



QUALITY GRIPPING SOLUTIONS...



www.Uni-Techengineers.com



About Us

"As technology advances into all sectors of the industry, tolerances that were once just a dream have become a reality. Clamping technology needs to be maximally precise and reliable in manufacturing and inspection. Hydraulic expanding work and tool holdings are some of the most reliable and high-performance tools used today by leading automobile industries. Uni-Tech Engineers established in the year 2012, is armed with a team of young and dynamic professionals, including highly qualified engineers, skilled designers, researchers, and quality controllers. Our company has an excellent reputation as a specialized manufacturer, exporter, and supplier of world-class products, with a commitment to achieving 100% customer satisfaction. We offer Hydraulic Tool Holders, Hydraulic Lock Nuts, Hydraulic Mandrels, Collet Type Expanding Mandrels, Collets, Arbors, Indexable Tool Holders, and also take up all kinds of job works involving Hydraulic Expanding Mandrels, Hydraulic Lock Nuts, and Hydraulic Tool Holders. We have attained great success in the engineering industry."

Quality Assurance

"We have an uncompromising approach towards the quality of our products. We understand that the best quality is the only factor that can efficiently satisfy our customers. To ensure a high standard of quality, we source premium grade raw materials only from reliable vendors and test them at our premises before sending them to the manufacturing unit. The complete manufacturing process is carried out under the vigilant eye of our quality controllers. Finally, each fine-finished piece is rigorously tested by expert quality analysts."



Product Range

"We manufacture and export a wide range of high-quality products that are fabricated from high-grade raw materials. These products are designed and developed using state-of-the-art machinery and equipment, and under the supervision of our team of experts. Our product range includes the following:

- ✓ Hydraulic expanding Mandrels / Chucks
- ✓ Collet Type Expanding Mandrels / Chucks
- ✓ Inspection Mandrels
- ✓ Turning Mandrels / Chucks
- ✓ Hydraulic Lock Nut
- ✓ CNC Hobbing machine Arbors
- ✓ Threaded Clamping System
- ✓ Collets & Rubber Collets
- ✓ Friction Coating

AREA OF APPLICATION

- ✓ Gear Hobbing
- ✓ Gear Shaving
- ✓ Gear Grinding

Repair Works:

"We repair all kinds of Hydraulic Expanding Mandrels and Hydraulic Lock Nuts used in CNC Hobbing Machines, Gear Shaving, and CNC Profile Gear Grinding processes. We also repair Hydraulic Tool Holders used in VMC Machines. Major repairs include issues such as oil refilling, seal replacement, torque testing, and restoration of clamping pressure. However, we do not accept Expanding Mandrels, Hydraulic Nuts, and Hydraulic Tool Holders that are completely damaged or require geometric corrections, or jelly-filled Expanding Mandrels, Hydraulic Nuts, and Hydraulic Tool Holders."

Hydraulic Expanding Mandrels

Uni-Tech Engineers Hydraulic mandrels function by expanding or compressing under hydraulic pressure. The hydraulic system is integral and may be manually or power actuated. Extreme accuracy in component location is assured as the sleeves expand or contract under equalized hydraulic pressure uniformly from their geometric axis within 0.003mm or less if required specially.

These mandrels may be manual or auto actuated depending on the requirement of customer. In auto actuated mandrels centering is performed via. The tailstock centre by simultaneous axial pressure against the contact faces of mandrel and work piece.



Hydraulic Expanding Mandrels - Repair

Uni-Tech Engineers repair any imported hydraulic mandrel which are used generally for Gear Profile Grinding, Gear Shaving, Hobbing, Cylindrical grinding etc. Seals are replaced and oil refilling done. We do not repair jelly filled mandrels. Also if the expanding portion is damaged or cracked the same is replaced. Repairing cost depends upon the scope of work.

Gear Hobbing Fixture

Hydraulic

- ✔ Precision run-out ≤ 0.003 mm
- ✔ Multiple clamping possible
- ✔ Intermediate sleeve optional
- ✔ Possible to obtain exact expansion with re-setting screw for fine adjustment
- ✔ Available in both top and bottom actuation as per requirement



Collet Type

Expanding mandrels are the ideal solution to many work holding problems. By holding parts in the clamping forces are evenly distributed, reducing distortions during part manufacturing process. Mandrels also provide a superior method of holding parts with high volume short cycle times or which require the highest levels of concentricity Uni-Tech Engineers supply expanding mandrels tailored to your exact specifications. Many different actuation method can be use such as draw bar, cantilever nut and front nut. Every expanding mandrel or collet chuck supplied by Uni-Tech Engineers have the following features:

- ✔ Single Angle or Double angle taper sleeves
- ✔ High levels of concentricity
- ✔ Positive clamping and release
- ✔ Generous expansion capacities
- ✔ Sleeve interchangeability
- ✔ Controlled datums

All of the above permit quick and secure clamping creating versatility and ease of use.



We are also Providing Solutions Collet Type Gear Hobbing Fixture for Following Machines.

Liebherr | Gleason | Mitsubishi | Kashifuji | Samputensili | Reishauer

Gear Shaving Fixture

Machine Mounted Auto Actuated By Tailstock

- ✔ Ideal for auto loading / unloading
- ✔ Auto clamping of work-piece
- ✔ Run-out accuracy 0.003 mm
- ✔ Possible to obtain exact expansion with re-setting screw
- ✔ Intermediate sleeve optional

Between Center Type

- ✔ Split mandrel between two halves
- ✔ Manual or Auto actuated by tail stock
- ✔ Run out accuracy achievable upto : 0.005 mm
- ✔ Possible to obtain exact expansion with re-setting screw
- ✔ Intermediate sleeve optional
- ✔ For both plain & spline bores



Gear Grinding Fixture

Hydraulic

- ✔ Precision between center run-out 0.003 mm or less if required
- ✔ Manual or tailstock actuated
- ✔ For both plain & spline bores
- ✔ Intermediate sleeve optional

Collet Type

- ✔ Single Angle or Double angle taper sleeves
- ✔ High levels of concentricity
- ✔ Sleeve interchange ability
- ✔ Positive clamping and release
- ✔ Controlled datums
- ✔ Generous expansion capacities
- ✔ All of the above permit quick and secure clamping creating versatility and ease of use.



Inspection Mandrels

Hydraulic

- Precision run-out 0.003 mm or less if required
- Wide range of application
- Intermediate sleeve optional
- For both plain & spline bores



Turning Mandrels

Hydraulic

- Manual or auto actuation with tailstock or Draw-bar
- High clamping force to sustain torque of Turning



Hydraulic Lock Nut

Hydraulic lock nuts are used mainly to clamp Hob Arbor. Following are some typical examples shown further more any additional design and design combinations are possible should you look for a solution of this type of task, simply ask us and we will readily help you. At Q-tech Precision Clamping we provide repairing service for hydronuts. If the threaded sleeve is damaged, it is replaced with new one. The seals and diaphragm are also replaced. Clamping trial is done. Repairing time is around 4 weeks.

Hydraulic Lock Nut - Repair

At Uni-Tech Engineers we repair all types of hydraulic Lock Nut used in **CNC Hobbing Machine, Gear Shaving & CNC Profile Gear Grinding Processes**. The major Repair included issues like oil refilling, seal replacement, torque testing and Restoration of Clamping pressure. However we do not accept Hydraulic Lock Nuts which are completely damage or needs geometric corrections or jelly filled Hydraulic Nuts.



CNC Hobbing Machine Arbors

At our company, we specialize in providing high-quality Hob Clamping arbors that are specifically designed for use with CNC Hobbing machines. Our arbors are manufactured with precision and are made from top-grade materials to ensure long-lasting durability and excellent performance.

One of the key features of our Hob Clamping arbors is their exceptional run-out tolerance. With a between center run-out of just 0.002 mm, our arbors are able to maintain tight tolerances and produce highly precise results, even when working with complex geometries and challenging materials.

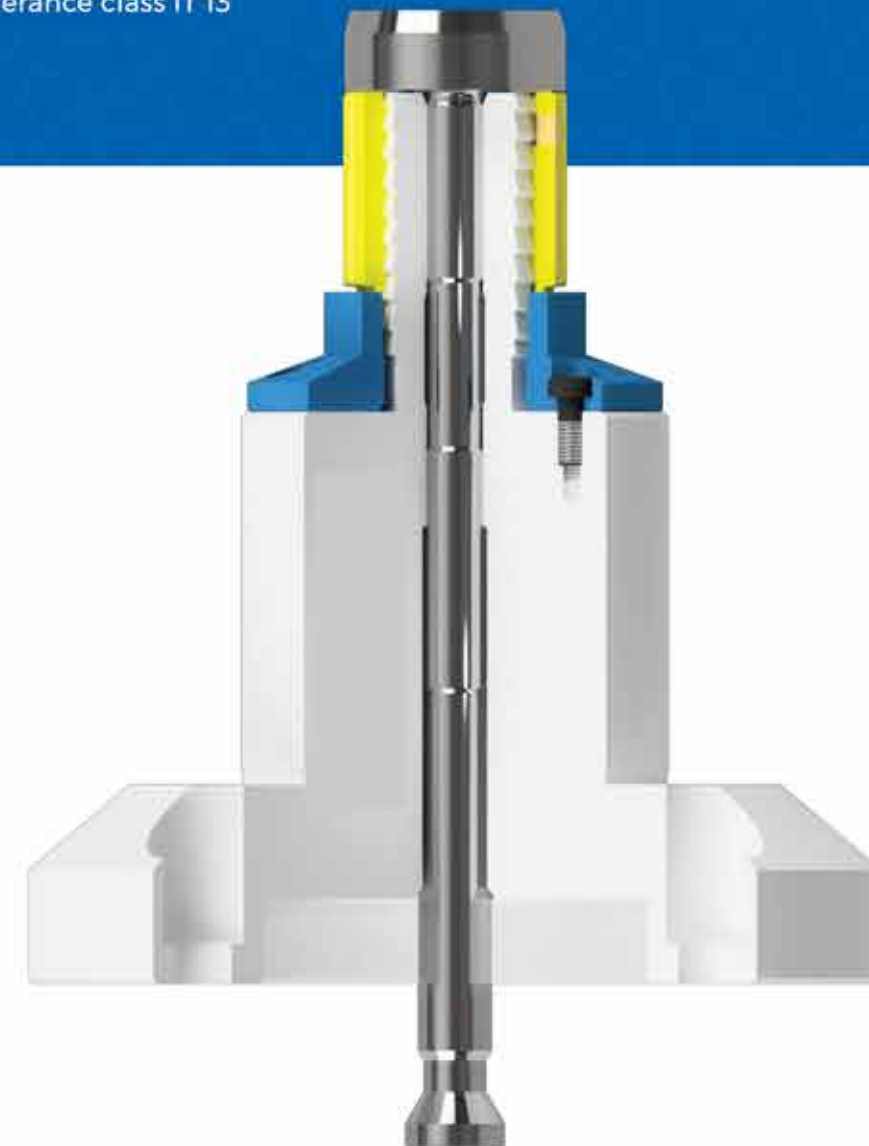


Outstanding quality and reliable performance, you can be sure that you're getting the best possible results every time you use them.

THREADED CLAMPING SYSTEM

The Uni-Tech Engineers' threaded clamping system consists of a collet that is screwed onto the base body. With the help of a threaded profile and an axial force movement, the collet is pushed over the specially ground profile. Due to the flank angle, cylindrical expansion takes place in the radial direction, which results in the workpiece being clamped.

The operating principle of threaded profile clamping devices allows for higher loading cycles than conventional hydraulic expansion tools. For long clamping lengths, even cylindrical expansion can be achieved. Depending on the application or clamping diameter, it is also possible to achieve clamping tolerances up to tolerance class IT 13.



Collet

Uni-Tech Engineers is committed to providing our customers with high-quality and durable rubber collets that meet their specific needs and requirements. Our rubber collets have undergone rigorous testing and have proven to be capable of running more than 4 lac cycles while still maintaining their original condition.

Our rubber collets are manufactured using top-quality materials and state-of-the-art technology. The steel segments in our collets have a hardness rating of 60 HRC, which is much higher than regular collets. This means that our rubber collets are able to withstand much higher levels of wear and tear, making them ideal for even the most demanding applications.

Rubber Collet



Friction Coating

At Uni-Tech Engineers, we are committed to providing our customers with high-quality collets that are designed to meet their unique needs and requirements. As part of this commitment, we offer a range of collets that are specially coated with a friction coating, which provides superior grip and increased torque sustainability.

Compared to regular collets, our collets with friction coating are able to sustain torque levels that are up to three times higher. This makes them the perfect choice for a wide range of high-performance applications, including honing, turning, and gear grinding.

Our collets with friction coating are manufactured using top-quality materials and state-of-the-art technology. This ensures that they are able to withstand even the most demanding applications and provide reliable and consistent performance.



Valuable Customers

 BAJAJ	 VE COMMERCIAL VEHICLES <small>A VOLVO GROUP AND Eicher MOTORS JOINT VENTURE</small>	 KALYANI	 MUSASHI
 HIM TEKNOFORGE LTD.	 CARRARO	 MICRO TURNERS	 BHARAT GEARS LIMITED <small>Special for L&T</small>
 IGW	 varroc	 RSB	 Jagdamba Auto-component Ltd
 Kirloskar	 SANJEEV <small>The Power Solutions</small>	 FLASH <small>FLASH ELECTRONICS (INDIA) PVT. LTD.</small>	 BHAVANI



QUALITY GRIPPING SOLUTIONS...



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