



Business & Product Profile

Contact Details

Address: No.80, 1st Floor, B.D.A. Commercial Complex,
Indiranagar, Bangalore, Karnataka - 560 038, India

Phone: +91 - 80 - 25258885

Mob : +91 09845017701

Fax : +91 - 80 - 25257650

Email : design@conceptarbors.net

Web: www.conceptarbors.net



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Executive Summary

Concept Engineers, the pioneer in precision engineering designs and tools was established in 1984 by a team of young, dynamic and professional engineers to manufacture a range of precision Concept Hydraulic Chuck and Mandrels/Arbors, Taper Collets and Hydraulic Fixtures for the first time in the country.

At **Concept Engineers**, we blend technology, creativity, quality, professionalism and industry experience with right skills, methods and processes to create products that are extremely precise and suit client's engineering product requirements and specifications. Our focus is on providing design-specific, quality engineering products at reduced costs. Whether it is just a small gear or a complex engineering product, we take all the pain and care to give you the best products.

Given our experience and expertise in engineering products, we believe that we can offer unique and superior products to all kinds of engineering requirements. In 25 years, we have manufactured an exhaustive range of engineering products such as Hydraulic Clamping Systems, Finish Turning Mandrels/Arbors, Milling & Drilling Mandrels/Arbors, Cylindrical Grinding Mandrels/Arbors, Gear Hobbing Mandrels/Arbors, Gear Shaving Mandrels/Arbors, Gear Grinding Mandrels/Arbors, Gear Honing Mandrels/Arbors, Dynamic Balancing Mandrels/Arbors, Fixture Location Mandrels/Arbors, and Inspection Mandrels/Arbors.

Our Strengths

Our strengths include

- Rich industry experience
- Ethical business practices
- Attention to detail
- State-of-the-art infrastructure
- Strict inspection and monitoring
- Competitive prices

Product Range

- Hydraulic Clamping Mandrels/Chucks
- Finish Turning Mandrels/Arbors
- Milling & Drilling Mandrels/Arbors
- Cylindrical Grinding Mandrels/Arbors
- Gear Hobbing Mandrels/Arbors
- Gear Shaving Mandrels/Arbors
- Gear Grinding Mandrels/Arbors
- Gear Honing Mandrels/Arbors
- Dynamic Balancing Mandrels/Arbors
- Fixture Location Mandrels/Arbors
- Inspection Mandrels/Arbors

Features & Benefits

- Sophisticated, State-of-the-art Engineering Designs
- In compliance with industry standards and specifications
- High quality and precision
- Uncompromising thoroughness
- Easy implementation and maintenance
- Provide optimum solution to weak links in machining chain
- Solve most difficult clamping problems
- Reduce rejections to a minimum
- Reduce cost
- No requirement of additional skill
- Adopted to perform any machining operation

Our Clientele

Today, we are proud to have earned reputation in India and western countries like USA, Canada for our outstanding product quality and service. We have satisfied clientele of leading engineering companies that are not only small, medium and large but are also from the private and public sectors.

Our Products and their Applications

Hydraulic Clamping Systems

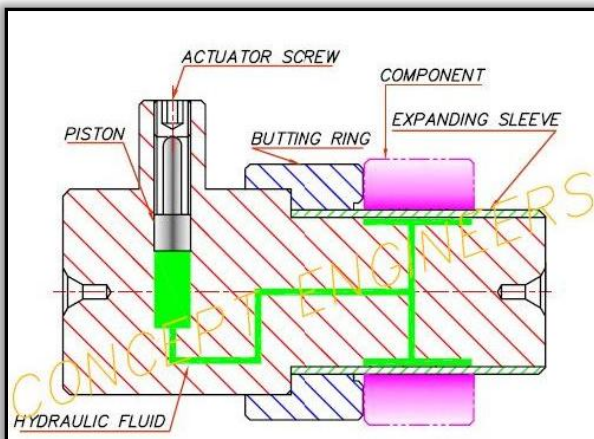
Hydraulic Clamping Systems open new ways in mastering the most difficult situation with uncompromising thoroughness. We use sophisticated technology, perfect construction and special materials that make clamping devices a generation ahead of the conventional work holding fixtures in clamping force, clamping accuracy and load torque.

- Improves quality and efficiency in all areas of machining and inspection
- Solves the most difficult clamping issues
- Reduces rejections to a minimum
- Allows mounting of several piece parts
- Reduces mounting and dismounting time
 - No tapered mandrel
 - No hammering
 - No arbor press
 - No deformation of work piece or damage to the clamping surface
 - No loose components
 - No axial movement while clamping
- Reduces cost in every aspect
- Flexibility of design and application
 - Can be adopted to perform any machining operations of turning, copy turning, boring, drilling, gear cutting, gear finishing etc.
 - Can be extended to clamp on blind bores
 - Splined or threaded bores can be located on the major/minor/pitch-line diameter.
- No requirement of additional skill
- Low maintenance

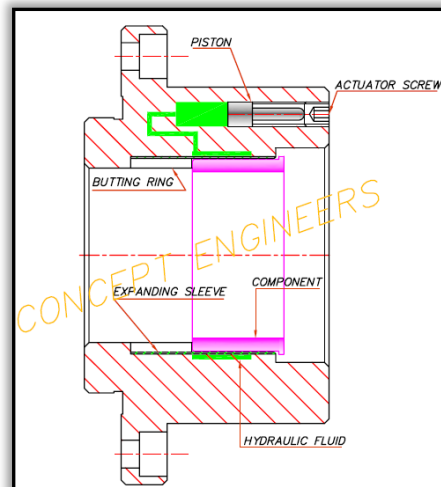
Hydraulic Chuck & Tool Locator



Application Examples



Hydraulic Arbor



Hydraulic Chuck

Finish Turning Mandrels/Arbors

We manufacture high quality Finish Turning Mandrels/Arbors that can be used in all kinds of finish turning applications.



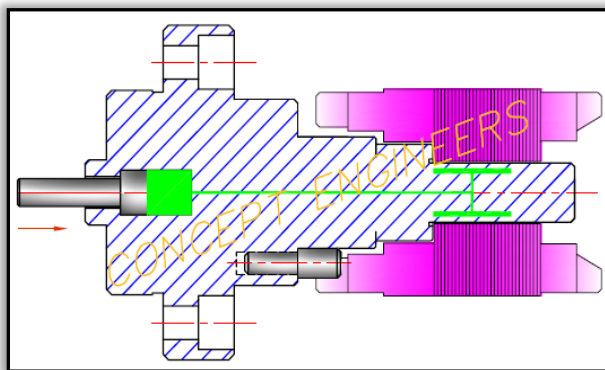
CONCEPT
ENGINEERS

- Ensures smooth finish
- Attains the best possible concentricity
- Increases productivity and tool life
- Reduces cost in every aspect
- No requirement of additional skill
- Low maintenance

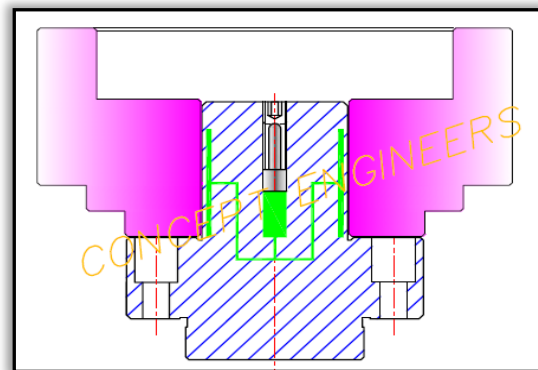
Finish Turning Mandrels



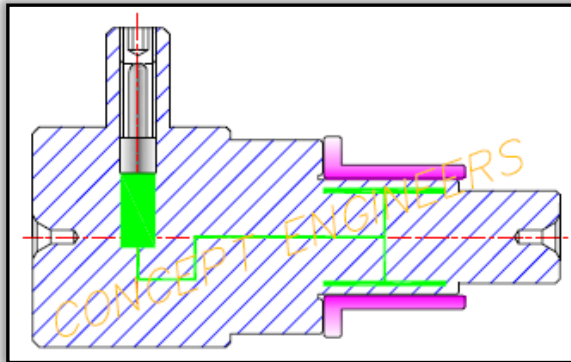
Application Examples



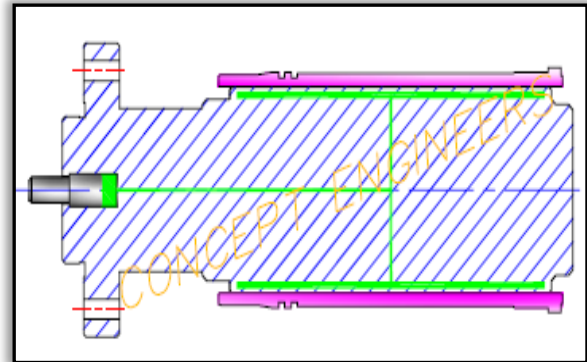
OD Turning of Rotor Part
w.r.t. Bore



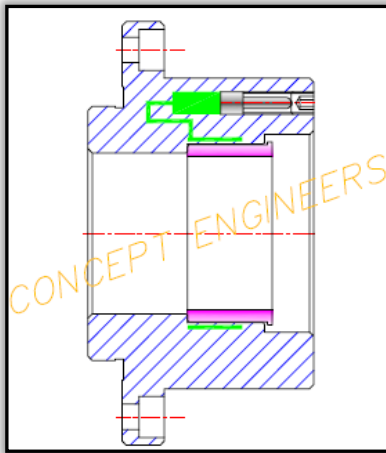
ID Turning on VMC w.r.t.
Smaller Bore



OD Turning of Cylinder Liner
Part w.r.t Bore



Chucking Fixture for Bush
Turning w.r.t. OD



OD Turning of Cylinder Liner
Part w.r.t Bore

Milling & Drilling Mandrels/Arbors

We manufacture the best Milling and Drilling Mandrels that are used for all kinds of finish milling and drilling applications.

- Ensures smooth finish
- Attains the best possible position error
- Increases productivity and tool life
- Reduces cost in every aspect

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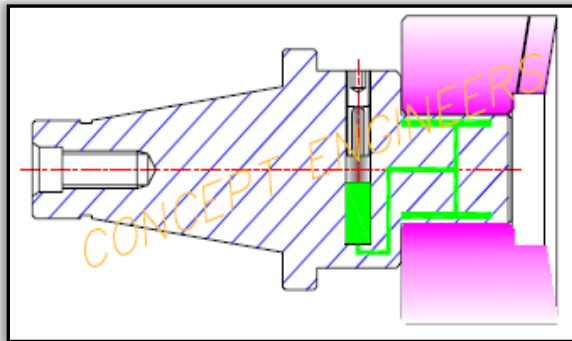
CONCEPT
ENGINEERS

- No requirement of additional skill
- Low maintenance

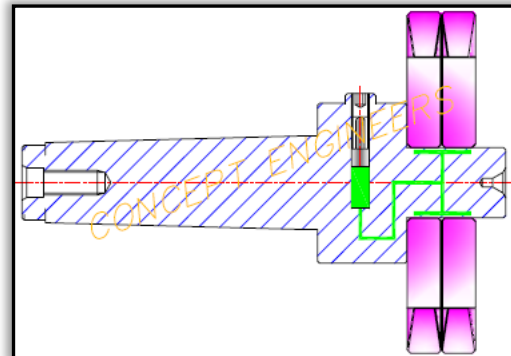
Milling Drilling Mandrels



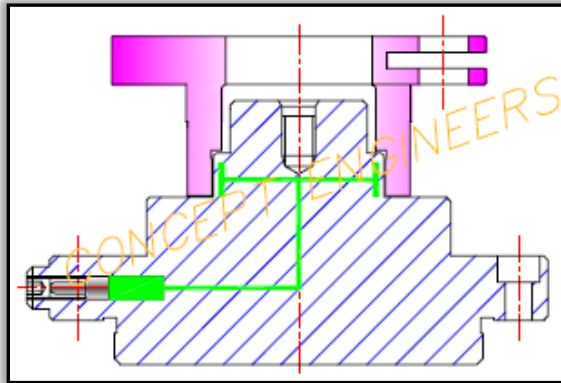
Application Examples



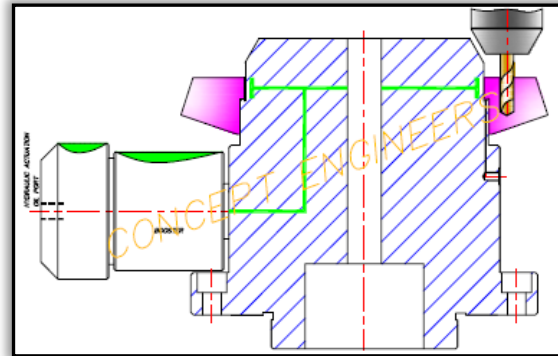
Bore Clamping of Milling Cutter for
Enhanced Cutter Life



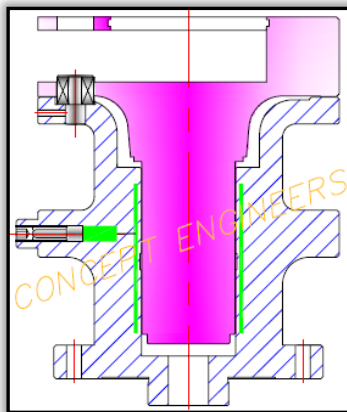
Regrinding of Cutters to a
High Degree of Runout



Milling and Boring Holes
w.r.t. Bore



Bore Clamping Attains High
Concentricity of PCD of Holes



Boring of Holes on a VMC
w.r.t. OD

Cylindrical Grinding Mandrels/Arbors

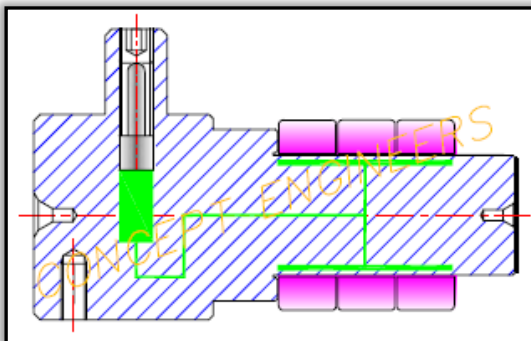
We manufacture the best Cylindrical Grinding Mandrels that are used between centers, spindle mounting etc.

- Ensures improved surface finish
- Attains an unmatched concentricity
- Increases productivity and tool life
- Reduces cost in every aspect
- No requirement of additional skill
- Low maintenance

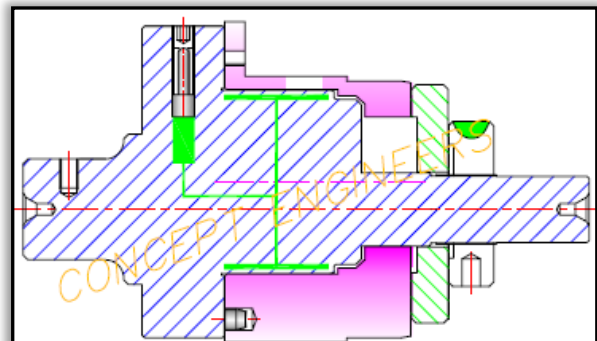
Cylindrical Grinding Mandrels



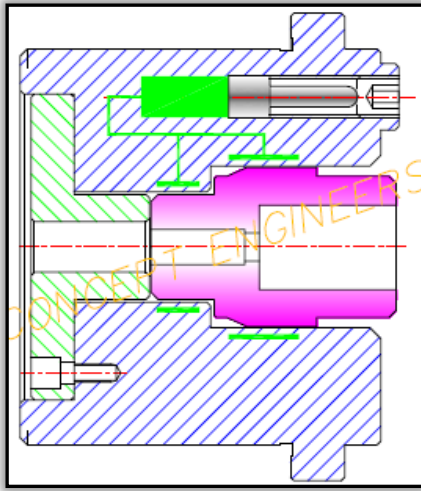
Application Examples



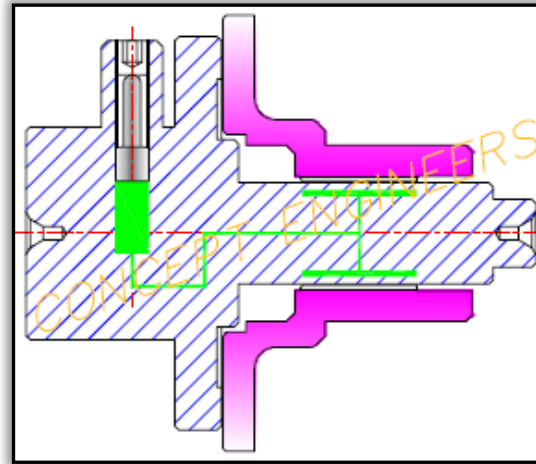
Multiple Clamping of Parts to Achieve
Concentricity & Uniformity in Size



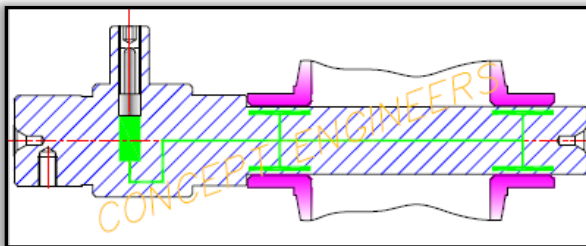
Od Grinding of Eccentric Bush w.r.t.
Bore to Achieve Exact Eccentricity



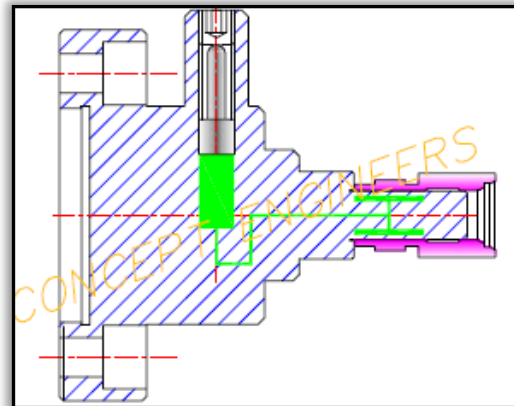
Bore grinding concentric
w.r.t. Od



Od Grinding w.r.t. Centers,
Locating in Splined Bore



Multiple Expansion Mandrel
for Location w.r.t. End Bores



IP Taper Grinding
Concentric w.r.t. Bore

Gear Hobbing Mandrels/Arbors

We manufacture the best Gear Hobbing Mandrels/Arbors that are used between centers, spindle mounting etc.

Our Gear Hobbing Mandrel/Arbor

- Ensures smooth finish



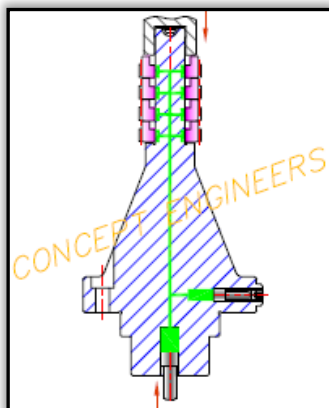
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- Attains high PCD error
- Increases productivity and tool life
- Reduces rejections to a minimum
- Reduces cost in every aspect
- No requirement of additional skill
- Low maintenance

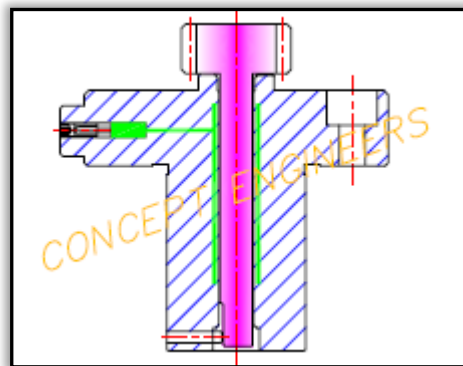
Gear Hobbing Mandrels



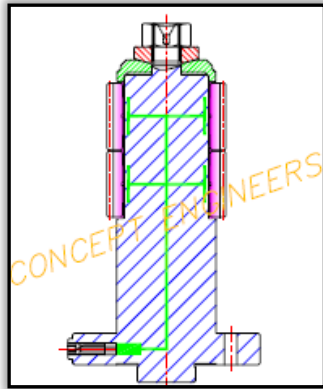
Application Examples



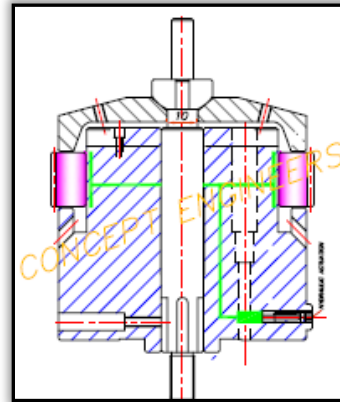
Chucking Fixture for Gear Hobbing,
Multiple Clamping



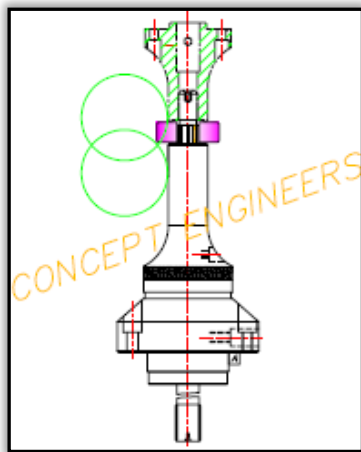
Chucking Fixture for Gear Shaping



Chucking Fixture for Gear
Hobbing



Chucking Fixture for Gear
Hobbing



Chucking Fixture for Gear
Hobbing

Gear Shaving Mandrels/Arbors

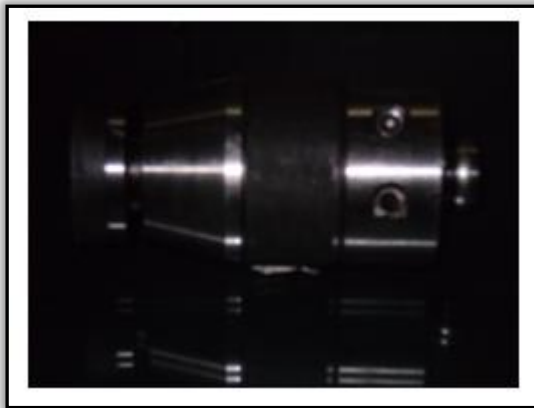
We manufacture the best Gear Shaving Mandrels that are used between centers, spindle mounting etc.

Our Gear Shaving Mandrel

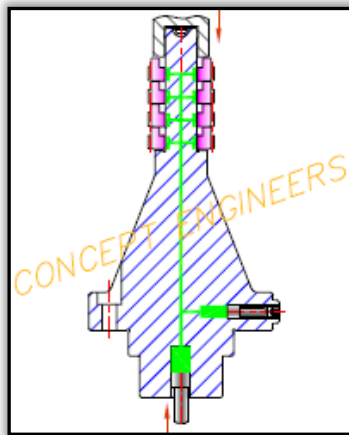
- Ensures smooth finish

- Attains better PCD error
- Increases productivity and tool life
- Reduces rejections to a minimum
- Reduces cost in every aspect
- No requirement of additional skill
- Low maintenance

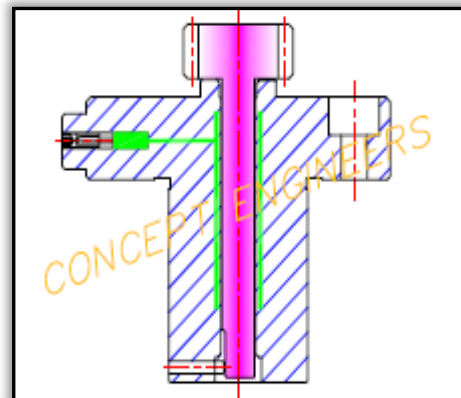
Gear Shaving Mandrels



Application Examples



Gear Shaving Fixture with Part & Cover Location



Gear Shaving Fixture with Part & Cover Location (Auto Clamp Type)

Gear Grinding Mandrels/Arbors

Our Gear Grinding Mandrels/Arbors are very special mandrels that can be used between centers, spindle mounting etc.

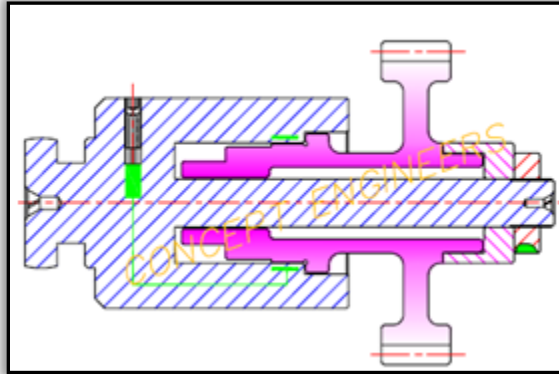
Our Gear Grinding Mandrel

- Ensures smooth finish
- Attains better PCD and profile error
- Increases wheel life coupled with increased productivity
- Reduces rejections to a minimum
- Reduces cost in every aspect
- No requirement of additional skill
- Low maintenance

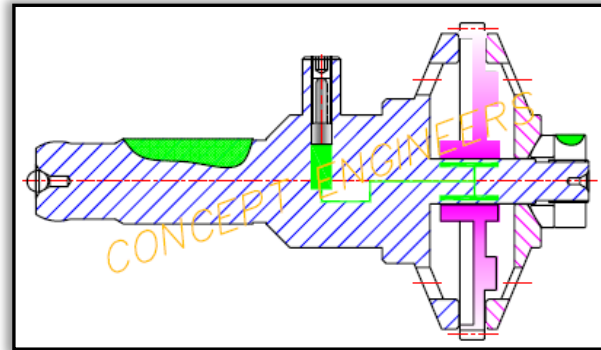
Gear Grinding Mandrels



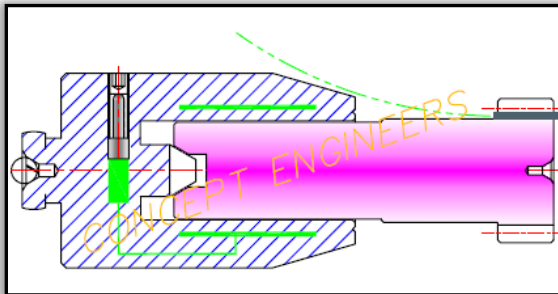
Application Examples



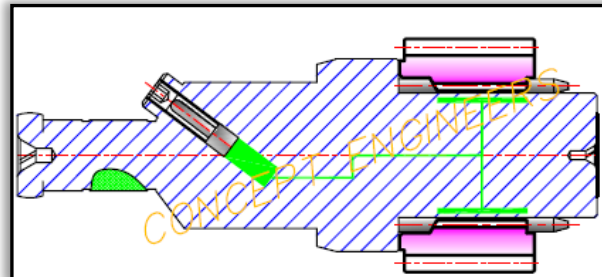
Gear Grinding Fixture Between Centers
with OD Location



Gear Grinding Fixture Between
Centers



Gear Grinding Fixture for
Shaft Type of Part



Gear Grinding Fixture for Finishing
Gear Teeth Concentric to PCD of
Internal Splines

Gear Honing Mandrels/Arbors

Our Gear Honing Mandrels/Arbors are very special mandrels that can be used between centers, spindle mounting etc.

Our Gear Honing Mandrel

- Ensures smooth finish
- Attains better PCD and profile error



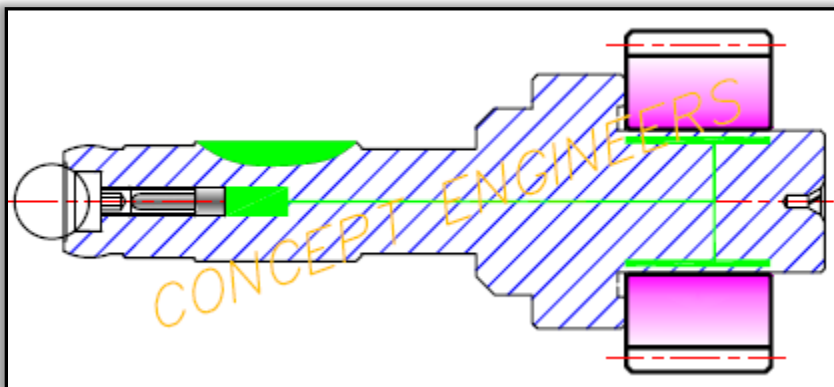
CONCEPT
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- Increases wheel life coupled with increased productivity
- Reduces rejections to a minimum
- Reduces cost in every aspect
- No requirement of additional skill
- Low maintenance

Gear Honing Mandrels



Application Examples



Gear Honing Fixture Between Centers

Dynamic Balancing Mandrels/Arbors

We manufacture high quality dynamic balancing mandrels/arbors that can be used in both horizontal and vertical setups.

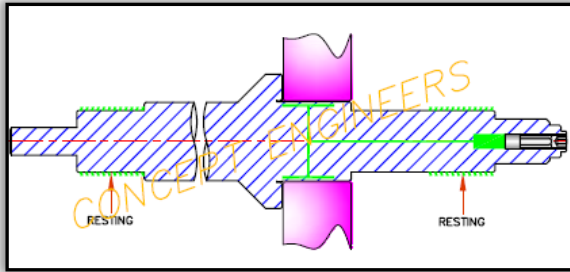
Our Dynamic Balancing Mandrel/Arbor

- Ensures smooth finish
- Attains unmatched balancing
- Part balance ensures overall product efficiency
- Increases productivity
- Reduces rejections to a minimum
- Reduces cost in every aspect
- No requirement of additional skill
- Low maintenance

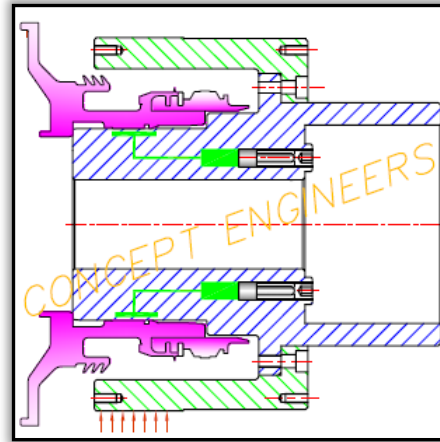
Dynamic Balancing Mandrels



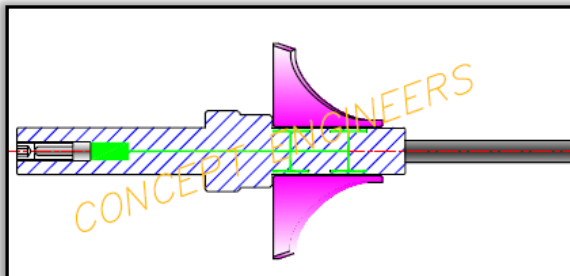
Application Examples



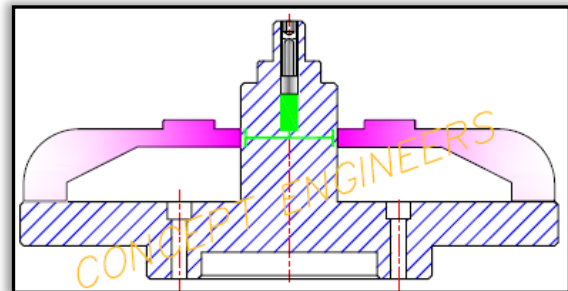
Balancing of Automobile Retarder
Part



Precise Balancing of Aircraft Engine
Part



Balancing of Compressor Impeller with
Carbide Stem on One End



Balancing of Automobile Part

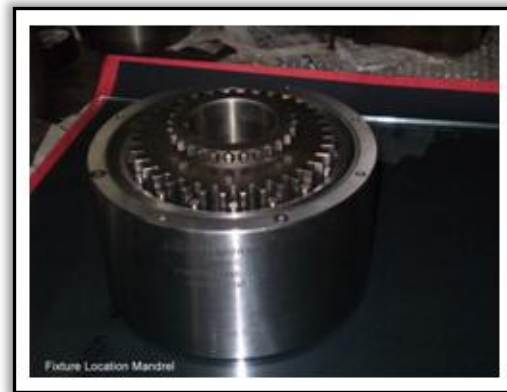
Fixture Location Mandrels/Arbors

We manufacture high quality Fixture Location Mandrels/Arbors that can be used in both horizontal and vertical setups.

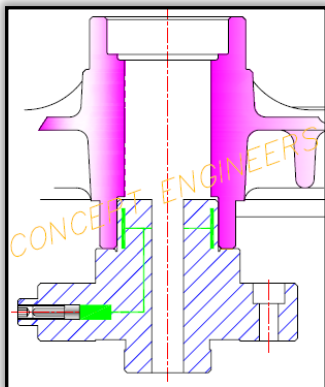
Our Fixture Location Mandrel/Arbor

- Ensures smooth finish
- Attains unmatched balancing
- Part balance ensures overall product efficiency
- Increases productivity
- Reduces rejections to a minimum
- Reduces cost in every aspect
- No requirement of additional skill
- Low maintenance

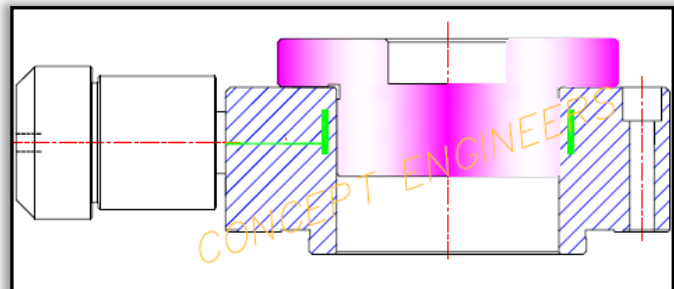
Fixture Location Mandrels



Application Examples



Locating Bore in a Fixture



Locating on OD in a fixture

Inspection Mandrels/Arbors

The Inspection Mandrels/Arbors are used both in horizontal and vertical setups.

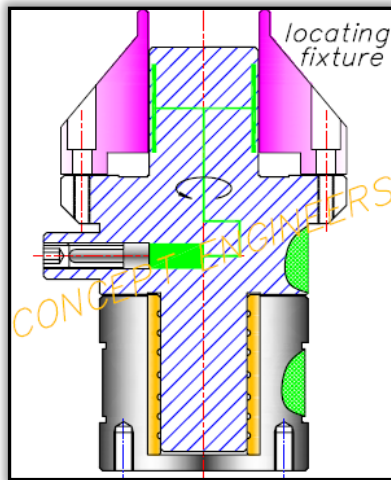
Our Inspection Mandrel/Arbor

- Ensures best location with no clearance
- Consistent repetitive accuracy
- Increases productivity
- Reduces rejections to a minimum
- Reduces cost in every aspect
- No requirement of additional skill
- Low maintenance

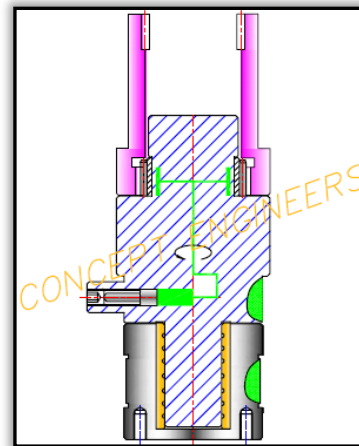
Inspection Mandrels



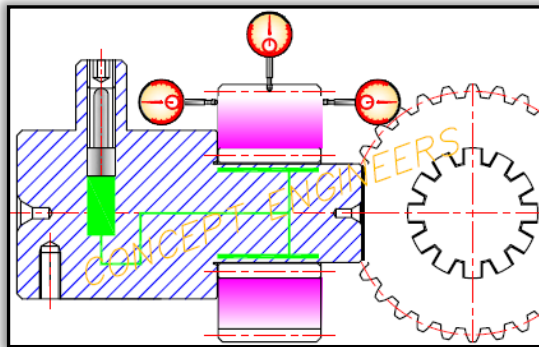
Application Examples



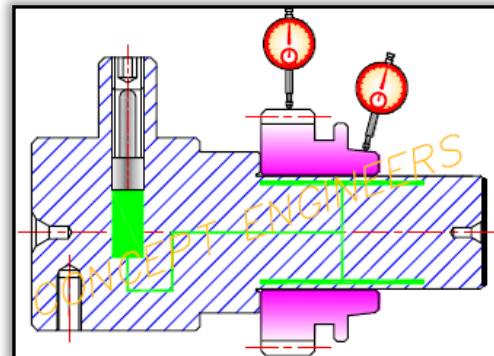
Concentricity Checking Fixture



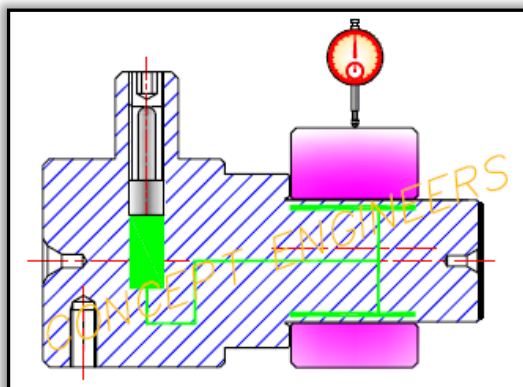
Concentricity Checking of Gear PCD of Internal Gears



Inspection of Gears w.r.t. Major Diameter of Internal Splines



Inspection of Gears w.r.t Gear



Checking the Exact Eccentricity of the Outside Diameter w.r.t. Bore



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Confidentiality & Communication

Concept Engineers maintains full confidentiality of all proprietary information released to it by its customers. All our employees have non-disclosure clauses in their employment contracts. We are ready to sign a non-disclosure agreement as a guarantee.

We use emails and phone for the daily communication on the project. All those involved in the project will be subscribed to the list and receive a copy of the correspondence. We will respond back to any of your queries during the project within 12 hrs time.

Conclusion

We encourage you to contact us to review the product details. We will assure you that we will be able to provide you with the best services.

END OF DOCUMENT