

ADDITIONAL SERVICE AND FACILITIES PROVIDED BY THE OWNER -

for VERTICALLY ADJUSTABLE INTERMEDIATE BOTTOMS for VARIABLE BASINS

1 Clearance and openings

1.1 For guiding through of the driving shaft two openings in a wall of the basin (approximately 150 mm x 150 mm) are necessary.
- for multiple-purpose basins -MPB - according to drawing EB 1500,
- for training pools - TP - according to drawing EB 1000.

1.2 For both guide rails a clearance of concrete which is to be arranged vertically for each long side wall of the basin is to be provided.
- for MPB according to the drawing EB 1500 cut KL -
- for TP according to the drawing EB 1000 cut KT - .

1.3 Within the range of the guide rails and the roller rails clearances of flags are to be provided.
- for MPB according to the drawing EB 1500
- for TP according to the drawing EB 1000.
After the Mounting the flush tile finishing by the owner is done in this range.

1.4 After the mounting the roller rails are to be grouted with concrete according to the instructions of our mechanics.

After the mounting the guide rails are to be back-filled with concrete.

1.5 There must be supporting areas for the driving unit and the gears as well as the intermediate layers,
- for MPB according to the drawing EB 1500
- for TP according to the drawing EB 1000.

2 Electrical Installation (according to the directions of DIN or VDE)

2.1 For the power supply of the machine unit in the basin passage the following is necessary:

Three-phase rotary current plus neutral for a voltage of 220/380 V, 50 Hz for a rotary-current motor of 3,0 kW.

For this the lines are to be wired according to the local directions from the electric mains through a three-pole master switch (in the room for the swimming-master) to the switching cabinet. This master line continues from the switching cabinet to the machine unit.

- 2.2 Control line from the switching cabinet to the control station in the swimming hall or in the room of the swimming master 12 mm² x 1,5 mm² cu.
- 2.3 The operating device is to be arranged in such a way, that the vertically adjustable intermediate bottom as well as the lamps of the height indication can be watched when the installation is move.
- 2.4 On the control station a three-pole master switch is to be provided for switching off the total installation. This master switch must be according to the relevant VDE-directions, it must be provided with a facility which prevents unauthorised or erroneous switching on. It must be marked as master switch, the switching positions must be specified.
- 2.5 For the automatic indication of height a line of 8 x 1,5 mm² Cu is to be wired from the switching cabinet to the lamps of the height indication. From the switching cabinet to the switches on the machine unit 11 lines of 3 x 1,5 mm² Cu each are to be wired.
- 2.6 The optical indication of height consists of 5 square lamps (250 mm x 250 mm x 130 mm) which can be fastened horizontally side-by-side or accordingly vertically one beneath the other. For the lamp "Swimming not allowed" a light (625 mm x 250 mm x 130 mm) is used. The lamps for the height indication are to be arranged in such a way that they can be looked over either from the control station or from the range of the entrance into the swimming hall.
- 2.7 The switching on of the machine unit, the switching cabinet, the operating device and the lamps for the height indication has to be effected by the owner according to the local directions. The mounting of the lamps for the height indication, the switching cabinet and the operating device has to be done by the owner, the three-pole master switch is to be provided by the owner.
- 2.8 The total electrical installation can be taken from the drawing BK 2903.
- 3.0 Mounting
- 3.1 Date of mounting:
The date has to be announced to us 8 weeks before in writing. The mounting takes place when the tile furnishing of the basin has been done except for the clearances (point 1.3).

3.2 Transport route:

A way to the swimming hall suitable for truck-transport is presumed, also an opening (approximately 2 m high and 1 m broad) for the unimpeded transport of construction elements of maximum 9 m length directly into the basin.

3.3 For the transport of the mounting parts into the swimming hall providing of assistants, eventually provision of an erecting scaffolding according to our instructions, furthermore eventually provision of a crane for the transport of mounting parts, for instance, into upper stories.

3.4 When beginning the mounting it must be ensured that the mounting - up to 18 working days - can go on continuously without any disturbances.

4. Putting into operation and acceptance:

4.1 When the mounting has been done an examination of the function is carried out by our mechanics during a test run in the empty basin.

5. General:

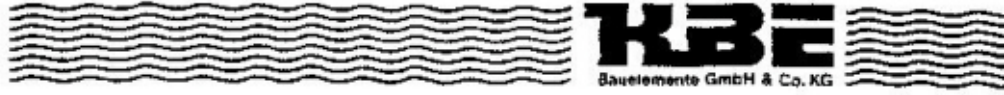
5.1 Execution plans (basin top view, longitudinal view and cross section) are to be submitted to us in three copies each together with or immediately after the placing of the order for examination and correction.
As far as possible we request original blueprints!

5.2 The local accuracy to size of the tile basin must be ensured analogous to the documentation examined by us in order to avoid additional costs for dimensional discrepancies.

5.3 Cost of current for mounting devices (approximately DM 50,--) must be borne by the owner.
Water is not required for the mounting.

5.4 Before beginning the mounting the basin must be cleaned by the owner.
After the mounting has been done our mechanics will hand over the installation "well-cleaned".

5.5 This additional services and facilities provided by the owner are part of the contract.



KBE MOVING FLOORS

TECHNICAL DESCRIPTION

Vertically adjustable intermediate floors for swimming pools.

Partial floors for multi-purpose swimming pools – MPP

Recommended standard sizes : 9m x 8m, 9m x 10m, 9m x 12.5m, 9m x 16.2/3m and drag apron [flap].

Floors for complete pools – TP

Recommended standard sizes : 6m x 12.5m, 8m x 12.5m, 8m x 16.2/3m. Other sizes available.

a) Principle of Construction

Lightweight construction with composite structure, bottom plate of fibreglass reinforced polyester [FRP]. Supporting structure of stainless steel or other non-corroding materials, electro-magnetic drive by means of an electric gear motor with a spindle-moving device.

Bottom Plate

Supporting parts are of fibreglass reinforced polyester [FRP], a skidproof surface is screwed to the bottom plate with non-corroding screws through approximately 7mm wide slits. Water flows through these slits over the whole surface of the floor. The FRP parts are hygienically unobjectionable.

b) Inspection Flaps

Flaps are provided which enable the inspection of the bottom of the pool and the underside of the Floor to be easily carried out. On TP bottoms the inspection flaps are fixed the width of the Floor, on MPP bottoms they are fixed the length of the Floor but not the drag apron [flap].

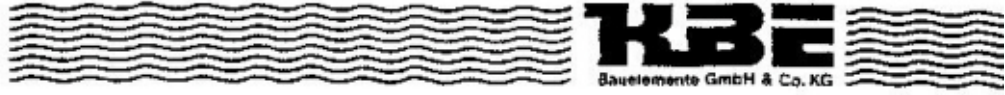
Drag Apron [Flap] for Partial Floors

Consisting of FRP parts, it is hinged on one side to the variable floor and rolls on plastic castors on the bottom of the basin. It serves as a transition to the for-swimmers-only section of the Multi-Purpose Pool.

c) Supporting Structure

The bottom plate is supported by two stainless steel girders. According to the size of the floor, there are 2 to 4 supports fastened to the girders. These supports are provided with castors which roll along a guide-rail. In addition, located on the supports are spindle nuts of non-corroding heavy metal which together with the threaded spindles and the driving mechanism effect the up-and-down movement of the variable floor.

The TP Floor is provided with 2 guide jacks. The guide castors roll in guide-rails of stainless steel. There is one guide-rail in each of the side walls running the length of the pool.



d] Drive

From the lower basin passage electro-mechanically by means of an electric gear motor working on 2 worm gears simultaneously, which are coupled together by a shaft.

Drive from the worm gears via 2 shafts guided in access boxes through the wall of the basin to the spindles which are located in the basin. The spindles of stainless steel are self-impending.

In connection with the worm gears the vertically adjustable Floor is infinitely variable within the whole lifting range and is always secured mechanically, an unintentional fail is *impossible*.

e] Control

By means of an operating device with press-button operation and key securing, according to the relevant safety regulations; it does not operate automatically.

The switch fuse box which is installed near the driving mechanism contains the required switches; all cables lead to a common terminal board.

When in the highest or lowest position the installation automatically shuts itself off.

f] Depth Indication

Depending on the respective position of the Floor, the depth is automatically indicated mechanically or electronically, by the coupling of the drive mechanism located in the basin passage in connection with a worm gear. Visual depth indication is provided by 5 square plastic lamps which indicate the respective depths.

Standard depths: 0.3m, 0.6m, 0.9m, 1.2m, 1.8m.

g] Special Sizes

Moving Floors to special sizes will be quoted upon request.

TECHNICAL DATA

Partial Floors for Multi-Purpose Swimming Pools – MPP

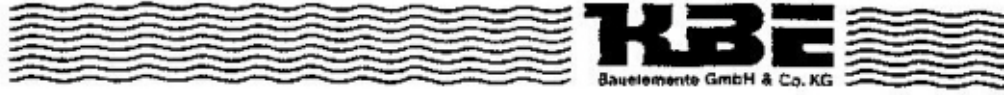
Width of the Swimming Pool: 8m, 10m, 12.5m, 16.2/3m.

- a) Dimensions of the bottom plate:
Length: 9.000mm, 9.000mm, 9.000mm, 9.000mm
Width: 7.984mm, 9.984mm, 12.484mm, 16.650mm.
- b) Length of the drag apron [flap]
4.000mm, 4.000mm, 4.000mm.
- c) Weight in dry condition:
3.00kp, 4.000kp, 4.250kp, 5.350kp.

Floors for Training Pools - TP

Size of the Pool: 6m x 12.5m, 8m x 12.5m, 8m x 16.2/3m.

- a) Dimensions of the bottom plate:
Length: 12.484mm, 12.484mm, 16.650mm.
Width: 5.984mm, 7.984mm, 7.984mm.
- b) Weight in dry condition:
3.500kp, 4.000kp, 4.650kp.
- c) Structural depth: 635mm.
- d) Range of lifting: 1,50m.
- e) Time of adjustment: For 1.50m approximate, 15 minutes.
- f) Admissible load capacity: According to official regulations.
- g) Electric gear motor:
Power: 3,0 kW
Voltage: 220/380V, 50 Hz, 3-phase supply



Safeguards

All the electrical controls and the electric gear motor are constructed to the appropriate safeguards according to DIN 40 050.

Dimensions of the controls and the depth indicators

- a] Control device: height 335mm, width 70mm, depth 65mm.
- b] Switch/Fusebox: height 500mm, width 500mm, depth 250mm.
- c] Depth Indicators: height 250mm, width 250mm, depth 130mm.

Modification

Due to technical development KBE reserve the right to modify the construction, equipment and fittings.

Specially Sized Floors

Will be quoted upon request.