Hirth Serration
Hirth Coupling
Hirth serration –
Only Voith Turbo is the original

Please stop and think how you can use this technology. Established now for many years, it is still the latest state of technology to meet the increasing demands in engineering. It should therefore be the first option for any designer where high accuracy indexing is required or where a compact rotating machine design is necessary for either high speeds or torques where space saving, ease of manufacture, assembly or disassembly is required.

<table>
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<tr>
<th>Positive locking</th>
<th>High-precision index</th>
<th>Repetition accuracy</th>
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Hirth radial serrations are face tooth couplings, self-centring, with highest location and torque transmission. Used for indexing and the assembly as connection elements for rotating elements, e.g. shafts, turbine wheels, crankshafts, etc. In particular they are used as indexing and locating elements for high precision indexing in machine tools.

The Hirth serration offers many advantages in many different applications:

- Compact high torque transmission
- Balance repeatability on re-assembly of components
- Low rotating masses compared to flanged connections
- Maintains axial and radial run-out condition
- High reliability
- Unique mounting and assembly possibilities
We can meet all requirements:

- Standard rings
- Customised rings
- Machining of customers’ pre-machined materials

Our main goals are satisfied customers as well as the quality of our products and services. Our Quality System has been certified to DIN EN ISO 9001 for many years – which is just one characteristic feature of the permanent high quality of our performance.

Many of the world’s leading manufacturers of machine tools use Hirth indexing elements:
- Positive locking and self centring
- Space saving high-precision indexing
- Location with high repeatability
Voith standard rings are compact indexing elements providing highest precision, location and repeatability of indexing.

Benefits:
- Comprehensive range between 50 and 900 mm diameter to cover all normal requirements.
- Reduction in logistic costs and delivery times due to availability from stock.
- More favourable price due to manufacture in large batch sizes.

Features of Voith standard rings:
- Indexing precision $\pm 2"$
- Repeatability 0.001 mm
- High resistance to wear
- Positive locking
- Self-centring
Fields of application:
- Machine tools, e.g. rotary indexing tables, turret heads, pallet changers
- Compressor manufacture
- Metrology
- Robotics
- Nuclear technology
- Medical technology

Voith standard rings: references
- Deckel-Maho, Pfronten
- Eubama, Rottweil
- Mandelli, Piacenza
- Matec, König
- Rücker, Römerstein
- Sachmann, Reggio Emilia
- SW, Schramberg
- TOS, Varnsdorf
- Traub, Reichenbach
- Wenzler, Spaichingen

Modern machining center
Customised rings
Individual and economic solutions

When Voith standard rings cannot be used, manufacture to customers’ drawing or sketch can be supplied – quickly and economically. Special designs, such as three-part rings for use in non-lifting rotary indexing tables and tool holders, can also be supplied. Our engineering and manufacturing capability ensures first class quality at lowest cost.

Benefits:
- Manufacture to customers’ drawing
- Specified tolerances observed
- Short delivery with stocking or call-of arrangements
- Guaranteed quality with inspection certificate

Customised rings: references
- Benzinger, Unterreichenbach
- Deckel-Maho, Pfronten
- Dörries Scharmann, Bielefeld
- EMAG, Salach
- Grob, Mindelheim
- Guindy, Madras
- Heckert, Chemnitz
- Hoffmann, Pforzheim
- Skoda, Pilsen
- Waldrich, Coburg and Siegen
Machining customers’ pre-machined materials
Perfect machining of your components

Your expensive components are treated with the utmost care from receipt, through machining, inspection and despatch. All machining is carried out in-house for optimum control of quality and manufacturing process to ensure delivery on time and of the desired quality.

We are not only machinists. With extensive experience gained over many years and from many different applications, we can offer an unequalled design or consultancy service assisted by our substantial computing facilities and specialised programs.

Benefits:
- Short lead times
- Vast experience of machining sophisticated materials
- Vast experience in the design of the Hirth serration
- Specialised computer programs

Fields of application:
- General mechanical engineering
- Compressors
- Gas turbines
- Nuclear technology
- Centrifuges
- Gear units

References
- Andritz, Graz
- Atlas Copco, Köln
- BHS, Sonthofen
- Flender, Graffenstaden
- KKK-PGW, Leipzig
- KSB, Frankenthal
- MAN-GHH, Oberhausen
- Siemens, Duisburg
- Nuove Pignone, Florenz
- Renk, Augsburg
- SMS, Hilchenbach

Everything from one source:
- Design or checking
- Turning
- Drilling, milling
- Tooth cutting
- Heat treatment
- Grinding, internal and external
- Special serrations
- Inspection
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