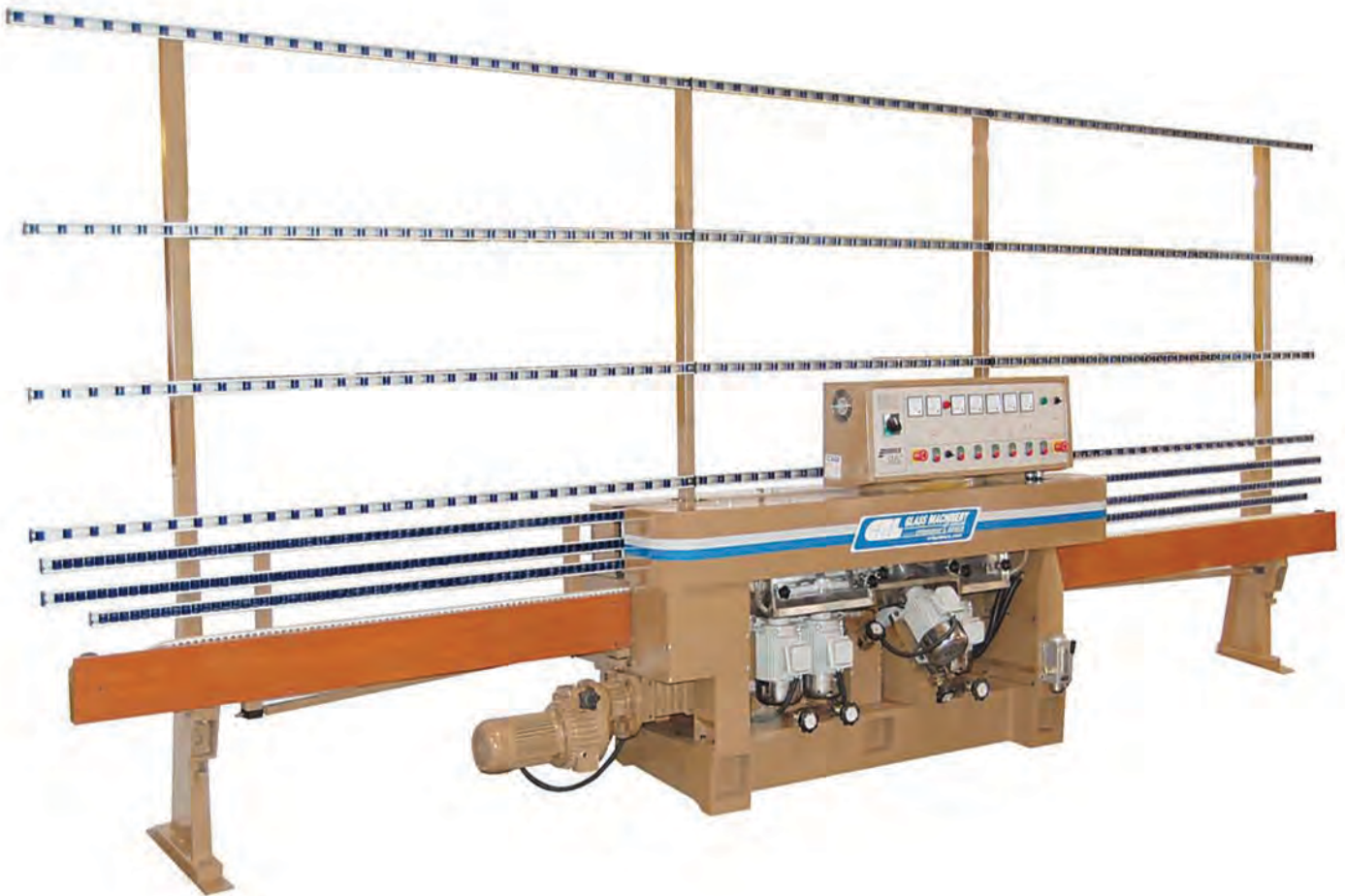




SM5C Cup Wheel Edger USER MANUAL



crlaurence.com • Toll Free (800) 421-6144 • Fax (800) 262-3299
Sommer & Maca Machinery Division • (866) 583-1377 • Fax (866) 584-9722

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Quick Start Guide - Step-by-Step guide to machine set-up

1. Uncrate machine (examine for damage)
2. Check for parts missing (see parts list and diagrams in back of this manual)
3. Position Machine Body in place (see Fig. 7,14)
4. Install leveling feet on main Body and adjust for level (page 6)
5. Install and level ingoing conveyor (see Fig. 10)
6. Install and level outgoing conveyor (see Fig. 10)
7. Install Roller Racks (see Fig.6)
8. Position coolant tank
9. Connect coolant hoses and fill tank (page 7 and Fig 11.)
10. Connect electrical power per local codes (page 6)
11. Check motor rotation. Should be rotating clockwise viewed from above motor

If you encounter any problems, or have questions about setting up or operating the machine, call the parts and service department at (866) 583-1377 or 773-242-3260

TERMS AND CONDITIONS

MACHINERY WARRANTY STATEMENT

C.R. LAURENCE CO., INC. ("SELLER") WARRANTS PRODUCTS OF ITS MANUFACTURE TO BE FREE FROM DEFECTS IN MATERIALS OR WORKMANSHIP IN NORMAL USE FOR (12) MONTHS FROM THE DATE OF SHIPMENT (UNLESS A SHORTER PERIOD IS PROVIDED ELSEWHERE IN THIS DOCUMENT). SELLER'S OBLIGATION AND BUYER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO REPAIR OR REPLACEMENT, AT SELLER'S SOLE OPTION, OF DEFECTIVE PARTS WITHIN THE WARRANTY PERIOD, PROVIDED BUYER GIVES SELLER IMMEDIATE WRITTEN NOTICE OF SUCH ALLEGED DEFECTS, AND, IF REQUESTED BY SELLER, RETURNS THE DEFECTIVE PARTS TO SELLER'S FACTORY PREPAID BY BUYER FOR SELLER'S INSPECTION. THE WARRANTIES CONTAINED HEREIN ARE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. SELLER SHALL IN NO EVENT BE LIABLE FOR CONSEQUENTIAL DAMAGES. WARRANTIES HEREUNDER SHALL NOT APPLY TO ANY EQUIPMENT THAT HAS BEEN DAMAGED BY MISUSE, NEGLIGENCE, ACCIDENT, OR FAILURE TO PERFORM MAINTENANCE. THIS WARRANTY SHALL BE NULL AND VOID (1) IF THE MACHINE IS USED IN A MANNER CONTRARY TO INSTRUCTIONS OR AFTER MALFUNCTION IS NOTICED; (2) IF THE BUYER DOES NOT HONOR TERMS OF PAYMENT; (3) IF THE MACHINE IS MODIFIED OR ALTERED.

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LAW

ALL CONTRACT AND OTHER CLAIMS (WHETHER BASED ON CONTRACT, TORT, EQUITY, TREATY, OR CODE) WITH RESPECT TO THE PRODUCTS SOLD AND ALL CLAIMS WITH RESPECT TO THE OPERATION AND USE OF THE PRODUCTS SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF ILLINOIS, USA. THE SALES CONTRACT SHALL NOT BE GOVERNED BY THE UNITED NATIONS CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALES OF GOODS.

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IF ANY PROVISIONS OF THESE TERMS AND CONDITIONS ARE HELD TO BE INVALID, ILLEGAL OR UNENFORCEABLE, THE REMAINING PROVISIONS OF THESE TERMS AND CONDITIONS SHALL NOT IN ANY WAY BE AFFECTED OR IMPAIRED THEREBY.

C.R. Laurence Co., Inc.
Glass Machinery Division
5501 West Ogden Avenue, Cicero, IL 60804, U.S.A.

PREFIX

We suggest to carefully follow the instructions in this manual and to regularly follow procedures of maintenance, which will allow you to obtain a higher degree of reliability, safety and durability of the product.

- ❖ This manual contains several advises and precautions for safety. We urge you to read them carefully. In this way you will avoid danger, injuries and eventual damage to the machine.
- ❖ Exclusively trained personnel must do maintenance and repairs.

SAFETY RULES

The machine is provided with all devices of protection both mechanical (chain guard, shelters, etc.) and electrical (sensors, stops, etc.) in order to avoid any contact with moving parts by the operator.

It is absolutely prohibited for anyone to alter or remove any safety devices mentioned above with the power on!!

Any kind of verification, control, cleaning, maintenance, change or substitution of parts must be done with the power off and the main disconnect locked out.

The manufacturer declines any and every responsibility for lack of following safety rules and of injury prevention described below. He moreover declines every responsibility of damages caused by an improper use of the equipment or changes made without authorization. It is also necessary for personal safety that no one beside the operator remains in proximity of the equipment when in use.

General safety rules

When operating electric equipment, it is necessary to adopt the appropriate safety precautions to minimize the risk of electrical shock or injuries. Before operating the machine, read the manual carefully and memorize the following safety rules and save this booklet for future reference:

- ◆ Keep the work area clean and orderly, as unorganized work areas encourage accidents.
- ◆ Before starting, verify the condition of the machine. Check the standard operation and for broken and or damaged parts. Replace all broken or damaged parts by a competent and authorized service person.
- ◆ All repairs performed by unauthorized service personnel will void the warranty and will constitute operating the equipment in an unsafe manner leading to potential danger.
- ◆ It is absolutely prohibited to let children, outsiders, untrained, or people in poor health to touch or use this equipment.
- ◆ Verify that the electrical power source conforms to the electrical specifications before operating this machine.
- ◆ When installing the electrical power source, make sure that the machine is properly grounded.
- ◆ Check the outlet to be appropriate and compatible with the automatic protection switch in the machine.
- ◆ The extension cord if used must have a grounded receptacle, plug and cable as per code.
- ◆ Never stop the machine by disconnecting the power.
- ◆ Check periodically the condition of the cable and replace it should it become cut or frayed. This work is to be performed only by qualified personnel.
- ◆ Do not allow any personnel to come in contact with this cable.
- ◆ Do not ignore these advices. Such an act will constitute an unsafe use of this equipment and will create a potential danger.
- ◆ Personnel authorized by the manufacturer must make repairs.
- ◆ The manufacturer is available for immediate technical assistance to insure optimum performance and the maximum production of the machine.

Description

The CRL/Somaca SM5C Straight Line Glass Edging Machine is capable of producing a flat and seam edge with adjustable arris for different glass thickness. The grinding and polishing are finished in one operation. Precision motors allow for high quality edges. The SM5C machine is equipped with a mechanical stepless reducer for adjusting the conveyor speed.

Specification

- (1). Power source: 3-Phase, 60Hz, 220V or 3-Phase, 50 Hz, 380V
- (2). Total power: 11.3 kW, 15.1 HP 36 FLA 40 Amp Service
- (3). Glass processing range:
 - ①. Glass thickness: 3-12mm, 1/8- 1/2inch
 - ②. Min size: 100mm×100mm, 4x4inch
 - ③. Arris angle: 45°
 - ④. Max arris width: 2.5mm, 3/32inch
 - ⑤. Max grinding amount of flat edge: 2.5mm, 3/32inch
- (4). Height of input conveyor: 850mm, 33.5inch
- (5). Glass feeding speed: 0.5-3.0m/min, 20-120inch/min
- (6). Overall dimensions: 6000mm×1200mm×2500mm (Without water tank) 236"x47"x98"
- (7). Total weight: 2000kg, 4410lb
- (8). Feeding speed adjustment:

While the conveyor is moving, turn the hand-wheel of step-less reducer.

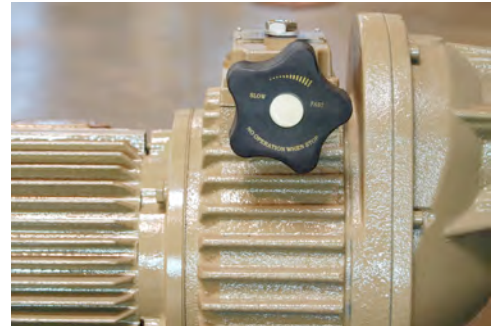
CAUTION: DO NOT TURN THE CONVEYOR SPEED KNOB UNLESS THE CONVEYOR IS MOVING.

- (9). Operating Mode: Continuous running and manual feeding.
- (10). Wheel specification: All spindles are equipped with cup wheels and AC motors.

- Pos.1 Diamond wheel Ø 150mm for flat edge (Fig.1)
- Pos.2 Resin wheel Ø 130mm front arris (Fig.2)
- Pos.3 Resin wheel Ø 130mm rear arris (Fig.2)
- Pos.4 Polishing wheel Ø 150mm,10S40 for flat edge (Fig.4)
- Pos.5 Cerium Polishing wheel Ø 150mm, CE3 for flat edge (Fig.4)

- (11). Grinding Motor Specification:

- Pos.1, 4, 5 Motors: 2.2kW, (3 HP) 2 Pole
- Pos.2, 3 Motors: 1.5kW, (2 HP) 2 Pole



1. Installation and Operation

(1). General construction (Fig.6)

The SM5C Straight Line Edging Machine consists of an Input Conveyor, Glass Support Rack, Main Machine, and Output Conveyor. It is important to set the machine up on a level surface or level it if setting up on an uneven surface.

(2). Lifting (Fig.7)

Two lifting rings are on the main machine and are the recommended way to lift the machine. Use wire cables and a crane to lift the main machine to the installation position. After positioning the main machine onto the feet (see below), remove the lifting rings. Install glass support rack, input and output conveyors and pull rods.

(3). Machine Installation and Leveling Adjustment

- Set up 6 Shock Absorber Feet as shown in the photo at right. Thread a square-head bolt into each foot until it touches the metal plate inside the foot.
- Lift the Main Machine Body and install 6 Foot Pad Assemblies. Add washers and nuts to each bolt but do not tighten them down yet.
- Place a level on the front conveyor guard. Raise the low side by turning the square bolt heads clockwise until the machine is level, side to side. Now adjust the rear feet to maintain a 5 degree tilt-back. This is the standard angle to keep glass secure on the conveyors. The machine is made with the 5 degree tilt built in. If the adjustment of the feet is not enough to get the machine level, insert flat metal shims between the foot and the machine.
- With the machine level, tighten the top nuts down securely while holding the square bolt head.
- Install the conveyors and assemble the feet onto the conveyor legs the same way the machine was set up. Use a level on each conveyor. The conveyor can be leveled further with its own adjusters. See Figure 10.



(4). Electrical Connection

- The power source box on the backside of the main machine is for connecting the power source. Use 3-phase, 4-wire cables to connect the power source, and make sure there is a good ground connection. Running the machine, check the conveyor running direction, in case the direction is opposite from the direction on the switch, change one pair of wire connections. Be sure the machine is wired according to local codes. You may want a licensed electrician to do the wiring for you.

Caution: Before machines are shipped, all motors are connected for correct rotation direction; do not change the motor connection at will.

Cooling System Connection

I . Power Connection: Plug the water pump into the front socket on the right side of the machine. There are two sockets. The water pump can draw power from either socket.

II .Water pipe connection (Fig.11)

Use the ¾” (19mm) inner diameter plastic tubing to connect the cooling pump to the Water Entrances. 2 adjustable water lines are directed at each of the 4 wheels.

Use 2.5” (63mm) inner diameter plastic hose to connect the drain water from the main machine to the outside water tank.

See figures 17 and 18 for a guide to positioning the coolant nozzles for best performance.

(5). Operating Panel (Fig.12)

1. Power Source Switch with Indicator Light
2. Grinding Motor Ampere Meters
3. Arris (Seam) Motor Ampere Meters (2)
4. Polish Motor Ampere Meters (2)
5. Motor Overload Indicator Light
6. Conveyor Ampere Meter
7. Voltage Meter
8. Main Electrical Disconnect Switch
9. Emergency Switches (2)
10. Conveyor Motor Switch
11. Conveyor Direction Switch
12. Polish Motor Switches (2)
13. Arris (Seam) Motor Switches (2)
14. Grind Motor Switch
15. Water Pump Switch

(6). Assembling the wheels (Fig13)

Fig.13 shows assembly structure of the wheels.



Spindle Motor Hand Wheel

(7). Operation

After machine installation, adjustment and connection, you can start grind set-up and testing.

Grinding wheel position adjustment

1. Turn the hand-wheels of all spindles counter-clockwise to move the wheels backward (away from glass). The grinding positions were adjusted before the machine was delivered. Turning the hand-wheel clockwise one full turn moves the wheel towards glass grinding position in 1mm increments. 1 full turn = 1 mm.

2. Turn on the Main Electrical Disconnect Switch (8) on the left side of the control panel. Voltmeter (7) indicates the power source voltage, check that the voltage is within specified range; turn on Power Source Switch with Indicator Light (1). All other power should be off.

3. Put a piece of glass that is long enough to occupy Pos.1-Pos.5 wheel on the input conveyor. Set the Conveyor Direction Switch (11) to the glass working direction (right to left), Activate Conveyor Transmission Switch (10), the glass should start moving. Stop Conveyor Transmission Switch (10) or Emergency Switch (9) when the front of the glass passes the Pos. 4 wheel.

4. Turn the hand-wheel of Pos.1-Pos.5 spindles clockwise to move the wheels toward the grinding position until the wheel touches the glass (manually turning the wheels during spindle adjustment will help you hear the wheel touch the glass). Record the indicator's position and then turn the hand-wheel of the spindles anti-clockwise to move the wheels away from the glass grinding position.

5. Restart Conveyor Transmission Switch (10), when the glass leaves the main machine to the output conveyor, stop Conveyor, Switch (10) or Emergency Switch (9).

6. Turn the hand-wheel of Pos.1-Pos.5 spindles clockwise to move the wheels towards the glass grinding position back to the above-mentioned adjustment position that you recorded.

Grinding Testing

1. Now all the wheels are at Zero grinding position. You can now adjust the wheel position according to the grinding amount desired. In normal operation, Pos.1 grinds about 1/32" of the flat-edge grinding amount. Always test with the Water Pumps running!

2. Adjust the arris wheels in so they grind the desired amount of seam. Generally keep this to a small amount of grinding.

3. Slowly adjust the No.4 polish wheel up to achieve the best quality polish.

4. Adjust the No. 5 polish wheel up to give the best final luster, start Water Pump Switch (15), check the coolant flow and start the Motor Switches (14), start Conveyor Transmission Switch (10).

5. Put the glass that was used for adjusting the wheel position on the input conveyor. Adjust the wheel grind position according to the indication on the Grinding Motor Ampere Meter (2).

Quantity grinding

1. After several test runs, all the wheels are in the best grinding position. Now you can start quantity grinding.

2. Add about 1/2 pound of synthetic diamond coolant (Cat No. 2651005) to the 45 gallon tank of clean water and start Water Pumps, Switch (15), and check that the coolant is flowing to the wheels. Start the Motors (Switches 12-13-14), start Conveyor Transmission Switch (10). Adjust the transmission speed according to the glass thickness and grinding amount. Put the glass on the input conveyor.

3. Watch the indication on the Grinding Motor Ampere Meter (2) and make up the loss of wheels if it is necessary especially on the polishing wheel. Lower Amp readings indicate less contact with the wheel and therefore the wheel can be adjusted closer to the glass.

Caution: When changing glass thickness, back off the front arris spindle, #2, and slowly dial in the amount of arris to be ground. This should match the rear arris grind, which should not have to be changed when glass thickness changes.

Maintenance

- (1). Check the electrical ground connection to guarantee safe operation before working everyday.
- (2). After working everyday, sweep away broken glass pieces and glass grind from the water tank then wash it and check the coolant pipeline for blockage. Clean the machine, use light oil on exposed or unpainted areas. Lubricate the slide plate of the spindles and front conveyor with light machine oil.
- (3). Use special step-less reducer lubrication oil (Mobil SHC 630 Synthetic) to lubricate the mechanical step-less reducer. Change this oil every 1,000 operating hours. The oil level should show on the oil gauge to avoid high oil temperature. Add grease to lubricate bearings and gears of the step-less reducer every 3,000 operating hours. Use Mobil #350 oil in the worm gear box and change it every 1,000 operating hour. Oil level should be at the middle of the oil gauge or have the box $\frac{1}{2}$ full.
- (4). Grease the bearings, gears and sprockets of the right and left gearbox every 3 or 4 months of operating.
- (5). Change the water in the coolant tank periodically. Too much glass powder will block the pipeline and pump, and affect the grinding quality, shortening wheel life.
- (6). The machine is equipped with a Central Lubrication System for the pad slideway. It is located on the lower right front corner of the machine base. Fill this reservoir with 10 wt. light oil and, after the plastic lines have filled with oil, pump the handle 5-8 times slowly while the machine is running. This will keep the pad slideway lubricated. Be sure to get oil onto the entire length of the conveyor as it passes the oil tube. Perform this task every 2 weeks and vary the oiling as needed due to high production or less use. The chain links will benefit from having grease applied to them with a small brush. Remove the guards and operate the conveyor slowly while carefully brushing grease on the links as they pass along the chain sprocket on the end on the conveyor.
- (7). Check the front and rear conveyor pads periodically, when most of the conveyor pads have worn seriously, all should be changed.
- (8). Check the wearable plates of the slideway periodically; change them when most of them have worn seriously.

Electronic System

- (1). Main electrical circuit drawing (Fig.15), page 12
- (2). Control circuit drawing (Fig.16), page 13

Packing List

Packing List of SM5C Straight Line Edger				
Main Machine, Fitting Parts and Accessories				
No.	Item	Description	Qty	Remark
01	SE5M-00	Main Machine	1	
02	SE5M-F1	Input Conveyor	1	With wooden, gear etc
03	SE5M-F2	Output Conveyor	1	With wooden, gear etc
04	38.1-XH4289.425+2mm PU	Timing Belt	2	
05	SE5M-F10	Pull Rod	2	
06	SE5M-F11	Middle Pillar	2	
07	SE5M-F12	Rack Pillar	2	
08	2145mm	Roller Strip	4	
09	1220mm	Roller Strip	4	
10	2230mm	Roller Strip	4	
11	1790mm	Roller Strip	2	
12	1710mm	Roller Strip	1	
13	1915mm	Roller Strip	2	
14	1835mm	Roller Strip	1	
15	SE5M-S1	Water Tank	1	
16	DB100, 250W	Water Pump	1	
17	M16, □120	Shock Proof Pad	10	
18	Inner Diameter 63mm	Plastic Pipe	1	6 Meter
19	Inner Diameter 19mm	Plastic Pipe	1	5 Meter
20	JQ-25-L1	Pipe Fixer	6	

Tool Box List

Tools				
No.	Item	Description	Qty	Remark
01		Tool Box	1	
02	S=10,14,17,19,24	Sockets	Each 1	
03	250mm	Ratchet Handle	1	
04	250mm	Long Extension	1	
05	125mm	Short Extension	1	
06	S=10,14,17,19,24	Combo Wrenches	Each 1	
07	6", 12"	Adjustable Wrenches	Each 1	
08	S=3, 4, 5, 6, 8, 10	Hex Key/Allen	Each 1	10MM for wheels
09	75x5, 150x8	Screwdriver	Each 1	
10		Oil Gun	Each 1	

Replacement Parts and Wheels for SM5C

UNIT	CAT. NO.	DESCRIPTION
1	47013250	REAR PAD RUBBER
1	47013251	REAR PAD BASE
1	47013252	REAR PAD WITH GLUE ON
1	47013253	FRONT PAD RUBBER
1	47013254	FRONT PAD BASE
1	47013255	TIMING BELT
1	47013256	MOTOR, GRIND/POLISH 2.2KW, 2840 RPM
1	47013257	MOTOR, ARRIS 1.5KW, 2840 RPM
1	47013258	MOTOR, POLISH #5 ONLY 1.5KW, 1400 RPM
1	47013259	SPINDLE WHEEL SUPPORT 130 MM
1	47013260	SPINDLE WHEEL SUPPORT 150 MM
1 SET	47013261	WATERPROOF BELLOWS, O-RINGS, SLINGER
1	47013262	WATER NOZZLE
1	47013263	WATER CONTAINMENT BRUSH 1350 X 85MM -SM5C
1	47013264	WATER CONTAINMENT BRUSH 1150 X 85MM -SM4C
1	47013265	WATER DIVIDER GATE 165 X 85MM
1	47013266	WATER PUMP, 220V -60HZ
1	47013267	AMP GUAGE
1	47013268	AC CONTACTOR 6A
1	47013269	AC CONTACTOR 9A
1	47013270	AUXILIARY CONTACTOR
1	47013271	OVERLOAD RELAY (3US5040-1J)
1	47013272	OVERLOAD RELAY, 1.0-1.6A
1	47013273	OVERLOAD RELAY, 4.0-6.3A
1	47013274	FUSE -6A
1	47013275	INDICATOR LAMP, G23
1	47013276	BUTTON(SWITCH), E-STOP
1	47013277	BUTTON(SWITCH), SELF LOCK, CONVEYOR, FRWD/REV
1	47013278	BUTTON(SWITCH), POWER, START/STOP
1	47013279	BUTTON(SWITCH), POWER, ON/OFF, MOTOR

SM5C WHEELS

GRIT	CAT. NO.	DESCRIPTION	DIMENSIONS	POS.
150	39942002	FLAT EDGE CUP DIAMOND	150X50MM	POS 1
180	39942101	ARRIS RESIN DIAMOND	130X50MM	POS 2
180	39942101	ARRIS RESIN DIAMOND	130X50MM	POS 3
40	39942403	POLISHING WHEEL	150X70MM	POS 4
CE	39942402	POLISHING WHEEL	150X70MM	POS 5



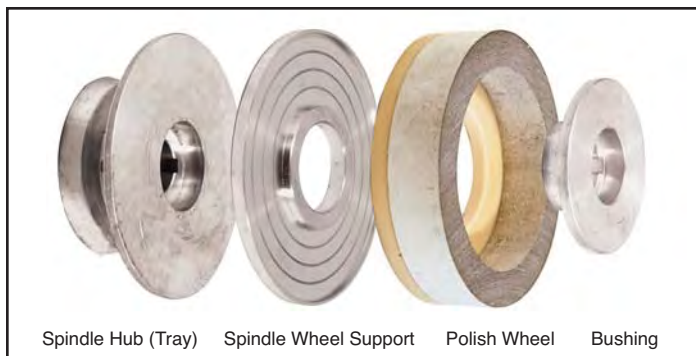
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39942101



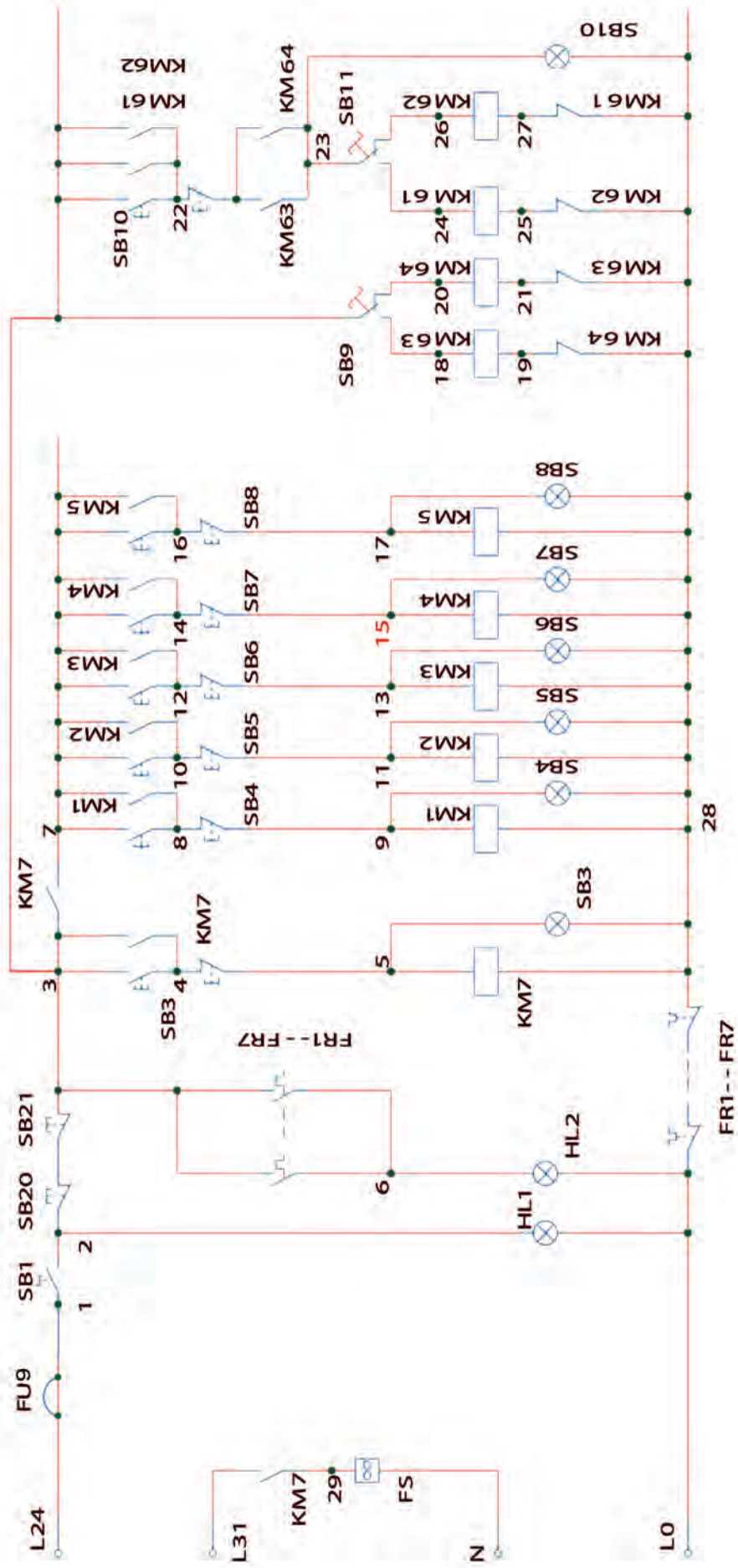
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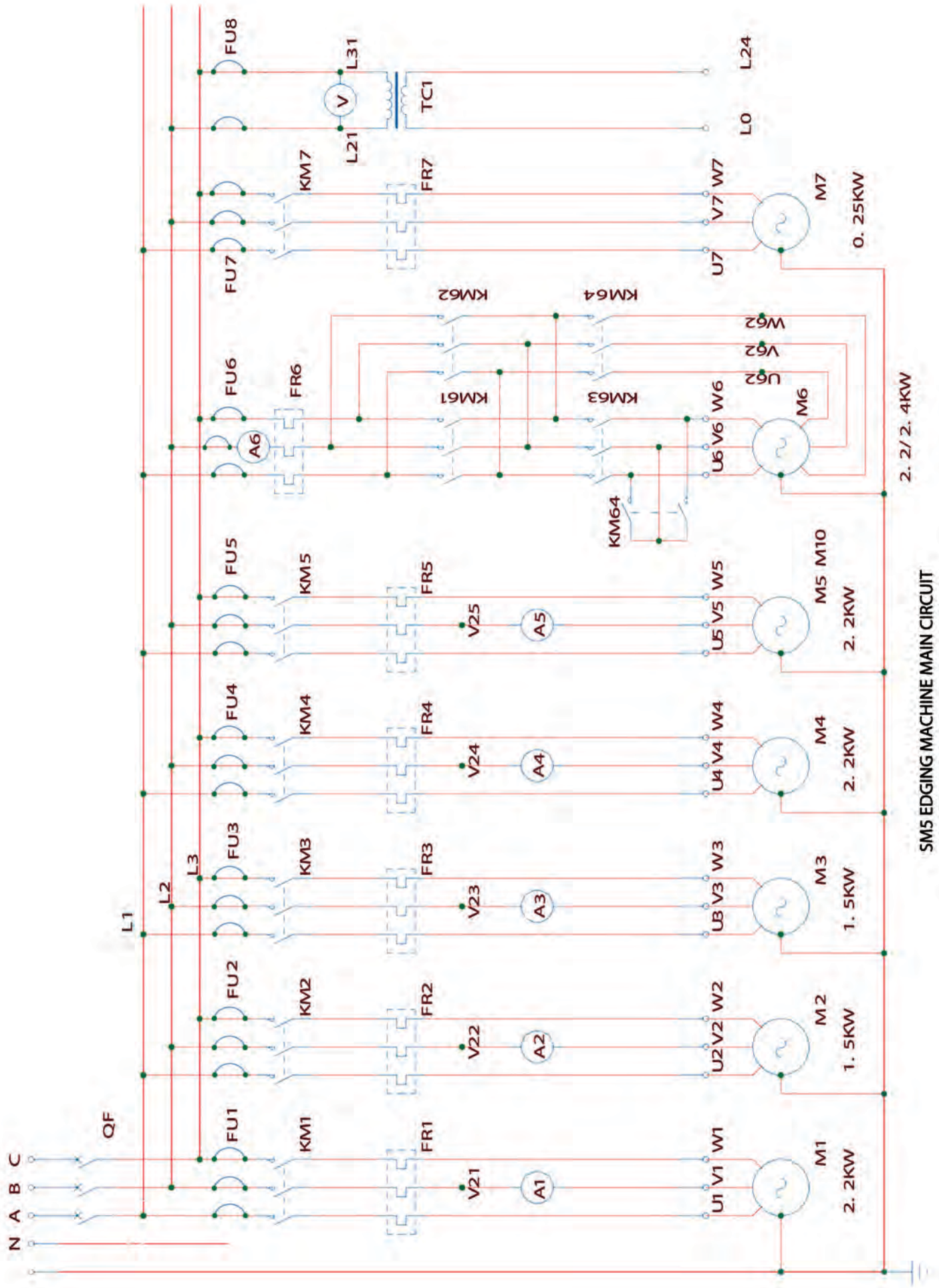
POLISH WHEEL ASSEMBLY ARRANGEMENT



39942402



SM5 EDGING MACHINE CONTROL CIRCUIT



SM5 EDGING MACHINE MAIN CIRCUIT

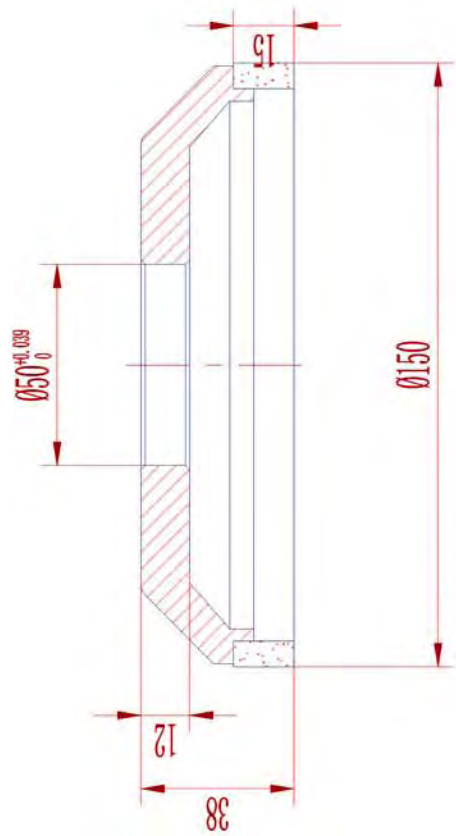


Fig.1 Diamond for Flat Edge

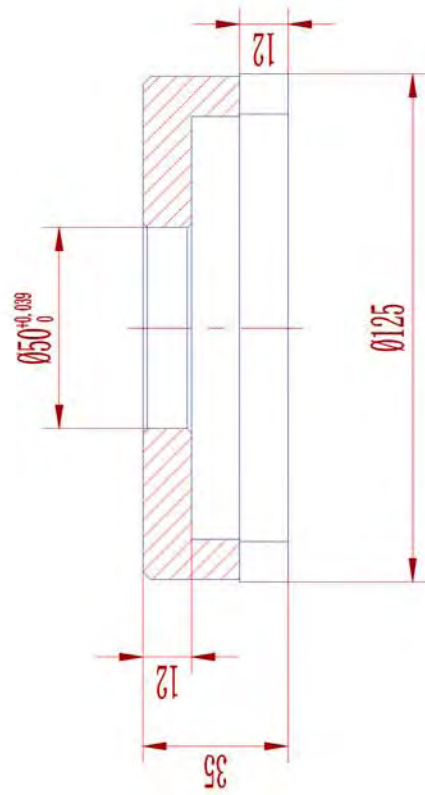


Fig.2 Diamond for Arris

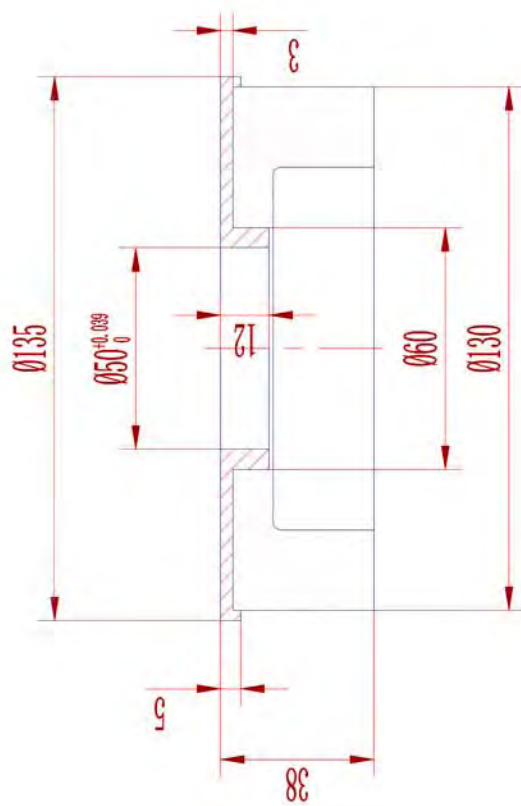


Fig.3 Polishing Wheels for Arris (10S 40)

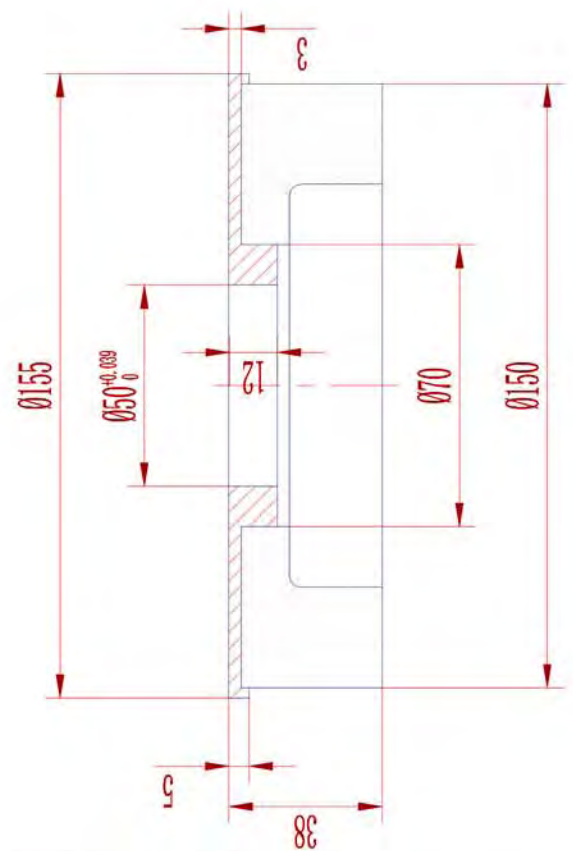
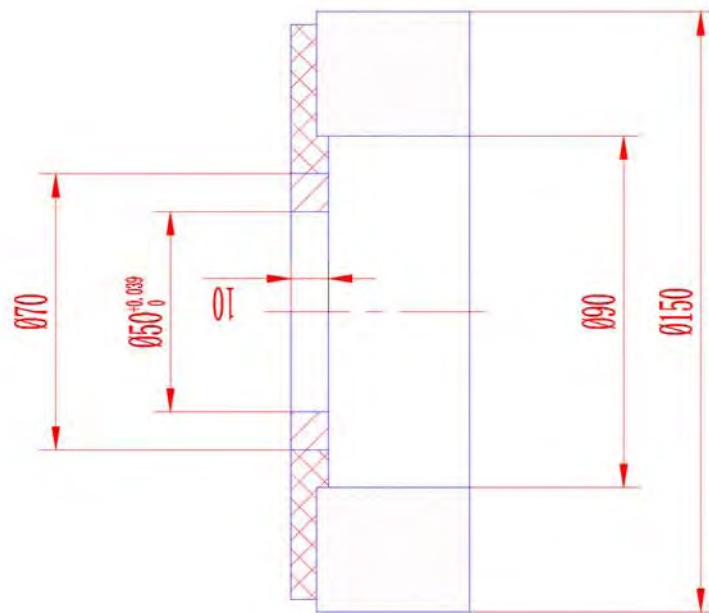


Fig.4 Polishing Wheels for Flat Edge (10S40 or BK46)



Polishing Wheels for Flat Edge (CE3)

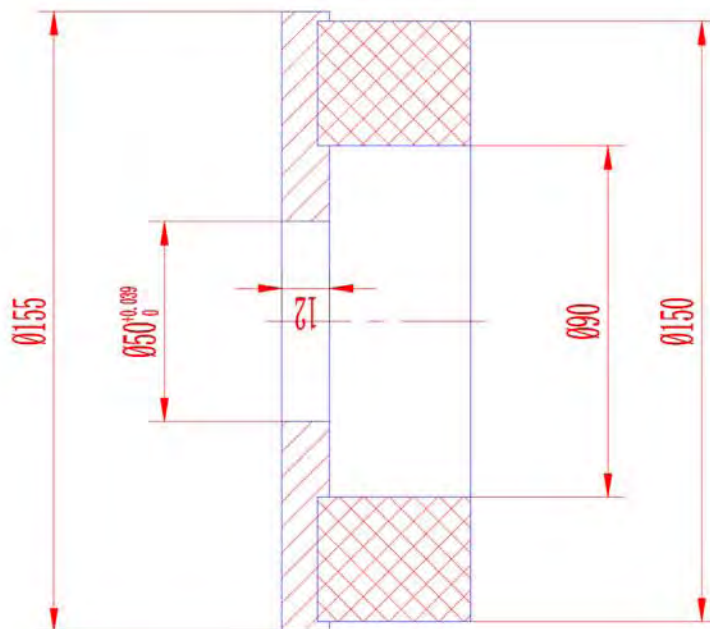
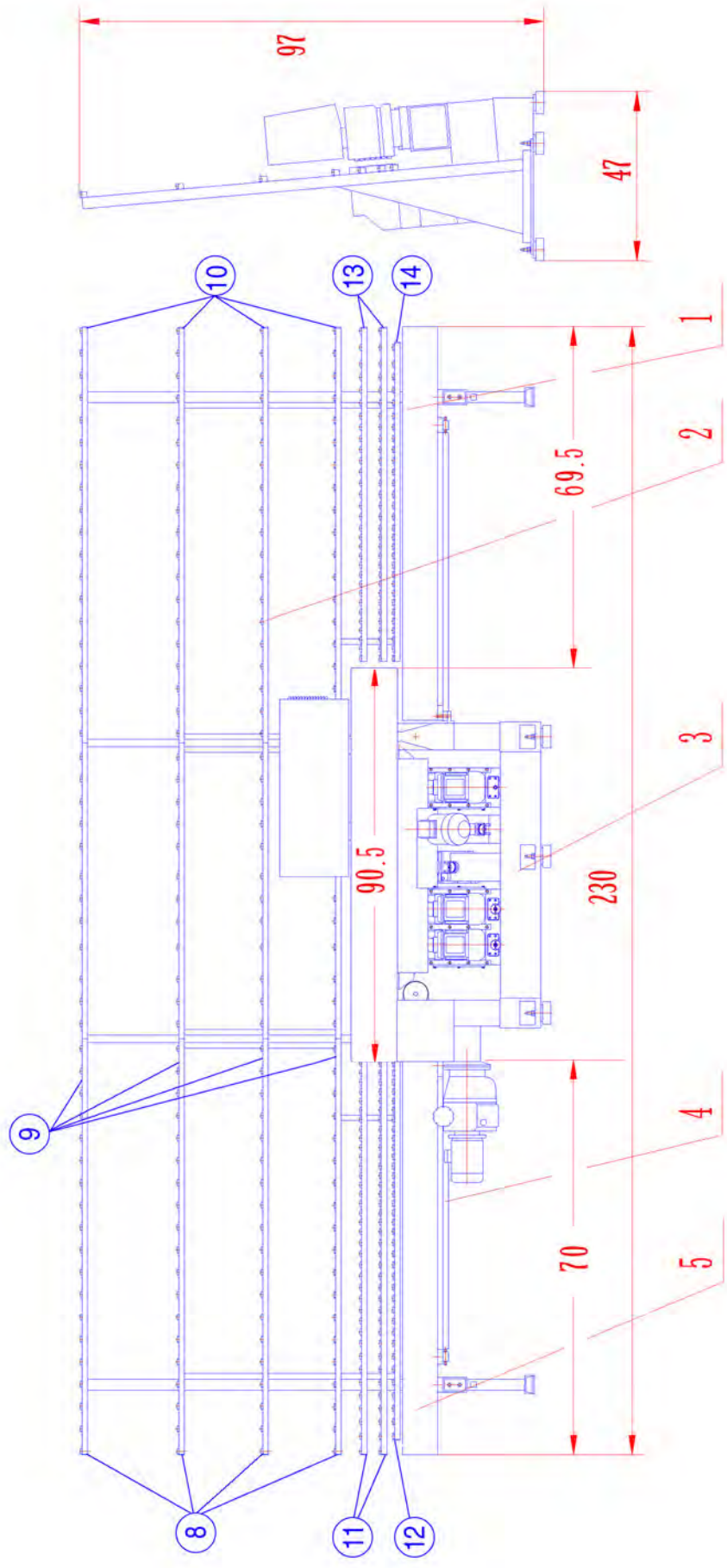


Fig. 5 Polishing Wheels for Flat Edge (Felt)



1. Input Conveyor; 2. Glass Support Rack; 3. Main Machine; 4. Pull Rod; 5. Output Conveyor

Fig.6 General Structure

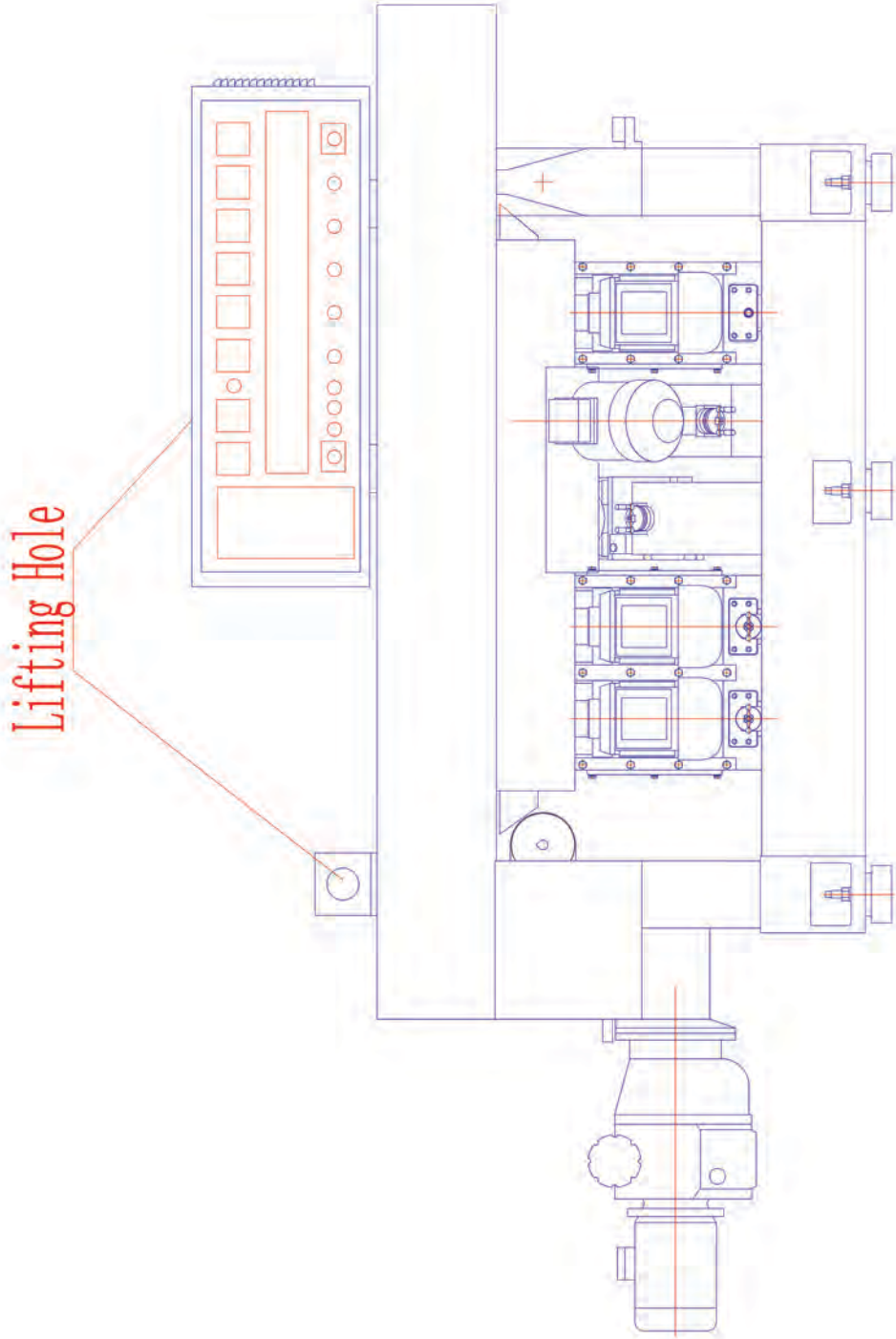
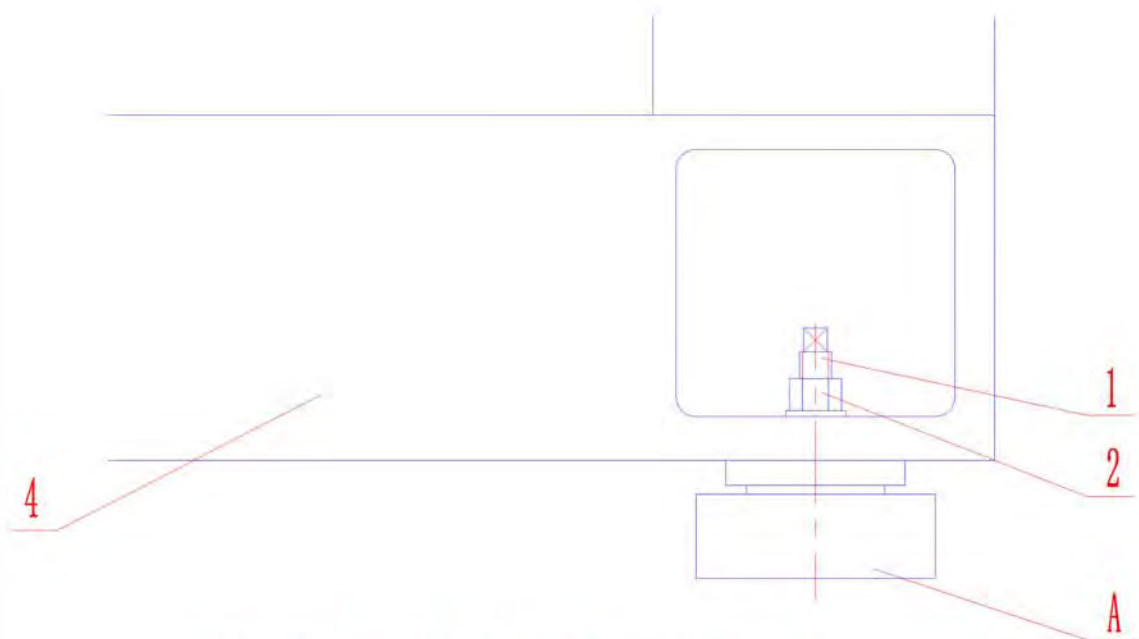
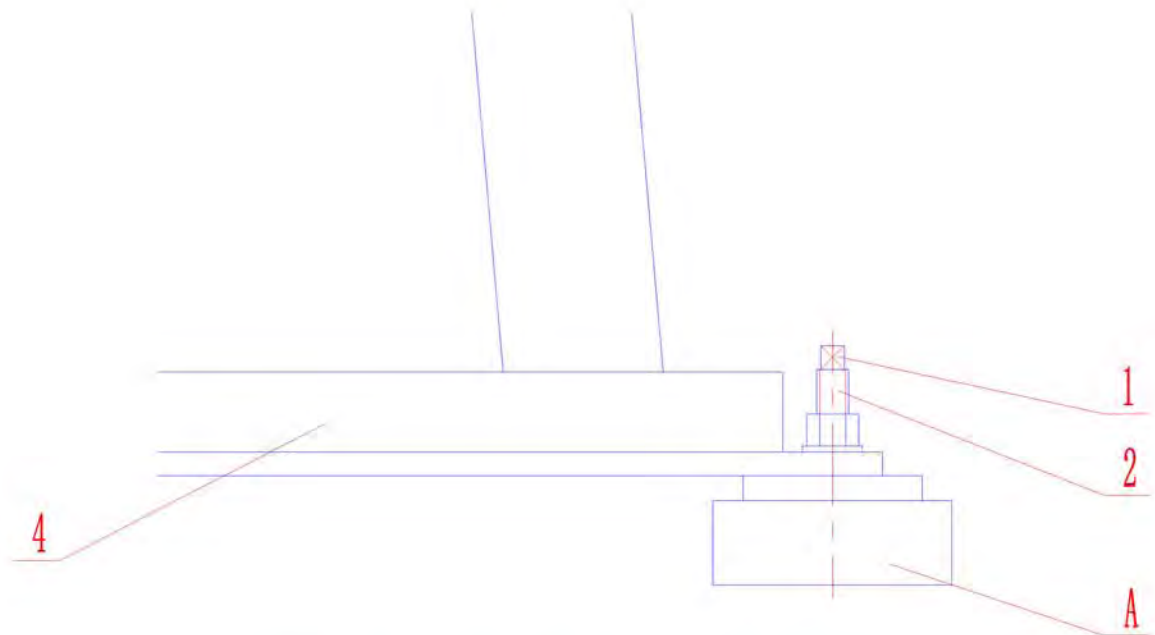


Fig. 7 MACHINE LIFTING



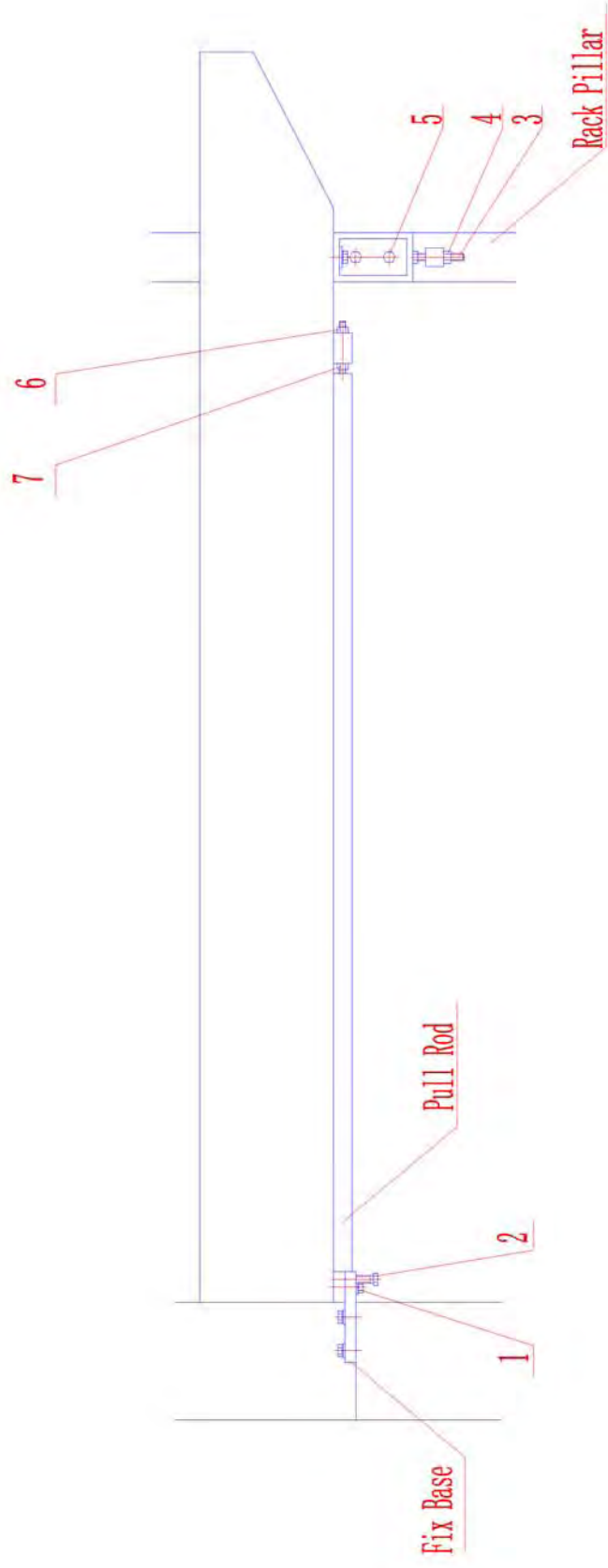
1. Bolt; 2. Nut; 3. Shack Proof Pads; 4. Main Machine

Fig.8 Main Machine Horizontal Adjustment



1. Bolt; 2. Nut; 3. Shack Proof Pads; 4. Rack Pillar

Fig.9 Glass Support Rack Horizontal Adjustment



1, Bolt 1; 2, Bolt 2; 3, Bolt 3; 4, Nut 4; 5, Bolt 5; 6, Nut 1; 7, Nut 2

Fig. 10 Input and Output Conveyor Horizontal Adjustment

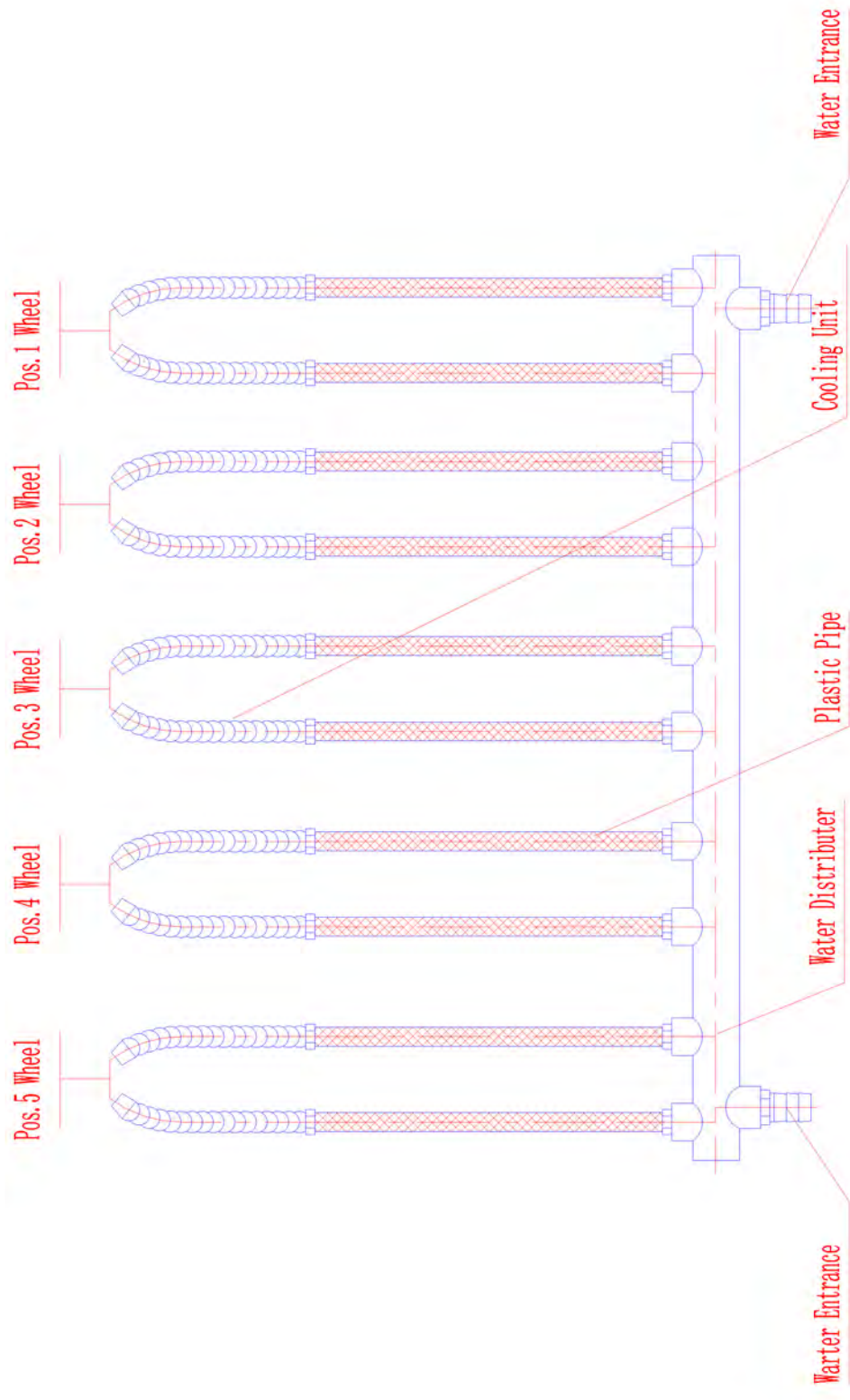


Fig. 11 Water cooling system

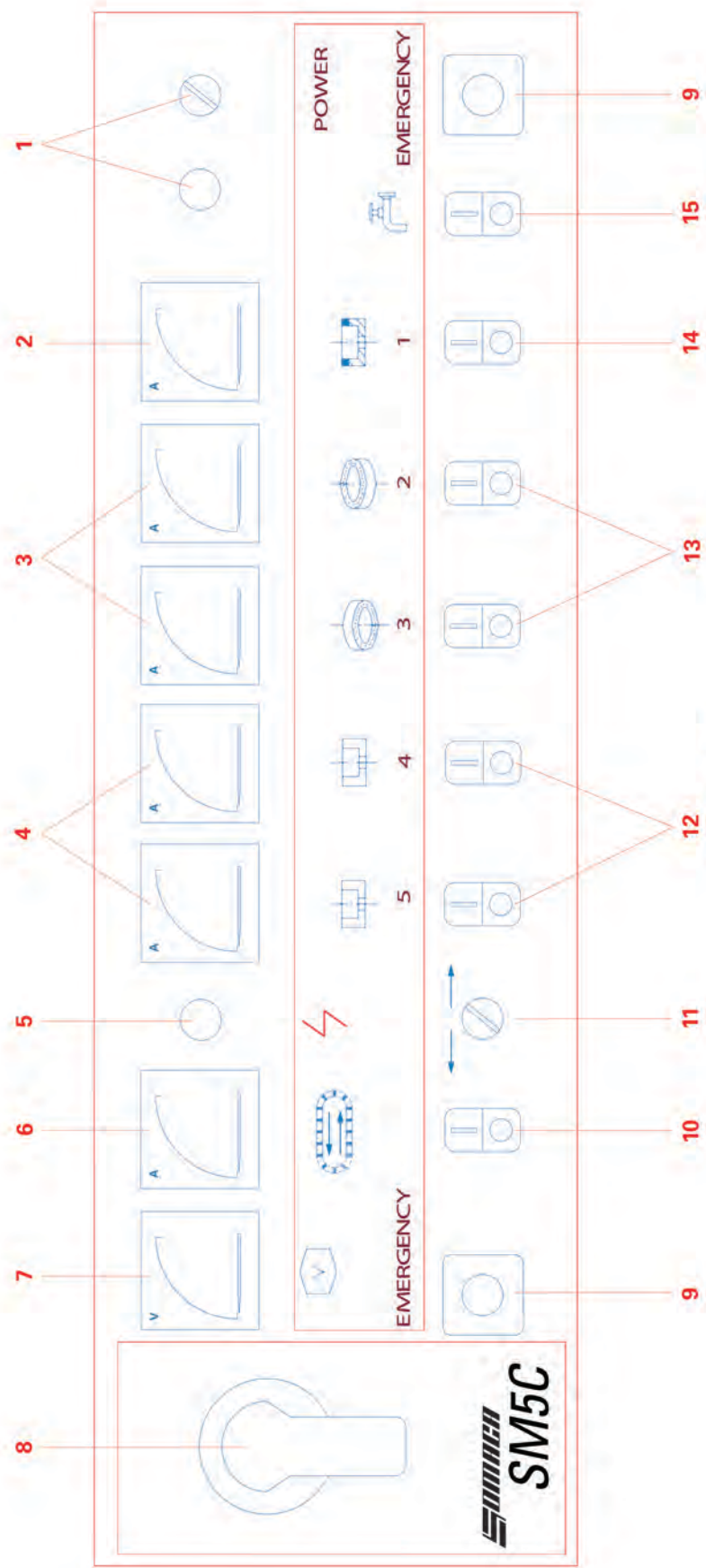
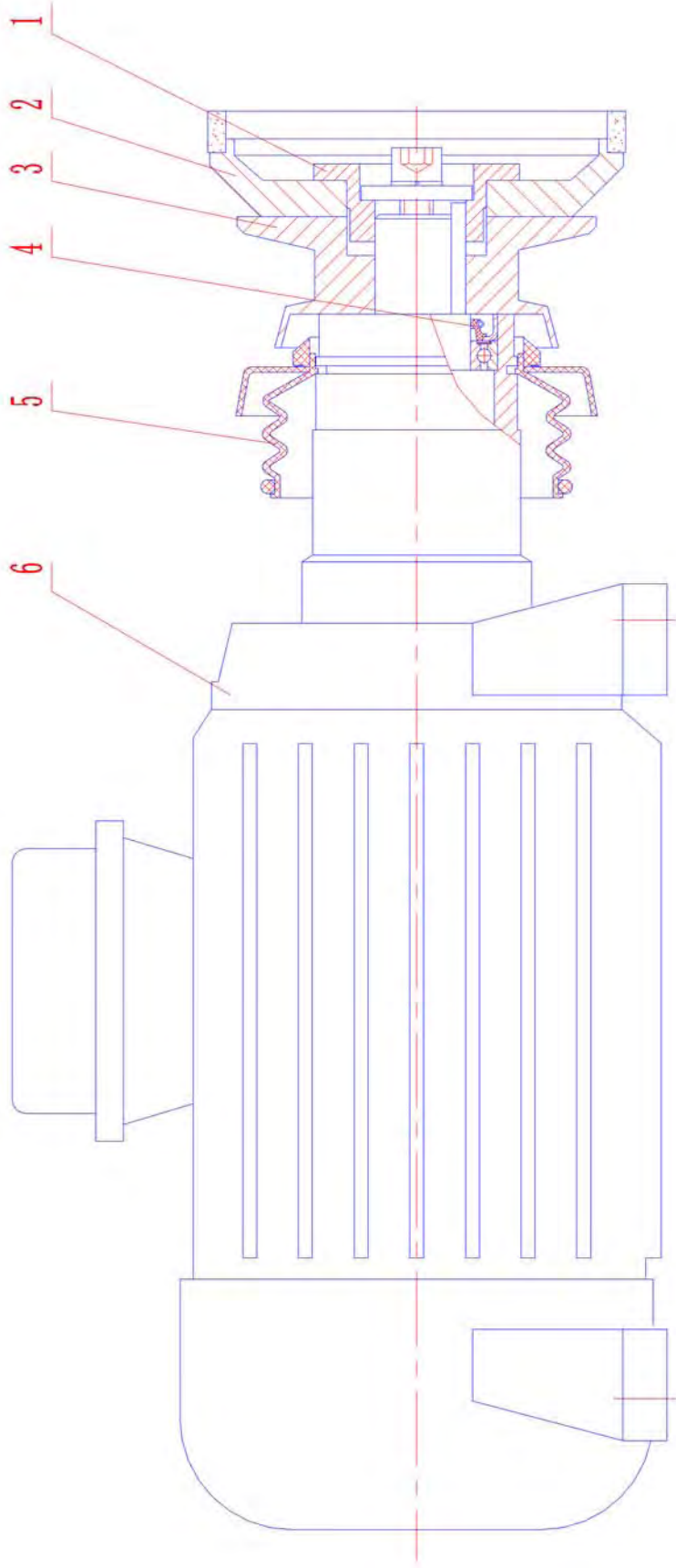


Figure 12



1. Bushing; 2. Wheel; 3. Tray; 4. Bone oil seal; 5. Waterproof; 6. Motor

Fig.13 Structure of Spindle

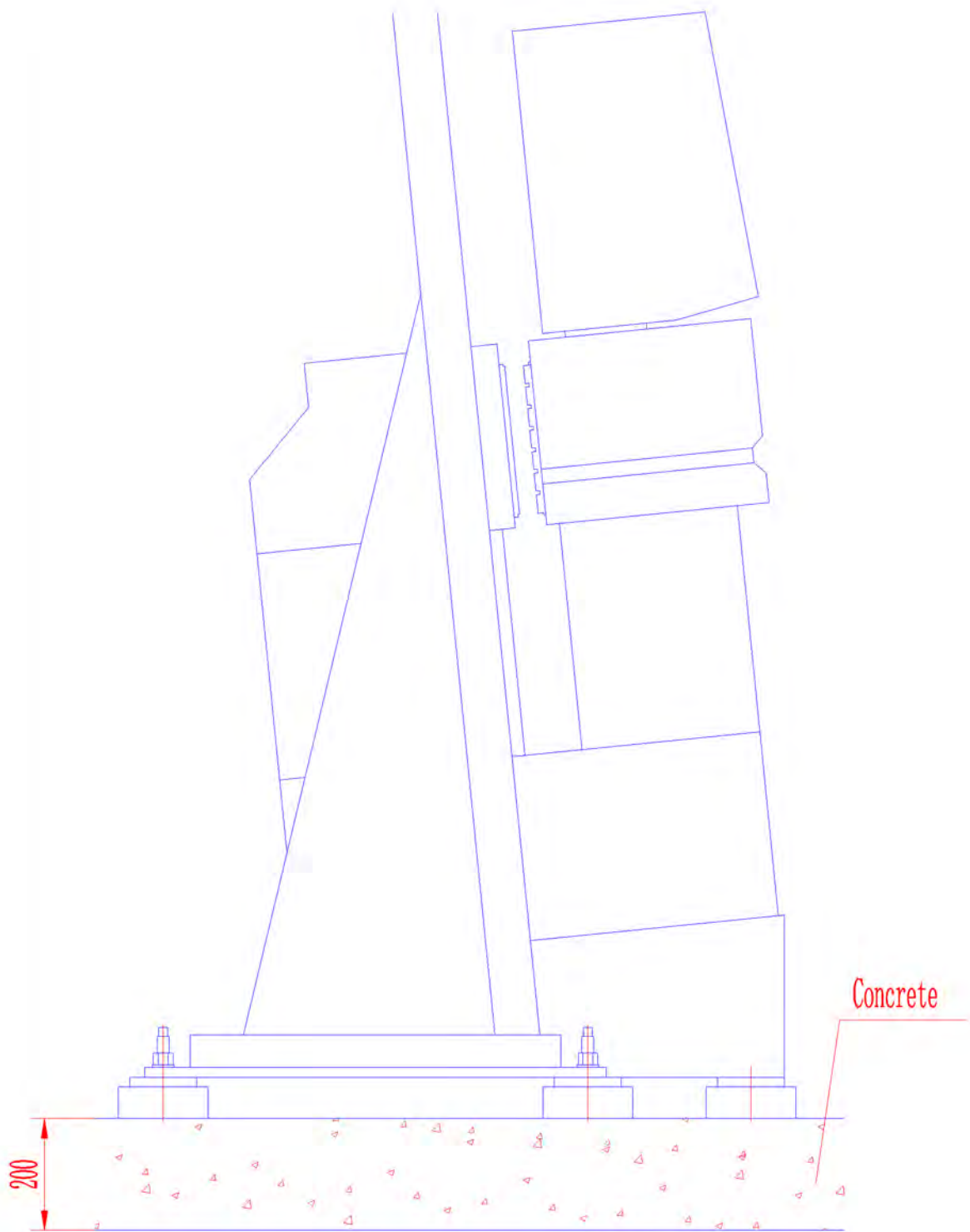


Fig. 14 Installation

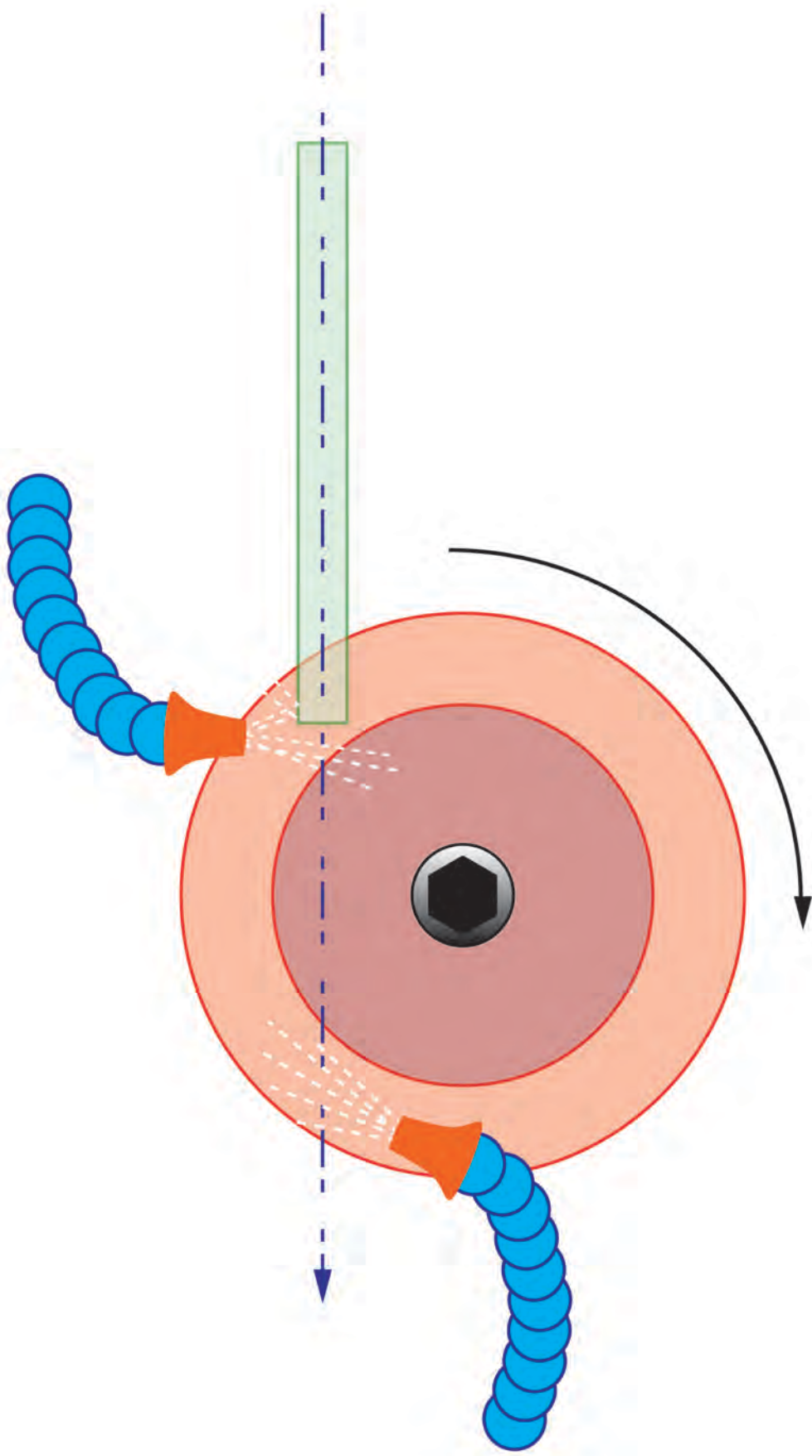


FIGURE 17 (viewed from above)
COOLANT NOZZLE POSITIONS
FOR WHEELS NO. 1 GRIND, NO. 4 and NO. 5 POLISH

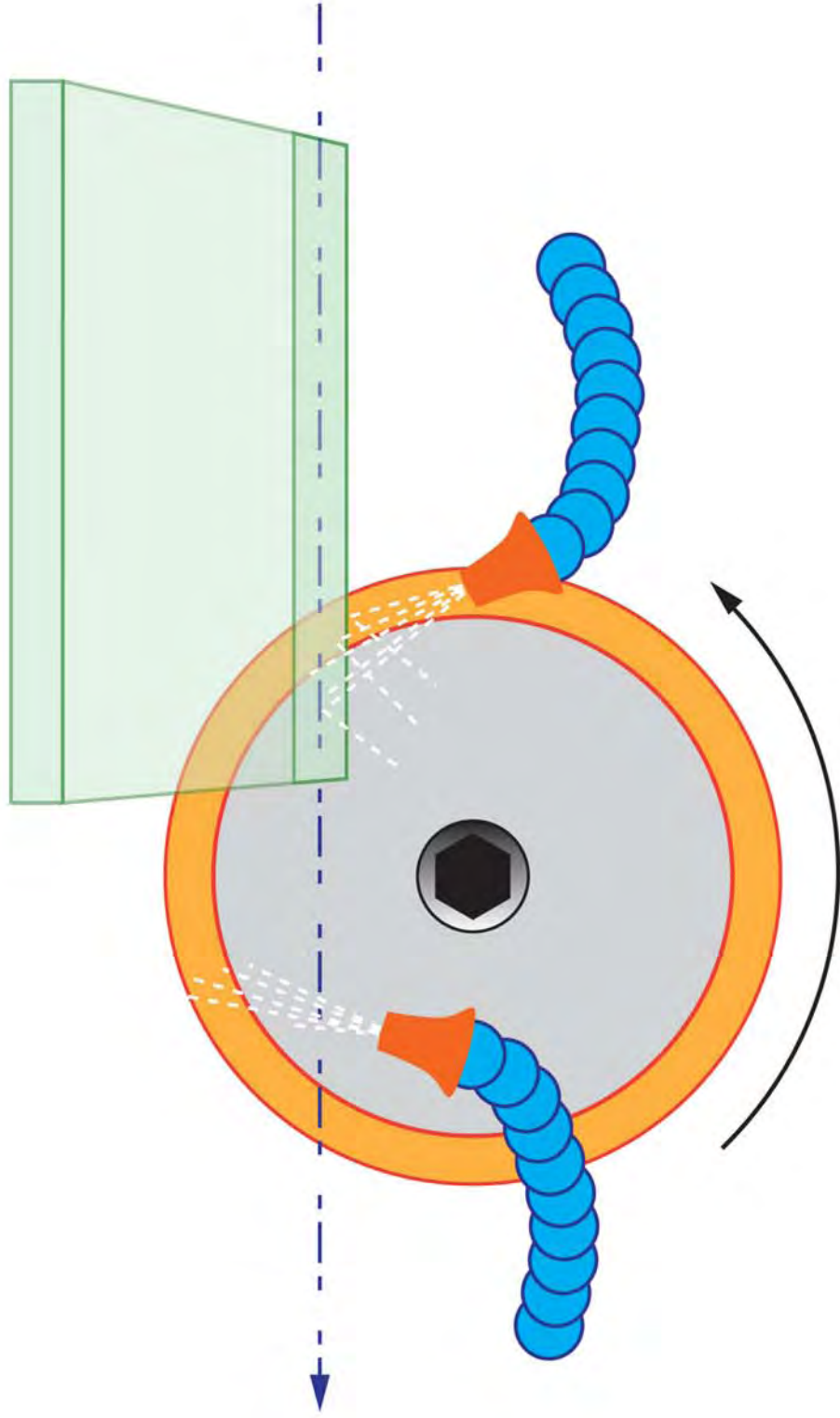


FIGURE 18 (viewed from above)
COOLANT NOZZLE POSITIONS
FOR ARRIS WHEELS NO. 2 AND NO. 3



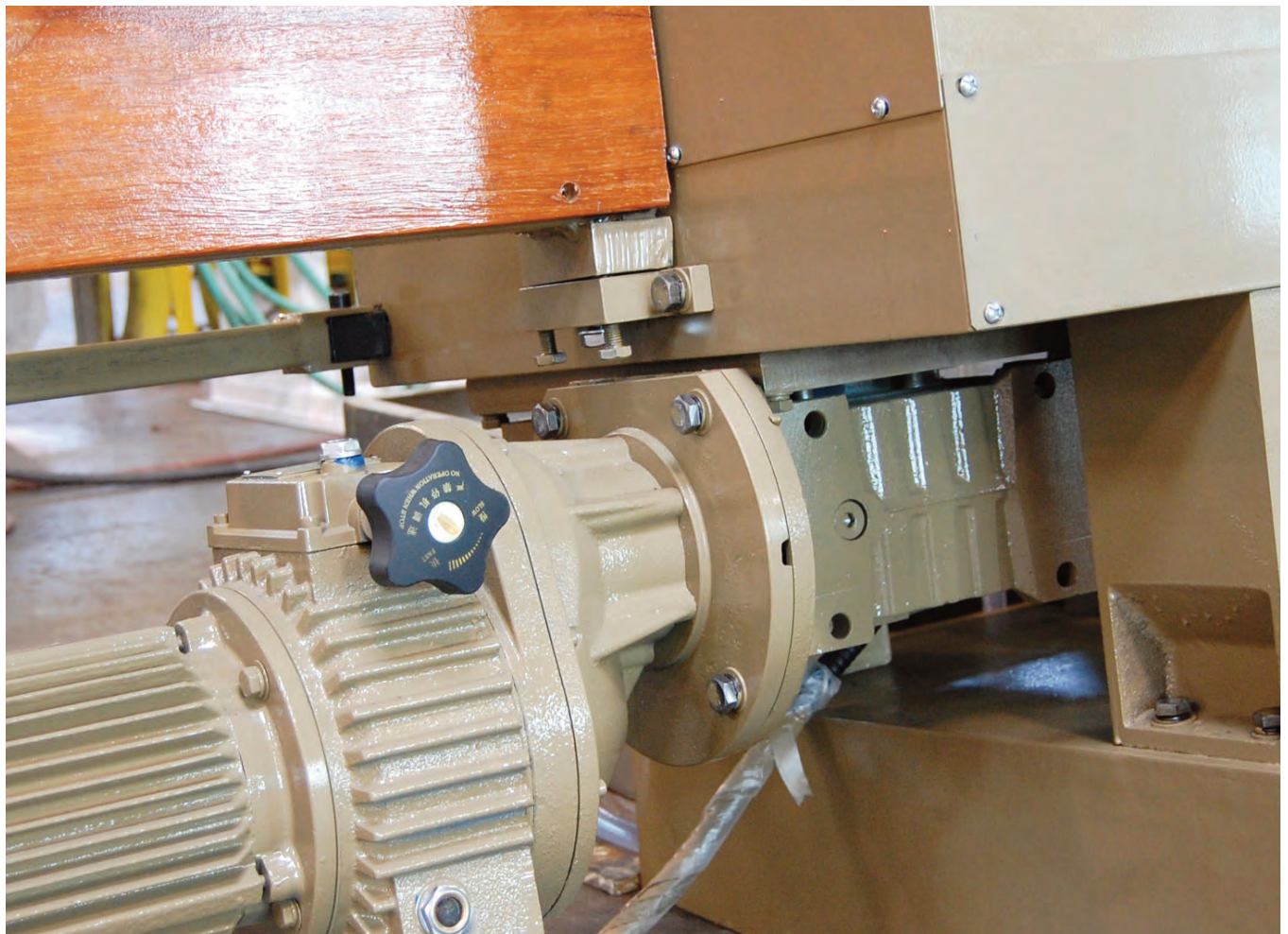
SM5C Assembly Details

Annex to User Manual

The following assembly details will be of help when assembling the SM5C

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Some construction details may have changed since the photos were taken but the assembly method should be the same.



Read the Manual for the Machine Before Following These Steps to Assemble the SM5C

SM5C ASSEMBLY STEPS

Start by moving the main base of the machine off of the skid and into the location where it will be used. This will be easiest with a fork lift or overhead crane. Lifting hooks are attached to the top of the machine. A level location is important.

Level the base of the machine with 6 of the shock absorbing feet provided. Refer to the main manual for installation of these. (Page 6, section 1, item 3)

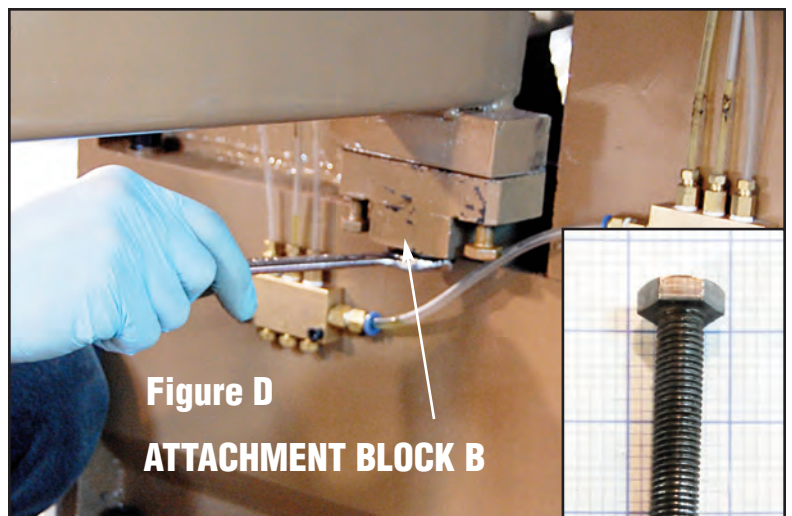
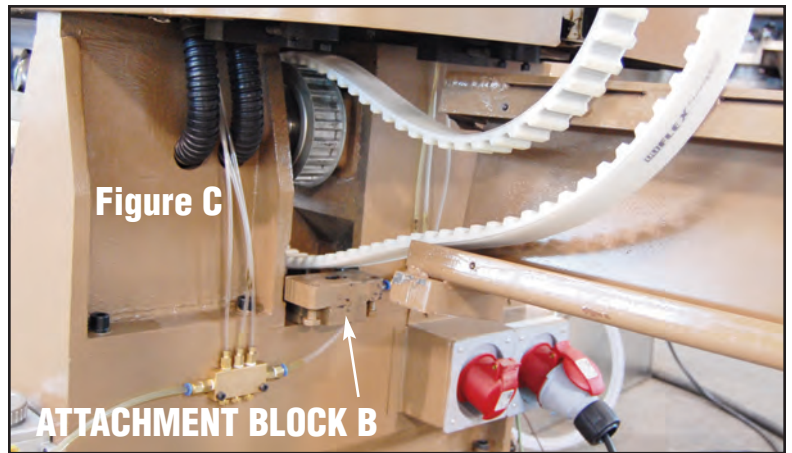
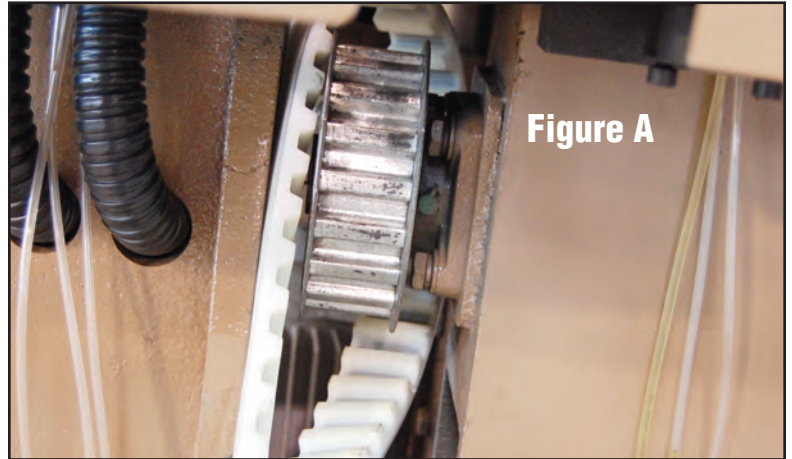
Locate the 2 white timing belts and feed them into the timing pulleys as shown. The belts will have to be put in “on-edge” to get them around the front of the pulleys. Figure A.

Locate the right and left glass conveyors and their upright supports. Each conveyor is the same length, 83” (2108 mm). A black rubber roller is at the outside end of each conveyor. Remove the wooden conveyor covers.

The vertical supports are the same for either side of the machine. They will require two shock absorber feet each.

Support the outside end of the **ingoing** conveyor with a stand or jack and set the inside end on the attachment block (B). Keep the belt up out of the way, with the lower belt section fitting into the bottom of the conveyor channel as shown. (Figure C). Secure the ingoing conveyor with the long bolt (Figure D and E).

Place a vertical support under the outside end of the conveyor. Secure it with the long bolt and thick flat washer. Figure F and G. (next page)



Hardware is shown on a 1" (25 mm) grid with 1/8" (3.1 mm) divisions.

The **outgoing**, inner conveyor bolt is in the block on the machine. It can't be removed due to interference with the motor and transmission flange. Figure H. Fit the outgoing conveyor just as you did the ingoing side.

The Pull Rods that keep the conveyors aligned are unequal lengths.

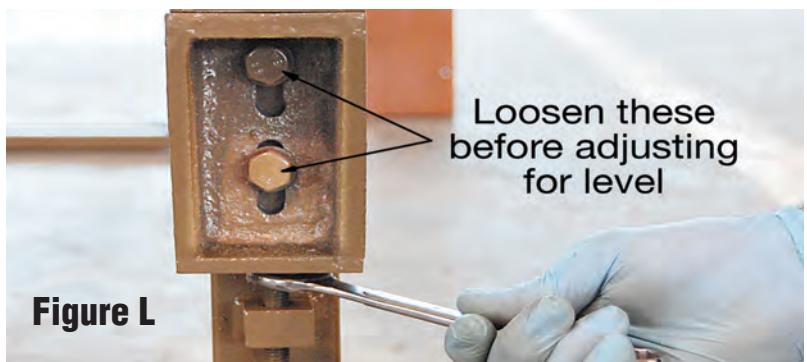
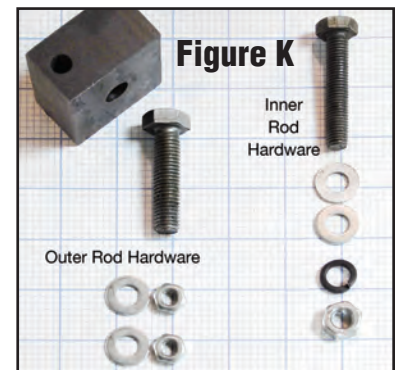
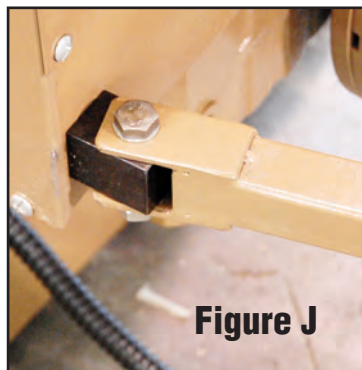
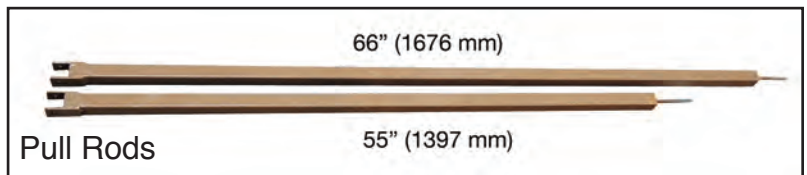
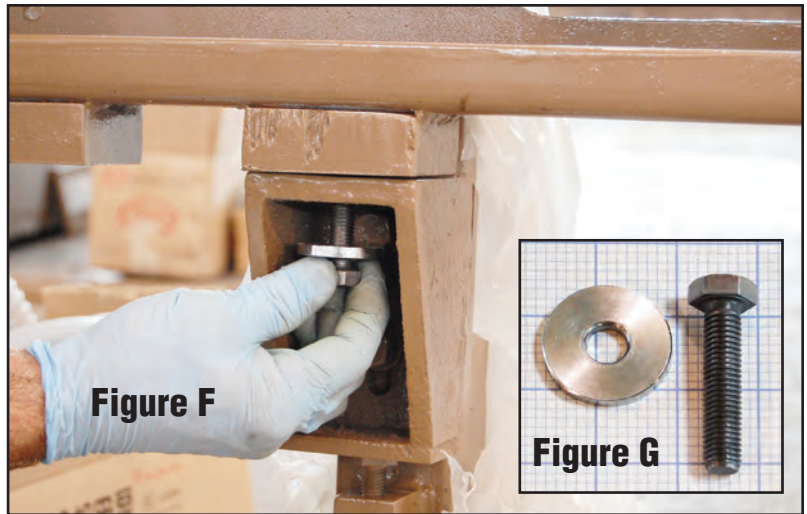
- Ingoing (R) side rod is 66" (1676 mm)
- Outgoing (L) side rod is 55" (1397 mm)

Fit the rods with the hardware and blocks shown in Figures J and K. Before tightening the rods, be sure the conveyors are perpendicular to the machine so glass will run straight into and out of the machine.

Level the conveyors with the outer bolts as shown in figure L. Also see Figure 10 in the manual. Now the Pull Rods can be hand tightened.

Install the timing belts over the outer pulleys and adjust the tension as shown in Figure M (next page). Be sure the belt is centered in the pulley and not riding on the edge. The belt should be tight enough that it is flat along the top run. About 1/2" (13mm) of clearance at the center of the belt run is normal. Figure N (next page). Tighten the axle nuts on the outside pulleys. Figure M

The wooden conveyor covers can be refitted now. Use the black Allen socket head bolts.



Remove the lifting hooks and fit the glass rack uprights with the same bolts. Fit the 4 short glass rack supports as shown in figure P on the back side of the conveyors, two per side. The black allen socket head bolts are for alignment. Locate the 6 lower glass rails. There is a blue wedge end inserted into one end of each rail. Figure R. The blue wedge ends face into the main conveyor of the machine. The lower rails are somewhat adjustable side to side.

3 rails for ingoing (right) side:
 1-73" (1854 mm) top or middle
 1-75" (1905 mm) top or middle
 1-70" (1778 mm) bottom

3 rails for outgoing (left) side:
 2-78" (1981 mm) top or middle
 1-73" (1854 mm) bottom

Attachment bolts will need to be slid into the tracks on the back side. Place 2 of the 3-1/8" (79 mm) plated bolts (Figure S) in each lower rail.

The 12 upper glass rails can now be installed. Each will require 2 plated 5/8" (16 mm) bolts to be inserted. There are 3 different length rails. Refer to Figure T for position. There are 4 of each length.

Attach each upper rail from the back by using angle brackets and a through bolt with washer and nut. Figures U and V.

Sight down the glass rails and check for conveyor alignment.

Check the machine and conveyors for level and tighten all bolts and fasteners.

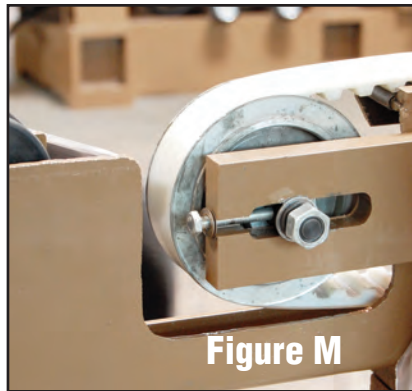


Figure M

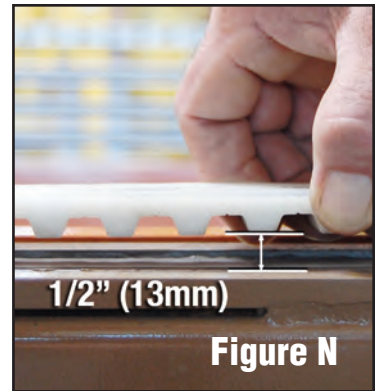


Figure N

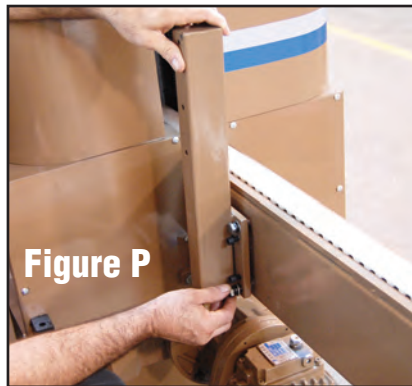


Figure P



Figure R

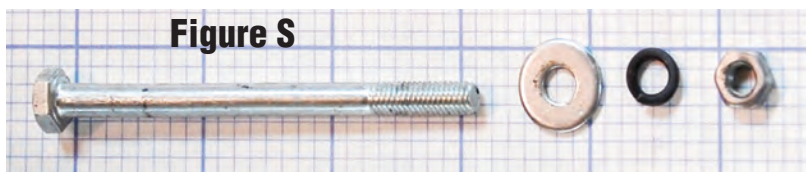


Figure S

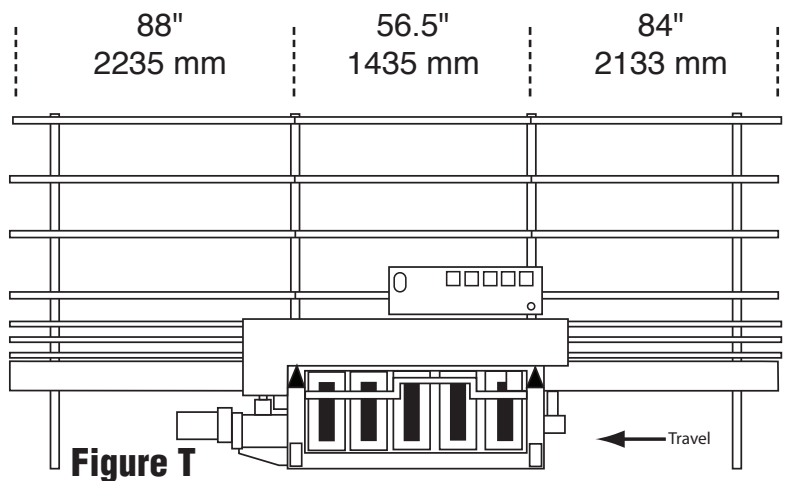


Figure T

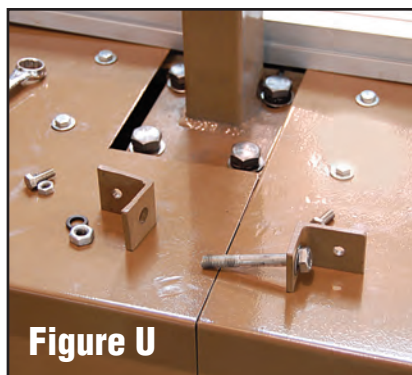


Figure U

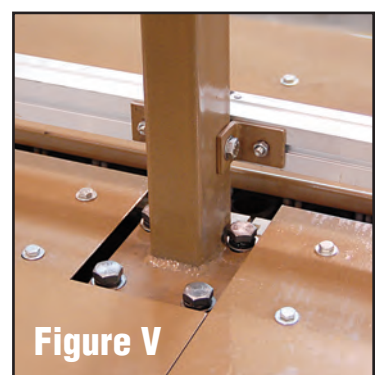


Figure V

Place the coolant tank under the Right Side, In-going conveyor. Figures W1, W2

Place the coolant pump into the tank and connect the coolant supply hoses to the coolant manifold on the back of the machine, Figure W3. Attach the white PVC drain pipe to the back of the machine with the large Tie-Wraps, Figure W3, and connect the gray drain hoses to it. Figures W1, W2

Plug the coolant pump power cable into the socket on the side of the machine near the power connection box. Figure Y.

Refer to page 6, section 1, item 4, in the manual and connect power to the machine. 3 Phase, 60 Hz, 230V AC - US version.

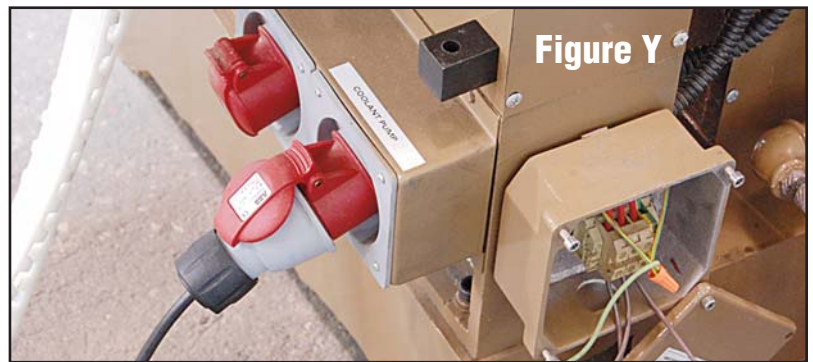
You may want to have an electrician do this work for you.

After connecting the power supply, have the electrician check for proper voltage indicated on the Volt Meter on the control panel and check the operation of the coolant pump as follows:

Be sure the coolant pump lines and drains are connected and the coolant tank is full.

Turn on the machine power and run the pump (only) for a few seconds and check for water at the wheels. A good supply of water spray should be visible.

If no water is pumped to the wheels, the pump may be running backwards and the supply wiring may need to be reversed.



General Maintenance Oiling (See Page 9 in Manual)



Central Oiler:
Fill with light (SAE 10 wt.) oil and pump to lubricate conveyor chain sliders. (see page 10, sec. 6, in Main Manual)



Spindle Slides:
Lubricate where shown with light (SAE 10 wt.) oil. (see page 10, sec. 6, in Main Manual)