

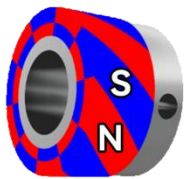
Magnetic transmission gear / coupling



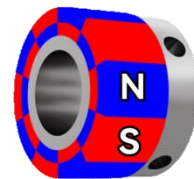
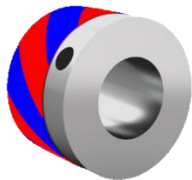
Summary:

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:



Cross Type



Parallel Type

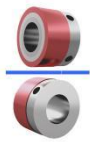
Sales@ccmagnetics.com

CT Series (Cross Type): 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.

PT Series (Parallel Type): 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:



Power transmission through wall



Torque limiter function



Noise & vibration free



Wear-out dust free



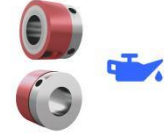
Easy mount & dismount



Large permissive misalignment (parallel angular)

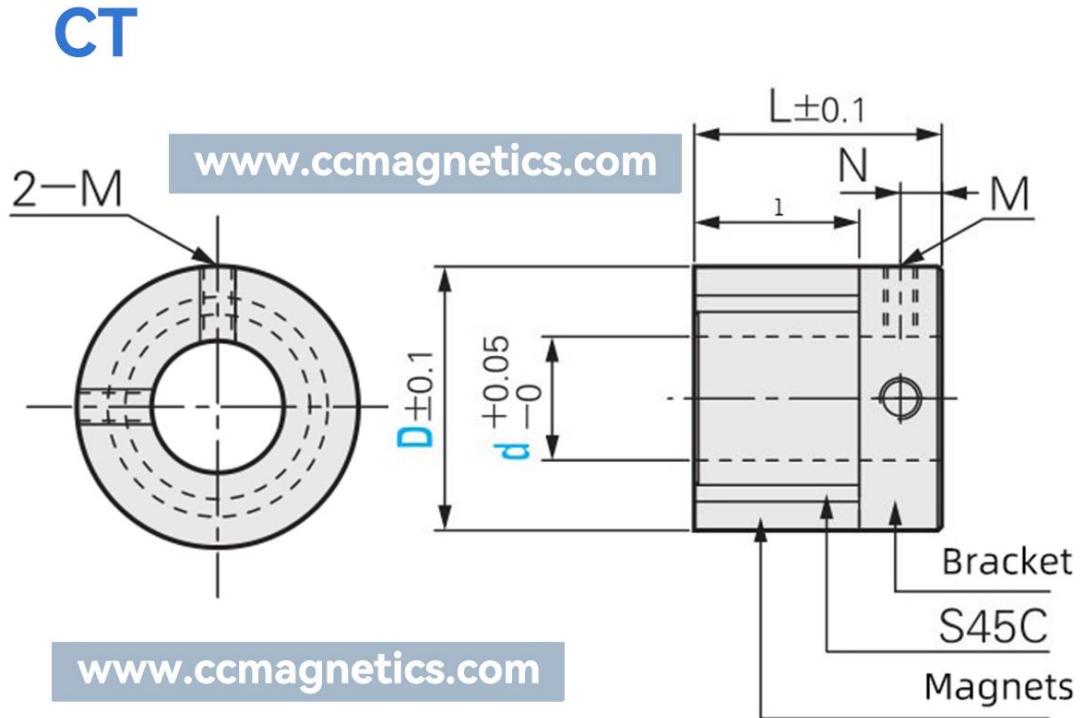


Heat generation free



No greasing needed

Cross type drawing & parameters (unit: mm)



Note



Part Number Example:

CT-13-06P-5-A-A-S

- Version: standard
- SFM (shaft fix method) : A
- SCM (surface covering material): A
(A=A6061 aluminum alloy)
- Inner /shaft diameter: 5mm
- Pole qty: 6poles
- Outside diameter:13mm

| Type | (D) O.D | Pole Qty | (d) I.D | SCM | SFM | Conf. | Tq | L | l | N | M |
|------|------------|-------------|------------|-----|-----|-------|----------|------|------|------|----|
| CT | 13 | 6P | 4~6 | A/S | A | S | 0.012N.m | 15 | 10 | 2.5 | M3 |
| CT | 16 | 8P | 5~8 | A/S | A | S | 0.025N.m | 13 | 8 | 2.5 | M3 |
| CT | 16 | 12P | 5~8 | A/S | A | S | 0.015N.m | 13 | 8 | 2.5 | M3 |
| CT | 18 | 8P | 6~8 | A/S | A | S | 0.05N.m | 15 | 10 | 2.5 | M3 |
| CT | 21 | 6P | 6~12 | A/S | C/A | S | 0.13N.m | 21 | 15 | 3 | M4 |
| CT | 21 | 8P | 6~12 | A/S | C/A | S | 0.11N.m | 21 | 15 | 3 | M4 |
| CT | 21 | 16P | 6~12 | A/S | C/A | S | 0.07N.m | 21 | 15 | 3 | M4 |
| CT | 22 | 8P | 8~12 | L/T | A | S | 0.09N.m | 22 | 16 | - | M4 |
| CT | 22 | 18P | 6~12 | A/S | C/A | S/E | 0.07N.m | 18 | 12 | 3 | M4 |
| CT | 25 | 10P | 6~15 | A/S | C/A | S/E | 0.15N.m | 22 | 15 | 3.5 | M4 |
| CT | 26 | 8P | 6~15 | A/S | C/A | S/E | 0.2N.m | 21 | 14 | 3.5 | M4 |
| CT | 26 | 10P | 6~15 | A/S | C/A | S/E | 0.16N.m | 21 | 14 | 3.5 | M4 |
| CT | 26 | 12P | 6~15 | A/S | C/A | S/E | 0.14N.m | 21 | 14 | 3.5 | M4 |
| CT | 26 | 20P | 6~15 | A/S | C/A | S/E | 0.05N.m | 21 | 14 | 3.5 | M4 |
| CT | 27 | 8P | 8~12 | L/T | A | S | 0.14N.m | 22 | 15 | - | M4 |
| CT | 27 | 10P | 8~12 | L/T | A | S | 0.11N.m | 22 | 15 | - | M4 |
| CT | 28 | 8P | 8~15 | A/S | C/A | S/E | 0.22N.m | 25 | 17 | 4 | M4 |
| CT | 29 | 8P | 8~15 | L/T | C/A | S/E | 0.25N.m | 25 | 17 | 4 | M4 |
| CT | 30 | 8P | 10~15 | L/T | C/A | S/E | 0.31N.m | 25 | 18 | 3.5 | M4 |
| CT | 30 | 10P | 10~15 | L/T | C/A | S/E | 0.28N.m | 25 | 18 | 3.5 | M4 |
| CT | 31 | 8P | 10~20 | L/T | A | S | 0.25N.m | 25 | 18 | - | M4 |
| CT | 31 | 10P | 10~20 | L/T | A | S | 0.23N.m | 25 | 18 | - | M4 |
| CT | 32 | 08P | 8~20 | A/S | C/A | S/E | 0.4N.m | 30 | 20 | 5 | M4 |
| CT | 32 | 10P | 8~20 | A/S | C/A | S/E | 0.32N.m | 30 | 20 | 5 | M4 |
| CT | 32 | 12P | 8~20 | A/S | C/A | S/E | 0.28N.m | 30 | 20 | 5 | M4 |
| CT | 32 | 20P | 8~20 | A/S | C/A | S/E | 0.09N.m | 30 | 20 | 5 | M4 |
| CT | 35 | 08P | 8~20 | A/S | C/A | S/E | 0.55N.m | 32 | 21.5 | 5.25 | M5 |
| CT | 35 | 10P | 8~20 | A/S | C/A | S/E | 0.45N.m | 32 | 21.5 | 5.25 | M5 |
| CT | 35 | 12P | 8~20 | A/S | C/A | S/E | 0.36N.m | 32 | 21.5 | 5.25 | M5 |
| CT | 35 | 18P | 8~20 | A/S | C/A | S/E | 0.36N.m | 32 | 21.5 | 5.25 | M5 |
| CT | 36 | 08P | 10~20 | L/T | A | S | 0.4N.m | 32 | 22 | - | M5 |
| CT | 36 | 10P | 10~20 | L/T | A | S | 0.35N.m | 32 | 22 | - | M5 |
| CT | 36 | 12P | 10~20 | L/T | A | S | 0.3N.m | 32 | 22 | - | M5 |
| CT | 39 | 08P | 15~20 | A/S | C/A | S/E | 0.8N.m | 35.8 | 26.6 | 4.6 | M5 |
| CT | 39 | 12P | 15~20 | A/S | C/A | S/E | 0.58N.m | 35.8 | 26.6 | 4.6 | M5 |
| CT | 39 | 16P | 15~20 | A/S | C/A | S/E | 0.4N.m | 35.8 | 26.6 | 4.6 | M5 |
| CT | 40 | 12P | 15~25 | L/T | A | S | 0.58N.m | 36.5 | 26 | - | M5 |
| CT | 40 | 16P | 15~25 | A/S | C/A | S/E | 0.42N.m | 34 | 24 | 5 | M5 |
| CT | 42 | 12P | 15~25 | A/S | C/A | S/E | 0.74N.m | 30 | 21 | 4.5 | M5 |
| CT | 42 | 18P | 15~25 | A/S | C/A | S/E | 0.42N.m | 30 | 21 | 4.5 | M5 |
| CT | 45 | 10P | 15~30 | A/S | C/A | S/E | 1.2N.m | 35 | 25 | 4.5 | M4 |

| | | | | | | | | | | | |
|----|----|-----|-------|-----|-----|-----|---------|----|----|-----|----|
| CT | 45 | 12P | 15~30 | A/S | C/A | S/E | 0.95N.m | 35 | 25 | 4.5 | M4 |
| CT | 46 | 10P | 15~25 | L/T | A | S | 0.83N.m | 27 | 26 | - | M5 |
| CT | 52 | 10P | 20~35 | A/S | C/A | S/E | 1.45N.m | 37 | 25 | 5 | M5 |
| CT | 53 | 10P | 20~30 | L/T | A | S | 0.95N.m | 37 | 26 | - | M5 |
| CT | 65 | 18P | 20~40 | A/S | C/A | S/E | 1.95N.m | 50 | 35 | 7.5 | M6 |

Note

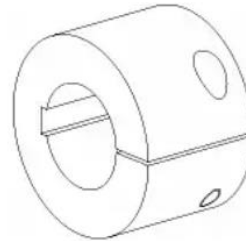
| Term | Explanation | Notes |
|-------|------------------------------|--|
| SCM | Surface Covering Material | A=A6061 (aluminum alloy), S=SUS304 (stainless steel), L=SUS316L(stainless steel), T=TC4 (Titanium Alloy). |
| SFM | Shaft Fixing Method | Type A or Type C, refer to the picture for details.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



Type A
setscrew



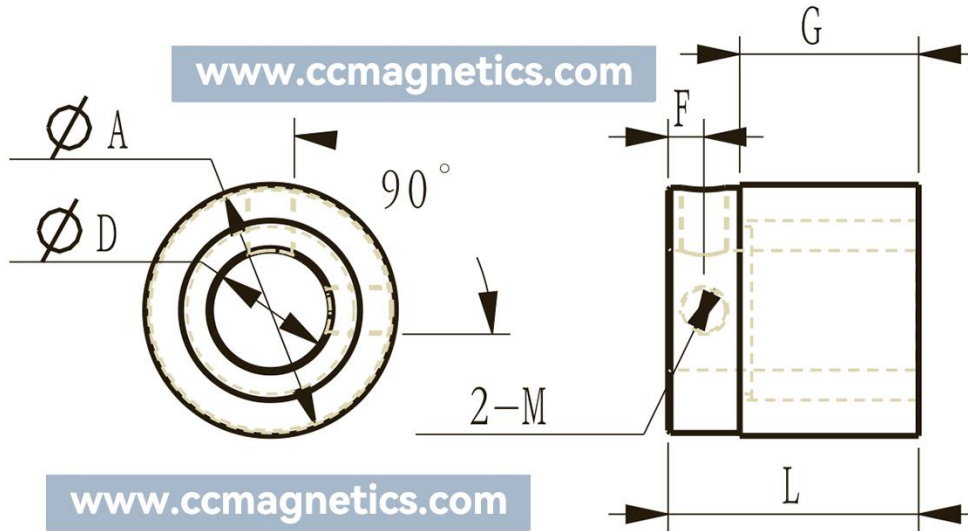
Type B
with feather keyway
and setscrew



Type C
clamping hub
single slot with
feather keyway

Parallel type drawing & parameters (unit: mm)

PT



Part Number Example:

PT-13-10P-5-S-A-S

| Outside diameter: 13mm
| Pole qty: 10poles
| Inner /shaft diameter: 5mm
| SCM (surface covering material): S (S= SUS304 stainless steel)
| SFM-Shaft fix method: A
| Version: standard

| Type | A | Pole Qty | D | SCM | SFM | Conf. | Tq | L | G | F | M |
|------|----|----------|------|-----|-----|-------|---------|----|----|-----|------|
| PT | 13 | 10P | 6~8 | A/S | C/A | S | 2.2N.m | 15 | 10 | 2.5 | M2.5 |
| PT | 16 | 12P | 6~10 | A/S | C/A | S | 0.05N.m | 13 | 8 | 2.5 | M2.5 |
| PT | 21 | 8P | 8~12 | A/S | C/A | S/E | 0.2N.m | 21 | 15 | 3 | M4 |
| PT | 22 | 18P | 8~12 | A/S | C/A | S/E | 0.13N.m | 18 | 12 | 3 | M4 |
| PT | 22 | 8P | 8~12 | L/T | A | X | 0.13N.m | 22 | 16 | - | M4 |
| PT | 24 | 12P | 8~12 | A/S | C/A | S/E | 0.4N.m | 19 | 12 | 3.5 | M4 |
| PT | 26 | 12P | 8~15 | A/S | C/A | S/E | 0.45N.m | 21 | 14 | 3.5 | M4 |

| | | | | | | | | | | | |
|----|----|-----|-------|-----|-----|-----|---------|------|------|------|----|
| PT | 26 | 18P | 8~15 | A/S | C/A | S/E | 0.21N.m | 21 | 14 | 3.5 | M4 |
| PT | 27 | 8P | 8~12 | L/T | A | X | 0.3N.m | 22 | 15 | - | M4 |
| PT | 27 | 10P | 8~12 | L/T | A | X | 0.26N.m | 22 | 15 | - | M4 |
| PT | 28 | 12P | 8~15 | A/S | C/A | S/E | 0.32N.m | 25 | 14 | 3.5 | M4 |
| PT | 29 | 8P | 8~15 | L/T | C/A | S/E | 0.36N.m | 25 | 17 | 4 | M4 |
| PT | 30 | 10P | 8~15 | A/S | C/A | S/E | 0.39N.m | 25 | 18 | 3.5 | M4 |
| PT | 30 | 8P | 10~15 | L/T | C/A | S/E | 0.38N.m | 25 | 18 | 3.5 | M4 |
| PT | 30 | 10P | 10~15 | L/T | C/A | S/E | 0.35N.m | 25 | 18 | 3.5 | M4 |
| PT | 31 | 8P | 10~20 | L/T | A | X | 0.4N.m | 25 | 18 | - | M4 |
| PT | 31 | 10P | 10~20 | L/T | A | X | 0.39N.m | 25 | 18 | - | M4 |
| PT | 32 | 10P | 10~20 | A/S | C/A | S/E | 0.8N.m | 30 | 20 | 4 | M4 |
| PT | 35 | 12P | 10~20 | A/S | C/A | S/E | 1.1N.m | 32 | 21.5 | 5.25 | M5 |
| PT | 35 | 18P | 10~20 | A/S | C/A | S/E | 0.7N.m | 32 | 21.5 | 5.25 | M5 |
| PT | 36 | 08P | 10~20 | L/T | A | X | 0.78N.m | 32 | 22 | - | M5 |
| PT | 36 | 10P | 10~20 | L/T | A | X | 0.72N.m | 32 | 22 | - | M5 |
| PT | 36 | 12P | 10~20 | L/T | A | X | 0.58N.m | 32 | 22 | - | M5 |
| PT | 39 | 16P | 10~20 | A/S | C/A | S/E | 1.5N.m | 35.8 | 26.5 | 5 | M5 |
| PT | 40 | 12P | 10~20 | L/T | A | X | 0.98N.m | 36.5 | 26 | - | M5 |
| PT | 45 | 10P | 10~20 | A/S | C/A | S/E | 2.2N.m | 34 | 25 | 4 | M5 |
| PT | 46 | 10P | 15-25 | L/T | A | X | 1.2N.m | 27 | 26 | - | M5 |
| PT | 53 | 10P | 20~30 | L/T | A | X | 1.8N.m | 37 | 26 | - | M5 |
| PT | 60 | 10P | 20~25 | A/S | C/A | S/E | 4N.m | 50 | 37 | 6.5 | M6 |
| PT | 90 | 14P | 40 | A/S | C/A | S/E | 9N.m | 70 | 40 | 15 | M6 |

Note

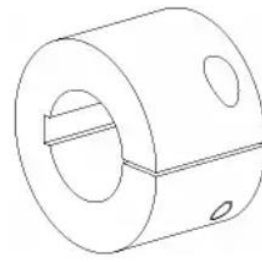
| Term | Explanation | Notes |
|-------|------------------------------|--|
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| SFM | Shaft Fixing Method | A or C, refer to the picture for details. |
| Conf. | Standard or Enhanced Version | S=Standard, E=Enhanced |
| Tq | Torque | The torque value 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



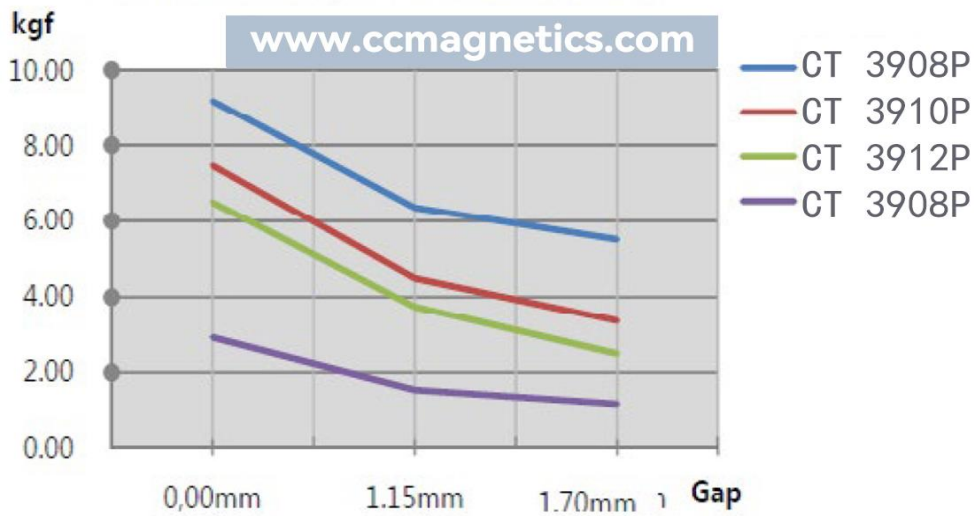
Magnetic reinforced magnetic gear



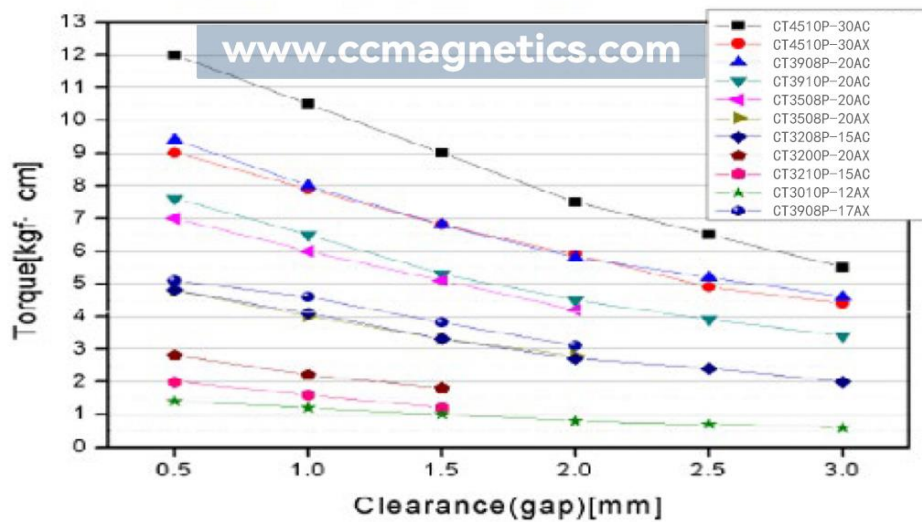
Fully sealed magnetic gear

● Test report of magnetic transmission gear

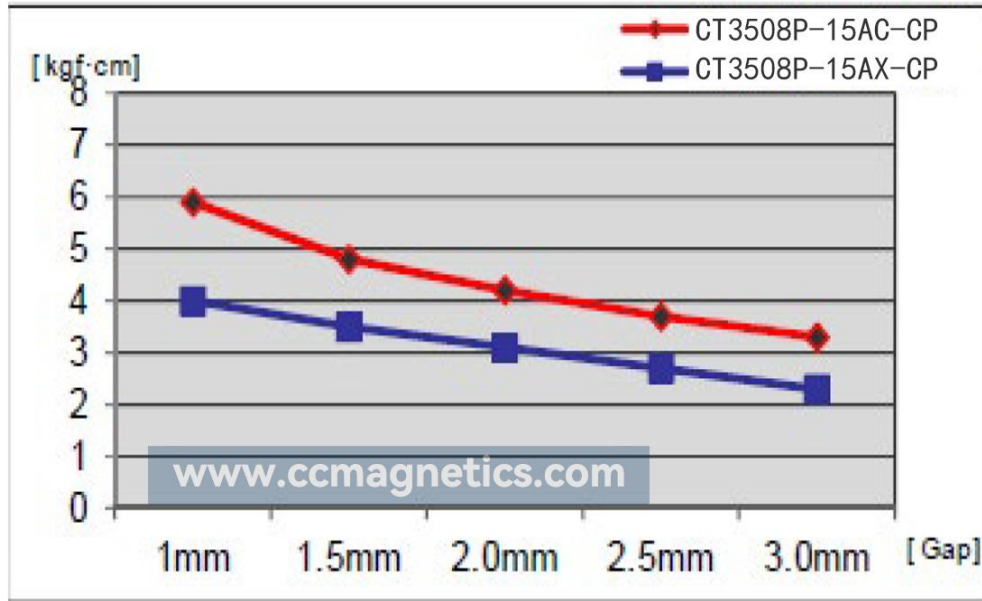
Suction (force) through set gap



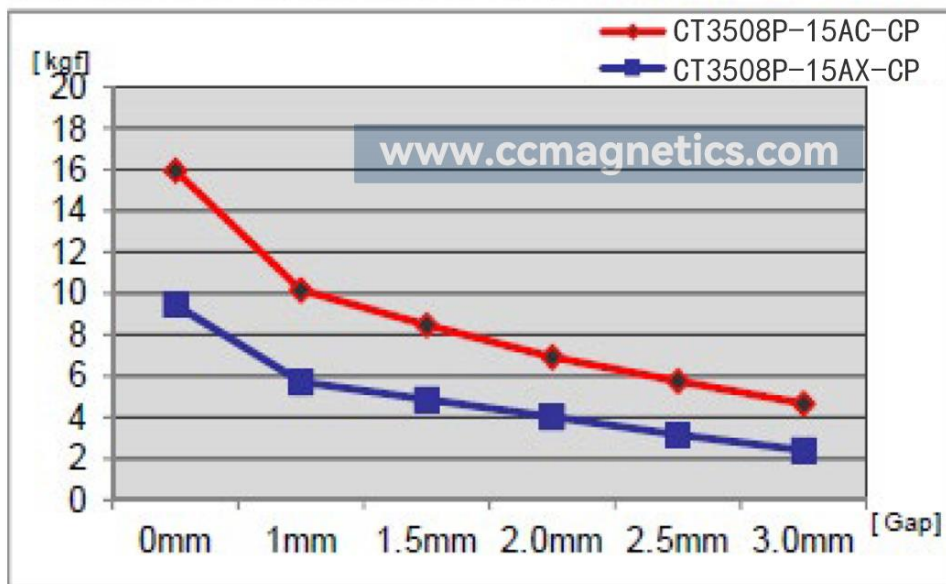
Changes in torque and gap



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.

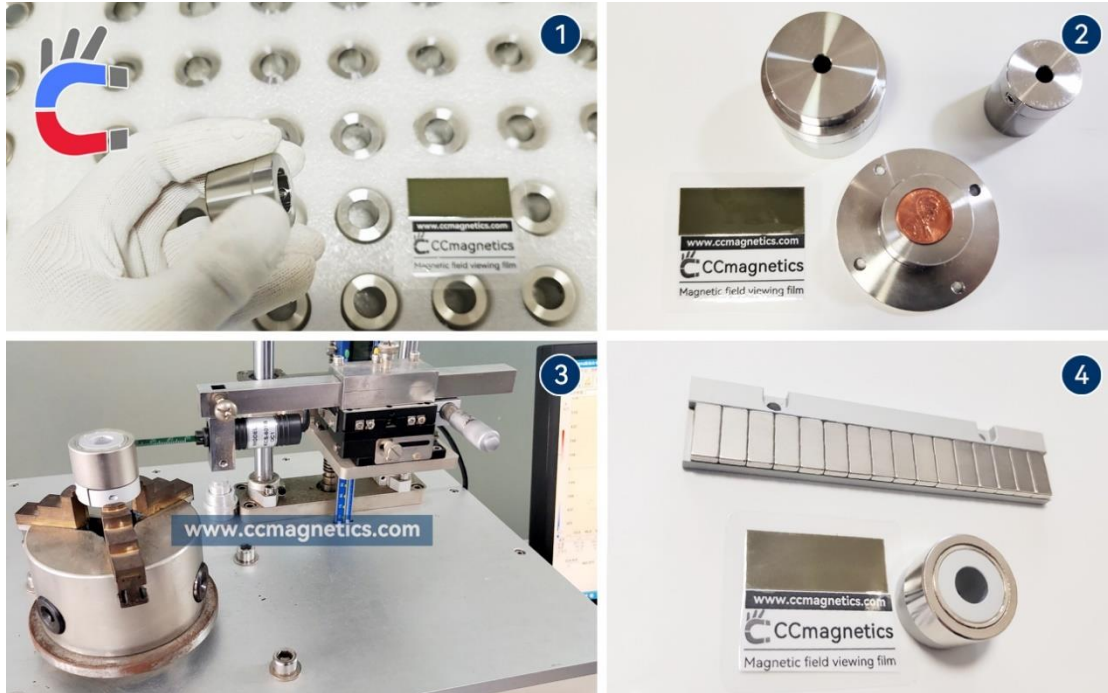


Image Captions:

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:

Payment:

We accept payment via proforma invoice and 100% T/T.

Credit card payments are accepted, but a 2.9% surcharge will apply.

Packaging and Logistics:

We accept delivery through the customer's preferred shipping company.

Our packaging materials, including tinplate, kraft paper, and foam, fully comply with EU environmental regulations.

Delivery Time:

Shipment will be arranged within 30 days after receipt of payment. Delivery time may be shorter if our factory schedule permits.

Transportation time is estimated to be 7-10 days.

After-sales Service:

- Our 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 metal and magnets that meet international standards, and the adhesives are made of the well-known brand 3M, and additional material safety reports can be provided.
- If any quality issues are found within one year, please provide photos as proof. We will compensate with a new product in your next order. The defective product does not need to be returned.

Contact us: