

MECHANIC & AUTOMATION SYSTEM DESIGN

SIBERNETIK with her experienced staff in custom machinery sector has completed many projects in cooperation with the leading companies of automotive industry.

Our dynamic staff works in a perfect harmony with our customers from the beginning of a project for the entire technological life of the product.

We intend to use the latest production and automation techniques in all the projects we carry on, in order to meet the demands of our customers.

This document describes the technical characteristics of Steering Column Test

Station designed and produced by

SIBERNETIK



Lower Arm Rubber Bushing Inserting

special
designs to
meet
customer
demands

Lower Arm Rubber Bushing Inserting

PERFECT PROCESS CONTROL CAPABILITY

- ✓ Inserting of Rubber Bushings on Lower Arm with Servo Press,
- ✓ 100% Force and Displacement Control during whole inserting cycle,
- ✓ Vertical & Horizontal Bushing Inserting on same Lower Arm,
- ✓ Lower Arm & Bushing Diversity Management,



PROJECT MANAGEMENT

System requirements are classified according to the following items,

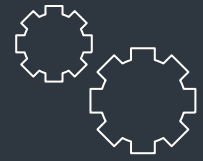
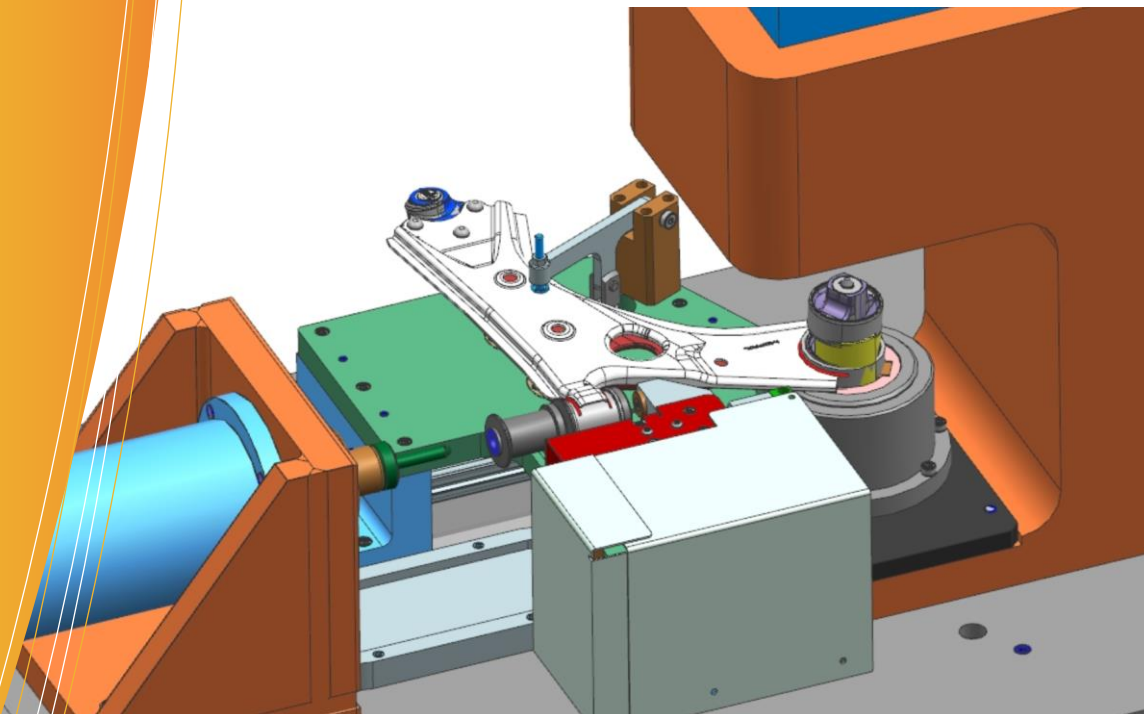
- Fabrication Conditions,
- PLC
- HMI
- Servo System
- Nutrunner
- Synoptic
- Safety



PROJECT REALIZATION

Mechanic and automation system realizations run together in great harmony;

- Fabrication Conditions,
- Lay-Out
- Mechanic System
- Hydraulic System
- Pneumatic System
- Ergonomics
- Safety



CUSTOMARY SOLUTIONS

Customary solutions are developed that will meet your demands according to your fabrication standards



3D CAD DESIGN

Systems are designed, using registered 3D CAD softwares on professional workstations



INNOVATIVE SOLUTIONS

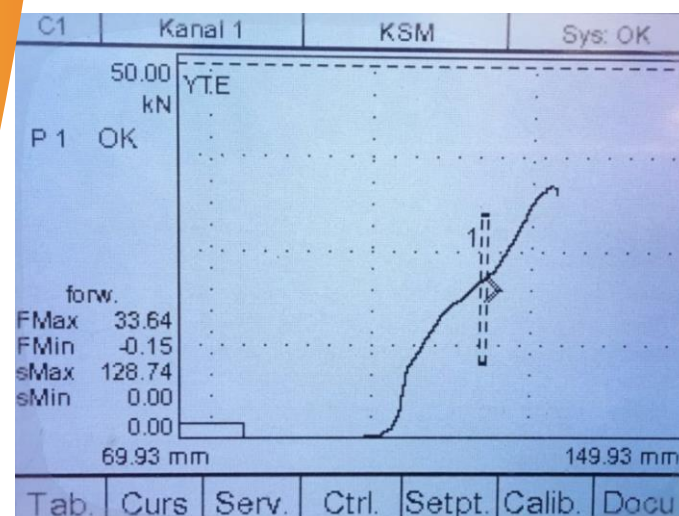
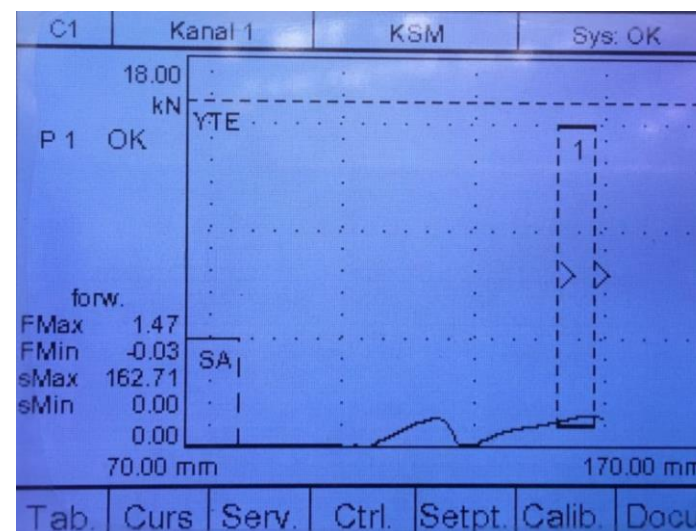
One of the best solutions is applied after all alternatives are offered and discussed in cooperation



Inserting Specs

- ✓ 100kN Pressing Force for Vertical Bushing,
- ✓ 30kN Pressing Force for Horizontal Bushing,
- ✓ Position Setting for Horizontal Bushing,
- ✓ POKA-YOKE Applications for Lower Arm & Bushings,
- ✓ Instantaneous Pressing Graphs Display,

Optional Control windows
For Force & Displacement
Controlling and Monitoring



Bushing Angular
Position
Adjustment with
Mechanical
POKA-YOKE



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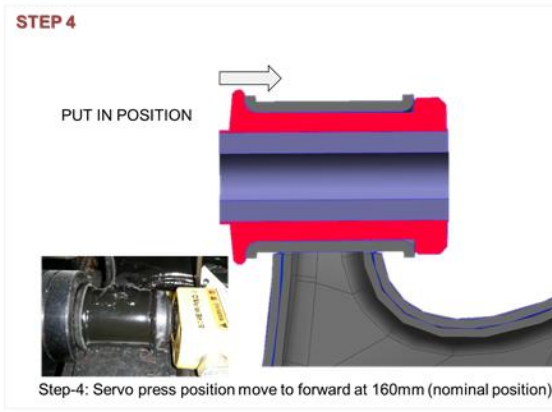
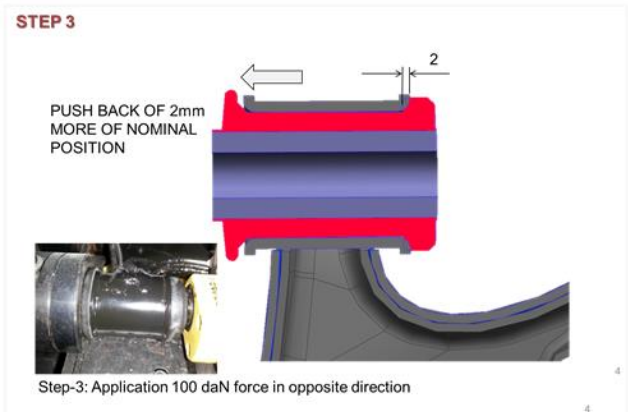
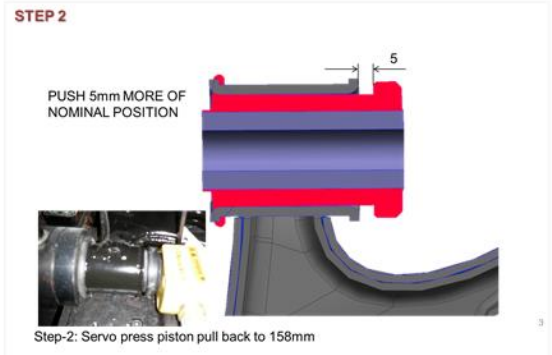
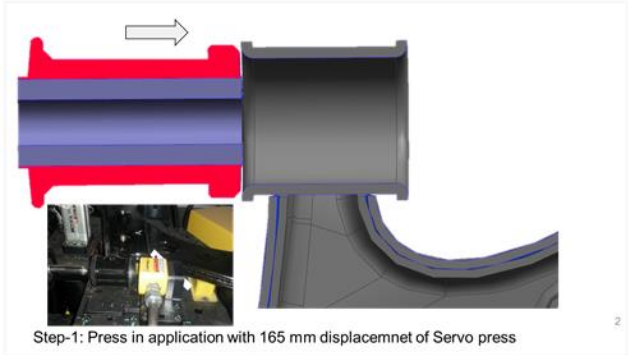
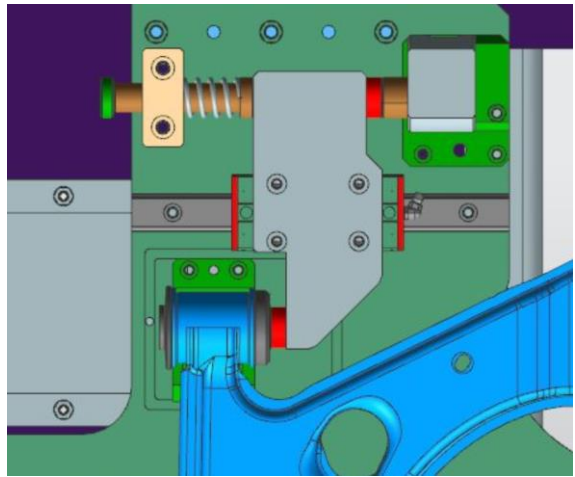
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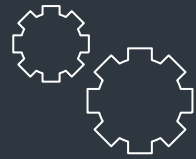
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HORIZONTAL BUSHING POSITION SETTING WITH HYDRAULIC PISTON

- ✓ Step 1: Servo Press pressing to +5mm more than nominal position,
- ✓ Step 2: Servo Press return back to initial position,
- ✓ Step 3: Hydraulic Piston pressing to +2mm more than nominal position,
- ✓ Step 4: Servo Press pressing to nominal position,



- 22kN Pressing Force at 350 bar,
- Compact design for narrow spaces,



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