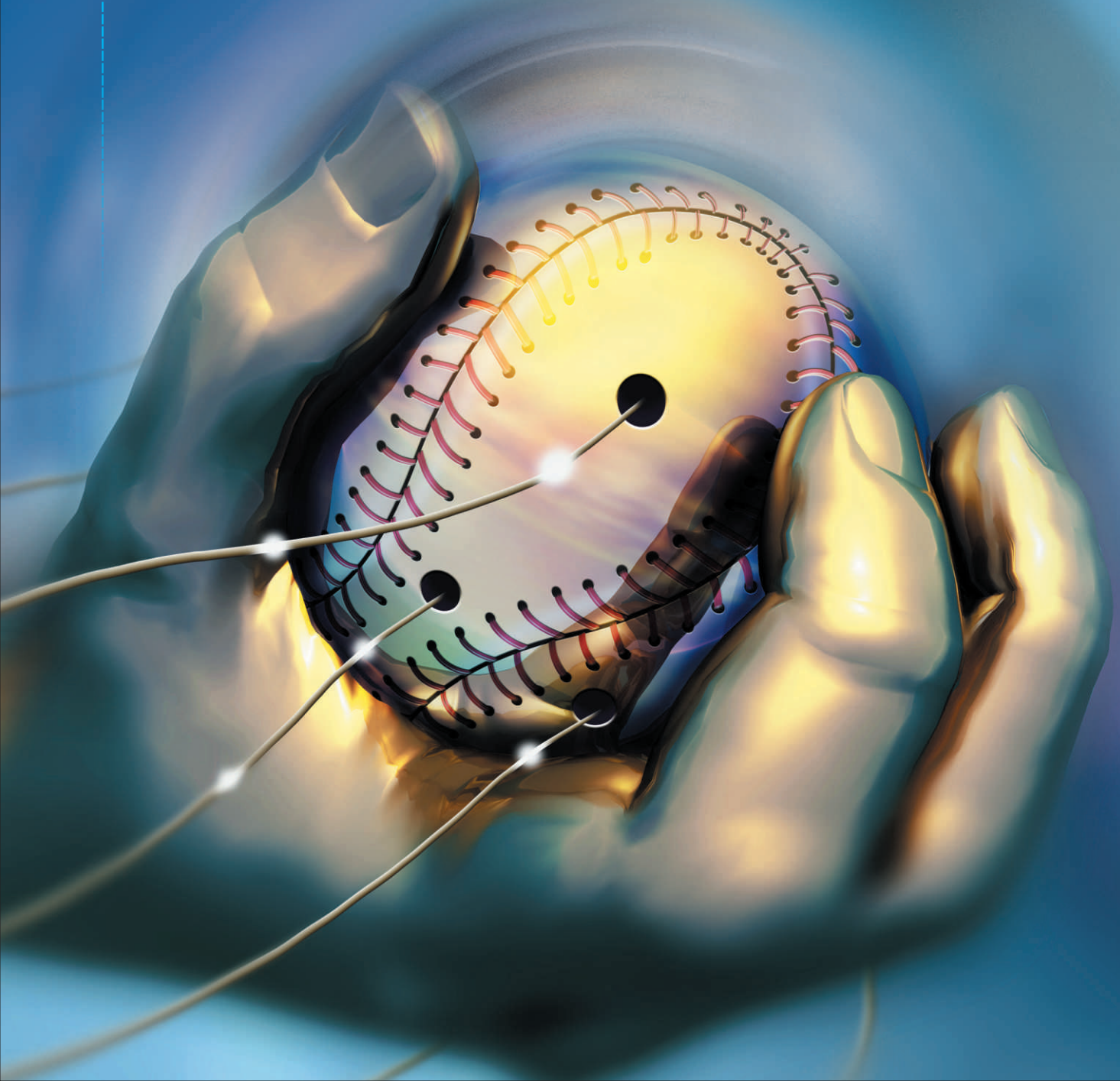




Hydraulic Work & Tool Holding



The performance capabilities of machines have been increased remarkably in recent years. As the technology is advancing towards all sectors of industry tolerances which were dream before have come into reality. Clamping technology needs to be maximum precise and reliable in manufacturing and inspection to support it. Hydraulic expanding work and tool holdings are one of the most reliable, precision and high performance tools that are used today by leading automobile industries.

At Dinanath we manufacture variety of Hydraulic Expanding Work & Tool Holdings which cover wide range of applications. Our experienced design and development team having experience of more than one decade is always ready to accept new challenges to develop perfect solution for almost any requirement.

Our state-of-the art design and manufacturing infrastructure has set our position as the most prominent and reliable supplier for hydraulic work and tool holdings in domestic & international market.

Dinanath products cover wide application in the areas of manufacturing, assembly and inspection with highest precision standards for run-out accuracies and repeatability.

We design & develop customized clamping solutions on the basis of the requirement provided by our customers which is discussed thoroughly by our technical team resulting in providing solutions which are innovative, durable, most productive and quality oriented.

APPLICATIONS

Gear Shaving | Gear Hobbing | Gear Honing | Gear Grinding | Gear Inspection

OD/ID Cylindrical Grinding | Cutter Grinding | Rotor Turning | Liner Turning | Balancing | Fixture Location

Hydraulic mandrels

▶ Principle of working

DINANATH 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 center by simultaneous axial pressure against the contact face of mandrel and workpiece

Dinanath hydraulic mandrels are oil filled and do not require frequent top up .

Features of DINANATH Hydraulic Mandrels

- ▶ Quick clamping/release of component without the problem of jamming
- ▶ Super precision – Radial Run-out Accuracy upto 0.002mm achievable.
- ▶ High Torque Transmission
- ▶ Long Operation Life and high dirt resistivity
- ▶ Easy to operate



Gear Hobbing

- ▶ 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



Gear Grinding

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





Gear Shaving

(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



Gear shaving

(Between center type)

- ▶ Split mandrel between two halves
- ▶ Manual or Auto actuated by tailstock
- ▶ 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





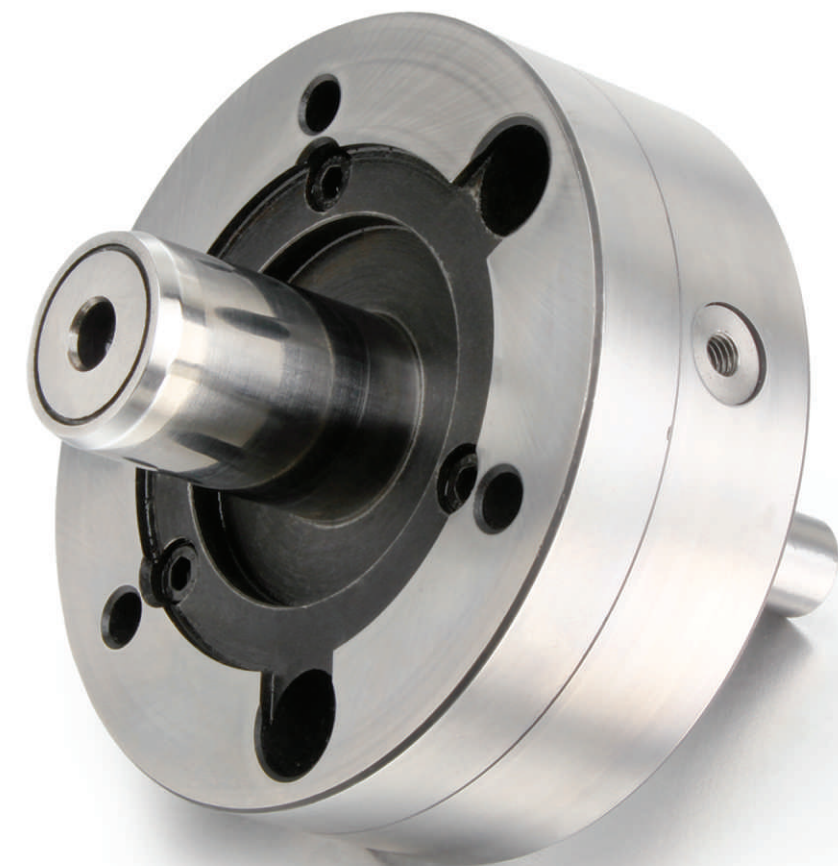
Inspection Mandrels

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



Turning

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



Tool holders



The high precision tool holders in our tooling program cover wide range of customer requirements and machining tasks

Our standard and special tool holders are universal efficient and absolute precise

DINANATH intermediate sleeves allow clamping of different diameters without compromising run-out accuracy

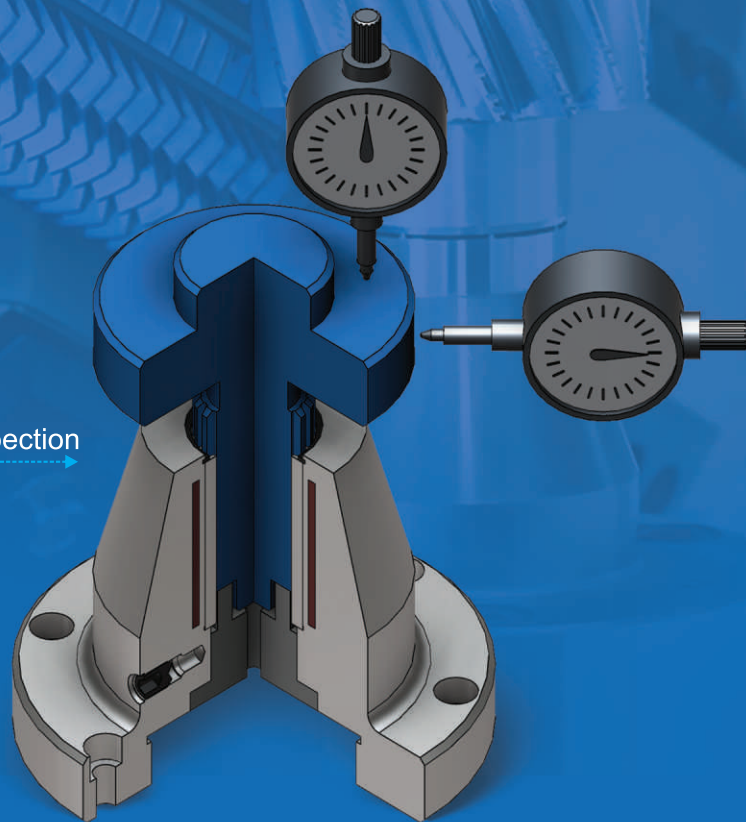
DINANATH

Special applications

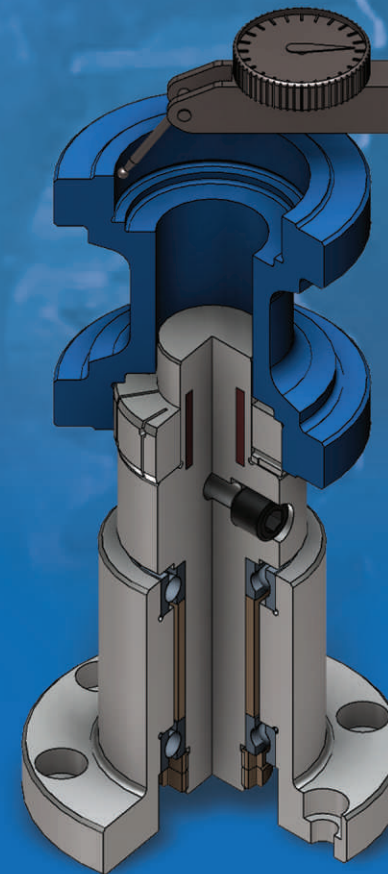


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Runout Inspection

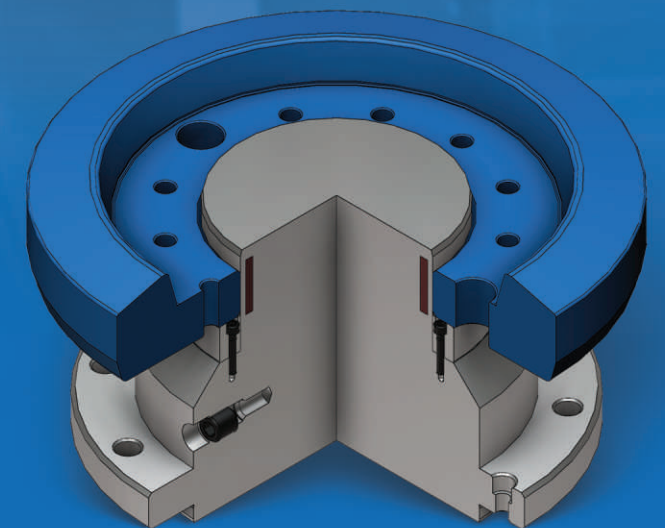


Concentricity Inspection Mandrel

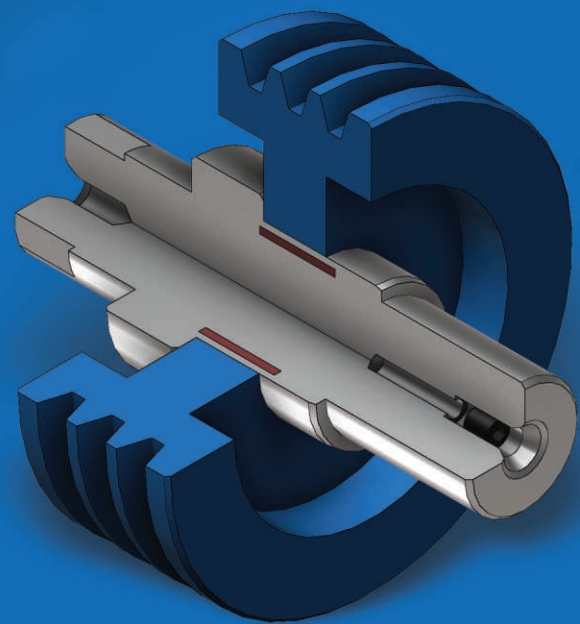


Special applications

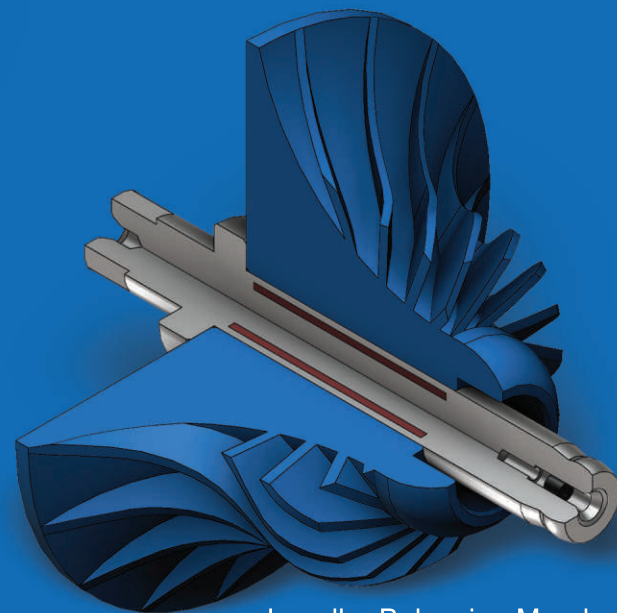
Milling, Boring and PCD Drilling



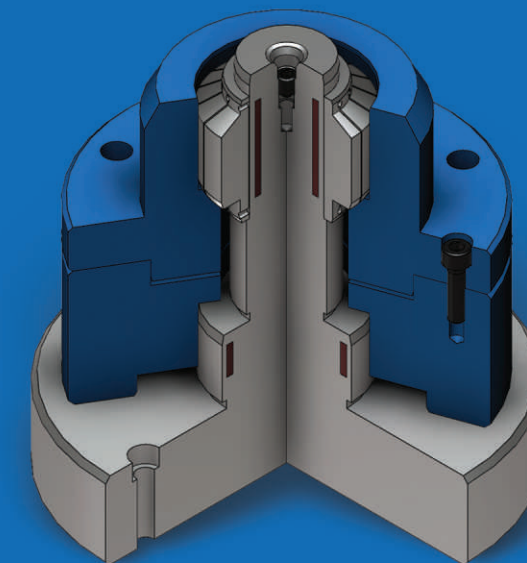
Pulley Balancing Mandrel



Impeller Balancing Mandrel



Alignment Mandrels for Assembly





Grip the world with us
DINANATH
Precision Engineering

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