

Focus on Drive , keep forward



Dongguan wisnet Intelligent Equipment Co.,Ltd



Couplings

Torque limiters

WNET · Drive System

Dongguan wisnet Intelligent Equipment Co.,Ltd

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Dongguan Wisnet Intelligent Equipment Co., LTD(WNET) was established in 2017 and is located in Chang'an Town, Dongguan City, Guangdong Province, China; Chang'an is known as the "manufacturing capital". WNET has three business units: automation device, transmission system, and precision manufacturing;The R&D, manufacturing, quality control, and operation teams of transmission system are all from well-known German brand enterprises ,with nearly 20 years of relevant industry experience, providing support for the WNET transmission systems. Focusing on providing high-quality transmission products for various industries, in addition to numerous standard products, we make new developments and product versions on behalf of clients. Our precision machining team also has over 20 years experience, the professional engineers deeply involved in the processing of precision parts, couplings, and related accessories. We have advanced processing and testing equipment such as Mazak INTEGREX multi-tasking machine tool, CNC 5axis machining center, high accuracy CMM ,vision measuring microscope, couplings coaxiality evaluating system and torque calibration, etc; and the perfect quality management process ensures the reliability of WNET couplings .

Thank you sincerely for choosing our transmission products. We are willing to provide you with the highest quality service. This product manual can provide you with a reference to choose the right product for you. Product updates are subject to no prior notice; The updated content will be added to the new version of this manual, and the latest version of the product manual can be downloaded from the company's website. In addition, there may be printing errors in this product manual, We sincerely hope that you can provide feedback to us, and we will make corrections in new versions.



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Couplings

Coupling refers to the connecting piece between two shafts (the driving shaft and the driven shaft), which causes the two shafts to rotate synchronously, compensates for the displacement between the two shafts, absorbs vibration and mitigates impact, A device that does not disconnect under normal conditions. Sometimes it is also used as a safety device to prevent the connected components from bearing excessive loads, playing a role in overload protection.

The couplings are selected based on the working condition coefficient, the coupling has to be dimensioned in that the permissible coupling load is not exceeded during any operating condition. The shaft-hub-connection needs to be reviewed by the customer. Couplings come in various types and Clamping type, different types of couplings have different features. In the selection process, it is necessary to comprehensively consider the characteristics of the application scenario and mechanism, choose the appropriate couplings.

1. Determine the type and series of couplings based on working conditions and application characteristics;
2. Based on the power of the driving motor and the style of the shaft end, confirm the Clamping type of the couplings: screw tightening, clamping type with key or expansion sleeve type;
3. Determine technical parameters based on the driving motor and application scenario: rated torque, maximum torque, allowable speed...
4. Determine the dimensions of the coupling, including outer diameter, total length, shaft diameters at both ends, and tolerances...
5. For some usage environments with special requirements, such as corrosion resistance, high temperature resistance, and insulation requirements, it is necessary to choose couplings that are suitable for the corresponding characteristics.

Motor torque and calculation formula: $T_1 \text{ (Nm)} = 9550 \cdot \frac{T_1 \text{ (kw)}}{n \text{ (rpm)}}$

The calculation formula for compensating torque: (The correlation coefficient affecting torque)

Load property factor K1	
Constant load	K1=1.0
Small variation	K1=1.2
Medium variable	K1=1.7
Large variable	K1=2.1

Operating time factor K2	
4 hours/day	K1=1.0
8 hours/day	K1=1.0
16 hours/day	K1=1.12
24 hours/day	K1=1.25

Temperature factor K3	
TEMP: ±30°C	K1=1.0
TEMP: +40°C	K1=1.2
TEMP: +60°C	K1=1.4
TEMP: +80°C	K1=1.8

Starting factor K4	
100times/hour	K1=1.0
200times/hour	K1=1.2
400times/hour	K1=1.4
800times/hour	K1=1.8

Calculate the motor torque used T_1 , Determine the current operating condition factor K , The torque of the selected couplings T_2 , It can be calculated by the following formula:

$$T_2 \geq T_1 \cdot K_1 \cdot K_2 \cdot K_3 \cdot K_4$$



Product name / types	Product images	Product characteristics
Flexible couplings CSA□ Series: Clamping type-S Clamping type-D		✓ All-steel ✓ Backlash-free ✓ Torsionally rigid ✓ Maintenance-free ✓ Compact dimensions ✓ Single-section or double-section
Flexible jaw Couplings CFAR Series: Setscrew-OM Clamping type-OC/OL		✓ Fail-safe ✓ Axial plug-in ✓ Flexible coupling ✓ Maintenance-free ✓ Compact dimensions
Metal bellow-type couplings CBA4 Series:		✓ Shear type ✓ Double-cardanic ✓ Maintenance-free ✓ All-metal coupling ✓ Compact dimensions ✓ Backlash-free and torsionally stiff
CSFR Series: Flexible couplings - Pin type		✓ All-steel ✓ Backlash-free ✓ Torsionally rigid ✓ Maintenance-free ✓ Compact dimensions ✓ Single-section or double-section
CSFT Series: Flexible couplings - Taper Pin type		✓ All-steel ✓ Backlash-free ✓ Torsionally rigid ✓ Maintenance-free ✓ Compact dimensions ✓ Single-section or double-section
TDF Series: Torque limiters-Friction type		✓ load-retaining ✓ Slowly rotating ✓ Overload system ✓ On site adjustable torque ✓ Transmission mode: ✓ Axial rotary . sprocket ✓ toothed belt drives
TVB Series: Torque limiters-Ball type		✓ Backlash-free ✓ Overload system ✓ On site adjustable torque ✓ Transmission mode: ✓ Packaging machines ✓ Conveyor technology ✓ Special purpose machines

◆ Product features

- ✓ All steel, Backlash-free
- ✓ high accuracy, Torsionally rigid
- ✓ Single-section or double-section
- ✓ Compact dimensions, Mass moment of inertia low
- ✓ Maintenance-free, Specially designed for servo and stepper motors, suitable for positioning conditions.



Model Description

CSAW	-	S	-	D□	-	L□	-	d□k	-	d□
C Couplings		Single diaphragm		Outside Diameter		Length		d Finish bore		d Finish bore
S Servo flex								k with keyway		
A Aluminum								without keyway		
W Washer										

W: Washer S: Single-laminae D: Outside Diameter K: Keyway
 T: Taper pin D: Double-laminae L: Length
 P: Pin
 O: Other

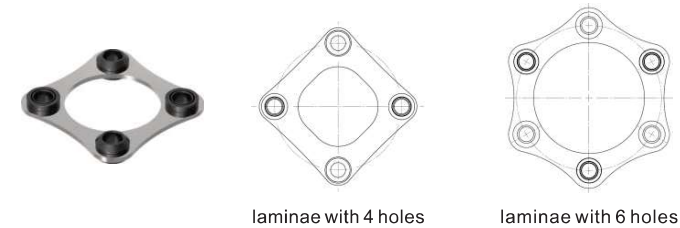
Types of hubs



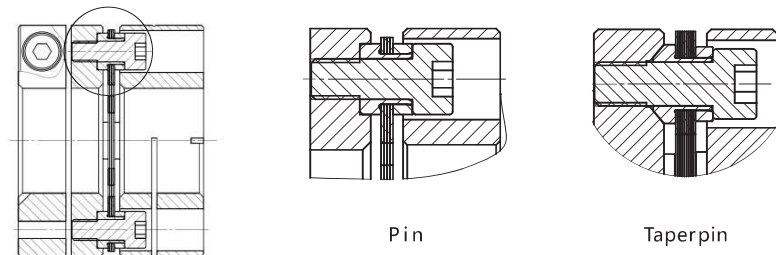
CSA□ Flexible couplings summary

Torsionally rigid : Can accurately control the rotation of the shaft;
Backlash-free : The diaphragm has high strength and Backlash-free, Suitable for high-precision positioning and detection conditions;
Low Inertia : Adopting high-strength aluminum alloy and clamping sleeve that fits with the diameter tolerance of the shaft end, it has low inertia characteristics;
Temperature resistance : Stainless steel laminae and aluminum alloy shaft sleeve enable CSA Flexible couplings to withstand high temperatures of 200 °C and resist corrosion;
Compensating for misalignment: Twisted rigid membranes can provide both axial, angular, and radial Compensating capabilities, with double laminae for stronger Compensating for misalignment;
Surface Treatment : Stainless steel laminae and aluminum alloy shaft sleeves are not easily oxidized and have corrosion resistance properties. Usually, surface treatment is not required. When customers require it, the shaft sleeve can provide anodized surface treatment.

The laminae types



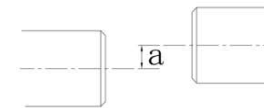
The laminae pin types



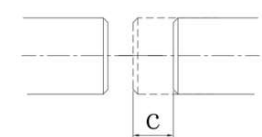
- ★ The washer type laminae assembly is an economical product with a lower torque and is not shown;
- ★ If you have any needs, please feel free to inquire and negotiate.

The displacement of the axis

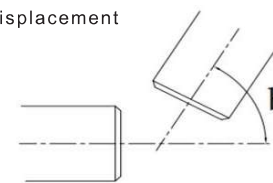
Radial displacement



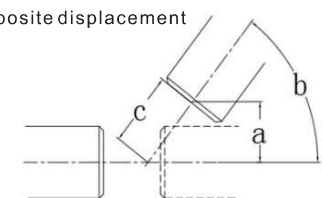
Axial displacement



Angular displacement



Composite displacement

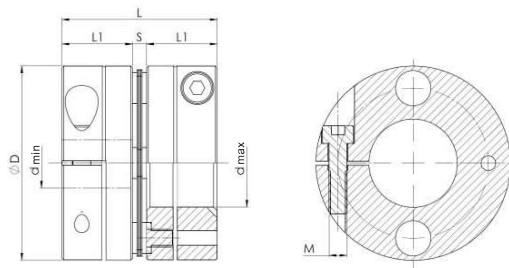


The displacement of the axis includes: Axial displacement, Radial displacement, Angular displacement, The displacement figures may only be used one by one, if they appear simultaneously, they must be limited in proportion. Otherwise, it may lead to vibration, a sharp reduction in lifespan, and a decrease in accuracy!

Clamping type-OL



Single laminae



Size	Rated torque (N.m)	Φd min	Φd max	ΦD	L	L1	S	M	Screw tightening torque(N.m)
CSA□-19	1	3	8	19	19.5	9.2	1.1	M2.5	0.6-1
CSA□-26s	2	4	11	26	24	11	2	M2.5	0.6-1
CSA□-26	2	4	11	26	27	12.5	2	M3	1-1.5
CSA□-29	4	5	14	29	25	11.5	2	M3	1-1.5
CSA□-34	5	6	16	34	33	15	3	M4	3-5
CSA□-39	8	8	18	39	35.2	16	3.2	M4	3-5
CSA□-44	10	9	20	44	35.2	16	3.2	M4	3-5
CSA□-50	30	10	22	50	41	18.5	3.9	M5	4-7
CSA□-56	50	11	30	56	46	21	4	M5	4-7
CSA□-68	60	14	35	68	56.5	26	4.5	M6	7-10
CSA□-82	100	18	40	82	66	30	6	M8	20-25
CSA□-94	300	25	45	94	74.6	34	6.6	M10	49-50
CSA□-104	350	32	48	104	74.6	34	6.6	M10	49-50

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CSAP	S	D34	L33	d12k	d16	OL
	Flexible couplings (aluminum hub, Pin type)	Single laminae	Outside diameter	Length	Finish bore (with keyway)	Finish bore (without keyway)	hub type

Standard bore tolerance H7 (mm) , Clamping type-OL with/without keyway																																
Size	3	4	5	6	6.35	7	8	9	9.5	10	11	12	14	15	16	18	20	22	24	25	28	30	32	35	38	40	45					
19	●	●	●	●	●	●	●																									
26		●	●	●	●	●	●	●	●	●																						
29			●	●	●	●	●	●	●	●	●	●	●																			
34				●	●	●	●	●	●	●	●	●	●	●	●																	
39							●	●	●	●	●	●	●	●	●	●																
44								●	●	●	●	●	●	●	●	●	●															
50										●	●	●	●	●	●	●	●	●	●													
56											●	●	●	●	●	●	●	●	●	●	●	●										
68													●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
82																●	●	●	●	●	●	●	●	●	●	●	●	●				
94																				●	●	●	●	●	●	●	●	●				
104																								●	●	●	●	●				

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate

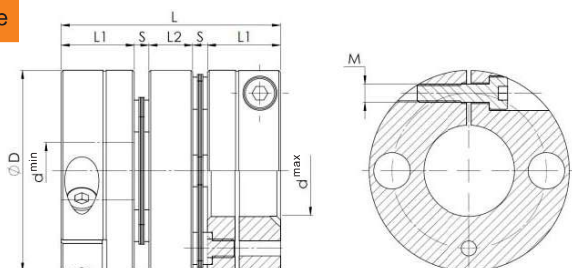
★ Surface Treatment : Stainless steel laminae and aluminum alloy shaft sleeves are not easily oxidized and have corrosion resistance properties. Usually, surface treatment is not required. When customers require it, the shaft sleeve can provide anodized surface treatment.

Size	Rated torque (N.m)	Displacements compensate			Max. speed (rpm)	Mass moment of inertia(kg.m ²)	Static torsion spring stiffness (N.m/rad)	Weight (g)
		Radial (mm)	Angular (degree)	Axial (mm)				
CSA□-19-S	1	0.02	0.5 °	0.5	10000	0.58x10 ⁻⁶	1400	12
CSA□-26-S	2	0.02	1 °	0.5	10000	2.39x10 ⁻⁶	3700	26
CSA□-29-S	4	0.02	1 °	0.5	10000	3.67x10 ⁻⁶	5600	30
CSA□-34-S	5	0.02	1 °	0.6	8000	8.20x10 ⁻⁶	8000	50
CSA□-39-S	8	0.02	1 °	0.7	8000	18.5x10 ⁻⁶	18000	85
CSA□-44-S	10	0.02	1 °	0.8	6000	29.6x10 ⁻⁶	20000	104
CSA□-50-S	30	0.02	1 °	1	6000	47.5x10 ⁻⁶	30000	157
CSA□-56-S	50	0.02	1 °	1	6000	99.0x10 ⁻⁶	32000	207
CSA□-68-S	60	0.02	1 °	1.2	6000	268x10 ⁻⁶	70000	386
CSA□-82-S	100	0.02	1 °	1.2	5700	710x10 ⁻⁶	85000	710
CSA□-94-S	300	0.02	1 °	1.2	5000	1236x10 ⁻⁶	100000	950
CSA□-104-S	350	0.02	1 °	1.2	4000	1890x10 ⁻⁶	120000	1200

Clamping type-OL



Double laminae



Size	Rated torque (N.m)	Φd min	Φd max	ΦD	L	L1	L2	S	M	Screw tightening torque(N.m)
CSA□-19	1	3	8	19	26	9.2	5.5	1.1	M2.5	0.6-1
CSA□-26s	2	4	11	26	32	11	6	2	M2.5	0.6-1
CSA□-26	2	4	11	26	35	12.5	6	2	M3	1-1.5
CSA□-29	4	5	14	29	33	11.5	6	2	M3	1-1.5
CSA□-34	5	6	16	34	42/45	15	6.2/9	3	M4	3-5
CSA□-39	8	8	18	39	46	16	7.6	3.2	M4	3-5
CSA□-44	10	9	20	44	48	16	9.6	3.2	M4	3-5
CSA□-50	30	10	22	50	56	18.5	11.2	3.9	M5	4-7
CSA□-56	50	11	30	56	60	21	10.2	4	M5	4-7
CSA□-68	60	14	35	68	74	26	13	4.5	M6	7-10
CSA□-82	100	18	40	82	92	30	20	6	M8	20-25
CSA□-94	300	25	45	94	97.2	32	20	6.6	M10	49-50
CSA□-104	350	32	48	104	99.2	33	20	6.6	M10	49-50

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CSAP	D	D34	L33	d12k	d16	OL
	Flexible couplings (aluminum hub, Pin type)	Double laminae	Outside diameter	Length	Finish bore (with keyway)	Finish bore (without keyway)	hub type

Flexible couplings CSA□

Standard bore tolerance H7 (mm) , Clamping type-OL ☐ with/without keyway																																			
规格	3	4	5	6	6.35	7	8	9	9.5	10	11	12	14	15	16	18	20	22	24	25	28	30	32	35	38	40	45								
19	●	●	●	●	●	●	●																												
26		●	●	●	●	●	●	●	●	●	●																								
29			●	●	●	●	●	●	●	●	●	●	●																						
34				●	●	●	●	●	●	●	●	●	●	●	●																				
39							●	●	●	●	●	●	●	●	●	●																			
44								●	●	●	●	●	●	●	●	●	●																		
50										●	●	●	●	●	●	●	●	●																	
56											●	●	●	●	●	●	●	●	●	●	●	●													
68													●	●	●	●	●	●	●	●	●	●	●	●	●										
82																●	●	●	●	●	●	●	●	●	●	●	●								
94																				●	●	●	●	●	●	●	●								
104																							●	●	●	●	●								

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate

★ **Surface Treatment** : Stainless steel laminae and aluminum alloy shaft sleeves are not easily oxidized and have corrosion resistance properties. Usually, surface treatment is not required. When customers require it, the shaft sleeve can provide anodized surface treatment.

Size	Rated torque (N.m)	Displacements compensate			Max. speed (rpm)	Mass moment of inertia(kg.m²)	Static torsion spring stiffness (N.m/rad)	Weight (g)
		Radial (mm)	Angular (degree)	Axial (mm)				
CSA□-19-D	1	0.10	0.5 °	0.5	10000	0.81×10 ⁻⁶	700	16
CSA□-26-D	2	0.12	1 °	0.7	10000	3.45×10 ⁻⁶	1850	36
CSA□-29-D	4	0.12	1 °	0.7	10000	5.21×10 ⁻⁶	2800	41
CSA□-34-D	5	0.15	1 °	1.0	8000	11.5×10 ⁻⁶	4000	69
CSA□-39-D	8	0.17	1 °	1.0	8000	27.1×10 ⁻⁶	9000	123
CSA□-44-D	10	0.18	1 °	1.2	6000	42.9×10 ⁻⁶	10000	150
CSA□-50-D	30	0.20	1 °	1.2	6000	81.1×10 ⁻⁶	12000	220
CSA□-56-D	50	0.25	1 °	1.2	6000	141×10 ⁻⁶	16000	299
CSA□-68-D	60	0.27	1 °	1.5	6000	379×10 ⁻⁶	35000	550
CSA□-82-D	100	0.30	1 °	1.5	5700	985×10 ⁻⁶	50000	980
CSA□-94-D	300	0.32	1 °	1.5	5000	1700×10 ⁻⁶	70000	1400
CSA□-104-D	350	0.35	1 °	2.0	4000	2700×10 ⁻⁶	60000	1600

Flexible jaw Couplings CFAR

WNET · Drive System

◆ Product features

- ✓ Backlash-free, small volume, small moment of inertia
- ✓ Strong correction ability, good absorption of impact and vibration
- ✓ Easy to install, axial insertion, maintenance free, and easy to visually inspect
- ✓ Polyurethane elastomer with good wear resistance and insulation properties
- ✓ Elastomers with different hardness options are available, suitable for various working conditions



Model Description

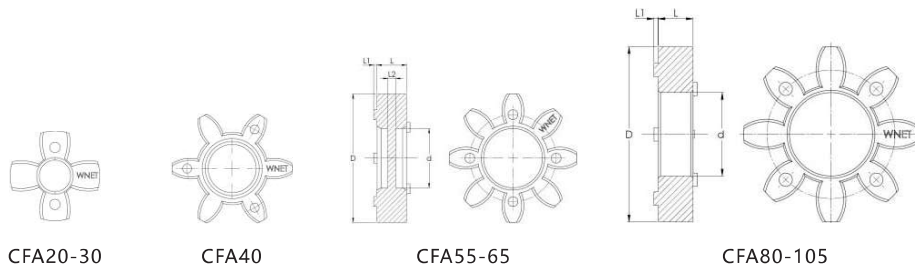
CFAR	-	S	-	D□	-	L□	-	d□k	-	d□	
C	Couplings	Single diaphragm		Outside Diameter		Length		d	Finish bore	d	Finish bore
F	Flexible	(Default style)						k	with keyway		
A	Aluminum								without keyway		
R	Red										

R: Red 97 SH-A S: Single-laminae D: Outside Diameter K: Keyway
 G: Green 92 SH-A D: Double-laminae L: Length
 Y: Yellow 80 SH-A
 B: Blue 64 SH-D

Types of hubs



Plum blossom shaped elastomer types



Plum blossom shaped elastomer features

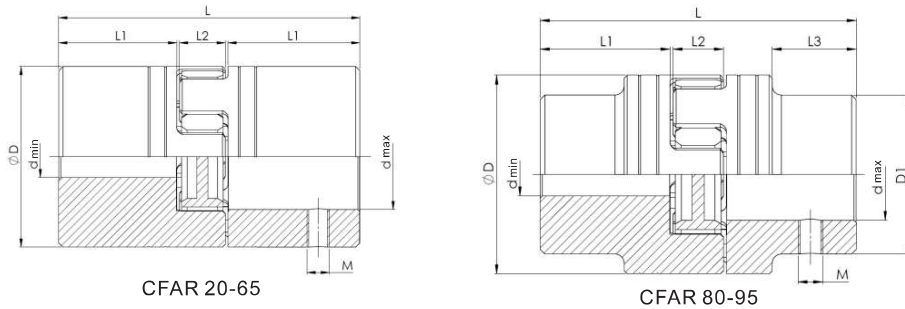


Product color/hardness(Shore hardness)/picture	Features of Product
Yellow 80 SH-A 	✓ Import polyurethane TPU with moderate elasticity ✓ Permissible instantaneous temperature range -60°C to +90°C ✓ Permissible temperature range -50°C to +80°C ✓ Transmission of general machinery ✓ Transmission of hydraulic equipment
Green 92 SH-A 	✓ Import polyurethane TPU with good damping ✓ Permissible instantaneous temperature range -50°C to +120 °C ✓ Permissible temperature range -40°C to +90 °C ✓ Transmission of stepper and servo motors ✓ Electronic measurement, transmission of control systems
Red 97 SH-A 	✓ Import polyurethane TPU with high torque, moderate damping ✓ Permissible instantaneous temperature range -40°C to +120 °C ✓ Permissible temperature range -30°C to +90 °C ✓ Transmission of stepper and servo motors ✓ Main shaft drive, high load transmission
Blue 64 SH-D 	✓ Import polyurethane TPU with high torque, moderate damping, low damping ✓ Permissible instantaneous temperature range -30°C to +120°C ✓ Permissible temperature range -20°C to +110°C ✓ Servo and variable frequency motor transmission ✓ Transmission of High Load Sports ✓ High torsional rigidity transmission

Size	ΦD	Φd	L	L1	L2	Features
CF 20	Φ20	6.2	9	0.8	1	The middle hole is a non through hole fastening type
CF 25	Φ25	8.5	11	0.8	2	
CF 30	Φ30	10.5	11.1	0.8	2.5	
CF 40	Φ40	17.5	13.5	1.5	3	
CF 55	Φ55	27	15.5	1.5	3.5	
CF 65	Φ65	29.5	16.5	1.5	4.5	Middle through-hole simple disassembly type
CF 80	Φ80	38.5	18	2	/	
CF 95	Φ95	41.6	20	2	/	
CF 105	Φ105	51	21	2.5	/	

Plum blossom shaped elastomer select: by default, standard configuration: Red 97 SH-A

Clamping type-OM



Size	Rated torque (N.m)	Φd_{min}	Φd_{max}	ΦD	D1	L	L1	L2	L3	M	Screwtightening torque(Nm)
CFAR-20	3	4	10	20	-	30	10	8	-	M3	0.6
CFAR-25	5	5	12	25	-	34	11	10	-	M4	1.5
CFAR-30	7	6	16	30	-	35	11	11	-	M5	2
CFAR-30L	7	6	16	30	-	42	11	11	-	M5	2
CFAR-40S	14	8	24	40	-	50	17.5	13	-	M6	5
CFAR-40	14	8	24	40	-	55	20	13	-	M6	5
CFAR-40L	14	8	24	40	-	66	25	13	-	M6	5
CFAR-55	40	10	30	55	-	78	30	15	-	M6	5
CFAR-65	109	12	38	65	-	90	35	16	-	M8	10
CFAR-80	200	14	45	80	70	114	45	20	27	M8	10
CFAR-95	320	14	55	95	85	126	50	21	28	M10	17

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CFAR	D40	L55	d16k	d20	OM
	Flexible jaw Couplings CFAR (Red 97 SH-A)	Outside diameter	Length	Finish bore (with keyway)	Finish bore (without keyway)	hub type

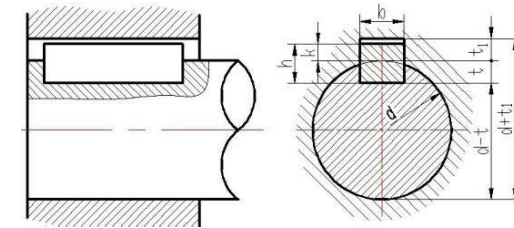
Flexible jaw Couplings CFAR

Standard bore tolerance H7 (mm) , Clamping type-OM with/without keyway																													
规格	4	5	6	6.35	7	8	9	9.5	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	45		
20	●	●	●	●	●	●	●	●	●																				
25		●	●	●	●	●	●	●	●	●	●																		
30			●	●	●	●	●	●	●	●	●	●	●	●															
40						●	●	●	●	●	●	●	●	●	●	●	●	●	●										
55									●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
65											●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
80												●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
95												●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate

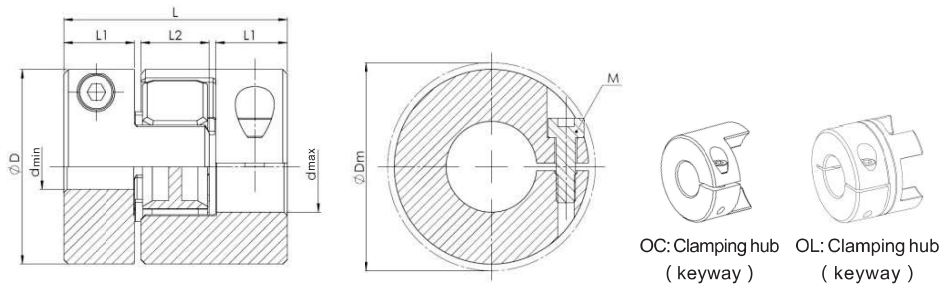
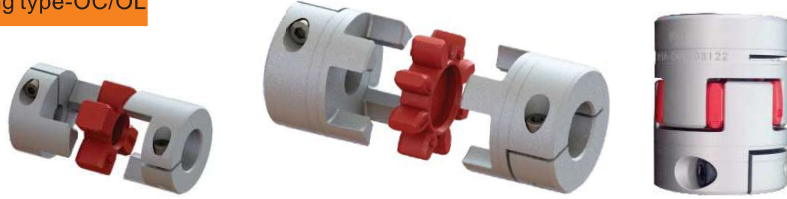
★ From $\Phi 55$ tolerance G7/m6, The friction torque is reduced with bigger fitting tolerances;

★ Surface Treatment : Stainless steel laminae and aluminum alloy shaft sleeves are not easily oxidized and have corrosion resistance properties. Usually, surface treatment is not required. When customers require it, the shaft sleeve can provide anodized surface treatment.



Standard size specification table for flat keys and keyways (GB/T 1566-2003)									
Shaft diameter	keys	Key width	general tolerance	Hub key depth		Shaft key depth		(Radius) R	
d	b×h	b	hubs JS9	t1	Tolerance	t	Tolerance	min	max
6-8	2x2	2	±0.0125	1	+0.1	1.2	+0.1	0.08	0.16
>8-10	3X3	3		1.4		1.8			
>10-12	4X4	4		1.8		2.5			
>12-17	5X5	5	±0.015	2.3		3		0.16	0.25
>17-22	6X6	6		2.8		3.5			
>22-30	8X7	8	±0.018	3.3	+0.2	4	+0.2	0.25	0.4
>30-38	10X8	10		3.3		5			
>38-44	12X8	12	±0.0215	3.3		5		0.25	0.4
>44-50	14X9	14		3.8		5.5			
>50-58	16X10	16		4.3		6			
>58-65	18X11	18	±0.026	4.4		7		0.4	0.6
>65-75	20X12	20		4.9		7.5			
>75-85	22X14	22		5.4		9			

Clamping type-OC/OL



Size	Rated torque (N.m)	Φd_{min}	Φd_{max}	ΦD	D_m	L	L1	L2	Coupling types	M	Screw tightening torque(N.m)
CFAR-20	3	4	10	20	23.5	30	10	8	OC	M2.5	0.76
CFAR-25	5	5	12	25	27.5	34	11	10	OC	M3	1.34
CFAR-30	7	6	16	30	32.5	35	11	11	OC	M4	3
CFAR-30L	7	6	16	30	32.5	42	11	11	OC	M4	3
CFAR-40S	14	8	22	40	46	50	17.5	13	OC	M5	6
CFAR-40	14	8	22	40	46	55	20	13	OL	M5	6
CFAR-40L	14	8	22	40	46	66	25	13	OL	M6	10.5
CFAR-55	40	10	30	55	57.5	78	30	15	OL	M6	10.5
CFAR-65	109	12	38	65	72.7	90	35	16	OL	M8	25
CFAR-80	200	14	45	80	83.5	114	45	20	OL	M8	25
CFAR-95	320	14	50	95	95	126	50	21	OL	M10	65

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CFAR	D40	L55	d16k	d20	OL
	Flexible jaw Couplings CFAR (Red 97 SH-A)	Outside diameter	Length	Finish bore (with keyway)	Finish bore (without keyway)	hub type

Flexible jaw Couplings CFAR

Standard bore tolerance H7 (mm) , Clamping type-OL with/without keyway																											
Size	4	5	6	6.35	7	8	9	9.5	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	45
20	●	●	●	●	●	●	●	●	●																		
25		●	●	●	●	●	●	●	●	●	●																
30			●	●	●	●	●	●	●	●	●	●	●	●													
40						●	●	●	●	●	●	●	●	●	●	●	●	●	●								
55									●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
65											●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
80												●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
95												●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate

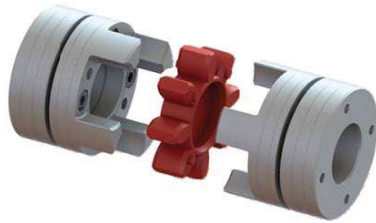
★ Surface Treatment : Stainless steel laminae and aluminum alloy shaft sleeves are not easily oxidized and have corrosion resistance properties. Usually, surface treatment is not required. When customers require it, the shaft sleeve can provide anodized surface treatment.

Review of shaft-hub-connection: Friction torques [Nm] for hub type OC																
Size	Ø4	Ø5	Ø6	Ø6.35	Ø7	Ø8	Ø9	Ø9.5	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø18
20	1.5	1.8	2	2.2	2.5	2.8	3	3.2	3.5	3.8						
25		2.5	3.2	3.4	3.6	4.2	4.5	5	5.4	5.5	6					
30			3.4	3.6	4	4.5	5	5.2	5.5	6	6.5	7	7.5	8	8.5	

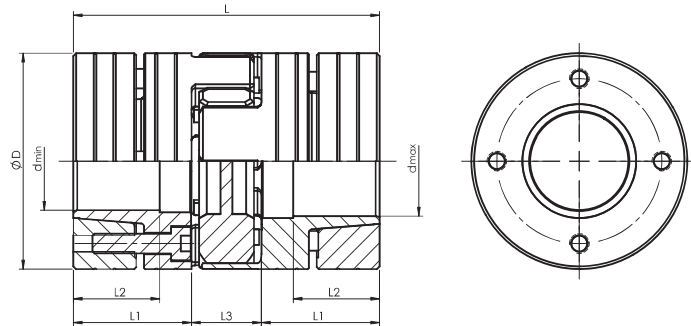
Review of shaft-hub-connection: Friction torques [Nm] for hub type OL																									
Size	Ø8	Ø9	Ø9.5	Ø10	Ø11	Ø12	Ø14	Ø15	Ø16	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø45	Ø48	Ø50	Ø55
40	19	20	21	23	25	27	31	33	35	38	40	41	42	43											
55				24	26	28	33	35	37	40	42	43	45	50	52	55	56								
65						50	60	65	70	78	80	85	90	100	102	110	115	120	130	140					
80							60	65	70	78	80	85	90	100	102	110	115	120	130	145	150	165			
95							75	100	125	150	170	190	210	230	240	260	280	290	310	330	350	385	410	420	430

Size	Rated torque (N.m)	Displacements compensate			Max. speed (rpm)	Mass moment of inertia(kg.m ²)	Static torsion spring stiffness (N.m/rad)	Weight (g)
		Radial (mm)	Angular (degree)	Axial (mm)				
CFAR-20	3	0.1	1 °	1	10000	1.1x10 ⁻⁶	55	19
CFAR-25	5	0.1	1 °	1	10000	5.2x10 ⁻⁶	85	33
CFAR-30	7	0.1	1 °	1	10000	6.2x10 ⁻⁶	130	50
CFAR-40	14	0.1	1 °	1.2	8000	3.9x10 ⁻⁵	1200	12
CFAR-55	40	0.1	1 °	1.4	8000	1.6x10 ⁻³	2600	340
CFAR-65	109	0.1	1 °	1.5	6000	3.8x10 ⁻³	4900	580
CFAR-80	200	0.1	1 °	1.8	6000	1.8x10 ⁻²	6500	1000
CFAR-95	320	0.1	1 °	2.0	6000	2.0x10 ⁻²	8900	1650

Light clamping ring hub



Shaft sleeve material - aluminum



Size	Rated torque (N.m)	Φd_{min}	Φd_{max}	ΦD	L	L ₁	L ₂	L ₃	M	Quantity	Screw tightening torque(N.m)
CFAR-25	7	5	11	25	34	12	9	10	M2	6	0.37
CFAR-30	10	6	14	30	50	18.5	13.5	13	M3	4	1.34
CFAR-40	15	10	20	40	66	25	18	16	M4	6	3
CFAR-55	40	14	30	55	78	30	22	18	M5	4	6
CFAR-65	120	16	38	65	90	35	27	20	M5	8	6
CFAR-80	250	20	48	80	114	45	35	24	M6	8	10
CFAR-95	350	28	50	95	126	50	35	26	M8	4	25
CFAR-105	420	28	55	105	140	56	41	28	M10	4	49

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CFAR	D55	L78	d20	d25	DO
	Flexible jaw Couplings CFAR (Red 97 SH-A)	Outside diameter	Length	Finish bore	Finish bore	hub type

Light clamping ring hub type: Friction torques [Nm] (haft sleeve material - aluminum)																											
Size	Tolerance	5	6	8	9	10	11	12	14	15	16	19	20	24	25	28	30	32	35	38	40	42	45	48	50	55	
25	H7/k6	2.1	2.5	5.0	6.2	8.8	10.5																				
	H7/h6	1.2	1.5	2.1	2.4	4.8	5.4																				
30	H7/k6		8.0	13.0	18.5	20	25	29	35																		
	H7/h6		5.2	9.2	15.2	16	21	25	24																		
40	H7/k6					31	40	45	49	50	51	80	90														
	H7/h6					25	34	40	45	46	47	67	80														
55	H7/k6									80	90	90	130	140	152	170	171	172									
	H7/h6									70	80	80	110	115	117	130	142	145									
65	H7/k6											130	160	170	275	300	320	322	324	390	410						
	H7/h6											110	125	141	237	238	240	241	242	300	330						
80	H7/k6													270	420	465	550	580	610	660	730	750	790	800	930		
	H7/h6													230	380	430	470	480	490	570	600	635	650	660	790		
95	H7/k6																640	730	735	900	980	1000	1015	1190	1375	1400	
	H7/h6																552	660	600	750	855	858	860	1020	1215	1270	
105	H7/k6																700	760	880	1070	1180	1275	1300	1400	1450	1500	1800
	H7/h6																620	730	780	990	1020	1075	1100	1200	1250	1300	1400

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate

★ From $\Phi 55$ tolerance G7/m6, The friction torque is reduced with bigger fitting tolerances;

★ Surface Treatment : Stainless steel laminae and aluminum alloy shaft sleeves are not easily oxidized and have corrosion resistance properties. Usually, surface treatment is not required. When customers require it, the shaft sleeve can provide anodized surface treatment.

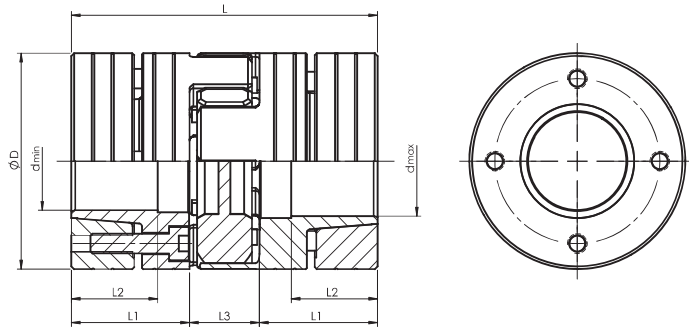
Size	Rated torque (N.m)	Displacements compensate			Max. speed (rpm)	Mass moment of inertia(kg.m ²)	Static torsion spring stiffness (N.m/rad)	Weight (kg)
		Radial (mm)	Angular (degree)	Axial (mm)				
CFAR-25	7	0.06	0.9 °	±0.5	15000	1.39x10 ⁻⁶	100	0.015
CFAR-30	10	0.07	0.9 °	±0.5	15000	0.04x10 ⁻⁴	130	0.035
CFAR-40	15	0.08	0.9 °	±0.5	12000	0.19x10 ⁻⁴	1200	0.078
CFAR-55	40	0.1	0.9 °	±0.5	10000	0.78x10 ⁻⁴	2600	0.165
CFAR-65	120	0.1	0.9 °	±0.7	10000	1.70x10 ⁻⁴	4900	0.245
CFAR-80	250	0.1	0.9 °	±0.7	8000	5.17x10 ⁻⁴	9500	0.495
CFAR-95	350	0.1	0.9 °	±0.7	7000	11.1x10 ⁻⁴	15000	0.775
CFAR-105	420	0.1	0.9 °	±0.7	7000	18.8x10 ⁻⁴	18000	1.070

★ When the speed is too high, the elasticity will expand. Please consider the rotational space of the coupling to avoid interference!

Clamping ring hub



Shaft sleeve material - steel



Size	Rated torque (N.m)	Φd min	Φd max	ΦD	L	L1	L2	L3	M	Quantity	Screw tightening torque(N.m)
CFFR-40	15	10	20	40	66	25	18	16	M4	6	4.1
CFFR-55	40	14	28	55	78	30	22	18	M5	4	8.5
CFFR-65	120	16	38	65	90	35	27	20	M5	8	8.5
CFFR-80	250	20	48	80	114	45	35	24	M6	8	14
CFFR-95	350	28	50	95	126	50	35	26	M8	4	41
CFFR-105	420	30	55	105	140	56	41	28	M10	4	69
CFFR-120	500	35	65	120	160	65	45	30	M10	4	69
CFFR-135	700	40	70	135	185	75	55	35	M12	4	120

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CFFR	D55	L78	d20	d25	DO
	Flexible jaw Couplings CFFR (Red 97 SH-A)	Outside diameter	Length	Finish bore	Finish bore	hub type

Clamping ring hub type: Friction torques [Nm] (haft sleeve material - steel)																									
Size	Tolerance	10	11	14	15	16	19	20	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	
40	H7/k6	25	30	65	70	80	90	100																	
	H7/h6	14	17	55	60	65	70	85																	
55	H7/k6			65	70	80	90	100	110	120	180														
	H7/h6			50	55	60	70	80	85	90	150														
65	H7/k6				90	120	130	145	220	250	290	320	320	400	450										
	H7/h6				70	85	90	94	150	200	240	250	260	300	400										
80	H7/k6							195	300	350	400	425	450	550	580	620	720	750							
	H7/h6							125	245	300	330	340	350	420	480	525	620	650							
95	H7/k6									420	450	460	500	600	620	680	700	800	970	990					
	H7/h6									350	360	380	400	540	550	560	565	720	880	900					
105	H7/k6												600	700	800	850	900	920	1000	1100	1200	1400			
	H7/h6												500	570	700	730	770	800	900	950	980	1050			
120	H7/k6														800	850	890	900	1000	1050	1200	1230	1450	1500	
	H7/h6														700	730	750	780	870	890	1000	---	---	---	
135	H7/k6															1250	1300	1600	1650	1700	1750	2000	2200	2800	
	H7/h6															1050	1100	1300	1350	1500	---	---	---	---	

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate

★ From Φ55 tolerance G7/m6, The friction torque is reduced with bigger fitting tolerances;

★ Surface Treatment : Stainless steel laminae and aluminum alloy shaft sleeves are not easily oxidized and have corrosion resistance properties. Usually, surface treatment is not required. When customers require it, the shaft sleeve can provide anodized surface treatment.

Size	Rated torque (N.m)	Displacements compensate			Max. speed (rpm)	Mass moment of inertia(kg.m²)	Static torsion spring stiffness (N.m/rad)	Weight (kg)
		Radial (mm)	Angular (degree)	Axial (mm)				
CFFR-40	15	0.08	0.9 °	±0.5	10000	0.44x10 ⁻⁴	100	0.18
CFFR-55	40	0.09	0.9 °	±0.5	10000	1.91x10 ⁻⁴	130	0.40
CFFR-65	120	0.1	0.9 °	±0.7	9000	4.18x10 ⁻⁴	1200	0.59
CFFR-80	250	0.1	0.9 °	±0.7	8000	12.9x10 ⁻⁴	2600	1.23
CFFR-95	350	0.1	0.9 °	±0.7	7000	31.7x10 ⁻⁴	4900	2.30
CFFR-105	420	0.1	0.9 °	±0.7	7000	52.0x10 ⁻⁴	9500	3.08
CFFR-120	500	0.1	0.9 °	±0.7	6000	103x10 ⁻⁴	15000	4.67
CFFR-135	700	0.1	0.9 °	±0.7	5000	191x10 ⁻⁴	18000	6.70

★ When the speed is too high, the elasticity will expand. Please consider the rotational space of the coupling to avoid interference!

◆ Flange type



Ordering example:	CFFR	S	D110	L100	d1	n-d2	OF
	Flexible jaw Couplings CFFR (Red 97SH-A)	Single section	Outside diameter	Length	Distribution circle	Number of holes - aperture	Flange type

◆ Double-section



Ordering example:	CFFR	D	D80	L185	d20k	d25	OL
	Flexible jaw Couplings CFFR (Red 97SH-A)	Double section	Outside diameter	Length	Finish bore (with keyway)	Finish bore (without keyway)	Flange type

◆ Brake disc type



◆ Brake drum type



Ordering example:	CFFR-80	S	L114	D1XL2	d20k	d25	OM
	Flexible jaw Couplings CFFR (Red 97SH-A)	Single section	Length (Couplings)	DimxWidth (Disc/drum)	Finish bore (with keyway)	Finish bore (without keyway)	Flange type

★ If you need the above or other product samples and size requirements, please feel free to inquire and negotiate



- 1 Before installation, maintenance, and disassembly, please make sure to power off the equipment;
- 2 Protective devices must be installed around the couplings to avoid potential hazards;
- 3 Do not disassemble or modify the couplings. If you have special requirements, please contact our company for non-standard customization;
- 4 Please ensure that the operating conditions are within the technical parameter range of the coupling, including but not limited to speed, rated torque, etc;
- 5 Before installing the coupling, please make sure to thoroughly clean the stains and oil stains on both shafts and shaft holes;
- 6 When installing the couplings and module, please ensure that the shaft is parallel and well aligned. If necessary, use auxiliary tools or calibration methods for shaft alignment!



<http://www.wntdwc.com>

Dongguan wisnet Intelligent Equipment Co.,Ltd
 ADD: Building 35, No. 1, Chuangye Heng Road, Shang sha community, Chang an town, Dongguan Guang dong
 TEL: 0769-8228 8750
<http://www.wntdwc.com>

◆ Product features

- ✓ Strong correction ability, good absorption of vibration
- ✓ All-steel, Backlash-free, Mass moment of inertia low
- ✓ Suitable for various motors, widely used in machine tools and automation
- ✓ Stainless steel pipe body, high strength, corrosion resistance, and long service life
- ✓ Easy to install, rust proof, high temperature resistant, and maintenance free.



Model Description

CBA4	-	D□	-	L□	-	d□k	-	d□	
C	Couplings	Outside Diameter		Length		d	Finish bore	d	Finish bore
B	Bellows					k	with keyway		
A	Aluminum						without keyway		
4	4 Bellow types								

4: 4 Bellow types
5: 5 Bellow types
6: 6 Bellow types
O: Other

D: Outside Diameter
L: Length

K: Keyway

Types of hubs



CBA□ Flexible couplings summary

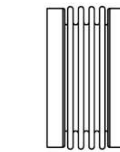
Compensating for misalignment : its biggest characteristic is its good Compensating, with excellent Compensating capabilities in axial, radial, and angular directions;

Good shock absorption : The shock absorption performance is good, and the corrugated pipe joint has the ability to absorb shock absorption;

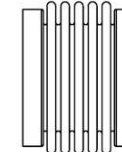
Backlash-free : The pipe body has high strength and no backlash, making it suitable for transmission and other working conditions;

Temperature resistance : Stainless steel pipe body and aluminum alloy shaft sleeve enable the CBA corrugated; pipe coupling to withstand high temperatures of 200 °C and be corrosion-resistant;
Multiple sections and corrugated pipes can have better correction ability, but the corresponding rigidity of multiple sections will be slightly lower and can be selected for use;

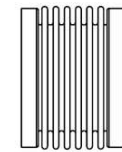
Surface treatment : Aluminum alloy shaft sleeves are not easy to oxidize and have corrosion resistance characteristics, so surface treatment is usually not required. When customers need it, the shaft sleeves can provide anodized surface treatment.



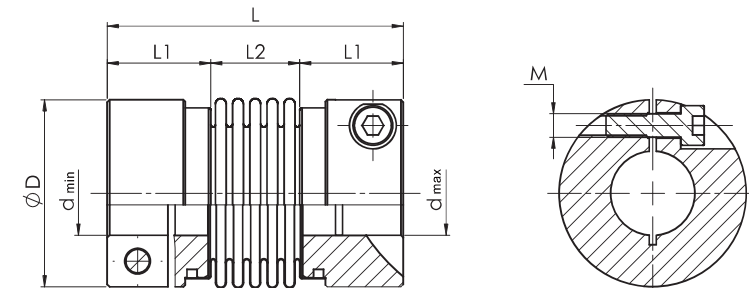
4 Bellow types



5 Bellow types



5 Bellow types



Size	Rated torque (N.m)	Φd min	Φd max	ΦD	L	L1	L2	M	Screw tightening torque(N.m)
CBA4-16	1.0	3	8	16	26	9	8	M2	0.37
CBA4-20	1.5	4	9	20	32	11	10	M2.5	0.76
CBA4-25	2	4	12	25	36	13	10	M3	1.34
CBA4-32	5	6	16	32	45	17	11	M4	2.9
CBA4-40	15	8	20	40	58	21	16	M5	6
CBA5-55	35	10	30	55	75	23	29	M6	10
CBA6-65	65	12	38	65	80	25	30	M8	25
CBA6-70	90	14	40	70	90	30	30	M8	25
CBA6-83	150	14	42	83	100	32	36	M10	49

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CBA4	D40	L58	d16k	d20	OL
	Metal bellow-type couplings	Outside diameter	Length	Finish bore (with keyway)	Finish bore (without keyway)	hub type

◆ Product features

- ✓ Torsionally rigid, Backlash-free, Displacements compensate
- ✓ Special stainless steel laminae, High strength, long service life
- ✓ All steel components, High strength, Safe and reliable, Can transmit large torque
- ✓ A wide range of applications, Applicable compressors, Shaft drive, pump drive...
- ✓ Simple installation, Firmly connected, High temperature resistance, Maintenance-free



Model Description

CSFR	-	S	-	D□	-	L□	-	d□k	-	d□□	
C	Couplings	Single diaphragm		Outside Diameter		Length		d	Finish bore	d	Finish bore
S	Servo flex							k	with keyway		
F	Ferruginous								without keyway		
R	Reamer bolt										

W: Washer S: Single-laminae D: Outside Diameter K: Keyway
 T: Taper pin D: Double-laminae L: Length
 P: Pin
 O: Other

Types of hubs

OM: setscrew
(keyway)OL: Clamping hub
(keyway)DO: Clamping
ring hub

CSFR Flexible couplings summary

Torsionally rigid : Can accurately control the rotation of the shaft;

Backlash-free : The diaphragm has high strength and Backlash-free, Suitable for high-precision positioning and detection conditions;

High torque: All steel components, High strength, Safe and reliable, Can transmit large torque

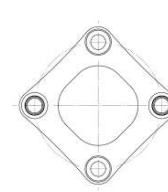
Temperature resistance : Stainless steel laminae and metal shaft sleeve enable CSF Flexible couplings to withstand high temperatures of 200 °C and resist corrosion;

Compensating for misalignment: Twisted rigid membranes can provide both axial, angular, and radial; Compensating capabilities, with double laminae for stronger Compensating for misalignment;

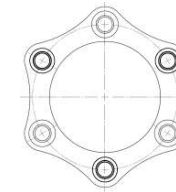
Surface Treatment :Stainless steel laminae have strong stability, are not easily oxidized, and have corrosion resistance characteristics;

Metal shaft sleeves are usually treated with blackening on the surface.

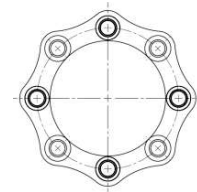
The laminae types



laminae with 4 holes

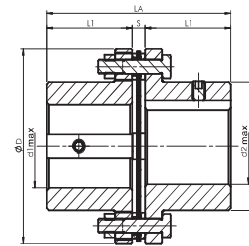


laminae with 6 holes

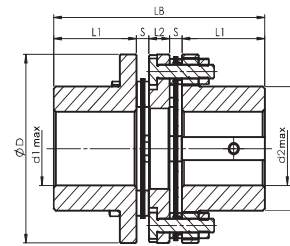


laminae with 6 holes

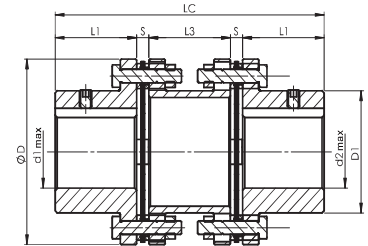
Assemble and laminae pin types



Single laminae



Double laminae



Double laminae with spacer long

Size	Rated torque (N.m)	d1/d2 max	ΦD	D1	S	L1	L2	L3	LA	LB
CSFR-56	30	20	56	32	5	20	7	-	45	57
CSFR-68	55	25	68	40	6	25	8	-	56	70
CSFR-82	120	38	82	54	6	40	10	-	86	102
CSFR-94	200	42	94	58	8	45	12	-	98	118
CSFR-104	300	50	104	68	10	45	12	-	100	122
CSFR-126	400	55	126	78	11	55	12	-	121	144
CSFR-138	800	65	138	88	11	55	12	38	121	144
CSFR-156	1000	75	156	102	11	65	14	48	141	166
CSFR-177	1500	85	177	117	14	75	14	55	164	192
CSFR-191	2000	90	191	123	15	80	20	56	175	210
CSFR-207	4000	100	207	132	15	80	23	61	175	213

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CSFR	D	D94	L118	d30k	d30k	OM
	Flexible couplings (Reamer bolt)	Single laminae	Outside diameter	Length	Finish bore (with keyway)	Finish bore (with keyway)	hub type

◆ Product features

- ✓ Torsionally rigid, Backlash-free, high accuracy;
- ✓ Special stainless steel laminae, High strength, long service life;
- ✓ Simple installation, Firmly connected, High temperature resistance, Maintenance-free;
- ✓ Specially designed for servo and stepper motors, Widely used in machine tools and automation fields;
- ✓ The hubs are made of high-quality alloy steel, Special processing and assembly processes, Ensure its high concentricity.

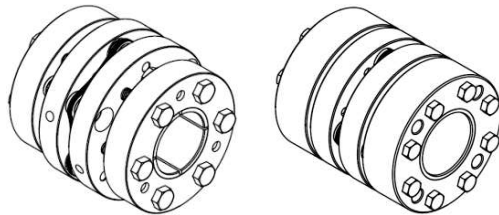


Model Description

CSFT	-	S	-	D□	-	L□	-	d□	-	d□
C Couplings		Single diaphragm		Outside Diameter		Length		d Finish bore		d Finish bore
S Servo flex										
F Ferruginous										
T Taper pin										

T: Taper pin S: Single-laminae D: Outside Diameter DO: Clamping ring hub
P: Pin D: Double-laminae L: Length
O: Other

Types of hubs DO: Clamping ring hub



CSFT Flexible couplings summary

Torsionally rigid : Can accurately control the rotation of the shaft;

Backlash-free : The diaphragm has high strength and Backlash-free, Suitable for high-precision positioning and detection conditions;

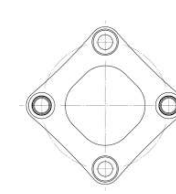
High strength : The hubs are made of high-quality alloy steel, Special processing and assembly processes, Ensure its high concentricity;

Temperature resistance : Stainless steel laminae and metal shaft sleeve enable CSF Flexible couplings to withstand high temperatures of 200°C and resist corrosion;

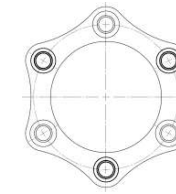
Compensating for misalignment: Twisted rigid membranes can provide both axial, angular, and radial Compensating capabilities, with double laminae for stronger Compensating for misalignment;

Surface Treatment : Stainless steel laminae have strong stability, are not easily oxidized, and have corrosion resistance characteristics, Metal shaft sleeves are usually treated with blackening on the surface.

The laminae types

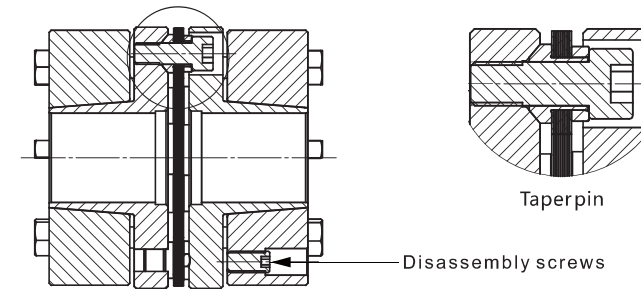


laminae with 4 holes



laminae with 6 holes

The laminae pin types



Assembly/disassembly of clamping ring hubs

Tightening torques of clamping screws						
Screws size	M5	M6	M8	M10	M12	M16
Tightening torque(Nm)	8.5	14	35	69	120	295

Assembly

△ Before assembly the hub bores and shafts have to be cleaned, Prohibition of oil pollution, Oils and greases containing molybdenum disulfide or other high-pressure additives as internal lubricants must not be used.

The same applies for the taper surfaces of clamping ring hub and clamping ring.

After cleaning the taper surfaces of the inner and outer expansion sleeves, lubricants such as molybdenum disulfide can be applied;

Tighten the clamping screws evenly crosswise first with 1/3 and afterwards 2/3 of the full tightening torque. Afterwards tighten the clamping screws crosswise at the full tightening torque. The process needs to be repeated until the tightening torque had been achieved with all screws.

△ Having started up the coupling the tightening torques of the screws have to be inspected during the usual maintenance intervals.

Disassembly:

△ Driving components falling down may cause injury to persons or damage on the machine. Secure the driving components before disassembly.

Unscrew the clamping screws evenly one after another. During each rotation every screw may only be unscrewed by half a revolution. Unscrew all clamping screws by 3-4 pitches.

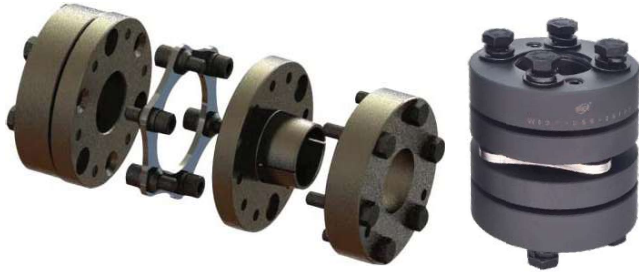
Remove the screws located next to the extraction threads and screw them into the intended extraction threads until they fit.

The clamping ring is released by tightening the screws in the extraction threads evenly gradually and crosswise.

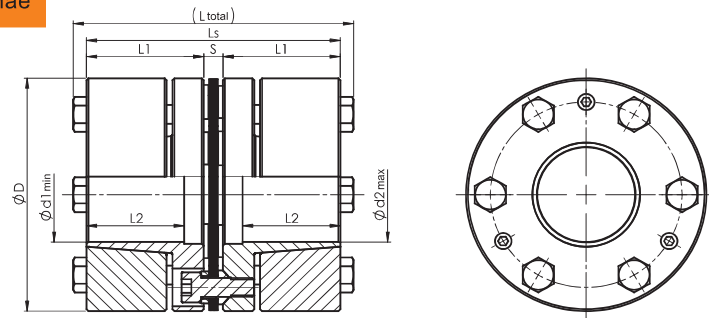
If these hints are not observed, the operation of the clamping ring hub may be affected.

If you have any needs, please feel free to inquire and negotiate.

Clamping type-DO



Single laminae



Size	Φd _{min}	Φd _{max}	ΦD	L1	L2	Ls	Ltotal	S	M	Screw tightening torque(N.m)
CSFT-D46-S	10	20	46	24	18	52	59	4	M5	7
CSFT-D56-S	12	25	56	28	22	60	68	4	M6	14
CSFT-D70-S	15	35	70	36	28	77	85	5	M6	14
CSFT-D80-S	19	38	80	43	35	91	99	5	M6	14
CSFT-D88-S	24	45	88	43	35	94	105	8	M8	35
CSFT-D98-S	25	55	98	45	35	98	109	8	M8	35
CSFT-D104-S	28	60	104	46	35	102	113	10	M8	35
CSFT-D123-S	30	65	123	50	40	110	123	10	M10	65
CSFT-D138-S	35	70	138	55	45	120	133	10	M10	65

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CSFT	S	D123	L123	d35	d50	DO
	Flexible couplings (Fe hub, Taper pin)	Single laminae	Outside diameter	Length	Finish bore	Finish bore	hub type

Flexible couplings CSFT

Standard bore tolerance H7 (mm) , Friction torques [Nm] for hub type DO steel																							
Size	φ10	φ12	φ14	φ15	φ16	φ19	φ20	φ24	φ25	φ28	φ30	φ32	φ35	φ38	φ40	φ42	φ45	φ48	φ50	φ55	φ60	φ65	φ70
CSFT-D46-S	20	25	40	45	47	60	70																
CSFT-D56-S		32	45	55	60	80	85	90	100														
CSFT-D70-S				67	75	95	100	130	145	190	245	250	270										
CSFT-D80-S						100	118	145	160	260	300	320	350	400									
CSFT-D88-S								160	170	300	350	370	385	450	470	480	520						
CSFT-D98-S									190	350	400	420	440	490	525	540	600	700	720	750			
CSFT-D104-S										400	450	460	470	500	550	580	650	710	750	800	900		
CSFT-D123-S											500	510	520	550	580	600	700	750	800	900	1000	1200	
CSFT-D138-S													530	560	600	630	760	800	900	999	1050	1275	1350

★ The above table is the maximum frictional torque that can be transmitted by the Clamping ring type-DO and shaft(Nm), tolerance H7/h6.

★ From Φ55 tolerance G7/m6, The friction torque is reduced with bigger fitting tolerances; Before assembly the hub bores and shafts have to be cleaned, Prohibition of oil pollution. Otherwise, it will greatly affect the friction torque!

The above are the parameters under experimental conditions for reference;

Size	Rated torque (N.m)	Displacements compensate			Max. speed (rpm)	Mass moment of inertia(kg.m ²)	Static torsion spring stiffness (N.m/rad)	Laminae types	Weight (g)
		Radial (mm)	Angular (degree)	Axial (mm)					
CSFT-D46-S	35	0.02	1 °	0.5	10000	2.80x10 ⁻⁴	20000	4 holes	0.6
CSFT-D56-S	50	0.02	1 °	0.6	10000	6.90x10 ⁻⁴	40000	4 holes	1.0
CSFT-D70-S	100	0.02	1 °	0.6	10000	1.25x10 ⁻³	100000	4 holes	1.5
CSFT-D80-S	240	0.02	1 °	0.6	10000	2.90x10 ⁻³	200000	6 holes	2.2
CSFT-D88-S	310	0.02	1 °	0.6	8000	3.20x10 ⁻³	300000	6 holes	2.5
CSFT-D98-S	420	0.02	1 °	0.7	8000	6.80x10 ⁻³	400000	6 holes	3.5
CSFT-D104-S	500	0.02	1 °	0.7	6000	7.80x10 ⁻³	500000	6 holes	4.0
CSFT-D123-S	800	0.02	1 °	0.8	6000	2.10x10 ⁻²	1000000	6 holes	7.0
CSFT-D138-S	900	0.02	1 °	1	6000	2.45x10 ⁻²	1500000	6 holes	8.5

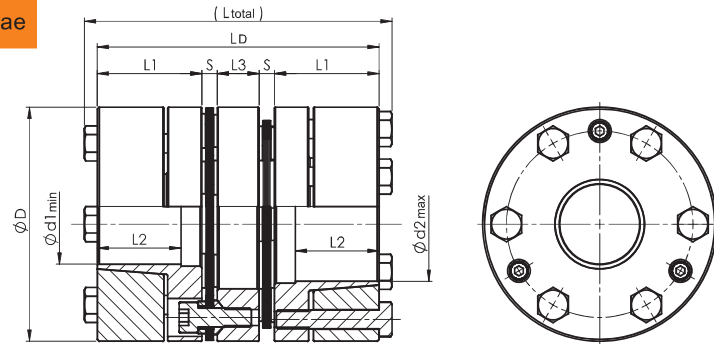
★ The allowable deviation values of the parameters listed in the above table are all standard values, provided that the couplings operate at rated torque, ambient temperature of 30 °C , and operating speed of 2000rpm, The displacement figures may only be used one by one, if they appear simultaneously, they must be limited in proportion.

★ The above are theoretical design parameters, if you need other size requirements, please feel free to inquire and negotiate.

Clamping type-DO



Double laminae



Size	Φd min	Φd max	ΦD	L1	L2	L3	Ld	Ltotal	S	M	Screw tightening torque(Nm)
CSFT-D46-D	10	20	46	24	18	8	64	71	4	M5	7
CSFT-D56-D	12	25	56	28	22	12	76	84	4	M6	14
CSFT-D70-D	15	35	70	36	28	14	96	104	5	M6	14
CSFT-D80-D	19	38	80	43	35	14	110	118	5	M6	14
CSFT-D88-D	24	45	88	43	35	14	116	127	8	M8	35
CSFT-D98-D	25	55	98	45	35	16	122	133	8	M8	35
CSFT-D104-D	28	60	104	46	35	16	128	139	10	M8	35
CSFT-D123-D	30	65	123	50	40	20	140	153	10	M10	65
CSFT-D138-D	35	70	138	55	45	22	152	165	10	M10	65

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	CSFT	D	D123	L153	d35	d50	DO
	Flexible couplings (Fe hub, Taper pin)	Double laminae	Outside diameter	Length	Finish bore	Finish bore	hub type

Flexible couplings CSFT

Standard bore tolerance H7 (mm) , Friction torques [Nm] for hub type DO steel																								
Size	φ10	φ12	φ14	φ15	φ16	φ19	φ20	φ24	φ25	φ28	φ30	φ32	φ35	φ38	φ40	φ42	φ45	φ48	φ50	φ55	φ60	φ65	φ70	
CSFT-D46-S	20	25	40	45	47	60	70																	
CSFT-D56-S		32	45	55	60	80	85	90	100															
CSFT-D70-S				67	75	95	100	130	145	190	245	250	270											
CSFT-D80-S						100	118	145	160	260	300	320	350	400										
CSFT-D88-S								160	170	300	350	370	385	450	470	480	520							
CSFT-D98-S									190	350	400	420	440	490	525	540	600	700	720	750				
CSFT-D104-S										400	450	460	470	500	550	580	650	710	750	800	900			
CSFT-D123-S											500	510	520	550	580	600	700	750	800	900	1000	1200		
CSFT-D138-S													530	560	600	630	760	800	900	999	1050	1275	1350	

★ The above table is the maximum frictional torque that can be transmitted by the Clamping ring type-DO and shaft(Nm), toleranceH7/h6.

★ From Φ55 tolerance G7/m6, The friction torque is reduced with bigger fitting tolerances; Before assembly the hub bores and shafts have to be cleaned, Prohibition of oil pollution. Otherwise, it will greatly affect the friction torque!

The above are the parameters under experimental conditions for reference;

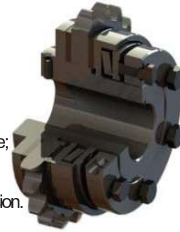
Size	Rated torque (N.m)	Displacements compensate			Max. speed (rpm)	Mass moment of inertia(kg.m ²)	Static torsion spring stiffness (N.m/rad)	Laminae types	Weight (g)
		Radial (mm)	Angular (degree)	Axial (mm)					
CSFT-D46-D	35	0.02	1 °	0.5	10000	2.81x10 ⁻⁴	10000	4 holes	0.7
CSFT-D56-D	50	0.02	1 °	0.6	10000	6.92x10 ⁻⁴	20000	4 holes	1.2
CSFT-D70-D	100	0.02	1 °	0.6	10000	1.27x10 ⁻³	50000	4 holes	1.8
CSFT-D80-D	240	0.02	1 °	0.6	10000	2.95x10 ⁻³	100000	6 holes	2.6
CSFT-D88-D	310	0.02	1 °	0.6	8000	3.25x10 ⁻³	150000	6 holes	3.0
CSFT-D98-D	420	0.02	1 °	0.7	8000	6.85x10 ⁻³	200000	6 holes	4.1
CSFT-D104-D	500	0.02	1 °	0.7	6000	7.85x10 ⁻³	250000	6 holes	4.7
CSFT-D123-D	800	0.02	1 °	0.8	6000	2.15x10 ⁻²	500000	6 holes	8.5
CSFT-D138-D	900	0.02	1 °	1	6000	2.50x10 ⁻²	750000	6 holes	10.5

★ The allowable deviation values of the parameters listed in the above table are all standard values, provided that the couplings operate at rated torque, ambient temperature of 30 °C , and operating speed of 2000rpm, The displacement figures may only be used one by one, if they appear simultaneously, they must be limited in proportion.

★ The above are theoretical design parameters, if you need other size requirements, please feel free to inquire and negotiate.

◆ Product features

- ✓ Pre adjustable torque at the factory or on site adjustable torque;
- ✓ Suitable for various drive connections, such as chain wheel connection and plum blossom couplings;
- ✓ Special friction plates with good wear resistance, Suitable for dry driving and has a long service life;
- ✓ All steel components, high strength, safe and reliable, surface phosphating treatment without maintenance;
- ✓ Using high-performance butterfly spring assembly with special friction plates, high power density;
- ✓ Multiple disc spring assembly methods can achieve small space transmission and large torque transmission.

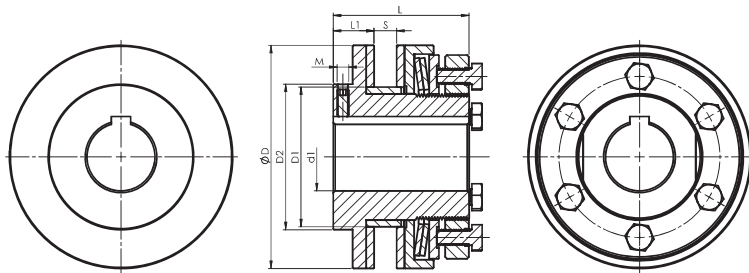


Model Description

TDF	-	2PF	-	D□	-	L□	-	□N	-	d□□	
T	Torque limiters	Double disc spring		Outside Diameter		Length		N	Set torque	d	Finish bore
D	Disc spring									k	with keyway
F	Friction type										
□	Other										

V: V-groove 1PF: Single disc spring D: Outside Diameter N: Torque setting value
 B: Ball type 2PF: Double disc spring L: Length
 O: Other 3PF: Three disc spring

Types of hubs OM: setscrew keyway



TDF Series: Torque Limiters-Friction type summary

Attribute: Friction type has the characteristic of torque maintenance, high power density, moderate cost, and strong universality;

Application: Low speed transmission, can be applied to chain wheel, synchronous belt wheel, conveying machinery, rotating feeding equipment, etc;

Surface treatment: All steel metal shaft sleeves and other components are treated with phosphating and blackening on the surface to effectively resist oxidation;

To ensure the normal use of the torque limiter, the set torque usually needs to exceed 30% of the maximum slip torque; Frequent or continuous overload slip can exacerbate the wear of the torque limiter, so it is strongly recommended to equip the torque limiter with a trigger switch or sensor, so that in case of overload slip, the driving power can be immediately disconnected;

If you have any needs, please feel free to inquire and negotiate.

Disc spring layerings



1PF:

Small specific load on friction linings
 For small to average torques
 Long service life of friction linings



2PF:

Average specific load on friction linings
 Average wear and decrease of torque with longer slipping periods
 Double torque due to double disc spring layering

Combination Style



Technical Parameter												
Size	Reference speed (rpm)	Torque Range (N.m)			d1 max	ΦD	D1	D2	L	L1	S	M
		1PF	2PF	3PF								
TDF-30	10000	1-3	1-5	-	10	30	21	-	31	8.5	2-6	M4
TDF-45	8500	2-10	4-20	-	20	45	35	45	33	8.5	2-6	M4
TDF-58	6500	5-30	10-60	-	22	58	40	40	45	16	3-8	M5
TDF-68	5500	20-70	40-140	120-180	25	68	44	45	52	17	3-10	M5
TDF-88	4200	25-130	50-260	250-350	35	88	58	58	57	19	4-12	M6
TDF-115	3000	50-270	100-540	500-680	45	115	72	75	68	21	5-15	M6
TDF-140	2500	90-500	180-1000	1000-1400	55	140	85	90	78	23	6-18	M8
TDF-170	2000	300-700	600-1400	1200-1800	65	170	98	102	92	29	8-20	M8
TDF-200	1500	350-1000	700-2000	-	75	198	116	120	102	31	8-23	M8

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	TDF	2PT	D68	L52	70N	d20k	OM
	Torque Limiters Friction type	Disk spring layerings	Outside diameter	Length	Set torque	Finish bore (with keyway)	hub type

◆ Product features

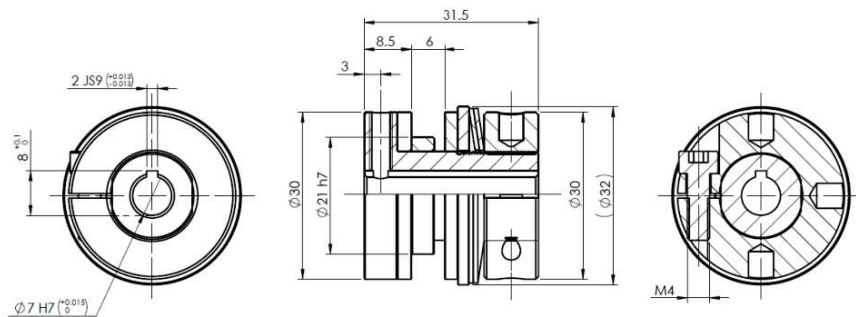
- ✓ Pre adjustable torque at the factory or on site adjustable torque;
- ✓ Suitable for various drive connections, such as chain wheel connection and plum blossom couplings;
- ✓ Special friction plates with good wear resistance, Suitable for dry driving and has a long service life;
- ✓ All steel components, high strength, safe and reliable, surface phosphating treatment without maintenance;
- ✓ Using high-performance butterfly spring assembly with special friction plates, high power density;
- ✓ Multiple disc spring assembly methods can achieve small space transmission and large torque transmission.

Model Description

TDF	-	2PF	-	D□	-	L□	-	□N	-	d□□
T Torque limiters		Double disc spring		Outside Diameter		Length		N Set torque		d Finish bore
D Disc spring										k with keyway
F Friction type										
□ Other										

V: V-groove 1PF: Single disc spring D: Outside Diameter N: Torque setting value
 B: Ball type 2PF: Double disc spring L: Length
 O: Other 3PF: Three disc spring

Types of hubs OM: setscrew keyway



★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	TDF	2PT	D30	L31.5	3N	d7k	OM
	Torque Limiters Friction type	Disk spring layerings	Outside diameter	Length	Set torque	Finish bore (with keyway)	hub type

Disc spring layerings



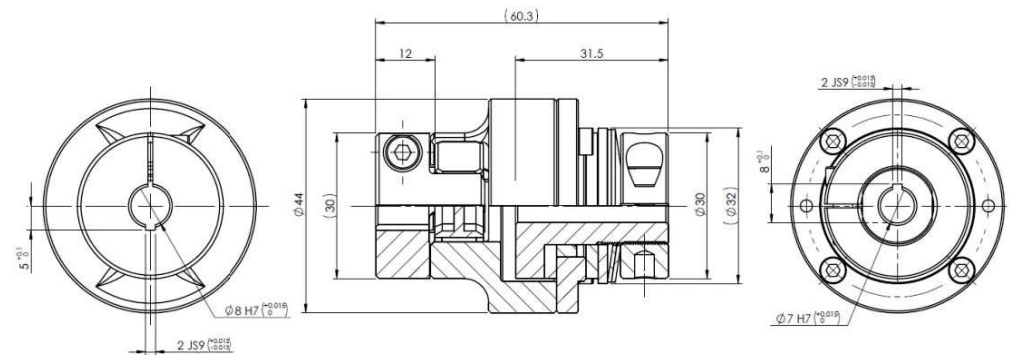
High specific load on friction linings
 High wear and decrease of torque with longer slipping periods
 Suitable only in special cases for designs with only limited dimensions

3PF:

Combination Style



To ensure the normal use of the torque limiter, the set torque usually needs to exceed 30% of the maximum slip torque;
 Frequent or continuous overload slip can exacerbate the wear of the torque limiter, so it is strongly recommended to equip the torque limiter with a trigger switch or sensor, so that in case of overload slip, the driving power can be immediately disconnected;
 If you have any needs, please feel free to inquire and negotiate



★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	TDF+CF	R	D44	L60	3N	d8k	OC
	Torque limiters +Couplings	Red 97 SH-A	Outside diameter	Length	Set torque	Finish bore (with keyway)	hub type

Torque Limiters-Ball type TVB

WNET · Drive System

◆ Product features

- ✓ Adjustable torque: pre adjustable torque at the factory or on site adjustable torque;
- ✓ Reset angle: Equal spacing reset or 90 degrees, 120 degrees, 180 degrees, 360 degrees;
- ✓ Suitable for various driving components, such as synchronous belt wheel connections and plum blossom couplings;
- ✓ The torque maintaining structure has good oil resistance and is more durable under the protection of oil film;
- ✓ All steel components, high strength, safe and reliable, surface phosphating treatment without maintenance;
- ✓ By using high-performance butterfly spring groups in conjunction with torque structures, larger torque can be set.

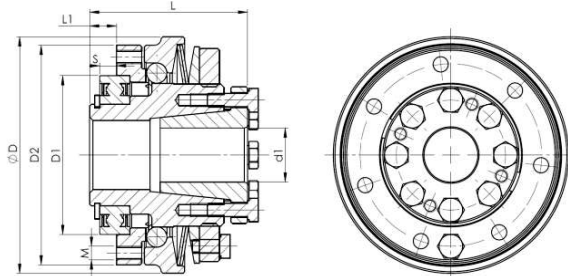


型号说明

TVB	-	2PF	-	D	-	L	-	N	-	d	
T	Torque limiters	Double disc spring		Outside Diameter		Length		N	Set torque	d	Finish bore
V	V-groove									k	with keyway
B	Ball type										
	Other										

V: V-groove 1PF: Single disc spring D: Outside Diameter N: Torque setting value
 B: Ball type 2PF: Double disc spring L: Length
 O: Other 3PF: Three disc spring

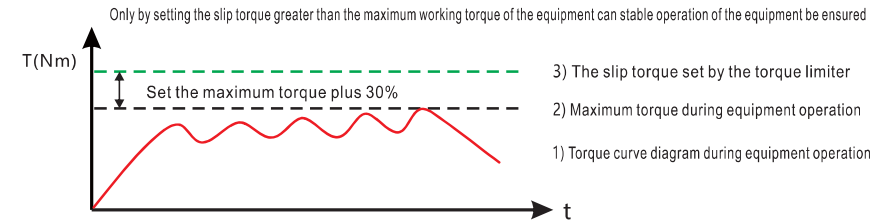
Types of hubs DO: Clamping ring hub



TVB Series: Torque Limiters-Ball type summary

Attribute: The characteristic of steel ball type ensures accurate repeatability of the set torque even after long-term use and multiple slippage;
Application: Good oil resistance, can be applied to chain wheel, synchronous belt wheel, conveying machinery, rotating feeding equipment..
Surface treatment: All steel metal shaft sleeves and other components are treated with phosphating and blackening on the surface to effectively resist oxidation;
 To ensure the normal use of the torque limiter, the set torque usually needs to exceed 30% of the maximum slip torque;
 Frequent or continuous overload slipping can affect the durability of the torque limiter, so it is strongly recommended to equip the torque limiter with a trigger switch or sensor, so that in case of overload slip, the driving power can be immediately disconnected;
 If you have any needs, please feel free to inquire and negotiate

Torque setting of torque limiter



Combination Style



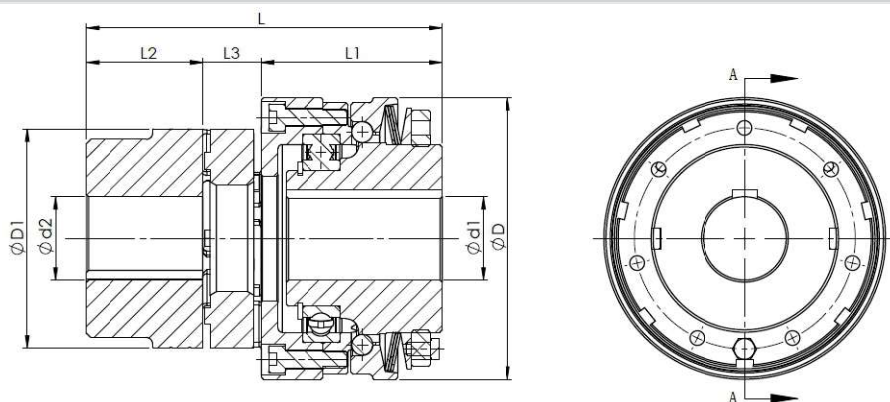
Technical Parameter												
Size	Reference speed (rpm)	Torque Range (N.m)			d1 max	ΦD	D1	D2	L	L1	S	M
		1PF	2PF	3FP								
TVB-70	4000	3-12	6-24	12-50	20	70	47	65	40	8	5	M4
TVB-85	3000	7-30	14-60	40-120	25	85	62	80	48	11	7	M5
TVB-100	2500	17-60	35-120	75-230	30	100	75	95	59	14	9	M6
TVB-115	2000	30-100	70-200	150-380	40	115	90	110	64	16	10	M6
TVB-135	1200	70-180	140-360	270-700	50	135	100	130	75	18	10	M8
TVB-196	400	140-320	300-540	400-1500	55	196	125	185	110	7	-	M10

Torque Limiters-Ball type TVB

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	TVB	2PT	D100	L59	70N	d30	DO
	Torque Limiters Ball type	Disk spring layerings	Outside diameter	Length	Set torque	Finish bore	hub type

Clamping type-OM

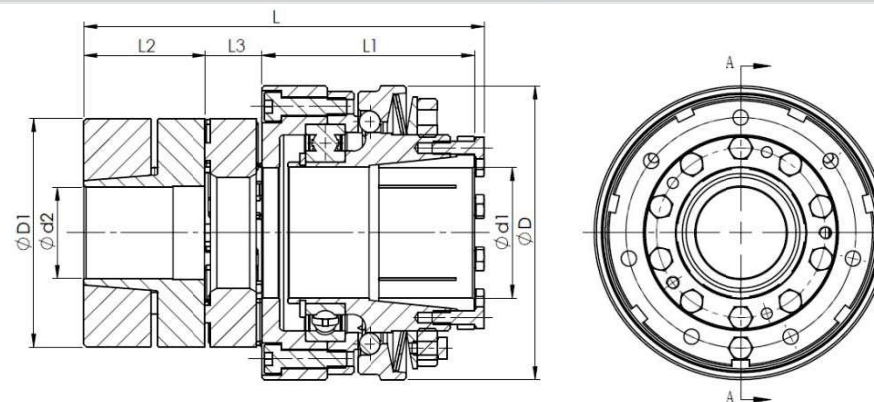
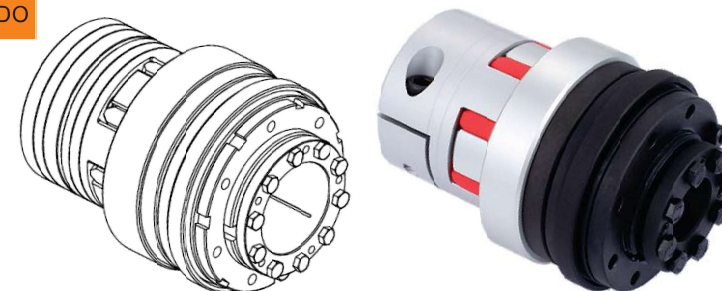


Technical Parameter											
Size	Reference speed (rpm)	Torque Range (N.m)			d1 max	ΦD	D1	L	L1	L2	L3
		1PF	2PF	3FP							
TVB-70	4000	3-12	6-24	12-50	20	70	55	95	47	30	18
TVB-85	3000	7-30	14-60	40-120	25	85	65	112	57	35	20
TVB-100	2500	17-60	35-120	75-230	30	100	80	138	69	45	24
TVB-115	2000	30-100	70-200	150-380	40	115	95	150	74	50	26
TVB-135	1200	70-180	140-360	270-700	50	135	105	171	87	56	28
TVB-196	400	140-320	300-540	400-1500	55	196	135	265	155	75	35

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	TVB+CF	R	D100	L138	70N	d25k	OM
	Torque Limiters Ball type	Red 97 SH-A	Outside diameter	Length	Set torque	Finish bore (with keyway)	hub type

Clamping type-DO



Technical Parameter											
Size	Reference speed (rpm)	Torque Range (N.m)			d1 max	ΦD	D1	L	L1	L2	L3
		1PF	2PF	3FP							
TVB-70	4000	3-12	6-24	12-50	20	70	55	102	47	30	18
TVB-85	3000	7-30	14-60	40-120	25	85	65	120	55	35	20
TVB-100	2500	17-60	35-120	75-230	30	100	80	146	67	45	24
TVB-115	2000	30-100	70-200	150-380	40	115	95	159	73	50	26
TVB-135	1200	70-180	140-360	270-700	50	135	105	182	87	56	28
TVB-196	400	140-320	300-540	400-1500	55	196	135	283	173	75	35

★ The above are standard sizes. If you need other size requirements, please feel free to inquire and negotiate.

Ordering example:	TVB+CF	R	D100	L146	70N	d25	DO
	Torque Limiters Ball type	Red 97 SH-A	Outside diameter	Length	Set torque	Finish bore	hub type

◆ Common servo motor parameter table

Serial Number	Rated power (KW)	Diameter of axle (mm)	Rated torque(N.m) (At rated speed of 3000)	Rated torque(N.m) (At rated speed of 2000)	Rated torque(N.m) (At rated speed of 1000)
01	0.05	8	0.16	0.24	0.48
02	0.10	8	0.32	0.48	0.95
03	0.20	14	0.64	0.96	1.91
04	0.40	14	1.27	1.91	3.82
05	0.75	19-22	2.39	3.58	7.16
06	1.00	24	3.18	4.75	9.55
07	1.50	24/28	4.78	7.16	14.30
08	2.00	24/35	6.37	9.55	19.1
09	3.00	35	9.55	14.33	28.65
10	3.50	28/35	11.14	16.71	33.43
11	5.00	28/35	15.92	23.88	47.75
12	7.00	35	22.28	33.43	66.85

★The above represents the rated torque of a general servo motor at its rated speed, for reference only; Each brand has certain differences based on their own products. When selecting, please refer to the manufacturer's product catalog to determine the specifications of the couplings;

◆ General motor parameter table

Serial Number	Rated power (KW)	Frequency (Hz)	Motor power n=3000 rpm 2 poles		Motor power n=1500 rpm 4 poles		Motor power n=1000 rpm 6 poles	
			Diameter of axle (mm)	Torque [Nm]	Diameter of axle (mm)	Torque [Nm]	Diameter of axle (mm)	Torque [Nm]
01	0.1	50	-	-	11	0.7	-	-
02	0.2	50	11	0.7	11	1.3	-	-
03	0.4	50	14	1.3	14	2.6	19	3.9
04	0.75	50	19	2.4	19	4.9	24	7.3
05	1.5	50	24	4.9	24	9.7	28	15
06	2.2	50	24	7.1	28	14	28	21
07	3.7	50	28	12	28	24	38	36
08	5.5	50	38	18	38	36	38	54
09	7.5	50	38	24	38	49	42	72
10	11	50	42	36	42	71	42	108
11	15	50	42	49	42	97	-	-
12	18.5	50	42	65	-	-	-	-

★ The motor speed and output torque are calculated as reference values. When selecting, please refer to the manufacturer's product catalog to determine the specifications of the couplings.

Thank you sincerely for choosing our transmission products. We are willing to provide you with the highest quality service. This product manual can provide you with a reference to choose the right product for you. Product updates are subject to no prior notice; The updated content will be added to the new version of this manual, and the latest version of the product manual can be downloaded from the company's website. In addition, there may be printing errors in this product manual, We sincerely hope that you can provide feedback to us, and we will make corrections in new versions.

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