

INTERNATIONAL TOWING TANK CONFERENCE CATALOGUE OF FACILITIES
CIRCULATING WATER CHANNELS AND CAVITATION TUNNELS

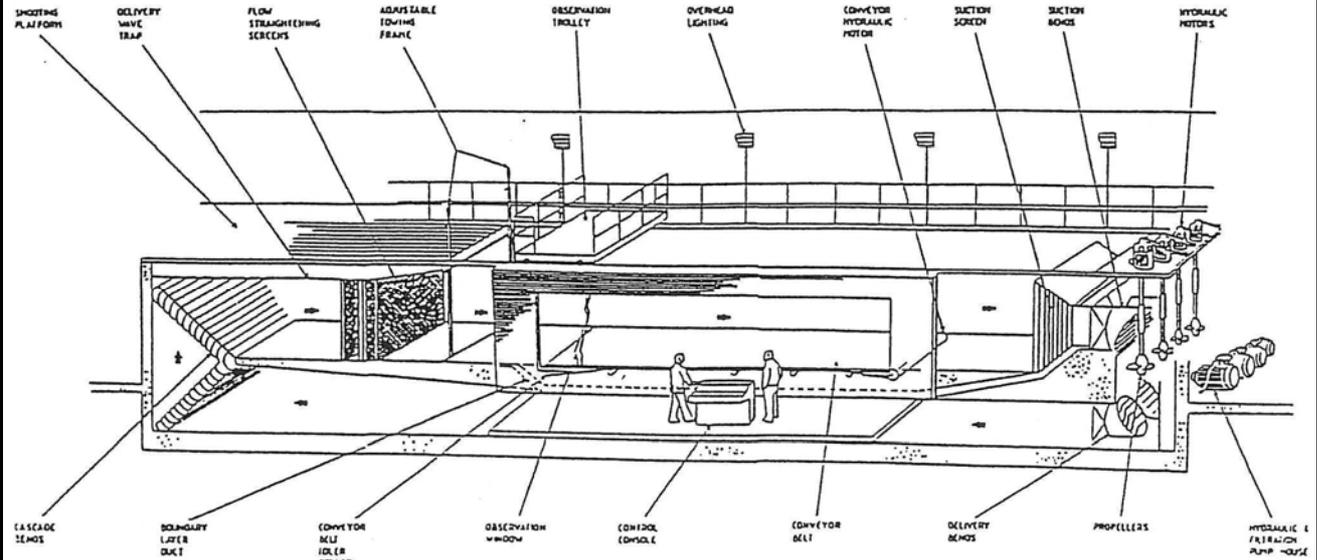
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CIRCULATING WATER CHANNEL / FLUME TANK (1982)



WORKING SECTION: length 17.2m, width 5.0m, depth 2.4m

CONVEYOR BELT WORKING SECTION AND SPEED: length 11.0m, width 4.5m, speed 0 - 1.5ms⁻¹

OBSERVATION WINDOW: length 11.5m, depth 1.5m, thickness 100mm

WATER SPEED AND VOLUME: speed 0 - 1.5ms⁻¹, volume 700 000l

HYDRAULIC MOTOR POWER AND PROPELLER DIAMETER: power 56.5kw, propeller diameter 1.2m

FUNCTION OF FLUME TANK: The Flume Tank is a horizontal axis recirculating water channel, specifically designed for testing large models and full-scale equipment in steady state uniform flow. The tested items remain essentially stationary and can be the subject of experiments over an indefinite period.

INSTRUMENTATION: Electronic load cells (400N (4) and 1000N (1)) and four channel strain gauge conditioning equipment, 3D photogrammetry system and point flow speed logs.

DATA ACQUISITION: PC computer monitors tank system parameters, load cell outputs and flow velocity.

TESTS PERFORMED: (1) Hydrodynamic force measurements
(2) Flow visualization
(3) Assessment of underwater body and array operations

PUBLISHED DESCRIPTION: