

VTC

provides five-axis versatility.

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Yamazaki Mazak's VTC range of vertical travelling column machining centres is spearheaded by the VTC-800 series. Designed and built in the UK they provide 3-axis machining capacity or, if the SR model is specified, full five-axis simultaneous machining.

Driven by demand from customers throughout Europe, the VTC-800 series offers a cost-effective solution with a fixed head for rigid and fast 3-axis machining of a wide range of components. The flexibility of the 3 m bed length machines gives the ability of genuine pendulum machining, where one component can be machined while another is being loaded and has ensured the VTC-800 series' success with subcontractors across Europe.

The majority of these customers have opted for the greater flexibility of the SR specification machines that feature Mazak's B-axis technology, and the choice of one or two rotary tables, the latter option allowing synchronisation of the two tables when machining long components or, they can be operated independently when pendulum machining.

Adding the B-axis reduces the Y-axis stroke by 20 mm to 800 mm, but this is a small price to pay for the added versatility provided by the full five-axis simultaneous movements that can be generated when used in conjunction with the C-axis rotary tables. The rotary tables can be placed horizontally or vertically to maximise the machining envelope and provide greater machining options for the customer. For sub-contractors this versatility and increased capacity is a big positive, as it provides the reassurance of knowing that they will have the machining capacity to handle whatever should come through the door next. Whether it calls for three, four or five axis machining.

Such productivity improvements are core to the design of all new Mazak machines and the factory integration of the additional axes ensures perfect co-ordination between the machine tool and the Mazatrol Matrix control system.

The initial success of the VTC-820/30 and VTC-800/30 SR 3 m bed machines quickly led to an extension of the series and, in June 2010, Mazak unveiled the VTC-800/20 SR. These 2 m bed machines feature the same mechanical components as the larger machines, such as 18,000 revs/min standard spindle; ballscrew cooling and direct drive motors – no need for scales; cast iron bed and fast chip to chip time of 4.7 seconds. In addition, the four and five axis versions share the roller gear cam B axis drive which totally eliminates backlash across its +/- 110 degrees of movement. This same technology is also applied to the C-axis and with a Hurth coupling providing secure clamping a secure and precise component location is guaranteed.

The move to five-axis simultaneous machining may appear daunting, but as these fourth and fifth axis options are integrated at the factory they interface seamlessly with the Mazatrol Matrix control system and the Mazatrol conversational programming system ensures that even the most complex of components can be programmed quickly and easily, with little or no knowledge of ISO programming.

The option of full five-axis simultaneous machining on the VTC-800 series has proved a popular one with sub-contractors across Europe.

VERSATILITY

Introducing the new VTC-800/20SR.

Winning in the recovery is about competitive edge. Manufacturers need to produce a wide variety of parts, cost effectively and with reduced production lead time. Mazak's VTC-800 series of vertical machining centres offer complete flexibility, combined with high quality and accuracy.

Our vertical travelling column design is suitable for accurate machining of large and medium-sized workpieces across a range of industry sectors, especially for subcontract manufacturers. It offers simple 3-axis vertical machining or full simultaneous 5-axis machining according to your needs.

The powerful B-axis spindle with integral motor is supported by Mazak's Roller Gear Cam technology for perfect control and stability, even with heavy duty machining it delivers high speed indexing, high accuracy positioning and smooth start-up.

Mazak's NC rotary tables can be mounted vertically or horizontally – two tables can also be mounted, enabling synchronised machining of long parts. A centre partition can also be installed to enable pendulum machining, effectively giving you the equivalent of a two-pallet machine.

With the VTC-800 series there is so much flexibility you will be able to access almost any industry sector and deliver high quality precision parts quickly, reliably and competitively.



The VTC-800 Series – now with a 2m or 3m bed, offering total flexibility for 3, 4 or 5-axis machining.

Mazak
Your Partner for Innovation

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