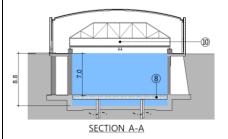
Name of organization DSME Siheung R&D Center	Year of information updating 2020
Year established 2018	Year of Joining the ITTC 2020
Address 96 Baegot 2-ro, Siheung-si, Gyeonggi-do, Korea	Status in the ITTC
Contact detail (phone, fax, e-mail) TEL: +82-2-2129-3721 FAX: +82-2-2129-3770 E-mail: jgkang3@dsme.co.kr	Website www.dsme.co.kr

Type of facility Towing tank	Year constructed/upgraded 2018
Name of facility DSME Towing tank	Location (if different from the above address)

Main characteristics

Length: 300 m, Width: 16 m, Depth: 7 m

Drawing of facility



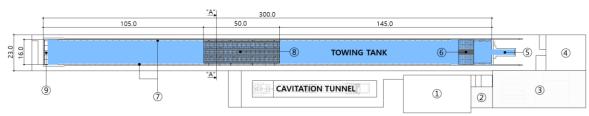
- ① Research building
- 6 Front wave absorber
- ② Propeller model manufacturing shop ⑦ Side wave absorber
- 3 Ship model manufacturing shop
- 8 Liftable floor

4 Model storage

9 Wave generator

⑤ Trimming tank

10 Towing carriage



Detailed characteristics

- **Towing Carriage**
 - Driven by AC servo motors (one for each wheel) (Low speed mode: 55 kW x 2 sets, High speed mode: 55 kW x 6 sets)
 - Max. carriage speed: 8 m/s (max. acceleration: 0.5 m/s²)
- Wave generator
 - $0.5 \text{m} \times 32$ segments flap type, server motor driven, wet-back design
 - Wave height of regular wave: $H \le 0.6 \text{ m}$
 - Range of generated wave periods: $0.5 \sec \le T \le 10.0 \sec$

- Wave height for irregular wave: H ≤ 0.4 m
- Type of generated waves: 2D long crested wave, 3D short crested wave
- Other facility
 - Front and side beach for wave absorber (permeable panel type)
 - Liftable floor for shallow water tests (water depth control range: 0.0 ~ 7.0 m)
 - Model ship lifter for test preparation in the trimming tank
- Instrumentation

resistance dynamometers, propulsion dynamometers, Pitot tube rakes and five-hole Pitot tube, dynamic motion measurement devices, propeller open-water test system, PIV system

• Max. model size: Ship(wood) length 12 m, Propeller(aluminium) diameter 30cm

Applications (Test performed)

- Resistance test, Propeller open water test, Self-propulsion test, wake measurement, Local flow measurement by PIV, Streamline visualization
- Maneuvering (zig-zag test, Planar Motion Mechanism (PMM) test & Vertical Planar Motion Mechanism (VPMM) test, Free sailing test, Directional stability test
- Various tests in shallow water
- Seakeeping (Motions, Green water, Impact load, etc.) tests, Speed loss test in waves
- Various Pod / Azimuth thruster tests