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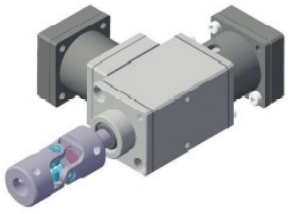
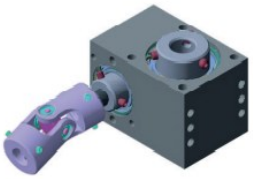
Features at a glance

- With GCC cardan joints in combination with telescopic shafts, it is possible to transmit torque and movement easily and precisely from two shaft ends at high speeds over 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).
- Motion on ball bearings (It is recommended to periodically check the lubrication, the interval of which depends on various factors: rotation speed, working environment, temperature).
- Available bores: **Ø14 – Ø16 – Ø20** mm (combinable with each other).
- Universally applicable and ideal for retrofitting existing installations.

Our GCC cardan joints are available in combination with **ATS** splined telescopic shafts, to transmit movements of non-aligned elements and to compensate misalignments.

Application examples

The GCC cardan joints are ideal to transmit movements of non-aligned elements and to compensate an offset between the axes.

GCC cardan joints in combination with telescopic shafts		
		
GCC cardan joints in combination with angular gearboxes, gear-reducers, screw jacks		
		

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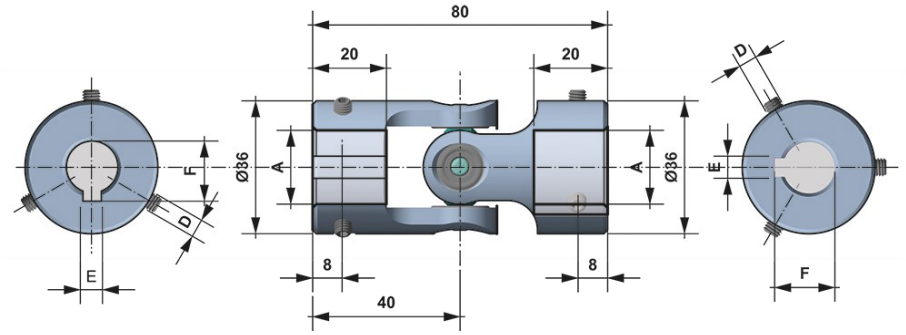
Dimensions

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

GCC dimensions



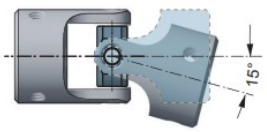
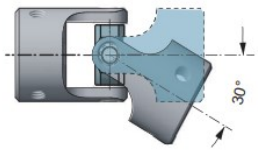
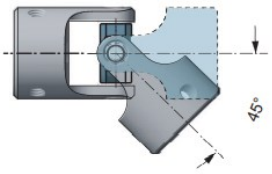
All dimensions in mm

Version	A	D	E	F
GCC14	∅14	M5	5	16,2
GCC16	∅16	M5	5	18,3
GCC20	∅20	M5	6	22,8

Bores: **∅14 – ∅16 – ∅20** (combinable with each other).

Efficiency table

GCC efficiency

90%	**80%**	**65%**
		

Speed/Torque						**Working angle**	
GCC14 – GCC16 – GCC20						**Angel (°)**	**Coefficient (C)**
min^{-1}	**Nm**	**min^{-1}**	**Nm**	**min^{-1}**	**Nm**	0	1.25
2000	7	2000	20	2000	40	5	1.25
						10	1
						20	0.8
						30	0.45
						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.	

Parameters: Torque (Nm), rotation speed (m^{-1}) and inclination angel (°)

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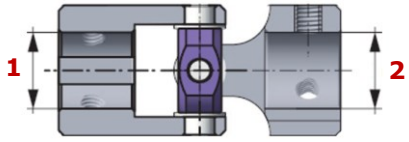
Mounting telescopic shaft			
	**Version**	**Diameter 1**	**Diameter 2**
	GCC14	∅14	∅14
		∅14	∅16
		∅14	∅20
	GCC16	∅16	∅14
		∅16	∅16
		∅16	∅20
	GCC20	∅20	∅14
		∅20	∅16
		∅20	∅20

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

Ordering example

Type	**GCC16**	**–**	**F16–F20**

Version
GCC14
GCC16
GCC20

Bore diameter[1)] (mm)

F14–F14	= GCC14 – ∅14 – ∅14
F14–F16	= GCC14 – ∅14 – ∅16
F14–F20	= GCC14 – ∅14 – ∅20
F16–F14	= GCC16 – ∅16 – ∅14
F16–F16	= GCC16 – ∅16 – ∅16
F16–F20	= GCC16 – ∅16 – ∅20
F14–F14	= GCC20 – ∅20 – ∅14
F14–F14	= GCC20 – ∅20 – ∅16
F14–F14	= GCC20 – ∅20 – ∅20

[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 GCC cardan joints are available in combination with ATS splined telescopic shafts. Please order ATS splined telescopic shaft separately. For more information on our ATS splined 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.

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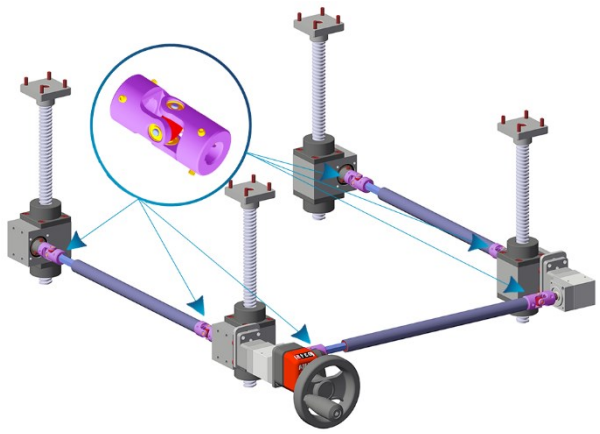
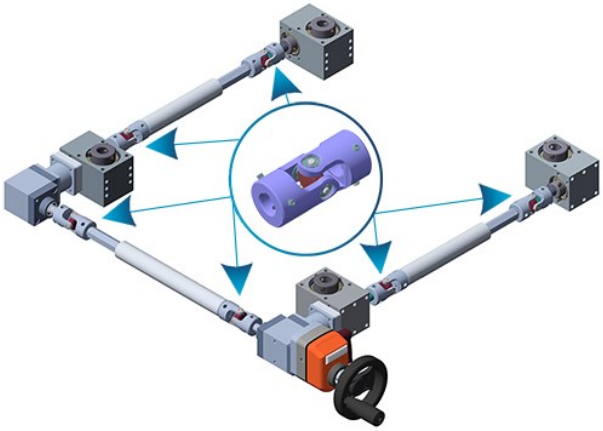
Areas of application

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

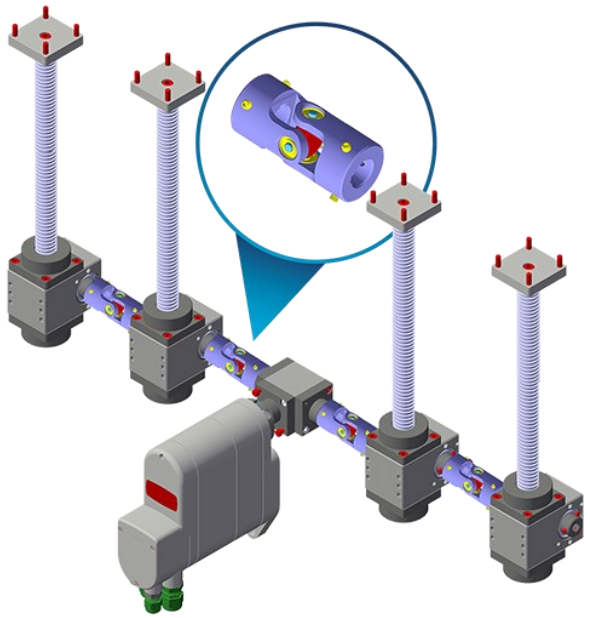
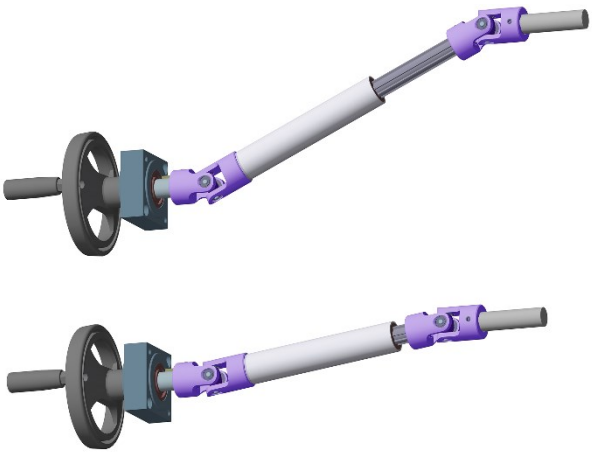
- remote operation of elements
- filling and packaging machines
- palletizers
- sliding doors and closures
- textile machines
- connection of lifting jacks
- printing machines
- machine tools
- food processing machines
- automotive systems (remote opening of valves, seat adjustment, window mechanism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

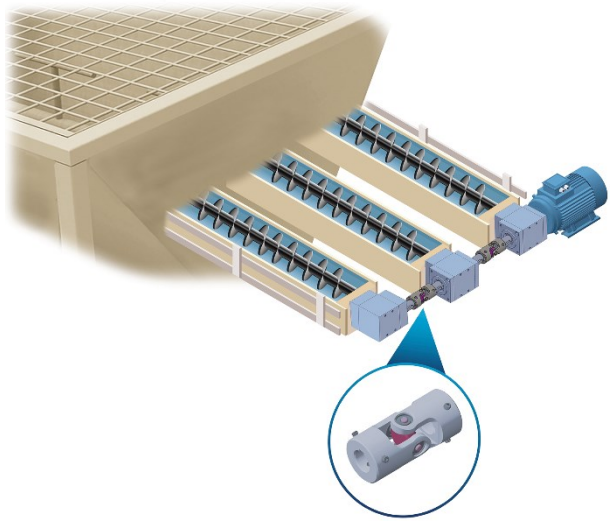
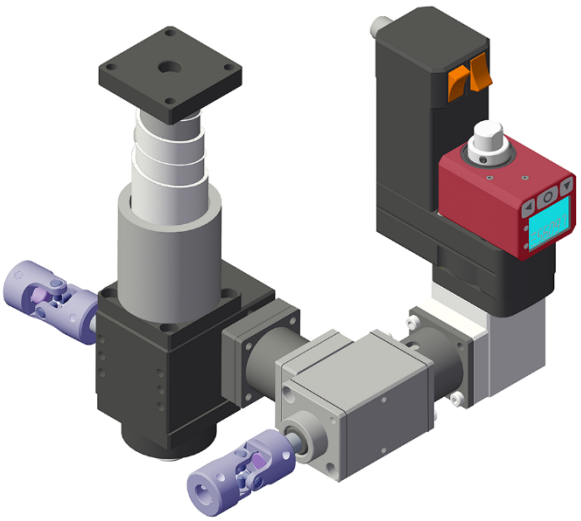
Combinable devices

Flexible application possibilities with various position indicators, angular gearboxes, gear-reducers, screw jacks, coupled via telescopic shaft.

GCC combinable devices	
	
GCC_ cardan joints coupled via **ATS_** telescopic shafts in combination with **OP_** mechanic digital spindle position indicator, **P_** hand wheel for manual adjustment, series **66/_** angular gearboxes, **MAR_** gear-screw jacks, lifting and actuation system	**GCC_** cardan joints coupled via **ATS_** telescopic shafts in combination with **OP_** mechanic digital spindle position indicator, **P_** hand wheel for manual adjustment, series **66/_** angular gearboxes, **MAR_** gear-screw jacks, lifting and actuation system, **RDE_** planetary gear-reducers

Datasheet

GCC combinable devices	
	
GCC_ cardan joints in combination with **SERVO.M** Elektronischem Stellantrieb, series **66/_** angular gearboxes, **MAR_** gear-screw jacks, lifting and actuation system	**GCC_** cardan joints coupled via **ATS_** telescopic shafts in combination with **P_** hand wheel for manual adjustment

GCC combinable devices	
	
GCC_ cardan joints in combination with series **66/_** angular gearboxes and electric motor, for precise power transmission of screw conveyors	**GCC_** cardan joints in combination with **SERVO.OP** Elektronischer Stellantrieb, **EP4_** programmable electronic-digital spindle position indicator, **MAR_** gear-screw jacks, lifting and actuation system and series **66/_** angular gearboxes

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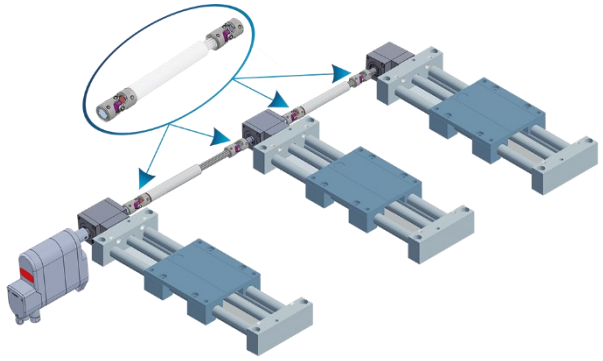
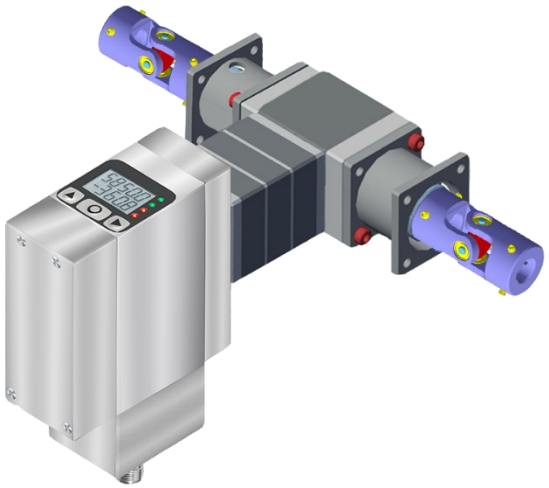
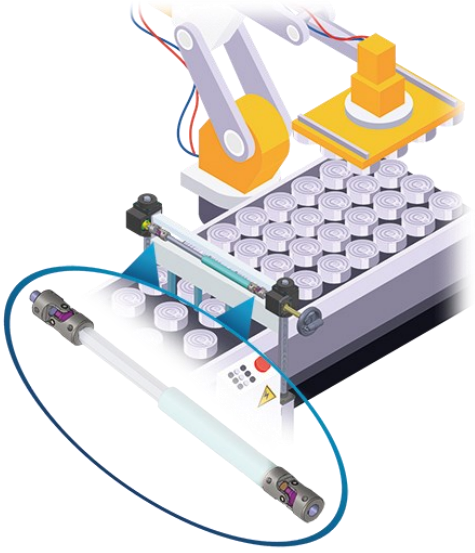
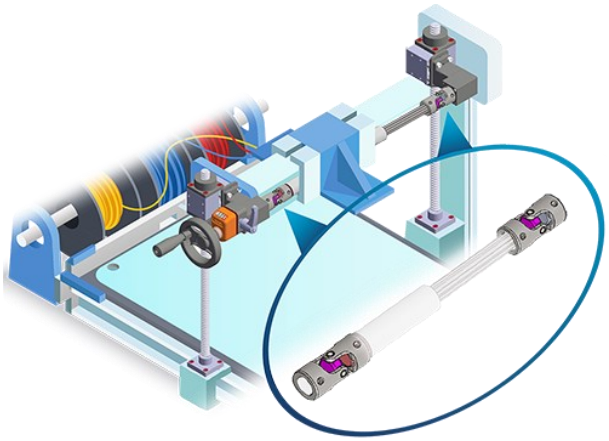
GCC combinable devices	
	
System for linear adjustment: **GCC_** cardan joints coupled via **ATS_** telescopic shafts in combination with **SERVO.M** electronic rotary actuator with position indicator and series **66/_** angular gearboxes	**GC_** cardan joints in combination with **RDE_** planetary gear-reducers and **SERVO.ALL** drive and position control system

GCC combinable devices	
	
Conveyor system for aluminium cans in the food industry: **GCC_** cardan joints coupled via **ATS_** telescopic shafts in combination with **MAR_** gear-screw jacks and **P_** hand wheel for manual adjustment	System for cutting meter goods to length: **GCC_** cardan joints coupled via **ATS_** telescopic shafts in combination with **OP_** mechanic digital spindle position indicator, **FKE_** shaft clamping flange, **P_** hand wheel for manual adjustment, **MAR_** gear-screw jacks, lifting and actuation system and series **66/_** angular gearboxes

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