

Magnetic transmission gear / coupling



Summary:

Magnetic transmission gears are non-contact power transmission mechanisms making use of the attraction and repulsion properties of the magnets.

Generally, they are of two types:



<u>CT Series (Cross Type)</u>: The CT series features a cross-type transmission. The outer magnetic poles of the CT series gear/coupling are inclined, ensuring that the gears maintain a perpendicular transmission orientation at all times.

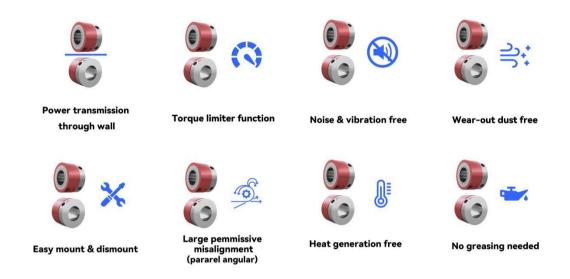
<u>PT Series (Parallel Type)</u>: The PT series offers a parallel transmission. Due to the parallel arrangement of the outer magnetic poles of the PT series gear/coupling, they



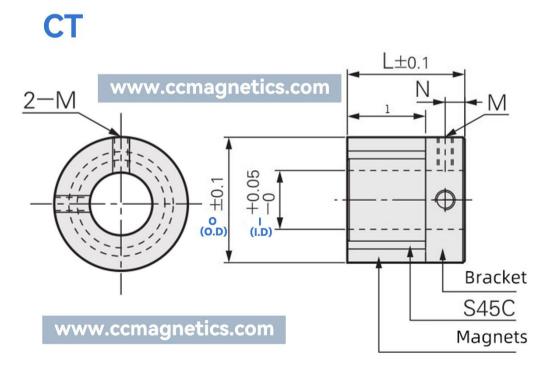
maintain a parallel transmission orientation throughout operation.

As an original equipment manufacturer (OEM), CCmagnetics offers the world's most comprehensive range of magnetic transmission gears, with the most flexible customization options and the fastest delivery times. Our goal is to earn customer recognition through exceptional product value.

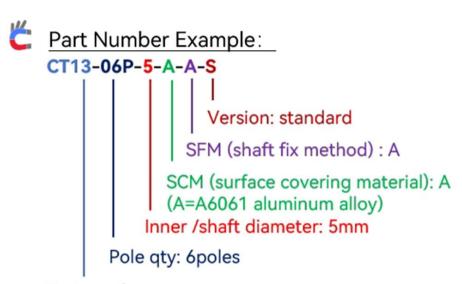
Features:



Cross type drawing & parameters (unit: mm)







Part number

PN	Pole	(I)	SCM	SFM	Conf.	Tq	(O)	L	1	N	М
	Qty	I.D					O.D				
CT13	6P	4~6	A/S	Α	S	0.012N.m	13	15	10	2.5	М3
CT16	8P	5~8	A/S	Α	S	0.025N.m	16	13	8	2.5	М3
CT16	12P	5~8	A/S	Α	S	0.015N.m	16	13	8	2.5	М3
CT18	8P	6~8	A/S	Α	S	0.05N.m	18	15	10	2.5	М3
CT21	6P	6~12	A/S	C/A	S	0.13N.m	21	21	15	3	M4
CT21	8P	6~12	A/S	C/A	S	0.11N.m	21	21	15	3	M4
CT21	16P	6~12	A/S	C/A	S	0.07N.m	21	21	15	3	M4
CT22	8P	8~12	L/T	Α	S	0.09N.m	22	22	16	-	M4
CT22	18P	6~12	A/S	C/A	S/E	0.07N.m	22	18	12	3	M4
CT25	10P	6~15	A/S	C/A	S/E	0.15N.m	25	22	15	3.5	M4
CT26	8P	6~15	A/S	C/A	S/E	0.2N.m	26	21	14	3.5	M4
CT26	10P	6~15	A/S	C/A	S/E	0.16N.m	26	21	14	3.5	M4
CT26	12P	6~15	A/S	C/A	S/E	0.14N.m	26	21	14	3.5	M4
CT26	20P	6~15	A/S	C/A	S/E	0.05N.m	26	21	14	3.5	M4
CT27	8P	8~12	L/T	Α	S	0.14N.m	27	22	15	-	M4
CT27	10P	8~12	L/T	Α	S	0.11N.m	27	22	15	-	M4
CT28	8P	8~15	A/S	C/A	S/E	0.22N.m	28	25	17	4	M4
CT29	8P	8~15	L/T	C/A	S/E	0.25N.m	29	25	17	4	M4
CT30	8P	10~15	L/T	C/A	S/E	0.31N.m	30	25	18	3.5	M4
CT30	10P	10~15	L/T	C/A	S/E	0.28N.m	30	25	18	3.5	M4
CT31	8P	10~20	L/T	Α	S	0.25N.m	31	25	18	-	M4
CT31	10P	10~20	L/T	Α	S	0.23N.m	31	25	18	-	M4
CT32	08P	8~20	A/S	C/A	S/E	0.4N.m	32	30	20	5	M4
CT32	10P	8~20	A/S	C/A	S/E	0.32N.m	32	30	20	5	M4
CT32	12P	8~20	A/S	C/A	S/E	0.28N.m	32	30	20	5	M4
CT32	20P	8~20	A/S	C/A	S/E	0.09N.m	32	30	20	5	M4

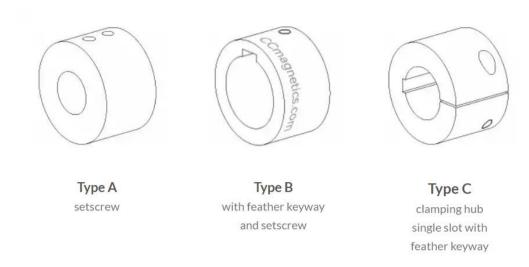


CT35	08P	8~20	A/S	C/A	S/E	0.55N.m	35	32	21.5	5.25	M5
CT35	10P	8~20	A/S	C/A	S/E	0.45N.m	35	32	21.5	5.25	M5
CT35	12P	8~20	A/S	C/A	S/E	0.36N.m	35	32	21.5	5.25	M5
CT35	18P	8~20	A/S	C/A	S/E	0.36N.m	35	32	21.5	5.25	M5
CT36	08P	10~20	L/T	Α	S	0.4N.m	36	32	22	-	M5
CT36	10P	10~20	L/T	Α	S	0.35N.m	36	32	22	-	M5
CT36	12P	10~20	L/T	Α	S	0.3N.m	36	32	22	-	M5
CT39	08P	15~20	A/S	C/A	S/E	0.8N.m	39	35.8	26.6	4.6	M5
CT39	12P	15~20	A/S	C/A	S/E	0.58N.m	39	35.8	26.6	4.6	M5
CT39	16P	15~20	A/S	C/A	S/E	0.4N.m	39	35.8	26.6	4.6	M5
CT40	12P	10-20	L/T	Α	S	0.58N.m	40	36.5	26	-	M5
CT40	16P	15~25	A/S	C/A	S/E	0.42N.m	40	34	24	5	M5
CT42	12P	15~25	A/S	C/A	S/E	0.74N.m	42	30	21	4.5	M5
CT42	18P	15~25	A/S	C/A	S/E	0.42N.m	42	30	21	4.5	M5
CT45	10P	15~30	A/S	C/A	S/E	1.2N.m	45	35	25	4.5	M4
CT45	12P	15~30	A/S	C/A	S/E	0.95N.m	45	35	25	4.5	M4
CT46	10P	15-25	L/T	Α	S	0.83N.m	46	27	26	-	M5
CT52	10P	20~35	A/S	C/A	S/E	1.45N.m	52	37	25	5	M5
CT53	10P	20~30	L/T	Α	S	0.95N.m	53	37	26	-	M5
CT65	18P	20~40	A/S	C/A	S/E	1.95N.m	65	50	35	7.5	M6

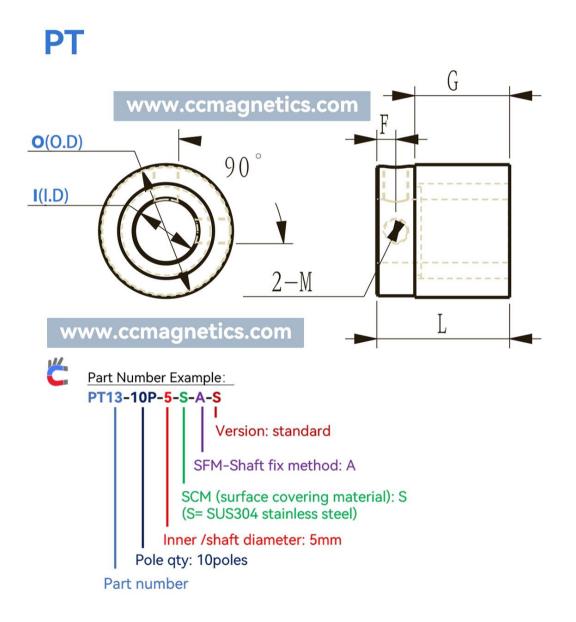
Note

Term	Explanation	Notes
SCM	Surface Covering	A=A6061 (aluminum alloy),
	Material	S=SUS304 (stainless steel),
		L=SUS316L(stainless steel),
		T=TC4 (Titanium Alloy).
SFM	Shaft Fixing Method	Type A or Type C, refer to the picture for details.
Conf.	Standard or	S=Standard, E=Enhanced
	Enhanced Version	
Tq	Torque	The torque value shown is for a 1mm gap.





Parallel type drawing & parameters (unit: mm)





PN	Pole	(I) I.D	SCM	SFM	Conf.	Tq	(O) O.D	L	G	F	М
DT12	Qty		A /C	C/A	C	2.2N		1.5	10	2.5	МОГ
PT13 PT16	10P	5~6	A/S	C/A	S S	2.2N.m	13	15	10 8	2.5	M2.5
	12P	6~10	A/S	C/A		0.05N.m	16 21	13	15	2.5	M2.5
PT21 PT22	8P	8~12	A/S	C/A	S/E	0.2N.m		21		3	M4
	18P	8~12	A/S	C/A	S/E	0.13N.m	22	18	12		M4
PT22	8P	8~12	L/T	A	X	0.13N.m	22	22	16	- 2.5	M4
PT24	12P	8~12	A/S	C/A	S/E	0.4N.m	24	19	12	3.5	M4
PT26	12P	8~15	A/S	C/A	S/E	0.45N.m	26	21	14	3.5	M4
PT26	18P	8~15	A/S	C/A	S/E	0.21N.m	26	21	14	3.5	M4
PT27	8P	8~12	L/T	Α	X	0.3N.m	27	22	15	-	M4
PT27	10P	8~12	L/T	A	X	0.26N.m	27	22	15	-	M4
PT28	12P	8~15	A/S	C/A	S/E	0.32N.m	28	25	14	3.5	M4
PT29	8P	8~15	L/T	C/A	S/E	0.36N.m	29	25	17	4	M4
PT30	10P	8~15	A/S	C/A	S/E	0.39N.m	30	25	18	3.5	M4
PT30	8P	10~15	L/T	C/A	S/E	0.38N.m	30	25	18	3.5	M4
PT30	10P	10~15	L/T	C/A	S/E	0.35N.m	30	25	18	3.5	M4
PT31	8P	10~20	L/T	Α	Χ	0.4N.m	31	25	18	-	M4
PT31	10P	10~20	L/T	Α	Х	0.39N.m	31	25	18	-	M4
PT32	10P	10~20	A/S	C/A	S/E	0.8N.m	32	30	20	4	M4
PT35	12P	10~20	A/S	C/A	S/E	1.1N.m	35	32	21.5	5.25	M5
PT35	18P	10~20	A/S	C/A	S/E	0.7N.m	35	32	21.5	5.25	M5
PT36	08P	10~20	L/T	Α	Χ	0.78N.m	36	32	22	-	M5
PT36	10P	10~20	L/T	Α	Χ	0.72N.m	36	32	22	-	M5
PT36	12P	10~20	L/T	Α	Χ	0.58N.m	36	32	22	-	M5
PT39	16P	10~20	A/S	C/A	S/E	1.5N.m	39	35.8	26.5	5	M5
PT40	12P	10~20	L/T	Α	Χ	0.98N.m	40	36.5	26	-	M5
PT45	10P	10~20	A/S	C/A	S/E	2.2N.m	45	34	25	4	M5
PT46	10P	15-25	L/T	Α	Χ	1.2N.m	46	27	26	-	M5
PT53	10P	20~30	L/T	Α	Χ	1.8N.m	53	37	26	-	M5
PT60	10P	20~25	A/S	C/A	S/E	4N.m	60	50	37	6.5	M6
PT90	14P	40	A/S	C/A	S/E	9N.m	90	70	40	15	М6

Note

Term	Explanation	Notes				
SCM	Surface Covering Material	A=A6061 (aluminum alloy), S=SUS304 (stainless steel), L=SUS316L(stainless steel), T=TC4 (Titanium Alloy).				
SFM	Shaft Fixing Method	A or C, refer to the picture for details.				
Conf.	Standard or Enhanced Version	S=Standard, E=Enhanced				
Tq	Torque	The torque value shown is for a 1mm gap.				





Type A setscrew



Type B with feather keyway and setscrew



Type C clamping hub single slot with feather keyway

Applications:



- Cleanroom and noise-free workshop: Transmission devices for environments requiring dust-free and quiet operation.
- Pharmaceutical and chemical industries: Transmission equipment for pharmaceutical and chemical processing.
- Precision electronic equipment: Transmission devices for PCB and other precision electronic equipment.
- Universities and research laboratories: Equipment for research and development.

Special customized magnetic gear

We can manufacture magnetic gears & couplings with different functions, according to your requirements, high-temperature resistance, anti-oxidation, anti-corrosion, various shapes of mounting shafts, etc.

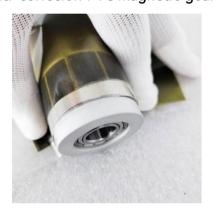




Anti-corrosion PVC magnetic gear



316L Stainless steel magnetic gear



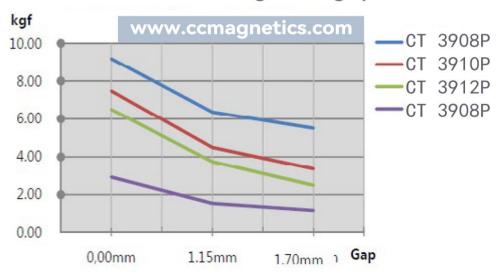
Magnetic reinforced magnetic gear



Fully sealed magnetic gear

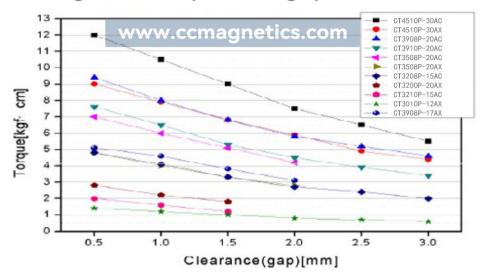
• Test report of magnetic transmission gear

Suction (force) through set gap

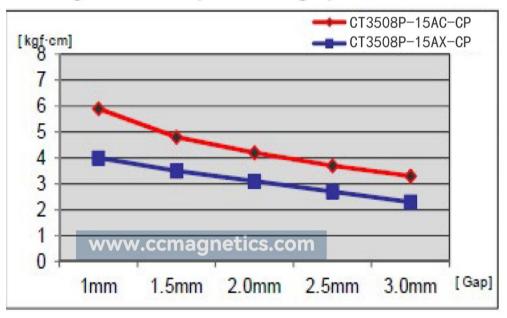




Changes in torque and gap

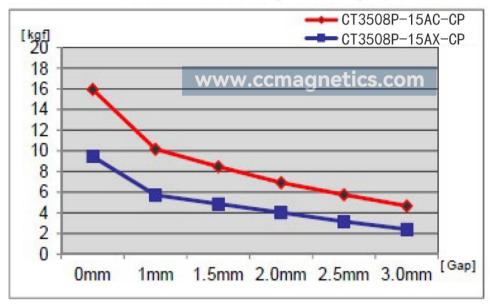


Changes in torque and gap





Suction (force) through set gap



About Us:

Established in 2010 and headquartered in Beijing, China, CCmagnetics is a duly registered commercial entity operating under the auspices of the Chinese industrial and commercial authorities.

CCmagnetics supplies contactless magnetic drives products to 39 countries and regions worldwide. This is made possible by: exquisite workmanship, meticulous and professional service, and extremely high overall cost performance. Our products have won widespread praise from global customers.





Image Captions:

- 1. Stainless steel 316l (UNS31603) PT series magnetic gear pairs awaiting packaging and shipment to germany.
- 2. Custom-made stainless steel 304 (UNS30400) co-axial magnetic couplings for our valued customer.
- 3. All magnetic drive/transmission products undergo rigorous magnetic field testing before shipment.
- 4. Custom-made rack pinion gears designed for laboratory liquid shaking applications.

Representative Patents

Since its inception, our company has been dedicated to the field of magnetic transmission and magnetic rings. Our representative patents include:



Patent Name 1: Comprehensive management system for magnetic ring production line.

Patent Name 2: Fixture tooling for rubber mold.

Patent Name 3: Axial magnetization equipment.

Patent Name 4: Magnetic detection equipment for sealing ring.

Patent Name 5: Torque adjustable magnetic coupling.

Patent Name 6: Magnetic suction coupling with clutch function.

Ordering Information:



Delivery Timeframe

- Custom/Out-of-Stock Products: Shipment will be completed within 4 weeks after receiving your payment.
- In-Stock Products: To ensure product quality and safety, we will conduct inspections and arrange shipments within 5 days.
- Logistics Tracking: After shipment, your dedicated account manager will promptly send the Tracking Number to your email for real-time order monitoring.

Shipping Method & Timeframe

We use specialized magnet shipping services to ensure safety and stability during transit. Delivery time typically ranges from 7 to 14 days, depending on the destination.

Certifications

CCmagnetics products are certified by internationally recognized authorities, including:

- IATF16949 (issued by SGS)
- ISO9001 (issued by SGS)
- Management System Certificate (issued by DNV)

Test Reports

By default, we provide product test reports issued by the CCmagnetics Testing Center. For specific requirements, we can facilitate third-party test reports or methods, such as the Spart Direct Reading Spectrometer.

Payment

- Accepted payment methods: Proforma invoice and 100% T/T.
- Credit card payments are accepted with a 2.9% surcharge.
- Packaging and Logistics
- We accept delivery through your preferred shipping company.
- Our packaging materials (tinplate, kraft paper, and foam) comply with environmental regulations in most countries, including the EU and North America.

Delivery Time

- Shipment will be arranged within 30 days after receipt of payment. Delivery may be shorter if our factory schedule permits.
- Transportation time is estimated at 7-10 days.



After-Sales Service

- All products undergo rigorous quality inspection and testing before leaving the factory.
- Based on the demagnetization curve of neodymium iron boron, our products have a lifespan of 60-100 years under normal conditions.
- Our products are made of internationally standard metals and magnets, with adhesives from the well-known brand 3M. Additional material safety reports are available upon request.
- If quality issues arise within one year, provide photos as proof. We will compensate for a new product in your next order. The defective product does not need to be returned.

Contact us:

Contact us

Email: sales@ccmagnetics.com

Phone/WhatsApp: +86 18611633383

Address: Building 1, No. 9 Linhe South Street,

Shunyi District, Beijing, China

Business Hours: Monday to Friday, 9:00 AM to

5:30 PM