

CENTA



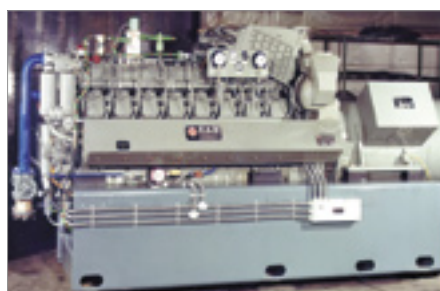
**Flexible
Power
Transmission
Couplings and
Drive Shafts**




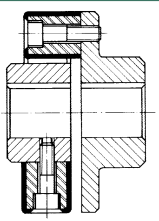

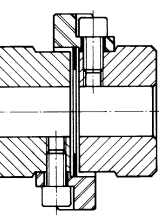

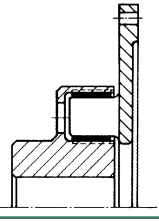

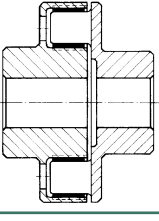

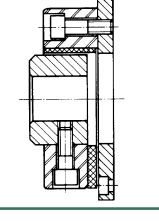

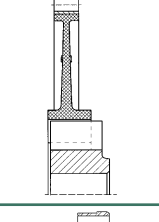

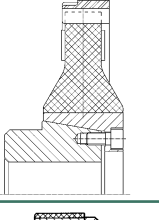

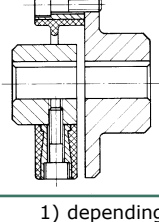
LEADING BY INNOVATION

catalog Centa Industry E-01-03

Typical applications of CENTA products



CENTA_____the complete Range of flexible

SERIES			Nominal torque T_{KN} (Nm)	Torsional angle at nominal torque & characteristic	Elastic material & hardness Shore A	Allowable temperature °C	
CENTAFLEX®-A			10-14000	3° to 6° ¹⁾ Linear	natural rubber 50° to 75° Shore ²⁾	-45 to +90	
CENTAFLEX®-B			32-1000 45-1400	4° Progressive 2,5° Progressive	Polyurethan 90° Shore Hytrel 98° Shore	-40 to +80 -50 to +90	
CENTAFLEX®-D			280-20000	3° to 5° ¹⁾ Progressive	N B R 50° to 75° Shore	-45 to +90	
CENTAFLEX®-E			75-20000	3° to 5° ¹⁾ Progressive	N B R 75° Shore	-45 to +90	
CENTAFLEX®-H			100-4000	0,2° to 0,3° Linear	Hytrel 98° Shore	-50 to +150	
CENTAFLEX®-K			200-5200	0,2	GFRP	-45 +100	
CENTAMAX®-S			100-40000	5 - 16° ¹⁾ linear	natural rubber or silicone 50° - 75° Shore	-45 bis +90 -40 bis +120	
CENTAFLEX®-X			10-550	0,12° Linear	Zytel	-50 to +150	
<p>1) depending on size 2) standard version: natural rubber; temperature resistant, special Silicone possible</p>							

couplings for industrial applications

	Oil-resis- tant	Flexibility			Important Features	Important Areas of Application
		axial	radial	angular		
					Very versatile; in every aspect very flexible; free of backlash; adaptable; free of wear; numerous special designs, in particular flexible universal joint shafts. The original, patented design from the inventor.	Flexible couplings to be mounted on new or existing drive elements; ideal for application with considerable misalignment, such as on diesel-engines, especially for front-power take-off; for generators, compressors, pumps, boats, etc. or for shaft to shaft drives with electric motors.
					Economical; simple, though of high quality; axial plug-in (blind fitting) jaw-coupling. Hubs of steel, bolted on claws of precision pressure die-cast aluminium parts with very smooth surface; standardized construction principle allows numerous variation in design; radial exchangability; flexible element can be installed without disturbing hubs.	To connect 2 shafts in all areas of machine drives, e.g. between electrical motors and gear boxes, compressors, pumps; also available with radially removable spacer for centrifugal pumps (DIN 740) or as flexible universal joint shaft of any length up to 6 m. Hubs with finished bore or Centaloc® spline clamping hub or taper bushes.
					Robust, simple, plug-in jaw-coupling; numerous types of flanges; suitable for standard (SAE or DIN) or non-standard flywheels; different lengths of hubs.	Diesel-generator and centrifugal pump sets, as well as similar drives with considerable inertia on the driven side. Type approval from all important classification societies.
					Robust, simple, plug-in jaw-coupling with large permissible finished bores. Various hub lengths. With type 3 radial exchange of rubber element - without disturbing the shafts.	General industrial use for the purpose of connecting 2 shafts, or flange to shaft.
					Robust, plug-in, torsionally stiff coupling, always for torsionally subcritical drives, oil and temperature resistant. Type 4 with integrated flange-adaptor SAE 10", 11 1/2" and 14" for diesel flywheels.	Drives for flange-mounted hydraulic pumps on diesel engines - especially with wear resistant Centaloc® spline clamping hub; the ideal and widely used reliable coupling for hydrostatically driven construction machines. Available with a wide variety of pump mounting adaptors for diesel engines.
					A simple and economic blind assembly, coupling solution, using plastics and steel, for low inertia drives, such as hydrostatic pumps. A complete drive solution which includes the pump mounting plate is offered as required.	Drives for flange-mounted hydraulic pumps on diesel engines - especially with wear resistant Centaloc® spline clamping hub; the ideal and widely used reliable coupling for hydrostatically driven construction machines. Available with a wide variety of pump mounting adaptors for diesel engines.
					Torsionally very soft, free of backlash, suitable for blind fitting, ventilated all over, dimensions to SAE J620. Hubs can be modified for all kind of shafts and splines, also with wearfree CENTALOC clamping, or with Taper-Lock bush.	Torsionally difficult Diesel drives, where the resonances must be shifted below idling speed. E.g. Splitter gears, screw compressors, boat drives, heat pumps, gen-sets, locomotives, pump sets, ship propulsion, also available with Type Approval from leading societies.
					Torsionally very stiff, free of backlash, angularly flexible coupling; oil- and temperature-resistant.	Exactly aligned drives for precise, torsionally stiff and backlash free with exact, angular transmission, e.g. step motors, tachometer drives, feeding drives. Torsionally stiff universal joint shaft.
	very well suited 	not suited 				

CENTA Flexible shafts for marine and industry

CENTAFLEX series A, G, GZ or GS

Torsionally soft, these economic flexible shafts use the outstanding CENTAFLEX A series elements, which compensate for axial, radial and angular misalignment. Suitable for all kind of applications. Continuous angular deflections of up to 2 degrees, per element, is possible
Torque range up to 14 kNm.



CENTALINK

Torsionally stiff but capable of compensating for substantial misalignments of all kinds while dampening transmitted noise. Proven over the years in many applications in shaft lines of up to 25 m in length, e.g. windturbines, pump sets and ship propulsion.
Torque range up to 540 kNm.



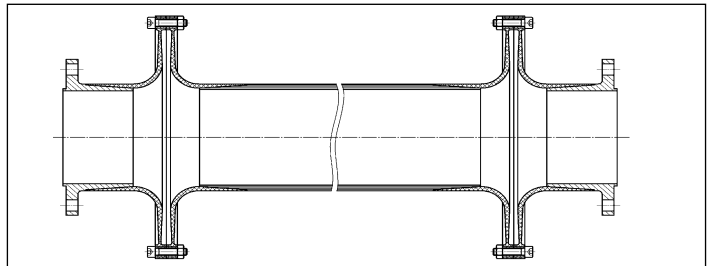
CENTADISC-M

Based on the proven and patented steel membrane design of the CENTAX series M coupling, and compensating for all kinds of misalignment. Lengths up to 10 m. Using intermediate bearings and additional membranes any length of shaft can be provided.
Torque range up to 160 kNm and more.



CENTADISC-C

Newly developed flexible shaft, comprising moulded membranes, made of highgrade GFRP composite, and hollow shafts made of GFRP or CFRP composite .
Extrem low weight, free of maintenance and corrosion.
Areas of application: Ship propulsion, namely waterjets, windturbines, cooling towers and general engineering.
Torque up to 16 KNm.



Shaft material

All flexible shafts can be manufactured using tubes from steel (or other conventional metals) or composites. CENTA has been in the forefront of composite shaft technology since 1996,

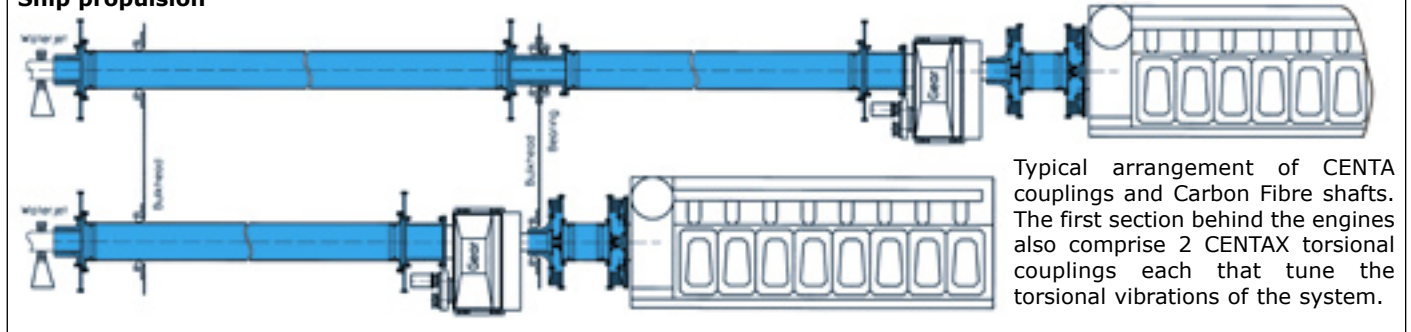
delivering complete flexible shafts for fast ferries, naval and super luxury yachts, cruise ships and pump sets.

CENTA system engineering

CENTA engineers complete shaft systems including couplings, clutches, bearings and bulk head seals, having carried out the necessary torsional vibration and critical speed calculations. Complete flexible shaft systems up to 25m length and capable of transmitting 600 kNm torque have been provided for fast ferries with aluminium hulls.
CENTA shaft systems, especially those manufactured from

composites connected by membranes provide light weight installations able to flex in all directions in order to avoid dangerous reaction forces from misalignments, thermal growth, distortion and movement of the hull or frame.
Suitable designs to connect diesel engines with gear units and gear units with water jets, azimuthing propellers and any other kind of driven units are available.

Ship propulsion



Typical arrangement of CENTA couplings and Carbon Fibre shafts. The first section behind the engines also comprise 2 CENTAX torsional couplings each that tune the torsional vibrations of the system.

CENTAX®-SEC

Super Elastic Coupling system

This well proven CENTAX-SEC coupling system with high radial and torsional flexibility, provides - together with the CENTAX-TT series - the complete range of couplings for main and auxiliary drives.



CENTAX-L

The most flexible coupling for smooth and quiet ship drives.

T = 2 - 90 kNm



CENTAX-N

The ideal flexible propulsion coupling in the lower torque range.

T = 1.1 - 17.5 kNm



CENTAX-GFS2

The flexible coupling for ship propulsion.

T = 20 - 440 kNm



CENTAX-TT

The flexible coupling for gensets and similar applications.

T = 20 - 500 kNm



CENTAX-GFS1

The economical coupling for gensets.

T = 20 - 440 kNm



CENTAX-V

The intermediate dampening coupling between flywheel and u/joint.

T = 0.2 - 50 kNm



CENTA Australia



CENTA Denmark



CENTA Headquarters Germany



CENTA Netherland



CENTA Norway



CENTA Italy



CENTA Great Britain



CENTA Singapore



CENTA USA

CENTA the international service

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