

UNIOR - SPECIAL MACHINES



UNIOR GROUP



SALES: 165 mio (in 2017)
EMPLOYEES: 1.793 (in 2017)

95,2% EXPORT

4,8% DOMESTIC MARKET



FORGE

SALES: 94,4 MIO €
EMPLOYEES: 982

57%



HAND TOOLS

SALES: 33,4 MIO €
EMPLOYEES: 395

20%



SPECIAL MACHINES

SALES: 21,3 MIO €
EMPLOYEES: 154

13%

OTHER
PRODUCTS
AND SERVICES,
MAINTENANCE


SALES: 16,0 MIO €
EMPLOYEES: 262

10%

GLOBAL PRESENCE



MILESTONES

- 
- 1919 Establishment of forging plant Styria Eisenwerke GmbH
- 1950 Rebuilding after II. WW, plant renamed to Factory of Forged Tools Zreče
- 1970 New vision and name – UNIOR (short name for UNiversal TOols in Slovenian)
- 1978 Establishment of Programme Special Machines within UNIOR Corporation
- 1985 Production of first CNC Special machines
- 1995 Production and Development focus on Automotive industry
- 2018 Facts & Figures Unior – Programme Special Machines:
- **175 employees**
 - Production of **flexible** and **special machines** (Core business)
 - Investments annually: **1,5 mio. € average**
 - Average annual growth: **5-10 %**
 - Lead time for machines delivery: **6 – 12 Months**
 - Annual **Sales cca. 30 mio. €**

CUSTOMERS



OPEL



Audi



BRILLIANCE



GUHRING



thoetle



Danfoss



CATERPILLAR

PACCAR

GETRAG

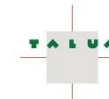
CIMOS



BENTELER

brose
Technik für Automobile

BOSCH



UNIOR®

SUPPLIERS



QUALITY MANAGEMENT





Certificate
Awarded to

UNIOR d.d.
KOVAŠKA CESTA 10, 3214 ZREČE, SLOVENIJA
and sites listed in the appendix

Bureau Veritas Certification Holding SAS – UK Branch certify that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standard detailed below

STANDARD

ISO 9001:2015

SCOPE OF CERTIFICATION

DEVELOPMENT, PRODUCTION AND SALE:

- HOT FORGINGS, MACHINED FORGINGS AND SINTERED PRODUCTS,
- HAND TOOLS,
- CARRIAGES FOR TOOLS, OTHER METAL EQUIPMENT AND COLD FORGED PARTS,
- SPECIAL MACHINES FOR THE TREATMENT OF METALS.

Original certification date: **05/07/1996**
 Certification cycle start date: **05/12/2017**
 Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **04/12/2020**
 Certificate number: **SL22074Q** Version number: **01** Revision date: **24/11/2017**


Signed on behalf of BV/CH 543 UK Branch
 Certification body address: 39 Faxon, 65 Piccadilly Street, London, E1 8JG, United Kingdom
 Local office: Ljubljana cesta 49a, 1000 Ljubljana, Slovenia


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Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.
 To check this certificate validity please call +385 1 47 57 670.
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VDA Institut der Automobilindustrie e.V.
 OMC Quality Management Center

Certificate supplement

Bureau Veritas Certification Germany GmbH

registered with
VERBAND DER AUTOMOBILINDUSTRIE e.V. (VDA)
 Approval No. **08-QMC-6.4-001**
 hereby certifies that the company

Unior d.d. program Strojgradnja
 Kovaška cesta 10
 3214 Zreče
 Slovenia

Design, Production and Sales of Special machines for metal processing

maintains a
Quality System in accordance with VDA 6, Part 4
 · Production Equipment ·
 (with product design)

This certificate supplement is only valid in conjunction with ISO 9001 Certificate Reg. No. DE009398-1
 It confirms that the quality system is additionally qualified as fulfilling the requirements specified in VDA 6, Part 4, which supplement those in ISO 9001:2015.
 Verification was provided during the certification audit, Report No.: 10618400

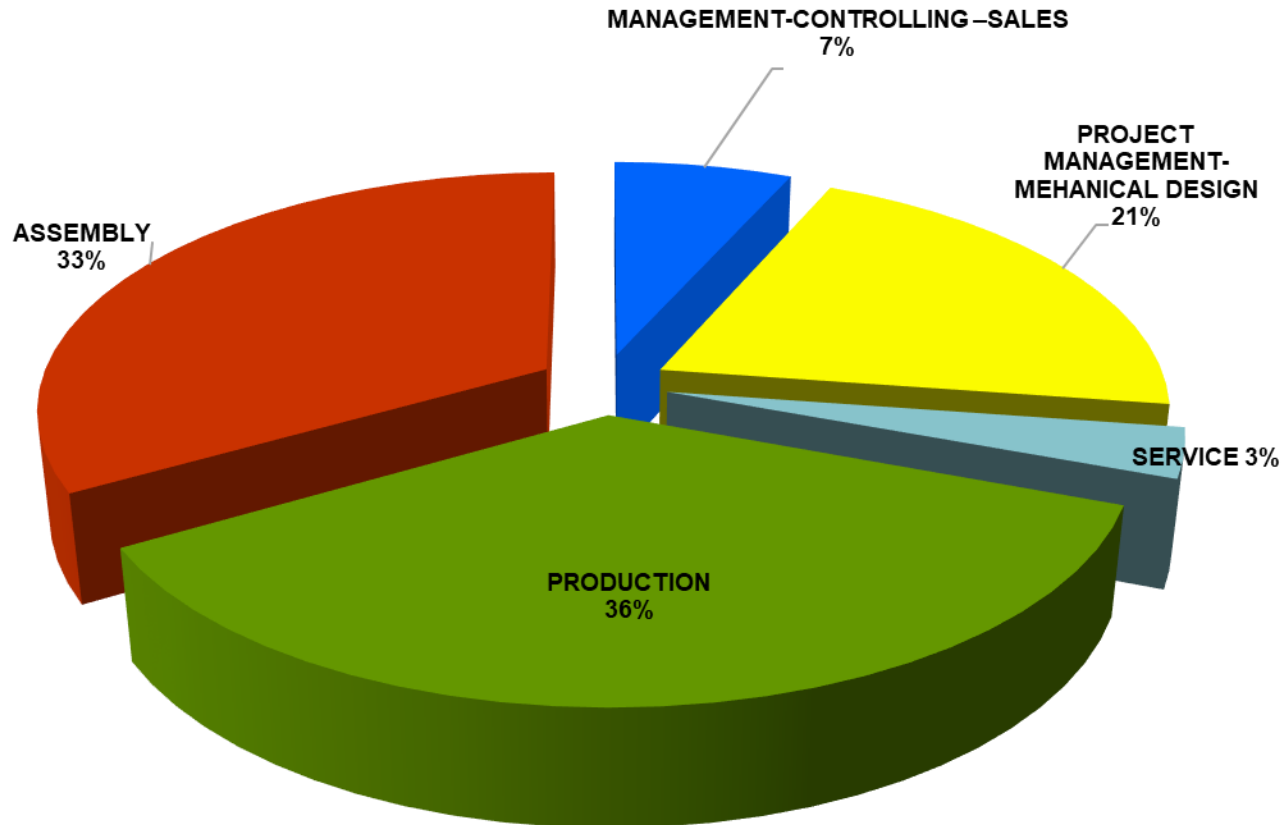
This certificate is in 1/1 unit:	18.11.2021
VDA certificate No:	0003999
Date of issue	20.11.2018


Certification Manager

Bureau Veritas Certification Germany GmbH |
 Venzelau 1 - 21079 Hamburg - Germany

EMPLOYEES STRUCTURE

UNIOR Special machines



OUR COMPETENCES:

- ✓ Global Partnership
- ✓ Complete “Turn-Key” solutions (machine with clamping device and machining process) based on many years of experience
- ✓ Complete line solutions (machines with automatization, meassuring, cameras, etc...)
- ✓ Manufacturing of work piece orientated - flexible machines
- ✓ Solution for machining of all material types with state of the art machining
- ✓ Production of CNC machines for Automotive, Commercial Vehicles, Aersopace and Tool production segment
- ✓ Machine design with software 3D CREO /CATIA
- ✓ High-level of production quality
- ✓ Training
- ✓ Warranty (12 to 24 Months) with Maintainance service in customer’s vicinity
- ✓ Spare parts on stock

PRODUCTS – MACHINE TYPES



DEEP DRILLING MACHINES



- STANDARD
- COORDINATE
- SPECIAL

SPECIAL MACHINES



- ROTARY – INDEXING TABLE
- FLEXIBLE PROCESSING CELLS FPZ
- END FACING
- FLEXIBLE 5- AXIS TYPE UH
- FLEXIBLE MACHINING CENTER UFBZ
- SPECIAL MACHINES- AXEL CARRIERS
- SPECIAL / TRANSFER

MACHINING CENTER



- 1- SPINDLE 3/4/5 AXIS
- 2- SPINDLE 5-AXIS
- HORIZONTALLY- VERTICALLY 2-SPINDLE

CRANKSHAFT MACHINES



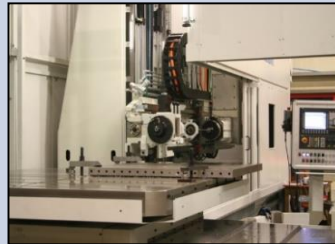
- PASSENGER VEHICLES
- COMMERCIAL VEHICLES
- HEAVY EQUIPMENT

DEEP DRILLING MACHINES

Standard deep drilling machines
– type TBM



Coordinate deep drilling machines
Type KTBM 4015



Special deep drilling machines



STANDARD DEEP - DRILLING MACHINES



- Technical data TBM 15
 - ⇒ Drillsystem ELB
 - ⇒ Drilling in full \varnothing 2 – 15 mm
 - ⇒ Redrilling max 20 mm
 - ⇒ Depth of drill up to 1000 mm

- Technical data TBM 30
 - ⇒ Drillsystem ELB / BTA
 - ⇒ Drilling in full \varnothing 6 – 30 mm
 - ⇒ Redrilling max 60 mm
 - ⇒ Depth of drill up to 2000 mm

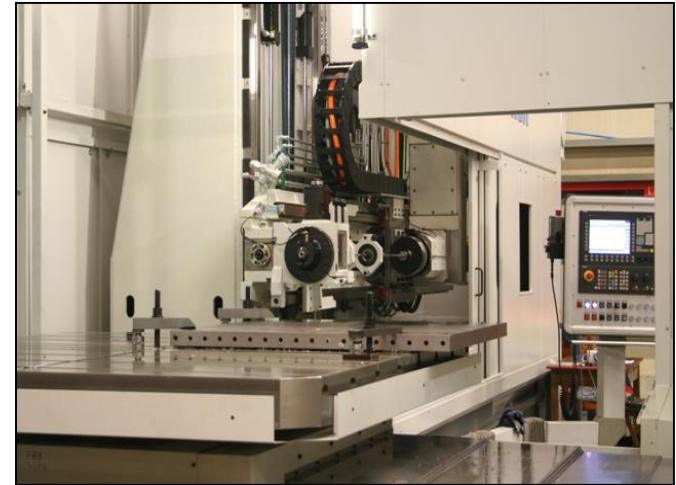
- Technical data TBM 60
 - ⇒ Drillsystem ELB / BTA
 - ⇒ Drilling in full \varnothing 16 – 65 mm
 - ⇒ Redrilling \varnothing max 150 mm
 - ⇒ Depth of drill up to 10 000 mm



COORDINATE DEEP - DRILLING MACHINES



- Technical data
 - ⇒ Deep drilling machine Typ KTBM
 - ⇒ Deep drilling & milling
 - ⇒ Contour milling & thread cutting
 - ⇒ Drilling in full \varnothing 4 – 100 mm
 - ⇒ Depth of drilling 2500 mm
 - ⇒ Milling tool up to \varnothing 100 mm

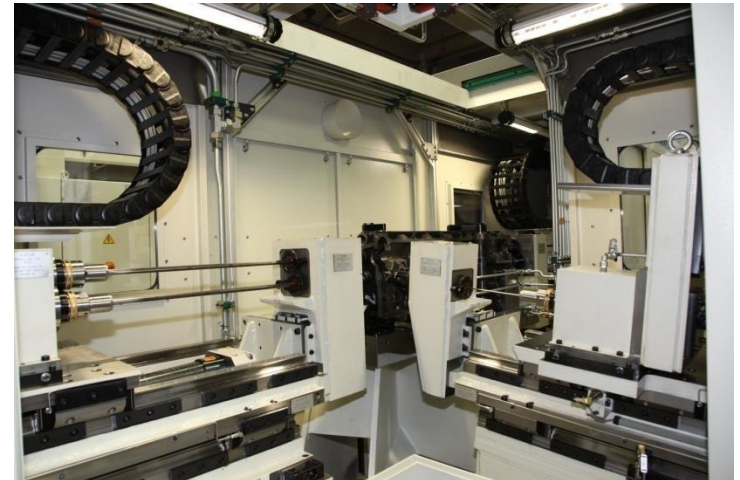
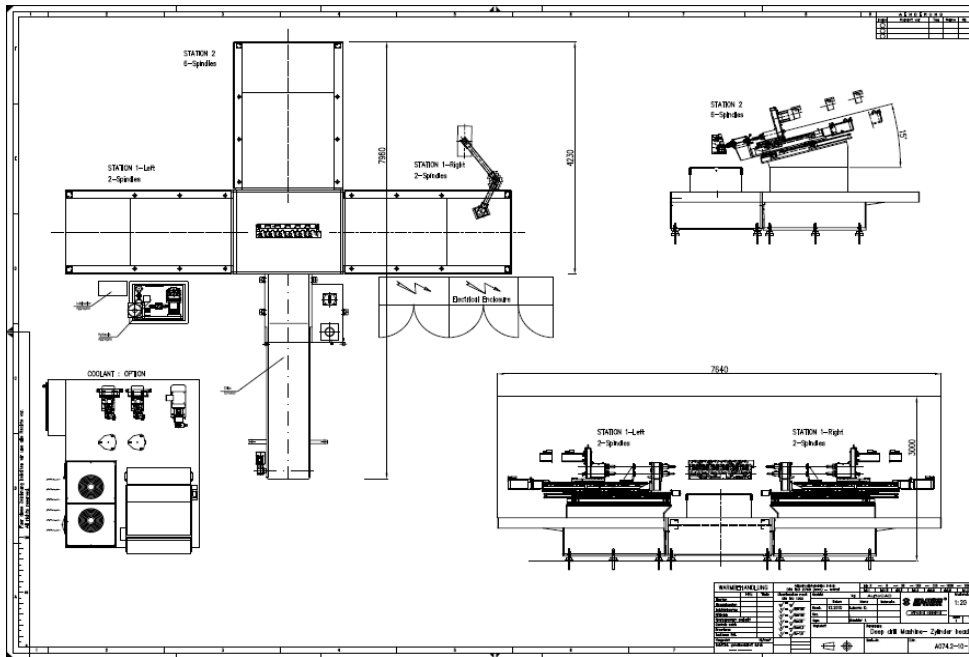


SPECIAL DEEP - DRILLING MACHINES



⇒ Special solutions for:

- engine block drilling
- engine head drilling
- shafts and axes drilling
- commonrail drilling



SPECIAL MACHINES



Rotary-indexing table machine– type RTM



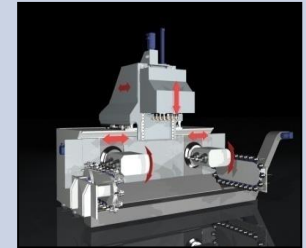
Flexible Processing Cells- type FPZ 250



End-facing machines



Flexible 5 axis machine type UH 1000 - 2000



Flexible machining center – type UFBZ



Special machines- Axel Carriers type TTM



Special – Transfer machines



ROTARY-INDEXING TABLE MACHINES



• Technical data

- ⇒ High-speed machining of workpieces
- ⇒ 3 Axis x 8 stations indexing table/more options on customer's demand
- ⇒ Revolver (6 or 8 tools) / Magazine (20 or 30 tools)
- ⇒ Multiple spindle machining head usage
- ⇒ Siemens/Indramat standard control unit/others on customer's demand
- ⇒ MQL (Minimum Quantity Lubrication) / emulsion / dry processing



FLEXIBLE PROCESSING CELL FPZ

• Technical data

- ⇒ X- Axis with stroke up to 600 mm
- ⇒ Y- Axis with stroke up to 1200 mm
- ⇒ Z- Axis mit stroke up to 500 mm
- ⇒ C- Axis/rotation Axe 360° with clamp system
- ⇒ Revolver / magazine, multiple spindle drilling head / different variants
- ⇒ Working area 650 x 600 x 400 mm



Frässpindel



Werkzeugrevolver (6 bis 8 Werkzeuge)



Schwenkbohrspindel



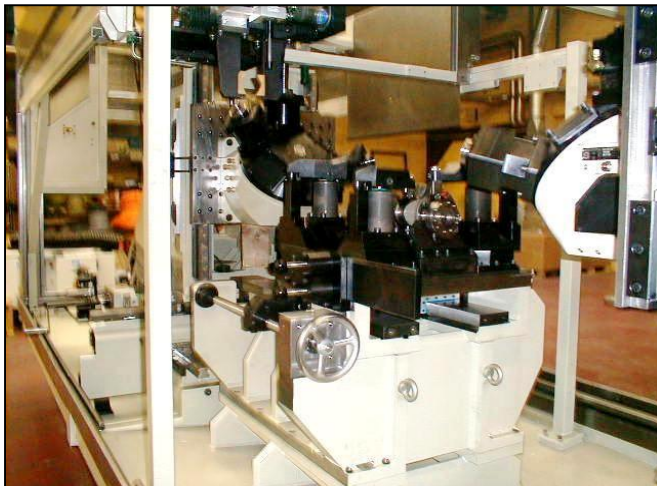
Motorspindel mit Werkzeugwechsler (20 / 30 Werkzeuge)



Mehrspindelkopf

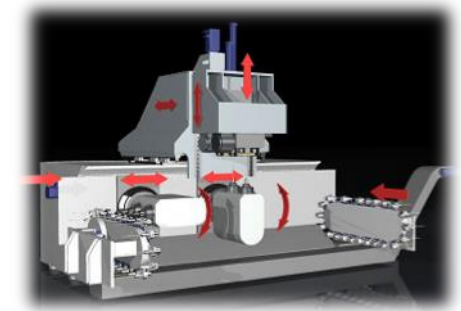
END-FACING MACHINES

- Technical data
 - ⇒ Coordinate drilling
 - ⇒ Thread cutting interior/exterior
 - ⇒ Chamfering
 - ⇒ Contour milling
 - ⇒ Lathing
 - ⇒ Frontal alignment



FLEXIBLE MACHINES TYPE UH

- Technical data
 - ⇒ Machining of rotational workpieces
 - ⇒ MQL/dry machining
 - ⇒ Deep drilling and milling/contour milling/drilling of oil holes
 - ⇒ Max. length of workpieces up to 3500 mm
 - ⇒ End-facing
 - ⇒ Axial machining



FLEXIBLE MACHINING CENTER TYPE UFBZ

• Technical data

- ⇒ 3-axis base unit, 5-axis with swivel table/ with planet
- ⇒ option with Revolver / multi-spindle heads / tool changer
- ⇒ precise machining / (glass scale 5 μ m or 3 μ m)
- ⇒ simple conversion of the machine to new workpiece – 2 possibilities
- ⇒ tool-change outside of the machine
- ⇒ optimized chips disposal



SPECIAL MACHINES – AXEL CARRIERS TYPE TTM

• Technical data

- ⇒ Flexible Single Fixture Machine for Machining Rear Twist Beams.
- ⇒ The machine is equipped with one clamping point fixed on machine bed. Left and right side of clamping device there are two 3-axis units, each with an 8 spindle crown turret mounted.
- ⇒ Horizontal angle positioning – under 3-axis unit
- ⇒ Vertical angle positioning – under 3-axis unit
- ⇒ Measuring system for balancing of the welding deviations



SPECIAL / TRANSFER MACHINES

- Technical data
 - ⇒ Tailor-made multiple machine systems
 - ⇒ Individual und profesional solution accordung to customer's workpiece
 - ⇒ Machining centers lined up into transfer line



MACHINING CENTER

1- spindle 3/4/5-Axis
machining
type OCW/OCR 500



1- spindle – 5 Axis
Machining center
type Linear 700



2- spindle 5-Axis
machine
type Tandem 700
with separate XYZ axis



Horizontally-vertically 2-
spindle
5-Axis machining center-
tip RWH



1- SPINDLE 3/4/5- AXIS MACHINING CENTER



- Technical data

⇒ Work area: X-Axis: 500 mm, Y-Axis: 680 mm, Z-Axis: 630 mm.

⇒ Working spindle - spindle power 18kW / 28kW
-spindle speed 12.000 min⁻¹ / 18.000 min⁻¹

⇒ Accuracy: -measurement system X, Y and Z Axis.
-accuracy 0,003 mm
-positional tolerance 0,015 mm

⇒ Tool magazine: -tool places: 21
-tool fixture: HSK 63-A



1- SPINDLE 5- AXIS MACHINING CENTER TYPE LINEAR 700

- Technical data

- ⇒ Single spindle 5- Axis machining center
- ⇒ Spindle motor with tool magazine
- ⇒ Trunnion table with NC planet
- ⇒ X and Z axis driven via Linear motor



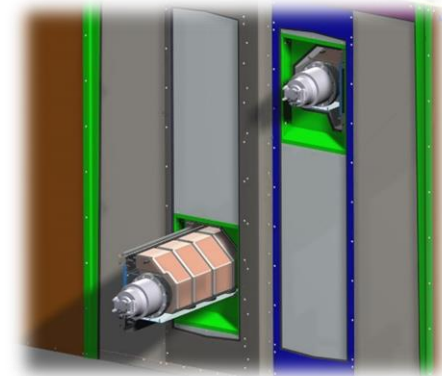
2-SPINDLE 5-AXIS MACHINE TYPE Tandem 700 WITH SEPARATE XYZ AXIS

- Technical data

⇒ Tandem 700 L is a high-tech processing center for high productivity and large production. Practically oriented and enhanced modular design with rigid components, guarantee a high stability, constant precision, high productivity and high operability.

⇒ Advantages:

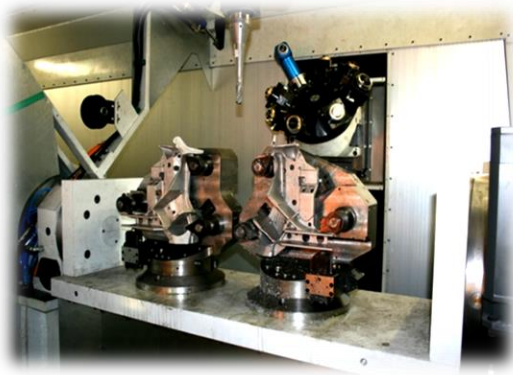
- High productivity
- High flexibility
- Processing of mirror workpieces (L&R)
- Processing of high precision workpieces
- NC adjustments thru processing axis



HORIZONTALLY-VERTICALLY 2-SPINDLE TYPE RWH 5-AXIS PROCESSING MODULES

- Technical data

- ⇒ 5-axis x1(2) working stations / easy integration
- ⇒ 1 revolver vertical, 1 revolver horizontal (basis concept)
- ⇒ simultaneous processing of different workpieces
- ⇒ various machining with swivel table / Planet
- ⇒ Siemens controlling unit as standard
- ⇒ ideal solution for dry-machining / MQL-machining



CRANKSHAFT MACHINES



PASSENGER VEHICLES

PASSENGER COMMERCIAL VEHICLES

FACE AND
CENTRING
MACHINING

DEEP DRILLING ALL
CHANNELS AND
DRILLING FOR
WEIGHT REDUCTION

SPECIAL AXIAL
MACHINING
CENTER

ALL IN ONE
SOLUTION

CONCEPT 1:
Geometrical centering
(2 x 3-axis unit)

CONCEPT 2:
Balance centering
(2 x 2-axis unit, 3D clamping
device)

CONCEPT 1:
2-spindle version
3-spindle version

CONCEPT 2:
2-crown turrets or
tool-magazine

CONCEPT 1:
Transfer machine

CONCEPT 2:
Swivel table machine

CONCEPT 3:
Flexible Process Cell

CONCEPT 1:
1-spindle version

CONCEPT 2:
2-spindle version



UNIVERSAL MACHINES FOR PASSENGER / COMMERCIAL VEHICLES

• Technical data

- ⇒ Machining of crankshafts
up to 3500 mm
- ⇒ Axial & radial drilling/oil holes
- ⇒ Weight-reduction drilling
- ⇒ End-facing / contour-milling
- ⇒ Frontal alignment / balancing
- ⇒ Centering



REFERENCE WORKPIECES



AUTOMOTIVE WORKPIECES: POWERTRAIN



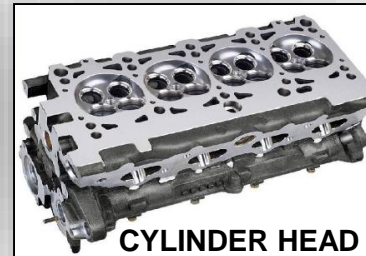
VALVE COVER



CAMSHAFT



ROCKER ARM



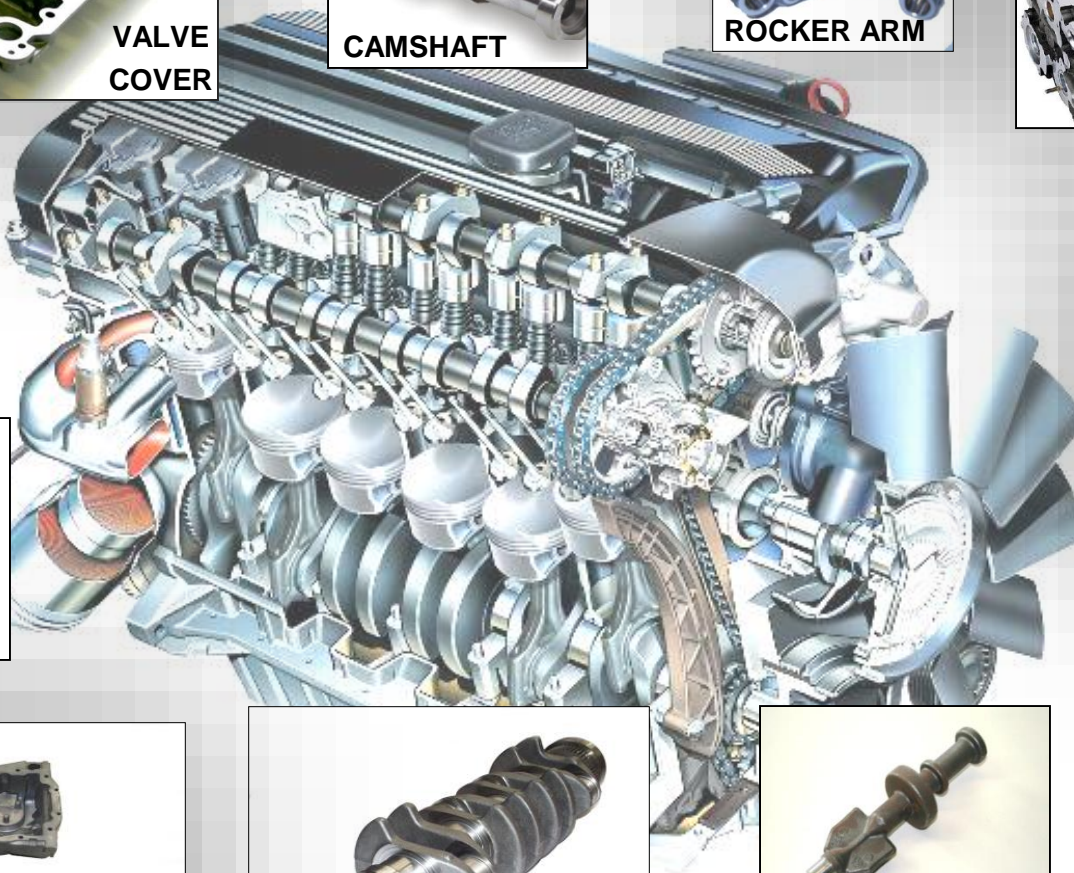
CYLINDER HEAD



CONNECTING ROD



BEARING FRAME



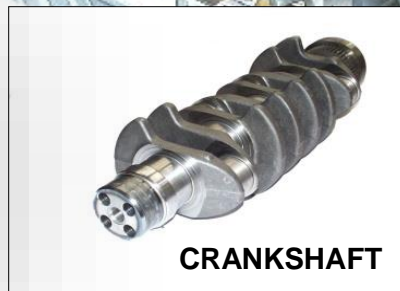
CYLINDER BLOCK



FLYWHEEL



OIL SUMP



CRANKSHAFT



BALANCER WEIGHT



AUTOMOTIVE WORKPIECES: POWERTRAIN



INJECTION NOZZLE



VALVE CAP



COMMON-RAIL



AIR INTAKE



VARIABLE CAM UNIT



TURBINE HOUSING



ROCKER ARM AXLE



OIL PUMP HOUSING



VACUUM PUMP HOUSING



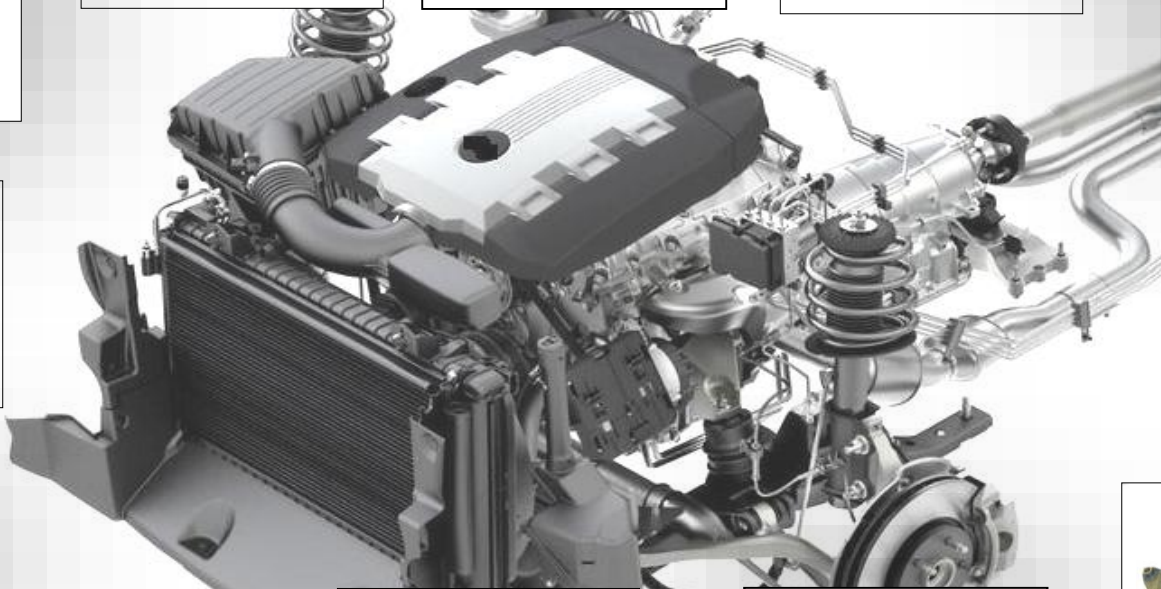
PERIPHERAL UNITS CARRIER



VARIOUS PUMP HOUSING



ENGINE HOLDER



AUTOMOTIVE WORKPIECES: DRIVETRAIN

BRAKE DISC



WHEEL CARRIER



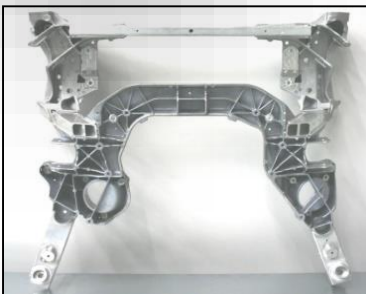
STEERING PARTS



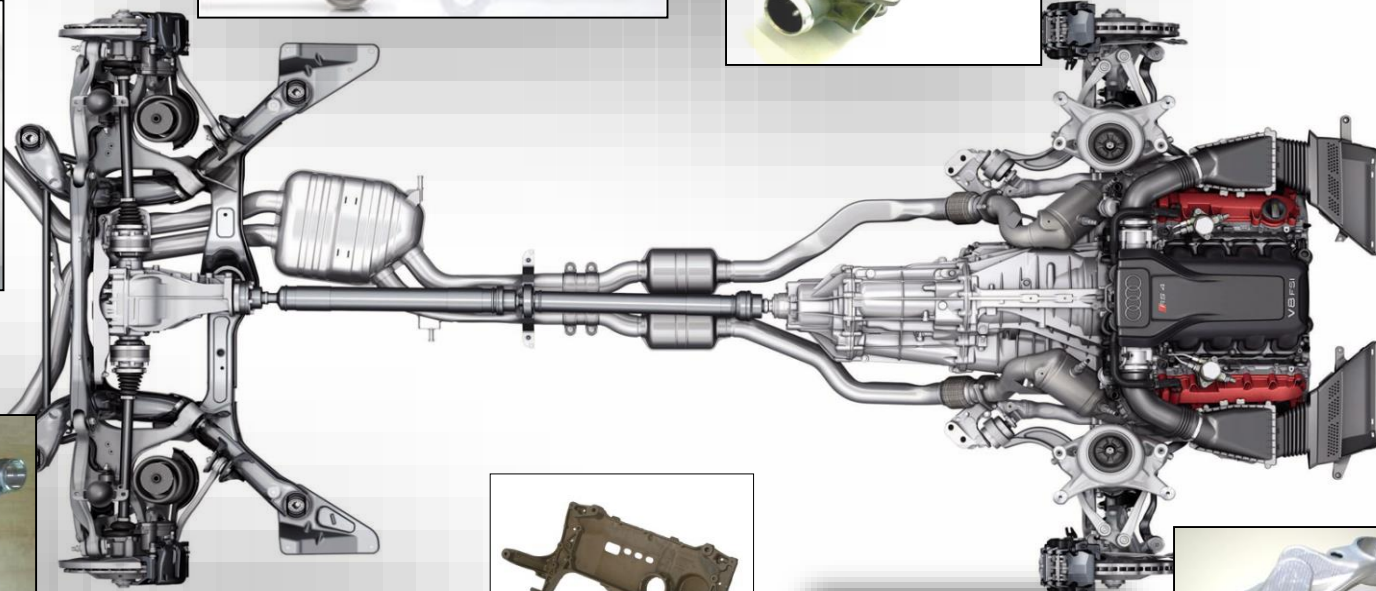
POWER STEERING HOUSING



KNUCKLE



FRONT / BACK AXLE CARRIER



2WD / AWD AXLE CARRIER



VARIOUS STEERING PARTS



SUBFRAME



REAR TWIST BEAM



STEERING JOINTS

AUTOMOTIVE WORKPIECES: TRANSMISSION

GEAR CARRIER



PLANETARY GEAR CARRIER



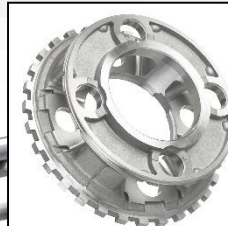
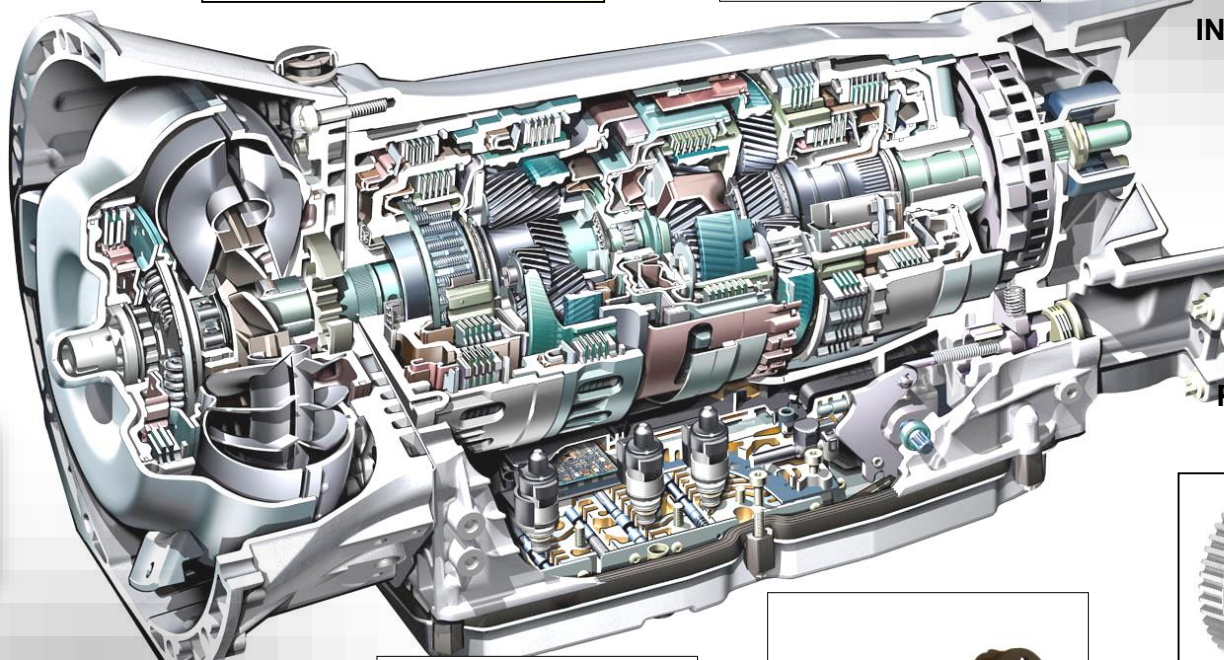
ROD SHAFT



INPUT / OUTPUT SHAFT



INPUT SHAFT



PLANETARY GEAR CARRIER



DRIVE SHAFT



PLANETARY GEAR CARRIER



FLANGE SHAFT












GEAR SHAFT



PLANETARY SHAFT

SERVICE

Global Service Center - UNIOR Zreče **Service locations:**

- Service Germany: Unior Deutschland GmbH 
- Service Partner USA: Euro Precision Machinery, Inc 
- Service Partner Spain: Vallcal s.l. 
- Service Partner Mexico: GSM S.A. de C.V. 
- Service Partner Brazil: Grupo Usiforma 
- Service Partner Argentina: Altemaq s.a. 
- Service Partner Russia: MainTeck 
- Service Partner South Africa: PBS machine Tools 
- Service Partner Sweden: K-Rep Arvika AB 

SERVICE



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