

# Varia<sup>®</sup> VX

Quick Change Tooling System



**GET  
THE  
MOST  
FROM  
YOUR  
TURNING  
CENTER**



*High Precision Tool Holders And Spindle Units  
For Most CNC Turning Machines*

- BARDONS & OLIVER • HITACHI SEIKI
- OMNITURN • BARUFFALDI •
- HURCO • PROEBA • BENZINGER
- HWACHEON • REPUBLIC LAGUN
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- TOSHIBA • DOOSAN INFRACORE
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- SHIPLEY • VICTOR • ESCO •
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- TORAL
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- BRITAIN • HARDINGE • OKUMA
- BARDONS & OLIVER • HITACHI
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- JOHN FORD • TONGIL •



**ITI TOOLING COMPANY INC.**

37 Orchard St., Ramsey, N.J. 07446 1-888-88-INDEX

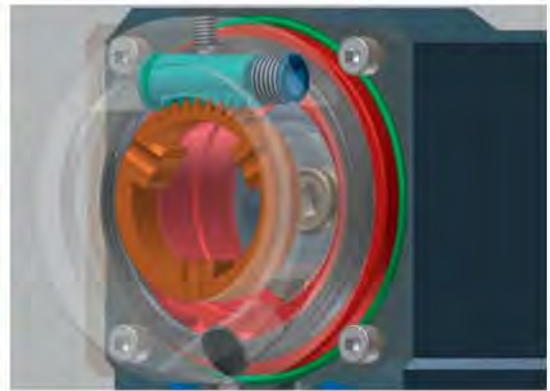


## Reducing set-up time with the innovative **Varia** quick-change-system

Awarded with the "Innovation Award" of the federal state of Baden-Württemberg

### Advantages

- preset cutting tools are laying ready at the machine
- quick change through only one clamping point
- no risk of injury when changing tools
- clamping of the inserts without any radical force
- safe torque transmission
- no loose parts!



Varia VX

### Versions

- Varia V3 + VX3 = VDI25 / VDI30 / BMT55
- Varia V4 + VX4 = VDI40 / BMT65
- Varia V5 = VDI50 / VDI60 / BMT75 / BMT85



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**Precise, fast and efficient – these are the characteristics of the next generation of machine tools. The new Varia VX system meets all of these attributes.**

## Focus on Precision

The taper and planar support of **Varia VX** guarantees a maximum concentricity, and has a positive effect on high spindle speeds. This feature is of great importance, especially in the case of small tool dimensions.



## The Provision of Speed

Speed is understood by the EWS engineering team as the requirement needed to retool a machine quickly. The Pit Stop is the place where you win a race!

The same is true in a shop. Set-up or tool change times have a significant impact on the efficiency of a turning/milling cell, especially with small lot sizes. **Varia VX** sets the standard in this respect. The easy-to-use one-hand operation allows a tool to be changed completely within 20 seconds. This is what we call **VXtreme**.

## New Definition of Performance: P=VX

A positive polygon transfers the performance potential of the tool drive free of play, with torques of up to 200 Nm being achieved.

Depending on the requirements, **Varia VX** may be equipped with a high-speed spindle bearing or a taper roller bearing for heavy machining. In case the performance characteristics of the machine are insufficient, high-precision gears will provide individual support in terms of rotation speed or torque.



## Focus on Internal Cooling

A diametrically working diaphragm seal between the adapter and the holder allows the transfer of coolant pressure up to 100 bar leak-free and accurately, depending on the tool type.



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## Clamping Unit

Three multi-functional cam lobes mounted on a gear segment have a twofold effect. First, the three-point clamping evenly pulls the tool head into its working position. Once detached, the adapter is mechanically actuated and ejected by means of tappet slides and afterwards released for removal. During machining, the preloaded dual tapered contact surface guarantees the highest stability and stiffness.



## Committed to Your Safety

**Varia VX** can be tightened and loosened via a screw arranged laterally to the operator. This proven one-hand clamping eliminates the risk of injury on the cutting tools in the set-up room. The mechanically superimposed ejector system allows the removal of interchangeable tool heads from the adapter without effort, which further reduces the risk of injury.

## Focus on Your Costs and Benefits

The initial purchase of the driven unit with basic holder and tool adapter will result in a slightly higher cost, however this additional expenditure will be amortized in the long run. The extremely short tool change set-up and the resulting reduction of downtime on the machine, will make it a key factor of process-optimized production. In addition, you will benefit from the unlimited flexibility of the cutting tool clamping. In addition to collets, **Varia VX** also offers Weldon, milling arbors, shrink fit, and hydro-extension adapters. Every clamping system is offered in a variety of diameters and lengths. Custom-made solutions are also available, making the system a valuable trendsetter.

## Varia goes VX

Are you using Varia, but would like to upgrade to **Varia VX**? No problem! The EWS sales team will be glad to offer you customized upgrade packages.



**Welcome to the world of flexible solutions.  
Welcome to ITI Varia VX!**



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## 1. To chuck the Varia VX Adaptor in the tool:



Make sure that the Varia VX tool is in open position. Turn the locking screw completely counter-clockwise until the stop, if needed.



Insert the Varia VX adaptor into the tool with slight pressure against the spindle.



With the Allen Key tighten approx. 1½ rotations clockwise with 10Nm. (7lbft.)



Now the Varia VX inset is chucked



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## 2. To remove the Varia VX Adaptor from the tool



Loosen the locking screw counter-clockwise using the Allen key approx. 1½ rotations with 10 Nm until the stop.



Now remove the Varia VX Adaptor from the tool.



The tool is now ready for the next Varia VX Adaptor.



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**ITI QC VARIA®** *Universal Modular Tool Holding System*



## **GIVE US YOUR CNC LATHE AND JUST 7 SECONDS TO PROVE A POINT ...**

Because with just one single-point clamp in the patented ITI QC-Varia tool holding system, all it takes is about 7 seconds to exchange tools on most CNC lathes.

A simple half turn to the left releases used tools, a half turn to the right secures new ones.

And on many lathes, when the tool spindle stops, a spring-loaded detent automatically orients the clamp screw towards the operator. There's no wasted time searching for the clamp and, more importantly, no need to grab sharp or broken tools to rotate the spindle manually.



There's more. Varia's compact design provides a greater working envelope than other modular systems. And with dedication to engineering excellence, you're assured years of trouble-free performance.



**ITI TOOLING COMPANY INC.**

*Your Single Source for High-Quality  
CNC Lathe Tool Holders and Spindle Units*

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