Control system

Control system with integrated safety concept

The vision is equipped with the latest generation of control systems, the Sinumerik 840D solution line (sl) of Siemens. The Sinumerik 840D solution line (sl) of Siemens is designed to be safe, secure, and modular system architecture perfectly match the design concept of the Vision. The machine operates and programed in a time-saving and intuitive manner by means of a graphic user interface (GUI). Above all, the control system is able to handle the shortest reaction times resulting from the VISION. Thanks to the machine-neutral component description, the shortest reaction times resulting from the emergency processing functions are directly integrated into the control system, so that the intelligent solution provides a high level of protection for man and machine whilst featuring convenient handling.

Technical Features

Working units

Centralized 5 axes working head, exchangeable additional units for all common machining operations, various types of boring units, swiveling heads with different performances.

Cutting working head

Performance 15.0 kW, maximum performance of 11,300 rpm

Frequency of operations programmable from 500 – 11,300 rpm

Tool changer with radial change 360° / 240° (600 / 1,500 mm as option)

B-axis, rotating range – 180°

C-axis, rotating range – 180°

Tool change

The automatic tool changing system is placed in the portal.

A magazine plate with 24 places has been integrated (change magazine with 40 to 80 places in an option).

Tool diameter max 300 mm, pick up place with saw up to Ø 450 mm.

Machine table

VISION I

X-axis 3,740 mm - max. 60 m/min

Y-axis 1,560 mm - max. 60 m/min

Z-axis 480 mm - max. 20 m/min

Machine weight

approx. 7,000 kg

Machine table

VISION II

X-axis 4,570 mm - max. 60 m/min

Y-axis 2,160 mm - max. 60 m/min

Z-axis 480 mm - max. 20 m/min

Machine weight

approx. 9,000 kg

Additional equipment

Machine tables with Bernie (manual or automatic set up tables), vacuum system 200 m3/h, chip removal belt, special clamping devices, laser projection system, Festo for fine-diagnostics, bar code reader, user software for the graphically supported measurement and setup process.

Control system

Siemens Sinumerik 840D (出路系统)

VISION-L and -U

The unique flexibility of these machine series is based on the modular cell equipment, multiple additional equipment and different table types. Depending on the task, the machining centre can individually be equipped to the customer’s requirements. Upon request, the machine will be configured and offered after consultation.

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Reichenbacher Hiavlart machines. These machines are equipped with good dynamics and are therefore preferred for a cost reduction in manufacturing while maintaining high productivity.

This is why these machining centres are located in interrelated part manufacturing even of standard batch sizes. Moreover, they ensure an outstanding cost-performance ratio.

The VISION-L and U types complete the range of applications is almost unlimited. There are different table lengths and table systems to choose from. The ground plate table - also available with different clamping areas - is the proven universal version most commonly used. With the PIN table, a unique table and clamping system, new levels of versatility in single-unit production can be achieved. The automatic beam table is a highlight. Thanks to this new design, the table can be adapted for the new component within a few seconds.

The VISION system:
- After 15 years still market leader
- with our safety concept for moving portal machines
- Enclosed portal
- Portal equipped with safety bumpers
- no pressure sensitive mats
- no safety barriers
- One-dimensional safety curtain
- Door for restricted access to the machine
- Safe view of the working process by generously dimensioned windows

Tool changer
The high-performance units in the portal are supplied by a plate magazine with 12 or 24 tools or a common chain magazine with up to 100 tools. In this case comprehensive savings are possible by parallel tool change. The hollow cone shanks used are particularly suitable for high-speed machining due to their high-dimensional urban support. Thanks to its U-shaped portal the VISION-U offers a lot of variants for parallel and single machining. Thus, given two units, parallel to machining a tool change, e.g. from a single to a chain magazine, will be possible – double tools can be omitted. The use of up to two tool magazines is often used as having two components one behind the other – for example when 3-unit tool heads are used. The independent units are mounted on an U-support in Y-direction and guarantee high up-time.

With the VISION-L up to two independent Y-tables for the units can be mounted one behind the other. This permits the tool change from two tool magazines, while machining takes place in one plane. Thus, the use of up to two tool magazines is often used as having two components one behind the other – for example when 3-unit tool heads are used. The independent units are mounted on an U-support in Y-direction and guarantee high up-time.

Universal application – for example for special profiles in the aerospace, car or stair production, efficient all-round machining of formed parts and clamping devices and PIN table base plates, permit the entire stair machining process to be carried out in one pass. Three separate milling units and one sawing unit, mounted in an independent positioning unit, is a highlight. Thanks to this new design, the table can be adapted for the new component within a few seconds.

The components show what the machine can do

The VISION-L and U types complete the reliable VISION series. These machines are equipped with generous dimensions in all axes and multitude of different machining units available. These units can be combined for single and parallel machining with up to four independent Y-slides.

Thanks to their extremely rigid machine construction, a diversity of machining units can be used next to each other or side by side. These units can be combined for single and parallel machining with up to four independent Y-slides.

In many demanding applications, the basic version of the VISION series has already proven its capabilities at our customers. Its stability and precision correspond to the standards set by all customers. Its stability and precision correspond to the standards set by all customers. Its stability and precision correspond to the standards set by all customers. Its stability and precision correspond to the standards set by all customers. Its stability and precision correspond to the standards set by all customers. Its stability and precision correspond to the standards set by all customers.