CRUXWELD®

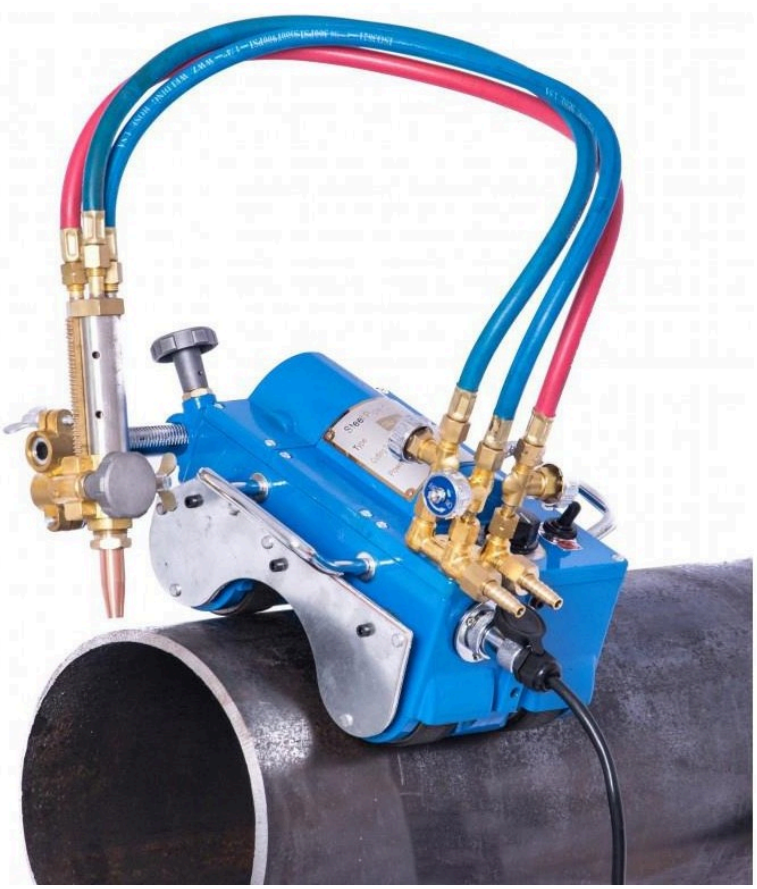
INDUSTRIAL EQUIPMENTS PVT. LTD.

TUBOCUT GECKO

Auto Magnetic Pipe Flame Cutting & Bevelling Machine

Pipe Ø 100 mm and above | Wall 5-100 mm | Bevel up to 45° | 50-1150 mm/min

Previous model name: TUBOCUT-MS



OPERATING INSTRUCTIONS

Note: Please read this user manual carefully before use this machine and keep it well for future reference after finish your reading .Thank your for your cooperation.

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I. Application:

The TUBOCUT GECKO pipe cutting machine is applicable for the seamless steel tube cutting and bevel cutting for such industries as petroleum, chemical, ship manufacture, electric power generation,machinery,building and installation.

II. Technical Performance and Characteristic:

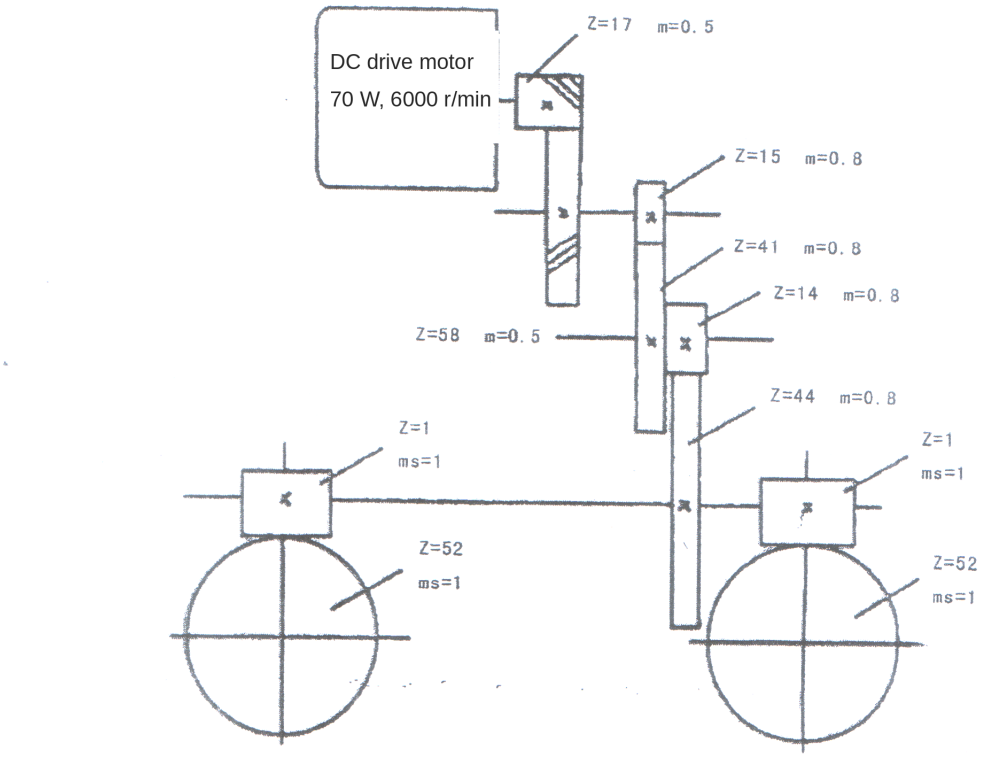
The TUBOCUT GECKO magnetic pipe cutting machine possesses four permanent magnetic wheels, which can stick to the tube and go round it automatic cutting. Adapted Oxygen-Acetylene flame or Oxygen-Propane flame, it is suitable for various specs of seamless steel tube cutting and bevelling provided the diameter is 100 mm or above. Due to the adsorption affinity of the magnetic wheels, this cutting machine can work in free direction such as flat ,stand ,across ,face-up.The cutting and groove can be finished at the same time. This cutting machine can promise you higher efficient, better quality and less labour work.

III. Main Technical Data

1. Dimension and weight:
   Dimension: 350 (L) x 310 (W) x 280 (H) mm
   Net weight: 20 kg
2. Cutting scope:
   Seamless steel tube dia.: Ø 100 mm and above
   Tube wall thickness: 5-100 mm
3. Cutting precision:
   Deviation: less than 0.5mm for one circle cutting on the Ø 159-Ø 425mm seamless steel tube cutting and beveling surface roughness: 12.5~ 6
4. Cutting speed: 50-1150 mm/min, stepless adjustment by silicon controlled rectifier
5. Motor:
   DC motor, rated speed: 6000 r/min
   Power: 70 W
6. Control box:
   Power voltage: AC 220 V / 110 V, 50/60 Hz
7. Absorption affinity of magnetic wheel: more than 50KGS
8. Driving momentum: less than 0.5mm when go down round the steel tube.

IV. Main Structure

1. Driven structure:
   Components: DC drive motor,3 pairs of reduction gear and one pair of worm wheel.Please see the drawing below for the driven principle:



2. Tracking structure

   Components: Magnetic roll wheel , axe, axe cover and magnetic steel.

3. Machine body:

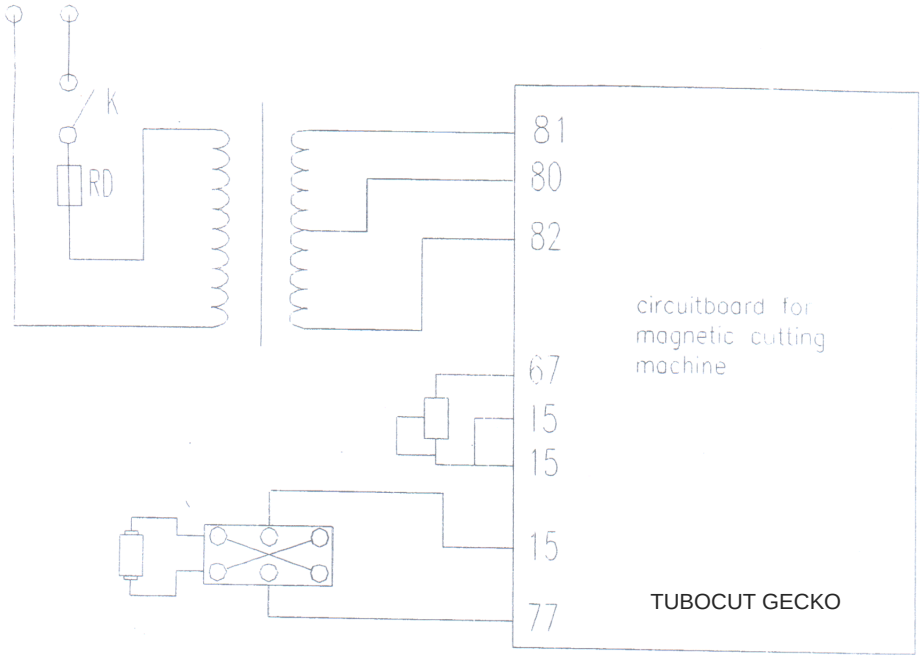
   Box shape, made of cast aluminium alloy

4. Cutting torch and tip:

   Use isobaric cutting torch and G02 type cutting tips, sizes 1-3. The cutting torch is flexible through the adjustment of m=0.8 gear pair. The beveling angle can be adjusted according to different requirement.

Electrical control system instruction:

The electrical control system is consisted of electrical box, body control panel and motor. In electrical box , there are power voltage transformer and circuit control board . Power switch,fuse and pilot lamp are equipped on the electrical box panel. One the body control panel, there are potentiometer for speed adjustment and switches for going back, ahead and stop. It adapts the silicon-controlled thyristor DC motor system to adjust speed. The thyristor is motivated through the signal superposition of AC and DC capacitance-Resistance and phase shifting and the DC signal will be changed to control the SCR angle of flow to realize the stepless speed adjustment of motor.For its detailed principle,please see the drawing below:



V. Cutting tip specification table:

No.	Cutting Thickness	Oxygen Pressure	Acetylene Pressure	Cutting Speed
00	5-10	0.20-0.30	>0.03	600-450
0	10-20			480-380
1	20-30	0.25-0.35		400-320
2	30-50			350-280
3	50-70	0.3-0.4	>0.04	300-240
4	70-90			260-200
5	90-120	0.4-0.5		210-170

Note: the cutting tips, G02 type sizes 1 to 3 will be supplied for one machine. Please purchase other types of cutting tip by yourself if needed.

VI. Operation

1. Put the cutting machine on the steel tube carefully to avoid collision. Get the handle prior to cutting
2. If you have to change the direction during cutting ,please stop the machine first ,open the direction switch and then drive the machine. Please do not change the travel direction directly during its working to avoid the damage of electrical elements and machinery parts.

3. Before cutting, please adjust well the suitable oxygen pressure , acetylene pressure , cutting speed and beveling angle. Adjust the oxygen-acetylene to preheat the flame ,move the cutting torch to align with the cutting mouth and open the oxygen-cutting valve for cutting when the steel tube is heated well. After finish cutting, please remember to shut the oxygen valve, acetylene valve and power.

VII. Maintenance

1. Please remember to clean up rubbishes as iron scraps adhered to the roll wheels frequently.
2. For the wind pipe surface, the travel place ,the steel wire brush is suggested to be used for cleaning. Please don't do cutting on the steel tubes whose paints haven't been dry. Otherwise,the paints will stick on the roll wheel and the magnetic capacity will be reduced .
3. During the cutting, please avoid the oxygen-acetylene gas pipe and power wire to be hooked ,which may cause the falling of cutting machine and its damage.
4. After finishing use of cutting machine, please put it on the magnetic protection board at a dry place to avoid rust of roll wheel and magnetic phenomenon aroused.
5. The reduction structure shall be lubricated with molybdenum disulphide grease and shall be replaced in every half a year. Please clean the new reduction device with a suitable degreasing solvent and lubricate it before the replacement.
6. If demagnetization occurs and absorption performance reduced on the magnetic wheels after certain period used , please unfit the magnetic wheel sets and magnetize them.
7. If the down momentum is too strong during work, please open the top left and right covers, adjust the left and right support bracket, endless screw and bevel wheel to ensure good cutting quality.

VIII. Maintenance Warranty Instruction:

1. Guarantee for half a year against the invoice since the selling day.
2. Cruxweld will be responsible for repairing the machine if it is proved to be ill produced by our quality inspection personnel.
3. The damage caused by the reasons below will be out of our maintenance warranty scope:
   Inappropriate save
   Operate without according to the instruction given.
   The input voltage exceeds the defined scope.

Note: the right to interpret this user manual is reserved to be Cruxweld.