





# ▶ **When the Mill Maker won't**



# Set of objectives

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- ▶ Reduce Roll slippage.
- ▶ Reduce Roll change time.
- ▶
- ▶ Reduce weight of Roll change equipment.
- ▶ Reduce cost of replacement parts
- ▶ Supply full set of manufacturing drawings



# Original Roll Shaft

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# Modified Roll Shafts

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# Modified Roll Shaft Detail

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# Taper Sleeve

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# Modified Roll Shaft Detail

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# One of each Roll Shaft



# New roll shaft fits original module



# Two new design Roll Shafts



# Roll Change Parts



# Module ready for Discs fitting



# Set of objectives

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- ▶ Reduce Roll slippage.
- ▶ Reduce Roll change time.
- ▶ Reduce weight of Roll change equipment.
- ▶ Reduce cost of replacement parts
- ▶ Supply full set of manufacturing drawings



# Original Seal Plate, Figure 8 Plate

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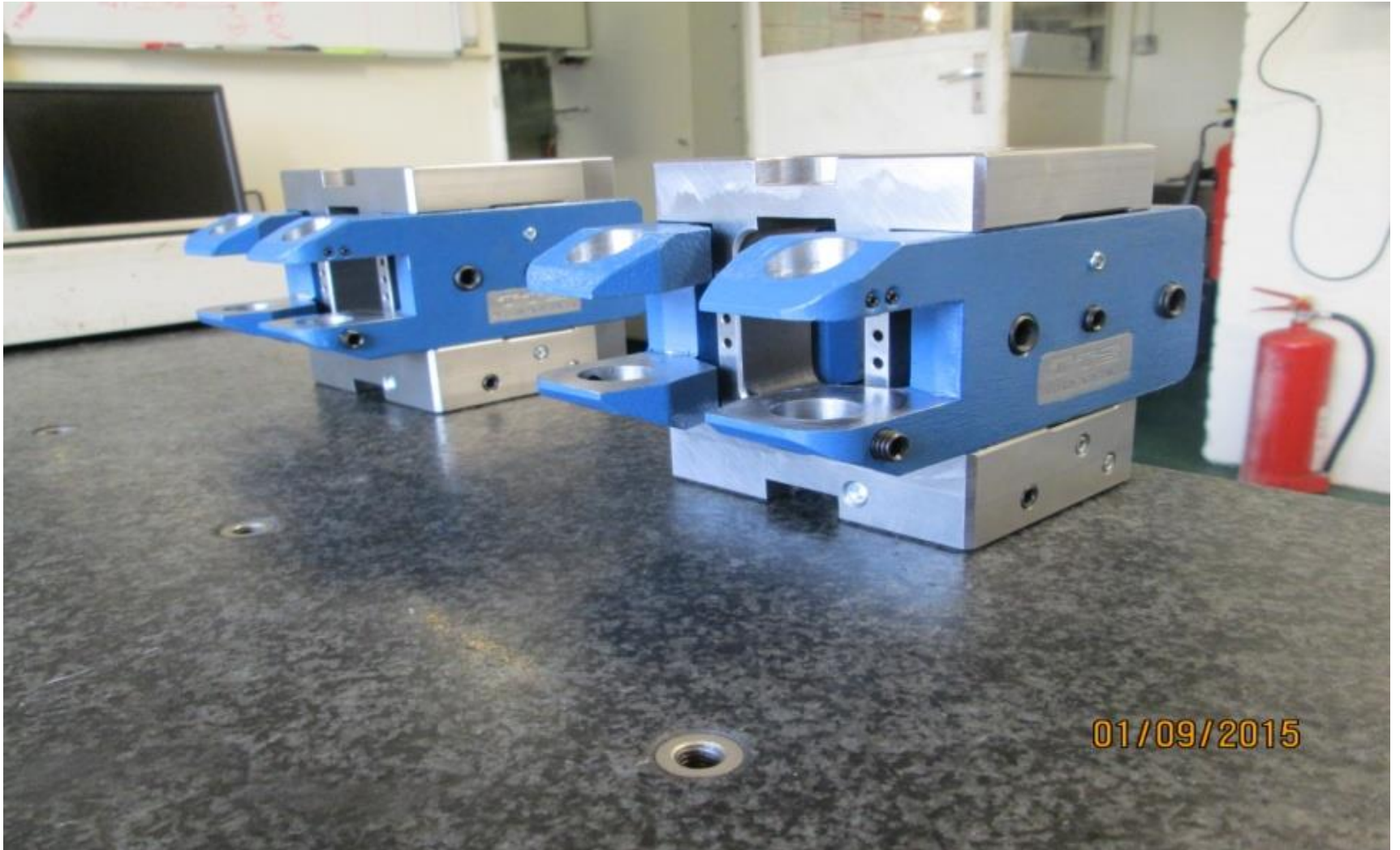
# New Seal Plate. Figure 8 Plate

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# Re-designed Guides



01/09/2015

# Exit Guide with Stripper

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# Exit Guide with Strippers

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# Bespoke Twister Guide

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# Bespoke Twister Guide Housing

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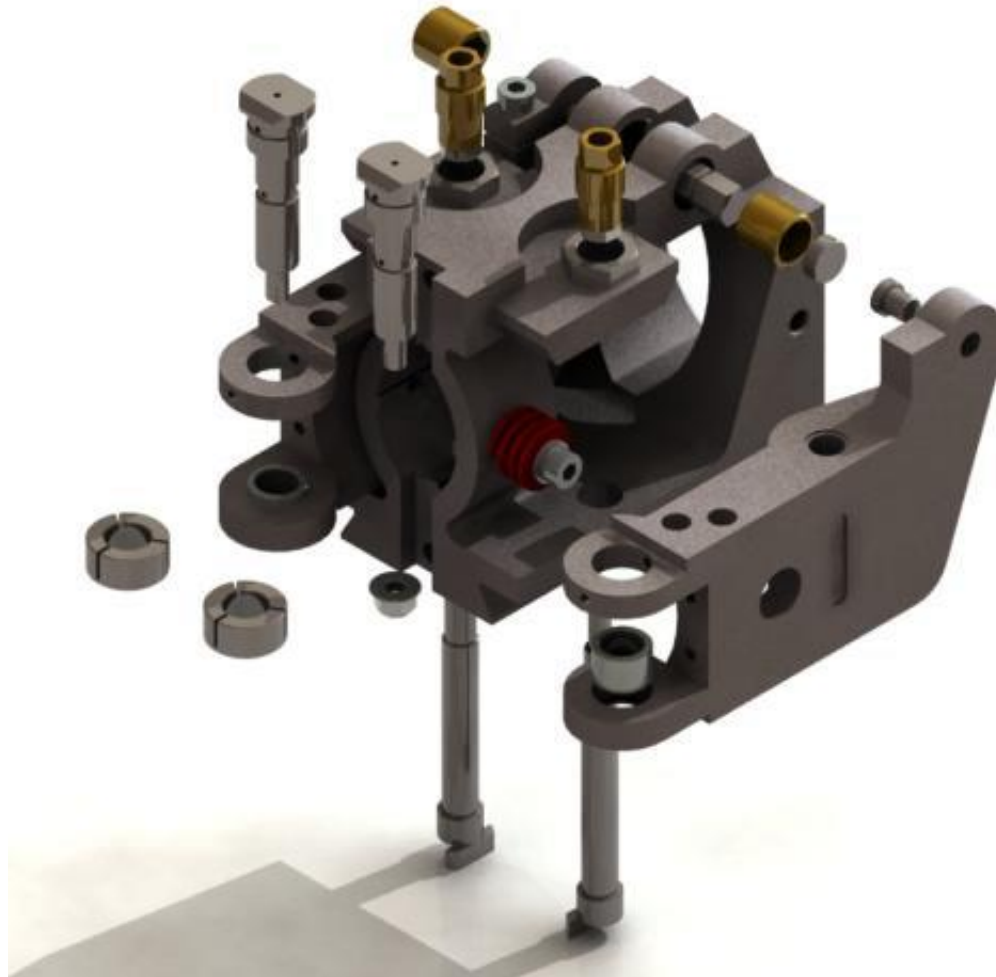
# Modified Guides

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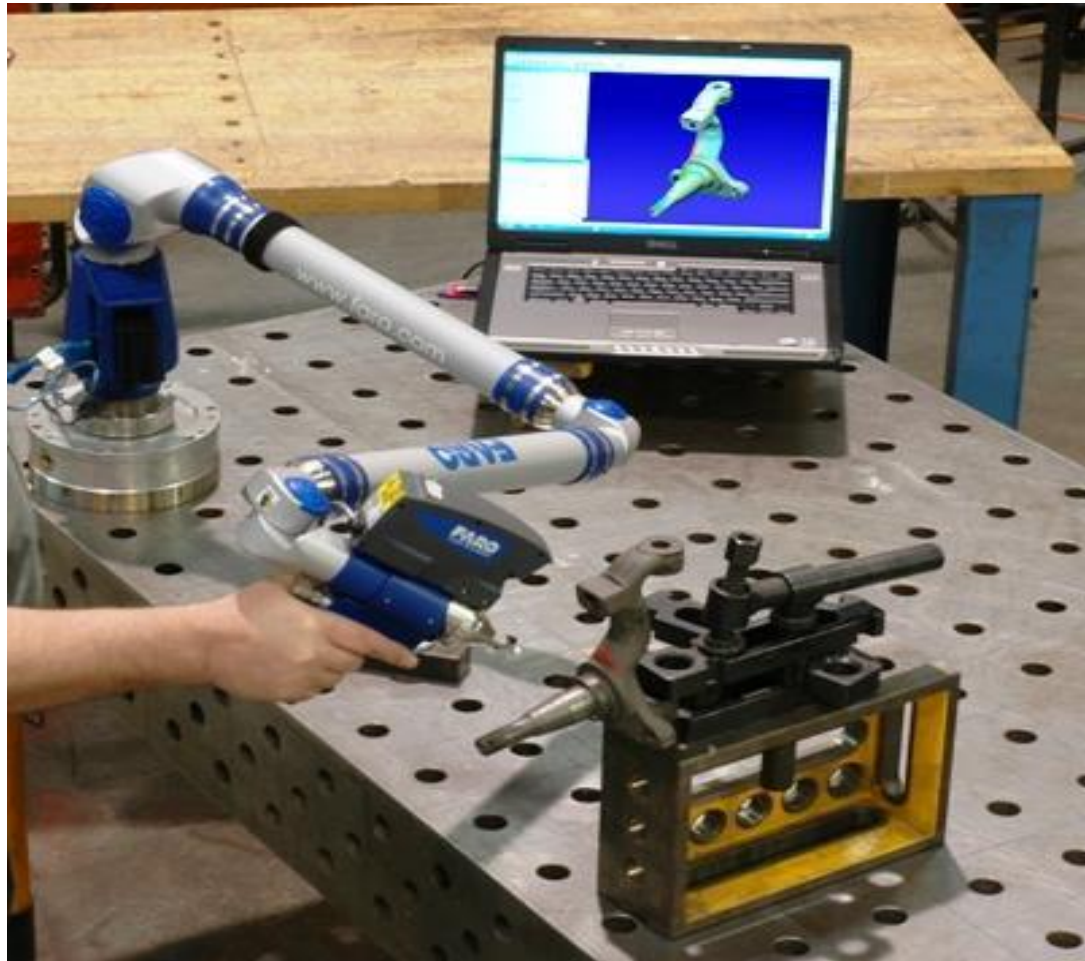
# Exploded view of Guide

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# Faro Arm 3D Scanning

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# 3D Laser Scanning

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# Guides

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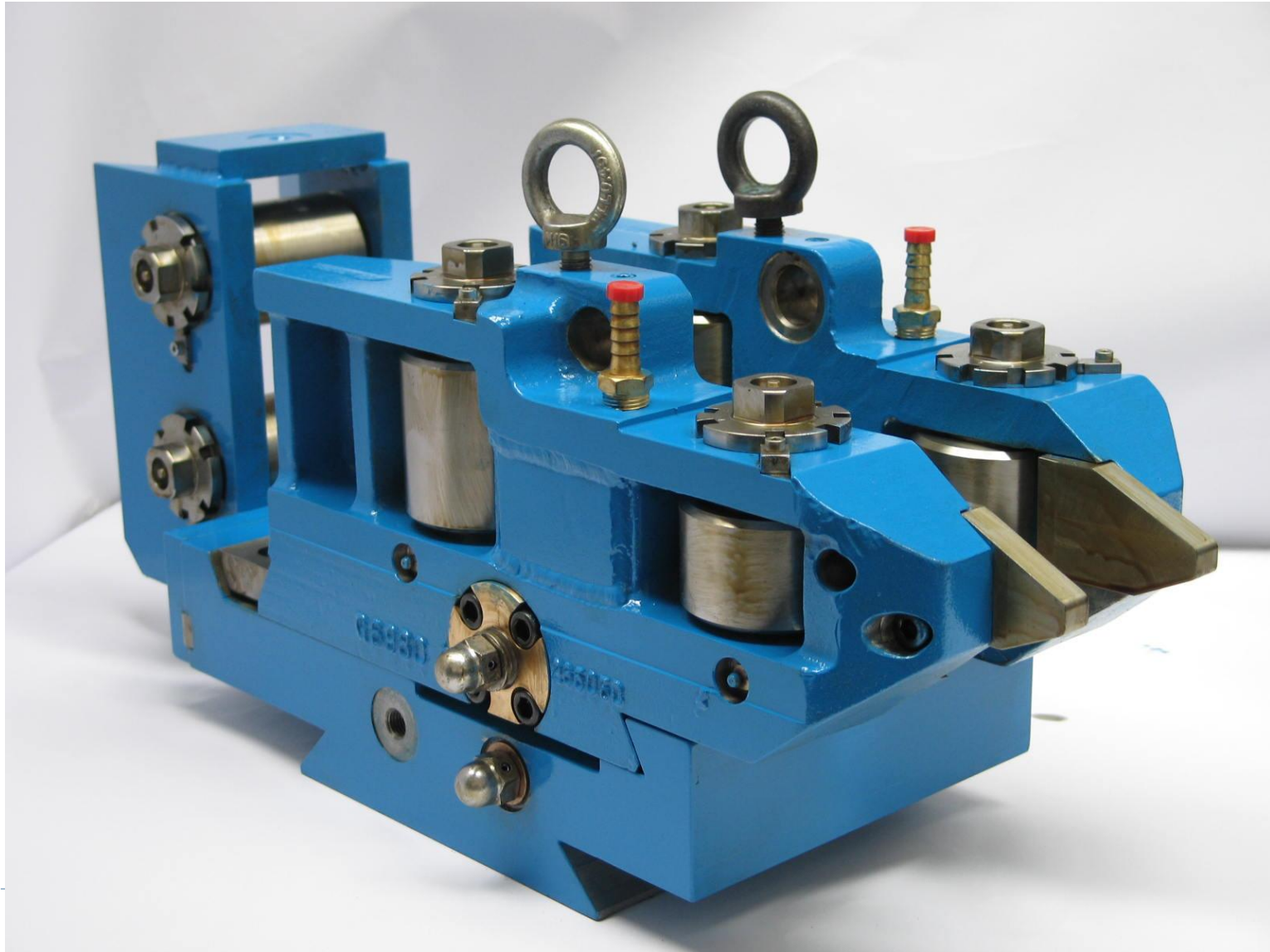


10/12/2014

# Guides



# Guides

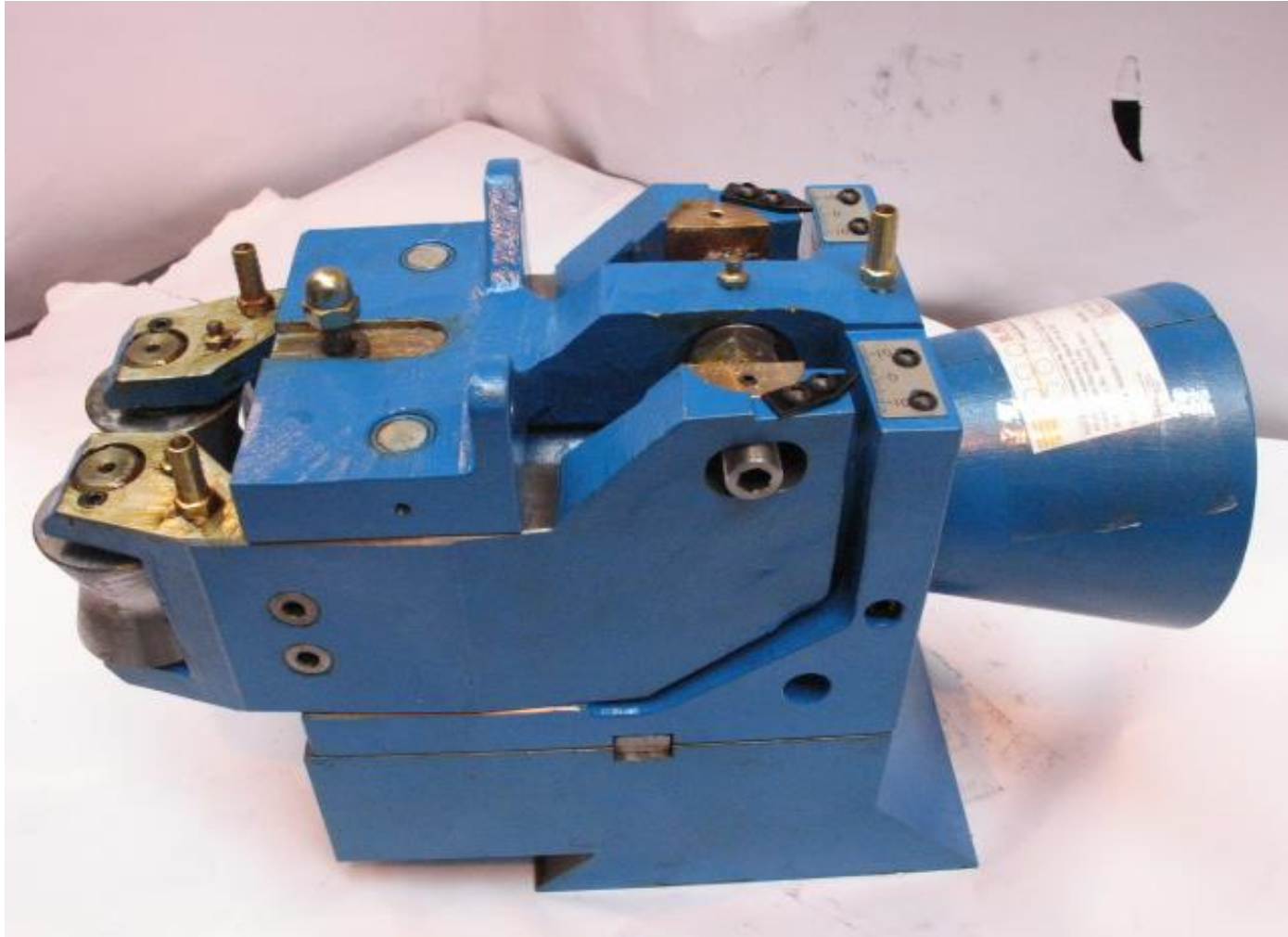


# Guides

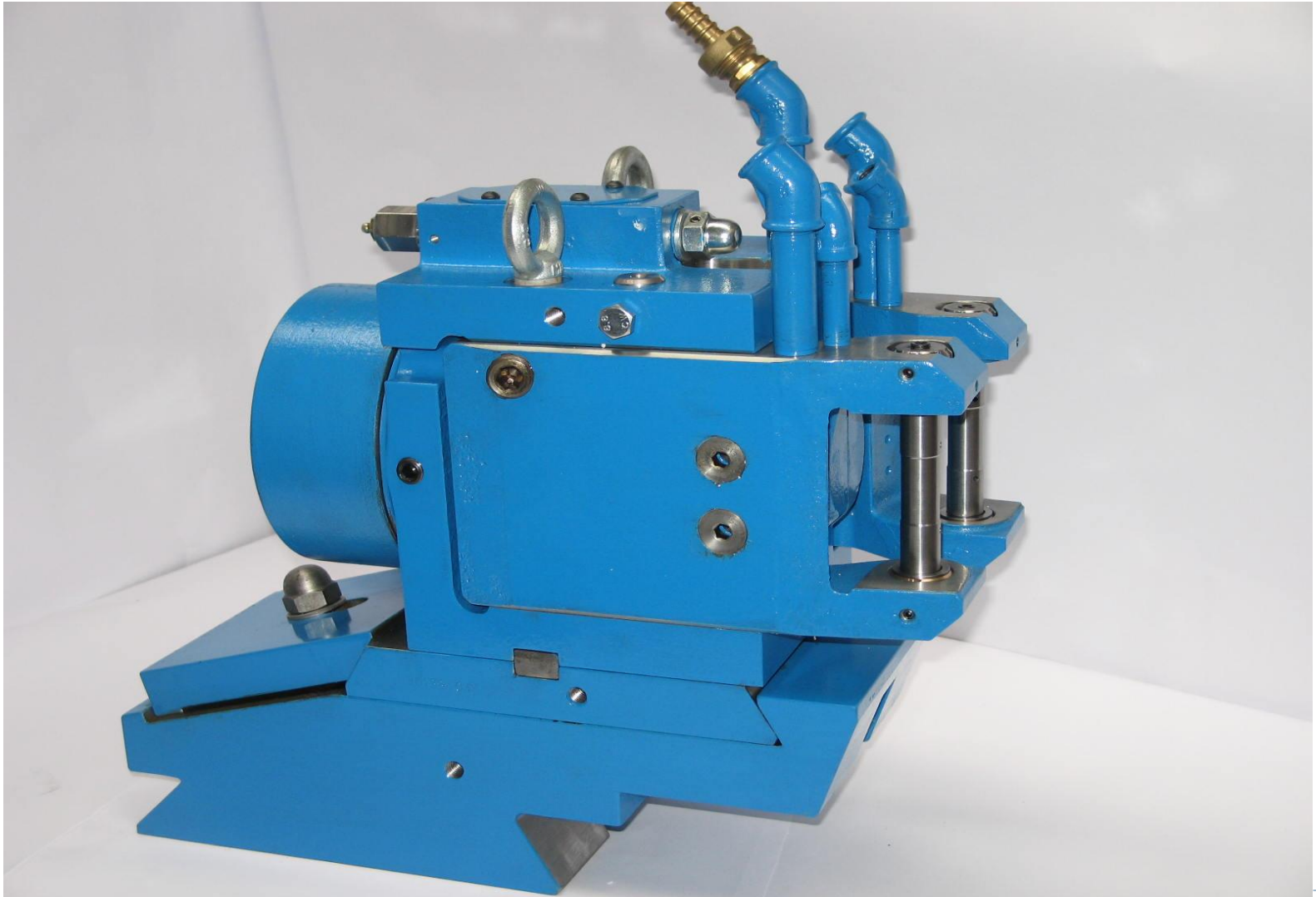
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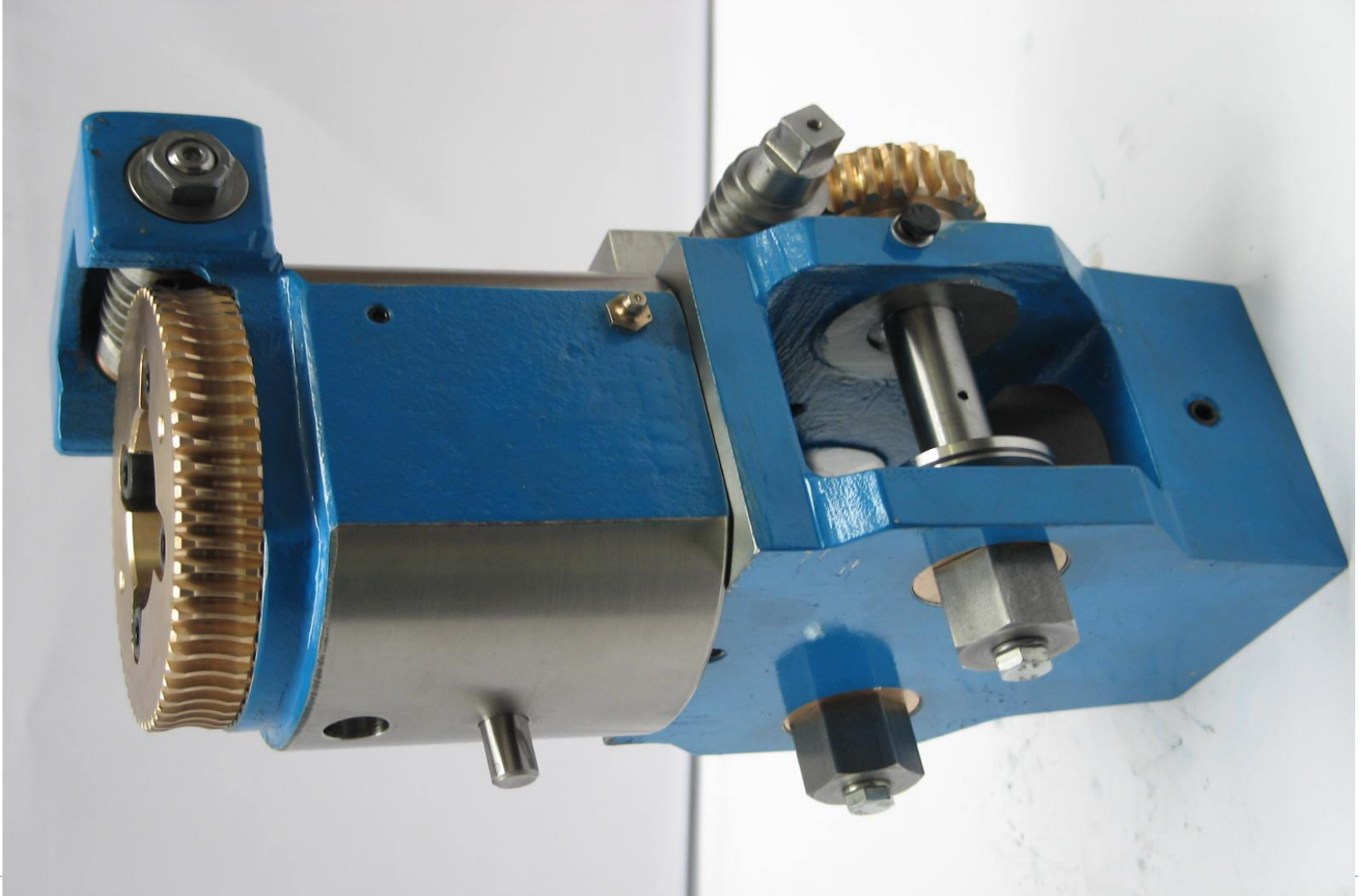
# Guides



# Guides



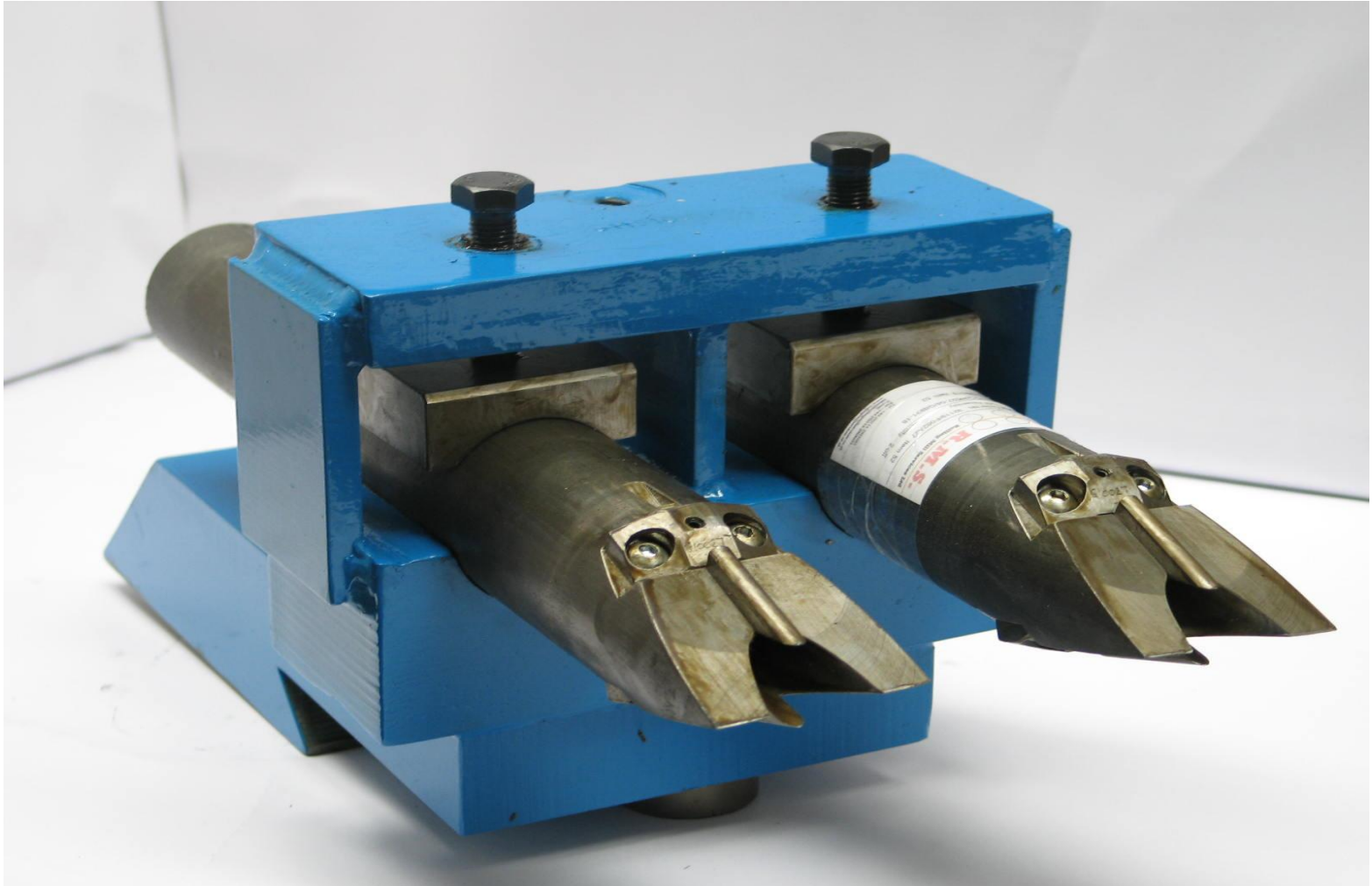
# Guides





# Guides

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# Danieli type sleeve with spline

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# Roll Shafts



22/10/2014

# Roll Shafts

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# Roll Shafts & Neck Rings

▶ Pic var



01/09/2014

