



**SWASTIK
ENGINEERS**



We deliver
CONFIDENCE
not just machines !



Fully Automatic
Keyway Milling Machine



Keyway Milling Machine



Centering & Facing Machine



Hydraulic Pull Type
Horizontal Broaching Machine

❖ Semi Automatic Keyway Milling Machine



Working Principle

ICON Make a semi automatic key-way milling machine is specially designed for making key-ways on shaft. The shaft is clamped with self-centering vice. The feed is automatic with automatic depth of cut 0.1 mm per stroke. At desired final depth machine gets automatically stopped with instant sound of buzzer.

ICON Key-way milling machine is useful to achieve P-9 tolerance for shaft keyways and faster in operation than other conventional milling machines.

Technical Specifications

Model	I-150	I-200
Spindle RPM	2800 RPM	0-3700 RPM
Shaft Clamping Dia	12 mm to 70 mm	12 mm to 100 mm
Length of Key-Way	5 mm to 150 mm	5 mm to 200 mm
Key-Way Size	3 mm to 13 mm	3 mm to 16 mm
Standard Collet	ER - 20	ER - 25
Power Required	1 HP / 0.75 KW	1.5 HP / 1.12 KW

Silent Features

- High accuracy, P9 tolerance can be achieved.
- Reliable, Economical & Durable.
- Accurate depth control by means of its accurate mechanism.
- Automatic operation to get 100% desired output.
- Easy to operate, can be handled by semi skilled operator.
- More tooling life.
- No additional accessories required.
- All components made to close tolerance.
- Rugged construction, long service life.

❖ Automatic Keyway Milling Machine



Working Principle

An automatic key way milling machine is PLC based machine. In this machine depth of cut is controlled by PLC.

ICON Make an automatic key-way milling machine is specially designed for making key-ways on shaft. The shaft is clamped with self-centering vice. The feed is automatic with SERVO MOTOR, depth of cut can be programmable as per requirement as per stroke. At desired final depth machine gets automatically stopped with instant sound of buzzer and spindle take its home position. ICON Key-way milling machine is useful to achieve P-9 tolerances for shaft keyways and faster in operation than other conventional milling machines.

Technical Specifications

Model	IA-150	IA-200
Spindle RPM	2800 RPM	0-3700 RPM
Shaft Clamping Dia	12 mm to 70 mm	12 mm to 100 mm
Length of Key-Way	5 mm to 150 mm	5 mm to 200 mm
Key-Way Size	3 mm to 13 mm	3 mm to 16 mm
Standard Collet	ER - 20	ER - 25
Power Required	1.6 HP / 1.194 KW	2.1 HP / 1.567 KW

Fully Automatic Keyway Milling Machine



Working Principle

ICON Make Fully Automatic key way milling machine (Model : IFA 275) is PLC based machine. This machine controls Depth and Length of key way both by PLC.

This machine is specially designed for making multiple key ways and drilling operation on different diameter of job.

Technical Specifications

Model	IFA-275
Spindle RPM	0-3700 RPM
Shaft Clamping Dia	12 mm to 100 mm
Length Of key way	5 mm to 275 mm
Key way size	3 mm to 16 mm
Max Drilling Capacity	8 mm x 40 mm depth
Standard Collet	ER-25
Power Required	2.5 HP / 1.86 KW

Silent Features

- Table travel mechanism with LM guide ways and Ground Ball Screw.
- Table and Spindle both feed travel by servo motor and controlled by plc.
- Color HMI for Program and Data entry.
- Supports Multiple key ways and drilling operation.
- At a single time either key way or drilling operation can possible.
- Only single tool can clamp at a one time.
- Number of program can be saved as per part name or number.
- Automatic Motorized lubrication system.
- Self centering vice provided with machine.
- Heavy construction of machine base and body.

Job Done On Our Keyway Milling Machine



Submersible Pump Shaft (1800 mm)



Gearbox Shafts



Submersible Motor Rotor



Through Keyway
12X150X50



Automobile Parts



Special Jobs

Hydraulic Pull Type Horizontal Broaching Machine

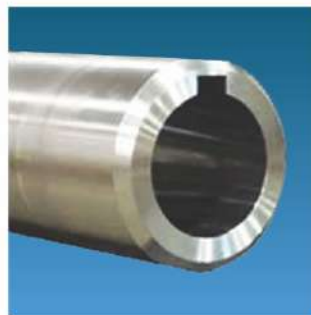


Working Principle

ICON Make broaching machines are made of robust fabricated stress relieved structure with hard chrome plated guide ways, and precise components. The hydraulic power pack unit consists of branded electrical motor and elements like Yuken, Rexroth valves etc.

Machine Application:

- Internal keyway
- Internal straight spline
- Internal hexagon
- Internal square



Internal Key Way



Internal Spline

NOTE : We customize machine as per client Requirements.

Technical Specifications

Model	IB-1050	IB-1250-H5	IB-1250-H6-24
Stroke Length	1050 mm	1250 mm	1250 mm
Power Pack	5 HP	5 HP	7.5 HP
Ton Capacity	5 TON	5 TON	11 TON
Max Job Clamping Dia	400 mm	400 mm	600 mm
Job Plate	250 mm	250 mm	250 mm

Centering & Facing Machine

Working Principle

ICON Make centering & facing machines are most suitable for centering, plunge facing & chamfering of the two ends simultaneously of the bar stock, such as camshafts, crankshafts, spiders etc. ensuring perfect alignment of centers, accurate lengths and true end, these are available in two models.

The combined centering and facing operation saves machining time, handling time and floor space. The machine has two hydraulic operated self centering work holding vices with push button control. The cutting cycle is operated with push button on a fast approach, slow feed and rapid return basis.



Silent Features :

- Rugged and precision ground cast iron bed.
- Ground and scraped milling slides.
- Spindle with taper roller bearings.
- Hydraulic operated, hard chrome plated quill type spindle.
- Through spindle coolant.
- Linear guide mounted spindle motors.
- Self centering vice with hardened and ground work holding vee blocks.
- Hardened and ground tool holder provided with carbide cutter insert type tools.
- All machine setting elements are at operator side.
- Centralized auto lubrication system.
- Complete PLC panel with high quality wiring and components.
- Special cover protection for machine slides and vice screw.
- Machine with enclosure.
- Operating and maintenance manual.

Technical Specifications

Model	ICF-1000	ICF-1500
Maximum Length of Work Piece (Two Vices)	1000 mm	1500 mm
Minimum Length of Work Piece	100 mm	100 mm
Maximum Dia Admitted in Two Vices	125 mm	125 mm
Minimum Dia Admitted in Two Vices	15 mm	15 mm
Maximum Dia Can be Faced (STD, Tool Holder)	65 mm (Optional - 80 mm)	65 mm (Optional - 80 mm)
Spindle RPM	750 STD (350, 500, 1000 Optional)	750 STD (350, 500, 1000 Optional)
Spindle Motor LH / RH	3HP / 2.2 KW (945 RPM)	3HP/2.2 KW (945 RPM)
Maximum Stroke of Each Quill	50 mm	50 mm
Quill Feed System	2 Hydraulic cylinder	2 Hydraulic cylinder
Job Clamping System	Hydraulic Motor Driven Screw Clamp	Hydraulic Motor Driven Screw Clamp
Center Drill Size	BSSS3 to BSSS6 or as Per ISI STD	BSSS3 to BSSS6 or as Per ISI STD
Lubrication	Auto Centralized Lubrication System	Auto Centralized Lubrication System
Hydraulic Motor Power	4.5 HP / 3.3 KW (1440 RPM)	4.5 HP / 3.3 KW (1440 RPM)
Coolant System	Through Spindle (RV 40 / 170 Pump, 0.37 HP, 3Ph)	Through Spindle (RV 40/170 Pump, 0.37 HP, 3Ph)
Total Machine Volume with STD Equipments	Length 2500 X Breadth 1200 X Height 1600 mm	Length 3000 X Breadth 1200 X Height 1600 mm
Total Machine Weight	1880 Kg (1655 Kg Machine+225 Kg Hyd. System)	2180 Kg (1535 Kg Machine+225 Kg Hyd. System)
Power Requireent	11 HP / 8.2 KW	11 HP / 8.2 KW
Machine Colour	White and Grey	White and Grey

Our Valuable Clients



Manufactured By :

**SWASTIK
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We Customize Machine As Per Customer Requirements