

# BADU® BLOCK MULTI MAXIMUM STABILITY 1.

Corrosion-resistant - even with high brine concentrations.

Permanently improved rate of efficiency due to new surface qualities.

The innovative, completely plastic concept of the BADU Block Multi enhances the proven BADU Block technology, taking it to a completely unique level.



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### Benefits of the BADU Block Multi:

- > Internal coating is unnecessary for the completely plastic pump.
- > Wetted pump parts are made from optimised technically high-performance plastic (THP) - constantly robust, maintenance-free and economical.
- > Pump shaft does not come into contact with the pump liquid.
- > Corrosion-resistant and low-wear, even with high brine concentrations.
- > Maintenance-friendly plug-in shaft design.
- > Flexible attachment of IE3 and PM motors from 2.20 to 11.00 kW.
- > Plastic filter housing with transparent lid.
- > Filter basket and vent line made from stainless steel.

### WHY PLASTIC?

We wanted to improve the performance and eliminate systemic disadvantages of the BADU Block concept, which has already been proven a thousand times over. Robust with high brine concentrations, lighter, less wear, less maintenance - more flexibility. The THP plastic construction of the new BADU Block Multi achieves more in every respect.

For further questions or  
an individual consultation...  
**call us on: +49 9123 949-400**



# BADU® Block Multi

## Performance features

### 1 Motor

Standard trademark motor, optimised for the operating point with ball bearings that are lubricated for life. Further motor variations on page 15.

### 2 Plug-in shaft system

Motor can be replaced without having to completely disassemble the pump or without having to dismantle the mechanical seal.

### 3 Ventilation

An external vent line allows manual ventilation and results in the long life of the mechanical seal.

### 4 Pump shaft

Pump shaft made from stainless steel. Motor/pump shaft has no contact with the medium providing complete electrical separation.

### 5 Mechanical seal

Maintenance-free bellow-type mechanical seal is cooled and lubricated by the pumping liquid. This allows long durability and long intervals between maintenance periods.

### 6 Impeller

Closed impeller for optimal smooth running and durability of the whole pump.

### 7 Pump material

THP (technically high-performance plastic). Permanent corrosion protection and protection against aggressive media for all relevant wetted parts due to completely plastic version.

### 8 Connections

Standardised connections, compatible with DIN and ASME (American standard).

### 9 Strainer basket

Low-wear with retaining plate as a handle and rotation lock. Robust welding seals. Curved edges for more stability.

### 10 Filter housing

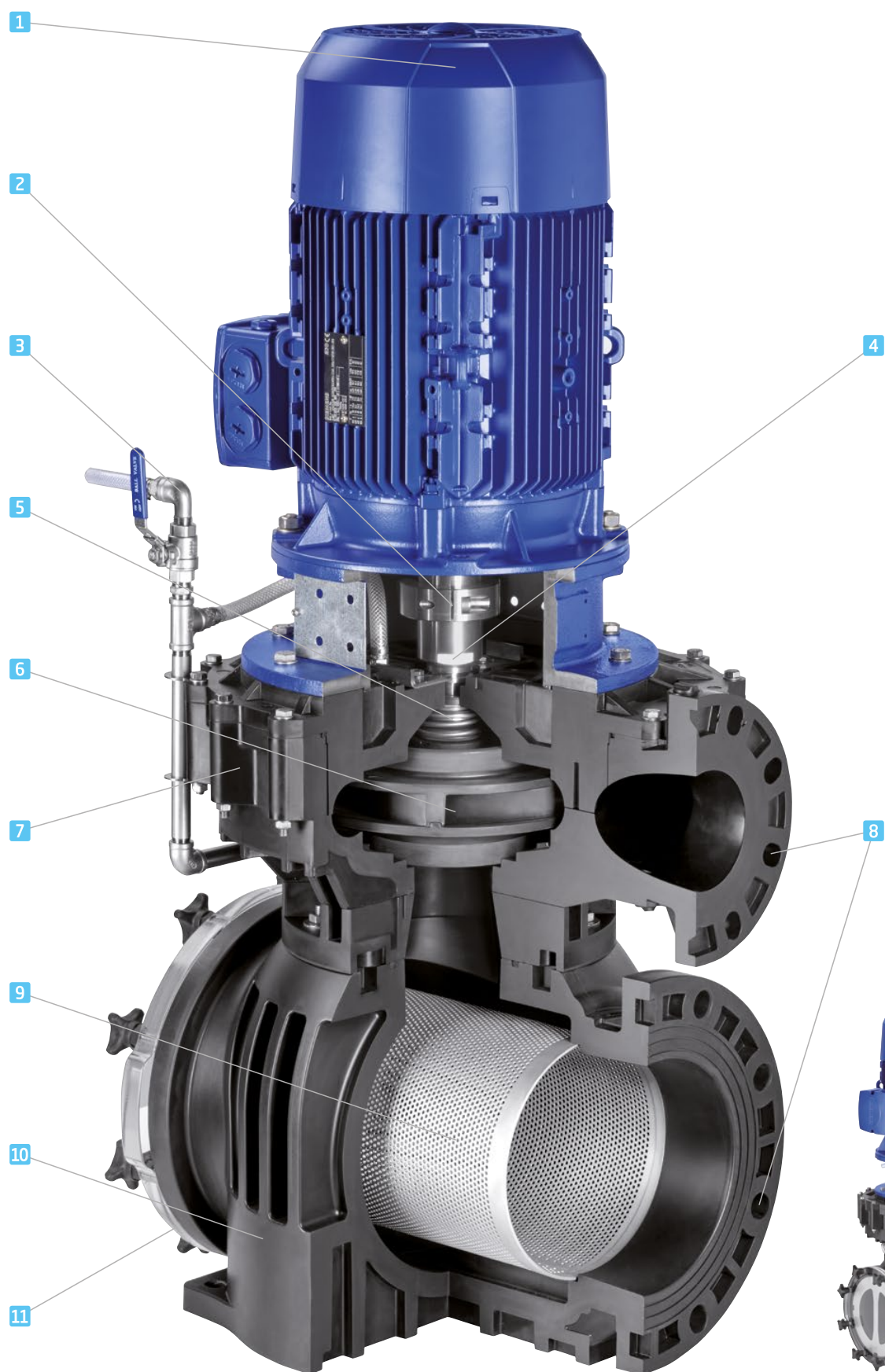
Completely plastic version. Corrosion-resistant without elaborate internal coating and can be used with high brine concentrations. Low-wear, robust and light.

### 11 Filter lid

Transparent, lightweight lid for convenient cleaning. Simple level control for drainage and visual checking of the level of pollution without having to open the lid.

> Detailed information regarding the BADU Block Multi can be found on page 14.





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Cross section



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BADU Block Multi

# BADU® Block Multi

## Description

### Field of application

Swimming pool water circulation and filtration as well as operation of swimming pool attractions in public swimming pools.

- Open-air and indoor pools
- Spas<sup>4)</sup>
- Pools with high salt concentrations<sup>4)</sup>
- Water treatment, e.g. filter unit construction
- Leisure facilities
- Attractions, e.g. water slides
- Shipbuilding<sup>4)</sup>
- Industry, e.g. cool water units<sup>4)</sup>
- Water supply, e.g. irrigation

### Design

Non-self-priming, single-stage, volute casing pump in vertical monoblock design. The process design allows easy replacement of the motor without disassembling the pipes. Due to the low motor speed, pump operation is quiet with very little wear and tear. The closed, well-balanced impeller can be individually adjusted to suit the respective operating conditions. Balancing is carried out in quality class 6.3 according to DIN ISO 1940. This ensures optimal smooth running and durability of the whole pump.

#### Filter housing capacity

BADU Block Multi 65/250 ..... approx. 9 l  
 BADU Block Multi 100/250 ..... approx. 19 l  
 Strainer basket mesh size ..... approx. Ø 3 mm

> Materials used can be found on page 17.

### Paintwork

RAL 5002, ultramarine blue.

> Customised paintwork on request.

### Technical data at 50/60 Hz

Flow rate ..... Q up to max. 250 m³/h  
 Dynamic head ..... H up to 24 m  
 Water temperature ..... t max. 40 °C  
 Maximal operating pressure ..... p 2.5 bar  
 Speed variables ..... n approx. 1450/1750 rpm

### Construction sizes

BADU Block Multi 65/250 ..... DND 65/DNS 125  
 BADU Block Multi 100/250 ..... DND 100/DNS 200

### Flange

up to DN 150 compatible with EN 1092-2 PN-16 and ASME  
 up to DN 200 compatible with EN 1092-2 PN-10 and ASME

### Noise generation

The sound power or sound pressure level is largely determined by both the motor and the pump and especially by the installation conditions and relevant installation situation. Special sound insulation measures are to be taken to reduce the transmission of structure-borne or airborne noise.

> More details regarding all designs, characteristics and dimensional drawings on request or at [badu.de](http://badu.de)



## Motor

### Motor

Directly mounted, DIN-IEC three-phase, low-noise operation, surface-cooled, removable motor in German brand quality. Energy efficiency class IE3 from 0.55 kW, including PTC resistor sensor with fixed bearings on the pump side. The motors are produced in the factory with closed condensation drain holes.

Construction .....	IM B 5
Protection class .....	IP 55
Idle speed .....	1450/1750 rpm
Frequency .....	50/60 Hz
Voltage 50 Hz .....	up to 2.20 kW: 230 V $\Delta$ /400 V Y
60 Hz .....	up to 2.60 kW: 265 V $\Delta$ /460 V Y
Voltage 50 Hz .....	from 3.00 kW: 400 V $\Delta$ /690 V Y
60 Hz .....	from 3.60 kW: 460 V $\Delta$
Class of insulation .....	F
Cooling air temperature .....	max. 40 °C

> Special motors on request.

### Direction of rotation

Clockwise, as seen on the motor fan.

### Bearing/lubrication

Motors up to construction size 160 have sufficiently dimensioned, maintenance-free, deep groove ball bearings according to DIN 625 with permanent lubrication.

#### 1 Standard motor

Make: Siemens IE3 motor from 0.55 kW.

**Advantage:** very high grade of efficiency.

#### 2 PM motor

Make: VEM IE4 motor.

**Advantage:** very high grade of efficiency.

#### 3 Water-cooled motor

Make: EMOD. Energy efficiency class depends on the temperature of the media.

**Advantage:** heat recovery.

> Motor design only available on request.



1 Standard motor



2 PM motor



3 Water-cooled motor

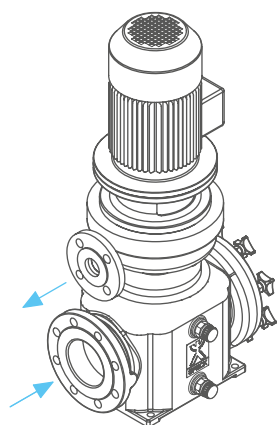
# BADU® Block Multi

## Connection positions

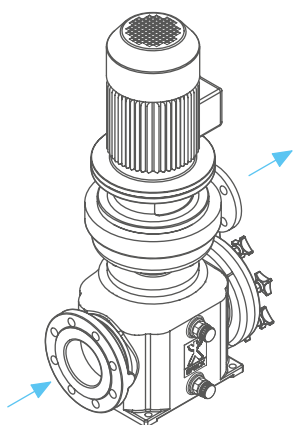
### Variable outlet connection positions

The outlet connection positions can be arranged flexibly where the installation conditions are less convenient. Therefore the pump can be adapted depending on the situation in the engineering room and installation area.

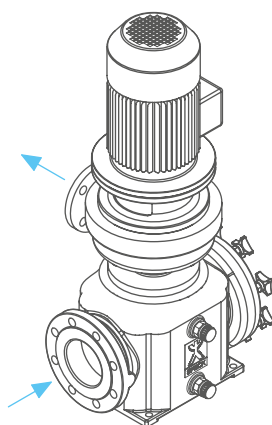
All pump types can be rotated on the filter housing by 45° and 90°.



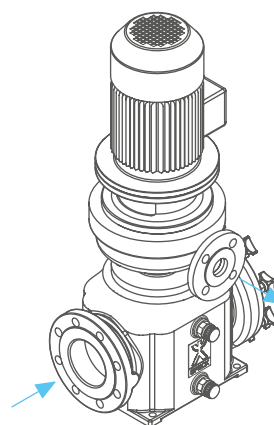
V  
Standard front



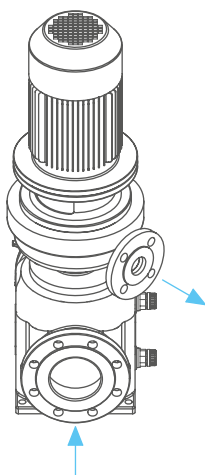
H  
back



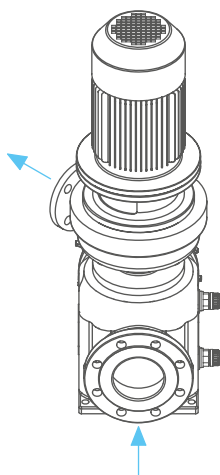
L  
left



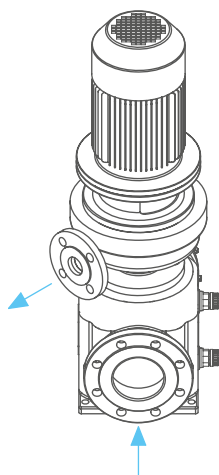
R  
right



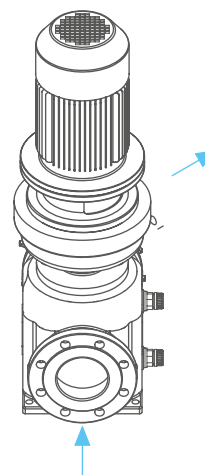
V45°  
front, rotated 45°



H45°  
back, rotated 45°



L45°  
left, rotated 45°



R45°  
right, rotated 45°



## Materials used

Design	BADU Block Multi	BADU Block Multi Mar
Casing parts	THP technically high-performance plastic	THP technically high-performance plastic
Impeller	THP technically high-performance plastic	THP technically high-performance plastic
Mechanical seal	carbon/SiC/EPDM	SiC/SiC/HNBR
Pump shaft (no contact with pump liquid)	stainless steel 1.4057	stainless steel 1.4057
Motor lantern	cast iron EN-JL 1040	cast iron EN-JL 1040
Filter housing	THP technically high-performance plastic	THP technically high-performance plastic
Strainer basket	stainless steel 1.4571	PVC
Filter lid	acrylic glass	acrylic glass

Subject to technical modifications.

**BADU Block Multi** > Circulation line and ball valve vent made from stainless steel and PVC hose.

**BADU Block Multi Mar** > Circulation line and ball valve vent made from PVC and PVC hose.

## BADU BLOCK MULTI MAR

### Field of application

Swimming pool water circulation and filtration as well as operation of swimming pool attractions in public swimming pools.

- Pools with thermal water and high salt concentrations<sup>4)</sup>
- Water treatment, e.g. fish farming

### 3 Ventilation

An external ventilation line allows manual ventilation and thus leads to a long service life for the mechanical seal. External ventilation made from plastic.

### 9 Strainer basket

Made from plastic. Robust design with handles.

#### Strainer basket mesh size

BADU Block Multi Mar 65/250..... approx. Ø 6 mm

BADU Block Multi Mar 100/250..... approx. Ø 10 mm

