



*Transmission
solutions for
heavy industry*

- Maintenance
- Replacement
- Engineering
- Applications

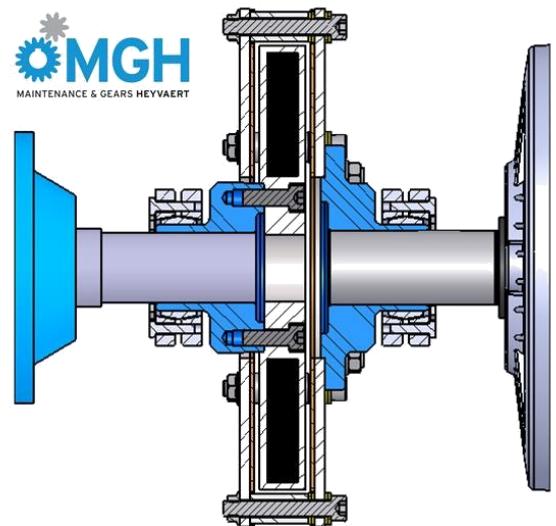


MGH Magnetic Couplings

Revolutionary technology to transfer torque through an airgap

Working principle:

- Permanent magnets and copper plates
- Principle of changing magnetic flux, resulting in force
 - Law of Lenz
 - Law of Newton
- The air gap is essential!



Bigger air gap = higher slip = lower torque = lower speed

Smaller air gap = lower slip = bigger torque = bigger speed

General properties

- Maintenance free
- Tolerates big misalignments
- Soft start
- Overload protection
- Dampens vibrations
- Lower TCO

- 1) The hubs of our magnetic couplings are customised, allowing the installation to keep its current DBSE.
- 2) The selected coupling's diameter will **ALWAYS** be smaller than the height of your motor

1. Vortex (VTX) coupling

- Most **budget-friendly** magnetic coupling
- Delivered from stock
- Used for smaller size applications



MGH is the official distributor of MagnaDrive magnetic couplings in the EU





2. Fixed Gap Coupling (FGC)

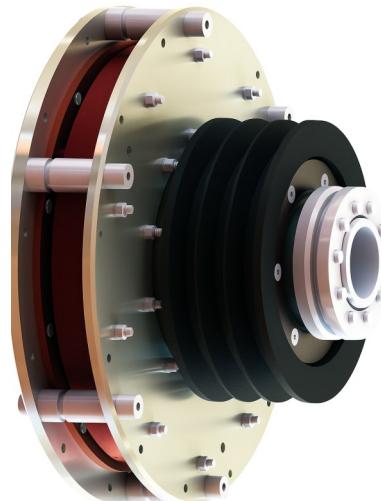
- **High-end** solution for bigger size applications
- **ATEX** certified
- **Temperature sensor** to prevent thermal damage
- **Adjustable airgap**, done in MGH workshop **BEFORE** operation
- **Great energy savings** thanks to affinity laws
- Options available: heat exchangers

$$(Power_1/Power_2) = (Flow_1/Flow_2)^3$$



3. B-Max coupling

- Specially designed for **belt driven equipment**
- **High-end** solution
- **Temperature sensor** to prevent thermal damage
- **Adjustable airgap**, done in MGH workshop **BEFORE** operation
- **Great energy savings** thanks to affinity laws



4. Synchra coupling

- Uses **2 sets of permanent magnets**
- **NO slip**, synchronous coupling
- **NO heat generated**
- **ATEX** certified



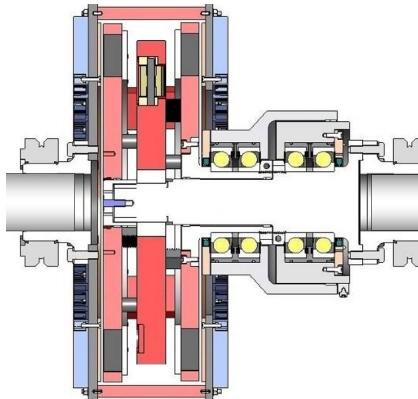
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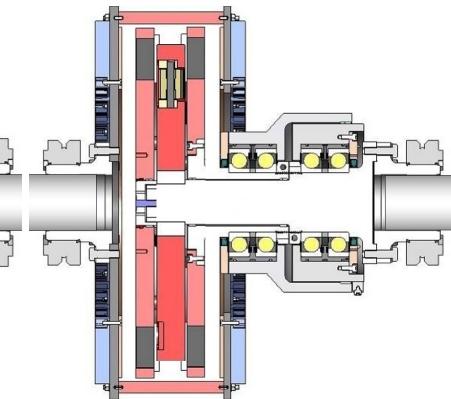
5. Adjustable Speed Drive (ASD)

- (Mostly) maintenance free
- Adjustable airgap
By using actuator **DURING** operation
- Highly suited for compressors / fans / pumps / ...
- **High end** solution, **ATEX** certified
- **FANTASTIC ENERGY SAVINGS!!!**

SMALL AIRGAP



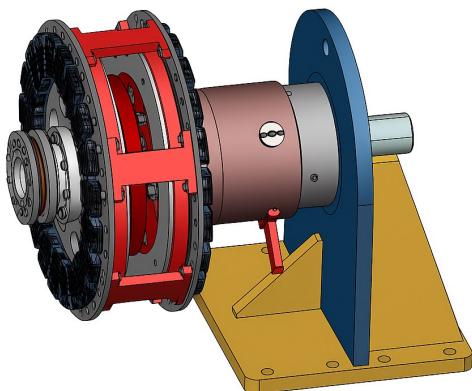
BIG AIRGAP



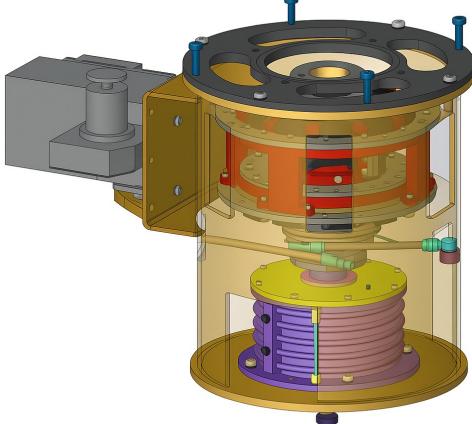
$$(Power_1/Power_2) = (Flow_1/Flow_2)^3$$

There are 3 variants of the ASD:

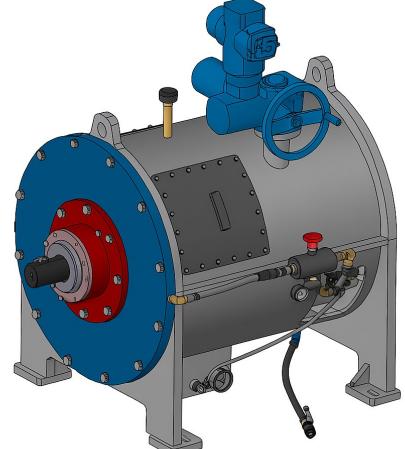
Rigid Pedestal Mount



Vertical



Water-cooled



Advantages compared to “classical solutions”

Compared to fluid couplings:	Compared to frequency drives (VFD)	Compared to inlet guide vanes (IGV)
<ul style="list-style-type: none"> • NO maintenance needed • NO leaks / burning hot oil spilling • NO expensive stock spare parts • NO complex installation procedure • Food industry approved 	<ul style="list-style-type: none"> • NO expensive and complex electrical equipment needed • Longer lifespan • VFD and coupling in 1 • Motor can operate on nominal settings (= more efficient) 	<ul style="list-style-type: none"> • NO complex mechanical set-up • NO mechanical spare parts • Longer lifespan • Motor can operate on nominal settings (= more efficient)

- 1) The hubs are customised, allowing the installation to keep its current DBSE.

MGH is the official distributor of MagnaDrive magnetic couplings in the EU

Servicecenter Brussels: Rittwegerlaan 2B - B-1830 Machelen - Servicecenter Antwerp: Luithagen Haven 2K - B 2030 Antwerpen
Tel 24/24: +32 (0)2/7530040 E-mail: info@MGH.be URL: www.MGH.be





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Motor	VTX				FGC				ASD							
									Air-Cooled, ped + vert				Water-Cooled			
RPM kW	3000	1500	1000	750	3000	1500	1000	750	3000	1500	1000	750	1500	1000	750	
0,75	1	1	1	1												
1,5	1	1	2	2												
2,5	1	1	2	2												
4,0	1	2	2	2												
5,5	2	2	2	3												
7,5	2	2	3	3												
11,0	2	3	3	3					4	4					9	
15,0	2	3	3	3					4	5			9	9		
18,5	2	3	3					4	4	5			9	9		
22	3	3						4	5	5		9	9			
30	3	3						5	5	6		9				
37	3						4	5	6		9		10			
45	3					4	5	6		9		10	10			
55	3					4	6		7	9		10				
75						5		7		9	10					
90						6				10						
110						6	7					11			12	
132															12	
160								8	10		11				12	12
200						7		8							12	12
250						7		8	8		11			12	12	12
315							8	8						12	12	13
355							8							12	12	13
400							8							12	12	13
500														12	13	13
560														12	13	13
630						8								12	13	13
710						8								13	13	13
800						8								13	13	
900						8								13	13	
1000														13	13	
1500													13			
2000																
2500																



Not possible



Possible

1 = €2k

4 = €7k

7 = €16k

9 = €48k

12 = €240k

2 = €4k

5 = €11k

8 = €55k

10 = €55k

13 = €330k

3 = €5k

6 = €13k

11 = €95k

DISCLAIMER: Every case is unique, MGH will be happy to check and validate your selection. These prices are indicative for 2025 and may change.

