

## **Idler Roller Double End Turning Machine**



Conveyor Idler Roller manufacturing process involves various sub-processes, one of the most important is the boring of both the ends of pipes after they are cut into desired length. A number of manual and semi-mechanized systems are available in the market, they do not deliver the desired quality and precision due to the technology / process employed by those systems. The boring of the pipe is critically imperative for manufacturing good quality idler rollers as any manufacturing defect in this stage may give rise to serious quality problems like radial play in the end product i.e. finished idler roller. This can be eliminated by automating the pipe boring process to meet the desired quality standards.

KAIYUAN offers a world class automatic system for both end boring of steel pipes with very high precision and speed, which delivers high quality and productivity.

## ■ Salient Features

- ➤ Unique Clamping and Tool Positioning / Feeding System clamping over the complete aperture of the pipe eliminates problems due to ovality and improves quality, hydraulic tool feeding system ensures higher level of precision in boring.
- ➤ Automatic Clamping and Positioning of Work-piece and Tool Movement the automatic operation eliminates errors due to manual operation and delivers high reliability with consistent quality.
- ➤ Tool Positioning System the positioning of the tools is done automatically by the machine based on the initial set up, which maintains constant inter tool distance irrespective of the variations in length of the cut-off pipes, which delivers consistent boring length.
- ➤ Concentricity between two bores highest degree of concentricity between bores is maintained to eliminate further problems in ovality.
- > High Spindle RPM heavy duty motor with high spindle rpm delivers smooth surface finish.



## ■ Main Specifications

The KAIYUAN Make Automatic Turning / Boring Machine comes in two variants depending on the pipe dimensions. Both the models are equally efficient. Few of the main specifications are given below. KAIYUAN is a distinguished global player, far ahead of its counterparts.

S. No.	Parameter	QJKA-159-2.2D-Z	QJKA-219-2.6D-Z
	Machine Specifications		
1	Spindle center height of the machine tool	900mm	900mm
2	Outer dia. of steel pipe	Ø76-Ø159mm	Ø76-Ø219mm
3	Length of steel pipe	200-2200mm	200-2600mm
4	Spigot depth	0-70mm	0-70mm
5	Moving speed of the slide	2000mm/min	2000mm/min
6	Spindle speed	350r/min, 500r/min	250r/min, 390r/min
7	Feeding speed	Hydraulic stepless adjustable	Hydraulic stepless adjustable
8	Cutting depth	0-3mm	0-3mm
9	Toolholder axial feeding graduate	0.05mm	0.05mm
10	Toolholder axial back-off repeated positioning precision	0.05mm	0.05mm
11	Main driving motor	11kW 1450r/min	11kW 1450r/min
12	Workpiece clamping motor	4kW 1450r/min	4kW 1450r/min
13	Hydraulic system pressure	2.5-4mPa	2.5-4mPa
14	Flow	25L/min	25L/min
15	Dimension (L×W×H)	5334×1120×1200mm	5734×1120×1200mm
16	Weight	5500kg	5800kg
	Manufacturing Precision / Tolerance		
17	Diameter tolerance of the spigots at both ends	IT8	IT8
18	Roughness of the cuting surface Ra	6.3-3.2µm	6.3-3.2µm
19	Spacing tolerance of the spigots at both ends	≤0.2mm	≤0.2mm

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