A SMARTER PORT

The Tuas mega port will be outfitted with new technologies such as automated container port systems, to improve the efficiency of terminal operations. It will open in four phases from 2021 to around 2040.

PHASE 1

INTELLIGENT PORT SYSTEMS/PORT DIGITALISATION
• One-stop digital portal for seamless and more efficient port clearance
• Intelligent planning system to optimise ships’ turnaround time at the port and anchorages

ADVANCED PORT TECHNOLOGIES
• Automated yard cranes that can load and unload containers with precision, aided by computers, intelligent sensors and cameras
• Fully automated yard cranes to be tested
• Driverless and battery-powered automated guided vehicles to transport containers
• Autonomous truck platooning
• Design to import port equipment and assist in troubleshooting with remote video streaming
• Video analytics of footage to pre-empt breakdowns

GREEN TECHNOLOGIES
• Electrically port handling equipment to reduce carbon emissions
• Smart grid systems that actively optimise overall electrical consumption
• Usage of renewable energy such as solar power
• Green building designs, rainwater harvesting

Concrete box caissons are used to form a seawall, retaining the fill materials forming the land and functioning as the quay for container vessels when berths are put into operation.

GOSH
The largest Grab Dredger in the world

15,000 tonnes
Bucket size of GOSH

10,000
Cubic metres
Bucket size of GOSH can fill one Olympic-size swimming pool in 45 minutes with 15 grabs

278m
Height of each caisson, the equivalent of a 10-storey HDB block

294ha
Area to be reclaimed, the size of 272 football fields

2000
Tonnes
Weight of each caisson

$1b
Amount saved by reusing dredged and excavated materials for reclamation

$1.24b
Cost of the contract for Tuas Phase 1

20m
Height of each caisson

$2.42b
Cost of the contract for Tuas Phase 1

15,000
Tonne
Load of each caisson

15,000
Tonne
Load of each caisson

A SMARTER PORT

The Tuas mega port will be outfitted with new technologies such as automated container port systems, to improve the efficiency of terminal operations. It will open in four phases from 2021 to around 2040.