

INTERNATIONAL TOWING TANK CONFERENCE CATALOGUE OF FACILITIES
CAVITATION TUNNEL

HYUNDAI MARITIME RESEARCH INSTITUTE (HMRI)

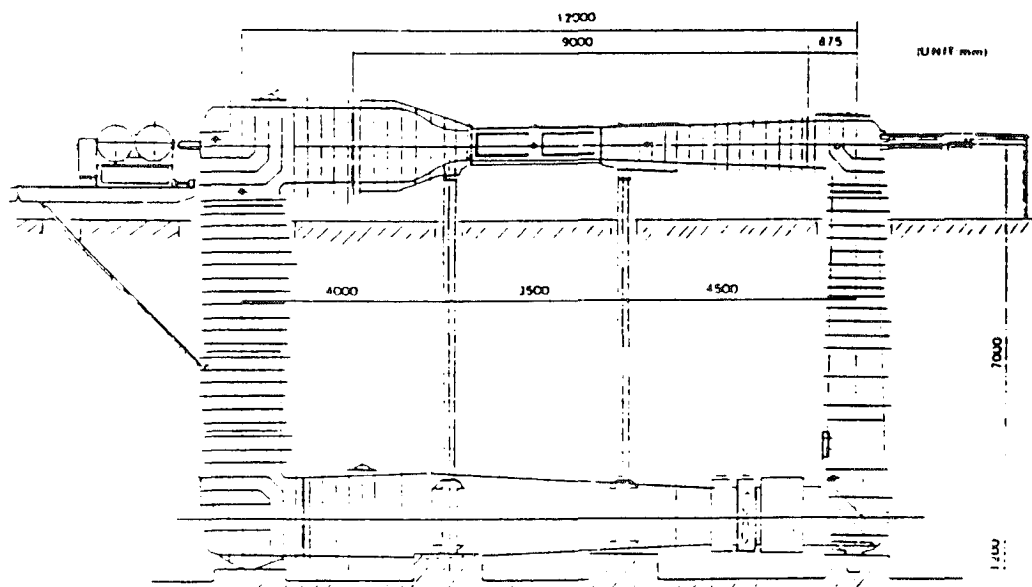
KOREA

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CAVITATION TUNNEL (1984)



DESCRIPTION OF FACILITY : Kempf & Remmers, vertical plane, closed recirculation,
three test sections

TYPE OF DRIVE SYSTEM : 4-bladed axial flow impeller with Ward-Leonard control

TOTAL MOTOR POWER : 97 kw, 1500 rpm

WORKING SECTION MAX. VELOCITY : 4.3m/s(1,450×700mm), 6.0m/s(850×850mm), 12.0m/s(600×600mm)

MAX. & MIN. ABS. PRESSURE : 2 kg/cm², 0.1 kg/cm²

CAVITATION NUMBER RANGE : $\Sigma > 0.2$

INSTRUMENTATION : three kinds of propeller dynamometers, two kinds of balances, Pitot tubes,
LDA

TYPE AND RANGE OF TORQUE & THRUST DYNAMOMETER : strain gauge type

T max = 300 Kp

Q max = 15 Kp·m

N max = 4000 rpm

PROPELLER SIZE RANGE : diameters 150 ~ 400 mm, 250 mm typical

TESTS PERFORMANCED : propeller test in uniform and nonuniform flows,
ducted and contra-rotating propeller test,
propeller induced hull pressure measurement,
forces and moments on rudders and submerged body.

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