#### **SHIV MACHINE TOOLS**

Machine Tools Suppliers to the Nation #102, Armenian Street, Chennai, Tamil Nadu, India. Pin Code: 600001 Tel: (+91) 442 522 3473/7305 Fax: (+91) 442 522 7954 e-mail: info@shimato.in WWW.shimato.in



#### **Company Profile**

Shiv Machine Tools was established in the year 1973 by the company's founder late Mr. V S Shah. On his vision and strong foundation laid by him in the last 4 decades, the company's primary focus has been marketing of some of the most advanced and reputed Machine Tooling Technology from Germany, Italy, Spain, Japan, China & Taiwan.

"Shimato" as popularly recognized had branches in Bangalore, Chennai, Mumbai and Pune in India, and the regions like Hyderabad & Coimbatore is backed by a team of experienced Sales and Service Engineers, trained at manufacturers factories.

Shimato Group is managed by dynamically young and vibrant team whose mission is to assist co-operations create and sustain competitive advantage. We aim to offer solutions to our clients to make decisive improvements in their direction and performance by offering truly world-class products at economical prices. We work collaboratively with clients to convert ideas into strategy and problems into solutions.

Since our inception in early 1973, the philosophy has remained unchanged to create value creation and offer trend solutions to our clients. Our strength lies in the network of leaders who go to extraordinary lengths to support our clients nationwide. We are people with a passion for excellence; and who believes in high integrity, leadership potential and transparency.

The Group has diversified business interests sharing the same interest and excitement to create value addition and seamlessly work our clients to offer low-cost and cohesive solutions

Redefined Engineering Distribution
 Retailing - Engineering
 Real Estate Development4. Warehousing

Starting 1992, Shiv Machine Tools have embarked upon setting up operations to offer high quality precision heavy CNC Machines to the Indian Industry.

Starting in 2009, Shiv Machine Tools have also set up Company in agreement with their Spanish Principals - Alecop S coop to offer cost effective Educational CNC Machines to Indian Educational market. The sales and after sales activities of these companies units are handled by Shiv Machine Tools.





**CNC - Heavy Duty Lathe Machines** 

Poland www.fathaco.com

FAT S.A. is the leading manufacturer of lathes in Poland and we are a member of the Belgian HACO Group. Our company has focused on the production of both conventional and cycle controlled flat bed CNC lathes. Since 2001, our product line has been extended with a modern slant bed CNC lathe and CNC milling machine.



The FAT FCT 700/700A/1000/1000A lathe is the is the perfect slant bed lathe for fast, precise and heavy-duty turning and milling of large workpieces. The FCT 700 turning center provides a significant increase in productivity and results in increased profitability. The 70° inclined bed ensures optimum swarf removal, easy setting and inspection of the tools and optimal access to the workpiece for the operator.



TUR 1150/1350/1550 MN is equipped with Linear Measuring System in the X-axis as standard. The Linear Measuring System ensures a high positioning accuracy and higher repeatability. The linear measuring system eliminates deviations of position due to expansion of the ball screw because of temperature fluctuations or play between nut and screw any other mechanical play.

Distance between centers(mm)	2000 - 8000
Swing over bed(mm)	1150 - 1550
Swing over saddle(mm)	700 - 1100
Cross slide travel X-axis(mm)	650 - 775

### **KEKEISEN**

Estabilished in 1842 in Germany www.kekeisen.de



KEKEISEN GmbH & Co.KG a leading company in the area of machine and tool construction over the course of its history. As manufacturers of large milling machines, special machines, devices and tools ofall types, we work as partners with our customers to offer tailor-made solutions to their problems.

#### CNC horizontal boring and milling machine



X-axis: 2500-6000 mm Y-axis: 1500-2500 mm Z-axis: 1100-2000 mm W-axis 500,600 mm Spindle-Ø: 130,150 mm

Horizontal CNC boring machines of the WBX series offer high-precision machining of large volume workpieces. The hydrostatic guides make moving even heavy pieces a breeze. The dual table capacity of the machines enables equipping and loading parallel to the production time without the weight restrictions known from pallet machines. A broad spectrum of paths and spindle shapes and capacities make it possible to configure the right machine for any need. Numerous equipment variations and dockable attachment heads expand the application spectrum. Heavy Duty

- Boring & Milling Machines
- CNC Portal & Plano Milling Machines

#### Moving Column Milling Machines (the solution for machining long and bulky parts)

X-axis: 4000-12000 mm

Y-axis: 1000-1400 mm

Z-axis: 1000-2300 mm Table Size:

Table Size: 1600x620 -6600x620 mm

Speed Range: 20-4000 rpm

mm nge: pm

CNC moving column milling machines are perfectly suited for 4-side machining of very large and bulky parts. The universal milling head with plenty of power and the follow-along tool changer turn this machine into a highly flexible major machining centre.

Portal Milling Machines (for machining large parts with high precision)

X-axis: 3000-12000 mm Y-axis: 2200-3200 mm Z-axis: 1000-1400 mm Table Size: 1800x3000 - 1800x7000 mm Speed Range: 20-2000 rpm

CNC portal milling machines of the PFW series are universal, high capacity machines for

5-sided machining of large and heavy workpieces in one setting. Portal milling machines of type PFW are built in gantry design with upper guideways. The workpiece is at rest and therefore does not affect the dynamics of the machine.

## **KEKEISEN**

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## Doimak

Spain www.doimak.es

**CNC - Cylindrical/Gear Grinding Machines** 

## Doimak



Doimak manufactures a comprehensive range of grinding machines.

#### Multifunctional grinding for heavy range



Max. distance between centers: 3000, 4000, 5000 y 6000 mm Maximum work piece diameter: 1000 mm Maximum wheel diameter: 1060 mm Angular positioning: -15°/225° Siemens Control 840 D.

Doimak RIR+RE

Doimak RCN-G-SP grinding machine is a last generation grinding machine, designed to grind cylindrical parts of large dimensions.

The main features of this model are the following:

- Automatic rotary axe, which allows the incorporation of several heads, to be able to make different operations with only one clamping.
- Fixed part, both movements (X and Z) are with the wheel head.
- High accuracy, productivity and flexibility.
- Operator interface is made by means of iconographic self-teaching masks, so no programming knowledge is required for its use.

#### Grinding machine for nuts of ball screws

Maximum diameter of the piece: std 250 mm big nuts 500 mm Maximum Thread diameter: std 200 mm big nuts 450 mm Maximum Thread length: std 260 mm big nuts 600 mm Maximum helix angle: std  $\pm 20^{\circ}$  big nuts  $\pm 20^{\circ}$ .

DOIMAK machine, RIR+RE Series, has been specifically designed for the grinding of ball screw nuts. It

allows in one clamping the internal grinding of the nut thread, and the grinding of the external diameter and faces. It includes an own developed software for the automatic wheel profiling with compensated profile, doing possible the grinding of large pitch nuts.

#### Gear grinding machine

DOIMAK machine model REN-350 has been designed for gear grinding generation with a thread-formed grinding wheel. It consists of 8 CNC axes, allowing a fully automatic working mode, both for part grinding and wheel dressing processes . REN - 350 incorporates the latest technology in NC (Sinumerik 840 D) digital drives. The machine offers a very user friendly environment for the operator, due to the use of men



developed software by means of self-teaching graphic masks.

- Grinding of spur and helical gears (± 45°).
- Workpiece diameter between 10 and 350 mm.
- Module between 0'5 y 6 mm.
- Teeth number between 10 and 600.
- Wheel spindle of 18 kW.
- Generating wheel size of 350 x 104 mm.
- Control Sinumerik 840 D.



Estabilished in 1971 at Romania www.wmw.ro



WORLD MACHINERY WORKS manufactures, under WMW trademark, a wide variety of CNC machine tools, comprising horizontal boring and milling machines, bridge type milling machines, vertical lathes, automatic roll grinding machines, vertical rotary surface grinders, as well as special design machinery upon customer requests.

Vertical Lathes



Vertical lathes designed for machining revolution parts of various weights and dimensions through turning, milling, drilling and tapping operations, in function of the machine optional equipment.

Table Diameter	mm	1450 - 4000
Spindle Motor	KW	28
Y-axis Travel	mm	1000 - 2400
Z-axis Travel	mm	1200 - 2200

#### **Heavy Duty**

- Boring & CNC Milling Machines
- Vertical Turret Lathe & Roll Grinding Machines

#### **Bridge Type Mills**

Bridge type milling machines with moving table and fixed cross rail, designed for milling heavy and large size work pieces. Their technical features and design solutions along with the high rigidity of the structure parts comply with the most demanding requirements in terms of productivity and accuracy.

Spindle Taper	ISO	50
Spindle Motor	KW	30*
X-axis Travel	mm	4600*
Y-axis Travel	mm	2900 - 3800*
Z-axis Travel	mm	1000*
* and above		2

#### Horizontal Boring and Mills

Boring and milling machines with horizontal spindle, fixed column and rotary moving table, are designed for machining housing type \* and above small and middle size work pieces, through boring, milling, drilling and tapping operations.

#### **Grinding Machines**

Roll grinder suitable for grinding a wide range of rolls (work, intermediate, back-up, as well as special design rolls). The machine structure consists of two parallel beds, roll bed and wheel bed. Min. Grir

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Min. Grinding Diameter	mm	100 - 400
Max. Grinding Diameter	mm	1000 - 2000
X-axis Travel	mm	600 - 1000
Z-axis Travel	mm	4000



Estabilished in 1951 in Italy www.gruppoparpas.com

PARPAS, a leader in the Italian sector of large-size mould milling and copying, manufactures a line of medium-large size milling machines featuring state-of-the art technology. Initial success also promoted the birth of OMV (Officine Meccaniche Venete) Srl making small-size tool machines, the FAS-M (knee-type) series. Later on, in 1974, the company started manufacturing a milling machine featuring stationary bench and movable upright, the first one of this type to be made by an Italian manufacturer. The most important feature offered by OMV is its 'customised' line of machines, that is, machines made after clients' specifications. Excellent reputation world-wide has won OMV some of the most well-established international corporate customers.

#### Automotive - Die & Mold - General Engineering



BRAVE is a high speed machining centre with a fixed bed and a movable column. Being designed by means of the calculation of finite elements for machine structures (FEM), the machine represents an optimised development assuring rigidity and vibration dumping during movements. In addition to that low friction rates and high axes acceleration values are important features which allow high dynamical performances in finishing and at the same time in roughing: a big advantage in reducing production costs during machining process.

**Heavy Duty** 

- Boring & Milling Machines
- CNC Portal & Plano Milling Machines

#### Automotive - Die & Mold - General Engineering



Longitudinal travel (X axis) 2.000 ÷ 5.000 mm Cross travel (Y axis) 1.050 - 1.200 mm Vertical travel (Z axis) 1.200 - 1.600 mm Feeds 0 ÷ 30.000 mm/1` Spindle motor 20 - 30 kw S1

QUARTZ is a high speed machining centre with a fixed bed and a movable column. Being designed by means of the calculation of finite elements for machine structures (FEM), the machine represents an optimised development assuring rigidity and vibration dumping during movements. In addition to that low friction rates and high axes acceleration values are important features which allow high dynamical performances in finishing and at the same time in roughing: a big advantage in reducing production costs during machining process.

#### Aerospace - Automotive - Die & Mold - General Engineering Table surface

mm from 3.000 x 2.000 up to 30.000 x 3.000 Max load admitted

Kg 6.000 per square meter Longitudinal travel (step 500 mm) mm from 3.000 to 30.000 Cross travel (Y axis) mm 2.500 - 3.000 - 3.500 Vertical travel (Z axis) mm 1.250 - 1.500 - 1.650



The XS is the line of medium/large size gantry machines. It is dedicated to 3 - 5 axis high speed machining as well as heavy duty machining on hard materials (steel, inconel, titanium, etc). The possibility to have automatic head changing system or as alternative, the automatic spindle cartridge change, allows the machines to be much flexible and suitable for complex machining both in moulds/dies industry and in aerospace industry.





Vertical Machining Centre & Heavy Duty Milling Machines Estabilished in 1902 at Czech Republic www.strojtos.cz



Spain www.trimek.com



Contemporary load-bearing production with state together with ram-type milling machines line FGS T plus, FGS NCP and FGS CNC new series bed-type milling machines FGS 80 CNC and FGS 100 CNC, and vertical working centres VMC.

Now at: HCL

#### Vertical Machining Centre

Vertical-machining centres of the lines VMC and MC are scheduled for a wide range of vertical milling, drilling, boring and thread making operations.

X-axis Travel	mm	1000
Y-axis Travel	mm	500
Z-axis Travel	mm	500
Table Size	mm	500x1100
Speed Rangers	n.min <sup>-1</sup>	10000 - 24000



Knee-type Milling Machine Manual & Straight-cut Controlled

X-axis Travel	mm	1250-1400
Y-axis Travel	mm	500-630
Z-axis Travel	mm	600
Table Size	mm	1600x500-
		1600x630
Speed Dangers	ot/min	F6 2000

Speed Rangers ot/min 56-2800



> Measuring at TRIMEK's facilities in Vitoria, Barcelona and Valladolid.

Measurement Services

> In situ measurement using our portable units (feel gauge and laser) at the customer's premises.

> Qualified staff to carry out measurements at the customerÕs premises using the customer's machinery and software (covering peak workloads, holidays).

- > Digitising of parts for copying or inverse engineering.
- > Programming measurement ranges for our facilities and the customer's facilities.
- > Training in 3D metrology and measurement uncertainties.

> Metrology consultancy service, particularly measurement for new production runs or parts, or items which are difficult to measure.



#### Calibration and tuning Services

Calibration of all kinds of co-ordinate measuring machinery We can offer you the most precise adjustment and reliable correction of precision errors in your co-ordinate measuring machines, since we work with mechanical processes and corrections via software. We can also adapt to the specific requirements of each type of machine, whatever the characteristics or model.

> Now at: Renault Nissan Automotive India Pvt., Ltd., Oragadam, Chennai, India.



## **RD** Balancing

Soft-Bearing Balancing Machines

Tigh balance sensitivity,

(.00002 oz in)

and trial weight

calibration

speeds

as small as .015 g mm

of both first run readout

**Balancing Machines** 

Accurate balancing is essential to the Maintenance, Repair and Operation of

rotating equipment. Whether you are dealing with a turbine in a power plant,

a fan in a chemical facility, an armature from an electric motor, or a roll in a

paper mill, your rotors need to be balanced as precisely as possible.

With nearly 50 years of experience, IRD Balancing offers products and services

USA www.irdbalancing.com



**Plate Bending & Straightening Machines** 

Established in 1968 at China www.taianduanya.com

Taian Hualu Metalforming Machine Tool Co., Ltd. is the key enterprise for producing the products such as the CNC plate bending machine, plate straightening machine, plate shearing machine, press brake, cut of length lines. We have the right do the import and export business ourselves.

We have the strong technology force and prominent innovation capacity. In recent years, our forcal points are the CNC, large-scale, energy-saving and environmental technology products. We devoted to the rolling of the shipyard-plate, the large plate taper workpiece rolling and the high-intensity plate leveling, the explosion composite plate leveling and workpiece leveling research.

#### Production Line

Production line can process various rolled sheet metal materials into sheet metal of different specifications through decoiling, primary leveling, longitudinal shearing, sizing shearing and precision leveling. It is the high efficiency processing line which is essential to sheet metal processing industry and it is applicable to industries such as mechanical manufacture, stainless



steel product, car, home appliance, container and light industry etc.

#### **Plate Straightening Machine**

Plate Straightening machine is made of rack, working roll, movable crossbeam, screw down mechanism, catch wheel device, main gearing, lubrication system and electrical control system, etc. It is used for leveling of thin sheet.

Max. Leveling Plate Width (mm) 1600 - 2500 Max. Leveling Plate Thickness (mm) 2 - 16 Min. Leveling Plate Thickness (mm) 0.5 - 4

# Balance at lower and safer <sup>(37)</sup> Instrumentation capability

- © Instrumentation can read vibration displacement in addition to unbalance
- Transportable, modular design Broad rotor weight range in each machine
- So expensive construction of special concrete foundations required

#### **Balancing Instrument**

The automatic balancer brings a new level of accuracy and convenience to balancing rotating equipment on a balancing machine.

designed to meet all your Balancing needs.

A wide range of features are available to cover all the requirements of precision balancing, including comparison to established tolerances and printing a certificate to document the balancing results. The touch activated, flat LCD screen allows quick data entry and menu selection. Screen prompts



and online help files assist the operator in obtaining fast accurate results. Polar or large digital displays are available to provide the operator with a graphic representation of the balance vectors. The Series 290 operates in three different modes.



Heavy Duty Slotting Machine with CNC

Estabilished in 1975 in Italy www.cams.it



Cut-to-Length / Slitting Line Machines

Estabilished in 1969 in Italy www.iron.it

The company, which has been operating in the metallurgic and mechanical field since 1975 as a manufacturer of slotting machine tools, has always stood out for the sturdiness and functionality of its production.



#### Heavy Duty Slotting Machine equipped with CNC

The natural evolution of the technology had allowed to conceive these heavy duty Slotting Machines equipped with CNC on the 4 working axes.



Distance between column and tool-holder 4AC mm 690 900 900 Distance between table surface and head 4AC mm 780 1000 930 Distance between table surface and earth 4AC mm 975 750 815 Distance between tool-holder basis and table center backwards 4AC mm 275 345 320 Distance between tool-holder basis and table center forwards 4AC mm 225 455 470

A very innovation solution is the controlled Z axis on the models CAMS 500E, 500EA and 500EA(850). CNC system on the 4th cutting axis is offering many considerable advantages, as follows:

drastic reduction of the setting time;
significant inprovement of quality of the cutting motion. In fact the Brushless motor drive is transmitting a continuous motion with constant torque from beginning to end stroke;
the cutting motion is most regular in comparision with the conventional Crank and Connecting Rod drive and this means a minor tool consumption.

A commitment to research into innovation, constant technological updating and ambitious projects, make IRON a leading industrial group in the field of automation for the sheet metal industry. All production is designed and carried out within the company by expert engineers using CAD-CAM-CAE design systems.

#### Slitting Lines

Available in three different widths, the lines comprise a motorized decoiler, coil-loading cradle, strip-end input unit, cutting head with guides, offcut rewinder, input table, felt or roller



strip-tightening clamp for fragile metals, rewinder for cut coils with pressure arm take-off guide, offloading turret with two or four heads to facilitate strapping and removal of the cut coils by means of a 'C' hook. Three working speeds are available: 0 to 40 m/min., 0 to 60 m/min., 0 to 100 m/min. The cutting heads come in various grouped dimensions with 5, 10, 15 or 20 pairs of blades and are supplied with extractor rings and strip supports. Cutting width precision is within a tolerance of +/- 0.5 on the setting.



The company now possesses five production bases, and it's a technological type private enterprise group which professionally engages in producing welding-cutting machine, numerical control machine tool, welding-power etc. Such Electricity & machine assembling productions, it also produces and sales zincification roll steel.

#### **CNC Flame Cutting Machine**



Table plasma cutting machine



equipments industry, boiler manufacture, vehicle manufacture, petrol chemical industry etc.
 This machine is characterized in high efficiency and high precision; it adopts integrative modularization structure, which makes it easy for installation, structure, which makes it easy for installation, also with fast speed, low inertia, and stable operation.

CNC flame cutting machine is a

high efficiency, high speed, and

high credibillity hot cutting

equipment which integrates three technologies of computer control,

precise mechanical transmission,

oxygen and gas cutting. It is a new

automatic and high precision hot

cutting equipment that applies to

shipbuilding industry, heavy

machinery industry, chemical

#### Digital flame plasma steel pipe cutter



Pipe diameter : 65 - 1000 Thickness : (5-50)mm(flame) Pipe length : Max:12000mm

#### GS series CNC /plasma/flame cutting machine

This machine is a CNC controlling which may be used as flame cutting or plasma cutting machine.

Single Side Driving Rail Span : 2500 - 4000 mm Effective width: 1600 - 3100 mm

Double Side Driving Rail Span : 4500 - 12000 mm Effective width: 3600 - 11100 mm This machine is a CNC controlling and pipes across cutter, which may be used as oxyacetylene cutting or plasma cutting machine. This machine uses six axles moving in steps and has coherent cutting function, it is widely applicable to net shelves, it can automatically cut off the connections between a big pipe and a narrow one. This machine is easy to operate, its high precision and high efficiency make it possible to meet the demand of medium or large scale production.

