



Operating Instructions and Parts Manual Non-Ferrous Manual Cold Saw

Models: J-CK350-2, J-CK350-4



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Walter Meier (Manufacturing) Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

MORE INFORMATION

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local WMH Tool Group distributor, or visit waltermeier.com.

WARRANTY

JET products carry a limited warranty which varies in duration based upon the product (MW stands for Metalworking, WW stands for Woodworking).

90 DAY WARRANTY	1 YEAR WARRANTY	Body Repair Kits Bottle Jacks Cable Pullers Cold Saws Hoists-Air Hoists-Electric Metal forming Mill/Drills Milling Machines MW Bandsaws MW Drill Presses MW Finishing Equipment MW Lathes MW Precision Vises	2 YEAR WARRANTY	Palet Trucks Rigging Equip. Service Jacks Stackers Surface Grinders Tapping Trolleys-Air Trolleys-Electric Web Slings Winches-Electric	3 YEAR WARRANTY	WW Benchtop Tools	5 YEAR WARRANTY	Beam Clamps Chain Hoist- Manual Lever Hoists Pullers-JCH Models Scissor Lift Tables Screw Jacks Trolleys-Gearred Trolleys-Plain Winches-Manual WW Air Filtration WW Bandsaws WW Buffers	WW Drill Presses WW Dust Collectors WW Dust Filters WW Dust Fittings WW Jointers WW Lathes WW Planers WW Sanders WW Shapers WW Tablesaws	LIFE LIFETIME WARRANTY	Fastening Tools Mechanics Hand Tools Striking Tools Vises (no -precision) Clamps
Warranty reverts to 1 Year Warranty if woodworking (WW) products listed above are used for industrial or educational purposes.											

WHAT IS COVERED?

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

WHO IS COVERED?

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Five Year and Lifetime Warranties do not cover products used for commercial, industrial or educational purposes. Products with Five Year or Lifetime Warranties that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

HOW TO GET SERVICE

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option. We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

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Warnings

1. Read and understand the entire owner's manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace the warning labels if they become obscured or removed.
4. The cold saw is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a cold saw, do not use until proper training and knowledge have been obtained.
5. Do not use this cold saw for other than its intended use. If used for other purposes, Walter Meier (Manufacturing) Inc., disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. Always wear approved safety glasses/face shields while using this cold saw. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
7. Before operating the cold saw, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **not** wear gloves.
8. Wear ear protectors (plugs or muffs) during extended periods of operation.
9. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead based paint.
 - Crystalline silica from bricks, cement and other masonry products.
 - Arsenic and chromium from chemically treated lumber.
10. Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.
11. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
12. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
13. Make certain the machine is properly grounded.
14. Make all machine adjustments or maintenance with the machine unplugged from the power source.
15. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
16. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
17. Make sure the cold saw is firmly placed on a secure foundation.
18. Check damaged parts. Before further use of the machine, 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 of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
19. Provide for adequate space surrounding work area and non-glare, overhead lighting.
20. Keep the floor around the machine clean and free of scrap material, oil and grease.
21. Keep visitors a safe distance from the work area. **Keep children away.**
22. Make your workshop child proof with padlocks, master switches or by removing starter keys.

Warnings

23. Make your workshop child proof with padlocks, master switches or by removing starter keys.
24. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
25. Maintain a balanced stance at all times so that you do not fall into the blade or other moving parts. Do not overreach or use excessive force to perform any machine operation.
26. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
27. Use recommended accessories; improper accessories may be hazardous.
28. Maintain tools with care. Keep saw blades sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
29. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
30. Do not stand on the machine. Serious injury could occur if the machine tips over.
31. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
32. Remove loose items and unnecessary work pieces from the area before starting the machine.

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.

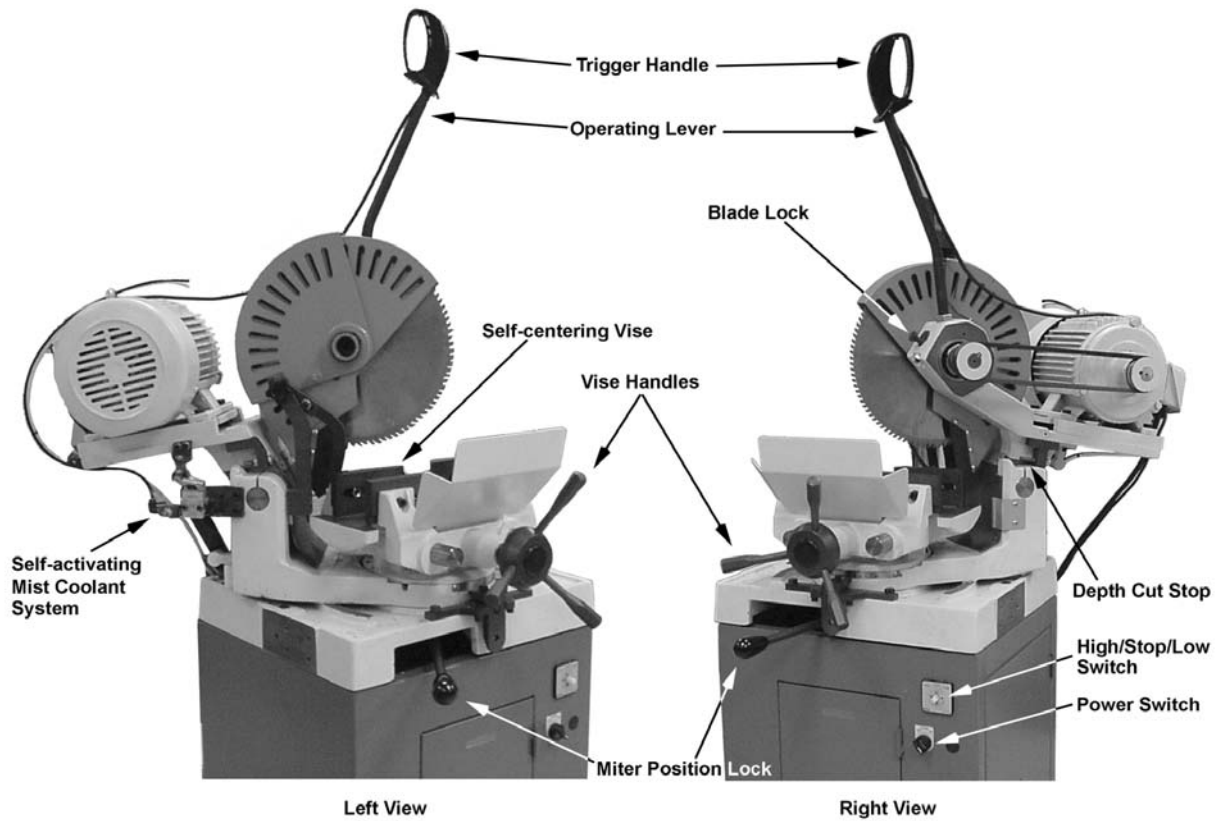
WARNING This means that if precautions are not heeded, it may result in serious injury or possibly even death.

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Introduction

The **J-CK350** circular saw is designed to provide a reliable solution to the needs of machine shops and production environments that work with aluminum or light alloys. The J-CK350 is manually operated: after clamping the material in the vise, the operator presses the trigger handle starting the blade, and brings the operating lever downward to cut the material. The saw performs miter cuts up to 45° to the right or left.

J-CK350 Features



Specifications

Model	J-CK350-2	J-CK350-4
Stock Number.....	414203.....	414207
Disc Blade		
Disc diameter	14" (350mm).....	14" (350mm)
Hole diameter	1.3" (32mm).....	1.3" (32mm)
Blade thickness	0.14" (3.4mm).....	0.14" (3.4mm)
Cutting Speed		
Blade Speed (RPM).....	1750/3500.....	1750/3500
Motor		
Motor.....	2HP, 3PH.....	2HP, 3PH
Voltage.....	220VAC.....	440VAC
Other		
Miter stops.....	90°, 45° R & L.....	90°, 45° R & L
Maximum Vise Opening.....	6".....	6"
Coolant Capacity	3 gal.....	3 gal.
Dimensions.....	25"L x 52"W x 73"H.....	25"L x 52"W x 73"H
Weight.....	683 lbs.....	683 lbs

Cutting Capacity (All Models)

	Degree	Round	Square	Rectangle
Tubing	90°	4.5"	4.25"	5.5" x 3.75"
	45°	3.5"	3.5"	3.5" x 3.5"
Solid	90°	3"	3"	3" x 3"
	45°	2.5"	2.5"	2.5" x 2.5"

Features

Miter Cutting Head

The *miter cutting head* is the unit that cuts the material and consists of a cast iron base, blade support unit and guard, transmission unit, and motor. The depth of cut is set by adjusting the *depth cut stop*. The miter cutting head swivels and locks into -45° , 90° , and $+45^\circ$ by means of a *locking mechanism*. Depressing the mechanism overrides the lock, permitting the head to adjust to *any* position between -45° and $+45^\circ$.

Miter Position Lock

The *miter position lock* secures the miter cutting head from movement. The miter is secured when the lock is pushed all the way to the left and can be positioned when the lock is moved to the right.

Self-centering Vise

The *self-centering vise* holds the work piece in place during cutting. The work piece is secured in the vise by turning the *vise handles*.

Blade Lock

The *blade lock* secures the arbor from rotation when attempting to change blades. The blade lock is *pushed in* when changing blades.

CAUTION The *blade lock* is not spring loaded and *must be pulled out after the blade has been replaced and before operating the machine*.

Controls

The *control panel* consists of the *Power* (On/Off) switch and *High/Stop/Low* switch, and an integral coolant system. To operate the machine, the *Power* switch must be set to *On* and the *High/Stop/Low* switch must be set for *Hi* or *Low*. Then depress the trigger handle to start.

Trigger Handle

The *trigger handle* (Figure 1) is located on the *operating lever* used to raise and lower the saw. It contains a *micro-switch*, which is activated when the operator depresses the *run trigger*.

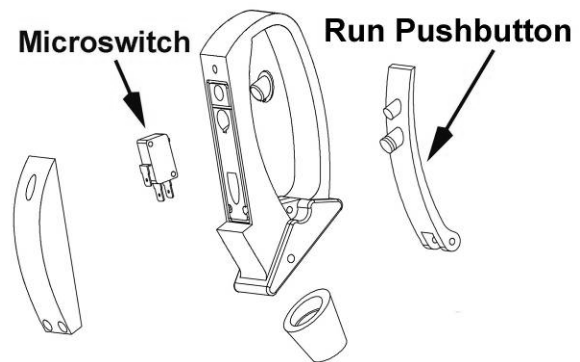


Figure 1

Mist Coolant System

The *mist coolant system* sprays a coolant mist onto the saw blade during the cutting operation, cooling it and the work piece being cut. Air is supplied from a compressor to the *air intake valve* (A) located near the bottom of the cabinet on the left side. When the head is moved off of the top limit switch (Figure 2) when beginning a cut, the *pneumatic switch* (B) is activated, allowing air to flow through the *air tube* (C) and into the orifice (not shown), causing coolant to be drawn through the *coolant tube* (D). The *pneumatic valve* (E) adjusts the amount of airflow. Air and coolant is mixed in the orifice and sprayed onto the saw blade.

Use a water-soluble synthetic coolant with this mist coolant system. The ratio should be between 7:1 to 10:1. Coolant should be changed regularly. Some recommended brands are DoAll and Lenox. These coolants are available at your local industrial distributor.

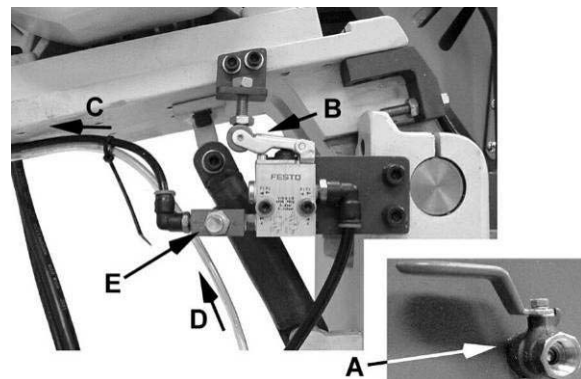


Figure 2

Installation

Unpacking the Machine

⚠WARNING Do not handle the packed machine using slings.

To install the machine, first remove the packing, paying particular attention not to cut any electric wires or hydraulic hoses. Lift using straps (Figure 3).



Figure 3

Anchoring and Handling the Machine

The base of the machine must be anchored to the floor by two lag bolts or studs properly anchored into concrete.

Electrical Connections

⚠WARNING All electrical connections must be done by a qualified electrician. All adjustments or repairs must be done with the machine disconnected from the power source, unplugged. Failure to comply may result in serious injury!

J-CK350-2 is rated at 220V.

J-CK350-4 is rated at 440V.

These machines are not supplied with a plug. Use a plug and outlet rated at least 20 amps. The circuit for the machine should also be protected by at least a 20 amp circuit breaker or fuse.

Make sure that the blade turns in the correct direction. If it does not, simply reverse two of the phase wires on the supply input.

The cold saw is now ready for use.

Controls

Control Panel

The *Control Panel* (Figure 4) is located on the front of the cabinet stand and consists of the *Power* and *High/Stop/Low* switches, described below.

Power Switch – The *Power* switch has two positions, *Off* and *On*.

High/Stop/Low Switch – This switch controls the blade speed. To operate the saw, the power switch must set to on, *High* or *Low* must be selected, and the *Run Trigger* depressed.

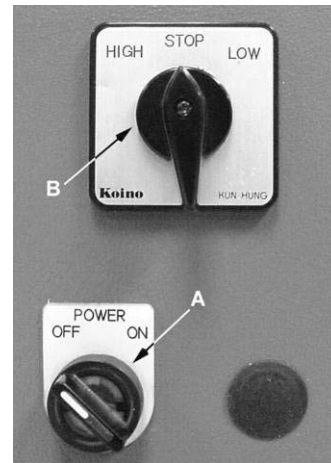


Figure 4

Trigger Handle

To operate, the *Power* switch must be set to *on* a *Hi* or *Low* speed selection made, and the trigger handle depressed.



Figure 5

Operation

Before using the machine:

- ❑ Check that safety devices, such as blade guards, are in position and work perfectly and that personal safety requirements are complied with.
- ❑ Check the sharpness of the blade and verify coolant flow.

Operation

1. Make sure the work piece is securely clamped in the vise.
2. Turn the power on (A, Fig. 8).
3. Select the cutting speed (B, Fig. 8).

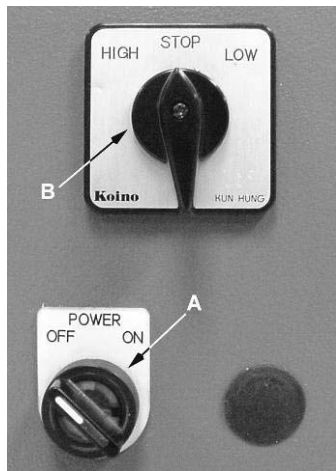


Figure 8

4. Grip the trigger handle (Figure 5) on the control lever.
5. Start the blade by pressing the micro-switch on the handgrip.

The down stroke speed of the head is controlled manually by the operator. The mist coolant is activated during the time that the head is below the upper limit position.

When the cut is complete:

6. Raise the head.
7. Remove the work piece from the vise using the vise hand wheels.

Miter Adjustment

To adjust the miter position follow the steps below while referring to Figure 10:

1. Move the miter position lock (A) to the right to release.
2. Adjust the head to the desired angle ranging from -45° to $+45^\circ$ by pushing on the back of the motor to the right or left. The miter position is shown on the scale (B).
3. A detent mechanism locks the head in the -45° , 90° and $+45^\circ$ positions to prevent the head from rotating. For a miter position other than -45° , 90° and $+45^\circ$, press the lever (C) to release while rotating the head.
4. When the desired cutting angle is set, move *miter position lock* (A) to the left to secure.

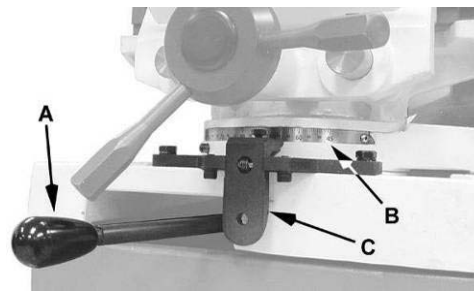


Figure 10

Depth Stop

The *depth cut stop* adjustment limits the lower travel of the saw blade during a cutting operation.

WARNING Remove power when making this adjustment. Failure to comply may result in serious injury!

To adjust the depth of cut (refer to Figure 12):

1. Using two 13mm wrenches, loosen the lock nut (A).
2. With the saw in the fully lowered position, turn the screw (B) until the saw blade bottoms out at the desired level.
3. Tighten the lock nut.

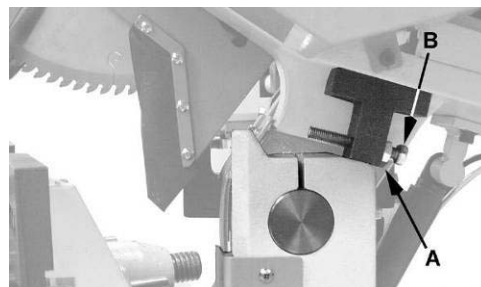


Figure 12

Maintenance

Maintenance Requirements

⚠WARNING All maintenance must be carried out with the *power switched off*. Failure to comply may result in serious injury!

On completion of maintenance, ensure that replaced parts and/or any tools used have been removed from the machine before starting it up.

Periodic Maintenance

- ❑ Remove chips from the machine, preferably with a cloth
- ❑ Remove chips from the coolant tank and change coolant regularly (see *Coolant* section)
- ❑ Top up the coolant level (see *Coolant*)
- ❑ Check the wear of the blade and change if necessary (see *Changing the Saw Blade*)
- ❑ Empty the chips out of the base.
- ❑ Clean the vise and lubricate all the joints and sliding surfaces, using good quality oil.
- ❑ Check transmission belts for wear (see *Transmission Belts*)
- ❑ Attend to daily, weekly and annual lubrication recommendations (see the *Lubrication* section)

Coolant System

The *coolant tank access door* is located on the back of the cabinet stand. Remove four hex cap screws with a 5mm hex wrench. Check coolant level in the coolant tank periodically and top off if necessary. Coolant can also be added by pouring directly on the table, which will drain into the tank through the *chip strainer*.

Remove excess chips periodically from the tank.

Use the coolant level gauge to check the coolant level.

Coolant

Use a water-soluble synthetic coolant with this mist coolant system. The ratio should be between 7-10 to 1. Coolant should be changed regularly. Some recommended brands are DoAll and Lenox. These coolants are available at your local industrial distributor.

Coolant Type:

- ❑ Water-Soluble Synthetic Coolant

Changing the Saw Blade

⚠WARNING The cold saw must not be connected to the power source when changing saw blades. Failure to comply may result in serious injury!

To change the saw blade:

1. Switch off the machine.
2. Release the lower disc guard.
3. Move the lower guard upwards.
4. Push the *blade lock in*.

Note: The J-CK350 bolt is a left-hand thread; rotate clockwise to loosen.

5. Remove the blade and replace it with a new one.
6. To secure the saw blade, reverse the preceding steps.

Transmission Belts

The J-CK350 uses a V-belt transmission system. After the *first 100 working hours*, remove the transmission belt protective cover and check the tension and wear of the belts. Repeat the operation after every 500 working hours of the machine.

To tighten the transmission belts:

1. Remove the transmission belt protective cover.
2. Loosen four bolts (A, Fig. 13) and slide motor back.

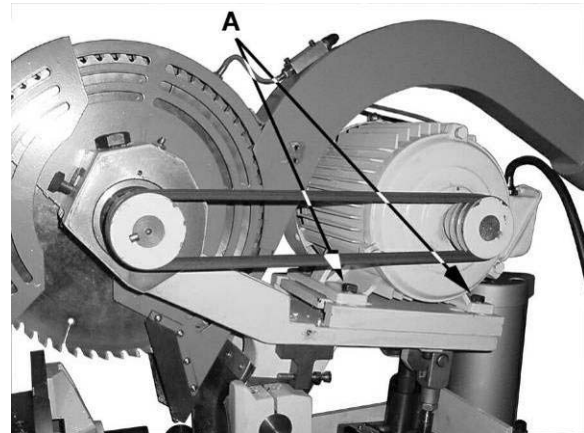


Figure 13

Lubrication

For long life and trouble-free operation, it is essential that this machine be kept well lubricated. The vise and leadscrew should be oiled daily. Pivot joints and bearings should be greased weekly.

Recommended lubricants

Grease fittings

Texaco Starplex 2 or equivalent

Vice and Leadscrew

Regal R & O 68

Air Prep Unit

The *Air Prep Unit* regulates the air pressure supplied to the saw. It is located in the cabinet stand and is accessible through the access door located below and to the left of the *control panel*. Referring to Figures 14 and 15, it consists of a *pressure regulator*, *pressure gauge*, and *water trap*. Air pressure (90 lbs. minimum) is supplied to the *air intake valve* located near the bottom of the cabinet on the left side. The *pressure regulator* should be adjusted to 90-120 lbs.

Air Prep Unit

Referring to Figure 14:

Required Maintenance

- Check weekly.
- Drain water from the trap when the level exceeds the redline.

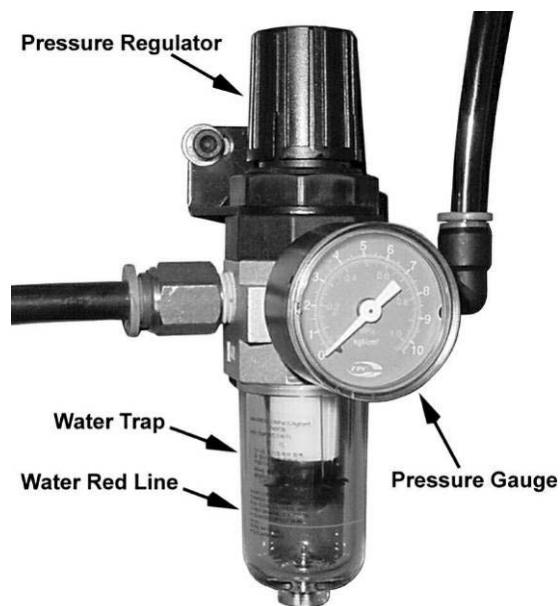


Figure 14

Blades

When using the J-CK350 cold saw, it is important to select the correct type of blade for the material to be cut. This section explains the limitations and specific applications of the different types of blades.

General Characteristics

Fine Tooth Pitch – used for thin wall materials such as sheet steel, tubes and profiles

Coarse Tooth Pitch – used for large cross-sections – for soft materials (aluminum alloys and soft alloys in general).

Determining Proper Tooth Pitch

Proper tooth pitch depends on:

- a) the size of the section;
- b) the hardness of the material;
- c) wall thickness.

Solid sections call for discs with a coarse tooth pitch, while small cross-sections require blades with finer teeth. This is because when cutting walls of small cross-section (1–7 mm) profiles, it is important that the number of teeth actually making the cut should not be too small, otherwise the effect obtained will be one of tearing rather than of chip removal, leading to a large increase in shearing stress. On the other hand, when cutting thick materials or solid sections using an excessively fine tooth pitch, the chip collects as a spiral inside the gullet, and since fine tooth pitches have small gullets, the accumulated chip will exceed the gullet capacity and press against the walls of the workpieces,



Choice of tooth pitch T as a function of cross-section to be cut for light alloy solid pieces and profiles			
S in mm.	Pitch T	S and sp in mm.	Pitch T
10	6	10 sp=0.5	3-4
30	8	30 sp=1.5	4-5
50	10	50 sp=2.5	6-7
70	12	70 sp=3.5	8-9
90	14	90 sp=4.5	8-9
130	18	130 sp=6.5	10

KEY:
 s = diameter or width of the solid piece to be cut in mm.
 sp = thickness of the wall to be cut in mm.
 T = tooth pitch in mm.

Table 1

resulting in poor cutting (same situation with soft materials), greater shearing stress and hence breakage of the blade.

A larger pitch should be chosen when, as a result of the shape of the piece to be cut, the cross-section at any given point exceeds the average cross-section given above.

Cutting and Feeding Speed

The cutting speed, in m/min, and the head feeding speed, in cm²/min, are limited by the amount of heat generated near the points of the teeth. If the head feeding speed is too high, the cut will not be straight in either the vertical or the horizontal plane. As we have already said, the cutting speed depends on the strength (kg/mm²) and hardness (HRC) of the material and the dimensions of the thickest section. The feeding speed depends on the cross-section of the material. Solid or thick-walled materials (thickness > 5mm) can therefore be cut at high speed providing there is sufficient swarf removal by the blade, while thin-walled materials such as tubes or thin profiles must be cut with a low feeding speed.

⚠ WARNING A new blade requires a break-in period, during which time about half the normal feeding speed should be used.

Coolant

The cooling fluid mist ensures that the blade teeth and material in the area of the cut do not overheat. The fluid must be an excellent lubricant so as to prevent abrasion of the teeth and welding of the chips to the teeth themselves (seizing).

Types of Blades

The blades fitted to the J-CK350 have dimensions 350 x 32 x 3.4 mm and are of HM hard steel type since the machine is to be used for cutting non-ferrous materials. In addition to the size and pitch of the teeth, however, the blades also have different geometric characteristics in accordance with their particular use:

tooth cutting angle – may be negative or positive

tooth sharpening – may be *BW* with an alternate raked tooth or *C* with a roughing tooth raked on both sides and a non-raked finishing tooth

tooth pitch – the distance between the crest of one tooth and the crest of the next tooth (tooth pitch = T)

Teeth Shape

"C" TYPE SHARPENING (HZ)

Coarse toothing with roughing tooth raked on both sides and non-raked finishing tooth – The roughing tooth is about 0.3 mm higher.

Coarse toothing with roughing tooth and finishing tooth – Used in saws with pitch greater than or equal to 5 mm for cutting ferrous and non-ferrous materials with solid or solid-profiled sections.

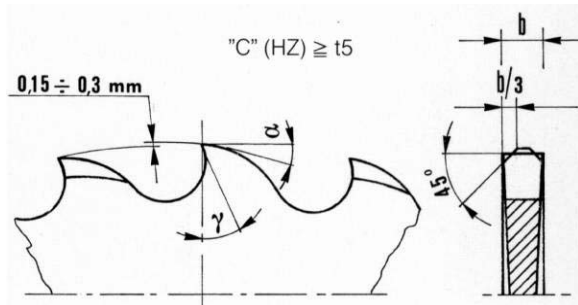


Figure 16

"BW" TYPE SHARPENING DIN 1838--UNI 4014

Coarse toothing with teeth alternately raked to the right and left – Toothing generally used on cutting-off machines for cutting ferrous and alloy materials with tubular and profiled sections.

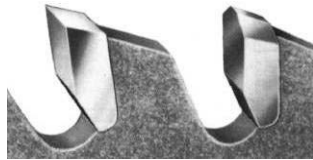


Figure 17

POSITIVE AND NEGATIVE CUTTING ANGLES

The cutting angle may vary from positive to negative depending on the cutting speed, the profile and the type of material to be cut.

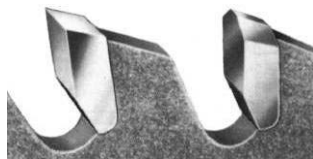


Figure 18

A positive angle determines better penetration of the tool and hence lower shear stress and greater ease of sliding for the swarf over the cutting edge. On the other hand, the cutting edge has lower mechanical resistance, so as the breaking load of the material to be cut increases, the cutting angle decreases from positive until it becomes negative so as to offer a cutting edge with a larger resistant section.

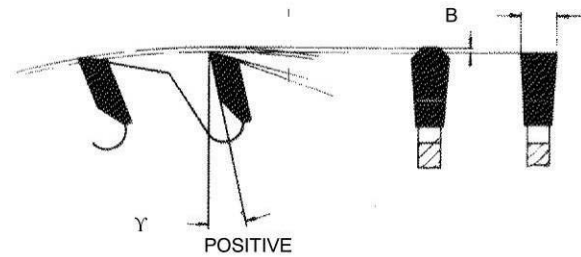


Figure 19

Short swarf material such as brass, bronze, aluminum and hard cast iron require smaller cutting angles because the swarf becomes crushed immediately and the rake angle has little effect during the cutting stage.

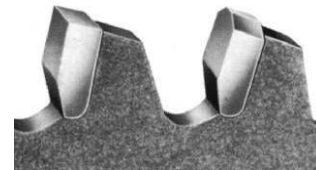


Figure 20

The J-CK350 uses discs with positive cutting angles for cutting solid materials and with negative cutting angles for cutting hollow profiles. This is because, as a result of the high cutting speeds (3400 rpm), even with non-ferrous materials the tool "strikes" against the wall of the profile to be cut several times, thus requiring a cutting edge with a larger resistant section.

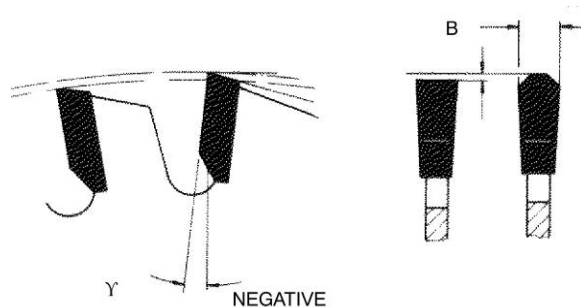


Figure 21

Circular saws can also be characterized by other parameters such as the whine reduction feature, which cuts down noise at high speeds, or expansion, which compensates for the pushing of chips inside the cutting edge, thus reducing the thrust on the walls of the material to be cut.

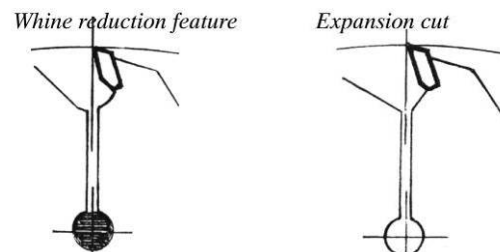


Figure 22

Troubleshooting

Troubleshooting – Blade and Cutting Problems

Problem	Probable Cause	Solution
Teeth breaking	Incorrect lubricant/coolant fluid	Ensure proper coolant flow.
	Material too hard	Check the cutting speed, feed speed and air pressure parameters and the type of blade you are using.
	Disc not worn--in correctly	With a new blade it is necessary to start cutting at half feeding speed. After the wearing--in period (a cutting surface of about 300 cm ² for hard materials and about 1000 cm ² for soft materials) the cutting and feed speeds can be brought up to normal values
	Disc with excessively fine tooth pitch	The swarf wedges into the bottom of the teeth causing excessive pressure on the teeth themselves
	New blade inserted in a partially completed cut	The surface of the cut may have undergone work hardening. When starting work again, use a lower cutting speed and head feed speed. A tooth from the old blade may be left in the cut: check and remove before starting work again.
	Work piece not clamped firmly in place	Any movement of the work piece during cutting can cause broken teeth: check the vise, jaws and clamping pressure.
Rapid tooth wear	Feed speed too slow	The blade runs over the material without removing it: increase feed speed.
	Cutting pressure too high	Reduce cutting pressure.
	Blade speed too high	The teeth slide over the material without cutting it: reduce the blade speed.
	Insufficient coolant	Check the coolant level and clean coolant lines and nozzles.
	Incorrect fluid concentration	Check and use the correct concentration.
	Material defective	The materials may present altered zones either on the surface, such as oxides or sand, or in section, such as under-cooled inclusions. These zones, which are much harder than the blade, cause the teeth to break: discard or clean these materials.
Broken blade	Feed speed too high	Reduce blade speed.
	Teeth in contact with material before starting the cut	Always check the position of the blade before starting a new job.
	Insufficient coolant	Check the coolant level and clean coolant lines and nozzles.

Troubleshooting – Machine Fault & Operating Problems

Problem	Probable Cause	Solution
Spindle motor will not turn	Electrical power supply	Check: the phases; the cables; the plug; the socket. Also check that the motor connections are in place.
	Transformer	Check that the voltages are present both on the input and output. Otherwise replace.
	Contactor	Check that the phases in it are present both on the input and output, that it is not jammed, that it closes when powered and that it is not causing short circuits. Change if any of these problems are found.
	Thermal relay	Make sure it is closed, i.e. check that the phases are present in input and output, that it is not causing short circuits and responds when the reset coil is closed. If it has tripped to protect the motor, check the amperage setting, reset, and check the motor. Change if necessary.
	Motor	Check that it has not burned out, that it turns freely and that there is no moisture in the connection terminal board box. The winding can be rewound or replaced.

Parts

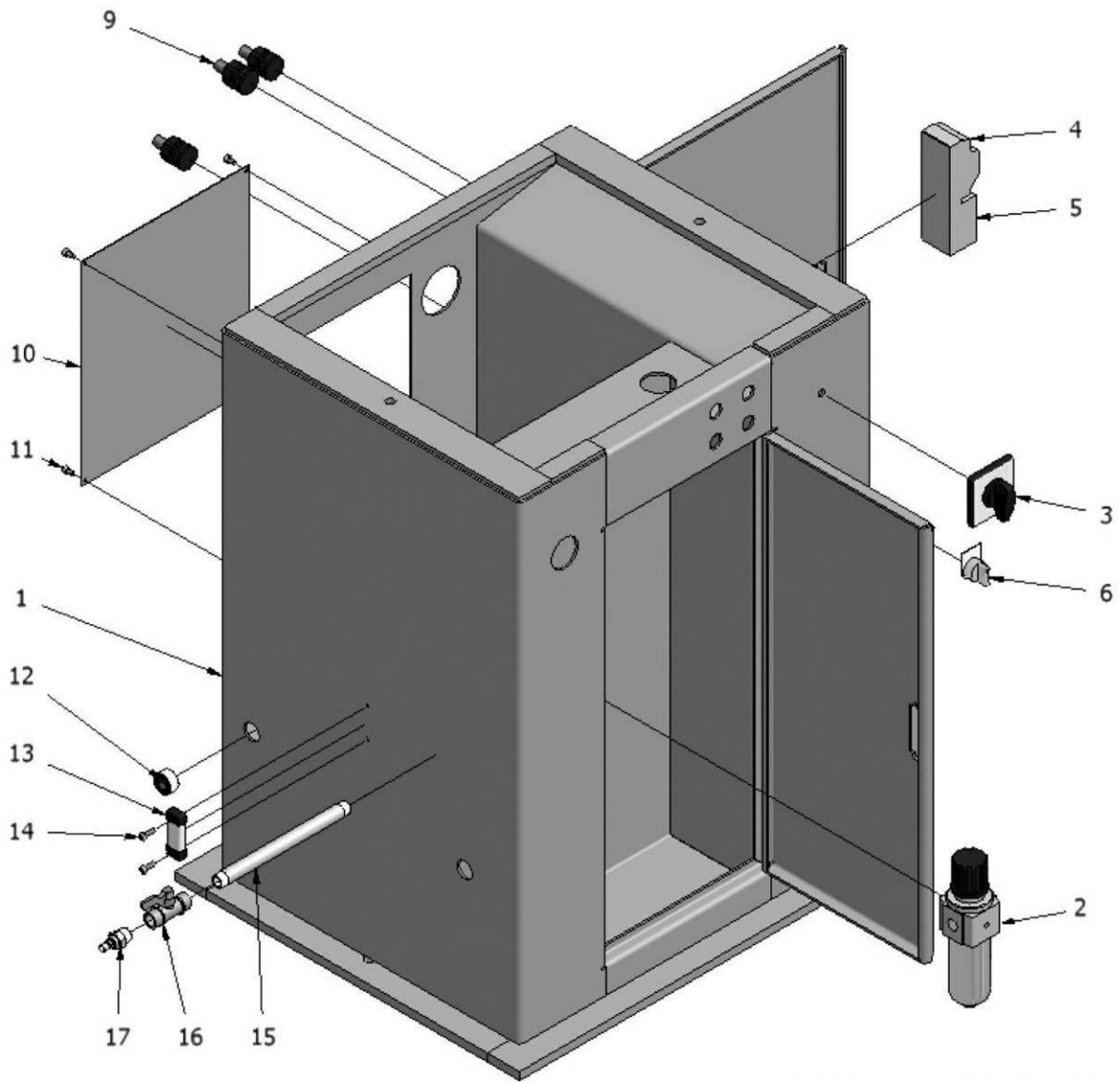
Ordering Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848, Monday through Friday (see our website for business hours, www.waltermeier.com). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Stand Assembly

Index No.	Part No.	Description	Size	Qty
1	FK350-601	Cabinet Stand		1
2	CK350-002	Air Unit		1
3	FK350-603	Cam Switch		1
4	FK350-604	Magnetic Switch		1
5	FK350-605	Overload Relay		1
6	FK350-606	Lighted Selector Switch		1
7	FK350SX-650	Pressure Gauge		1
8	FK350SX-635	Elbow Push Fitting	PT3/8	1
9	FK350-609	Cable Lock		3
10	FK350-610	Rear Cover		1
11	TS-1503021	Socket Head Cap Screw	M6x10	4
12	FK350-612	Tapered Plug	PT1/4	1
13	FK350-613	Coolant Gauge		1
14	TS-1502051	Socket Head Cap Screw	M5x20	2
15	FK350SX-647	Pipe		1
16	FK350SX-648	Ball Valve		1
17	FK350SX-649	Quick Coupler		1
18	FK350-615	Transformer (440V only)	AU-20DW(50/60Hz)	1
	FK350-615-2	Transformer (220V only)		1

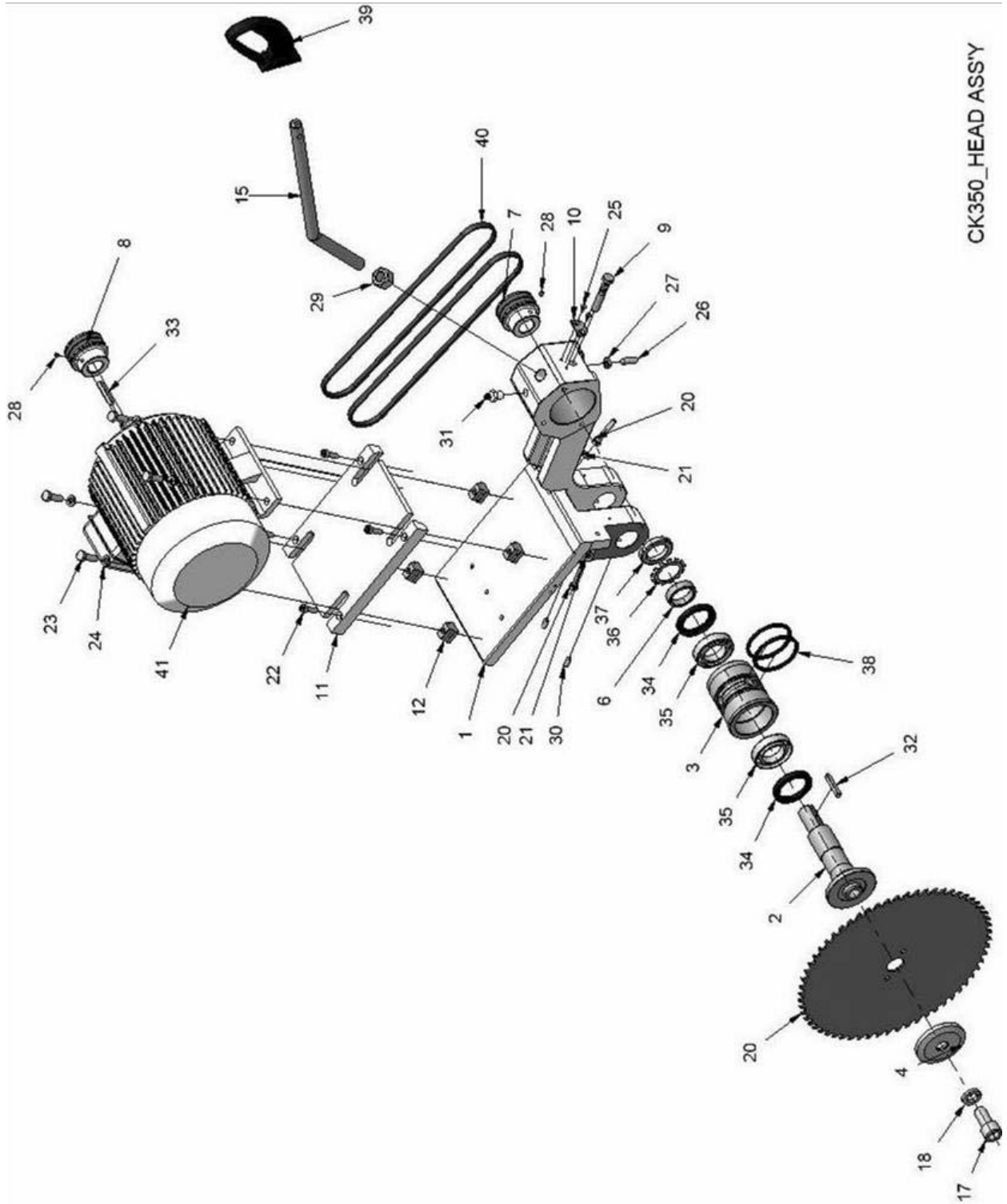
Stand Assembly



Head Assembly

Index No.	Part No.	Description	Size	Qty
1	J-CK350-201	Head Body		1
2	CK350-202	Spindle		1
3	CK350-203	Spindle Housing		1
4	CK350-204	Blade Flange		1
6	CK350-206	Collar		1
7	CK350-207	Spindle pulley		1
8	CK350-208	Motor Pulley		1
9	CK350-209	Blade Lock		1
10	CK350-210	Blade Lock Guide		1
11	J-CK350-211	Motor Base		1
12	CK350-212	T-Nut		4
15	FK350-218	Handle (CK350 only)		1
17	CK350-217	Socket Head Cap Screw L.H. Thread	M20x40 LH	1
18	TS-2361201	Lock Washer	M20	1
19		Saw Blade		1
20	TS-1490091	Hex Cap Screw	M8x50	2
21	TS-1540061	Hex Nut	M8	2
23	TS-1491041	Hex Cap Screw	M10x30	4
24	TS-2361101	Lock Washer	M10	4
25	TS-1513011	Flat Head Socket Screw	M5x10	2
26	CK350-226	Ball Plunger		1
27	TS-1540071	Hex Nut	M10	1
28	TS-2276081	Set Screw	M6x8	2
29	TS-154012	Hex Nut	M20	1
30	TS-1504041	Socket Head Cap Screw	M8x20	2
31	CK350-231	Grease Fitting	PT1/4	1
32	CK350-232	Flat Key	7x7x50mm	1
33	CK350-233	Flat Key	8x7x50mm	1
34	CK350-234	Oil Seal		2
35	CK350-235	Angular Ball Bearing	#7008	2
36	CK350-236	Bearing Washer		1
37	CK350-237	Bearing Nut		1
38	CK350-238	O-Ring	P71	2
39	FK350-219	Handle Switch (CK350 only)		1
39	CK350SX-239	Plug (CK350-SX only)		1
40	CK350-240	V-Belt 3V-370		2
41	J-CK350-241	Motor 220V		1
	J-CK350-241-4	Motor 440V		1

Head Assembly

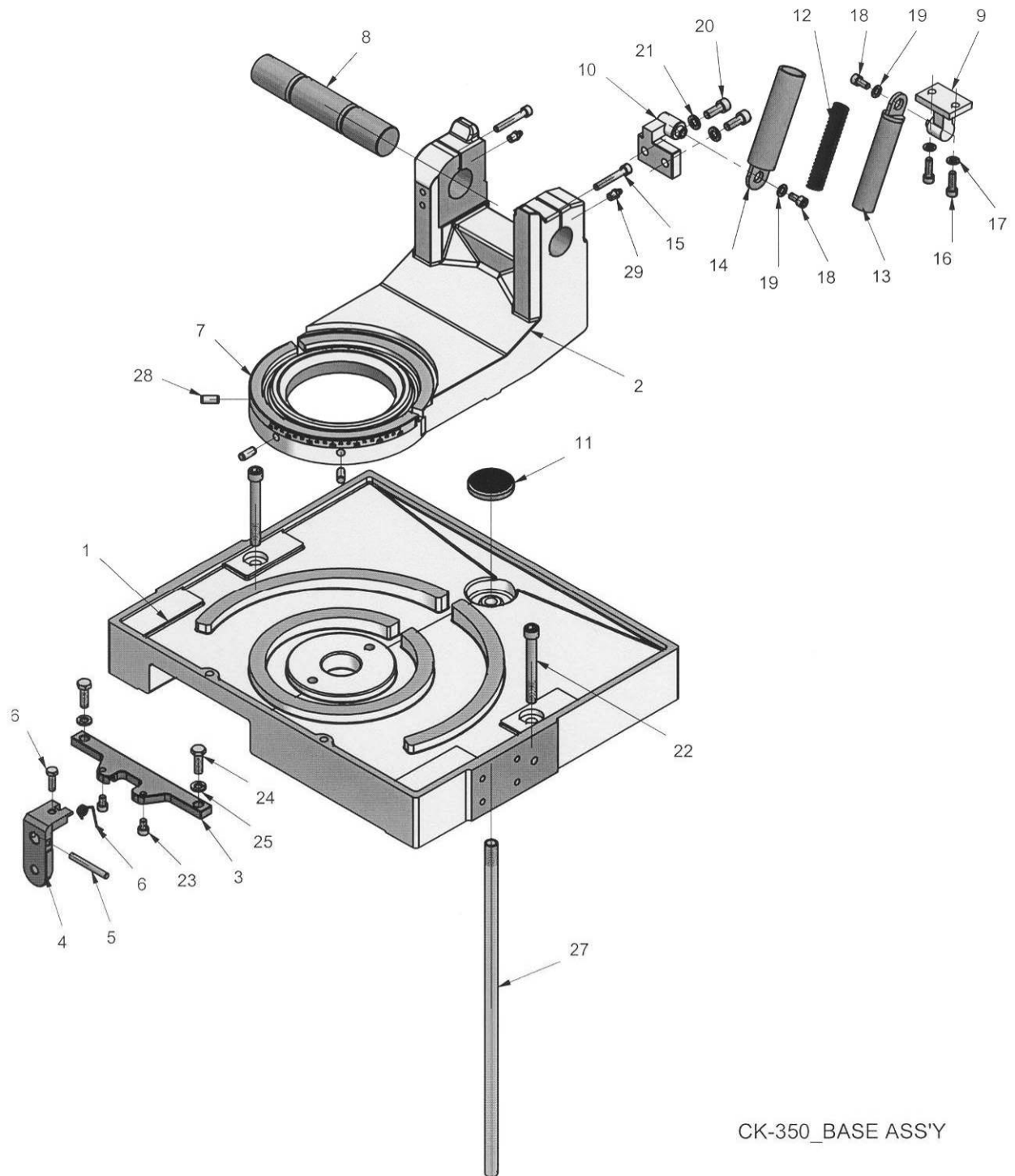


CK350_HEAD ASS'Y

Base Assembly

Index No.	Part No.	Description	Size	Qty
1	FK350-101	Base		1
2	FK350-102	Hinge Body		1
3	FK350-103	Locking Mount		1
4	FK350-104	Release Handle		1
5	FK350-105	Pin		1
6	FK350-106	Coil Spring		1
7	FK350-107	Scale		1
8	FK350-108	Pivot Shaft		1
9	J-CK350-109	Spring Bracket A		1
10	J-CK350-110	Spring Bracket B		1
11	FK350-112	Chip Screen		1
12	CK350-112	Return Spring		1
13	CK350-113	Spring Holder A		1
14	CK350-114	Spring Holder B		1
15	TS-1504101	Socket Head Cap Screw	M8x50	2
16	TS-1504051	Socket Head Cap Screw	M8x25	2
17	TS-1551061	Lock Washer	M8	2
18	TS-1504031	Socket Head Cap Screw	M8x16	2
19	TS-1550061	Flat Washer	M8	2
20	TS-1505031	Socket Head Cap Screw	M10x25	2
21	TS-1551071	Lock Washer	M10	2
22	TS-223A911	Socket Head Cap Screw	M12x100	2
23	TS-1504021	Socket Head Cap Screw	M8x12	2
24	TS-1491041	Hex Cap Screw	M10x30	2
25	TS-2361101	Lock Washer	M10	2
26	TS-1490041	Hex Cap Screw	M8x25	1
27	FK350-122	Pipe		1
28	FK350-123	Pin 10mm	Dia. x 22	3
29	FK350-124	Grease Fitting	PT 1/8	2

Base Assembly

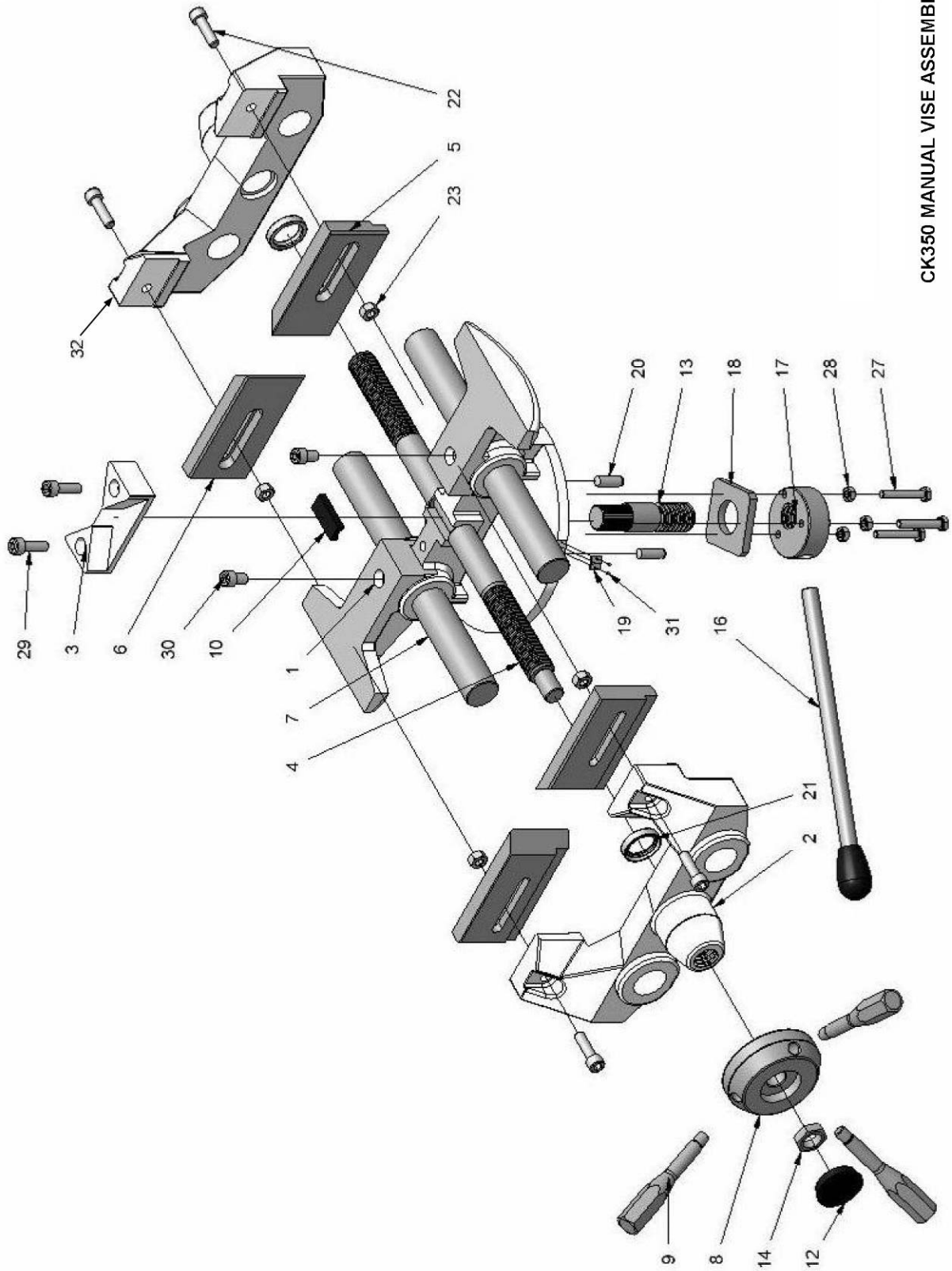


CK-350_BASE ASS'Y

Manual Vise Assembly

Index No.	Part No.	Description	Size	Qty
	FK350-300	Complete Vise Assembly (includes index #1-32)		
1	J-FK350-301	Base		1
2	J-FK350-302	Front Vise Jaw (LH Thread)		1
3	FK350-303	Tip		1
4	FK350-304	Vise Screw		1
5	CK350-305	Jaw Insert A (Al)		2
6	CK350-306	Jaw Insert B (Al)		2
7	FK350-307	Guide Rod		2
8	FK350-308	Handle Hub		1
9	FK350-309	Handle		3
10	FK350-310	Filling Block		1
12	FK350-312	Cap		1
13	FK350-313	Setting Screw		1
14	FK350-314	Hex Nut	M20x1.5P	1
15	J-FK350-315	Cover		1
16	FK350-316	Tension Handle		1
17	FK350-317	Tension Nut		1
18	FK350-318	Pressure Plate		1
19	FK350-319	Scale Centering		1
20	FK350-320	Pin	10mm Dia. x 30	2
21	FK350-321	Retainer		2
22	TS-1505051	Socket Head Cap Screw	M10x35	4
23	TS-1540071	Hex Nut	M10	4
25	TS-1502031	Socket Head Cap Screw	M5x12	2
26	TS-1550031	Flat Washer	M5	2
27	TS-1490091	Hex Cap Screw	M8x50	3
28	TS-1540061	Hex Nut	M8	3
29	TS-1505041	Socket Head Cap Screw	M10x30	2
30	TS-1505011	Socket Head Cap Screw	M10x16	2
31	FK350-331	Rivet	2mm Dia. x 4	2
32	J-FK350-332	Rear Vise Jaw (RH Thread)		1

Manual Vise Assembly

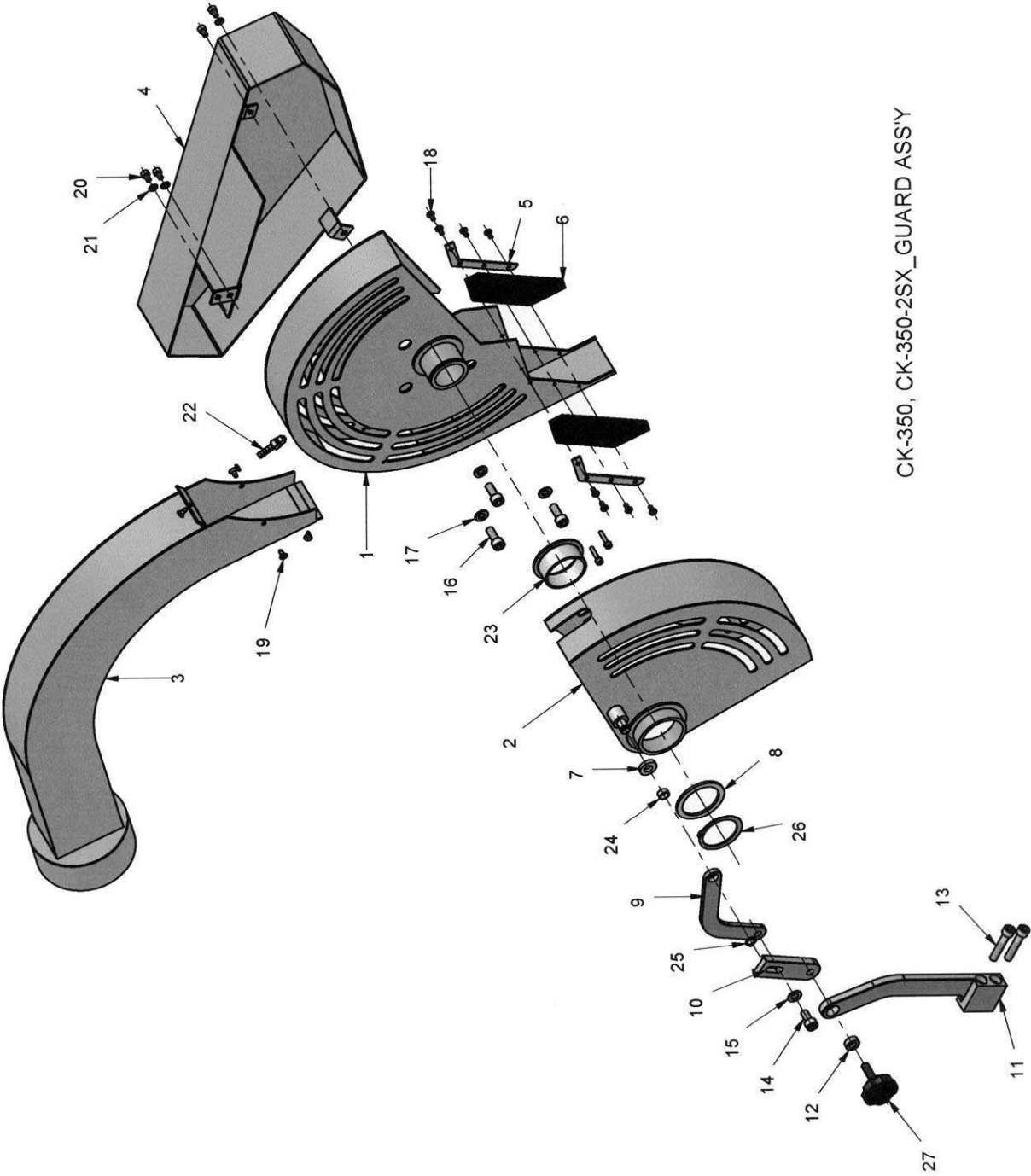


CK350 MANUAL VISE ASSEMBLY

Guard Assembly

Index No.	Part No.	Description	Size	Qty
1	J-CK350-401	Guard A		1
2	J-CK350-402	Guard B		1
3	J-CK350-403	Chute		1
4	J-CK350-404	Belt Guard		1
5	CK350-405	Plate		2
6	CK350-406	Rubber Guide		2
7	CK350-407	Nylon Spacer A		1
8	CK350-408	Nylon Spacer B		1
9	CK350-409	Link A		1
10	CK350-410	Link B		1
11	CK350-411	Link Bracket		1
12	FK350-410	Link Ring		1
13	TS-1504081	Socket Head Cap Screw	M8x40	2
14	TS-1504031	Socket Head Cap Screw	M8x16	1
15	TS-1550061	Flat Washer	M8	1
16	TS-1504041	Socket Head Cap Screw	M8x20	3
17	TS-1551061	Lock Washer	M8	3
18	TS-2284082	Screw	M4x8	8
19	TS-1501031	Socket Head Cap Screw	M4x10	4
20	TS-1502021	Socket Head Cap Screw	M5x10	4
21	TS-1551031	Lock Washer	M5	3
22	CK350-422	Hose Joint		1
23	CK350-423	Bushing		1
24	CK350-424	Bushing		1
25	FK350-421	Snap Ring	S10	1
26	CK350-426	Snap Ring	S45	1
27	FK350-423	Knob	M8x30	1

Guard Assembly

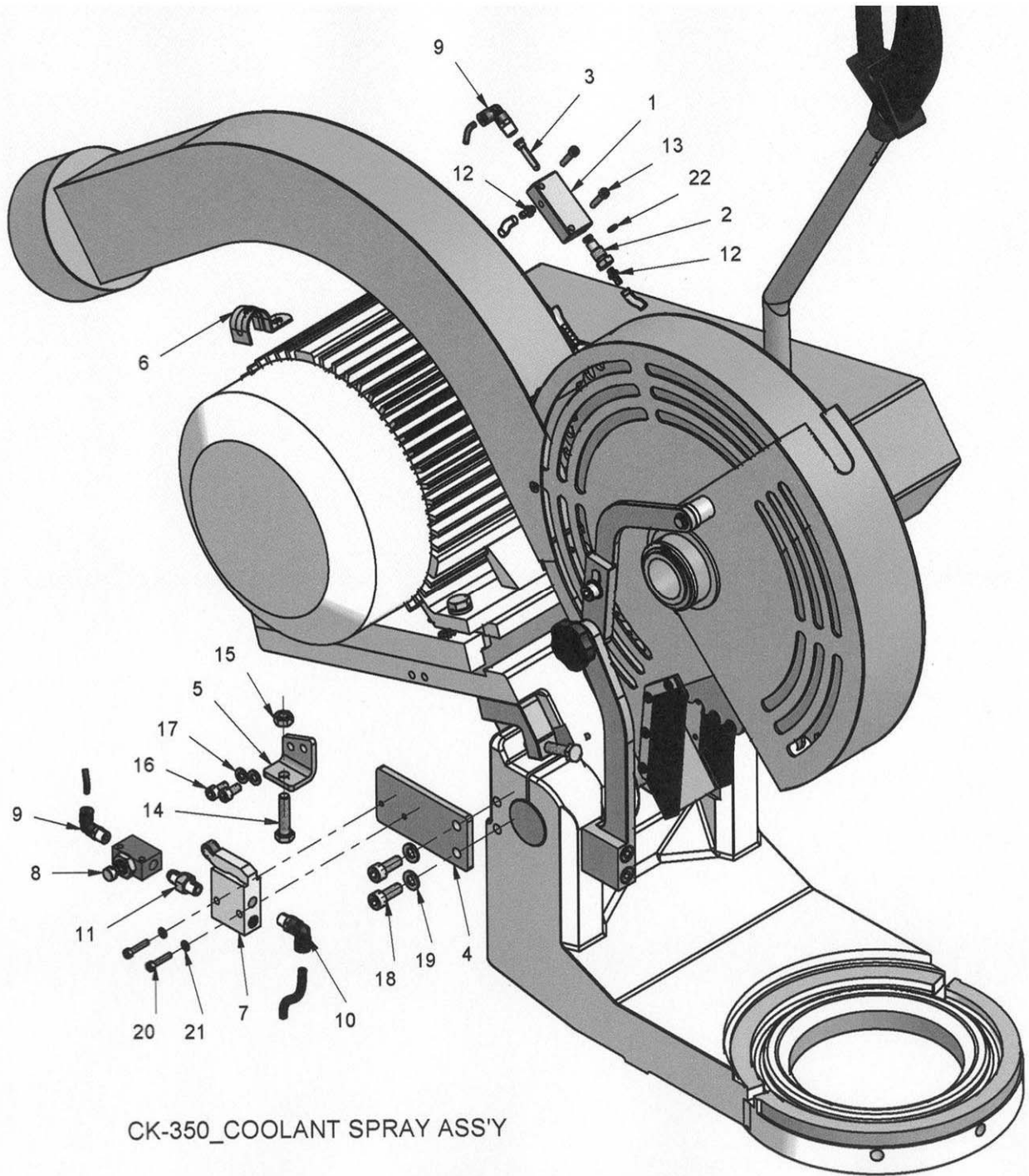


CK-350, CK-350-2SX_GUARD ASS'Y

CK350 Mist Coolant Assembly

Index No.	Part No.	Description	Size	Qty
1	CK350-701	Coolant Block		1
2	CK350-702	Coolant Nipple		1
3	CK350-703	Coolant Nozzle		1
4	CK350-704	Valve Bracket		1
5	CK350-705	Switch Dog		1
6	CK350-706	Hold Down Strap		1
7	CK350-707	Limit Switch		1
8	CK350-708	Throttle Valve		1
9	CK350-709	Elbow Push Fit	PT1/8, 4mm Dia	2
10	CK350-710	Elbow Push Fit	PT1/8, 6mm Dia	1
11	CK350-711	Coupling	PT1/8	1
12	CK350-712	Miniature Coupling	M5	2
13	TS-1501061	Socket Head Cap Screw	M4x20	2
14	TS-1490051	Hex Cap Screw	M8x30	1
15	TS-1540061	Hex Nut	M8	1
16	TS-1503031	Socket Head Cap Screw	M6x12	2
17	TS-1550041	Flat Washer	M6	2
18	TS-1504041	Socket Head Cap Screw	M8x20	5
19	TS-1551061	Lock washer	M8	5
20	TS-1501061	Socket Head Cap Screw	M4x20	2
21	TS-1550021	Flat Washer	M4	2
22	CK350-722	O-Ring	P5	1

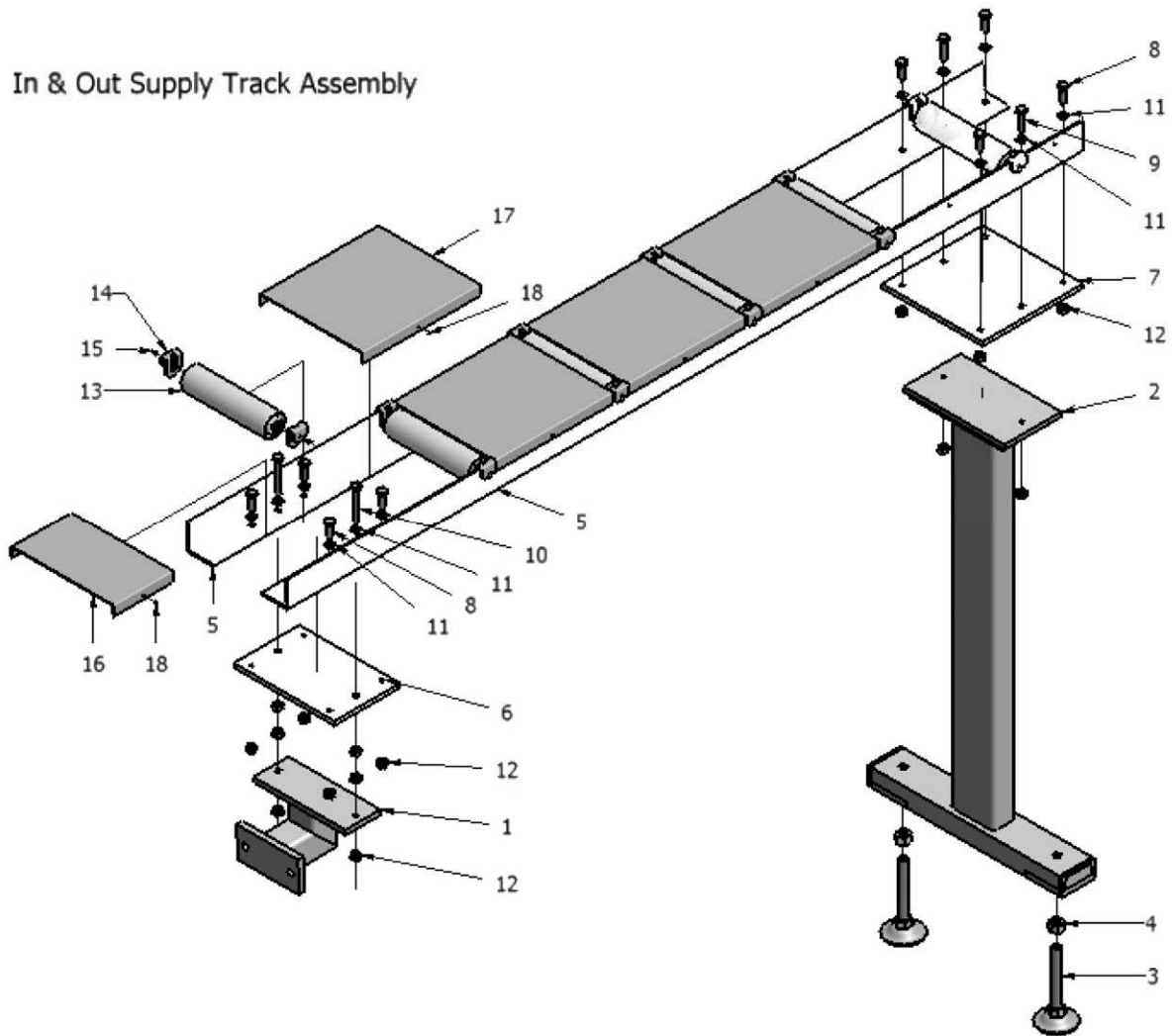
CK350 Mist Coolant Assembly



In-Feed Table

Index No.	Part No.	Description	Size	Qty
1	FK350-701	Bracket		1
2	FK350-702	Stand		1
3	FK350-703	Leveling Foot		2
4	TS-154010	Hex Nut M16		2
5	FK350-705	Angle Rail		2
6	FK350-706	Base A		1
7	FK350-707	Base B		1
8	TS-1491041	Hex Cap Screw	M10x30	8
9	TS-1491061	Hex Cap Screw	M10x40	2
10	TS-1491121	Hex Cap Screw	M10x70	2
11	TS-2361101	Lock Washer	M10	12
12	TS-1540071	Hex Nut	M10	16
13	FK350-713	Roller		6
14	FK350-714	Roller Bracket		12
15	TS-1502021	Socket Head Cap Screw	M5x10	12
16	FK350-716	Cover A		2
17	FK350-717	Cover B		5
18	TS-1533032	Pan Head Screw	M5x10	7

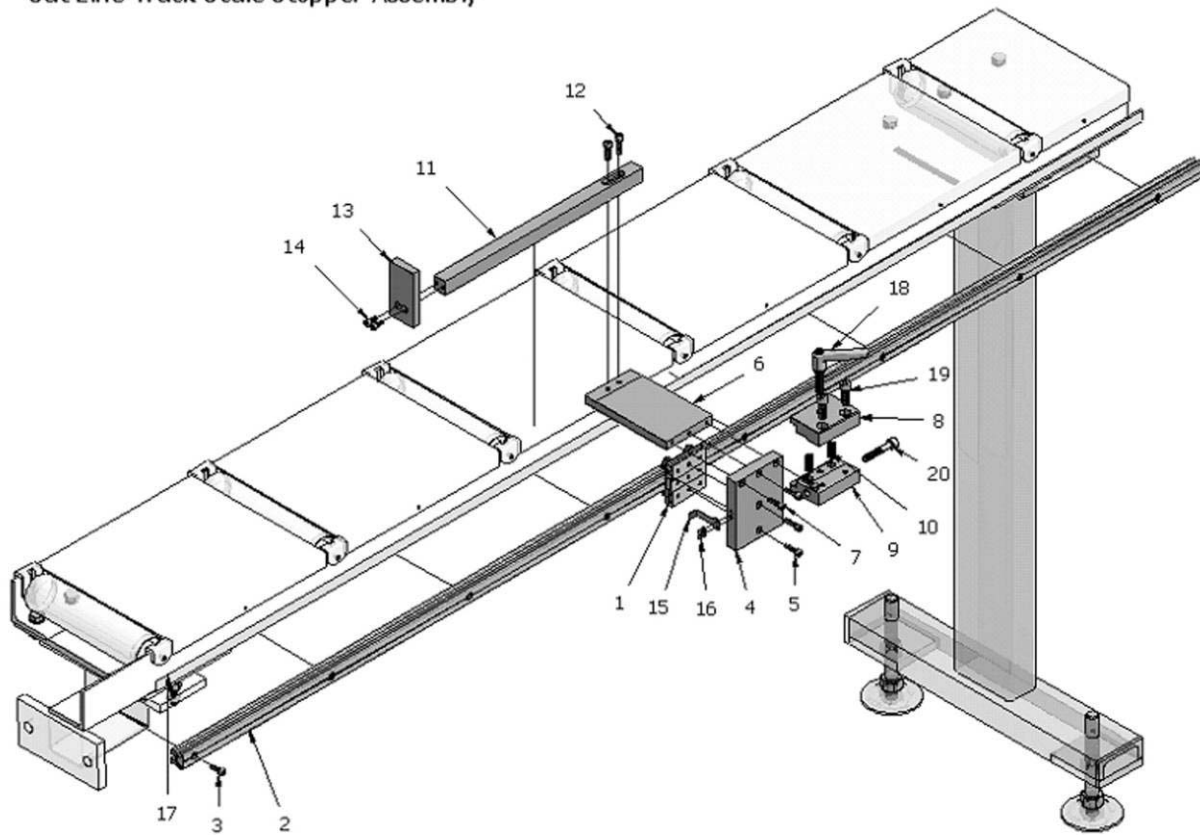
In & Out Supply Track Assembly



Out-Feed Table

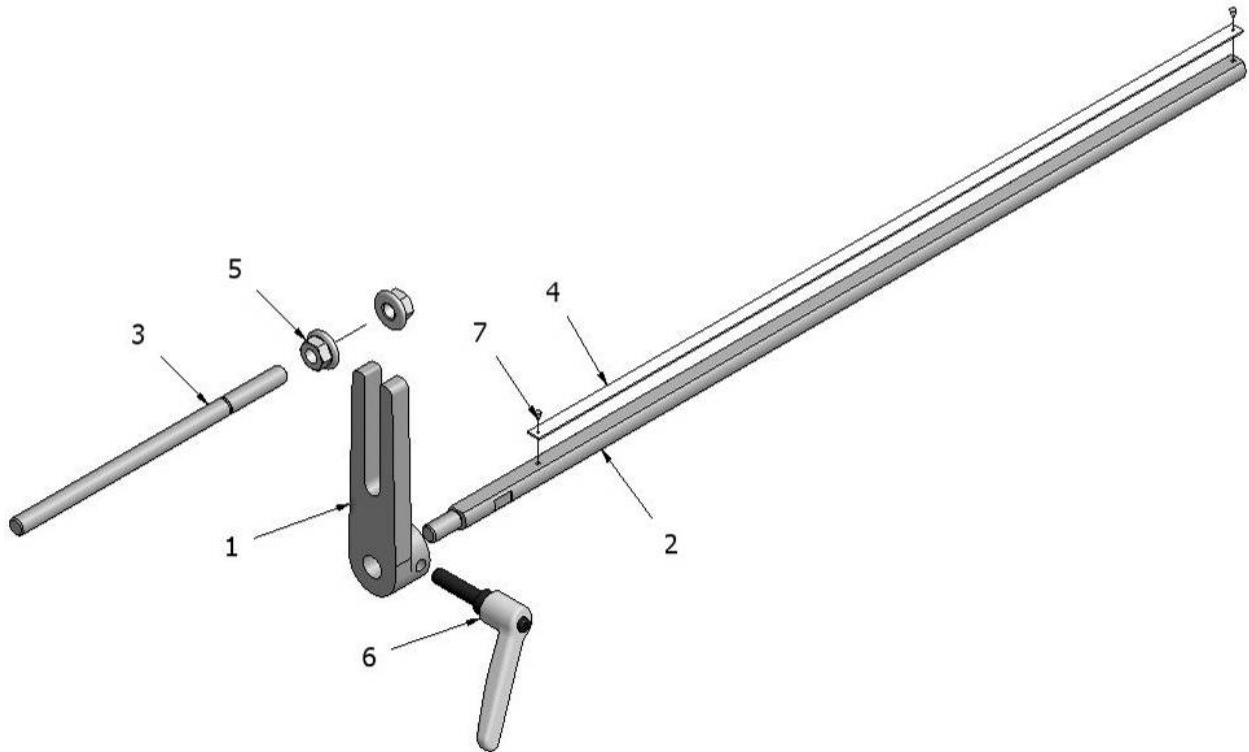
Index No.	Part No.	Description	Size	Qty
1	FK350-801	Guide Block		EA
2	FK350-802	Guide Rail		EA
3	TS-1502051	Socket Head Cap Screw	M5x20	EA
4	FK350-804	Stopper Base		EA
5	TS-1502051	Socket Head Cap Screw	M5x20	EA
6	FK350-806	Connecting Plate		EA
7	TS-1502071	Socket Head Cap Screw	M5x30	EA
8	FK350-808	Lock Block A		EA
9	FK350-809	Lock Block B		EA
10	FK350-818	Spring		EA
11	FK350-811	Stopper		EA
12	TS-1503051	Socket Head Cap Screw	M6x20	EA
13	FK350-813	Stopper Pad		EA
14	TS-1502041	Socket Head Cap Screw	M5x16	EA
15	FK350-815	Scale Indicator		EA
16	FK350-816	Rivet		EA
17	FK350-817	Inch Scale		EA
18	FK350-810	Handle		EA

Out Line Track Scale Stopper Assembly

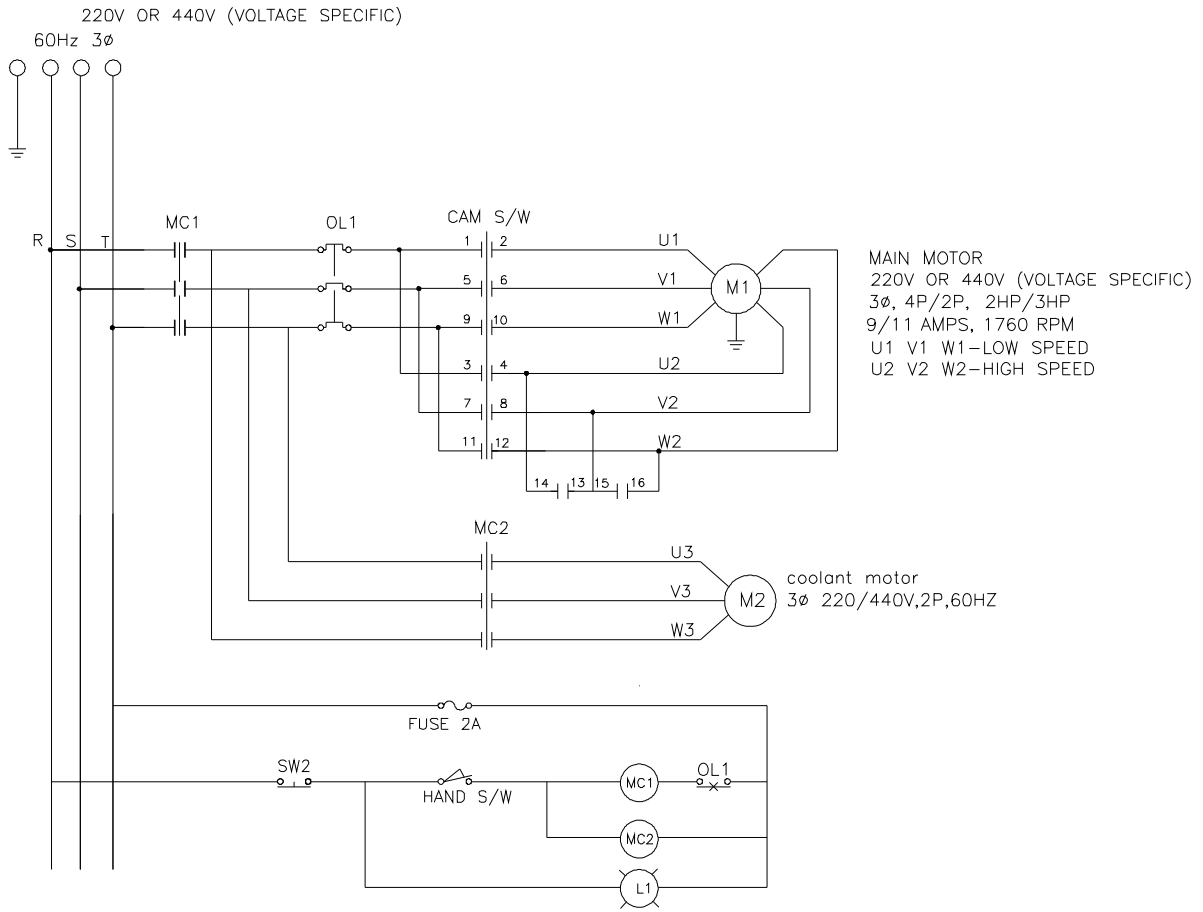


Stock Stop Assembly

Index No.	Part No.	Description	Size	Qty
1	FK350-501	Block		1
2	FK350-502	Shaft		1
3	FK350-503	Stop Rod		1
4	FK350-504	Scale (Inch)		1
6	FK350-506	Handle	M8x30	2
7	FK350-505	Rivet		2



Wiring Diagram





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