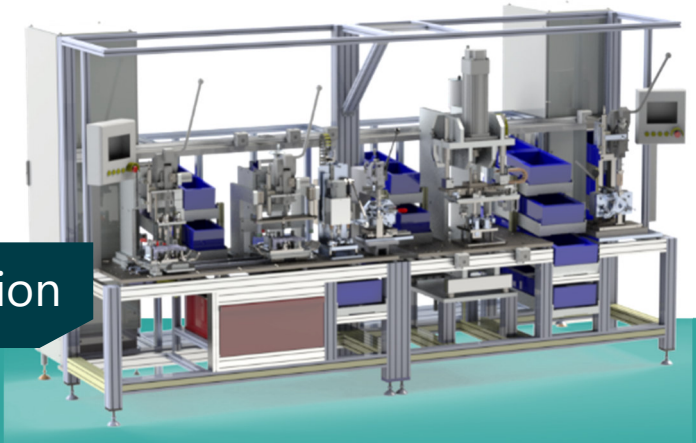


Manual installation + test station

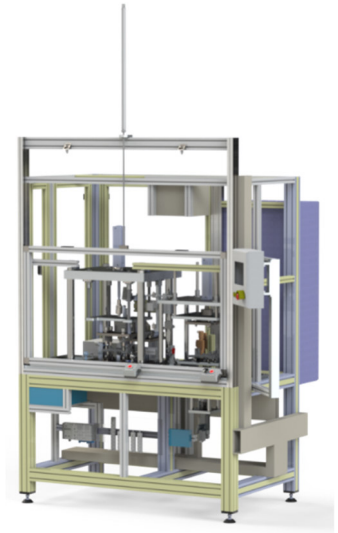
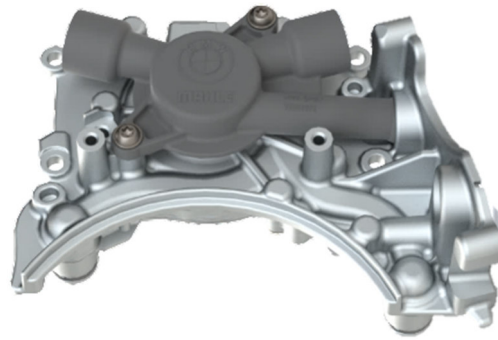


- Partially automated manual installation for water pumps with subsequent quality test station for axial runout, torque and tightness.

- Install:
 - joining the individual parts with manual knuckle joint presses or electronic joining module
 - seal ring installation with isopropanol wetting
 - fully automatic screwing station:
Vacuum screwdriver with supply device for screws

- Check:
 - force displacement monitoring of the joining processes
 - axial runout test of ball bearing mounted impeller shaft
 - torque testing (starting torque, drag torque)
 - leak test of the internal ducts with leak test device
 - evaluation via testing software

- Management:
 - clear visual feedback
 - component assignability via barcode label
 - OK marking by means of needle marking
 - rework strategy for NOK parts



Technical Data

Component / test piece	Water pump for motorbike
Installation devices	Manual knuckle joint press – Gechter Electronic joining module (linear servo motor) – Exlar Vacuum screwdriver – Weber Supply device for screws – Geho Screwdriver control – Desoutter

Test devices	Leak test device – Fröhlich Force sensor – Burster Torque sensor – Kistler Path measuring system – Balluff Measuring sensor – Solartron, IBR
---------------------	--

Measurement data processing	
Hardware	IPC
Operating system	Windows
Measuring data software	premeSTAR®
Visualisation	Screen
Storage, archiving	csv file
Export	Database on network server



Machine control	PLC SIMATIC S7-1500
Visualisation	Touch panel

Electrical characteristic data	IEC
Supply	400 V / 50 Hz / 16 A
Control voltage	24 V DC
Connected load	3 kVA

Compressed air connection	6 bar
----------------------------------	-------

Airborne noise emission	
Max. sound pressure level	<83 dB(A)
Eq. permanent noise level	<75 dB(A)