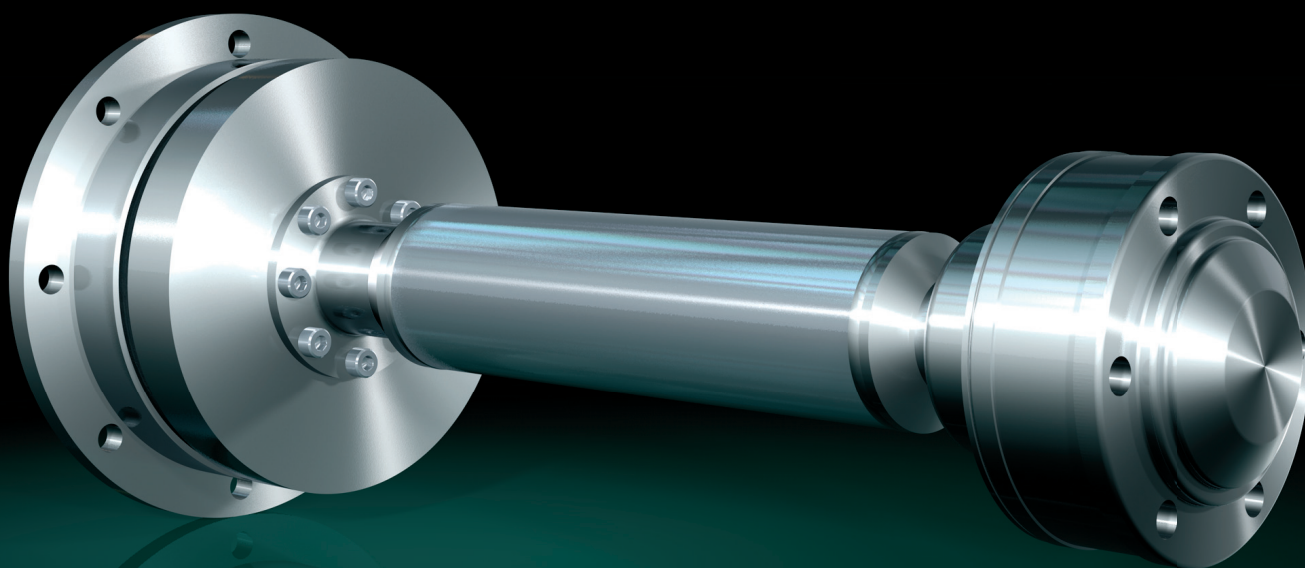


POWER TRANSMISSION
LEADING BY INNOVATION



CENTAX[®]-TEST

HIGHLY FLEXIBLE SHAFTS FOR ENGINE TEST BEDS



WWW.CENTA.INFO/CX-TEST

CENTA, a leading manufacturer of flexible couplings for more than 40 years with 16 million couplings in the field has also been successful with couplings and drive shafts for engine test beds for a long time.

For many years, numerous special arrangements, based on the highly flexible CENTAFLEX and CENTAX series have been applied by both well known manufacturers of internal combustion engines and of suppliers of bespoke test beds. They are applied on Gasoline and Diesel engines for development and for production test.

CENTA has even developed special solutions for fast docking of the engines.

This catalogue shows popular versions of our test bed drive shafts for high speed passenger car engines and small Diesel engines. Beside these, the CENTA group provides broad Know How for all kinds of test beds, especially for large Diesel engines.

Torsionally soft CENTA elements - the heart of such test bed couplings - are available in many series, versions, sizes and torsional stiffness and in a vast range of torques from 100 up to 650 000 Nm.

Depending on the requirements, these flexible elements are combined with proven components, such as U-Joints, CV-joints, slip joints, CENTALINK joints, flanges, adapters etc. and thus customised solutions are created for almost any kind and size of test beds.

Please advise your needs and requirements and CENTA will come up with an optimum solution - according to our slogan:

CENTA Power Transmission - Leading by Innovation

Advantages of CENTAX highly flexible drive shafts for engine test beds:

- Extreme low torsional stiffness, by arranging of 2 or 4 elements in series
- The dynamic torsional stiffness can be widely influenced by different shore hardness of the elements
- Compensation of all kinds of misalignment: axial, radial, angular
- Precise centering and cover around the flexible elements - therefore suitable for high speeds
- Flexible modular system - can be customized in regard to lengths and mounting dimensions
- Low handling weight and low inertia due to flanges of high grade aluminum
- Convenient assembling due to slip joints or plunging CV joints
- Free of maintenance
- Proven for many years in numerous applications

Technical data

Technische Daten

Type CX-CV and CX-2x2 Typ CX-CV und CX-2x2							Typ CX-CV		Typ CX-2x2	
CENTAX size	Shore-hardness Shorhärte Shore A	Nominal torque Nenn Drehmoment T_{KN} [Nm]	Max. torque Maximal-drehmoment T_{Kmax} [Nm]	Allowable continuous vibratory torque zul. Wechsel-drehmoment T_{KW} [Nm]	Relative damping Relative Dämpfung ψ	Maximum speed Maximal Drehzahl n_{max} [min ⁻¹]	Allowable energy loss zul. Verlustleistung P_{KV} [W]	Dynamic torsional stiffness dyn. Drehsteifigkeit C_{Tdyn} [Nm/rad]	Allowable energy loss zul. Verlustleistung P_{KV} [W]	Dynamic torsional stiffness dyn. Drehsteifigkeit C_{Tdyn} [Nm/rad]
CX-13	45	280	840	70	0,8	8000	100	750	200	375
	50	330	990	82	0,9		100	900	200	450
	55	360	1080	90	1,0		105	1075	210	540
	60	400	1200	100	1,2		110	1250	220	625
CX-15	45	450	1350	112,5	0,8	8000	150	1200	300	600
	50	520	1560	130	0,9		150	1450	300	725
	55	580	1740	145	1,0		158	1700	315	850
	60	640	1920	160	1,2		160	2000	320	1000
	65	700	2100	175	1,3		165	3350	330	1175

Couplings for higher torques are available up to 650 kNm

We reserve the right to amend any dimensions or detail specified or illustrated in this publication without notice and without incurring any obligation to provide such modification to such couplings previously delivered. Please ask for an application drawing and current data before making a detailed coupling selection.

We would like to draw your attention to the need of preventing accidents or injury. No safety guards are included in our supply.

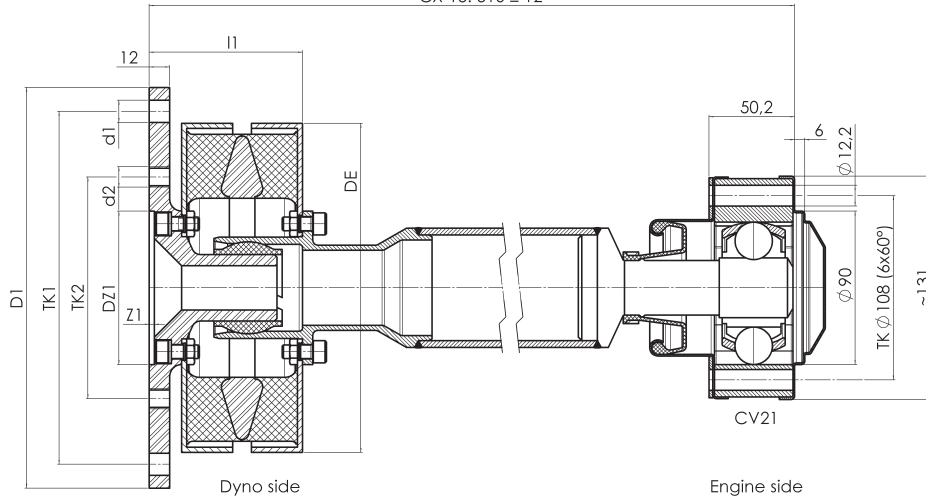
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Dimensions

CX-CV

CX-13: 510 ± 12
CX-15: 510 ± 12

Abmessungen



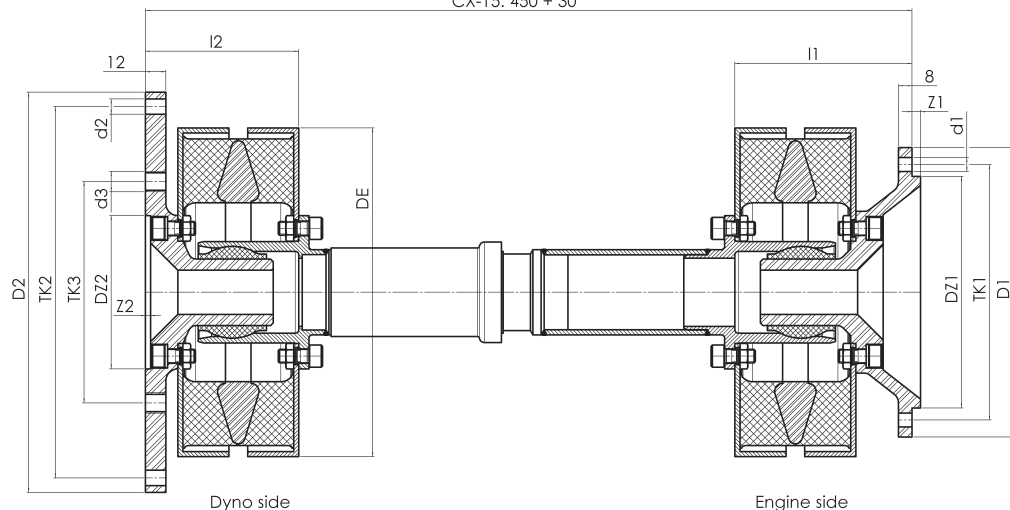
Size	Nominal Torque	l_1	D_E	D_1	Z_1	T_{K1}	D_{Z1}	d_1	T_{K2}	d_2
Größe	Nenn Drehmoment	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
13	280-400	84	170	as requested / nach Bedarf						
15	450-700	91	190	as requested / nach Bedarf						

Angular misalignment Dyno side max. 0,5°
Angular misalignment engine side max. 2°

Winkelige Verlagerung Bremsseite max. 0,5°
Winkelige Verlagerung Motorseite max. 2°

CX-2x2

CX-13: 450 + 30
CX-15: 450 + 30

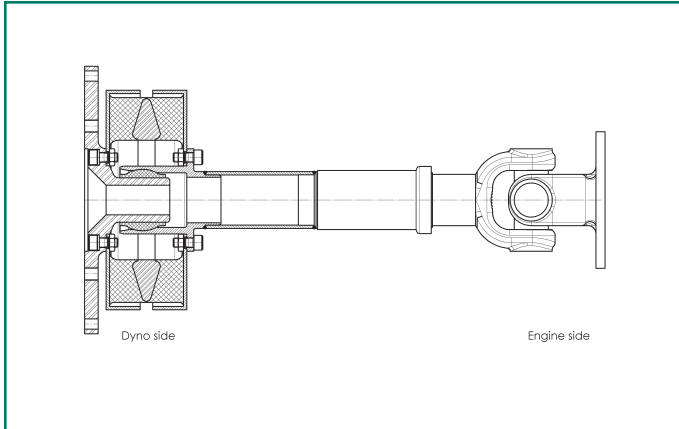


Size	Nominal Torque	l_1	l_2	D_E	D_1	d_1	Z_1	T_{K1}	D_{Z1}	D_2	d_2	Z_2	T_{K2}	D_{Z2}	d_3	T_{K3}
Größe	Nenn Drehmoment	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
13	280-400	98	84	170	as requested / nach Bedarf											
15	450-700	105	91	190	as requested / nach Bedarf											

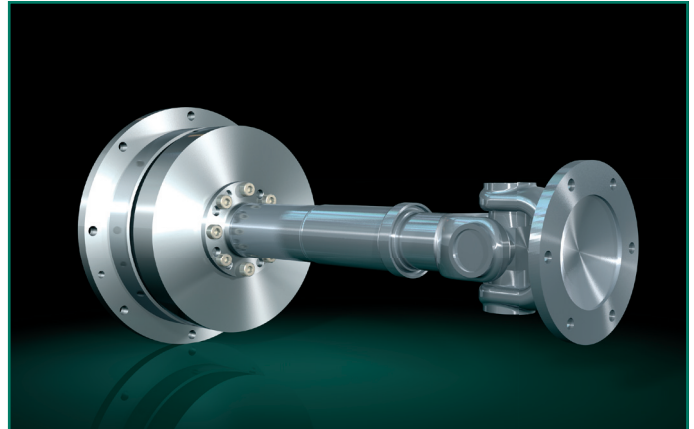
Angular misalignment max. 0,5°

Winkelige Verlagerung max 0,5°

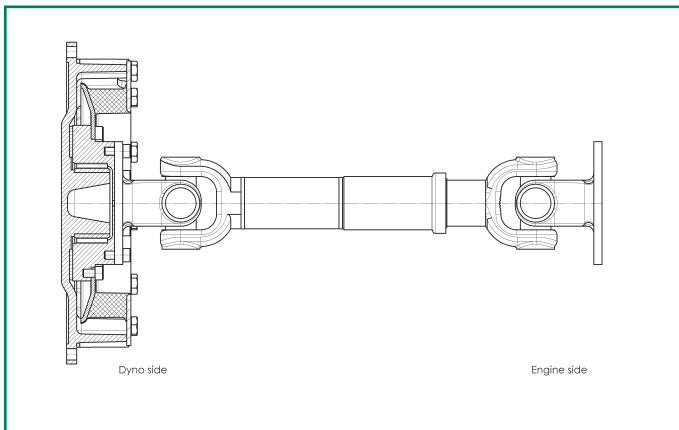
**Further Samples of CENTA
Test bed couplings**



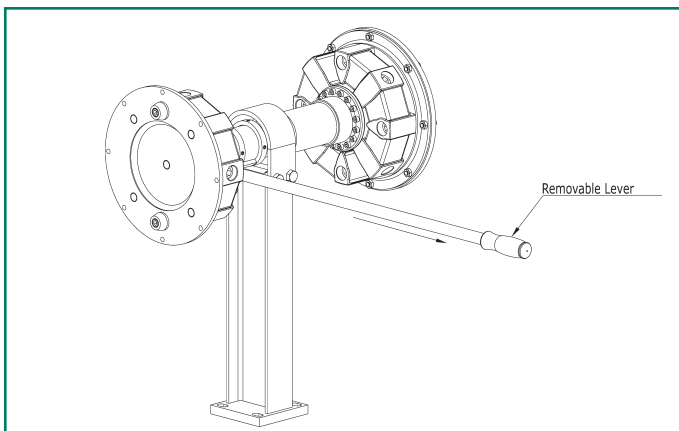
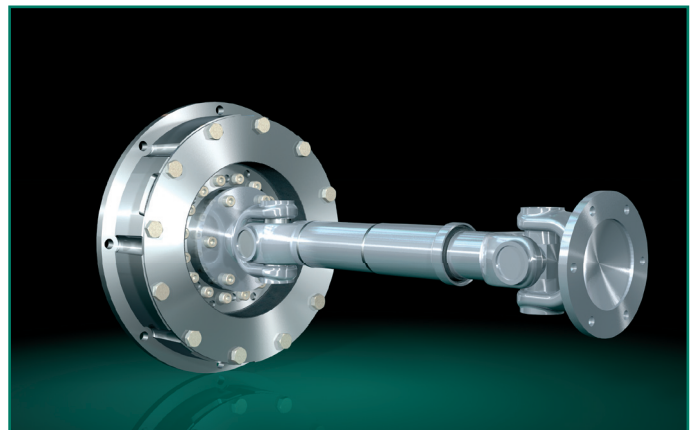
CENTAX coupling for the medium torque range
CENTAX Kupplung für den mittleren Drehmomentbereich



**Weitere Beispiele von CENTA
Kupplungen für Prüfstände**



CENTAX coupling for the higher torque range
CENTAX Kupplung für den höheren Drehmomentbereich



Special CENTA designs for test beds
Spezielle CENTA Prüfstandentwicklungen

