

# Solenoid actuator MB 7 and butterfly valves BVHM

Product brochure · GB  
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CE

krom  
schroder

- For gas, air, hot air and flue gas
- Low leakage rate and pressure loss
- Robust design for a long service life
- Simple installation using fastening set
- Valve disc position indicator
- Burner output adjustment by integrated air volume control for minimum and maximum flow rate
- Suitable for intermittent operation due to large number of operating cycles





*Solenoid actuator  
MB 7, quick or slow  
opening*

### Application

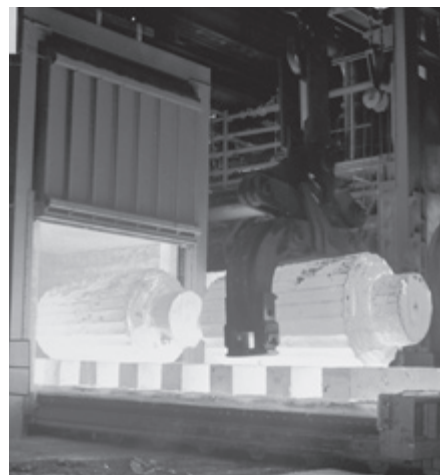
The solenoid actuator MB 7 serves as a drive for the butterfly valve BVHM. The unit made up of solenoid actuator MB 7 and butterfly valve BVHM can be used for staged control of industrial installations in cold- or hot-air operating mode.

Solenoid actuator MB 7 indicates the position of the valve disc. The air volumes for low and high fire can be controlled independently.

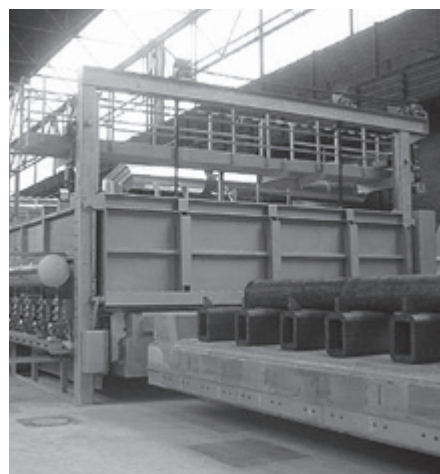
Due to the large number of operating cycles of solenoid actuator MB 7, the butterfly valve BVHM is suitable for intermittent operation.



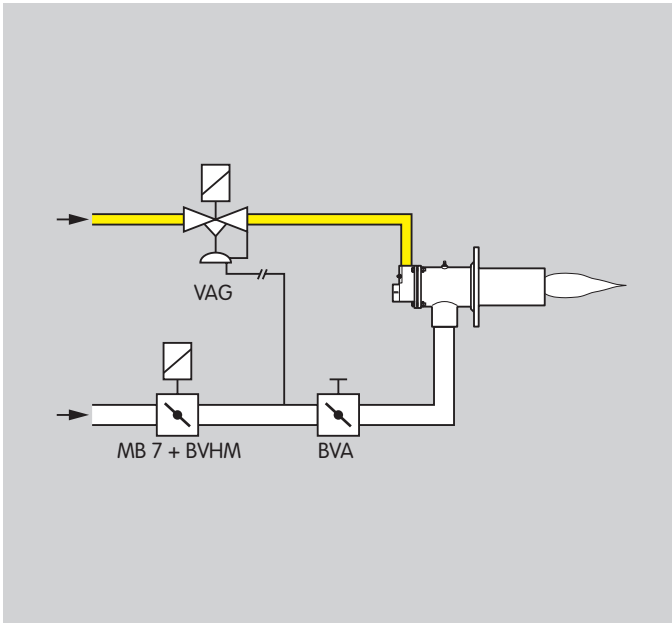
*Solenoid actuator MB  
7 on butterfly valve  
BVHM for staged con-  
trol of hot or cold air*



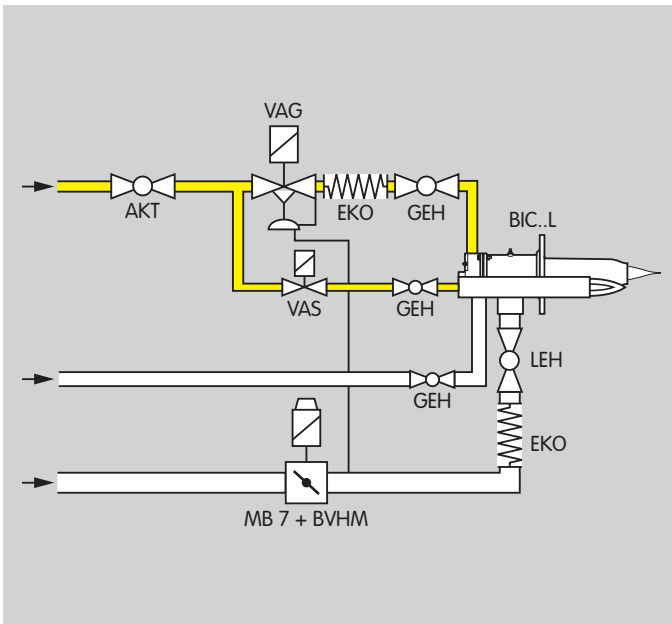
*Butterfly valve BVHM  
on forging furnace to  
reduce the oxygen  
level*



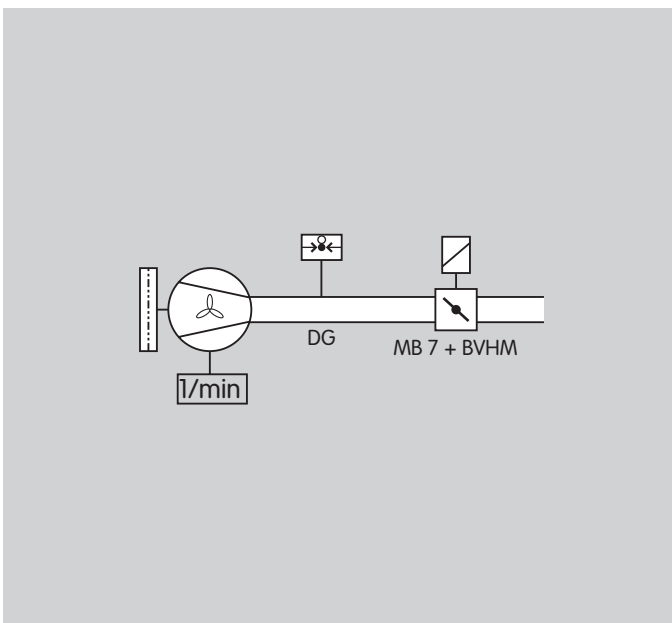
*Bogie hearth  
annealing furnace*



**Large number of operating cycles for intermittent operation**  
Solenoid actuator MB 7 with butterfly valve BVHM is suitable for intermittent operation. The air volumes for low and high fire can be set independently on the solenoid actuator MB 7.



**Air supply to forging furnace**  
The air supply to the forging furnace is controlled by the solenoid actuator MB 7 with slow opening and slow closing damping unit in conjunction with the butterfly valve BVHM. Since the valve disc is provided with a stop, the oxygen level in the furnace atmosphere is reduced in order to prevent scale formation on the material to be treated to an even larger extent.



**Cooling air for annealing furnace**  
A fan introduces additional cooling air into the furnace through air nozzles. The air volume is controlled by the solenoid actuator MB 7 without damping unit and the butterfly valve BVHM.

## Replacement possibility for solenoid actuator

M is to be replaced by MB 7\*

M	Solenoid actuator for butterfly valve K	Solenoid actuator for butterfly valve BVHM	MB
5	Actuator size	Actuator size	7
6			7
R	Slow opening, slow closing	Slow opening, slow closing	R
L	Slow opening, quick closing	Slow opening, quick closing	L
N	Quick opening, quick closing	Quick opening, quick closing	N
T	Mains voltage: 220/240 V AC, 50/60 Hz	Mains voltage: 230 V AC, 50/60 Hz	W
Q	110/120 V AC, 50/60 Hz	120 V AC, 50/60 Hz	Q
		24 V DC	K
3	Electrical connection via terminals	Electrical connection via terminals	3
6	With 3-pin standard socket	With 3-pin standard socket	6
6L	With 3-pin standard socket, with lamp		–
9	Metal connection box		–

M 6LT3

Example

Example

MB 7LW3

\* For possibilities to replace butterfly valve K by BVHM, see Technical Information BVG, BVA, BVH, BVHM ([www.docuthek.com](http://www.docuthek.com)).

## Replacement possibility for butterfly valve K

K is to be replaced by BVHM

K	Valve	Butterfly valve for solenoid actuator M..B	BVHM
40*			40
50			50
65	Nominal diameter DN	Nominal diameter DN	65
80			80
100			100
T	T-product	T-product	T
Z	For fitting between two DIN flanges	For fitting between two flanges to EN-1092	Z
W	For fitting between two ANSI flanges	For fitting between two ANSI flanges	W
●	$p_e$ max. 130 mbar (1.89 psig)	$p_e$ max. 150 mbar (2.18 psig)	01
●	Temperature range 0–550 °C (0–1020 °F)	Temperature range 0–450 °C (0–840 °F)	●
A	With stop	With stop	A

K 80ZA

Example

Example

BVHM 80Z01A

\*Nominal size DN 40 only with disc clearance

● standard, ○ available

## Selection

### Solenoid actuator MB 7 for butterfly valve BVHM

Example

MB 7LW6

	7	R	L	N	W	Q	K	3	6
MB	●	●	●	●	●	●	●	●	●
Type									
Actuator size 7 for DN 40–100									
Slow opening, slow closing = R									
Slow opening, quick closing = L									
Quick opening, quick closing = N									
Mains voltage:									
230 V AC, 50/60 Hz = W									
120 V AC, 50/60 Hz = Q									
24 V DC = K									
Electrical connection:									
Terminal connection box, IP 54 = 3									
Terminal box with 3-pin standard socket, IP 54 = 6									

### BVHM: Butterfly valve for hot air and flue gas up to 450°C (only in conjunction with solenoid actuator M..B)

Example

BVHM 50Z01

	40	50	65	80	100	T	Z	W	01	A*
BVHM	●	●	●	●	●	●	●	●	●	●
BVHM	●	●	●	●	●	●	●	●	●	●
Type										
Nominal diameter DN = 40, 50, 65, 80, 100										
T-product = T										
For fitting between two flanges to EN-1092 = Z										
For fitting between two ANSI flanges = W										
Max. inlet pressure $p_e$ max.										
150 mbar (2.18 psi) = 01										
500 mbar (7.25 psi) = 05										
With stop bar = A*										

\* If "none", this specification is omitted.

## Technical data

### MB 7

Number of operating cycles: High

Actuator MB 7 for valve housing BVHM 40 to BVHM 100

Mains voltage:

230 V AC +10/-15%, 50/60 Hz,  
120 V AC +10/-15%, 50/60 Hz,  
24 V DC +20/-20%.

The electrical power is the same both when switching on and in continuous operation.

Power consumption	
230 V AC	83 W
120 V AC	90 W
24 V DC	75 W

Ambient temperature:

-20 to +60°C (-4 to +140°F).

Enclosure: IP 65.

MB 7..R

Slow opening: approx. 2–4 s,

Slow closing: approx. 2–4 s.

MB 7..N

Quick opening: > 0.5 s,

Quick closing: > 0.5 s.

MB 7..L

Slow opening: approx. 2–4 s,

Quick closing: > 0.5 s.

### BVHM

Gas type: Air and flue gas.

DN: 40 to 100.

Housing material: GGG,  
Valve disc: Stainless steel,  
Drive shaft: Stainless steel.

Inlet pressure  $p_a$ :

max. 150 mbar (2.16 psig).

Pressure differential between inlet pres-

sure  $p_e$  and outlet pressure  $p_d$ :

max. 150 mbar (2.16 psig).

Medium temperature:

-20 to 450 °C (-4 to +840 °F),

Ambient temperature:

-20 to +60 °C (-4 to +140 °F).

## Certification

### MB 7

Kromschroder AG hereby certifies conformity with the following EU Directives:

- Low Voltage Directive (73/23/EEC) on the basis of EN 60730-1,
- Electromagnetic Compatibility Directive (89/336/EEC) on the basis of EN 50082-2 and EN 50081-1.

### FM approval

In preparation.

### UL approval

In preparation.

### BVHM

UL approval for butterfly valve BVHM is currently being prepared.

## Maintenance cycles

### BVHM

The butterfly valve BVHM require little maintenance.

We recommend a function check once a year.

## Detailed information on this product

[www.docuthek.com](http://www.docuthek.com)

## Contact

[www.kromschroeder.com](http://www.kromschroeder.com) → Sales

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