











# Company Chronology

1937: Eguro Machinery established in Itabashi, Tokyo as a limited liability company.

1944: Evacuated to Shimosuwa, next door town to Okaya. 1948: Eguro begins production of small bench lathes.

1956: Moved to Okaya.

Reorganized as Eguro Machinery Co., Ltd.

Production of GL-120 begins. 1961: Tokyo office opened.

1963: Building for machining division constructed. Nagoya office opened. 1967: Building for assembly division constructed.

1968: ENC104, an NC lathe with separate NC control unit completed on trial.

Building for head office constructed. 1969: First pinboard lathe delivered.

1970: Osaka office opened.

1978: Production of NUCPAL-10 begins. 1975: Sendai office opened.

1979; Production reached 40 unit NUCPAL-10 per month.

1981: Minowa plant constructed.

Machining division moved there



Awarded the Contribution for Safety Prize by Minister

1984: Awarded the Contribution for Safety Prize by Prime

1985: Accumulative 1000 units NUCLET-10 delivered.

1986: Production of NUCBOY-8 begins.

1987: Celebrated 50th anniversary of foundation.

1990: Model NUCBOY-8 changeovered by NUCBOY-8GL. 1988: Production of E-32v begins.

1992: CI introduced. Company name changed to EGURO Ltd. 1991: Model NUCLET-10 changeovered by NUCLET-10GL

1997: Accumulative 4000 NUCLET-10GL(incl NUCLET-10)

1998: Production of E-43v begins.

changeovered by NUCBOY-8EX, NUCLET-10EX and 2000: NUCBOY-8GL, NUCLET-10GL and NUCPAL-10GL NUCPAL-10EX.

Promotion Organization on NUCBOY-8EX, NUCLET-2001: Awarded Good Design Prize by Japan Industrial Design 10EX and NUCPAL-10EX.





# IN THE 21ST CENTURY **PROCEED**





# **Dear Customers**

We ever since the establishment have been doing our best for development of products of high precision and high quality. The products we delivered are all well accepted by the customers with their reliable quality, function and productivity.

Today innovation in the industry is dynamic and the needs of the market against machine tools are various indeed. We, as our principal, will not stay but continue to study and produce products to meet them.

Eguro will proceed with our customer in the 21st century.

Teruo Eguro , President



# **Eguro Today**

Okaya, where Eguro exists, is located almost in the center of Japan. It, once called "Silk Okaya" in the 1920's having achieved some 15 percent share of domestic silk-reeling production, is often dubbed as "Switzerland of the Orient" because of its climatical and geographical resemblance to Zurich and has become an advanced center of Japanese precision industry.

Eguro with these surroundings has always been supplying precision lathes, so called watchmaker lathers in the past and CNC lathes nowadays, to the industry. This has been expanded to precision small machining centers. Applications are now made to small precision parts in the various field such as computer components including floppy hard discs, business automation, communications, medical equipments and automobiles as well.

This trend has been continued to the lathe with base of ceramics of delivery of hundreds of machines.

Pursuit of precision and higher quality made Eguro deliver CNC lathe with fine ceramic spindle in 1984. Together with efforts on quality of the products, other features of Eguro are its training or education of the employee and attitude to safety. Especially Eguro has been trying to maintain and improve environment of its place of work and has been continuing record of no accident since May 1972.

Because of this, it was awarded by Minister of Labor in 1982 and by Prime Minister in 1984. The record is now 7.5 million man-hours.

It is doing better-the work action and continuing putin-order clean campaign on whole company base.

With less than 200 employee but full of spirit of challenge for ultra precision machining, Eguro will continue to deliver products satisfing requirement of the customers.



Precision ATC Lathe

# **REVOLVER-32**



A lathe with ATC of 32 tools. Developed under the concept of the machine to let the operators be free from troublesome tool setting in the production of various items in a small lot.

Together with the 5 axis machining center E-32v and by making the chucking system commonly usable between the two machines, precision machining higher than that of turning center is available.

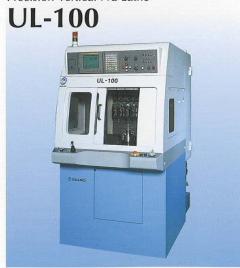
Automatic measuring and compensation system check the dimention and assure workpiece to meet severest tolerance. ID system for tool holder realizes outside tool preset without

ECS, Eguro Communication Support system, makes it possible to do machine DNC operation from machine, instead of from PC.

# Main specifications

Worksize Spindle speed max. 4.500min<sup>-1</sup> X axis: 400mm, Z axis: 400mm Slide travel X, Z axis: 0.1 µ m closed loop Slide rapid traverse X, Z axis: 30m/min. Spindle motor(Spidle built-in) 2.2/5.5kW(Oil cooled) ATC tool change 32 tools NC-5(=BT30 equivalent) Tip inserted for tool ID ATC tool shank Tool magazine rotation speed 2 sec./rotation Touch censor Workpiece clamping holder Floor space 2.150mm(L)×1.790mm(W)

Precision Vertical NC Lathe



In combination with multi spindle milling machine UM-100, UL-100 composes U shaped one operator production line.

The machine is so slender that it only occupies 1000mm(L) ×1600mm(W). This saves the floor space and accordingly the U production line can be composed

The upright spindle helps opertor set the work for chucking easily, without fail. This will much contribute to the efficient production and meet automatic loading unloading as well.

The tools are outside present and mounted with high accuracy.

## Main specifications

Swing to Z slide max. 6,000min Spindle speed X axis: 230mm, Z axis: 200mm Slide travel Slide rapid traverse X, Z axis: 15m/min. Spindle motor(Spindle built-in) 2.2/5.5kW (Oil cooled) Floor space 1,000mm (L)×1,600mm (W)

Compact Technology of EGURO's originality is concentrated into this compact machining center with 5 axes simultaneous control of its standard specification.

- 1. With the 5 axes simultaneously controled, multi or free curved faces can be machined.
- 2. Its feature of trunnion supporting the table is very good in rigidness.

With the free turning of the table, it gives free angle to workpiece.

Machining multi-face with one chucking guarantees high efficiency and high precision.

- 3. Even simple tools can machine complex free curves.
- 4. Complete symmetry against heat distortion realizes a stable machining for hours.
- 5. Floor space needed is so compact as 3,36m<sup>2</sup>, which saves plant space.

# Main specifications

Working area 250mm×250mm Turning of trunnion (A axis) 0~-95° (0.001°) 0~±360° (0.001° Table indexing (C axis) Axes travel X: 300mm, Y: 200mm, Z: 220mm Spindle speed 500~12,000min

With 5 spindles, 2 vertical and 3 holizontal and 4 axes, X, Y, Z and C controlled by CNC, 5 faces can be machined by one chucking.

Tools without automatic change but firmly fixed to the quill spindle have rigidness and assure high precision and high productivity. Tools can be outside preset.

The workpiece chucking device is flexible. It is basicly 5 inch three jaw chuck but collet, scroll chuck or even vise is available. Same as NC lathe UL-100, a partner for composing U shaped production line, chips are brought to the machine rear side. This makes the machine compact to become a unit to make the smart production line. Plus the upright talbe will meet automatic loading and unloading easily.

# Main specifications

Table rotation

Floor space

Vertical: 2, Horizontail: 3 Spindle Distance between spindles 120mm Spindle speed Vertical: 1 000~7 000min Horizontal: 1,000~7,000min<sup>-1</sup>(Rigid: max. 3600min<sup>-1</sup>) X axis: 270mm, Y axis: 150mm, Z axis: 150mm Column travel Column rapid traverse X: 12m/mir Vertical: 0.75kW AC inverter Spindle motor Horizontal: AC spindle motor 1.5kW and 0.75kW AC inverter Table indexing(C Axis) 0~±360° (0.001°)

1,000mm (L)×1,600mm (W)

Multi-face Precision Machining Center

# PLANET CENTER E-32v







# **NUCBOY-8EX**



Quite compact but rigidly designed NUCBOY-8EX is developed with a concept to meet demand for minimum floor space, lightest weight and easiest operation. Not a machine but an intimate friend is the feeling operators will get from NUCBOY-8EX.

Well known "gang" or "linear" type tooling essential for shortening cycle time and EGURO specialized in is available from this model as well. With all of the features of FANUC 0i-TD NUCBOY-8EX will enter the machining field now carried out by small bench lathes or program controled automatic lathes.

# Main specifications

Since its debut in 1982, more than 4100 machines have been used and accepted all over the world. High alloy steel spindle mounted is at front and rear in double angular contact bearings under most carefully selected tension.

Over 500mm long bed of alloyed semi-steel of quality, linear-tool system consisting of quick change base plate and holders, these, from the features of NUCLET-10EX,have made this model suited for precision turning of small parts in large and flexible in small quantity as well.

Enough X, Z stroke, C axis control together with various units prepared can arrange turning, milling and drilling in one chucking.

With ample space inside and wide opening between sideways in addition, NUCLET-10EX can become a base machine for automatic loading and unloading and open the way for infinite possibility.

# Main specifications

| Swing over bed | 300mm | 200mm | 250mm | 250

Being developed under the concept of amiable to the earth and people, this CNC lathe with linear turrent is a machine for the next generation, letting ecology and economy coexist.

- 1. The machine is built with modules of each unit.
- High quality and high precision can be kept by changing the modules.
- With the design of splash room and driving room being separate, the spindle frame and the slides are free from chips or splashes and the machine is kept away from troubles.
- Machine base of ceramics brings high rigidness, vibration absorption and complete anticorrosion, which result good in the life of tools.

# Main specifications

Swing over cross slide 200mm

Spindle speed max. 6,000 min<sup>4</sup>
Slide travel X axis: 260mm

Z axis: 150mm (both X and Z: closed loop)

Slide rapid traverse 15m/min.

Spindle motor (Built-in motor) 3.7kW (oil-cooled)

Floor space 1.680mm(L)×1.868MM (W)

This is a brand new machining center of BT-40 with 5 axes simultaneous control of standard specification.

- Spindle nose is BT-40. The structure of the trunnion being supported at both ends enjoys rigidness. High precision complex machining can be done with one chucking.
- Bed, cross rail (Y axis) and table in the structure of double column and the spindle free from heat distortion bring stable machining.
- Spindle with built-in motor turning at high speed brings high precision and highly efficient machining as well.
- Chips dropping straight down are driven out of the machine by the conveyor, which let the machine accept operation for hours.
- Floor space is 5.5 m<sup>2</sup> only. This space saving enables factory layout be made easily.

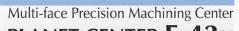
# Main specifications

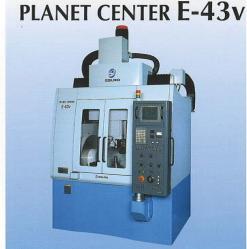
Working area 315mm  $\times$  315mm  $\times$  315mm Turning of trunnion (A axis) +  $10^{\circ}$   $\sim$  −  $100^{\circ}$  (0.001 $^{\circ}$ ) Table indexing (C axis) 0 $\sim$  ± 360 $^{\circ}$  (0.001 $^{\circ}$ ) Axes travel X: 370mm, Y: 320mm, Z: 320mm Spindle speed 500  $\sim$  10.000min' 500  $\sim$  10.000min' 500  $\sim$  10.500min. Built-in motor)

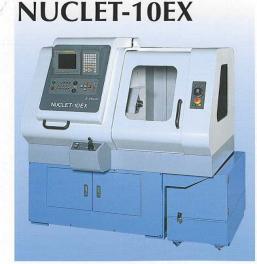
Precision Small CNC Lathe for the Next Generation











# BS

BS is for simultaneous turning of the both ends of sleeves or shafts of size 300-400mm or so. BS is fully lined up with, in the order of maximum diameter of the workpiece to be turned, BSZ-380, BSZ-600, BSZ-800 and BSZ-1000. BSS-300 in addition is designed very compact for space

saving and shorter work time. With workpiece fixed and tool turning, is UB-700.

# Main specifications BSZ-600

Max size of workpiece 60mm(D) × 400mm(L) 500~4,000min Spindle speed X axis travel 250mm Z axis travel 200mm 2.2/3.7kW Motor

2,200mm×1,500mm Floor space





Floor space

For mirror finish of printing roller drums by diamond turning are machines under RL series. The most popular one in the series is RL-550EX with machine base of

2,350mm×1,050mm

# Main specifications RL-550EX

Max. size of workpiece 120mm (D) × 550mm (L) Spindle (main/tail) speed 500-6000min X axis travel 90mm 7 axis travel 700mm Tailstock travel 400mm Motor Built-in motor

For inverse-crown turning of heat roller or paper feeding roller of copying machines or facsimiles is series RC.

# Main specifications RC-600EX

Max. size of workpiece 100mm (D)×450mm (L)

Spindle speed 300-6,000min X axis travel 100mm Z axis travel 500mm Tailstock travel 100mm Motor 1.5kW (built-in)





BS-Series sample

RL-700 sample



# EAL

EAL is series for turning computer hard discs (substrate) having two spindles and one slide and automatic loader, unloader together with in and out stockers. Time needed for changing workpiece has become zero with the spindles. loader and unloader.

# Specification EAL-600

Size of discs Up to 5.25inch Spindle speed Max. 8,000min<sup>-1</sup> X axis travel A,B axes (spindles) travel 150mm 1.5kw Built-in

# FG

Newly developed for profile grinding workpiece such as yoke, TV associated part of deviation.

# Specifications FG-102

Spindle speed:

2000min<sup>-1</sup>

Main Grinding unit 15,000~30,000min

X axis travel 150mm

Z axis travel Motor

1.5/2.2kW (Built-in) Main

Grinding unit 2.2kW-2P



# **Series JET**

With right angle cross 2 axes or 3 axes loader, series NUCJET of NUCJET-102,-103,-202 and -203 are prepared for fully automatic operation.



# Series ROBO

Also prepared for fully automatic operation is NUCROBO series with 5 axes multi-joint robot. Under the series are NUCROBO-8GL, -10GL and -102.



# NUCFLEX

Alike NUCJET-202 or -203 plus sub-spindle and subsilde for complex machining is NUCFLEX.



# **EAGLE-10GL**

With two spindles pallarelly mounted and respective linear X and Z slide, EAGLE-10GL is for high productivity and combination of process.



# **NUCPAS-102 E-PAS**

For full automatic production, EGURO has an advantage in FMS, with its experience and its wide range of products. The most popular ones are NUCPAS-102 of turning based line and E-PAS turning and milling based line. The original of E-PAS was introduced into the market in 1983.





# APOLLO DOLPHIN

APOLLO and DOLPHIN are featured by the movement of the respectitive X and Z slides. Both are for high accuracy. The 12 station turret (APOLLO) and 5 axis multi joint robot plus automatic measure and compensation system (DOLPHIN) are additional features



# Series OM

As a multi spindle for 5 faces milling, OM has 4 CNC control axes: X, Y for the column and C and Z for the table. Under the series are OM-230, -320 and 430, according to the number of spindles and their horizontal-vertical combination.

# EBN-10EX

Bench lathe oriented model with X, Z slides CNC controled.



# Conventional Lathe

**GL-120** 

Compact conventional lathe GL-120 has been in the market for more than 25 years. First designed for diamond cutting and nowadays design for rigidness being added it is well accepted for making jigs and for trial turning of precision small parts.







