

***UNNATI DESIGN***  
***&***  
***CONSLTANCY SERVICES***

unnatidesigners.com

GST – 27AFCPL3505N1ZD

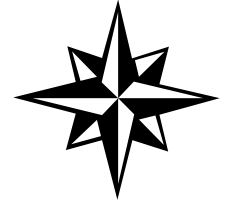
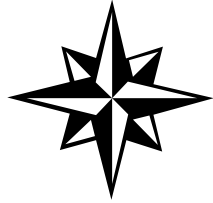
Unnati Design and Consultancy Services established in 2008. It is proprietary firm.

The founder is Mr. Sunil Lohar, who has vast experience of development of Comprosser parts, Pneumatic tools, Fixtures for aeronautical parts and so on...

We offer complete solution for product / part development. Client gets service from casting/ forging / bar material to finish part with quality checks.

Our expertise in all processes like conventional machines, CNC machines, Grinding, Honing, Broaching, Ejector drilling, Gun drilling, Surface treatments, Heat treatments, Powder / Rubber coating, Blackodising etc.

We also undertake process planning consultancy for development of any critical processes.



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## **DESIGN EXPERT**

- Jigs & Fixtures of VMC, HMC CNC Turning, Conventional machines etc.
  - Hydraulic & Pneumatic Fixtures , Welding fixtures
  - SPM
  - Spl. Cutting Tools
  - Spl. Gauges
  - Inspection fixtures
  - Precision Grinding mandrels ( For 0.010mm TIR )
  - Any kind of Design work
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**SUNIL LOHAR**

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## We also undertake following projects

- Process Planning ( Making Process sheets )
- Cost reduction project.
- Quality Improvement project.
- Productivity Improvement.
- Sorting out any critical Quality problem.
- Automation as per customer's requirement.
- Precision machined components substitute to import.
- Consultancy services for development.

# Professional Experience

- 15 years of experience in Atlas Copco Nashik – CMT division as a Senior Product Development Engineer. Developed various types of pneumatic tools i.e. Demolition tools, Rock drills, Impact wrench, Screw drivers, Chippers etc.
- **Basic responsibilities :** Complete Product Development as Process planning , Tool Designing , Assembly , Testing , Field Trials , Process corrections if any.

## **OUR ESTEEMED COSTUMERS**

1. Atlas Copco India Ltd. Nashik / Pune
2. Uma Precision Ltd. Bhosari
3. Concentric Pumps, Lonikand Pune
4. Crompton Greaves Nashik
5. DANA INDIA LTD Chakan
6. Amtek Auto Ltd, Sanaswadi Pune
7. RSB Transmission, Pune
8. Spicer India Ltd, Chakan Pune
9. Mungi Engineers, Chakan
10. Epiroc Hyderabad
11. Bharat Forge Pune

# Examples of Tooling Design



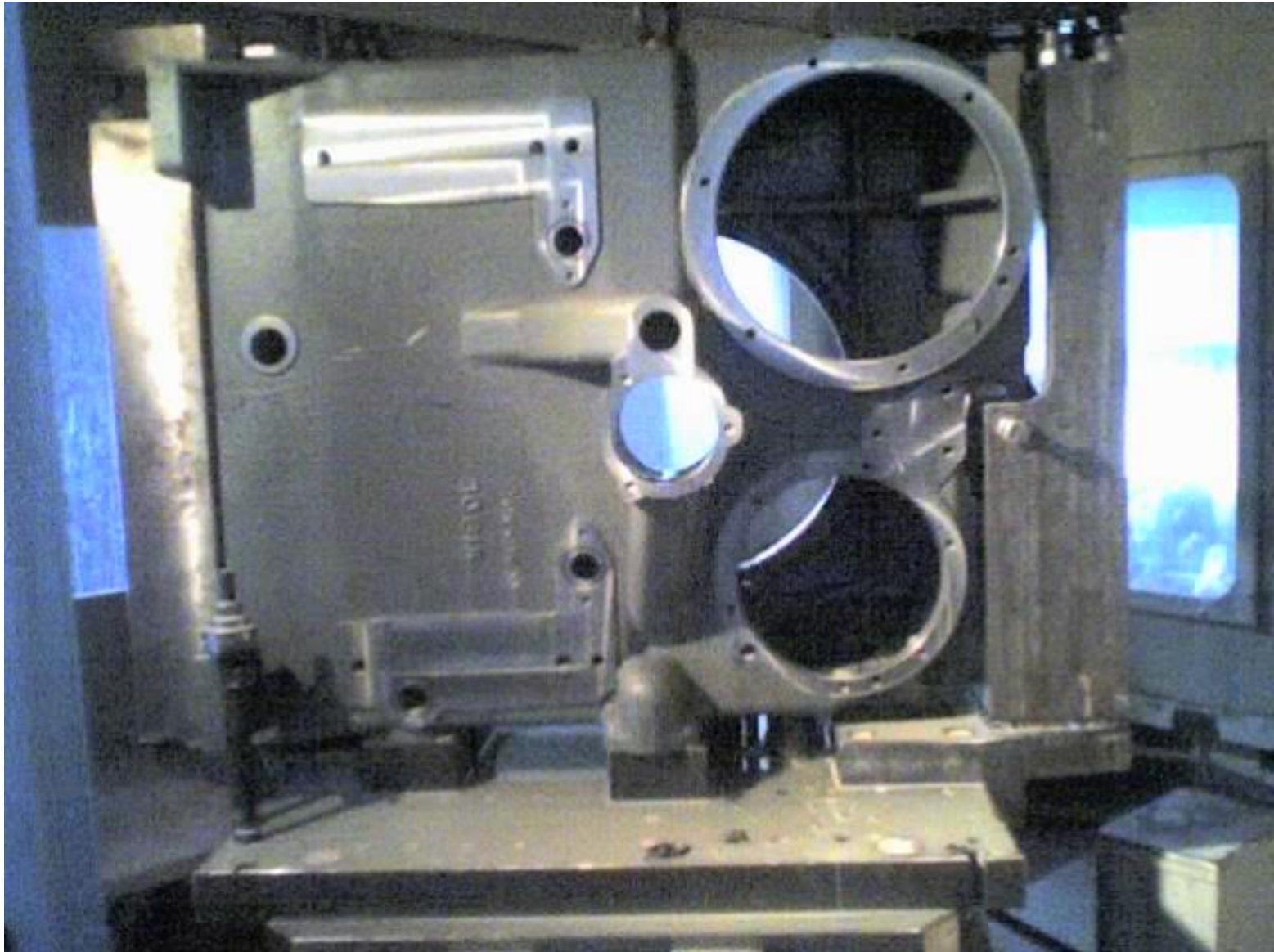


# Examples of Tooling Design

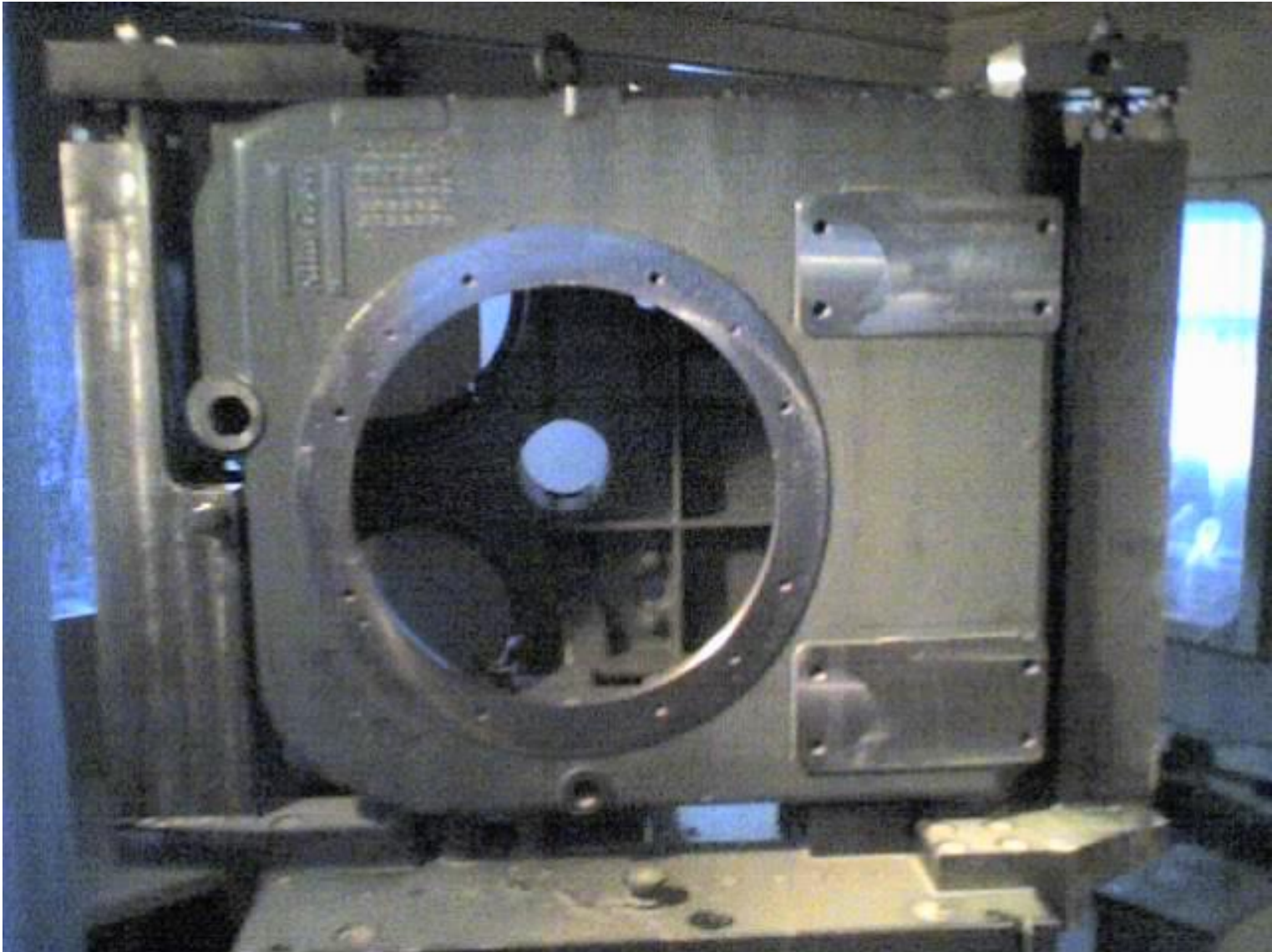




## Examples of Tooling Design



## Examples of Tool Design



## Examples of Tool Design





## Examples of Tool Design



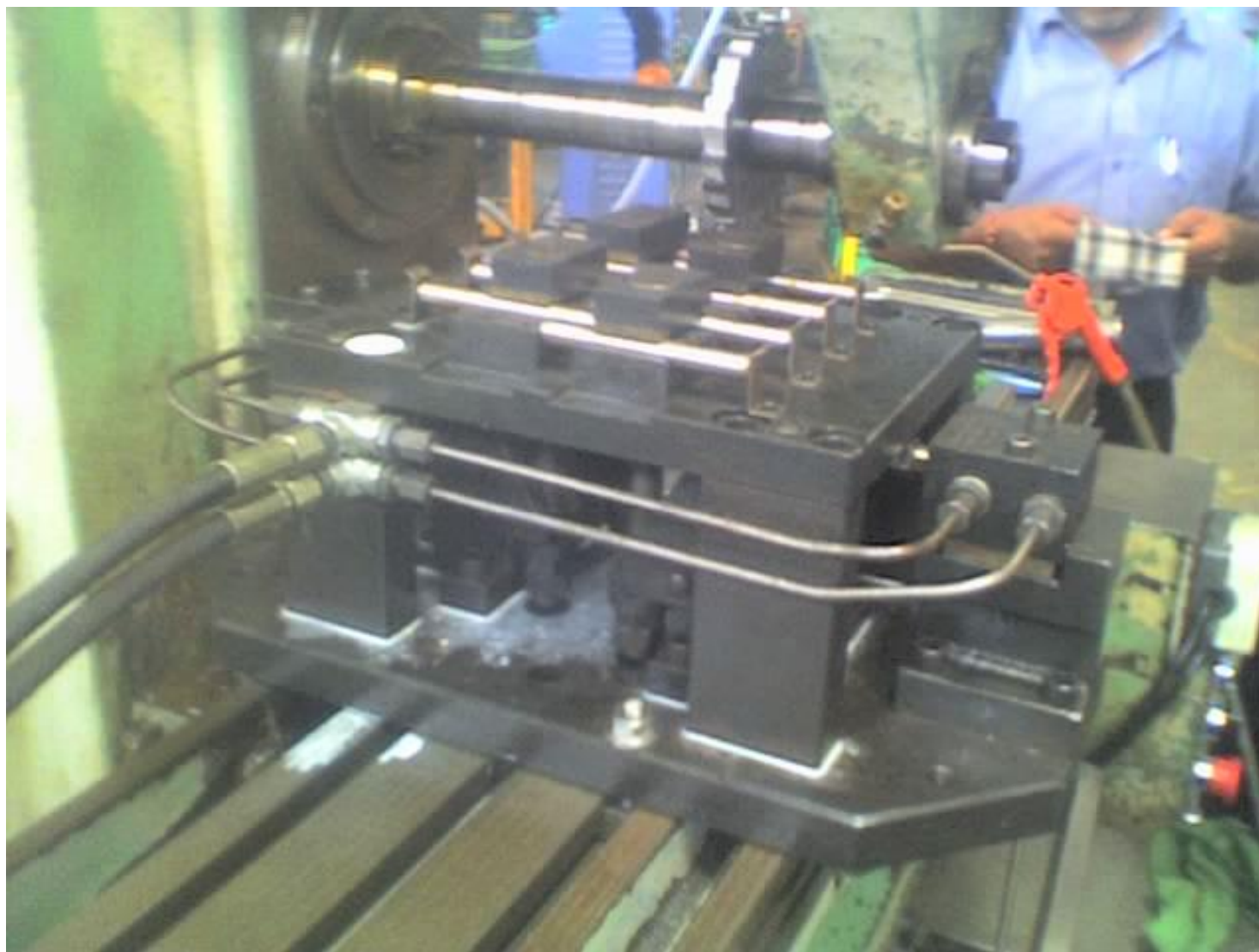
## Examples of Tool Design



## Examples of Tool Design

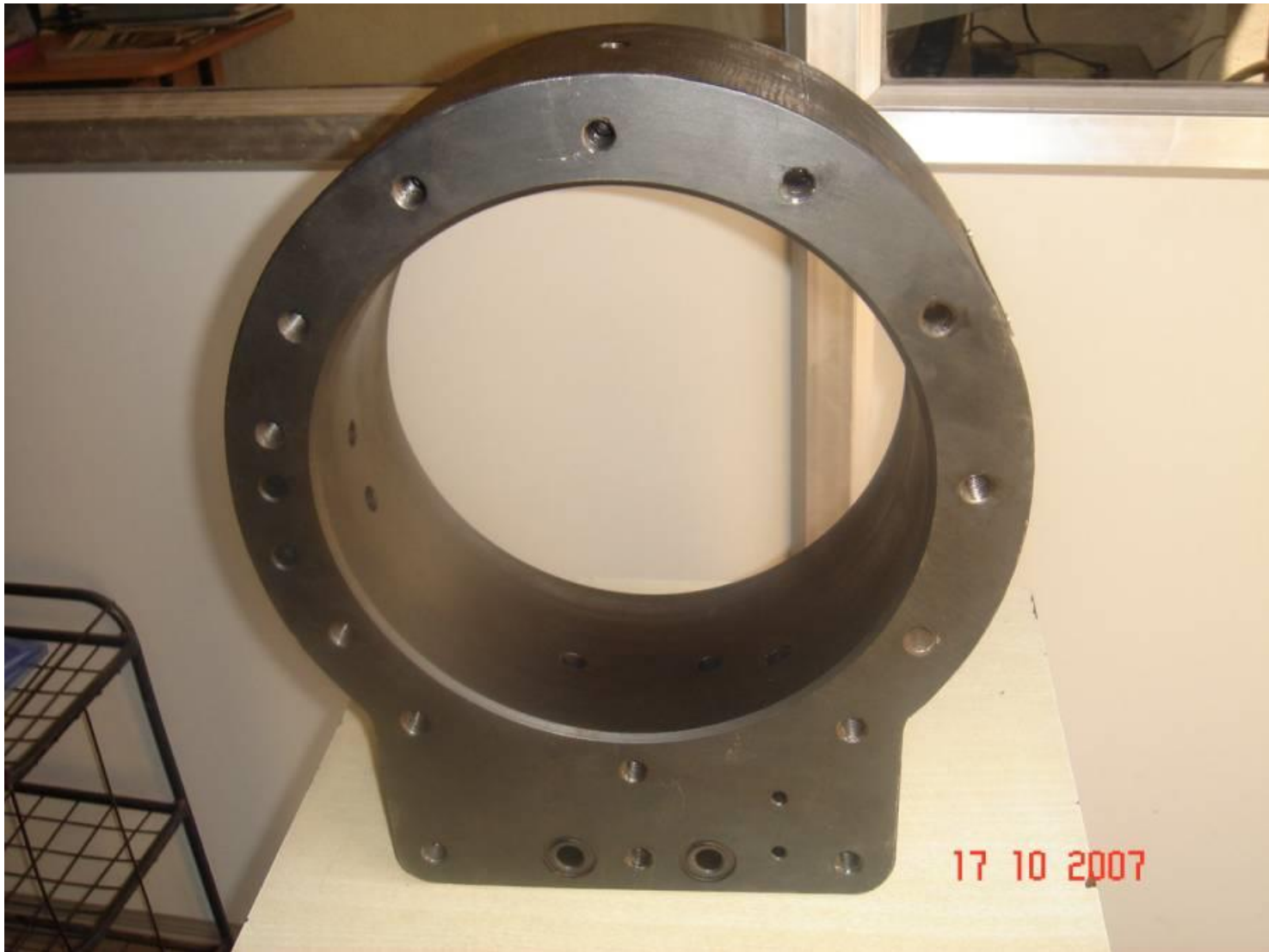


# Hydraulic Fixture





## Pressure Test Jig



# Drill Jig



## Hydraulic Press with Fixture



## Special Position Gauges





# Welding Fixture



# VMC Hydraulic Fixture





## VMC Hydraulic Fixture





# VMC Hydraulic Fixture



# Hydraulic Press 10 T

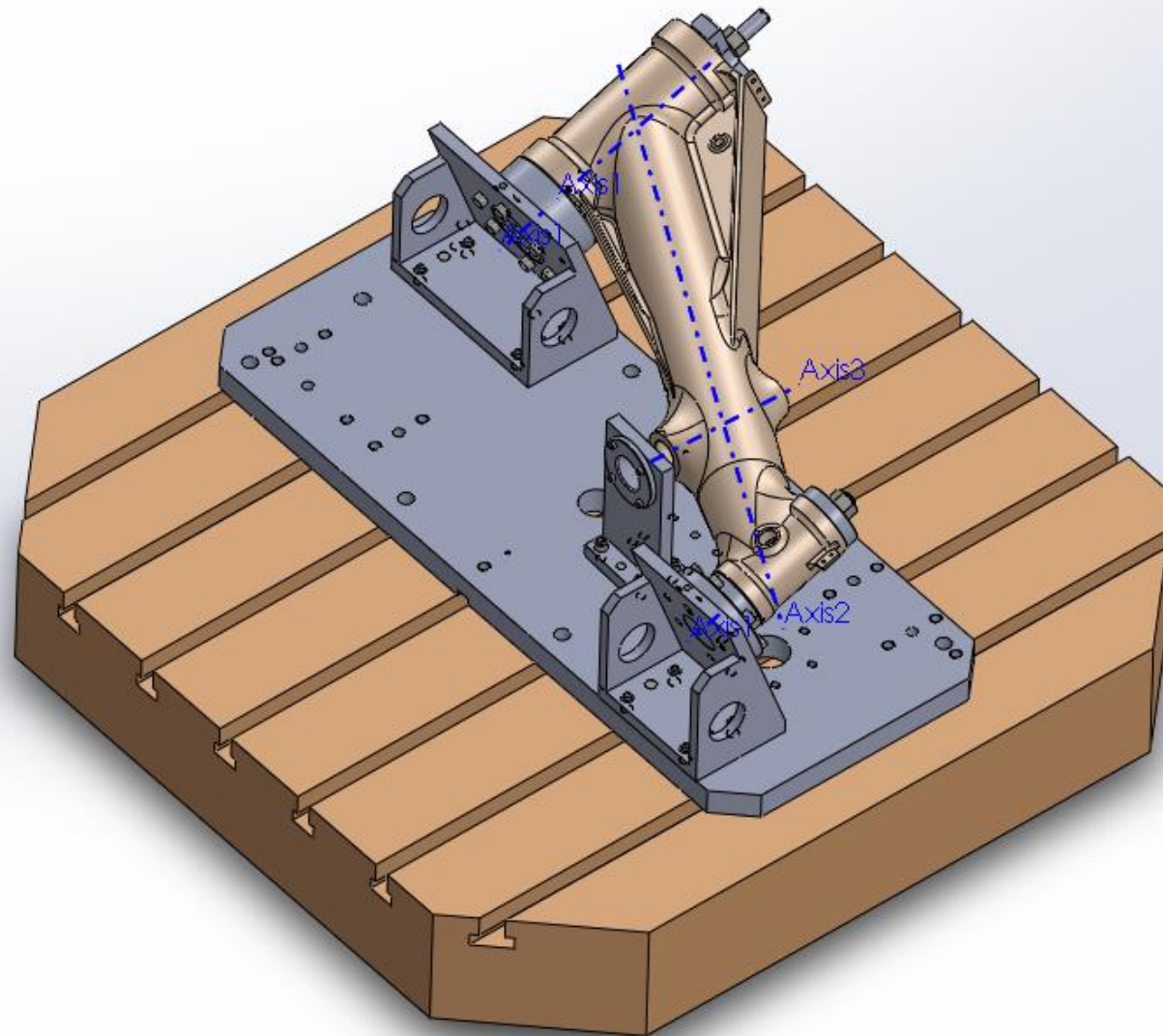




# Honing Mandrel for Sunnen M/c ( Substitute to Import )

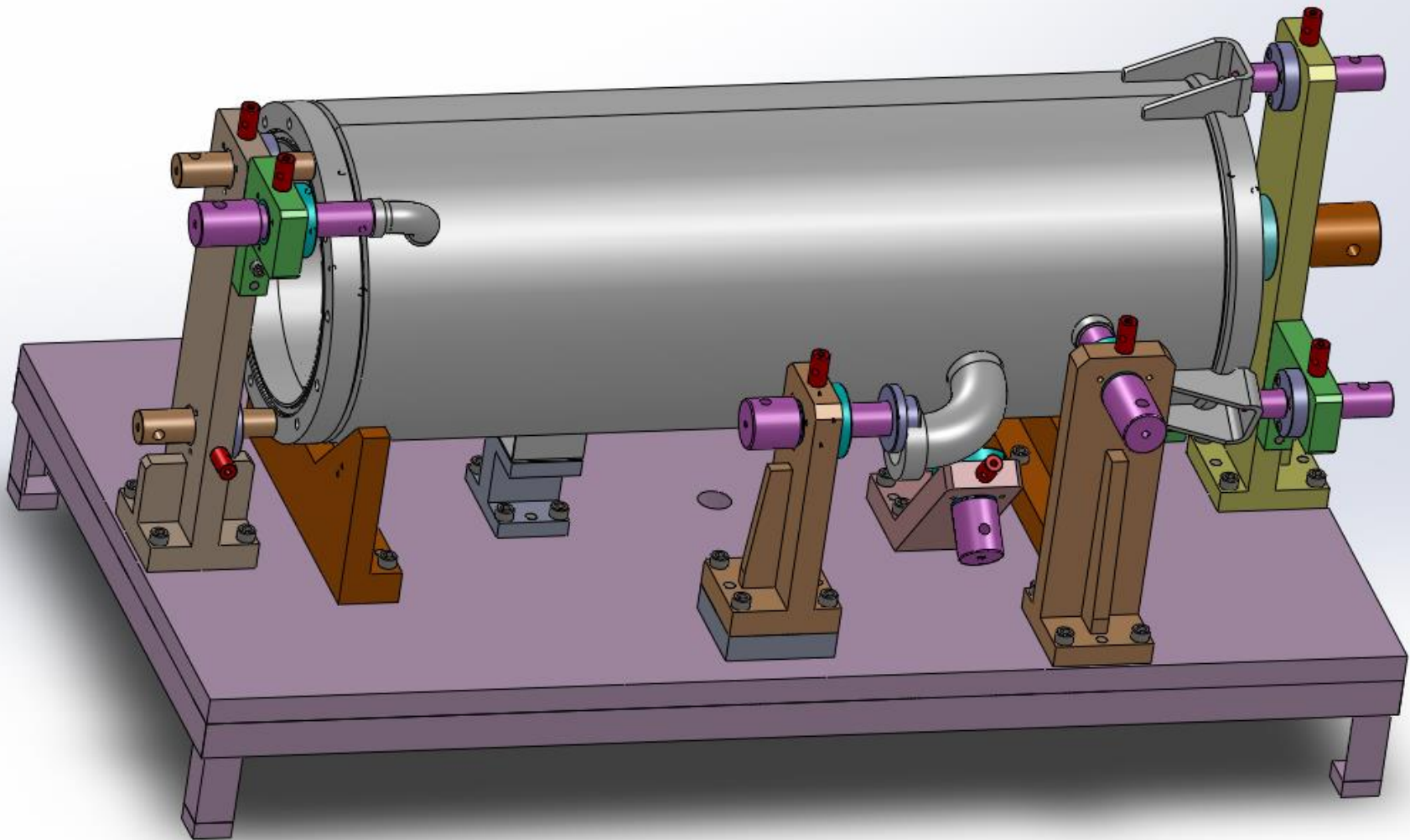


# HMC Fixture for aerospace component





# Welding fixture compressor vessel



# Sample Process Sheet

OPERATION LAY-OUT SKETCH SHEET						PRODUCT		
PART NAME <b>HOUSING</b>			DRAWING NO.		PART NO.		OP.NO. <b>030</b>	SHEET <b>03/10</b>
MATERIAL <b>FORGING</b>		MACHINE NAME <b>VMC</b>			OPERATION NAME <b>DRILLING</b>			
<p>The drawing shows a technical sketch of a housing component. The top view is a hexagonal shape with various circular features. Dimensions include overall width of 94 [±0.08], overall height of 57.9 [±0.4], and several hole diameters like #34.9 [±0.1] and #31.2 [±0.05]. Surface finish symbols are present on several surfaces. The side view shows a cross-section with a total height of 112.8 [±0.5] and internal features like a bore diameter of #34.9 [±0.1] and a depth of 35.2 [±0.5]. A note specifies a thread of #5/8" x 11/16" Deep, 0.500"-0.502"x3/4" Deep, 2mm.</p>								
Tolerance if not indicated, according to								
SPL. Tooling				INSPECTION Dimn. & Equipment / Gg.				
1	VMC FIXTURE			All Dimns.	Vernier Caliper			
2				Bore	Bore Dial Gauge			
3								
4	PREPARED BY UNNATI		APPROVED BY				OP.NO.	SHEET
5	DATE 21/12/10		DATE				030	03/10

CM1/FDC4/ME