

Process Sheet for Axle mounting



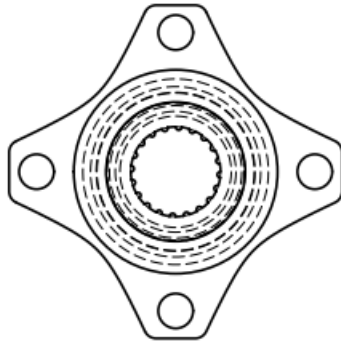
210003013- Anurag Srivastava

210003014- Apoorva Vaidya

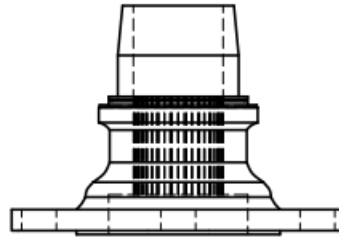
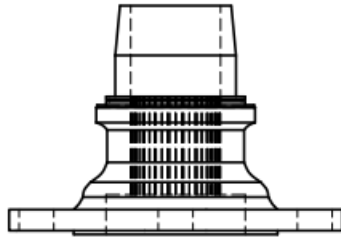
210003015-Arruri Sathwik

210003016-Aryan Kulkarni

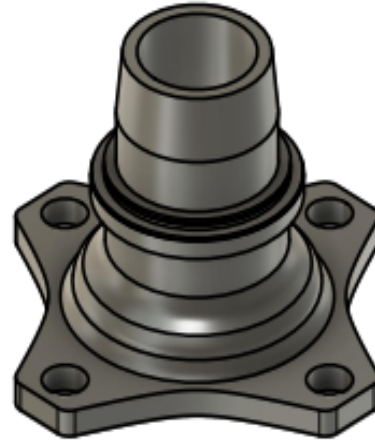
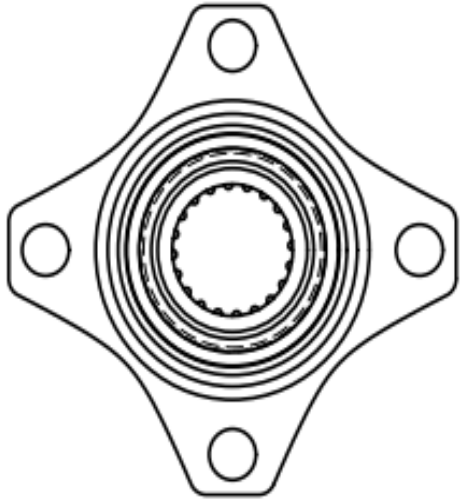
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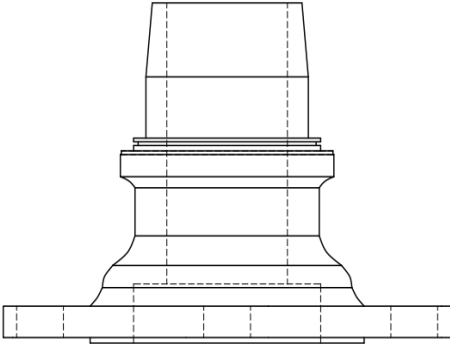
Different views of final product



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| S.no. | Process Description | Machine Used | Tool | Product |
|-------|---|--------------|--|---|
| 1. | <p>Casting</p> <p>Material is first liquified by proper heating it in suitable furnace. Then, the liquid is poured into a prepared mould cavity where it is allowed to be solidified.</p> | Cast Furnace | Sand, Drag, Cope, Shovel, Rammer, Vent wire, Mallet, core, two-piece pattern, etc. |  |

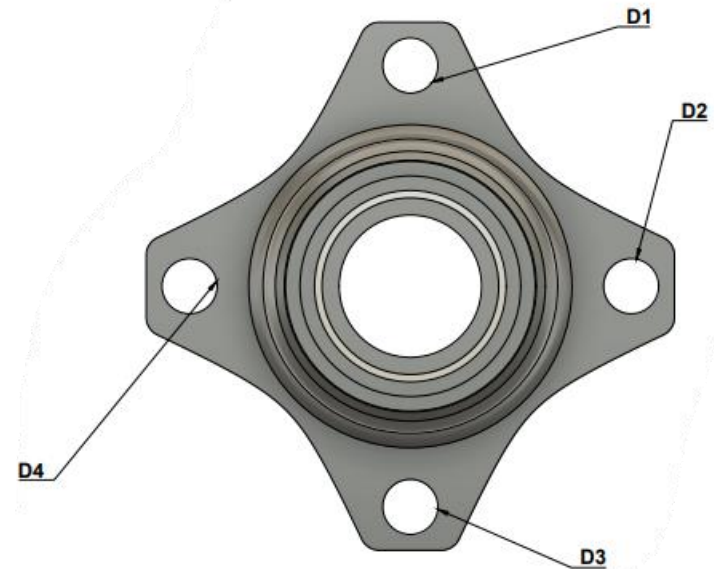
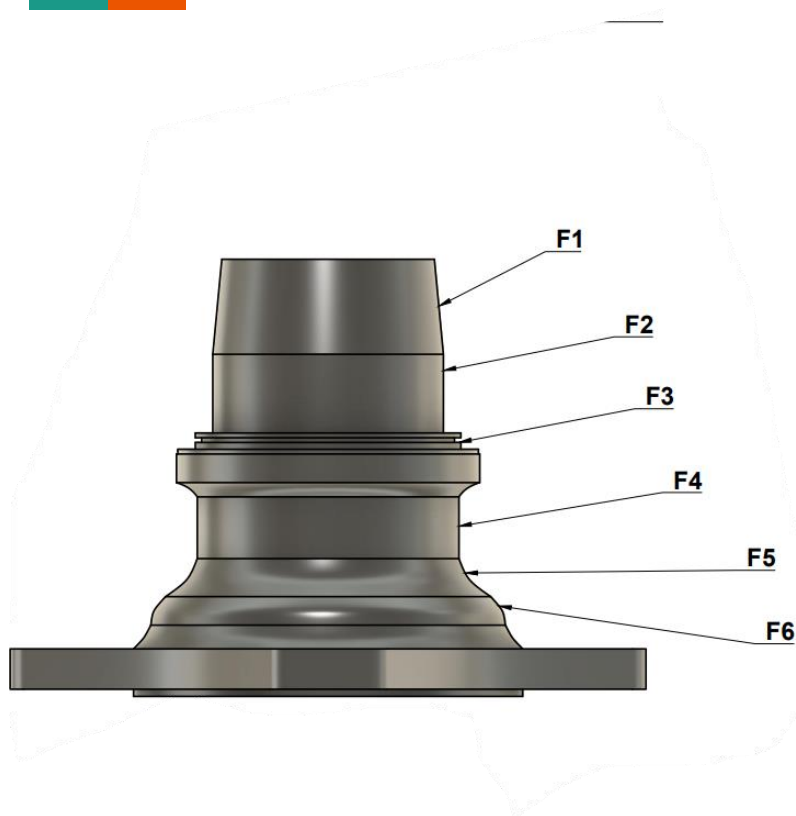
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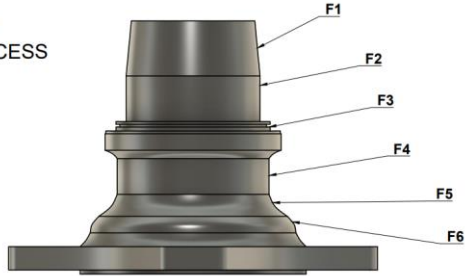
COMPONENT DETAILS

| <u>SIZE (DIAMETER)</u> | <u>LOCATION</u> | <u>NO. OF HOLES</u> |
|------------------------|-----------------|---------------------|
| 46.7 MM | F1 | - |
| 48.6 MM | F2 | - |
| 55.97 MM | F3 | - |
| 55.14 MM | F4 | - |
| 68.5 MM | F5 | - |
| 74.7 MM | F6 | - |
| 14 MM | D1, D2, D3, D4 | 4 |

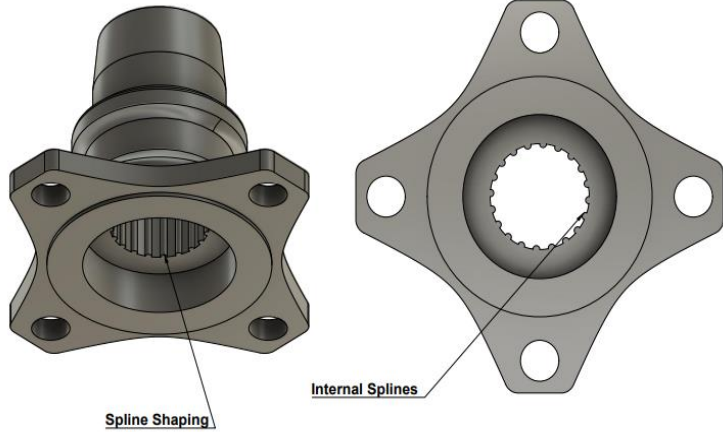
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| S. no. | Process Description | Machine Used | Tool | Location | Fixture |
|--------|--|---------------|---|---|---------|
| 2. | <p>Turning to give surface finish on our casted product</p> <p>(F1, F2, F3, F4, F5, F6)</p> | Lathe Machine | <p>Single point cutting tool</p> <p>WC (Tungsten Carbide)</p> | <p>SURFACE FINISHING IS DONE ON SHOWN SURFACES BY TURNING PROCESS</p>  | |

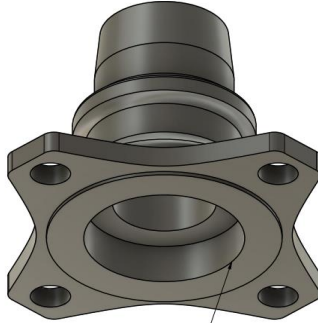
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| S. no. | Process Description | Machine Used | Tool | Location | Fixture |
|--------|---|-----------------|---|--|------------|
| 3. | Manufacturing Internal Spline using Shaping | Shaping Machine | 18 teeth Spline Adaptor WC (Tungsten Carbide) |  | Bench vise |

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| S. no. | Process Description | Machine Used | Tool | Location | Fixture |
|--------|----------------------------------|-------------------------|--|--|---------|
| 4. | Drilling (D1, D2, D3, D4) | Radial drilling machine | Drill bits and End milling cutters WC (Tungsten Carbide) | <p>ALL SHOWN REGIONS ARE DRILLED</p> <p>D1</p> <p>D2</p> <p>D3</p> <p>D4</p> | |

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| S. no. | Process Description | Machine Used | Tool | Location | Fixture |
|--------|---------------------|----------------------|---|---|---------|
| 5. | Boring | Vertical Boring Mill | End milling cutters WC (Tungsten Carbide) |  <u>Boring Operation</u> | |

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