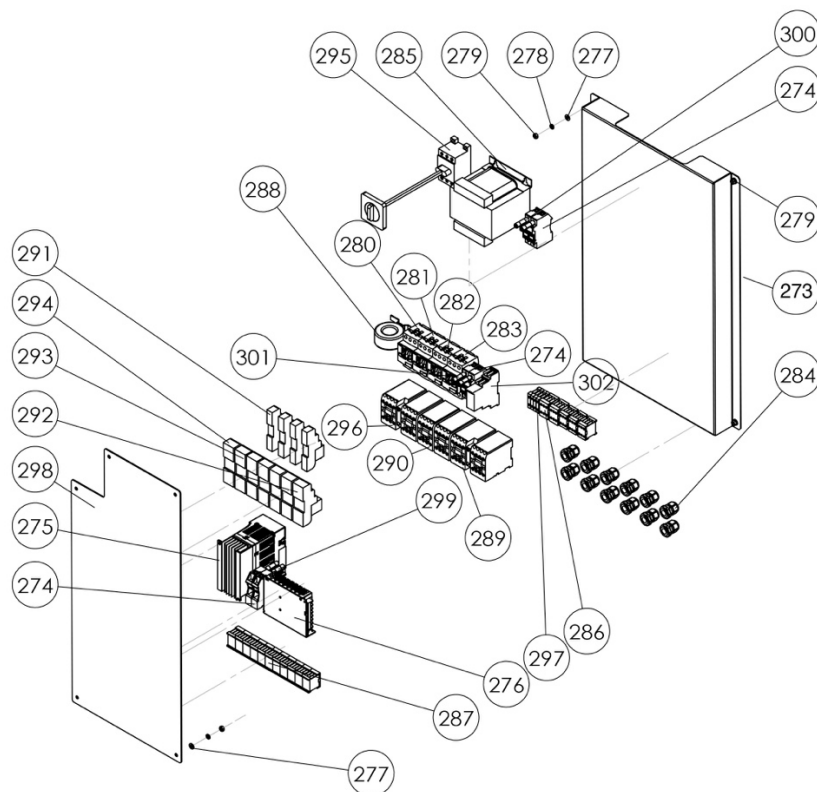
Index No	Part No	Description	Size	Qty
262.....	BA1-12967.....	Control Panel Door.....		1
263.....	BA1-13070.....	Control Panel Key Latch	D20	1
264.....	BA1-13071.....	Key Latch Clip		1
265.....	JT1-1110	Hinge.....	6x40	2
266.....	JT1-1131	J948WBSV-17 DRO for Main Motor Ampere.....	FD-5RLN00D	1
267.....	BA1-12527.....	WBS37-250 DRO for Workpiece Thickness	M15-CS.....	1
268.....	BA1-12529.....	WBS37-252 Dual Push Button Switch	1A 1B	4
269.....	JT1-1132	J948WBSV-1-4 Emergency Stop Switch (SB1).....	1B	1
270.....	JT1-1273	J948WBSV-1-9 Conveyor Feed VR Switch	RV24Y-20S-2K	1
			B202/RN-99D	1
271.....	BA1-12530.....	WBS37-257 Conveyor Feed VR	RV24YN-20S	1
			B202-25-2C	1
272.....	BA1-12968.....	Control Panel Sticker	Matt Black.....	1

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

13.2.21 WBS-37V / WBS-37VH Control Box Assembly, 230V – Exploded View



13.2.22 WBS-37V / WBS-37VH Control Box Assembly, 460V – Exploded View



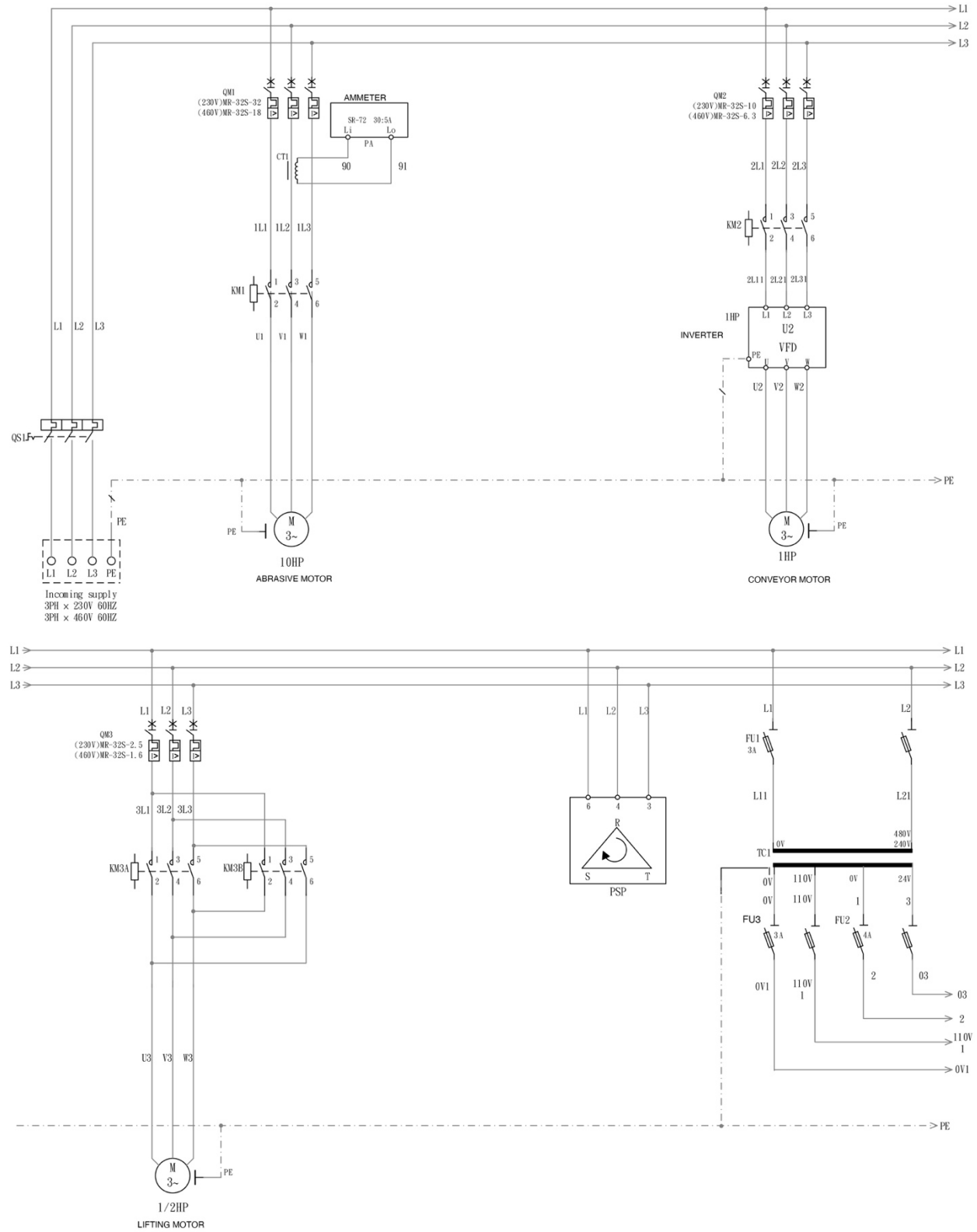
13.2.23 WBS-37V / WBS-37VH Control Box Assembly, 230V – Parts List

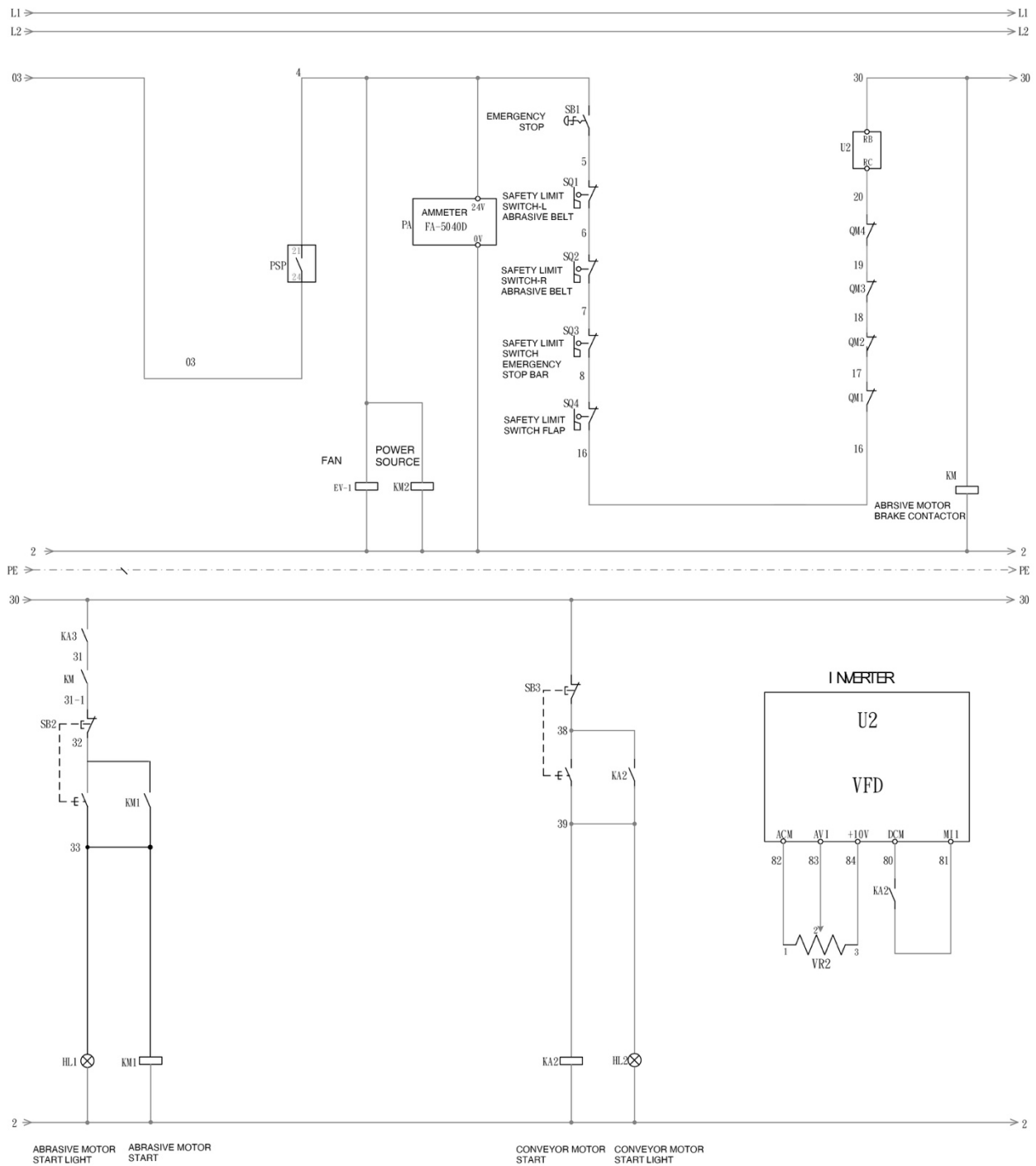
Index No	Part No	Description	Size	Qty
273	BA1-13073	Control Box Mounting Plate		1
274	BA1-13074	Fuse Seat	DF 102	3
275	BA1-12531	WBS37-262 Inverter	DELTA VFD4A8MS23A	
			-NSAA 1HP (230V)	1
	BA1-12532	WBS37-262-460 Inverter	DELTA VFD-2A7MS43A-	
			NSAA 1HP (460V)	1
276	BA1-12533	WBS37-263 Power Supply Unit	MW LRS-150-24	
			(230/460V)	1
277	**	Flat Washer	M6	9
278	**	Lock Washer	M6	9
279	**	Hex Nut	M6	9
280	BA1-12534	WBS37-267 Sanding Motor Overload Switch	SHIHLIN MR-32S-32	
			(230V)	1
	BA1-12535	WBS37-267-460 Sanding Motor Overload Switch	SHIHLIN MR-32S-18	
			(460V)	1
281	BA1-12536	WBS37-268 Conveyor Motor Overload Switch	SHIHLIN MR-32S-10	
			(230V)	1
	BA1-12537	WBS37-268-460 Conveyor Motor Overload Switch	SHIHLIN MR-32S-6.3	
			(460V)	1
282	BA1-12538	WBS37-269 Lifting Motor Overload Switch	SHIHLIN MR-32S-2.5	
			(230V)	1
	BA1-12539	WBS37-269-460 Lifting Motor Overload Switch	SHIHLIN MR-32S-1.6	
			(460V)	1
283	BA1-12559	WBS37V-283 Vacuum Motor Overload Switch	SHIHLIN MR-32S-23	
			(230V)	1
	BA1-12560	WBS37VH-283-460 Vac Motor Overload Switch	SHIHLIN MR-32S-10	
			(460V)	1
284	BA1-13075	Cable Gland	AG-25	12
285	BA1-12540	WBS37-271 Transformer	LCE 580VA (230V/460V)	1
286	BA1-13076	Terminal Block	IN30BK-C 3P-50A	2
287	BA1-13077	Terminal Block	IN13SBK-C 3P-20A	14
288	BA1-12541	WBS37-274 Current Transformer	CL-25CT 30:5A	1
289	BA1-12561	WBS37V-289 Magnetic Contactor (KM4)	TECO CU18	1
290	JT1-1125	J948WBSV-KM2/3 Mag. Contactor (KM) (KM2/3A/3B)	TECO CU11	4
291	JT1-1117	J948WBSV-3 Relay (KM5A/5B/7A/7B)	IDEC RJ1S-CL-D24	4
292	JT1-1118	J948WBSV-3-1 Relay (KA4/6/7/8/9)	IDEC RN2S-HNL-D24	5
293	JT1-1150	J948WBSV-RY Relay (KA3)	IDEC RN4S-HNL-D24	1
294	BA1-12542	WBS37-279 Relay (KA2)	IDEC RN2S-HNL-A24	1
295	BA1-12562	WBS37V-295 Rotary Power Switch	NHD NDS-803-G5DL3	
			3P-80A	1
296	BA1-12544	WBS37-275 Magnetic Contactor (KM1)	TECO CU32	1
297	BA1-13078	Terminal Block	IN411SB-C 1P-60A	4
298	BA1-13079	Control Box Mounting Plate		1
299	BA1-13080	Fuse (FU3)	KTK-R 3A	2
300	BA1-13081	Fuse (FU1)	FNQ-R 3A	2
301	BA1-13082	Fuse (FU2)	FNQ-R 4A	2
302	JT1-1122	J948WBSV-PMR Phase Monitoring Relay (PSP)	RM22TG20 183-528VAC	
			(230/460V)	1
	BA1-12558	WBS37V-230-460 230-460V CHANGE KIT		1

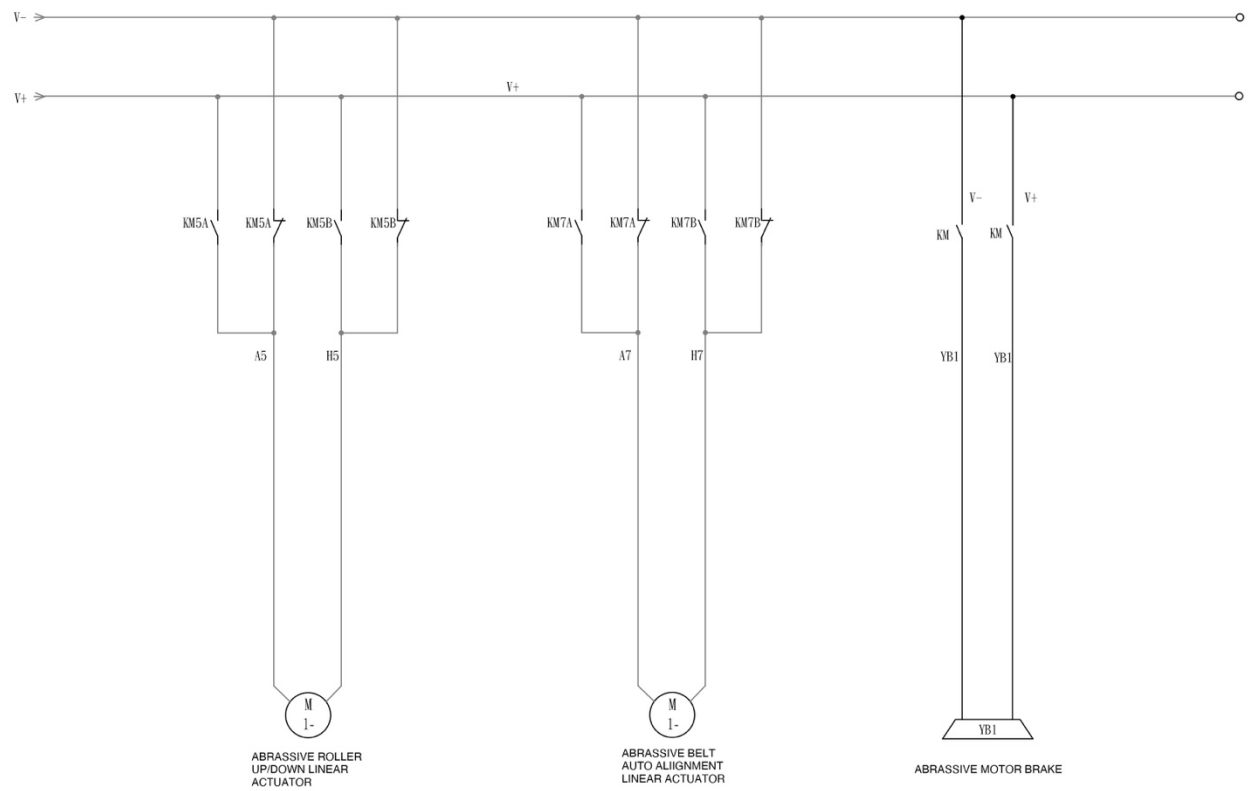
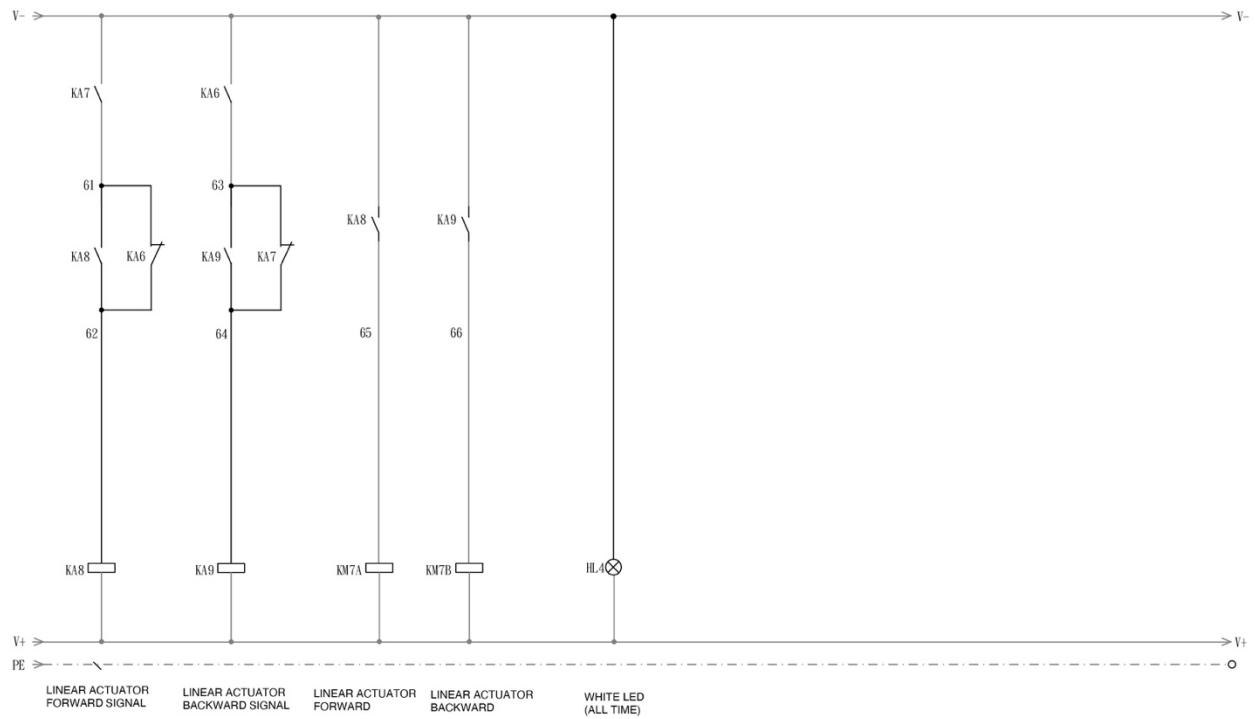
** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

14.0 Electrical Schematics

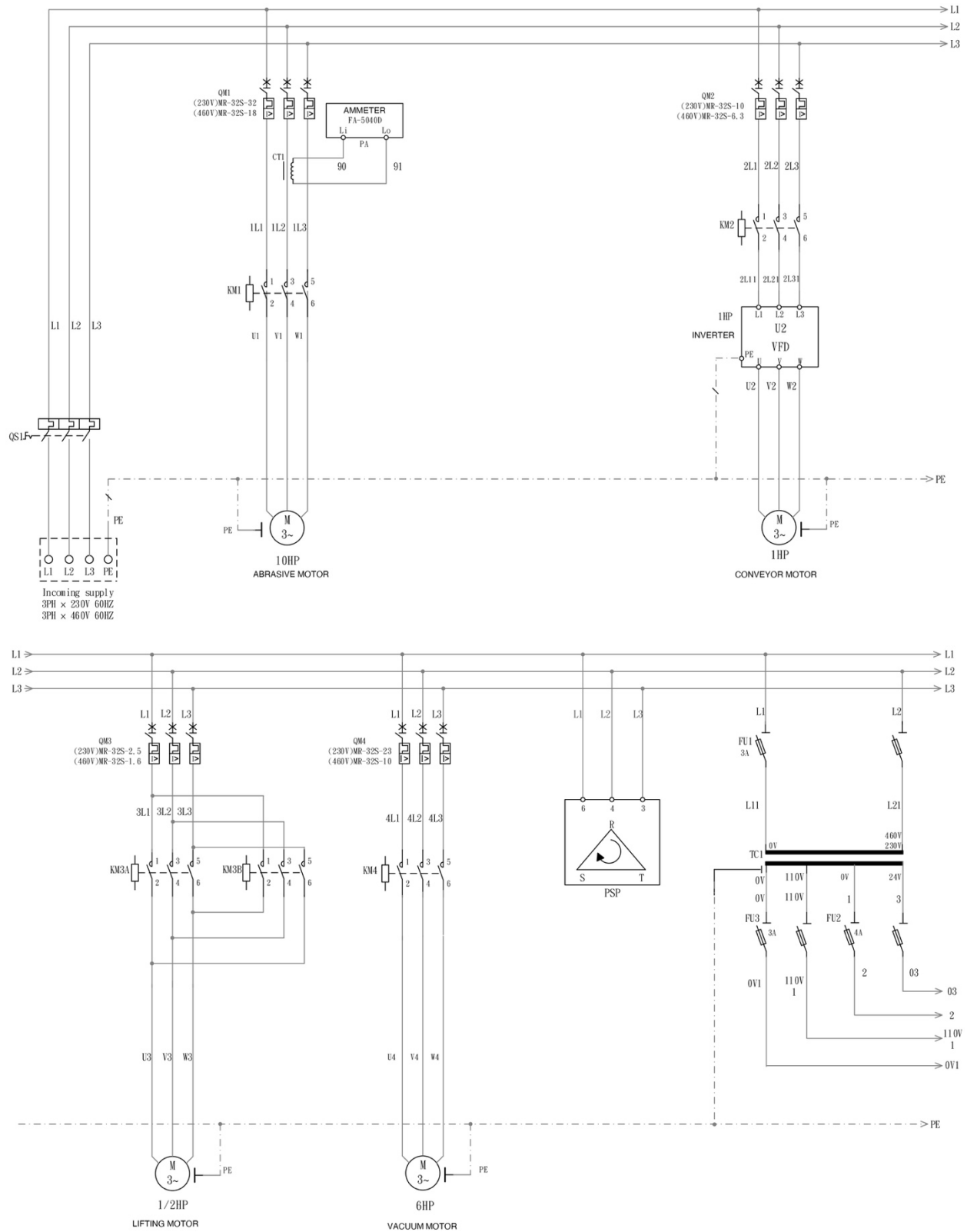
WBS-37 and WBS-37H

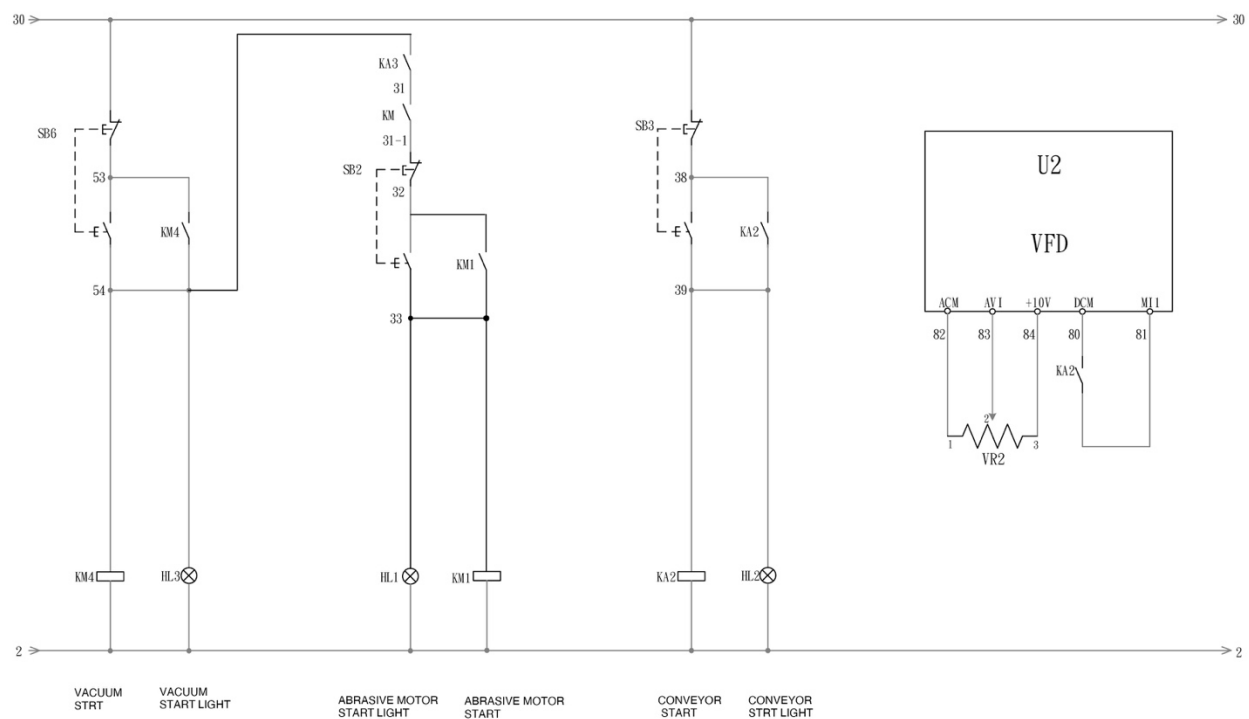
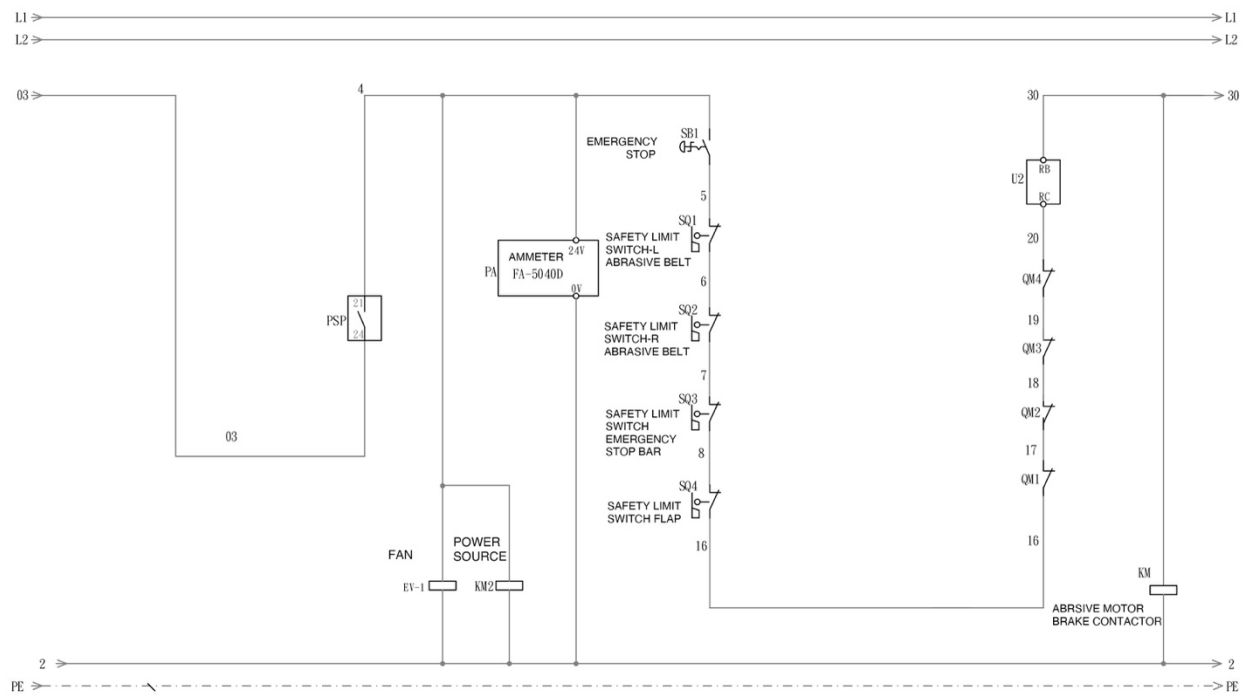


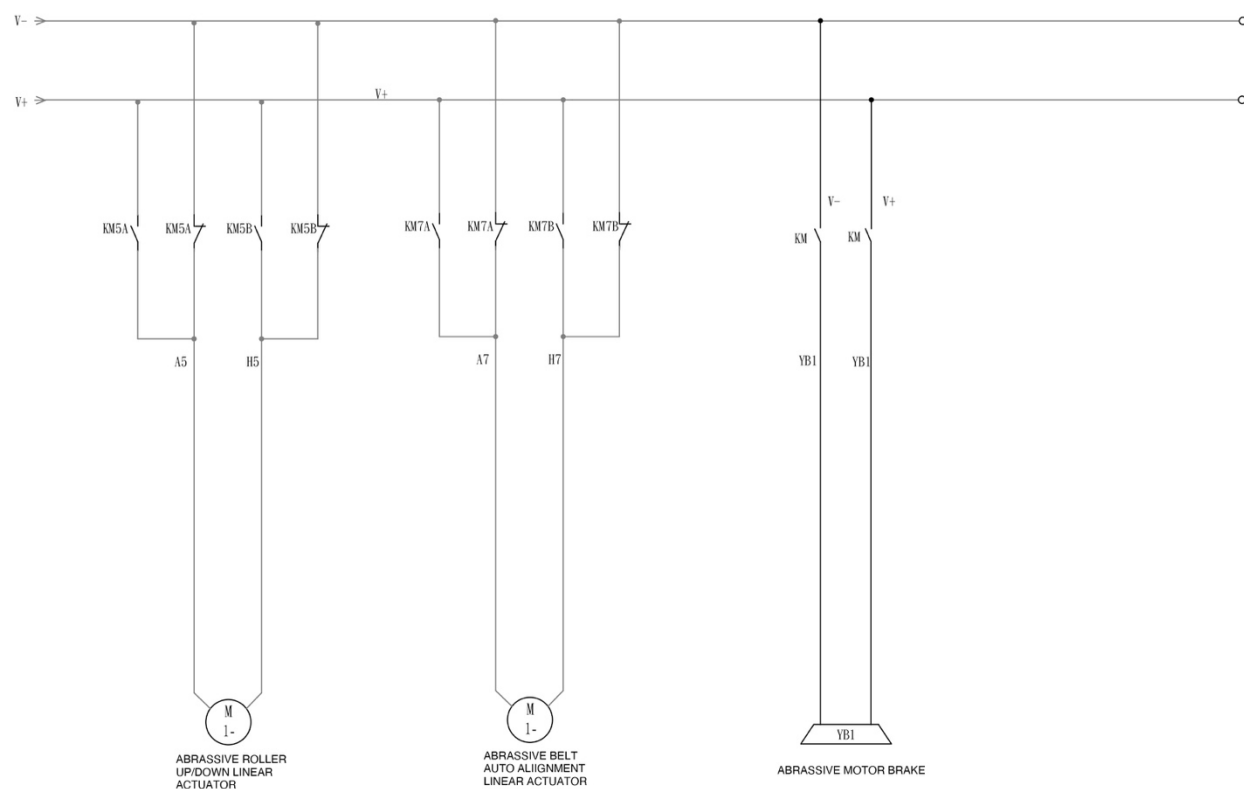
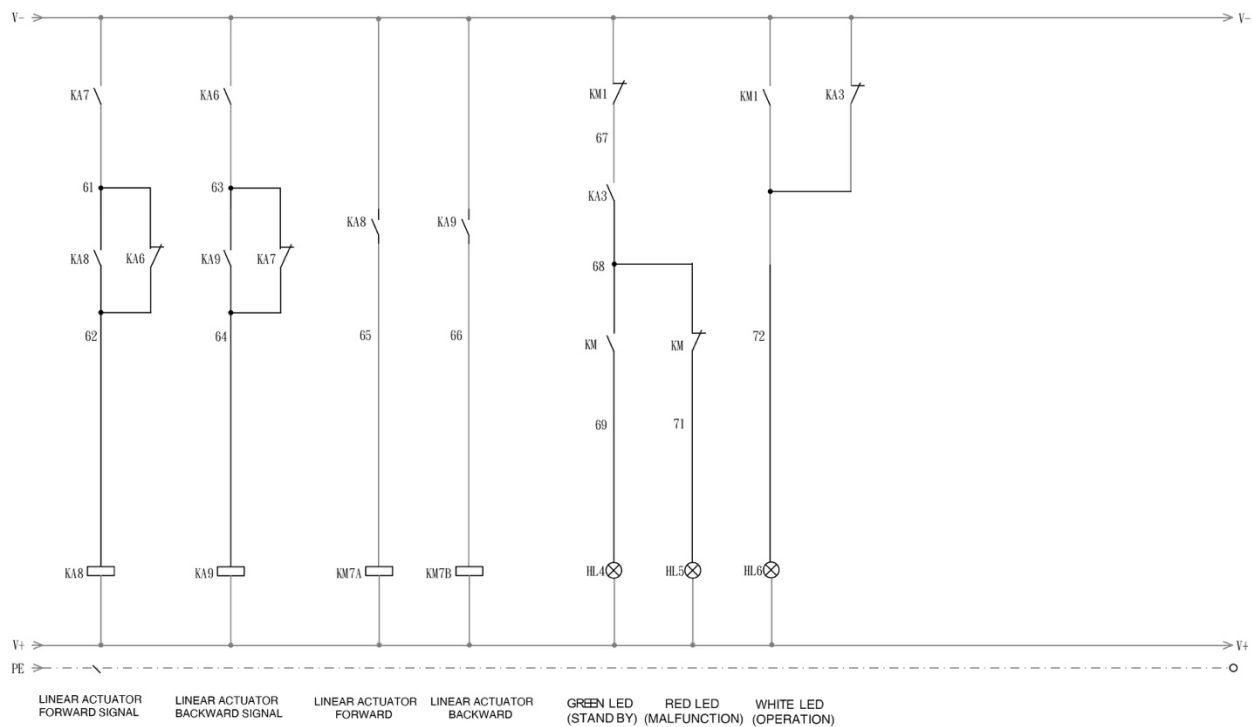




WBS-37V and WBS-37VH







15.0 Warranty and Service

Thank you for your purchase of a machine from Baileigh Industrial. We hope that you find it productive and useful to you for a long time to come.

Inspection & Acceptance. Buyer shall inspect all Goods within ten (10) days after receipt thereof. Buyer's payment shall constitute final acceptance of the Goods and shall act as a waiver of the Buyer's rights to inspect or reject the Goods unless otherwise agreed. If Buyer rejects any merchandise, Buyer must first obtain a Returned Goods Authorization ("RGA") number before returning any Goods to Seller. Goods returned without an RGA will be refused. Seller will not be responsible for any freight costs, damages to Goods, or any other costs or liabilities pertaining to Goods returned without an RGA. Seller shall have the right to substitute a conforming tender. Buyer will be responsible for all freight costs to and from Buyer and repackaging costs, if any, if Buyer refuses to accept shipment. If Goods are returned in unsalable condition, Buyer shall be responsible for full value of the Goods. Buyer may not return any special-order Goods. Any Goods returned hereunder shall be subject to a restocking fee equal to 30% of the invoice price.

Specifications. Seller may, at its option, make changes in the designs, **specifications**, or components of the Goods to improve the safety of such Goods, or if in Seller's judgment, such changes will be beneficial to their operation or use. Buyer may not make any changes in the specifications for the Goods unless Seller approves of such changes in writing, in which event Seller may impose additional charges to implement such changes.

Limited Warranty. Seller warrants to the original end-user that the Goods manufactured or provided by Seller under this Agreement shall be free of defects in material or workmanship for a period of twelve (12) months from the date of purchase, provided that the Goods are installed, used, and maintained in accordance with any instruction manual or technical guidelines provided by the Seller or supplied with the Goods, if applicable. The original end-user must give written notice to Seller of any suspected defect in the Goods prior to the expiration of the warranty period. The original end-user must also obtain an RGA from Seller prior to returning any Goods to Seller for warranty service under this paragraph. Seller will not accept any responsibility for Goods returned without an RGA. The original end-user shall be responsible for all costs and expenses associated with returning the Goods to Seller for warranty service. In the event of a defect, Seller, at its sole option, shall repair or replace the defective Goods or refund to the original end-user the purchase price for such defective Goods. Goods are not eligible for replacement or return after a period of 10 days from date of receipt. The foregoing warranty is Seller's sole obligation, and the original end-user's exclusive remedy, with regard to any defective Goods. This limited warranty does not apply to: (a) die sets, tooling, and saw blades; (b) periodic or routine maintenance and setup, (c) repair or replacement of the Goods due to normal wear and tear, (d) defects or damage to the Goods resulting from misuse, abuse, neglect, or accidents, (e) defects or damage to the Goods resulting from improper or unauthorized alterations, modifications, or changes; and (f) any Goods that have not been installed and/or maintained in accordance with the instruction manual or technical guidelines provided by Seller.

EXCLUSION OF OTHER WARRANTIES. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY AND ALL OTHER EXPRESS, STATUTORY, OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. NO WARRANTY IS MADE WHICH EXTENDS BEYOND THAT WHICH IS EXPRESSLY CONTAINED HEREIN.

Limitation of Liability. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY OTHER PARTY FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR DOWN TIME) ARISING FROM OR IN MANNER CONNECTED WITH THE GOODS, ANY BREACH BY SELLER OR ITS AGENTS OF THIS AGREEMENT, OR ANY OTHER CAUSE WHATSOEVER, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY OF LIABILITY. BUYER'S REMEDY WITH RESPECT TO ANY CLAIM ARISING UNDER THIS AGREEMENT IS STRICTLY LIMITED TO NO MORE THAN THE AMOUNT PAID BY THE BUYER FOR THE GOODS.

Force Majeure. Seller shall not be responsible for any delay in the delivery of, or failure to deliver, Goods due to causes beyond Seller's reasonable control including, without limitation, acts of God, acts of war or terrorism, enemy actions, hostilities, strikes, labor difficulties, embargoes, non-delivery or late delivery of materials, parts and equipment or transportation delays not caused by the fault of Seller, delays caused by civil authorities, governmental regulations or orders, fire, lightning, natural disasters or any other cause beyond Seller's reasonable control. In the event of any such delay, performance will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

Installation. If Buyer purchases any Goods that require installation, Buyer shall, at its expense, make all arrangements and connections necessary to install and operate the Goods. Buyer shall install the Goods in accordance with any Seller instructions and shall indemnify Seller against any and all damages, demands, suits, causes of action, claims and expenses (including actual attorneys' fees and costs) arising directly or indirectly out of Buyer's failure to properly install the Goods.

Work By Others; Safety Devices. Unless agreed to in writing by Seller, Seller has no responsibility for labor or work performed by Buyer or others, of any nature, relating to design, manufacture, fabrication, use, installation, or provision of Goods. Buyer is solely responsible for furnishing and requiring its employees and customers to use all safety devices, guards and safe operating procedures required by law and/or as set forth in manuals and instruction sheets furnished by Seller. Buyer is responsible for consulting all operator manuals, ANSI or comparable safety standards, OSHA regulations and other sources of safety standards and regulations applicable to the use and operation of the Goods.

Remedies. Each of the rights and remedies of Seller under this Agreement is cumulative and in addition to any other or further remedies provided under this Agreement or at law or equity.

Attorney's Fees. In the event legal action is necessary to recover monies due from Buyer or to enforce any provision of this Agreement, Buyer shall be liable to Seller for all costs and expenses associated therewith, including Seller's actual attorney fees and costs.

Governing Law/Venue. This Agreement shall be construed and governed under the laws of the State of Wisconsin, without application of conflict of law principles. Each party agrees that all actions or proceedings arising out of or in connection with this Agreement shall be commenced, tried, and litigated only in the state courts sitting in Manitowoc County, Wisconsin or the U.S. Federal Court for the Eastern District of Wisconsin. Each party waives any right it may have to assert the doctrine of "forum non conveniens" or to object to venue to the extent that any proceeding is brought in accordance with this section. Each party consents to and waives any objection to the exercise of personal jurisdiction over it by courts described in this section. Each party waives to the fullest extent permitted by applicable law the right to a trial by jury.

Summary of Return Policy:

- 10 Day acceptance period from date of delivery. Damage claims and order discrepancies will not be accepted after this time.
- You must obtain a Baileigh Industrial issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh Industrial in new condition and in original packaging.
- Altered items are not eligible for return.
- Buyer is responsible for all shipping charges.
- A 30% re-stocking fee applies to all returns.

Baileigh Industrial makes every effort to ensure that our posted specifications, images, pricing, and product availability are as correct and timely as possible. We apologize for any discrepancies that may occur. Baileigh Industrial reserves the right to make any and all changes deemed necessary in the course of business including but not limited to pricing, product specifications, quantities, and product availability.

For Customer Service & Technical Support:

Please contact one of our knowledgeable Sales and Service team members at:
(920) 684-4990 or e-mail us at Baileigh-Service@jpwindustries.com



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