

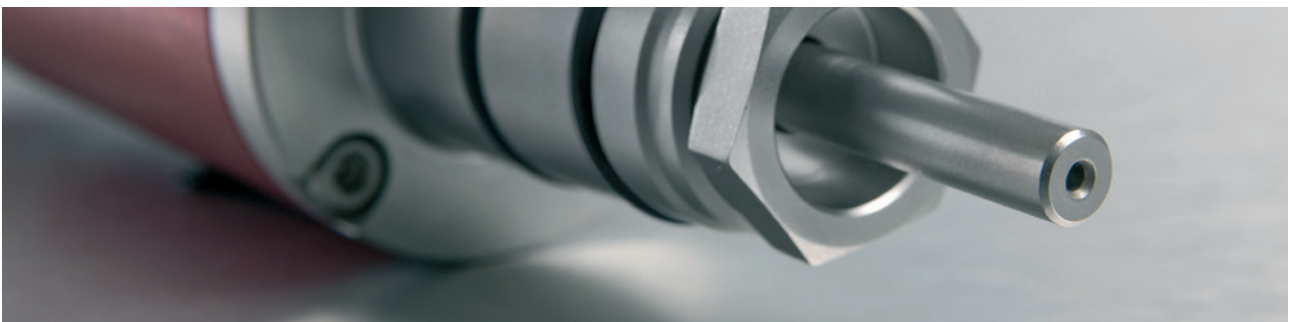


# **UK** Flowtechnik

Specialists in flow metering, pumps, couplings  
and process measurement equipment

**Solutions for Fluid Technology**

**DST** *.magnetic  
couplings*



**PERMANENT MAGNETIC SYSTEM TECHNOLOGY**  
CONTACTLESS AND LEAKAGE-FREE TORQUE TRANSMISSION



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## UK FLOWTECHNIK – YOUR COMPETENT DST PARTNER

UK Flowtechnik Ltd. is a joint venture between the German e.holding company group and Flowtechnik, a subsidiary of Hydrotechnik UK Ltd. We supply and distribute flowmeters, instrumentation, specialist pumps, magnetic couplings and high-quality hydraulic components of the German quality brands DST, VSE, Beinlich and HBE on the British market.

## STRONG AND SAFE POWER TRANSMISSION

DST is a leading international manufacturer of permanent magnetic couplings and systems. DST offers a wide assortment of standard magnetic couplings. Agitator drives and a large selection of canisters supplement our product line. The core competence of DST is the design of customised couplings in close cooperation with UK Flowtechnik and the client. We have extensive knowledge and experience in contact-free torque transmission.

## SOLUTIONS IN COOPERATION WITH THE CUSTOMER

Our clients benefit from our technical know-how and from a close cooperation throughout all stages of planning and production. We support your projects optimally through our comprehensive application and material knowledge. With more than 1,000 magnet configurations we can achieve the best possible performance for our clients for most diverse applications. We have a suitable solution for almost every requirement.

## COUPLINGS FOR VARIOUS APPLICATIONS

DST provides environmentally friendly and cost-effective solutions. In cases where highly toxic or aggressive media is being used, DST products enable a leakage-free torque transmission and comply with highest safety requirements. Due to special safety features, DST magnetic couplings are applied in many industrial areas such as the chemical, pharmaceutical and food industries, in biotechnology, industrial furnaces, water management, compressors, measurement and dosing technology as well as in hydraulics and petrochemistry.

## QUALITY PRODUCTS AND EXCELLENT SERVICE

UK Flowtechnik, based in Nottingham, is your local partner for individual product solutions with permanent magnetic couplings and agitator drives for various applications. We provide distribution, application expertise, quality service and technical support. Starting from the first inquiry, we provide personal consultations tailored to each individual need.

We work closely with our customers from the initial inquiry stage onwards and can provide innovative solutions for the most demanding of applications. We have a wealth of experience in helping you choose the most effective solution for your application along with excellent technical knowledge and support. Our friendly team is always on hand to deal with your enquiry.



# MAGNETIC COUPLINGS

Permanent magnetic couplings are essential for environmentally compatible drive solutions. The use of a magnetic coupling is recommended for applications where the fluid must not come into contact with the external environment, eliminating problems of leakage. In applications with critical, highly toxic or aggressive media, hermetically sealed drives are inevitable. DST permanent magnetic couplings offer a reliable alternative to conventional dynamic seals due to their contactless and leakage-free torque transmission in pumps and agitators.

## FEATURES

### PERFORMANCE

Standard: 1 – 1,200 Nm

Customer specific: 0.1 – > 10,000 Nm

### APPLICATIONS

- Process engineering
- Chemical industry
- Pharmaceutical industry
- Industrial furnaces
- Water management
- Compressors
- Dosing technology
- Hydraulics
- Petrochemistry
- Ship industry

### HIGHLIGHTS

- ATEX compliance
- More than 1,000 magnet configurations
- Customer specific solutions
- Contactless torque transmission
- Hermetic separation of the driving and driven side
- Resistant to aggressive media
- Maintenance-free

### MATERIALS

Optimally matched to the various media, the wetted parts of the magnetic coupling are made of different materials:

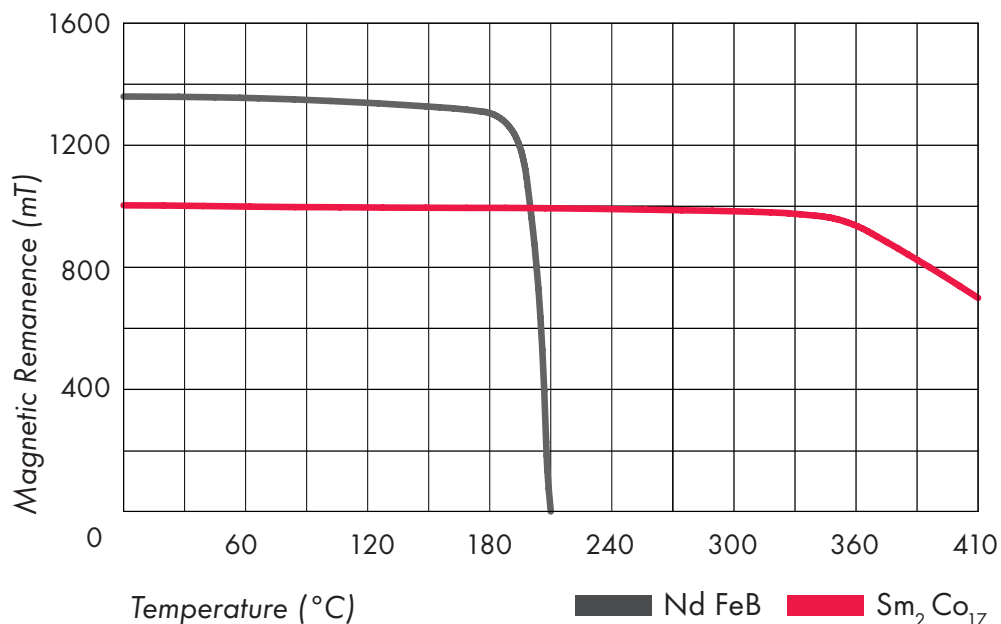
- 1.4301, 1.4401, 1.4404, 1.4435, 1.4462, 1.4539, 1.4980
- 3.7165 Titanium Grade 5, Hastelloy C-4, C-22, C-276
- PTFE, PFA, TFM

## STANDARD CONSTRUCTION RANGES

Type	Power	Drawing No.
DST 27/1	1 Nm	D055M0017
DST 27/2	2 Nm	D055M0018
DST 45/4	4 Nm	D055M0013
DST 45/6	6 Nm	D055M0062
DST 45/8	8 Nm	D055M0015
DST 60/7	7 Nm	D055M0075
DST 60/10	10 Nm	D055M0136
DST 60/14	14 Nm	D055M0076
DST 60/22	22 Nm	D055M0077
DST 75/10	10 Nm	D055M0022
DST 75/20	20 Nm	D055M0028
DST 75/30	30 Nm	D055M0036
DST 75/40	40 Nm	D055M0044
DST 75/60	60 Nm	D055M0061
DST 110/22	22 Nm	D055M0024
DST 110/50	50 Nm	D055M0031
DST 110/80	80 Nm	D055M0039
DST 110/100	100 Nm	D055M0083

Type	Power	Drawing No.
DST 135/85	85 Nm	D055M0026
DST 135/100	100 Nm	D055M0063
DST 135/135	135 Nm	D055M0033
DST 135/180	180 Nm	D055M0041
DST 135/220	220 Nm	D055M0010
DST 165/140	140 Nm	D055M0027
DST 165/200	200 Nm	D055M0034
DST 165/275	275 Nm	D055M0042
DST 165/365	365 Nm	D055M0047
DST 200/550	550 Nm	D055M0112
DST 200/700	700 Nm	D055M0113
DST 200/850	850 Nm	D055M0114
DST 200/1000	1000 Nm	D055M0115
DST 200/1200	1200 Nm	D055M0203

All DST standard couplings are also available with encapsulated outer rotor and as version for bearing.



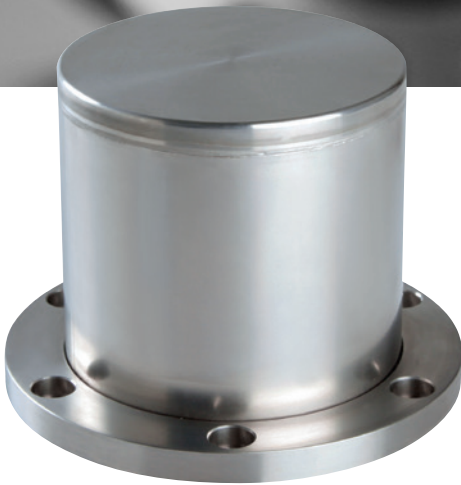
Temperature curve of Sm<sub>2</sub>Co<sub>17</sub> and Nd FeB magnets.

Sm<sub>2</sub>Co<sub>17</sub> magnets are suitable for temperatures up to appr. 350°C.

(higher temperatures for both magnets upon request)



# CANISTERS



## STANDARD METALLIC CANISTER

**Material** Hastelloy (1.4571 / 2.4610)

**Pressure** Vacuum up to 25 bar

**Temperature** -190°C up to +350°C

DST designs and manufactures canisters of highest quality. The large range is available in various materials and hereby covers a wide spectrum of applications. DST canisters can be applied even at high temperatures and pressures, along with an outstanding chemical resistance. Additionally, several canisters are based on materials that are not producing any eddy current losses. DST offers a suitable solution for just about every requirement.



## DOUBLE WALL CANISTER

**Material** Hastelloy (1.4571 / 2.4610)

**Pressure** Vacuum up to 25 bar

(as a special solution possible up to 200 bar)

**Temperature** -190°C up to +350°C



## TITANIUM CANISTER

**Material** Titanium GR 5

**Pressure** Vacuum up to 100 bar

(as a special solution possible up to 300 bar)

**Temperature** -190°C up to +350°C



### PEEK CANISTER

**Material** PEEK, 30% carbon fibre reinforced

**Pressure** Vacuum up to 16 bar\*

(\* 16 bar up to 80°C, 10 bar up to 120°C)

**Temperature** -20°C up to +200°C



### CERAMIC CANISTER

**Material** Zr<sub>2</sub>MgO

**Pressure** Vacuum up to 17 bar

**Temperature** -190°C up to +350°C



### CFK/PTFE CANISTER

**Material** Carbon fibre with PTFE inliner

**Pressure** Low vacuum up to 60 bar

**Temperature** -20°C up to +200°C



### BOROHARDCAN®

**Material** Borosilicate

**Pressure** PN16

**Temperature** -250°C up to +450°C



### CUSTOMER SPECIFIC CANISTER

Combination of canister and bearing carrier for overhead agitator drives

**Material** Different stainless steels, Hastelloy, titanium

**Pressure** High vacuum up to 700 bar

**Temperature** Up to +400°C



### CUSTOMER SPECIFIC CANISTER

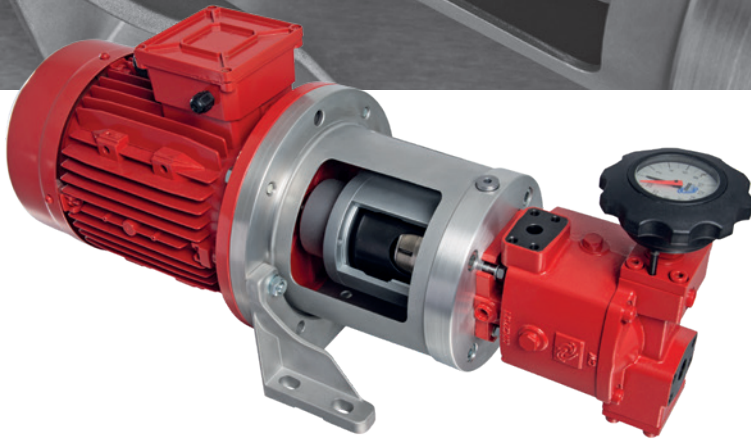
Bottom mounted agitator drives

**Material** Different stainless steels, Hastelloy, titanium

**Pressure** Up to 100 bar

**Temperature** Up to +120°C

# CONVERSION KITS



Conversion kits can be retro-fitted in many areas, for example in PU machines or for hydraulic applications. DST conversion kits allow a combination with all leading makes of pumps and drive motors. A conversion kit converts a pump, for example, on a PU machine with a mechanical seal and standard spider coupling, into a permanent hermetically sealed system. The conversion kit is equally suitable for new installations as well as retrofit applications, and allows simple conversion to the magnetic drive technology.

## FEATURES

### PERFORMANCE

1 – 1,200 Nm

### COMPONENTS

DST conversion kits consist of all elements required to ensure a contactless and leakage-free operation. On request also with foot flange, damping elements and sensor monitoring (PT100, speed and leakage monitoring).

### APPLICATIONS

- PU machines
- Compressors
- Chemical industry
- Hydraulics

### HIGHLIGHTS (METALLIC CANISTERS)

- Fullflow design
- High pressure design with titanium canister
- Bearing block design
- Customised solutions
- Good chemical resistance

### HIGHLIGHTS (PEEK CANISTERS)

- Compact design
- No eddy current losses
- Bearing block design
- Increased torque with almost every size
- Reduced load on the bearings of pump and motor
- No cooling required
- Existing pipe systems may remain unchanged
- Good chemical resistance



## COMBINATION OF CONVERSION KITS WITH METALLIC CANISTER

Pump Type	Motor	Torque	Coupling
SAM H1V6PV	BG100-112	30 Nm	DST 75/30
SAM 06cc	BG100-112	30 Nm	DST 75/30
SAM/REX 12cc	BG132	80 Nm	DST 110/80
SAM/REX 12cc	BG160	135 Nm	DST 135/135
SAM/REX 28cc	BG132	80 Nm	DST 110/80
SAM/REX 28cc	BG160	135 Nm	DST 135/135
SAM/REX 28cc	BG180	180 Nm	DST 135/180
SAM/REX 55cc	BG160	135 Nm	DST 135/135
SAM/REX 55cc	BG180	180 Nm	DST 135/180
SAM/REX 55cc	BG200	275 Nm	DST 165/275
SAM/REX 55cc	BG225	365 Nm	DST 165/365
SAM/REX 107cc	BG225	365 Nm	DST 165/365
SAM/REX 107cc	BG250	500 Nm	DST 165/500

Pump Type	Motor	Torque	Coupling
Rotary Power C01	BG91	20 Nm	DST 75/20
Rotary Power C01	BG100-112	30 Nm	DST 75/30
Rotary Power C04	BG100-112	40 Nm	DST 75/40
Rotary Power C04	BG132	80 Nm	DST 110/80
Rotary Power C07	BG132	80 Nm	DST 110/80
Rotary Power C20	BG132	80 Nm	DST 110/80
Rotary Power C20	BG160	135 Nm	DST 135/135
Rotary Power C20	BG180	180 Nm	DST 135/180
Rotary Power C38	BG180	180 Nm	DST 135/180
Rotary Power C38	BG200	275 Nm	DST 165/275
Rotary Power C38	BG225	365 Nm	DST 165/365

Further pump types on request

## COMBINATION OF CONVERSION KITS WITH PEEK CANISTER

Pump Type	Motor	Torque	Coupling
SAM H1V6PV	BG100-112	35 Nm	DST 75/35
SAM 06cc	BG100-112	35 Nm	DST 75/35
SAM/REX 12cc	BG132	80 Nm	DST 110/80
SAM/REX 12cc	BG160	135 Nm	DST 110/135
SAM/REX 28c	BG132	80 Nm	DST 110/80
SAM/REX 28c	BG160	135 Nm	DST 110/135
SAM/REX 28c	BG180	185 Nm	DST 110/185
SAM/REX 55cc	BG160	170 Nm	DST 135/170
SAM/REX 55cc	BG180	205 Nm	DST 135/205
SAM/REX 55cc	BG200	275 Nm	DST 135/275
SAM/REX 55cc	BG225	350 Nm	DST 165/350
SAM/REX 107cc	BG225	350 Nm	DST 165/350
SAM/REX 107cc	BG250	450 Nm	DST 165/450

Pump Type	Motor	Torque	Coupling
Rotary Power C01	BG91	20 Nm	DST 75/20
Rotary Power C01	BG100-112	35 Nm	DST 75/35
Rotary Power C04	BG100-112	50 Nm	DST 75/50
Rotary Power C04	BG132	80 Nm	DST 75/80
Rotary Power C07	BG132	80 Nm	DST 75/80
Rotary Power C20	BG132	80 Nm	DST 75/80
Rotary Power C20	BG160	135 Nm	DST 110/135
Rotary Power C20	BG180	185 Nm	DST 110/185
Rotary Power C38	BG180	185 Nm	DST 110/185
Rotary Power C38	BG200	275 Nm	DST 135/275
Rotary Power C38	BG225	350 Nm	DST 165/350

Further pump types on request

# AGITATOR DRIVES



DST agitator drives made from stainless steel 1.4435/1.4404 are available as overhead drive or bottom mounted drive. The overhead drive prevents the escape of any hazardous gases or the ingress of contamination during agitation. By using a bottom mounted agitator drive, the agitator is hermetically sealed, thus preventing any escape of the medium.

## OVERHEAD DRIVES

### PERFORMANCE

0.1 – 11,000 Nm

### HIGHLIGHTS

- Complete unit with motor
- Compact design for the laboratory technology
- High pressures and temperatures possible
- Everything from a single source
- Customer-specific solutions

### APPLICATIONS

- Autoclaves
- PU industry
- Chemical industry
- Laboratory technology

## BOTTOM MOUNTED DRIVES

### PERFORMANCE

0.3 – 1000 Nm\*

### HIGHLIGHTS

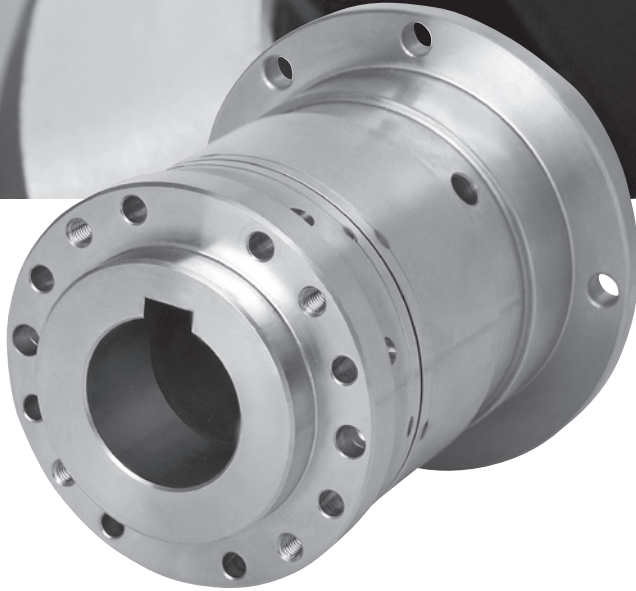
- Very good surface finish
- Optionally equipped with speed monitoring
- Canister flange as screw or welding flange
- Various materials are available
- Customer-specific solutions

### APPLICATIONS

- Food industry
- Pharmaceutical industry
- Process industry

\* <150 Nm incl. SSIC bearing,  
further bearings made of steel or plastic on request

# SSiC PLAIN BEARINGS



Predominantly for use in centrifugal pumps, DST produces complete SSiC ceramic plain bearings. The bearings are available as axial and radial types and can be combined with the DST standard permanent magnetic couplings. SSiC ceramic plain bearings are produced using newest material combinations and modern manufacturing technology.

## FEATURES

### SIZES

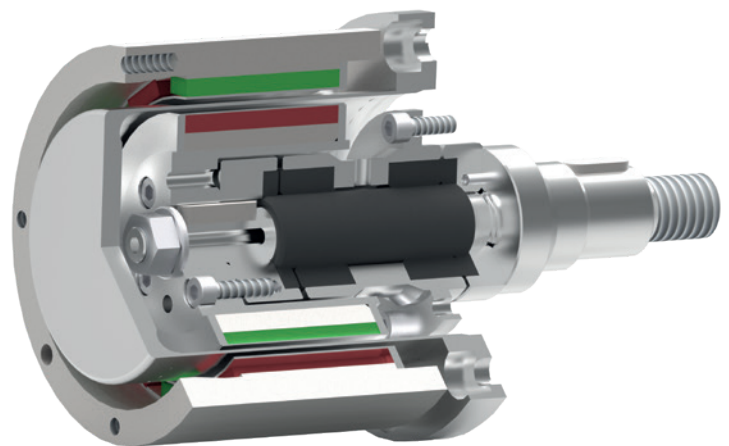
- DST Standard 60 to 200
- Customer-specific design on request

### HIGHLIGHTS

- Very good corrosion resistance
- High wear resistance
- Very good thermal shock resistance
- Conditioned dry running capacities (on request)

### MATERIALS

- Bearing: SSiC, SSiC with carbon parts
- Housing: 1.4571, 1.4462, 1.4404, 3.7035



DST standard magnetic coupling including SSiC ceramic plain bearing

