Name of organization **Schiffbau-Versuchsanstalt Potsdam GmbH**	**Year of information updating** 2016
Year established 1953	**Year of joining the ITTC**
Address **Marquardter Chaussee 100** **14469 Potsdam** **Germany**	**Status in the ITTC** Member
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Type of facility Towing Tank	**Year constructed / upgraded** 1953/1986/2013
Name of facility	**Location**

Main characteristics

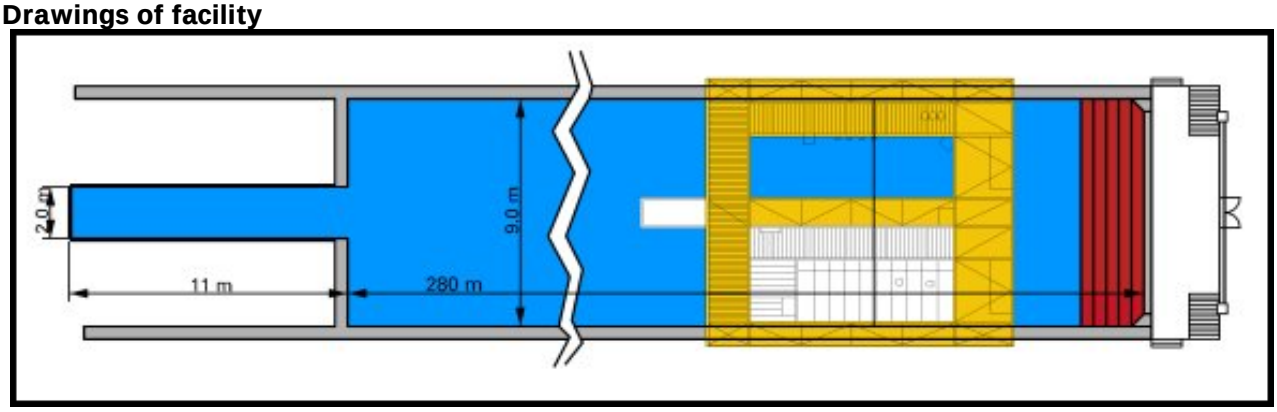
Length 280 m
Width: 9,0 m
Depth: 4,5 m

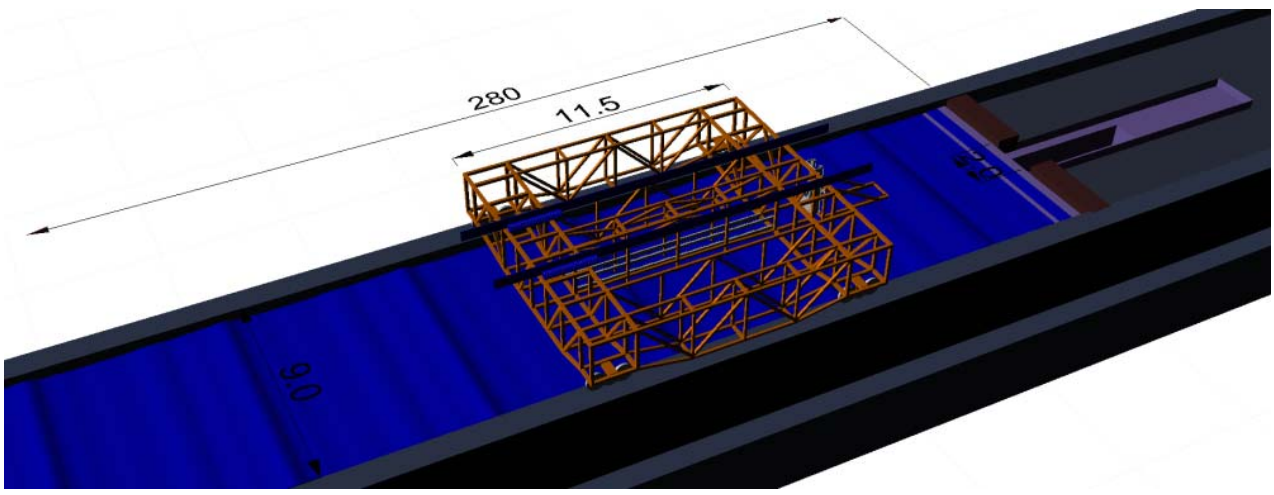
In the towing tank, free running tests are carried out with propellers and propulsion systems as well as resistance and propulsion tests, wake field measurements and paint flow tests. Additional elements of the testing spectrum include manoeuvering, seakeeping tests and experiments with submersibles.

The towing carriage is provided with a flexible carrier system that can accommodate all equipment and experiments. The support at the rear of the towing vehicle is hydraulically adjustable in height. For example, the open water dynamometer and the submarine planar motion system (SUBPMM) or the PIV system can be installed there.

A QualiSys optical tracking system and video cameras as well as cameras for recording experiments and images of wave systems is provided.

Drawings of facility





Detailed characteristics

2 Carriages: Main carriage max. speed 7.5 m/s with an accuracy of 0.6 mm/s. The carriage is driven by two double stator linear motors

2nd carriage max. speed 3 m/s

Wave Generator max. wave height: 0.3 m. Type of waves: regular, irregular, wave trains

Dynamometer Kempf & Remmers H29: T_{max} = 400 N Q_{max} = 15 Nm n = 60 s^{-1}

Dynamometer Kempf & Remmers H39: T_{max} = 1000 N Q_{max} = 50 Nm n = 60 s^{-1}

Balance R 200 $F_X = F_{Y1} = F_{Y2}$ = 1000 N, $F_{Z1} = F_{Z2} = F_{Z3}$ = 2000 N
Q_{max} = 20 Nm, Q_{max} = 26 Nm (Motor)
Turning Table PRT 300 F_X = 5000 N, F_Y = 3400 N, F_Z = 5000 N,
M_X, M_Y = 500 Nm, M_Z = 60 Nm

Z-drive TP 200 T_{1max} = 200 N; Q_{1max} = 7 Nm, T_{2max} = 200 N; Q_{2max} = 7 Nm,
Gear Ratio i = 1:1, Q_{Gmax} = 7.5 Nm, n_{max} = 25 s^{-1}

Applications

Resistance tests (single and multi-hull vessels, displacement and planing hulls, submarines ...)

Propulsion tests (single and multi-screw ships, vessels with thrusters, podded drives, ducted propellers, Voith-Schneider propellers, waterjets, propulsion improving devices, submarines)

Manoeuvring trials (free running models, Z-manoeuvre, Stop-manoeuvre)

Seakeeping tests (countering and following seas, quartering seas at an angle of up to 35° off course)

Test rig for tidal turbines and wave energy converters

Published description (Publications on this facility)