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Precise power transmission of non-aligned elements



Features at a glance

- With GC cardan joints in combination with AT telescopic shafts, it is possible to transmit torque and movement easily and precisely from two shaft ends at a distance.
- High reliability, maintenance-free, extremely precise, and easy-of-use.
- Maximum working angle: 45°
- Suitable for intermittent (UI) and continuous (UC) operation.
- Telescopic shaft and cardan joint made entirely of solid stainless steel (AISI 303).
- Sliding bushes made of self-lubricating plastic material or smooth-running (LG) for improved working efficiency (optional).
- Available bores: $\varnothing 6$ - $\varnothing 8$ (combinable with each other); $\varnothing 10$ - $\varnothing 14$ (combinable with each other).
- Universally applicable and ideal for retrofitting existing installations.

Technical characteristics

Dimensions	Length	35 mm (bore diameter: $\varnothing 6$ mm – $\varnothing 8$ mm) 52 mm (bore diameter: $\varnothing 10$ mm – $\varnothing 14$ mm)
Mounting	Telescopic shaft	$\varnothing 6$ - $\varnothing 8$ (combinable with each other) with keyway $\varnothing 10$ - $\varnothing 14$ (combinable with each other) with keyway
Working angle		max. 45°
Material		Stainless steel (AISI 303), sliding bushes made of plastic material
Operating mode ²⁾		Intermittent movements (UI) Continuous movements (UC)



Our GC cardan joints are available in combination with AT08 telescopic shafts, to transmit movements of non-aligned elements and to compensate misalignments.

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Dimensions

i For a proper selection of the GC cardan joints, please refer to the following tables of technical characteristics, efficiencies, as well as the corresponding versions with dimensions.

Dimensions GC_									
			Version	A	B	C	D	E	F
			GC06	ø06	ø16	35	M4	2	7
GC08	ø08	ø16	35	M4	2	9			
GC10	ø10	ø24	52	M5	3	11,4			
GC14	ø14	ø24	52	M5	5	16,2			

All dimensions in mm

Efficiency GC_								
90%			80%			65%		
Continuous Use (UC)						Angle (°)	Coefficient (C)	
Version	RPM						0	1.25
	100	200	400	600	800	1000	5	1.25
GC06	7	6	5	3.5	2.5	1.5	10	1
GC08	7	6	5	3.5	2.5	1.5	20	0.8
GC10	14	12	10	7.5	6	4	30	0.45
GC14	14	12	10	7.5	6	4	40	0.3
						45	0.25	
The values are given in Nm %, with a working angle of 10°. In case of intermittent use (UI), it is possible to increase the torque values by 30% for this period.						For a working angle different from 10°, the torque must be modified according to the coefficient (C) compared to the angle variation.		

Mounting Telescopic Shaft				
		Version	Diameter 1	Diameter 2
		GC06	ø06	ø06
GC08	ø06	ø08		
	ø08	ø08		
GC10	ø10	ø10		
	ø10	ø14		
GC14	ø14	ø10		
	ø14	ø14		

Mounting telescopic shaft with keyway: Bore diameter in mm, available combinations (standard).

i Telescopic shaft or gearbox mounting: square, hexagonal (optional, on request).

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Combinable devices

Cardan joints GC_ series



Combination of two cardan joints with telescopic shaft.

In combination with a telescopic shaft it is possible to transmit torque and movement easily and precisely from two shaft ends at a distance. Due to the telescopic length adjustment, the shaft misalignment can be compensated, and the rotary movements can be transmitted without backlash.

Angular gearbox 66/_ series



Grouping of two angular gearboxes / coupling via telescopic shaft with cardan joints.

The angular gearboxes of the 66/_ series are bevel gearboxes or optionally spiral bevel gearboxes which have a 90° deflection of the torque or rotary movement in one or more directions.

Worm gear screw jack MAR_ series



Grouping of two worm gear screw jacks / coupling via telescopic shaft with cardan joints.

Worm gear screw jacks allow the conversion of revolutions into a linear adjustment: in tension and/or compression. For height regulation, format adjustment in automatic machines or lifting and lowering of loads.

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Areas of application

GC cardan joints in combination with AT telescopic shafts, are used in a wide range of industries and systems, ideal for retrofitting existing installations:

- remote operation of elements
- filling and packaging machines
- palletizers
- sliding doors and closures
- textile machines
- connection of lifting jacks
- printing machines
- machine tools
- food processing machines
- automotive systems (remote opening of valves, seat adjustment, window mechanism operation)
- paper machines
- automatic assembly machines
- linear multi-axis systems

Ordering example

Type	GC08	-	F08-F06	-	LG
Version					
GC06					
GC08					
GC10					
GC14					
Bore diameter ¹⁾ (mm)					
F06-F06	= GC06	-	ø06	-	ø06
F06-F08	= GC06	-	ø06	-	ø08
F08-F06	= GC08	-	ø08	-	ø06
F08-F08	= GC08	-	ø08	-	ø08
F10-F10	= GC10	-	ø10	-	ø10
F10-F14	= GC10	-	ø10	-	ø14
F14-F10	= GC14	-	ø14	-	ø10
F14-F14	= GC14	-	ø14	-	ø14
Bearing					
	= sliding bushes made of plastic material (standard)				
LG	= sliding bushes smooth-running (optional)				

¹⁾ Version - Diameter 1 – Diameter 2 (see table **Mounting Telescopic Shaft**).



Other versions that cannot be generated from the order code are available on request as special versions.

Our GC cardan joints are available in combination with AT08 telescopic shafts. Please order AT08 telescopic shaft separately. For more information on our AT08 telescopic shafts, please refer to the corresponding data sheet.

Manufacturer: **FIAMA**
since 1913

The manufacturer reserves the right to make changes to the products that it deems necessary for their improvement without prior notice.