

# Metkon Application Note

**SAMPLE : Cutting Operation of Oil Pump**

## **INDEX**

**1. INTRODUCTION**

**2. APPLICATION REQUIREMENTS**

**3. SAMPLE PREPARATION PROCESSES**

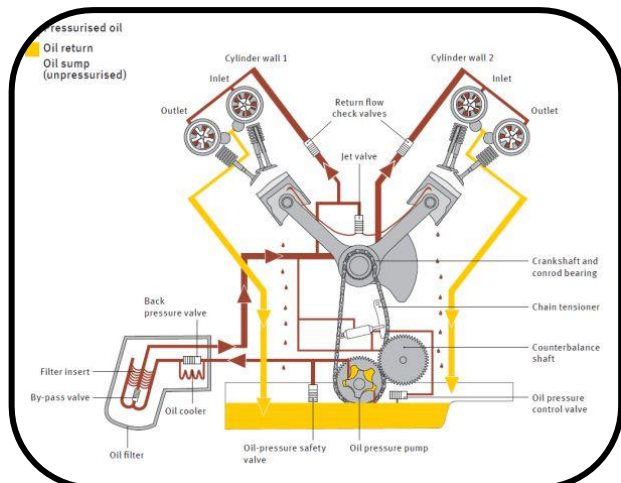
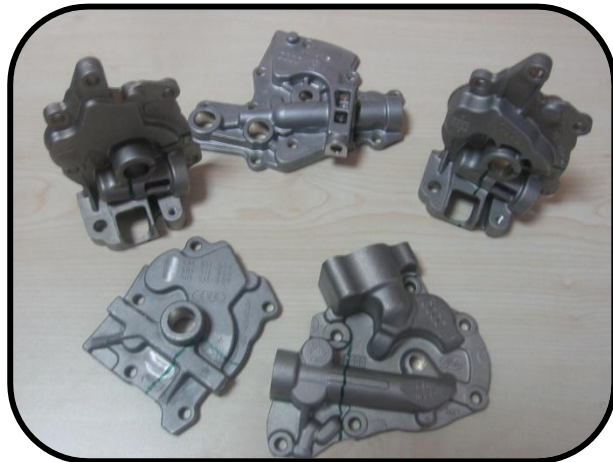
**4. RESULT**

The **oil pump** in an internal combustion engine circulates engine oil under pressure to the rotating bearings, the sliding pistons and the camshaft of the engine. This lubricates the bearings, allows the use of higher-capacity fluid bearings and also assists in cooling the engine.

As well as its primary purpose for lubrication, pressurized oil is increasingly used as a hydraulic fluid to power small actuators. One of the first notable uses in this way was for hydraulic tappets in camshaft and valve actuation. Increasingly common recent uses may include the tensioner for a timing belt or variators for variable valve timing systems.

The type of pump used varies. Gear pumps<sup>[1][2]</sup> trochoid pumps<sup>[3]</sup> and vane pumps<sup>[note 1]</sup> are all commonly used. Plunger pumps have been used in the past, but these are now only used rarely, for small engines.

To avoid the need for priming, the pump is always mounted low-down, either submerged or around the level of the oil in the sump. A short pick-up pipe with a simple wire-mesh strainer reaches to the bottom of the sump.



**A. SECTIONING**



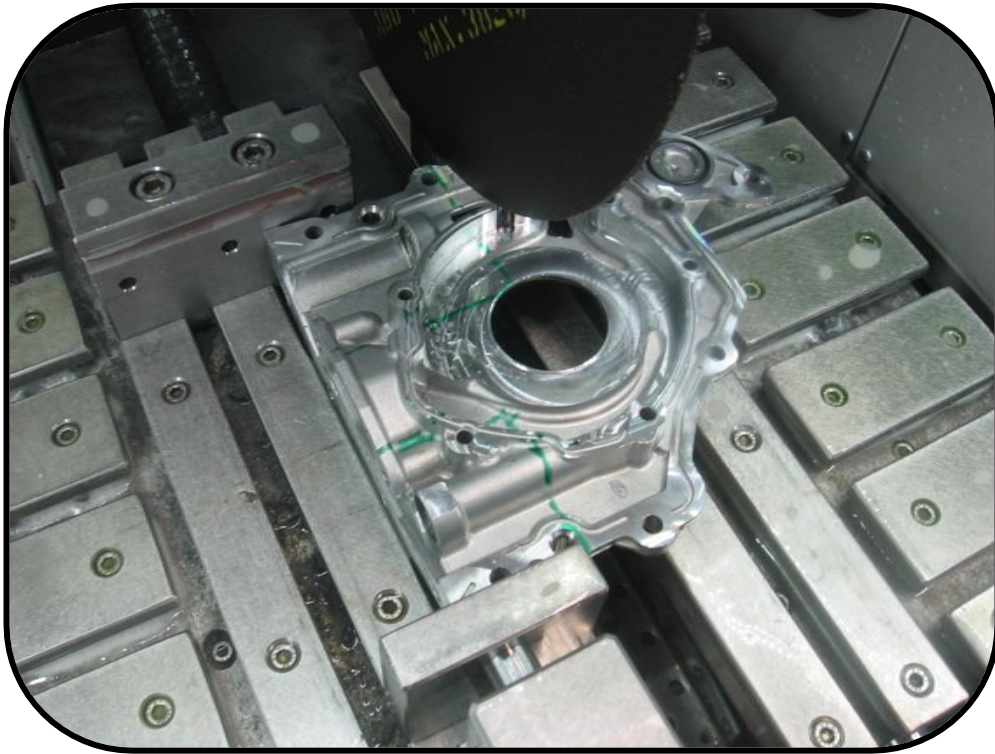
**METACUT-300**



**SERVOCUT-401-MM**

	<b>Order Code</b>	<b>Description</b>		<b>Order Code</b>	<b>Description</b>
<b>Equipment Used :</b>	10 02	MTC-300	<b>Equipment Used :</b>	14 65	SRC-401-MM
<b>Clamping Device :</b>	GR 0013	Speed Clamping Device	<b>Clamping Device :</b>	GR 0030	Speed Clamping Device
	GR 0012	Speed Clamping Device		GR 0029	Speed Clamping Device
<b>Cutting Fluid :</b>	19-902	Metcool – Oil for precision cutting soluble oil	<b>Cutting Fluid :</b>	19-902	Metcool – Oil for precision cutting soluble oil
<b>Cutting Disc :</b>	19-040	Cut off wheel	<b>Cutting Disc :</b>	19-040	Cut off wheel

## SAMPLE PREPARATION PROCESSES







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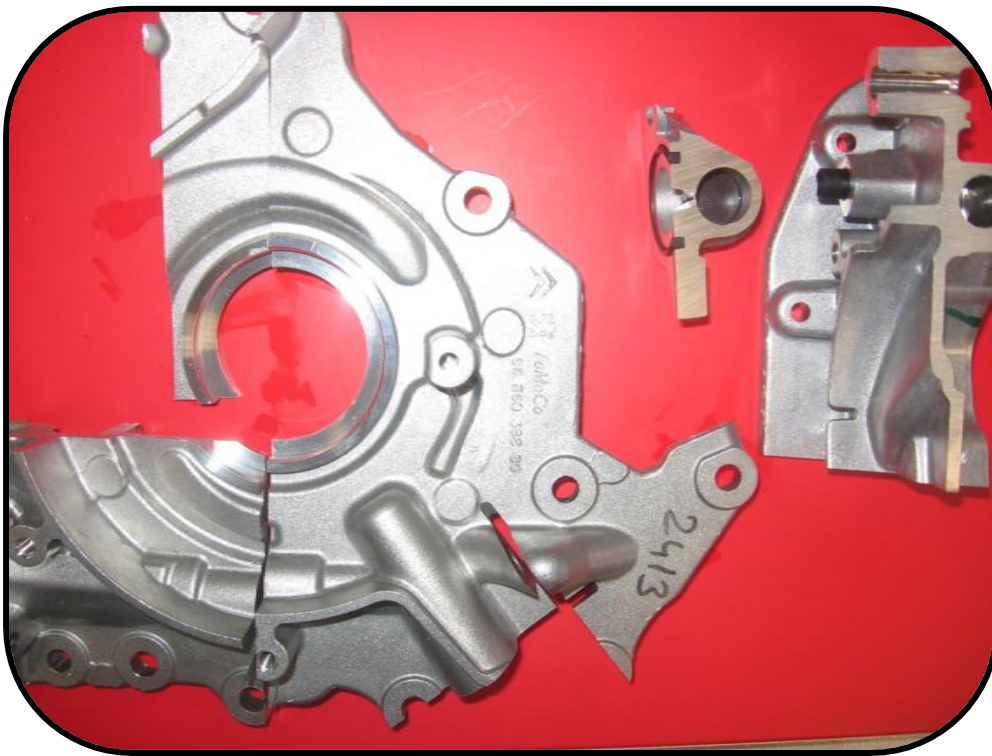
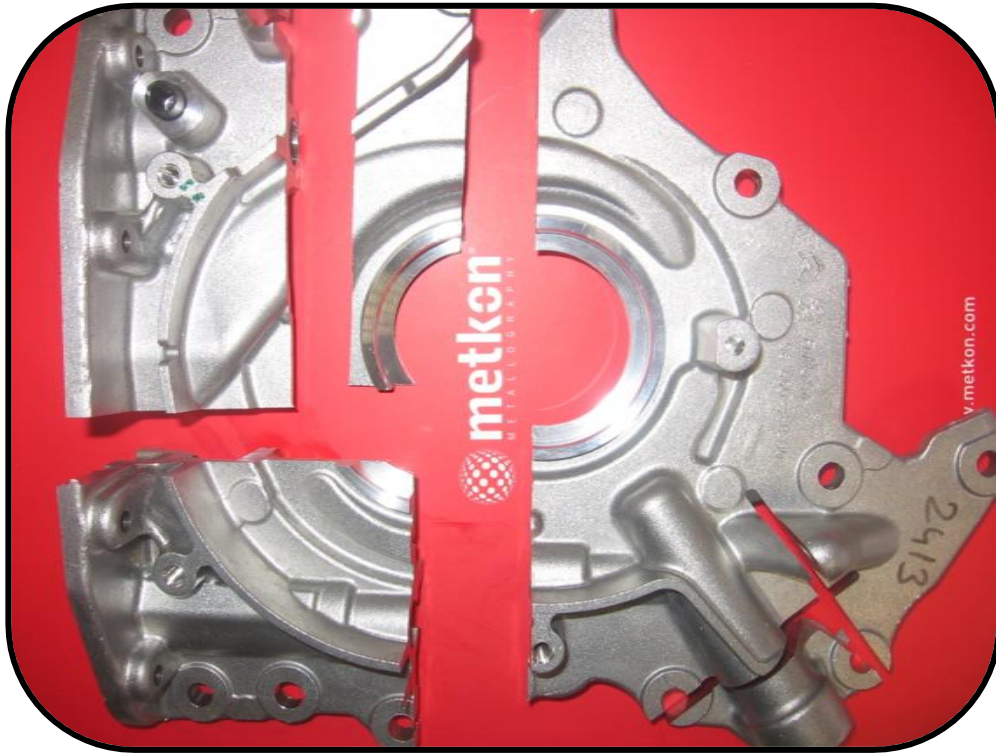
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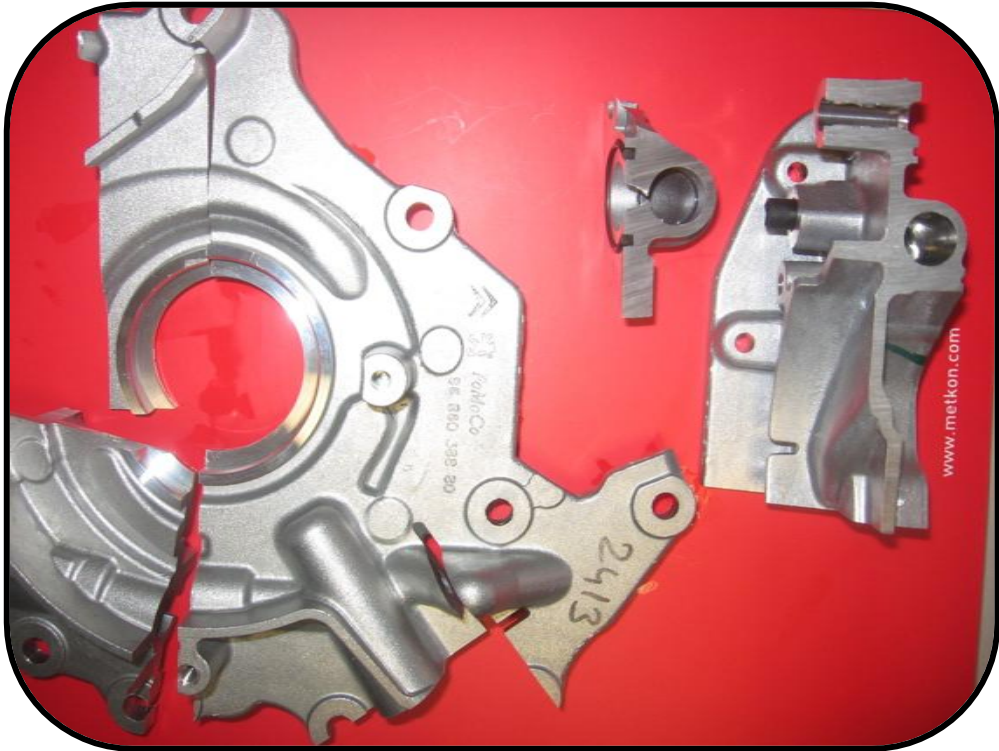
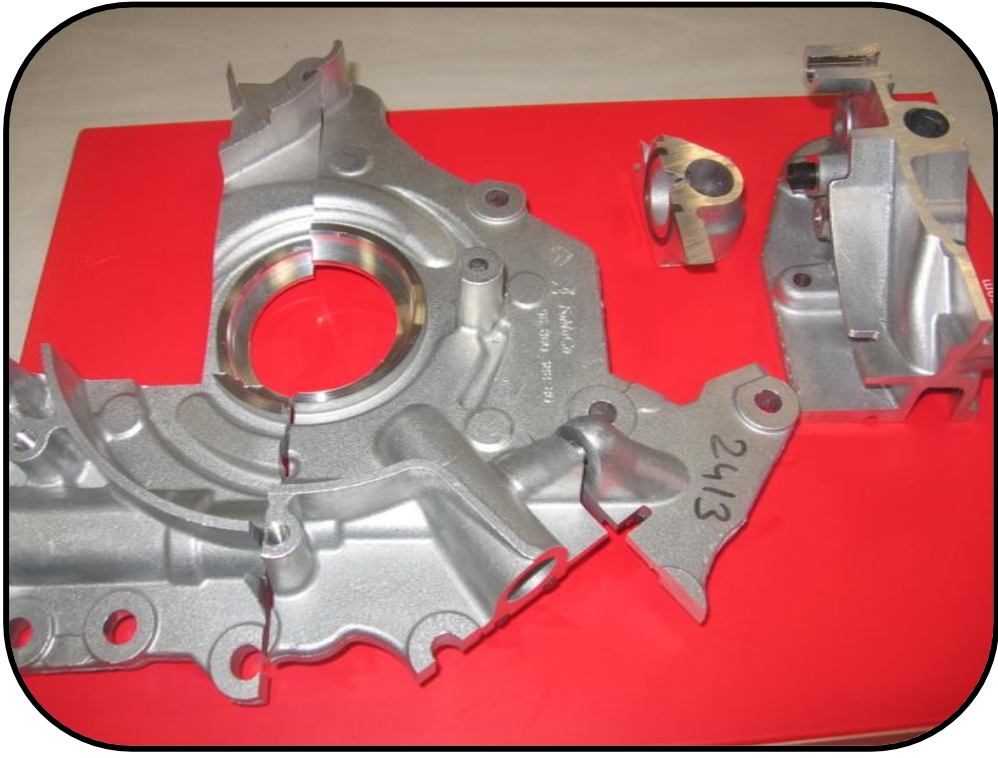
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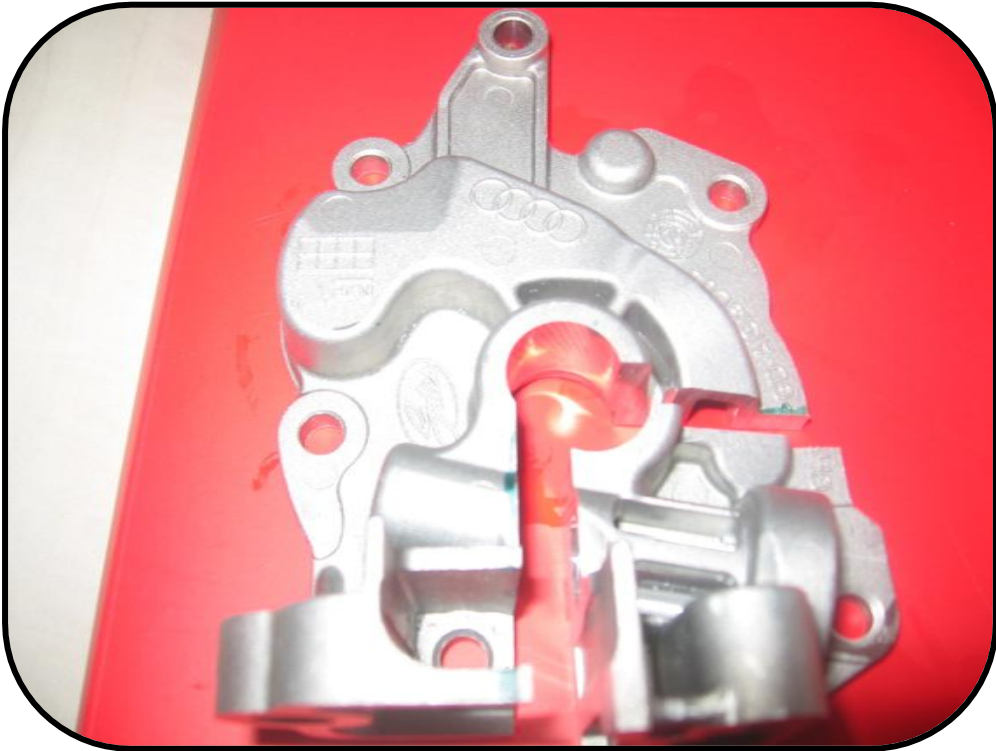
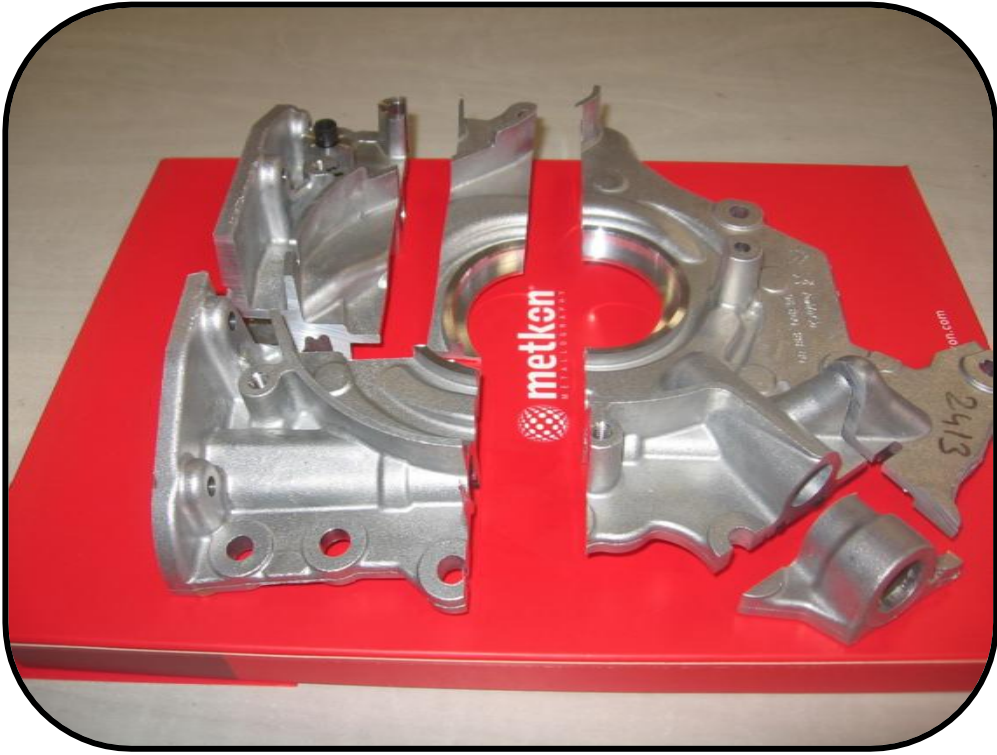


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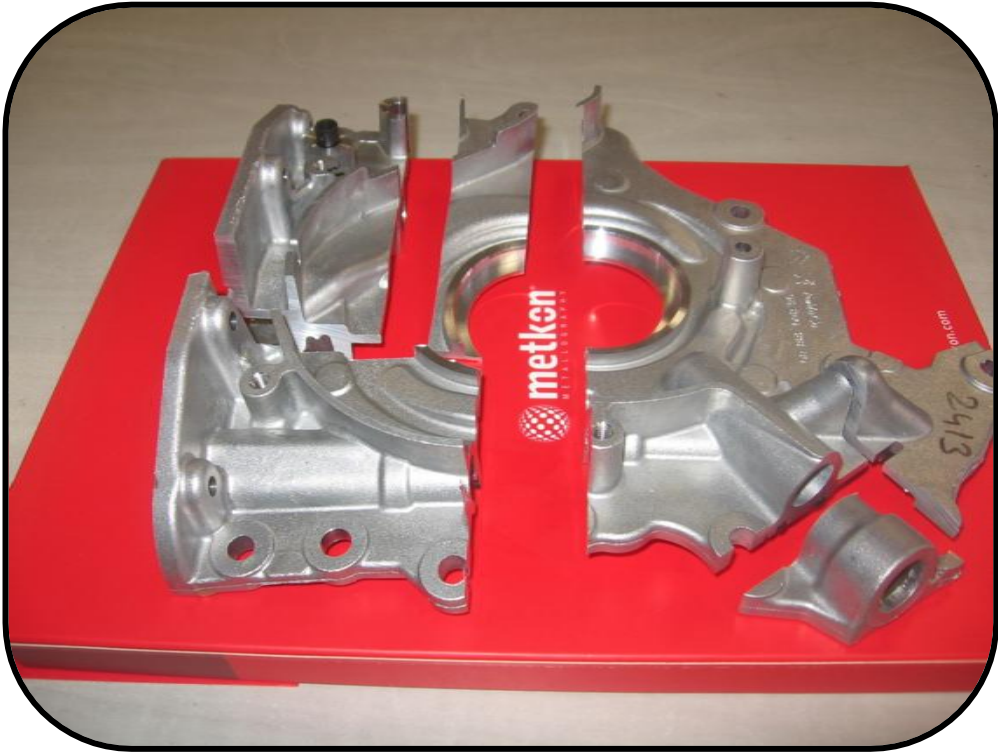
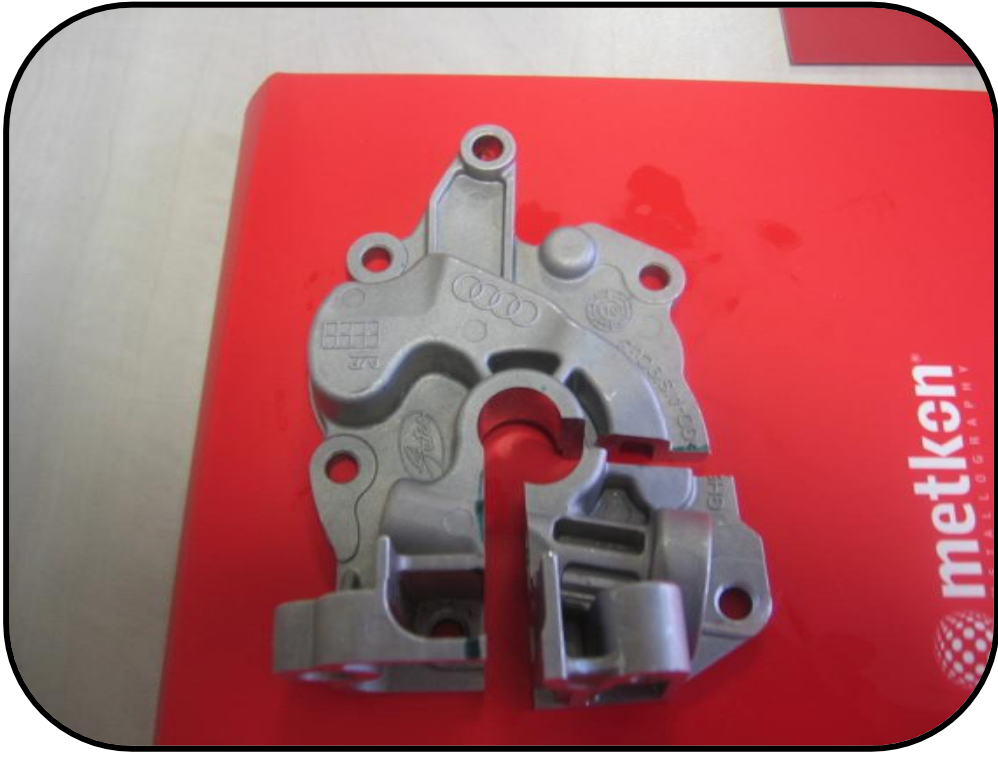


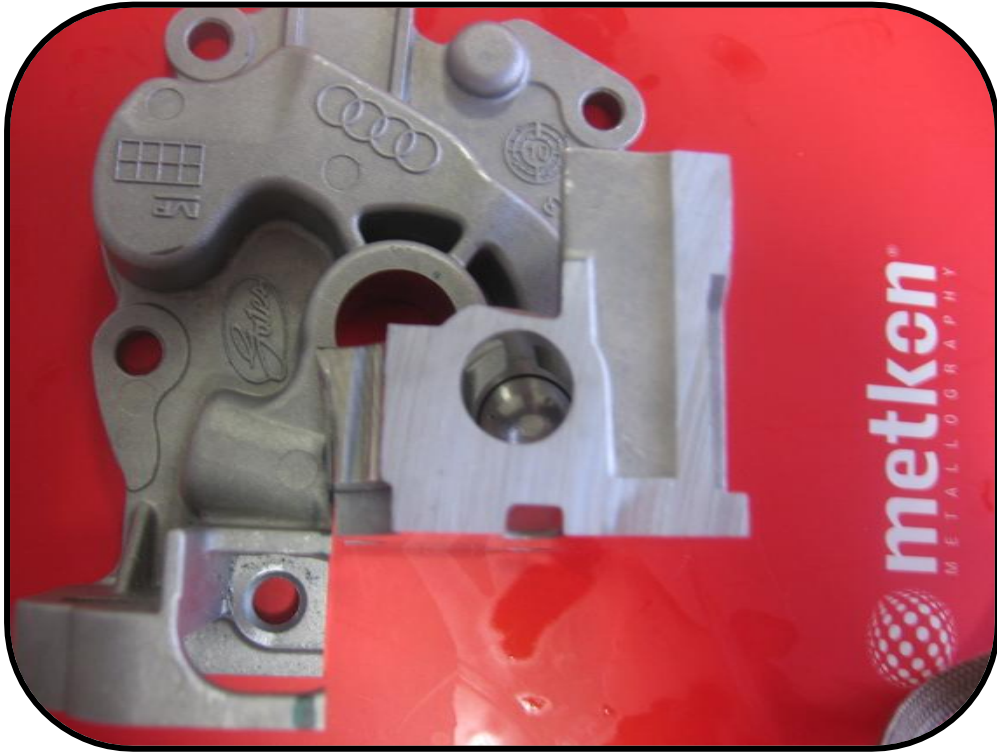












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