

Round Boat
»WILD RAFT RIDE«



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It doesn't get any wilder!

The HAFEMA "Wild Raft Ride" is the ultimate development of traditional river rapids rides based on numerous model investigations, our own computer simulation model and the experience of **many installations around the world**. We can thus design any individual ride by simulating a large number of changing conditions and layout variants. **Customer wishes can be fully reflected in the final design**.

The channel and the water flow conditions are exactly like those of natural river rapids. The waves in our ride system are created solely by natural methods, such as **variable flow speeds, variable cross sections and channel slopes**, as well as fixed installations in the channels. We create a **flow pattern with the same characteristics as naturally flowing white water** using the hydraulic energy of the water. Just like nature, no moving parts such as guide rollers are needed. **The boats** in our rides **are safely guided** by the natural flow of the water itself.

The HAFEMA "Wild Raft Ride" will bring **a unique attraction** to your park. Take advantage of our experience to **design your own** ride that precisely fits your specific requirements. Although **all of our rides are custom designed**, each of them can be described as follows:

- flow conditions simulating natural white water rivers using a special computer model
- minimized energy and operating costs due to detailed hydraulic design
- waves and white water effects created by varying cross-sections, slopes and sill installations, just like in natural rivers; wave machines and guide rollers are not necessary
- patented lift- and conveyor system with continuously moving, endless aluminum belt with rubber inlets (slip-proof surface for the passengers)
- safe and easy embarking from a dry platform
- precisely computed boat ride times
- high safety standards over the entire ride
- high ride capacities guaranteed with a minimum of operating costs
- minimal personal required for ride operations in the automatic mode
- computer controlled operating system; boat distances and velocities can be selected within a wide range of operating parameters in the automatic mode
- boats made of crack-resistant PE with single PU foam seats and handle bars
- 3-segment boat (d=2.9 m) with three cockpits for 3 passengers each; cockpits connected with rubber center ring and external bumper tube around the boat



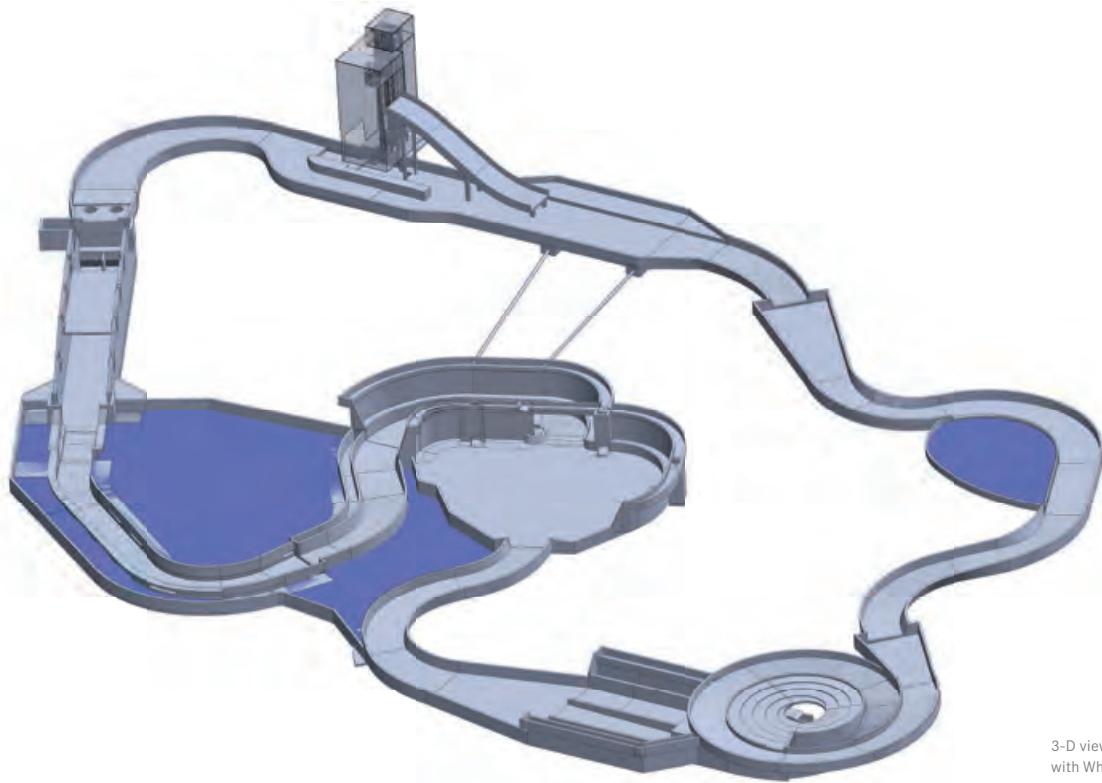
HAFEMA technology.

HAFEMA'S patented conveyor system uses a continuously moving endless conveyor belt system as lift and loading/unloading station. A submerged roller conveyor (boat separator) precisely times the intervals between each boat entering the endless conveyor. **The endless conveyor belt is made of slip proof aluminum plates with rubber inserts.** The system is chain driven and fully galvanized.

The conveyor belt moves at a speed of approx. 0.25 m/sec (operating speed). The speed is **continuously adjustable**, which makes the **loading system extremely flexible**. As the boats are lifted out of the water for loading and unloading, the **passengers stand firmly on the conveyor belt**, which enables all passengers, including children, elderly and disabled persons, to first simply walk onto the conveyor belt and **easily get into and out of the boats**. The step into the boat is no more than 30 – 35 cm.

Chutes or drops can be incorporated as special effects into the normal raft ride, while the round boats are lifted with vertical elevators at more than 3m/sec up to heights of greater than 20 m. Descending the chutes **at high speeds with turning sensations**, the **boats splash into the downstream water** before continuing the ride along the river. A wide range of options are also available for additional **water effects, such as water falls, water curtains, geysers and fountains**, which can be integrated into the general design. All these options can be combined to get one ride to get the **maximum of attraction and thrill** out of one ride.





3-D view of WILD RAFT RIDE
with Whirlpool, Lift and chute



The whirlpool.

The main attraction of all our raft rides delivered since 2000 is our whirlpool, which gives the most thrill to the rides. This unique whirlpool system gives the passengers the **feeling of being in the center of a large vortex** where the boat disappears on a steep drop into a tunnel section.

The boats then dives at a high speed of approx. 7 m/s into the downstream **water channel between waterfalls on both sides of the exit areas**. These waterfalls do not require additional waterfall pumps as they are operated with the main channel discharge by means of water diversion from the upper section of the whirlpool.



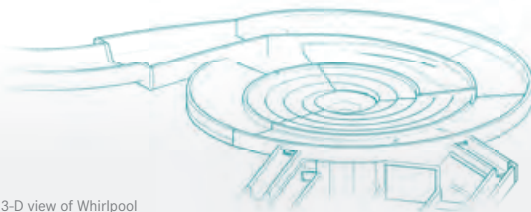
Technical data

Conveyor System

Boat seperator	
Drive motor:	approx. 2.2 kW
Main station	
Total lift height:	approx. 1.1 % of channel length
Length:	between 22 m and 32 m
Width:	4.8 m
Drive system:	Aluminium Conveyor System
Belt velocity:	0.15 – 0.30 m/s
Operational velocity:	0.25 m/s
Drive motor:	approx. 22 kW
Discharge boat station	
Drive system:	stainless steel rollers without drive

Wild Raft Ride with Whirlpool (example)

Channel length:	450 m
Main submersible pumps:	2 x 140 kW
Discharge:	4.8 m³/s
Max. speed:	approx. 7 m/s
3-Segment boats:	number 10
Passengers each:	9
Capacity:	1.080 passengers/hour



3-D view of Whirlpool



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