

## OPERATING INSTRUCTIONS



# THE STANDARD IN TIG WELDING

# **TURBO-SHARP® X**

## **Tungsten Electrode Grinder**



### TECHNICAL DATA

#### TURBO-SHARP® X

Power Consumption	710	W
Voltage	120	V
Amps	6.4	A
No Load Speed	34000	RPM
Grinder Weight	4.1	lb (1860g)
Shipping Weight	10.1	lb (4581g)

### DECLARATION OF CONFORMITY

We declare that we are solely responsible for this product meeting the following standards and directives: EN 50144:1998, EN 50144-1/A1:2002, EN 50144-2-3:1998 EN 55014:1993, EN 61000-3-2:1995, 61000-3-3:1995 in accordance with directive 89/392/EWG, 73/23/EWG and 89/336/EWG1998

#### Form 6000

December, 2016

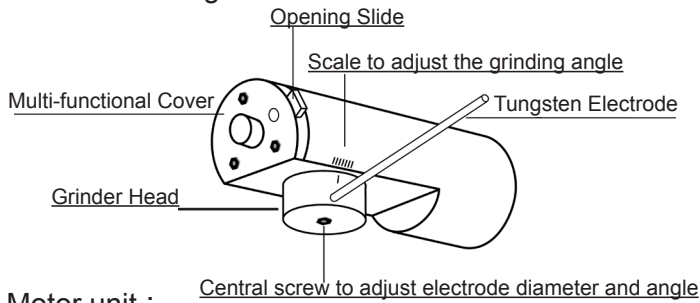
CK Worldwide, Inc.

P.O. Box 1636 Auburn, WA 98071 USA

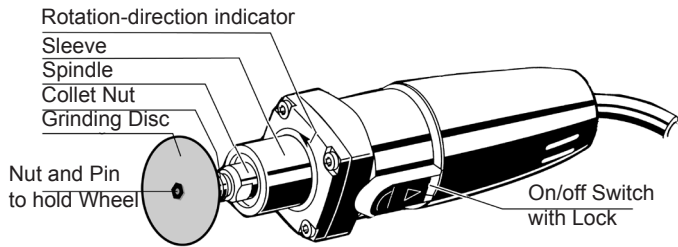
Ph: (253) 854-5820

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### 1. Grinder Housing :



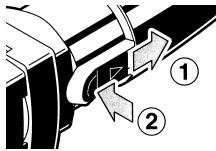
### 2. Motor unit :



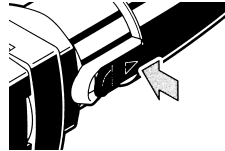
#### Changes :

Text, illustrations and data correspond with the state of technology at the time of printing. We reserve the right to make changes that will further the development of our product.

### 3. Power On/Off :



Power on : Push the on/off switch back. Press the front of the switch to lock it in position.



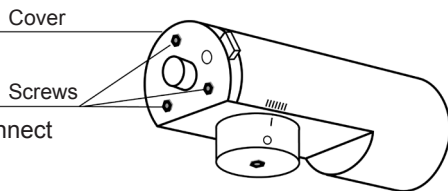
Power off: Press the back of the on/off switch. The switch will automatically return in the off position.

#### Electrical Connection :

Connect only to single-phase alternating current and only to the voltage stated on the specification label. The TURBO-SHARP®X is insulated according to DIN 57 740/ VDE 0740 (EEC 20) and can be connected to ungrounded electrical sockets. Radio interference complies with European Norm EN 55014.

### 4. Vacuum Removal of Dust :

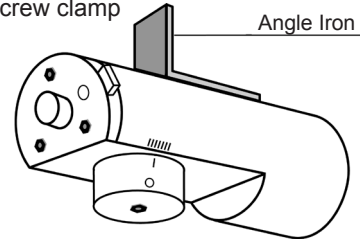
- Loosen and then completely remove the three hexagonal countersunk screws with a 4mm hexagonal key
- Remove the cover
- Use the supplied rotating socket and connect to the vacuum system.



We recommend this procedure as a safety measure to minimize contact with tungsten dust that results from the grinding process.

### 5. Angle Iron :

- The angle iron can be mounted so that the machine
  - can be fastened in a vice
  - can be fastened by means of a screw clamp



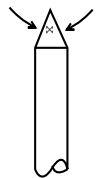
### 6. Optional Grinding Head :

- A second head (colored red) is available for the TURBO-SHARP®X for electrodes with diameters of .040"(1.0mm) - 5/32"(4.0mm) - 3/16"(4.8mm) - 1/4"(6.4mm)

**ORDER NUMBER:** TS3-HR

### 7. How to Use :

- Make adjustments for the angle of the point (in degrees) and the electrode diameter;
  - Loosen the central screw on the head
  - Set the degree and the electrode diameter by turning the grinder head
  - Tighten the central screw



- The number of degrees equals the angle of the point on the sharpened electrode
- Turn on the TURBO-SHARP® X
- Guide the tungsten electrode through the opening that coincides with its diameter
- Carefully press the tungsten electrode onto the revolving disc, while at the same time rotating it with light pressure (the harder the tungsten is pressed against the disc, the shorter the lifespan of the disc is)
- Continue to rotate the electrode as it is removed from the disc until there is no longer any contact
- Inspect the results and, if necessary, repeat the process
- The multi-functional cover with integrated opening slide makes it possible to surface grind electrodes that have welding deposits due to the welding process. In addition, ground electrodes can be given a truncated cone.

### 8. Grinding Disc Adjustment :

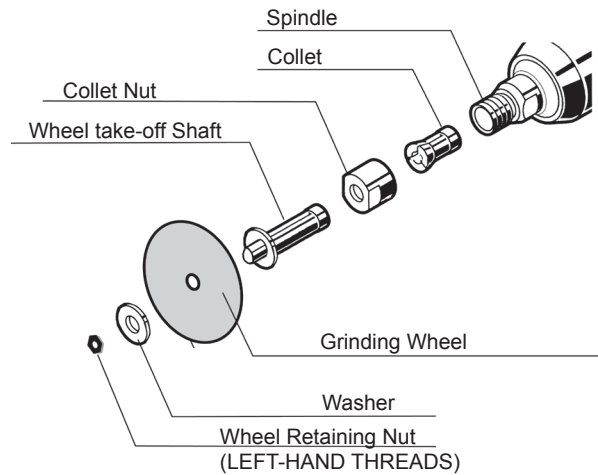
- To obtain a different grinding area on the disc, loosen the 3 set screws on the base of the head-cover and rotate the collar to 1,2 or 3. This will allow 3 different grinding locations on the disc for one particular angle.

**Warning !** Do not sharpen bent or burnt electrodes. Remove any drops on the point of the electrode before it is sharpened. Use the electrode holder for short electrodes.

## CHANGING THE GRINDING WHEEL

**Remove the plug from the electrical socket before doing any maintenance on this machine !**

- Locate and remove the three small set screws in grinder housing
- Remove grinder housing exposing wheel and shaft assembly
- Place wrench #17 on the collet nut
- Place wrench #10 on the wheel retaining nut
- Remove wheel retaining nut - NUT HAS LEFT-HAND THREADS
- Remove washer and grinding wheel
- Install new grinding wheel
- Replace washer and wheel retaining nut
- Tighten wheel retaining nut
- Make sure wheel is level
- Replace grinder housing (Don't force, gently slide housing on to ensure an easy installation)



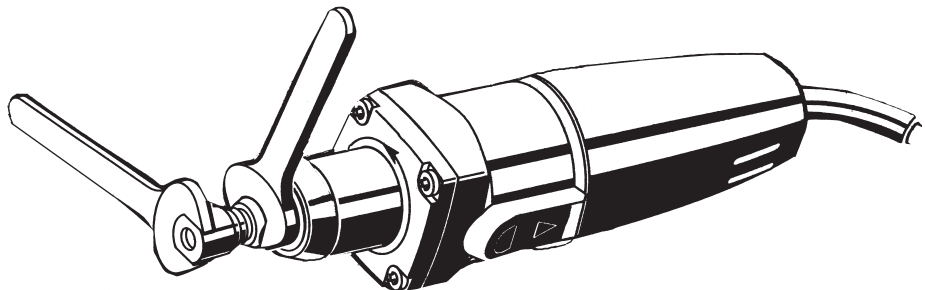
Very important !!!

Ensure that the wheel is properly mounted and not crooked.

## CHANGING THE TAKE-OFF SHAFT & COLLET

**Remove the plug from the electrical socket before doing any maintenance on this machine !**

- Position wrench #15 on the spindle
- Position wrench #17 on the collet nut
- Loosen the nut
- Replace the wheel take-off shaft
- Tighten the nut



Follow the same procedure to change the collet, except collet nut must be completely unscrewed in order for the collet to be changed.

These procedures must be followed exactly as they are explained and illustrated.

## SAFETY INSTRUCTIONS

- Observe the safety guidelines in this manual! Do not drill through the safety cover of the machine, as it will then no longer be insulated.
- Remove the plug from the electrical socket before doing any work on the machine.
- Insert the plug into an electrical socket only if the machine is turned off.
- Keep the cord away from the area where you are working. Run the cord away from the back of the machine.
- Check the equipment, cord, extension lead and electrical plug for damage and signs of wear before each use. Damaged parts should be replaced by an expert.
- Follow the accident-prevention regulations of your professional association.
- Do not reach into the danger zone of machinery that is turned on.
- Always wear safety goggles.
- Only use tools with an rpm at least as high as the highest idle rpm of the machine.
- Inspect the grinding wheel before use. The wheel must be perfectly mounted in order to turn freely. Test the wheel for at least 30 seconds before use. Do not use wheels that are damaged, asymmetrical, or that vibrate.
- Tighten the wheel retaining nut before each use of the machine.
- Noise level values: Typically around GS 400=79db (A). Noise levels can be higher than 85 dB (A) when in use. Wear hearing protection.
- Vibration values: the effective speed is typically around GS 400 = 9m/s<sup>2</sup>

## USEFUL TIPS

The best results will be obtained by applying light pressure to the electrode while at the same time rotating it on the disc. Remove the electrode before turning off the grinder.

Using too much pressure while grinding will damage the grinder and require more grinding discs; performance will suffer.

### Warning :

Always keep the air-intake vents clean.

### Accessories :

Only use CK accessories and spare parts.

### Spare parts :

Grinding wheel	TS3-W
Standard Head	TS3-HB
Optional Head	TS3-HR

## WARRANTY

In addition to the dealer's sales contract warranty, the customer will receive a warranty according to the following conditions:

1. The warranty covers 24 months, dating from delivery of the product. Delivery must be substantiated by an invoice or other documentation.
2. CK Worldwide, Inc. warrants the TURBO-SHARP®X to be free of defects in materials and workmanship. CK limits this warranty to replacement of the product or parts thereof, and excludes liability for injury, property damage, or economic loss attributable to product use or misuse. Warranty claims must be made within the specified products valid warranty period.
3. In situations covered by the warranty, we ask that the product be returned, together with the appropriate warranty documentation to the vendor. Please provide a brief description of the problem.
4. Repairs that are covered by the warranty will not be charged to the customer. The warranty will not be extended or affected by the repairs. Parts that have been replaced become the property of CK.

