

Büchi Magnetic Drives

Absolutely tight, safe and dependable

bmd 075 / bmd 300 / bmd 800 / bmd 1200 / bmd 1800 / bmd 3600 / bmd 5400
cyclone 075 / cyclone 300



- Büchi quality
- well designed
- safe and reliable
- PED / ATEX
- corrosion resistant
- easy maintenance
- compact design

Application

Leak-free stirring
system for pressure
reactors



 **büchiglasuster**
switzerland Pilot Plant and Reactor Systems

BÜCHI – THE WAY TO GET RESULTS!

compact design

reliable operation

easy handling

little maintenance

safe reactions



How a «bmd» magnetic drive works

The main difference between a magnetic drive and conventional drives such as rubber glands, lip seals or mechanical seals is the non-contact driven stirrer shaft. The external magnet and the internal magnet are virtually connected through the strong magnetic field. The external magnet is located outside the pressure chamber. The internal magnet inside the pressure chamber is mounted to the stirrer shaft and rotates simultaneously with the motor driven external magnet.

Standard range bmd 075 to bmd 1200

For technical details of the standard range of «bmd 075» to «bmd 1200» and «cyclone 075» / «cyclone 300» refer to the table on reverse side.



ATEX-version optional



bmd 075



bmd 300



bmd 800



bmd 1200

yclone 075 / cyclone 300 – Magnetic couplings with integrated stirrer motor

The «cyclone 075 / 300» is equipped with an electric motor, which is combined with a magnetic coupling «bmd 075 / 300» into a hermetically sealed unit. The controller allows for stepless adjustment of the agitator speed. The controller is equipped with a remote control input for external speed adjustment.

practical, simple, compact

The drive is installed on the cover plate with an M36x1.5 thread. No additional fixtures are required.



bmd 1800 to bmd 5400 for pilot scale

For technical details of «bmd 1800» to «bmd 5400» refer to the table on reverse side.



ATEX standard



bmd 1800



bmd 3600



bmd 5400

The reliable and pressure tight alternative to conventional mechanical seals.

Designed for heavy duty operation in industrial applications

Maintenance-free due to employment of ceramic ball bearings

Applications



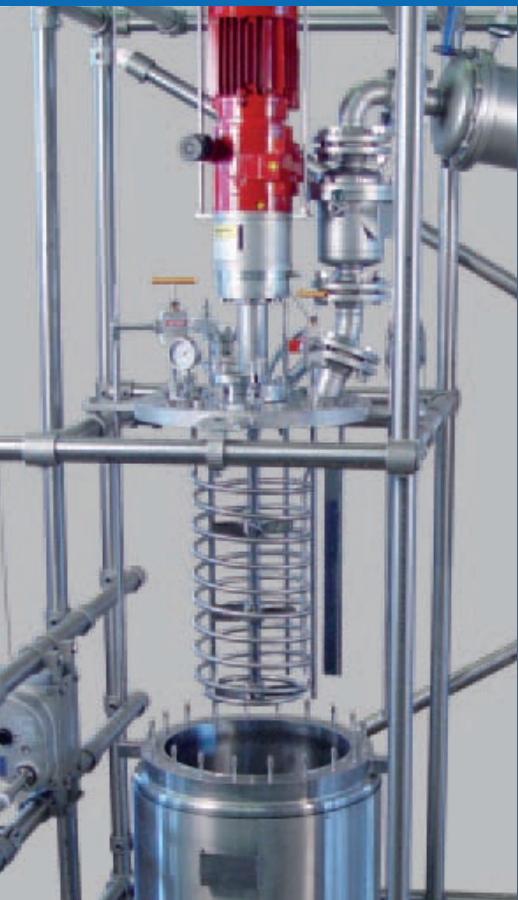
bmd 1800 on 100 liter Hastelloy reactor



cyclone 300 on versoclave



cyclone 075 on Büchi ecoclave



bmd 1800 on 80 liter hydrogenation reactor



bmd 5400 on 20 liter polymerization reactor



bmd 800 on custom kiloclave



bmd 300 with ATEX drive on polyclave

Technical data

Type	bmd 075	bmd 300	bmd 800	bmd 1200	cyclone 075	cyclone 300	bmd 1800	bmd 3600	bmd 5400
Dimensions in mm									
Height	133	222	252	282	300	500	375	400	425
Diameter	46	67	67	67	96	115	160	160	160
Torque in Ncm									
	75	300	800	1200	75	300	1800	3600	5400
Pressure									
Vacuum -1 bar	o	o	o	o	o	o	o	o	o
Pressure max. 50 bar							o	o	o
Pressure max. 100 bar	o				o		s	s	s
Pressure max. 150 bar	s	o	o	o	s	o	s	s	s
Pressure max. 200 bar	s	s	s	s	s	s	s	s	s
Pressure max. 350 bar	s	s	s	s	s	s			
Temperature on magnet									
max. 200°C	o	o	o	o	o	o	o	o	o
cooling jacket	c	c	c	c	c	c	c	c	c
Speed									
max. 1200 1/min.							o	o	o
max. 2000 1/min.		o	o	o		o			
max. 2500 1/min.		s	s	s					
max. 3000 1/min.	o	s	s		o				
Bearing									
Slide bearing PTFE/Graphite	o	o	o	o	o	o			
Slide bearing PTFE	c	c	c	c	c	c			
Slide bearing PEEK	c	c	c	c	c	c			
Slide bearing Graphite		c	c	c		c			
Ball bearing Ceramic	s	s	s	s	s	s	o	o	o
Materials									
1.4435/1.4571	o	o	o	o	o	o	o	o	o
Hastelloy C22	o	o	o	o	o	o	o	o	o
others	s	s	s	s	s	s	s	s	s
stirrer shaft									
Ø (mm)	10	16	16	16	10	16	22	22	22
others	s	c	c	c	c	c	c	c	c
Length (mm)	c	c	c	c	c	c	c	c	c
Connection									
thread M 36x1,5	o	o	o	o	o	o	s	s	s
NS 29/32	o				o				
Flange							o	o	o
others	s	s	s	s	s	s	s	s	s

o Standard s special c custom made



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Pilot Plant and Reactor Systems