



INDUSTRY, SERVICE & REPAIR



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Walterscheid Powertrain Group is preferred partner for driveline parts and systems, repair and maintenance, complete design and build of special drivelines. We provide technology: systems and components for agriculture, construction, automotive, industrial, military, marine and alternative energy markets.



Competence from the Original Equipment Supplier

Walterscheid Powertrain Group is your preferred partner for

- ▶ driveline parts and systems
- ▶ industrial parts and systems
- ▶ repair and maintenance
- ▶ complete design and build of special drivelines

The network of qualified Service Centres across Europe enables Walterscheid Powertrain Group to service constant velocity and Cardan shafts within a few hours and also to provide emergency service.

UNI-CARDAN SERVICE

Assembling and repairing with original components is a must regarding quality and safety. Using original spare parts offers you many advantages:

- ▶ More reliability
- ▶ Fewer warranty replacements
- ▶ Enhanced cost efficiency
- ▶ Fewer risks
- ▶ Improved driving performance due to less vibration



Uni-Cardan Service people are specialists in shaft repair, and ensure every shaft is restored to its original performance standard – articulation, spline fit, weld integrity, alignment and dynamic balance are all carefully monitored and adjusted to provide you with a quality shaft that guarantees safe and reliable performance.

Preventive checks by our specialists will locate any problem likely to lead to a breakdown.

OE-Quality sign

When selecting a shaft, always look for this sign of quality; it signifies shafts built or repaired in accordance with the Uni-Cardan Service standards.



Welding fabricator certification

The Service Center located in Hamburg, Germany, and is certified fabricator for welding of railed vehicles and railed vehicle parts.

ISO 9001:2008 certification

All manufacturing and repair services are carried out according to the high quality standards of the companies with a certified Quality Management. Most Uni-Cardan Service Centres are certified to ISO 9001:2008.

ANY PROBLEM WITH A CARDAN SHAFT?



WALTERSCHEID POWERTRAIN GROUP is the right partner. Anytime. Anywhere.

Benefit from our extended services for Cardan shafts from light automotive to heavy trucks, buses and industrial applications:

- ▶ Identification of spare parts by using the original part number
- ▶ Maintenance and repair tailored to suit your specific requirements
- ▶ Approved and certified repair processes
- ▶ Repair with warranty
- ▶ Supply of the original spare parts within a few hours
- ▶ Reduction of standstill time
- ▶ Just-in-time delivery



DRIVESHAFT REPAIR WITH CONFIDENCE

Installation, assembly and maintenance work is to be performed by specialists only. If Cardan shafts are in any way altered without our written consent, they are no longer covered by our warranty.

Professional repair by Uni-Cardan Service specialists – 10 steps:

1. Balance check and wear test.
2. Disassembly of the Cardan shaft. Inspection of all parts separately.
3. Replacement of defective parts with original parts.
4. Assembly of the joints according to the specifications in the technical drawings.
5. Assembly of the Cardan shaft. Precise fitting and adjustment of the shaft.
6. Certified welding of the shaft.
7. Final adjustment on the straightening press.
8. Dynamic balancing in accordance with the technical drawing.
9. Varnishing and greasing of the bearing bushes with special lubricant.
10. Final inspection according to test record and Uni-Cardan labelling.



Pre-adjustment of the driveshaft on specially-designed straightening presses.



In some cases the driveshafts are being preheated after the compression. This is to prepare them for the welding seam.



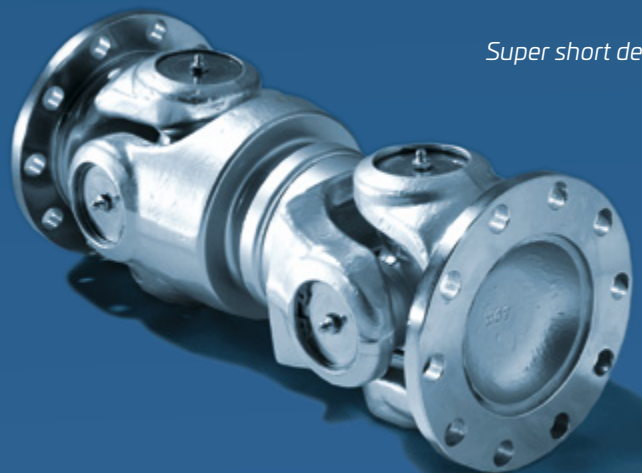
Computerised balancing technologies guarantee faultless performance of the Cardan shaft.

YOUR SPECIALIST FOR DRIVELINE ENGINEERING SOLUTIONS

- ▶ Repair and maintenance of Cardan shafts for industrial applications
- ▶ Design, engineering and manufacturing of constant velocity shafts, Cardan shafts and Cardan shaft lines
- ▶ Technical support by Walterscheid Powertrain Group specialists
- ▶ On-site expert advice by field engineers
- ▶ Life cycle analysis and torsional vibration analysis
- ▶ ATEX-declaration of conformity for class 2 and 3
- ▶ Close collaboration with quality inspectors from "Deutsche Bahn AG"
- ▶ Certified welding processes



Wide range of cardan shafts



Super short design



CARDAN SHAFTS FOR INDUSTRIAL APPLICATIONS



DIN Flange

- ▶ DIN Flanges
- ▶ Flanges with x-serration
- ▶ Flanges with face key
- ▶ Further versions on request

Torque range	Series	Flange diameter
195–520 Nm	473	58–90 mm
2,400–35,000 Nm	687	90–250 mm
43,000–57,000 Nm	587	225–285 mm
60,000–70,000 Nm	390/392	285 mm

lengths up to 6,000 mm possible

other diameters on request



Flange with x-serration



Applications



CONSTANT VELOCITY DRIVESHAFTS FOR INDUSTRIAL APPLICATIONS

*Compact design, high
speeds, maintenance free*

► FIXED BALL JOINTS

Up to 47° articulation angle.

max. stat. torque rating	Joint size	Outer diameter of joint
1,300–23,000 Nm	05	74
	42	192



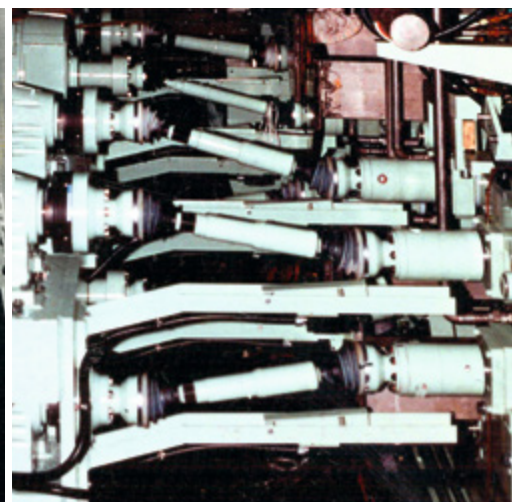
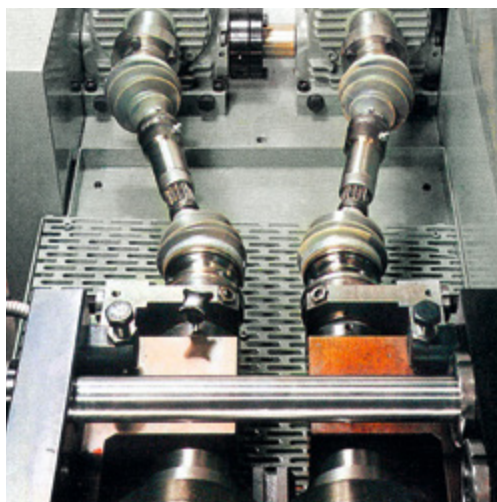
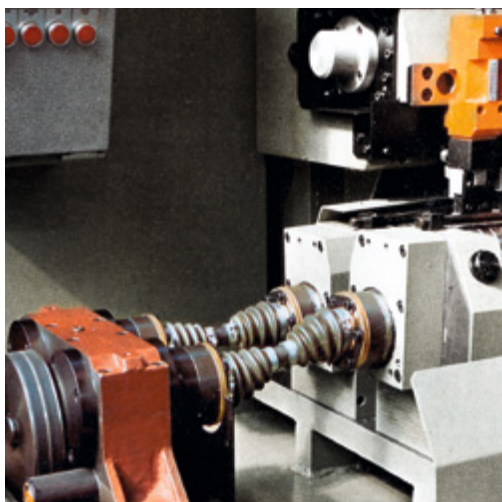
► PLUNGING JOINTS

Plunge distance depending on joint size. Max. 25 mm per joint.
Up to 22° articulation angle.

max. stat. torque rating	Joint size	Outer diameter of joint
1,500–max. 67.500 Nm	05	84
	60	275



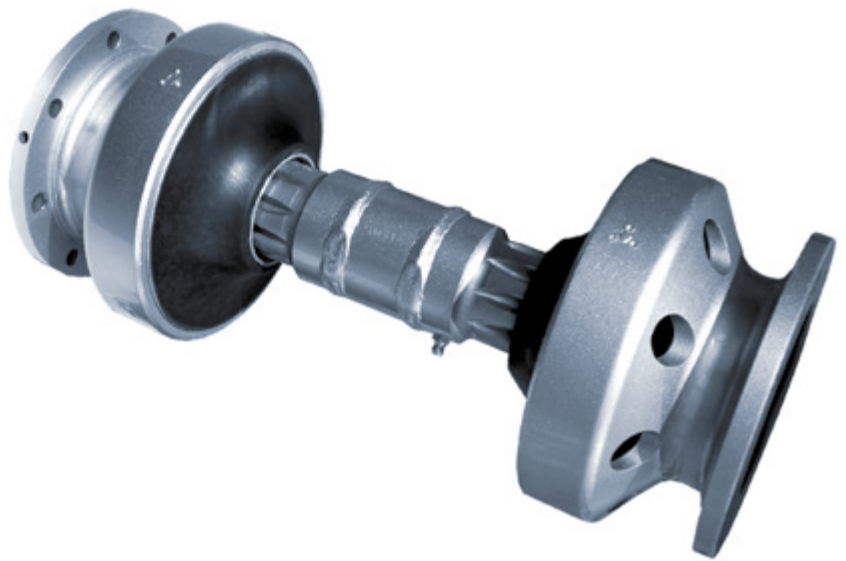
*Vibration free at every angle,
soft running axial plunge*



CARDAN SHAFTS FOR INDUSTRIAL APPLICATIONS

A transmission element such as the universal or constant velocity joint can be used in vehicles as well as in industry applications. For example Walterscheid Powertrain Group joints and driveshafts are used in the following industry applications:

- ▶ Filling machines
- ▶ Soil compactors
- ▶ Packing machines
- ▶ Machine tools
- ▶ Textile machines
- ▶ Mill drives
- ▶ Printing machines
- ▶ Wind turbines
- ▶ Pump drives
- ▶ Stationary concrete mixers
- ▶ Paper machines
- ▶ Test rigs
- ▶ Thread and profile rolling machines
- ▶ Woodworking machines



Sliding shaft 808



Mechanics 880



Quick release coupling



Companion flange



Highly flexible coupling



Uni-Cardan Service Network

After a breakdown, a quick service is essential to prevent you from long standing times and loss of earnings. Our Europe-wide network of Uni-Cardan Service centres enables us to supply you with new shafts, replacements, and immediate on-site repair within the shortest period of time.

For all Cardan shafts and constant velocity driveshafts in the drive train, for ancillary driveshafts as well as double-jointed driveshafts for all-wheel drive vehicles.

