

“MagTran” is a preferred choice because of clean and maintenance free new mechanism

For the hitech industry that essentially requires clean drive transmission, this has been the most difficult problem so far. However, it is now solved with the breathtaking mechanism of contactless transmission.

It is "Dust free", it has "Long operating life", and it produces "Low noise". Besides, even if any abnormal load applies, it doesn't destroy our indigneous mechanism. It will help you in improving productivity during the manufacturing processes in a wide range of areas such as electronic components, chemistry, healthcare, and food from vacuum to air based manufacturing processes.

Extremely silent

Extremely silent to the extent unthinkable in the conventional gear and belt based transmission mechanism. This is possible only because it is contactless.

It offers clean and comfortable environment in the manufacturing process.

Extremely low dust generation

By having a special magnet interact at 90 degrees, we change the transmission direction of force in a contactless manner. In this manner, we have exponentially reduced the fine dust (particles) that generate during material transfer in the thin film process in vacuum.

Extremely low gas generation

We have adopted a special surface treatment process that generates very small gas in not only in air, but also in vacuum. Our indigenous treatment has made it possible to use it at 10-5 pa level of pressure.

Contactless drive transmission mechanism
MagTran

Torque limiter function

When an abnormal load is applied, two magnets will separately undergo idle running and they will work as torque limiter. Therefore, there will not be any damage. Besides, because it is contactless, we have been able to exponentially prolong the maintenance cycle compared to the conventional gear transmission mechanism.

Low cost

For fastening the special magnet, we have adopted a structure that can be easily remodeled and replaced without making any direct addition to the magnet. Performance is not affected at all even if "Vacuum-Air" is repeated. Therefore, it doesn't require the conventional high cost and complicated design.

State-of-the-art cleaning
Tremendous cost performance

Toothless gear wheel

MagTran

Contactless bevel gear wheel

Contactless coupling

[Warranty]

●The product comes with one year warranty after it is shipped by the manufacturer. However, the warranty doesn't cover the cases where the product is used in a manner not specified in the specifications or when the product is handled in a manner not compliant with the caution.

Caution!

- This product forms a static magnetic field. However, bringing it closer to items such as clocks and ball pens may affect their operation.
- Specifications describe the performance of the product itself. When using the product, please use it after conducting structural study at the design stage.
- When using the product in a place where there is a risk of fire, please take appropriate measures.
- This product is a permanent magnet made by extremely strong and special magnetization. When using it in the environment outside the scope of specifications or when in the environment where induction current is generated, magnetic coercive force may weaken or it may be lost.
- This product comes with the highest performance warranty as a set. There is no performance warranty when it is used in combination with another product.
- Description of standard products given in the catalog is on the basis of use under general environment. Please consult us beforehand when using under a special environment and take appropriate measures.
- This product is made with sintered material as the base. Dropping the product, other impact, or unreasonable external force may damage the product. Please take necessary precautions when handling and storing the product. Besides, do not use the product where there are any "cracks" etc.

This product is widely sold as a part because it forms the "Elemental technology". When using the product, it is recommended to consider "Application patents etc." of other companies and conduct prior survey to ensure that it doesn't violate such patents etc.

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Launch of a new lineup of toothless gear wheel “MagTran” that would expand its applications

We have been able to significantly reduce the amount of magnet used and making it lightweight and reducing the cost.

So far, we had the lineup of products for orthogonal spindles and parallel spindles. Our new lineup can support intersecting spindles too, and adjustment of clearance can also be easily done. Besides, you can also use it for coupling.

Contactless bevel gear wheel

Contactless bevel gear wheel for intersecting spindles offers 90° drive transmission in a contactless manner. As for fine tuning of torque, there is a fastening screw attached to the holder with which you can freely change the clearance.



Contactless coupling

In the case of coupling, even if there is a partition wall in between, transmission is possible without any problem as long as it is a nonmagnetic material. Even when using it while churning, you can use it without doing hole drilling and sealing. When misalignment has occurred between the spindles, there will not be any damage because it is a contactless coupling.



Scan the QR code and view the actual working in a video.



Stainless hold type

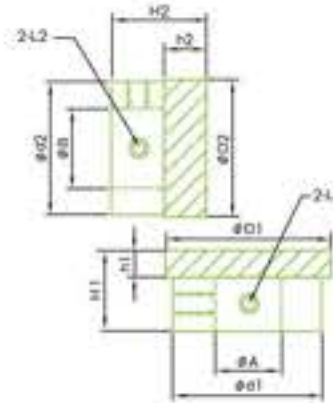
Bevel gear wheel Multispindle type



Custom-made products, examples of use, etc.

Contactless bevel gear wheel

High torque type



Specifications

Magnet material	Niodymium sintered magnet
Holder material	Aluminum (A505B)
Magnet surface treatment	Nickel plating
Bonding agent used	Epoxy bonding agent
Heatproof temperature	60℃

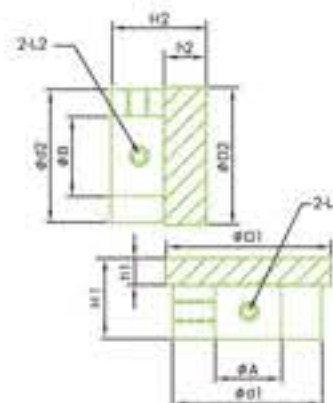
Transmission torque

Model (set)	0.3	0.5	0.7	1
FDS6635	9.3	8.5	7.9	7.1
FDS4035	3.8	3.5	3.1	2.7
FDS3126	2.2	2.0	1.8	1.6
FDS3116	0.79	0.71	0.64	0.53

Dimension table

Dimension value	φD1	φD2	H1	H2	φd1	φd2	h1	h2	φA ^{+0.03} _{+0.01}	φB ^{+0.03} _{+0.01}	L1 Fastening screw	L2 Fastening screw				
Model (set)																
FDS6635	66	35	15	34	66	32	5	22	12	15	—	10	12	15	M5	M4
FDS4035	40	35	15	34	30	32	5	22	10	12	15	10	12	15	M4	M4
FDS3126	31	26	15	25.5	28	22	5	14	8	10	12	10	12	15	M4	M3
FDS3116	31	16	15	16	28	15	5	8	8	10	12	6	8	—	M4	M3

Cost performance type



Specifications

Magnet material	Niodymium sintered magnet
Holder material	Aluminum (A505B)
Magnet surface treatment	Electrodeposition coating
Bonding agent used	Epoxy bonding agent
Heatproof temperature	60℃

Transmission torque

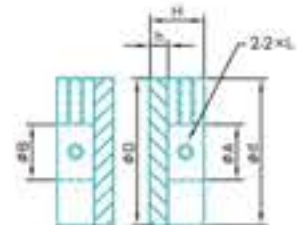
Model (set)	0.3	0.5	0.7	1
FDS6635	6.3	5.7	5.3	4.8
FDS4035	2.2	2	1.8	1.5
FDS3126	0.8	0.7	0.66	0.6
FDS3116	0.35	0.30	0.26	0.20

Dimension table

Dimension value	φD1	φD2	H1	H2	φd1	φd2	h1	h2	φA	+0.03 +0.01	φB	+0.03 +0.01	L1 Fastening screw	L2 Fastening screw		
Model (set)																
FBS6635	66	35	15	34	66	32	5	22	12	15	—	10	12	15	M5	M4
FBS4035	40	35	15	20	30	30	5	10	10	12	15	10	12	15	M4	M4
FBS3126	31	26	15	18	28	25	5	8	8	10	12	10	12	15	M4	M4
FBS3116	31	16	15	16	28	15	5	8	8	10	12	6	8	—	M4	M3

Contactless coupling

High torque type



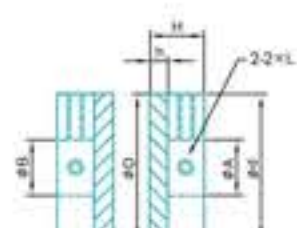
Specifications

Magnet material	Niodymium sintered magnet
Holder material	Aluminum (A505B)
Magnet surface treatment	Nickel plating
Bonding agent used	Epoxy bonding agent
Heatproof temperature	60℃

Transmission torque

Model (set)	1	2	3	4	5
FDS66W	56	44	36	24	18
FDS40W	16	11	5.6	4.2	3.0
FDS31W	6.9	4.2	2.3	1.1	0.6

Cost performance type



Specifications

Magnet material	Niodymium sintered magnet
Holder material	Aluminum (A505B)
Magnet surface treatment	Electrodeposition coating
Bonding agent used	Epoxy bonding agent
Heatproof temperature	60℃

Transmission torque

Model (set)	1	2	3	4	5
FDS66W	35	28	20	15	11
FDS40W	9.4	5	2.8	2	1.4
FDS31W	3.3	1.8	0.9	0.5	0.3

Creating a product number for order placement

*Company sells sets as a standard policy.

Structure of set product number
F S [] [] [] [] - A [] [] B [] []
FDS: High torque
FBS: Cost performance
Type name (External diameter)
Specify holder hole diameter

Structure of unit product number
F S [] [] [] [] - A [] []
FDS: High torque
FBS: Cost performance
Specify holder hole diameter
Type name (External diameter)