ISE/ISP SERIES

PIPE BEVELING MACHINE

OPERATOR'S MANUAL

Shenzhen KEDES Machinery Equipment Co., Ltd

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PART 1 Equipment introduction

We supplies machines and equipment to diverse industries where process piping systems are essential to their operation but require divergent machine tool technology. From power and petrochemical to semiconductor, food and dairy, ours wide range of portable tools can be found on all pipe and tube types, sizes and wall thickness..

FEATURES:

EASY OPERATION

- Convenient "fail safe" on/off motor valve
- Adjustable hand grip speed control
- In-feed hand wheel with indices for pre NKNE measurement
- Adjustable dual-key design makes tool feed easy, absorbs torque, reduces operator fatigue and increases safety
- The design of miniaturization is suitable for the homework place of low-clearance more

FAST SETUP

- Set up and operate from storage case to pipe in under 5 minutes
- "Quick change" extension legs use captivated fasteners to mount firmly to mandrel
- One adjustment, universal three-leg chuck automatically centers and squares the machine in pipe I.D.
- Install or adjust tool bits in seconds

TYPICAL FUNCTION DESIGN

- The main body made in aluminum alloy, which is quite light
- Two bevel tools can be installed on rotary tool disk, pipe can be worked synchronously
- The equipment can machining V and U groove
- Use the ball slewing bearing and self-lubrication to prolong the equipment life
- High strength mandrel and large-area expanding block mostly improve the rigidity

PACKAGE

The machine is placed into a portable wooden case with expanding block, usual tool, beveling tools

PART 2 SAFTY INSTRUCTION

We take great pride in manufacturing safe, quality products. Please comply with the following safety rules and instructions when operating the equipment.

READ THE OPERATION MANUAL
Before installing, you should read the instruction of installation and operation, and then it can help you save time and avoid injuring the operator and the machines

INSPECT MACHINE & ACCESSORIES
Before installation, you should check the machine and its accessories. Look for worn

ALWAYS READ SIGNS AND LABLES
Please read the marks and signs. All the marks and signs should be clear and easy to read, and you should carefully to keep them.

CAUTION

DANGER! ELECTRIC SHOCK
Security of the electricity.

CAUTION INJURE HAND
Keep distance from rotating parts during operation.

WEAR SAFETY GOGGLE
Eye protection required. When using equipment, please wear safety goggle. No goggle no work

WEAR HEARING PROTECTION
When working near the equipment, it is better to wear some hearing protection device or other no NKNE insulating facility

NO PUTTING ON GLOVES

It is unnecessary to ware gloves when operating the equipment. The beveling scraps should be cleaned by broom and dustpan to protect your hands from getting hurt

PART 3 MACHINE SPECIFICATION

ISE / ISP SERIES

Model	ISE-30T	ISE-80T	ISE -120	ISE-159	ISE-252	ISE-352	ISE-426	ISE-630	ISE-252-2
Working range (I D)	18-28	28-76	40-120	65-159	80-240	150-330	250-426	300-600	80-240
Electric Motor Power	1200W		1500W		1800W		2000W		
Power Supply	220V 50HZ								
Rotate Speed (r/min)	50	55	30	35	16	14	12	10	16
Blade feed travel (MAX)	35	55	50	50	55	55	55	55	55
Beveling Thickness (mm)	1-15	1-15	3-15	5-20	5-20	5-20	6-20	6-20	5-75
Net Weight (KGS)	10	10	18	25	35	52	90	98	45
Gross Weight (KGS)	13	13	28	35	50	72	120	152	65

NOTE:

We also supply the large diameter pipe beveling system by your order

PART 4 INSTALLATION AND OPERATION OF NKNE SERNKNE

Section I

A. Measure the ID of the pipe, and then choose the proper expanding (swelling) block according to the diagram of expanding block chart, fixed them on the swell wedging block mechanism (expansion structure), and tighten the tension screw.

B. According to the diagram of beveling tools, choose the proper one fixed on the blade disk (knife drum). Make sure the blade in clockwNKNE. Caution: The blade can't touch the principal axis; otherwNKNE it may damage the equipment.

C. Pulling back the travel of feed handwheel, there should be some space between the blade and the end of pipe. Insert the swell orientation mechanism (expansion structure) into the pipe, before tighten the pull rod screw, swing the equipment with hand, and make sure the equipment and the pipe are integrated. Caution: The expansion structure should not be inserting too deep, its better keep a 20mm distance between the work pieces

D. Turn on the equipment, rotating the tool feed handwheel manually; make the blade edge keep in touch with the tube. The equipment start working

E. After the blade installation is completed, the equipment can be moved and continue processing from one workpiece to another same specification workpiece, instead of adjusting the blade again, only pull back the travel of blade feed handwheel. Loosen the expansion nut, and fix it on another workpiece.

Section II

CORRECT OPERATING PROCESS OF BEVELING

A. Before beveling, please remove the rough edge and other incidentals after flame cutting with hammer. If the tube terminal surface is full of bumps and holes, the blade

begin from the peak, and feed the blade carefully

B. When beveling, please add coolants (saponification oil) to prolong the tools life.
C. After beveling is completed, please back the blade disk by rotating the feed hand wheel in opposite direction.
D. If the blade is blunt, sharpen it or change one.
E. In order to ensure the beveling force, if the pipe wall thickness is above 20mm, you should bevel the pipe separately, first beveling the outside end, then beveling the inner part, or set a double blade to stagger the machining plane.

Section III

TRANSVERSE FEED OPERATION OF THE EQUIPMENT
(Suitable for ISE/ISP -252-2 ISE/ISP -352-2 ISE/ISP -426-2)

When bevel the pipe with angle 0°- 45°, it is achieved by this structure (transverse feed orient axle), the blade rest hold is supported by the locating axis, then choose the beveling angle, tighten the screws, therefore you can get a satisfying beveling angle, as for the structure, refer to diagram 4.

A. Diagram 4 shows the vertical feed handle; first feed 3mm, second feed 3mm again. Note: Don't adjust it when the equipment working

B. Adjust vertical feed handle make cutter rNKNE with the tube terminal surface keep proper distance to enter, turn on the equipment, no-load rotating start. After the cutter touches the peak of the tube, turn the equipment off. From the peak, make the cutter come down 3-4mm.

C. Feed handwheel comes out to draw from outside entering, wave handwheel adjust the cutter touch the tube beveling plane, push the handwheel to the original position , then can start the machine and process beveling

D. When pushing ring gear joggle the inside gear, the blade feed 0.15mm/circle automatically.

E. When the ring gear is taken out, the inside gear is break away, the blade feed automatically stopped, rotate the quick feed handle manually, the blade can go in or go out of the tool holder (post) quickly so as to adjust and change the blade

F. While installing in another tube and continue beveling, same operation with Section I

G. After beveling is achieved, rNKNE the vertically feed handwheel first, and then loosen the tension screw

H. Other operation is carried out according to the above process.

I. When beveling the pipe with small diameter, you can use a bench vNKNE or clamp to fasten the pipe.

PART 5 INSTALLATION AND OPERATION OF NKNP SERIES

Section I

CORRECT OPERATION PROCESS

A. Take out the fast joint, fasten it on the air feeding tube (be ready for connecting the beveling machine)
B. Choose the proper expanding block according the ID of the pipe, and install them on the expansion structure
C. Fix the proper bevel tool on the knife drum
D. Insert the expansion structure into the tube, make the equipment and tube are integrated
E. Drip several drops of lubricating oil at the air entry joint
F. Connect the equipment with the air compressor
G. Turn on the air valve, and the equipment start work
H. After beveling, rotate the handwheel in the opposite direction, back the knife drum(tool disk).Turn off the air valve, loosen the expansion handle unload the equipment

Section II

MAINTENANCE AND SAFETY TECHNOLOGY

A. The compressed air required must be dehydrated and filtrated to prevent the parts rustiness
B. When the beveling completed, add a little lubricating oil or antirust at the air entry joint
C. When insert the equipment into the pipe, make sure keep distance between the beveling

tool and working face

D. When loosen the expansion screw (swelling nut), and take the equipment out or adjust the location of equipment, don't make it slip into the pipe, otherwNKNE will damage the bevel blade
E. When rotating the blade feed handwheel, take care the connect joint between the blade and the uneven work face, keep the speed of blade feed, never feed the blade too fast
F. During the feeding process (NKNP), if the feed speed is too high to the air compressed air is too low so that the tool disk stop rotate, you should turn off the air valve, rotate the tool disk and the handwheel in opposite direction to let the blade rNKNE, then you can continue the working. When the equipment's working time reach 96 hours, you should add some lubricating oil or re-adjust and check it.

PART 6 DIAGRAM OF THE BEVEL TOOL

Description	Qty	Remark
Facing tool	1	Beveling angle 0°
Bevel tool	1	Beveling angle 30°
Bevel tool	1	Beveling angle 37°
Inner bevel tool	1	Beveling angle 15°

Note:
The bevel tool set up for carbon steel pipe, if you want to bevel pipe made of stainless steel, alloy steel or cast steel, please contact us

PART 7 DIAGRAM OF THE EXPANDING BLOCK

(Swelling block / expansion part)

Model	ISE/ ISP-30T	ISE/ ISP-80T	ISE/ ISP-120	ISE/ ISP -159	ISE/ ISP -252	ISE/ ISP -352	ISE/ ISP -630
No-Block		¢28-36	¢40-49	¢65-87	¢80-100	¢150-180	¢300-330
Grade 1	¢18	¢36-44	¢49-58	¢87-105	¢100-120	¢180-210	¢330-360
Grade 2	¢19	¢44-52	¢58-67	¢105-123	¢120-140	¢210-240	¢360-390
Grade 3	¢20	¢52-60	¢67-76	¢123-141	¢140-160	¢240-270	¢390-420
Grade 4	¢21.5	¢60-68	¢76-85	¢141-159	¢160-180	¢270-300	¢420-450
Grade 5	¢23	¢68-76	¢85-94		¢180-200	¢300-330	¢450-480
Grade 6	¢24.5		¢94-103		¢200-220		¢480-510
Grade 7	¢26		¢103-112		¢220-240		¢510-540
Grade 8	¢27		¢112-121				¢540-570
Grade 9							¢570-600

PART 8 TROUBLE SHOOTING

Trouble	Possible reason	Remedy
Equipment doesn’t work	The wire isn’t connect well ; pneumatic actuator drive may have a entry problem	Check the wire and the air entry device to see if it is well installed
Pipe wave when working	The expansion structure isn’t fastened or the expanding block wrongly choose	Check the expansion screw or change a proper expanding block
Working face not good	The bevel tool is blunt or damaged	Change the bevel tool