

Trade fair news

speck pumpen

SPECK

BADU® Jet *vogue deluxe*

Pure luxury in your own pool!

The BADU® Jet vogue deluxe meets the highest standards and its presence alone transforms any pool into an experience of genuine luxury. Manufactured completely from ultra-high-quality stainless steel and created by expert product designers, its attractive shape radiates sheer class. The outstanding, innovative design of the BADU® Jet vogue with handle received the prestigious "red dot" design award in 2010. The BADU® Jet vogue deluxe goes even further and its luxurious design is expertly complemented by the materials used. In this model the air controller, control knobs, adjustable nozzle and cover are all made from stainless steel.



The performance of the BADU® Jet vogue deluxe also offers pure luxury – whether as a pool attraction (wave and bubble pool), for wellness (underwater massage) or as a fitness challenge (counter-swim system). It offers a completely new pool experience! The integral LED lights provide superb illumination for luxurious, atmospheric evenings. The unit can be rounded off with a stainless steel handle, multicolour LEDs and the new BADU® Jet wireless control system.

The counter-swim unit can be installed in the wall of all types of swimming pool. The unit's large number of openings ensures extremely low suction velocity. The water is then returned to the pool in a powerful jet via a adjustable nozzle. The pneumatic On/ Off switch, air bubble regulation and LED lights can be controlled from the comfort of the pool.

TECHNICAL DATA		Subject to technical changes!
BADU® Jet vogue deluxe		approvial pending
BADU® Jet pump	3~/1~	21-60/45 GT 27° / 21-60/44 GT 27°
Flow rate of pump (m³/h)	3~/1~	58 / 54
Voltage	3~/1~	3 N~400/230 V / 1~ 230 V
Power input P_1 (kW)	3~/1~	3,30/2,90
Power output P_2 (kW)	3~/1~	2,60/2,20
Number of nozzles (40 mm)		1
Flow pressure at nozzle (bar)	3~/1~	1,10/1,00
Flow velocity in centre 2 m from the nozzle (m/s)	3~/1~	1,20/1,10
Massage pressure max. (bar)	3~/1~	1,60/1,40

Dimensioned drawing – Dimensions in cm
Non binding installation scheme
(Dimensions in brackets = version without ballvalves)

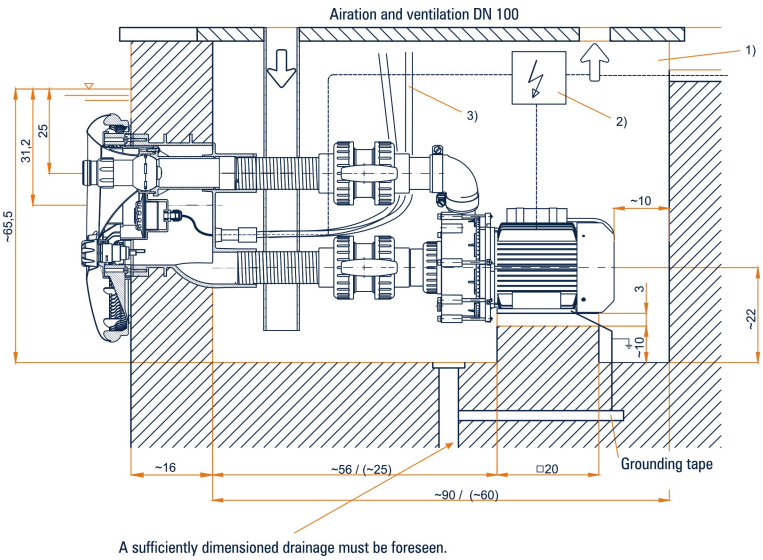
1) Shaft width min. 70 cm

2) Switchboard unit to be installed in a dry location switchboard should be installed above the waterlevel

3) Lead tube for pneumatic switching and air supply above water level and fix

a) Provide aeration and ventilation to prevent the formation of condensation water

b) Install pump on a footing or similar support



BADU® Jet vogue BADU® Jet vogue deluxe

Innovative sales support for an innovative design

To showcase the outstanding design of the BADU® Jet vogue and BADU® Jet vogue deluxe counter-swim units to the relevant target group, Speck Pumpen offers a high-quality presentation display for sales support.

Whether presented at trade fairs, in the showroom or in your customer consultation area – the design display unit ensures that these luxurious jet systems gain the attention they deserve.

Both units are mounted with cover and grab bar and allow your customers complete control of the integrated LED lights. You can specify in your order whether you want white, blue or multicolour lights. The BADU® wireless remote control unit is also optionally available.

The robust housing accommodates a monitor with speakers, which can be used to display photos or PowerPoint presentations. Despite its high strength, the display is relatively lightweight and therefore extremely flexible in terms of use. There is absolutely no problem taking it along to shows and trade fairs. Simply plug the display into the power supply at the presentation location and the BADU® Jet vogue/BADU® Jet vogue deluxe units show off their best features – with a minimum of installation effort!



BADU®Jet wireless control

Pure comfort in your own pool!



The BADU®Jet wireless control system is optionally available for all BADU®Jet submerged counter-swim units manufactured by Speck Pumpen. The user-friendly control of all functions brings a completely new level of comfort to the swimming pool!

You can now use the BADU®Jet wireless control system to control the BADU®Jet unit and the integrated LED lights (for BADU®Jet wave, BADU®Jet vogue and BADU®Jet vogue deluxe) from the comfort of your lounger or in the pool itself. The wireless control unit is ideal for pool use since as well as being waterproof it also floats. Further remote control buttons offer scope for additional options in the future.

Installation or retrofitting of the BADU®Jet wireless control system is equally straightforward. Once the wireless receiver has been connected to the control box on the counter-swim unit, the only thing that needs to be done is to make sure that the receiver is located near the pool within range of the transmitter. The unobstructed range is at least 40 metres, with obstructions (e.g. walls) the range is reduced to approx. 20 metres.

BADU®Jet pre-assembly kit

Keeps your pool options open!

The new pre-assembly kit from Speck Pumpen can be used with four different submerged counter-swim units, thus offering increased decision-making flexibility.

With a choice of four counter-swim systems in a variety of designs and materials and with various output ranges and optional extras (BADU®Jet smart, BADU®Jet wave, BADU®Jet vogue and BADU®Jet vogue deluxe), it can often take customers quite a while to decide on the option they want. However, thanks to the new pre-assembly kit this is no longer a problem when planning and constructing the pool. The four different jet systems can be selected, fitted or even retrofitted later in the decision-making process!

The design of the pre-assembly kit also has a number of other benefits. The complete absence of brass components means there are no problems from contact with the pool water. Because the area under pressure is restricted to the outlet nozzle, this avoids stress on the main housing. The components that need to be fixed with Tangit adhesive are easy to handle and extremely repair-friendly.

A flange kit included in the scope of supply ensures that the pre-assembly kit can be fitted optimally in concrete, steel wall, stainless steel and polyester pools without any additional costs. A formwork aid is also available for installation in concrete pools. This aid makes it easy to ensure precise formwork for the main housing and the correct arrangement of openings for inlet and outlet connections, cable protection hose and air regulation.

The new pre-assembly kit also means increased storage capacity for dealers. Instead of having to keep various kits in stock, you now only need one kit for the BADU®Jet smart, BADU®Jet wave, BADU®Jet vogue and BADU®Jet vogue deluxe submerged counter-swim units.



BADU® Eco Touch

The BADU® revolution for your pool!



The highly efficient, self-priming BADU®Eco Touch pump significantly reduces operating costs and CO_2 emissions in comparison with conventional induction motor pumps. In practice, it pays for itself in around 2 years!

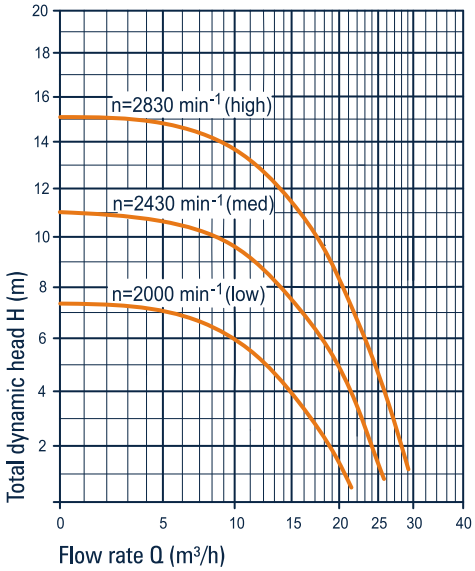
The patented permanent magnet motor (EC motor) has been perfected for use in filters for pools with volumes of approx. 30 m³ to 70 m³. Whether it's being used at low speed (overnight mode), moderate speed (normal filter mode) or high speed (filter backwash mode), a state-of-the-art electronic control system provides three preset levels for efficient and environmentally friendly pump performance. The different modes can be easily and intuitively selected with the three control panel buttons. External control systems, e.g. BADU®Eco Touch I or BADU®Eco Touch II, can be integrated via a separate interface.

Slower filtration reduces the energy consumption and leads to improved water quality. This not only reduces the need for chemical water treatment agents and the resulting environmental impact, it also protects the filter medium and reduces backwash times at high motor speeds. This three operating modes avoid the need to run for long periods at maximum power. This saves energy and also contributes to a significantly longer filter unit service life.

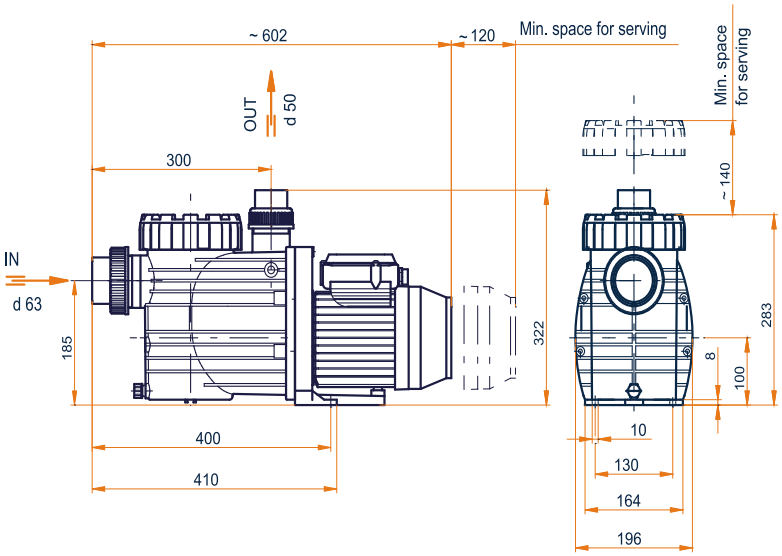
An easy-to-use Excel® worksheet is available free of charge to swimming pool constructors to help calculate the actual economic efficiency of customer projects. After entering the electricity price and operating times of the three operating points, Excel works out energy consumption, energy costs and CO2 savings. In addition, the comparative pump costs can be displayed over a 10-year period.

TECHNICAL DATA		Subject to technical changes!
BADU®Eco Touch at 50 Hz and 60 Hz		approvial pending
Inlet/outlet connection d (mm)		63/50
Rec. inlet/outlet pipe, PVC-pipe, d		63/50
Motor speed (min^{-1}) ca.		2000/2430/2830
Power input P_1 (kW)	1~ 230 V	0,40/0,70/1,05
Power output P_2 (kW)	1~ 230 V	0,28/0,50/0,75
Rated current $(A)_{RMS}$	1~ 230 V	2,80/4,80/7,20
Weight (kg)		9,0

Characteristics



Dimensioned drawing - Dimensions in mm



BADU®Eco Touch I
BADU®Eco Touch II

Intuitive pump control systems – at the ideal location!



Simple operation of the BADU®Eco Touch system is available precisely where it is most useful for you!

Is the installed pump difficult to access, is the control room some distance away or are you just after pure convenience? If so, then the new BADU®Eco Touch I and BADU®Eco Touch II are essential system components. The control unit is easily connected via an interface integrated in the pump and can be fitted up to 100 metres away from the pump.

The BADU®Eco Touch I box has been designed to be just as intuitive as the user control at the pump itself with three buttons for activating each of the three levels.

The BADU®Eco Touch II unit is available for somewhat more demanding applications. Operation of the BADU®Eco Touch can be programmed with the integrated timer. This ensures that the pump will run for long periods in accordance with your individual requirements. The box also has a user-friendly display that shows the time or the currently activated power range for the setting. The two arrow keys allow intuitive menu control.

BADU®EasyTronic
BADU®PressureTronic

Automatic backwash valves for quick and easy control



Sand filter systems must be backwashed at regular intervals (determined according to size and usage) in order to loosen the sand bed and flush filtered contaminants into the waste water system. This is achieved primarily by reversing the flow of the circulation pump through the filter housing.

A filter backwash valve controls the various operating functions: Filter; Backwash; Rinse; Empty; Circulate; Closed. Backwash valves automatically control the various operating modes allowing the pool owner to relax and take things easy! This ensures regular backwashing, avoids problems with blocked filters and contributes to the long service life of the system.

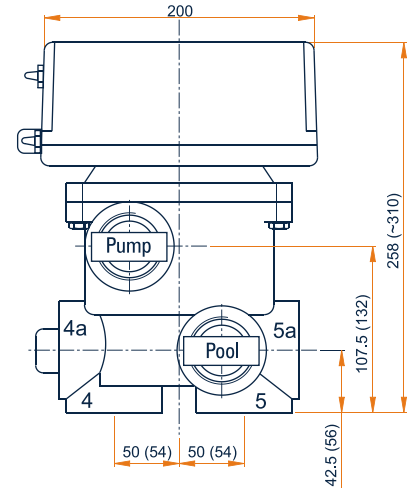
The new, automatic BADU®EasyTronic backwash valve is installed in the filter unit and performs almost all required functions. There is no need for the time-consuming programming of a digital timer. With this valve the filter unit is backwashed completely automatically on a fixed 7-day cycle. The filter pump is activated by a microprocessor. All that needs to be set are the times for backwashing and clear rinsing, which depend on the specific circumstances e.g. size of pool and usage levels.

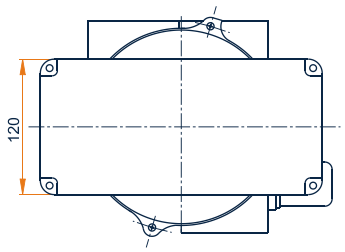
The BADU®PressureTronic operates according to the same, fully automatic principle. With this valve an additional integrated pressure sensor enables identification of temporary over-contamination of the system. If this is the case, an additional backwash event is triggered outside the 7-day cycle and the over-contamination is rectified. For additional peace of mind – and ultra-simple operation!

With automatic backwashing an additional water level control unit is recommended. You can find details of the latest generation of BADU®Niveau BNR 200 S units on page 9.

Dimensioned drawing - Dimensions in mm

connections:
4/4a = to the filter
5/5a = from the filter





TECHNICAL DATA	Subject to technical changes!
BADU®EasyTronic **BADU®PressureTronic**	
Operating voltage	1~ 230 V, 50 Hz
Power requirements (power input P_1)	max. 1,00 kW
Fuse (only for motorisation of valve)	315 mA time-delay
Max. permissible load for all contacts	250 V / 4 A
Type of motor enclosure	IP X4
Operational pressure	max. 2 bar

BADU®Niveau BNR 200 S

Water level monitoring with increased reliability

The BADU®Niveau BNR 200 S is a device for regulating the water level in swimming pools and whirlpools. A water level is specified as a setpoint value and a float detects if the level falls below the setpoint. If the water level remains below this value for a certain period of time (e.g. after filter backwashing), a magnetic valve is activated. Fresh water then flows into the pool until the desired fill level is reached again.

In comparison to previous level regulators, with the BADU®Niveau BNR 200 S a safety trip (factory setting) can also be triggered whereby the system automatically interrupts operation of the magnetic valve when a definable “maximum ON time” has expired (from 30 to 120 minutes). This prevents the magnetic valve remaining permanently switched on if the level switch jams.

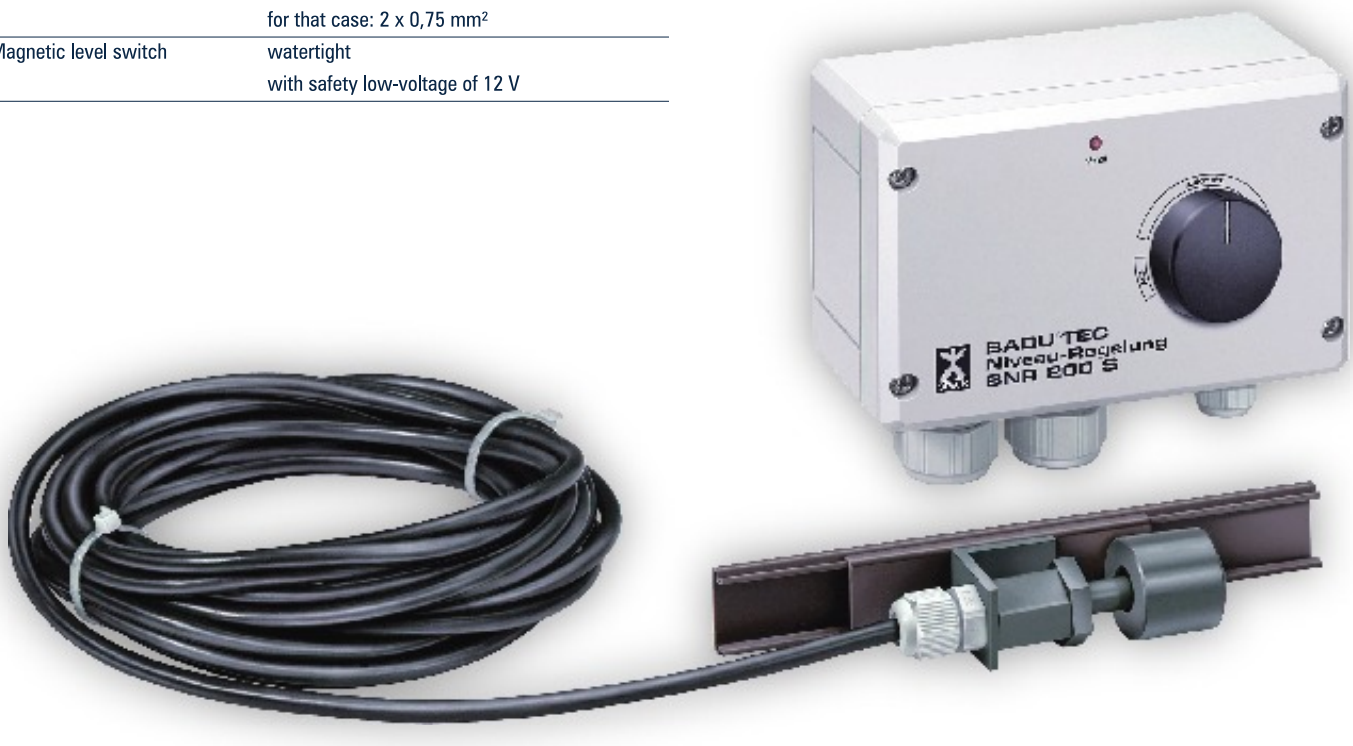
The new level control system works with a magnetic level float switch. This means there are no electric currents flowing through the water and no electrolyte formation. The desired water level is determined by the position of this magnetic level switch.

To prevent the magnetic valve from being opened e.g. by the effect of waves, the water level must remain constant below the permissible limit level for at least 45 seconds. This same time delay also applies for valve switch-off. This prevents continuously repeated switch-on and switch-off of the magnetic valve.

TECHNICAL DATA Subject to technical changes!

BADU®Niveau BNR 200 S

Rated voltage	1~ 230 V, 50 Hz
Relais-switching-capacity	5,0 A bei 1~ 230 V
On / off switching delay	ca. 15 Sek./20. Sek.
Cable length	5,00 m – standard length; max. possible cable length: 100 m, necessary cross section for that case: 2 x 0,75 mm²
Magnetic level switch	watertight with safety low-voltage of 12 V



BADU® Eco Drive II frequency transformer

Efficient – reliable – logical



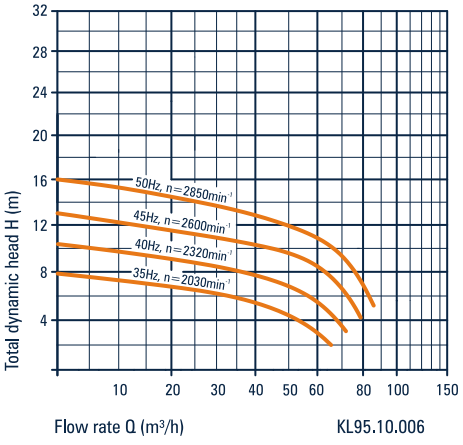
The user-friendly BADU® Eco Drive II frequency transformer with graphics display is now available and represents the latest development in the proven BADU® Eco Drive series. All configurable parameters are displayed in the specified wording, which does away with the use of codes for programming. The display can be changed to almost any language, thereby making it more internationally usable.

The BADU® Eco Drive II can also be used for running pumps with PM motors. The IP 55 motor protection enables individual installation. A shielded cable between motor and frequency transformer is required for operation. A motor winding fitted with PTC thermistors and motor operation at 30 Hz or above are recommended.

Further advantages of the new generation include a quick entry menu for initial commissioning, fixed speeds, a large number of programming and counting options (e.g. motor operation time), time control and additional analog inputs.

Because of its pump performance the BADU® Eco Drive II is ideally suited for use with the BADU® 90 and BADU® Resort series.

Characteristics calculated for the BADU® Resort 70 at different frequencies



Saving energy and maintenance costs

Unnecessary energy losses, e.g. from a shut-off valve, are avoided with a frequency transformer. The pump constantly operates at the optimal, economically efficient operating point. In addition, in public swimming pools, for example, the flow can be adjusted, i.e. reduced by the frequency transformer, during times of low pool use or outside pool opening times (night-time operation). This gives additional energy-saving potentials.

A significant reduction in operating time at maximum power protects the entire system from being subjected to continuous load. This should result in a significantly longer service life of the system and lower repair and maintenance costs.

TECHNICAL DATA Subject to technical changes!

Frequenzy transformer **BADU® Eco Drive II with EMV-Filter**		**0,75 kW**	**1,50 kW**	**2,20 kW**	**4,00 kW5,50 kW**
Dimensions approx. L x B x H (mm)	390x200x175	390x200x175	390x200x175	390x200x175	420x242x190
Weight approx. (kg)	9,7	9,7	9,7	9,7	13,5
Frequency	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz
Voltage	3~ 380–480 V	3~ 380–480 V	3~ 380–480 V	3~ 380–480 V	3~ 380–480 V
Type of motor enclosure	IP 55	IP 55	IP 55	IP 55	IP 55
Max. ambient temperature	50 °C	50 °C	50 °C	50 °C	50 °C
Analog input	0–10 V / 4–20 mA	0–10 V / 4–20 mA	0–10 V / 4–20 mA	0–10 V / 4–20 mA	0–10 V / 4–20 mA
Cooling	Airing	Airing	Airing	Airing	Airing

BADU® suction safety system

A safety breakthrough at suction points

This newly developed suction safety system eliminates the hidden risk posed to pool users by suction points. The fitting of redundant sensors further increases the reliability of the system.

The potential risks at suction points were highlighted in Bulletin 60.03 “Avoidance of Risks at Suction, Drain and Intake Points in Swimming Pools” issued by the German Swimming Pool Association (Deutsche Gesellschaft für das Badewesen e.V.). In extreme cases the suction can trap pool users by their swimwear, hair or body parts at openings, which can lead to serious physical injury or even death from drowning.

The suction safety system developed by Speck Pumpen reliably eliminates this hazard. As specified in Bulletin 60.03, it demonstrates “safe characteristics” instead of indirectly creating other safety gaps. Two redundant sensors are fitted in the suction line. When configured in accordance with the operating instructions, they constantly monitor the line pressure. If the suction opening is blocked by an object or person, the pressure is reduced or negative pressure is created.

If this happens, the suction safety system switch box immediately switches off the pump and a signal is output. The trapped person is then released without delay.

The signal notifies the pool operator of the incident and he/she must now check the suction point in the pool and has the opportunity to take any necessary counter-measures immediately. Intentional restart of the suction system is performed directly at the switch box by activating two release buttons (two-handed operation).

In order to ensure maximum functional reliability, the sensors are made from materials suitable for use in swimming pool water. They are also protected from overload as a result of over-pressure and under-pressure. It is recommended that the operator inspect the system on a monthly basis in accordance with the operating instructions. The results of the inspection must be logged.

The suction safety system can be integrated into all existing systems and is suitable for use with standard types of pump from all manufacturers.



BADU®21-81

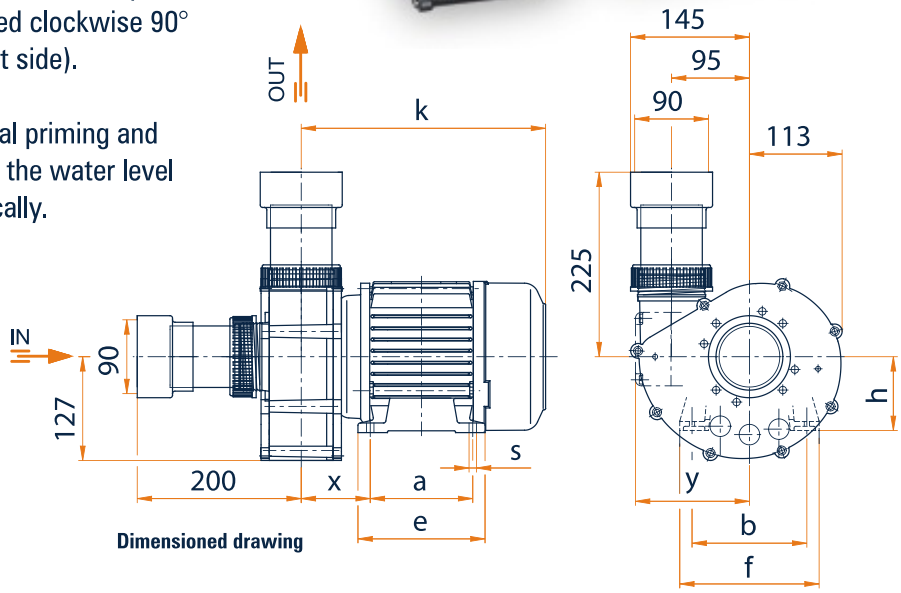
New level of flexibility for special tasks



The proven BADU®21-80 series pumps with normal priming have been modified to meet customer requirements and are now also available as BADU®21-81 pumps with 90 mm diameter glue connections at inlet and outlet joints. The BADU®21-80 with threaded unions is, of course, still available.

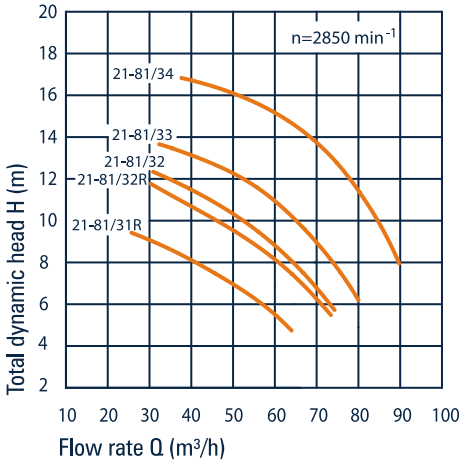
BADU®21-81 circulation pumps are designed for use in swimming pool filter units, counter-swim units, swimming pool attractions and in cleaning equipment up to a flow rate of max. 90 m³/h. The block pumps are provided with a bellows-type mechanical seal positioned on a plastic impeller hub. The outlet joint can be rotated clockwise 90° and additionally 29° (viewed from the inlet side).

All BADU®21-81 series pumps have normal priming and should therefore generally be fitted below the water level so that the pool water can flow automatically.



Dimensioned drawing

Characteristics BADU®21-81/...



Dimensioned table – Dimensions in mm

Type		a	b	e	f	h	s	x	y	k
21-81/31 RG	1~	125	140	155	170	90	9	85	139	298
21-81/31 RG	3~	100	140	130	170	90	9	85	139	265
21-81/32 RG	1~	125	140	155	170	90	9	100	139	313
21-81/32 RG	3~	125	140	155	170	90	9	100	139	313
21-81/32 G	1~	-	-	-	-	-	-	-	-	-
21-81/32 G	3~	125	140	155	170	90	9	100	139	313
21-81/33 G	1~	140	160	176	195	100	12	107	154	367
21-81/33 G	3~	125	140	155	170	90	9	100	139	313
21-81/34 G	1~	-	-	-	-	-	-	-	-	-
21-81/34 G	3~	140	160	176	195	100	12	107	154	347

TECHNICAL DATA

Subject to technical changes!

BADU®21-	81/31R G	81/31R G	81/32R G	81/32R G	81/32 G	81/33 G	81/33 G	81/34 G
at 50 Hz	1~ 230 V	3~ Y/Δ 400/230 V	1~ 230 V	3~ Y/Δ 400/230 V	3~ Y/Δ 400/230 V	1~ 230 V	3~ Y/Δ 400/230 V	3~ Y/Δ 690/400 V
Inlet / outlet d (mm)	90/90	90/90	90/90	90/90	90/90	90/90	90/90	90/90
Rec. inlet/outlet pipe, PVC-pipe, d	110/110	110/110	110/110	110/110	110/110	140/110	140/110	140/110
Power input P_1 (kW)	2,30	2,10	2,90	2,70	3,30	3,90	3,80	4,85
Power output P_2 (kW)	1,60	1,60	2,20	2,20	2,60	3,00	3,00	4,00
Rated current (A)	10,00	3,40/5,90	13,00	4,60/8,00	5,60/9,70	17,00	6,20/10,70	4,50/7,80
Weight (kg)	18,5	16,5	20,0	18,0	18,0	24,5	18,5	22,5

BADU®90/25 to BADU®90/48 BADU®Resort

Three-phase motors now with PTC thermistor sensors



For optimal motor protection in pump operation with frequency transformer, the BADU®90/25 to BADU®90/48 and BADU®Resort series of pumps are now supplied with PTC thermistor sensors.

To protect the three-phase motor, the three PTC sensors are wired in series directly in the motor winding so that they are in thermal contact with the winding. The sensors are responsible for monitoring the temperature of the winding.

PTC sensors are semi-conductors in which the ohmic resistance increases sharply and the conductivity decreases strongly when a certain temperature is reached. The relevant measurement threshold for the temperature at which this effect should occur can be defined by the precise arrangement of the special ceramic resistors. A compact design, rapid response time, low production costs, flexible repeatability of operating cycles and a precise reproducibility at the exact response point are the main advantages of this form of motor protection.

If the temperature in the motor rises to a critical point, the PTC sensor loses its conductivity. With pumps controlled via a frequency transformer, the incoming signal results in the frequency transformer shutting down the pump and allowing the motor to cool down. This reliably avoids potential damage to the motor due to overheating.

Innovations for public swimming pool systems

Diversity, quality and competence at the highest level

Quality products for all areas

With 100 years of experience in the construction of pumps, Speck Pumpen has a wide knowledge base for its continued creation of innovative products. For more than 40 years the company has concentrated on swimming pool technology. The expertise that has been built up over decades in this specialist area ensures the outstanding quality and long service life of Speck pumps – we take pride in the fact that our pumps provide reliable long-term use.

In addition to a wide range of filter circulation pumps, Speck Pumps also offers professional solutions in all areas of swimming pool technology, e.g. pumps used for pool attractions such as water slides, waterfall showers and water channels. We also develop special water sampling pumps for continuous analysis of pool water. Additional sample water return units enable multiple measurement points to be supplied. Further special pumps include forcing pumps, pressure booster systems, waste water pumps and submersible pumps.

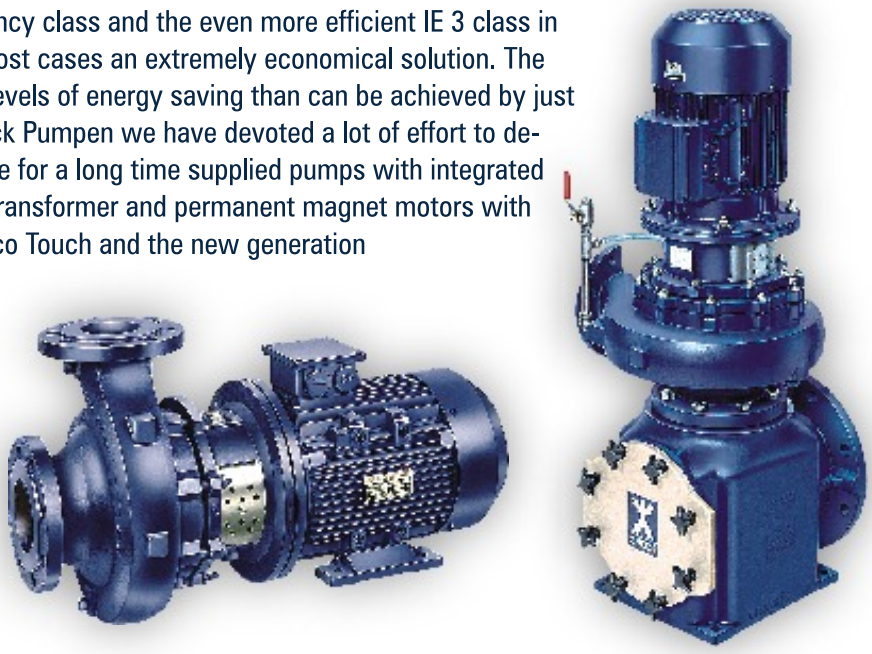


Product range part 1: Water sampling pump and return unit, BADU®Resort (from left to right)

Future-oriented innovations

Internationally applicable energy efficiency classes are used to classify electric motors by power consumption and efficiency level. EU Directive 2005/32/EC lays down the minimum requirements that motors must meet by 16 June 2011, 1 January 2015 and 1 January 2017 Speck Pumpen makes every effort to ensure that statutory requirements are met before they come into force and has for a long time offered highly efficient solutions.

The use of motors from the new IE 2 efficiency class and the even more efficient IE 3 class in combination with a speed controller is in most cases an extremely economical solution. The speed control system allows much higher levels of energy saving than can be achieved by just increasing the efficiency of motors. At Speck Pumpen we have devoted a lot of effort to developing this effective combination and have for a long time supplied pumps with integrated frequency transformer, external frequency transformer and permanent magnet motors with speed control. Pumps such as the BADU®Eco Touch and the new generation of BADU®Block PM and Normblock PM are years ahead of the requirements of the legislator!

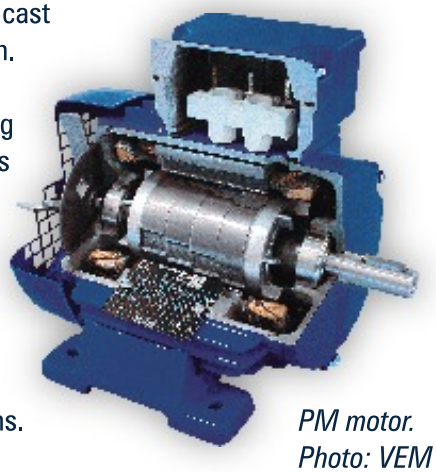


Product range part 2: Norm block pump and BADU®Block (from left to right)

Innovations for public swimming pool systems

Diversity, quality and competence at the highest level

In order to approach the energy-conscious future with maximum flexibility, Speck's cast pumps have been designed so that the drive motor can be replaced without problem. This allows customers to choose between motors that meet currently applicable requirements and motors that already belong to future efficiency classes. Retrofitting a pump motor is also possible with a minimum of time and effort. The pump remains completely in the piping and filled with fluid. The motor is simply lifted out and replaced by another one.



PM motor. Photo: VEM

Competent pump design – simple and reliable

The Speck Pumpen BADU®Select program provides a valuable tool for reliable and easy selection of the best pump for any application in public swimming pool systems. The current software version 2.2 offers the user a wide range of options. After selection of the hydraulic data, the complete pump design is based on the entered operating conditions, e.g. area of use, operating point, pumped medium, flow volume and head. The user then receives a list of all suitable pumps with their most important characteristics. Stored characteristic curves are automatically converted to the entered operating conditions and displayed.



As a useful addition to the pump selection program, the "PipeCalc" add-on module offers easy calculation of the required volumes and pressure losses in the piping. Volume calculation for different applications according to international standards or DIN directives is also possible. The user can define individual elements such as elbows, adapters/connectors, valves and fittings. Calculation of the individual losses and the total loss is performed automatically.

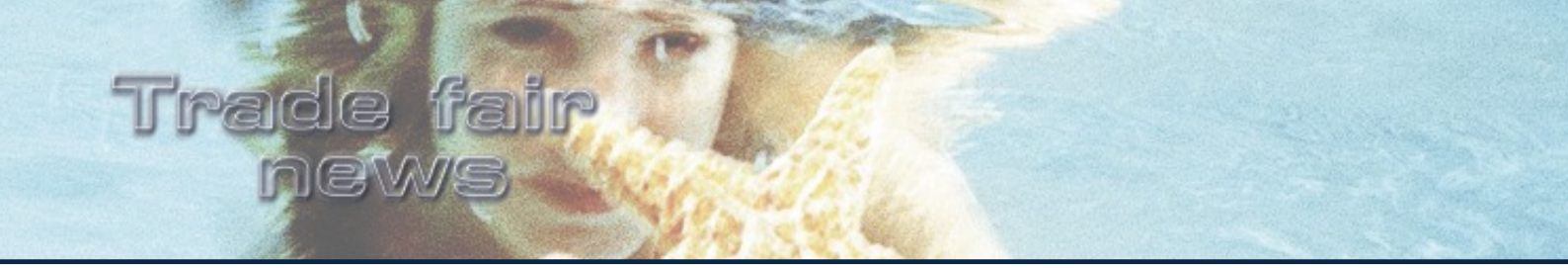
In addition, the program CD contains all specification texts in German and English. With BADU®Select preparing quotations is now simple and reliable.

High-quality references

Our list of references goes all the way from A to Z – from the AIDA Cruise Fleet to the Zurich Geroldswil Swimming Pool where Speck Pumpen's public swimming pool technology proves its worth on a daily basis!



Part of the pool complex on the AIDAblu cruise ship.



Notes

SPECK PUMPEN
Verkaufsgesellschaft GmbH
Hauptstraße 1-3
D-91233 Neunkirchen am Sand

Tel. +49 (0) 91 23 - 9 49-0
Fax +49 (0) 91 23 - 9 49-260
www.speck-pumps.com
info@speck-pumps.com

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