

## High Rigidity and High Precision Structure Design

Tool Changing Mechanism

Spindle speed up to 12,000rpm **OP**

High rigidity linear guideway is applied on the 3-axes

3-axes pre-tension ballscrew

Wide column base

Robust base

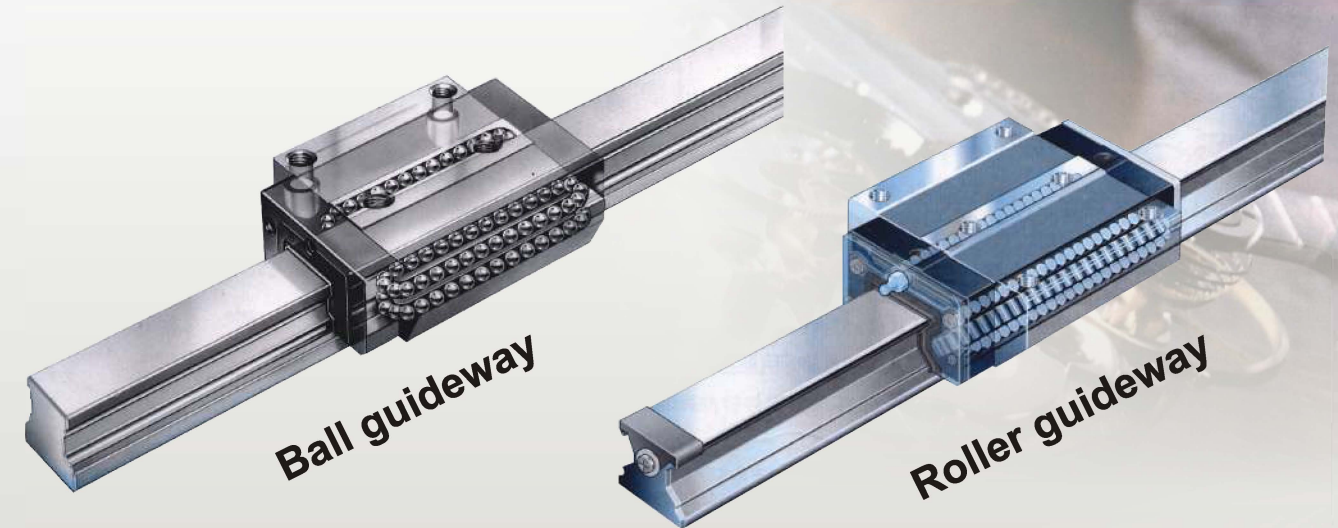
The motor is directly coupled on the 3-axes

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- The major construction parts are based on Meehanite cast iron, which is stable in structure and long-term quality is assured.
- Casting parts are calculated and analyzed by the finite element method. Proper structure strength combined with enhanced ribs provides high rigidity for the machine.
- A linear guideway is applied on the 3-axes, supporting heavy loads, rapid moving, and assuring precise positioning.

- A wide base, box-shaped column, enhanced saddle, full span supports for heavy loads, and robust structure all contribute to its ability for heavy duty machining.
- Enhanced ribs inside the spindle head and a proper contact length ratio between the spindle head and column provide solid support for the spindle.

## Linear Guideway with High Speed and High Precision



- A linear guideway with zero backlash ensures a consistent cutting surface on curved or tilted surfaces.
- Suitable for high speed operation and the horsepower requirement is minimized.
- By using rolling contact instead of sliding contact, the linear guide reduces the friction loss and increases the sensitivity and positioning precision.
- Capable of taking loads from all directions simultaneously. Multiple point contacts of the rail contact surface under loads, the cutting rigidity will not be compromised.
- Easy to assemble with interoperability. The lubrication mechanism is simple.
- Tiny wear and tear of linear guideways, long service time.

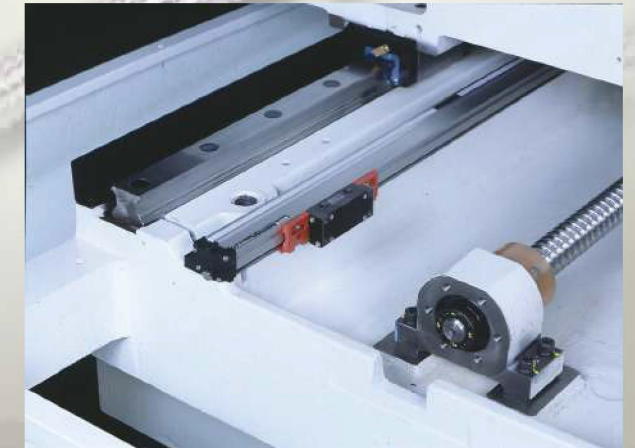
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### Collision Protection Device



- The machine is equipped with a collision protection device which can absorb collisions due to machine malfunctions or mistakes made by operators. The damage caused by the collision can be minimized and still maintain the design precision.

### High Precision Linear Scale **OP**



- The X/Y/Z-axis can be equipped with a linear scale system to detect thermal displacement due to rapid movement of the machine. The thermal displacement result will be sent to the controller for compensation, suitable for high precision parts machining.
- The linear scale system is designed with a gas protection device to prevent the linear scale from contamination by dust and oil vapor. The precision of the linear scale is assured and the service time can be extended.