

coordinate track equipped with NCT control system

Precirack® coordinate system



Features

- Path system suitable to be enlarged in modular way
- Structure made of a special alloy
- 3-component nano-composite lining
- Surprisingly light, yet, extraordinary rigid design
- Joint planes machined with high accuracy
- Axes and machine stay-plates measured by laser interferometer
- A,B,Z axes for 3 to 5-axis machining
- Speed of axes of 130 m/min with 1 G acceleration
- 0,01 mm accuracy of positioning and repetition
- Space measuring system with 3 micrometer scale division
- GANTRY axis synchronism
- Surface treated precision drive mechanism, with inclined cogging
- Compact Compact technology-carrier bracket with threefold linear guiding and zero pitching
- Protection of saddle against pollution by means of rubber mantle made of fire- and water resistant elements
- Sectioned cabin within the work area, operator console of ergonomic design with spacious margin
- Space saving design, easy transportability, installation possibility on extreme sites.

Modular design

A system suitable to be built of elements that offers a number of possibilities in respect of both the work space and equipment. The useful work area can be increased in a cost-effective way at any time up to as high as 6000 x 30 000 mm size. The processing technology can be changed even posteriorly and the machine can be enlarged with other optional features. Operator cabin within the work area and work benches of various design are also available on request.

Light and compact design

It is made of structural elements composed of special alloy by using individual welding technology. It has a rigid and vibration-free crosswise bridge structure of optimized centre of gravity. An integrated lengthwise train is built on its legs fit into another strutted in several directions.

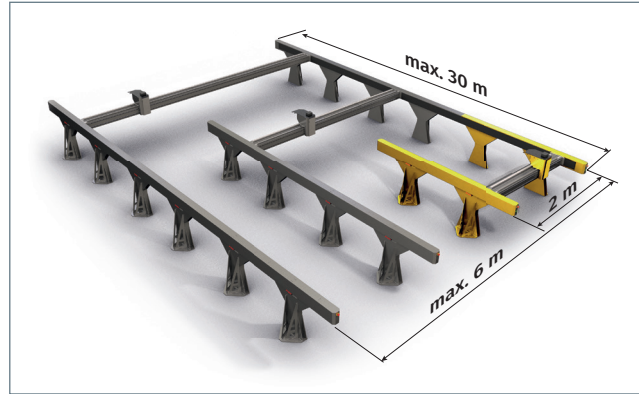
Preciseness

The base plates of the structure are levelled by means of a laser interferometer. All of its components are levelled by milling on the whole surface of junction points. It is driven along the XY axis by means of a surface-treated precision gear-rack of inclined cogging made of strengthened alloy suitable to be ranked. The drive along the Z axis is backlash-free, provided with a high precision ball spindle. In case of AB rotating axles, a high precision backlash-free wave-drive will be built-in. The parallelism of Gantry axles is measured by means of microscope-aided threads. Linear leads along each axis and threefold guide in crosswise direction are mounted. The drives are of ground gears and the mechanical structure is assembled with high precision.

Advanced control- and drive system NCT and Beckhoff controls

- Intelligent control software with intuitive graphic interface
- Professional operator console with touch screen
- Handling of as much as 64K axis and 8 virtual machine simultaneously
- Graphic PLC with optional machine functions
- Heidenhain-type absolute space measuring system (3µm)
- Nano interpolation, vector feed-forward
- HSHP path follow-up, closed-loop position control
- Acceleration according to third degree function (bell shape)
- Digital AC servo drives on EtherCAT bus

HSHP = High speed & High Precision



Dynamics

The balanced drives integrated into the bridge ensure the highest possible speed and acceleration. Digital AC servomotors of optimum inertia with unparalleled acceleration operate on each axis. The moving bracket is of compact design; fast and pitch-compensated.

Efficiency

The continuous preciseness of mass-production with minimum energy consumption, the shortest possible production lost-times and little maintenance requirements is guaranteed. It is recommended in all the fields of application where flexible, cost-effective CNC equipment with low space requirement and low purchase cost is required.

Protection, reliability

It is provided against pollution of vapor, smoke, chips, dust and other wastes by a full longitudinal cover, a cross-wise fire resistant bellow as well as a closed Z console that minimize the maintenance requirements of the mechanics. It is equipped with a central grease lubrication system with dosing as required. It is mounted with operator cabin within the work area in order to filter out the noise and production by-products. It is provided with multiple safety loop for the protection of the operator and the environment.

ProCAM Engineering and Development Ltd.

Factory Hungary-2142 Nagytarcsa, Ganz Ábrahám utca 4.
Office Hungary-2142 Nagytarcsa, Ady Endre u. 36/A.
Phone/Fax +36 28 737 046
E-mail info@procamkft.hu
Internet www.precitrack.com