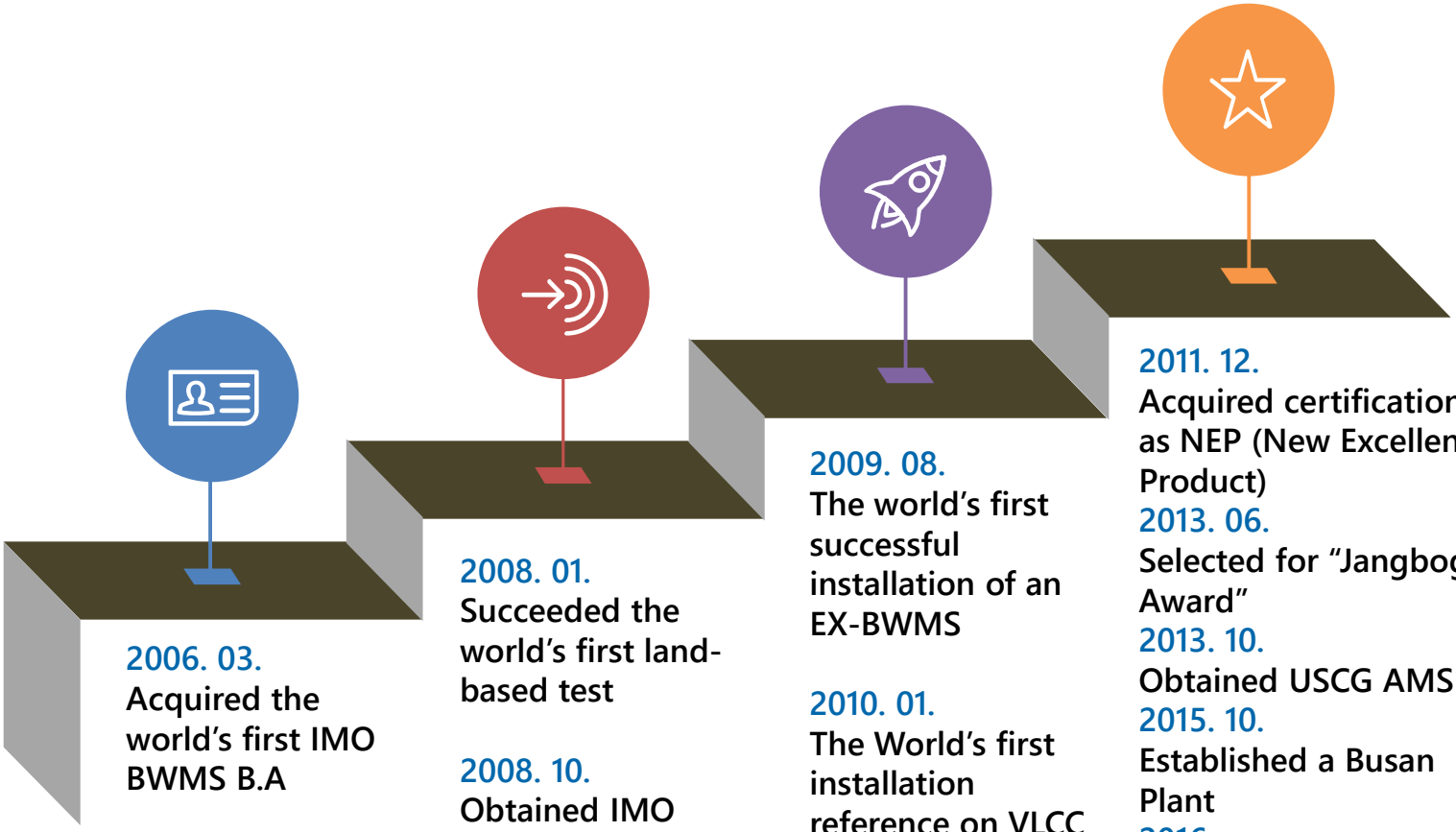
Providing compliance, not just system

Electro Cleen™ System

TECHCROSS

COMPANY



2006. 03.
Acquired the world's first IMO BWMS B.A

2006. 08.
Launched the world's first BWM Barge

2008. 01.
Succeeded the world's first land-based test

2008. 10.
Obtained IMO BWMS F.A

2008. 12.
Acquired T.A from Korean Administration

2009. 08.
The world's first successful installation of an EX-BWMS

2010. 01.
The World's first installation reference on VLCC

2011. 12.
Acquired certification as NEP (New Excellent Product)

2013. 06.
Selected for "Jangbogo Award"

2013. 10.
Obtained USCG AMS

2015. 10.
Established a Busan Plant

2016
World Class Product

2018. 06
USCG T/A

World's Largest BWMS Factory

Site Area 42,479㎡
Manufacturing Capa. 3,300 sets (ECS 600B)
Staff 198

Electro Cleen™ System

APPROVAL

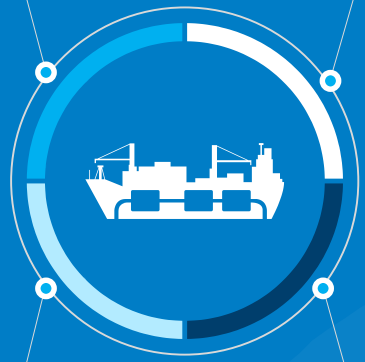
IMO | FLAG STATE | USCG | CLASSIFICATION SOCIETIES

IMO

- Basic Approval (2006)
  World's First Approval
- Final Approval (2008)
- New G8 Approval (2020)

USCG

- USCG T/A(5th June 2018)



Flag State

- Korean Government (2008)
- Liberian Government (2011)
- Cyprus Government (2014)
- Japanese Government (2016)
- Greek Government (2017)
- Danish Government (2017)
- Panama Government (2017)
- Turkish Government (2017)
- Norwegian Government(2018)

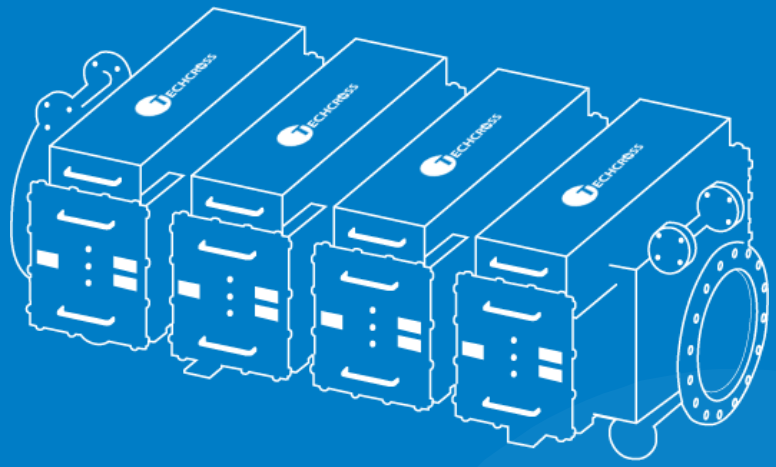
Classification Societies

- KR Type Approval (2010)
- ABS Type Approval (2011)
- BV Type Approval (2013)
- RS Type Approval (2013)
- RINA Type Approval (2013)
- LR Type Approval (2015)
- CCS Type Approval (2016)

PRODUCT

Line up & Composition

| ECU & EX-ECU

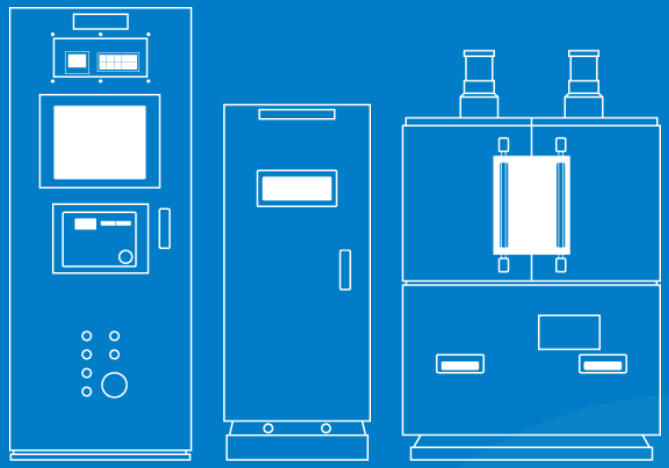


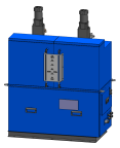
ECU

PRODUCT

Line up & Composition

- PDE (Power Distributor Equipment)
- TSU & EX-TSU (TRO Sensor Unit)
- ANU (Auto Neutralization Unit)



Power Distributor Equipment PDE	TRO Sensor Unit TSU	Auto Neutralization Unit ANU
		

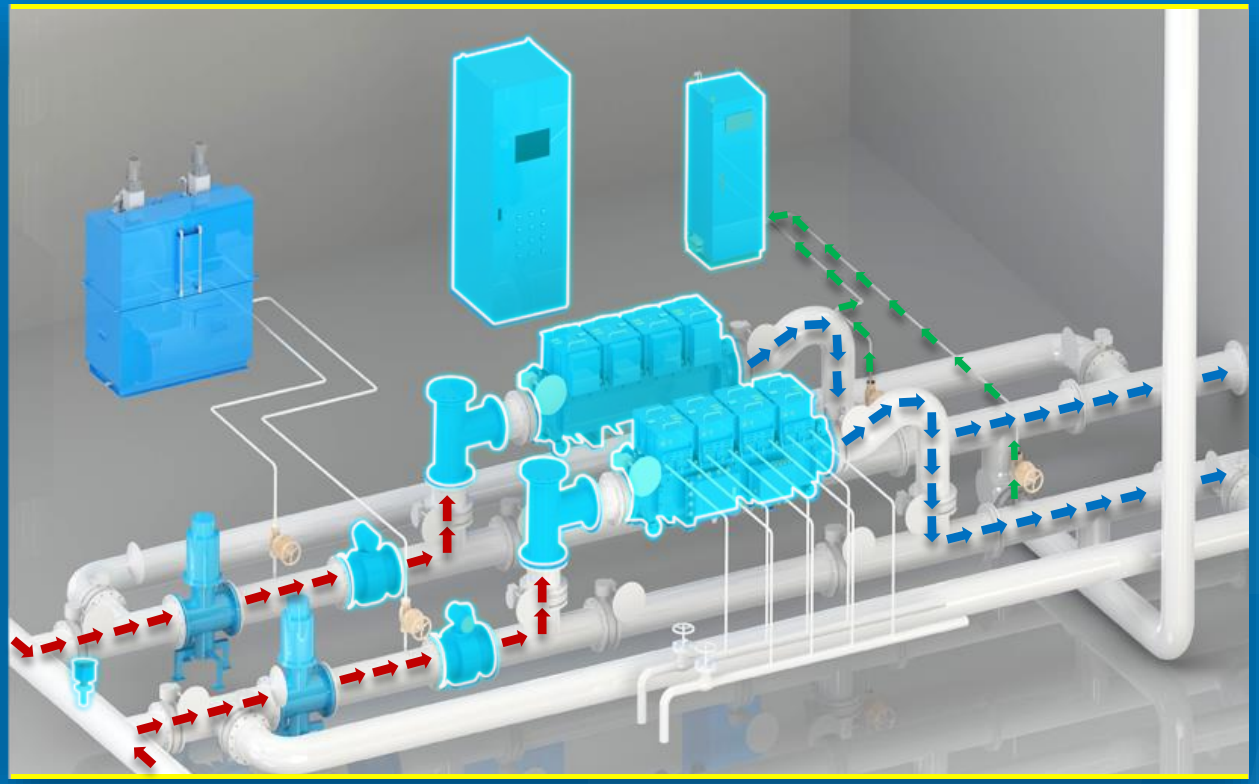
TECHNOLOGY

Ballasting

De-Ballasting

Ballasting

Before treatment
After treatment



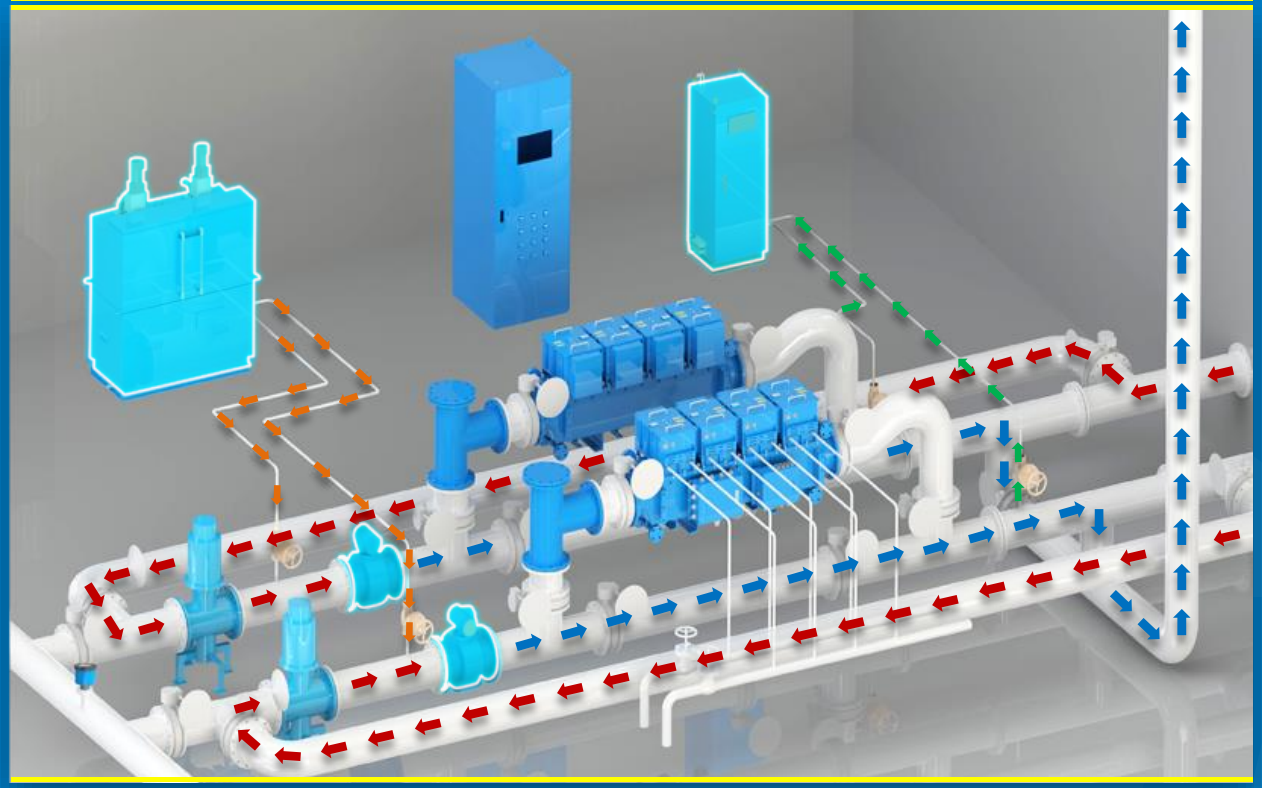
CSU ▸ FMU ▸ T-strainer ▸ ECU ▸ PDE ▸ TSU ▸ Ballast Tank

TECHNOLOGY

Ballasting | De-Ballasting

De-Ballasting

Before neutralization
After neutralization



FMU ▸ ANU ▸ TSU ▸ Overboard

Electro Cleen™ System

ADVANTAGES

| Higher disinfection efficacy

2012 KOMERI TEST

Vessel Type : 13,000TEU CNTR (H.2002)

ECS Model : ECS1200B x 2sets

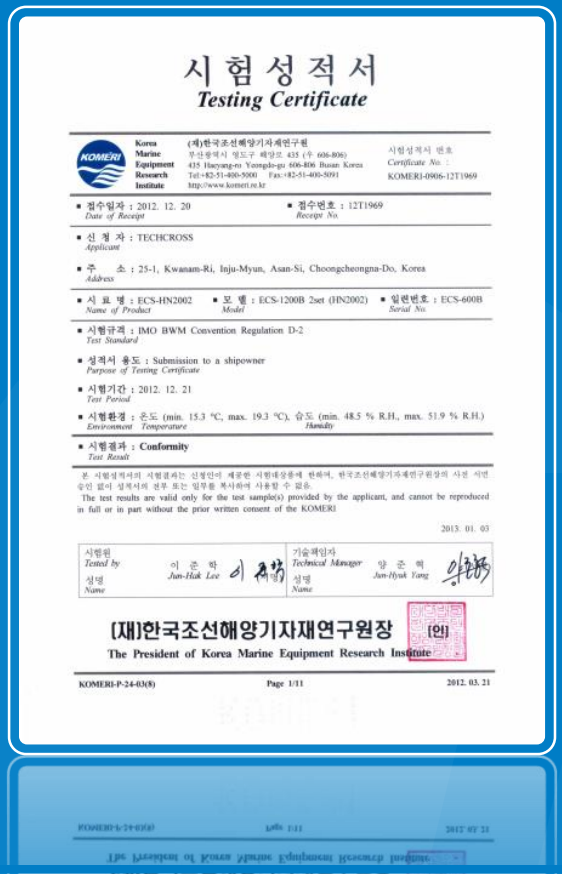
Shipyard : Samsung Heavy Industries

TEST Standard : IMO BWM Convention Regulation D-2

Test Period : 2012.12.21

Test Item : Shipboard Test by KOMERI

Test Result : Conformity



시 험 성 적 서

Testing Certificate

Korea Marine Equipment Research Institute
(재)한국조선해양기자재연구원
부산광역시 영도구 해양로 435 (우 606-806)
435 Haeyang-ro Yeongdo-gu 606-806 Busan Korea
Tel:+82-51-400-5000 Fax:+82-51-400-5091
http://www.komeri.re.kr

시험성적서 번호 Certificate No. : KOMERI-0906-12T1969

■ 접수일자 : 2012. 12. 20 Date of Receipt
■ 접수번호 : 12T1969 Receipt No.
■ 신 청 자 : TECHCROSS Applicant
■ 주 소 : 25-1, Kwanam-Ri, Inju-Myun, Asan-Si, Choongcheongna-Do, Korea Address
■ 시 료 명 : ECS-HN2002 Name of Product
■ 모 델 : ECS-1200B 2set (HN2002) Model
■ 일련번호 : ECS-600B Serial No.
■ 시험규격 : IMO BWM Convention Regulation D-2 Test Standard
■ 성적서 용도 : Submission to a shipowner Purpose of Testing Certificate
■ 시험기간 : 2012. 12. 21 Test Period
■ 시험환경 : 온도 (min. 15.3 ℃, max. 19.3 ℃), 습도 (min. 48.5 % R.H., max. 51.9 % R.H.) Environment Temperature Humidity
■ 시험결과 : Conformity Test Result

본 시험성적서의 시험결과는 신청인이 제공한 시험대상품에 한하며, 한국조선해양기자재연구원장의 사전 서면 승인 없이 성적서의 전부 또는 일부를 복사하여 사용할 수 없음.
The test results are valid only for the test sample(s) provided by the applicant, and cannot be reproduced in full or in part without the prior written consent of the KOMERI

2013. 01. 03

시험원 Tested by 성명 Name 이 준 학 Jun-Hak Lee
기술책임자 Technical Manager 성명 Name 양 준 혁 Jun-Hyuk Yang

[재]한국조선해양기자재연구원장 [인]
The President of Korea Marine Equipment Research Institute

KOMERI-P-24-03(8) Page 1/11 2012. 03. 21

ADVANTAGES

- Higher disinfection efficacy
- Lower power consumption

0 3 . 4

Normal seawater(30PSU)

kw / 100m³ / h

COMPARED TO ...

0 3 . 0

Kw / h

Electro Cleen™ System

ADVANTAGES

- Higher disinfection efficacy
- Lower power consumption
- Low Operating Costs

Q : Required for BWMS operation?

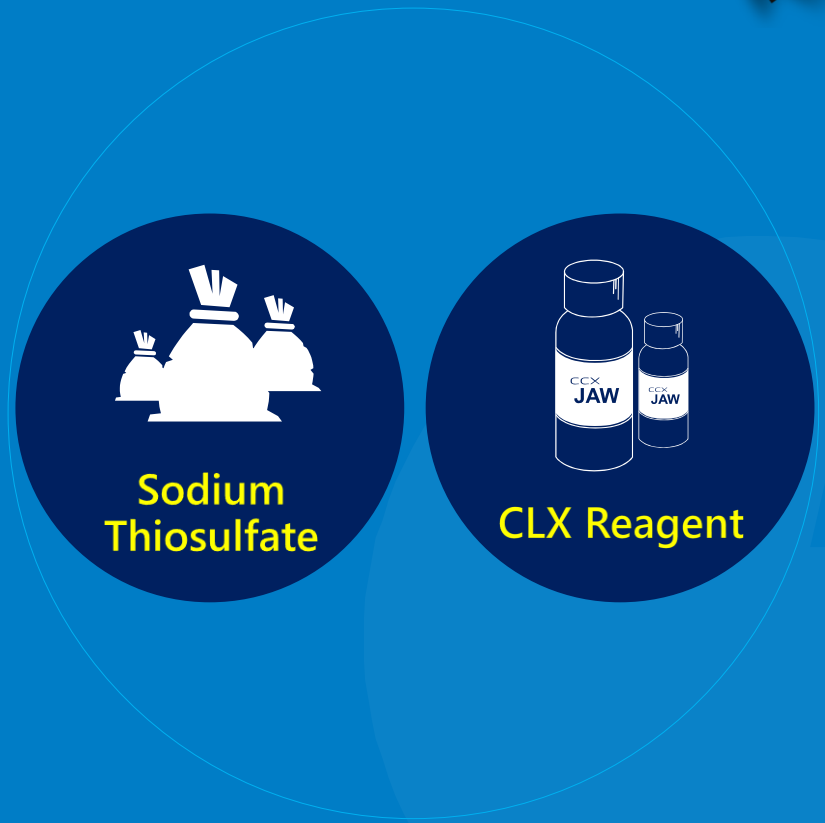
SEARCH

ADVANTAGES

- Higher disinfection efficacy
- Lower power consumption
- Low Operating Costs

Q : Required for BWMS operation?

TECHCROSS SEARCH



Electro Cleen™ System

ADVANTAGES

Total Order Book : **1944** Ships

ECS Delivered : **1408** Ships

Retrofit Order : **416** Ships

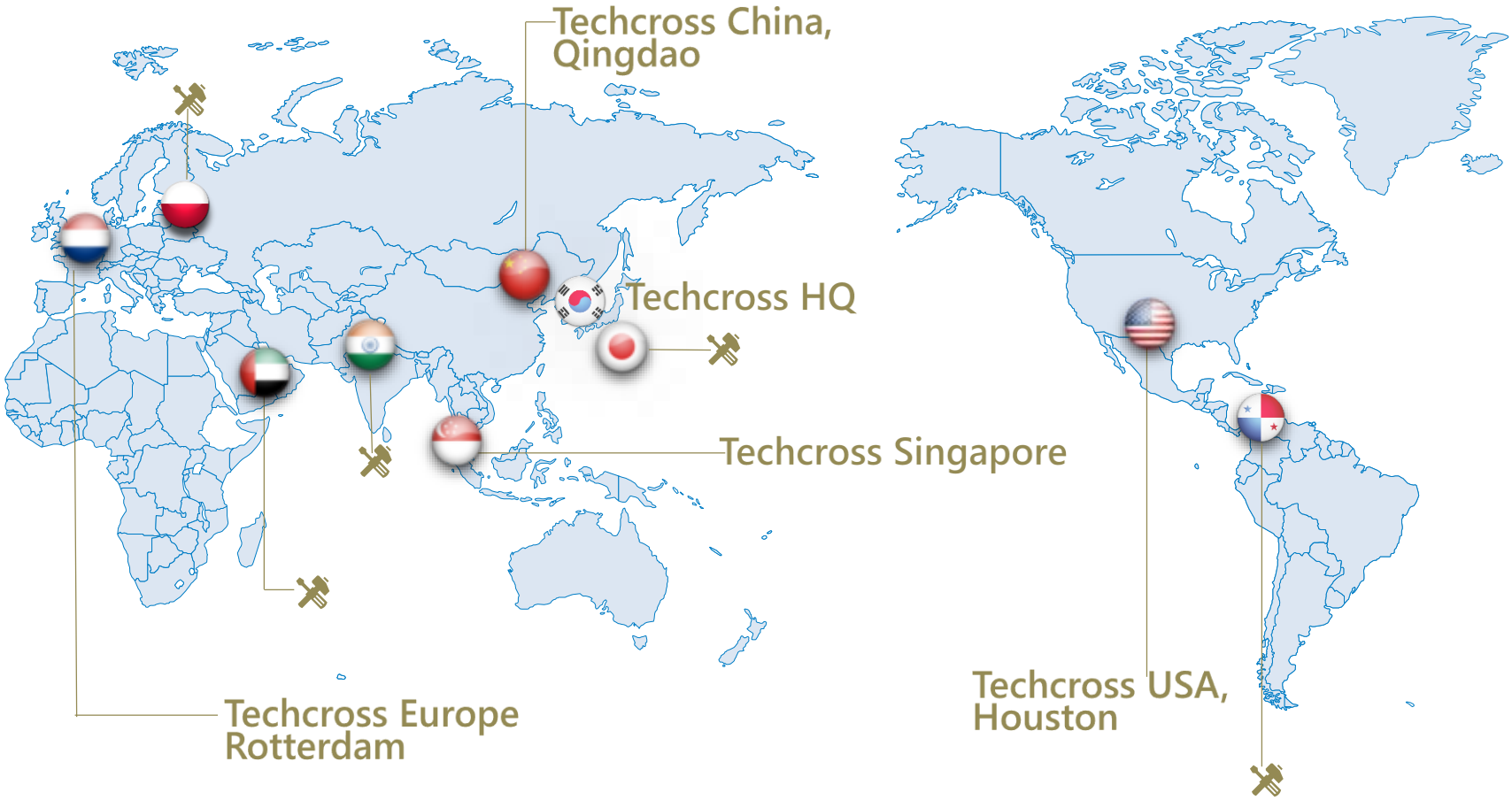
Retrofit MOU : **137** Ships

As of 2nd September, 2019

Container ship	Bulk Carrier	Tanker	LNGC / LPGC	Special Ship
143 Ships	1176 Ships	324 Ships	214 Ships	87 Ships

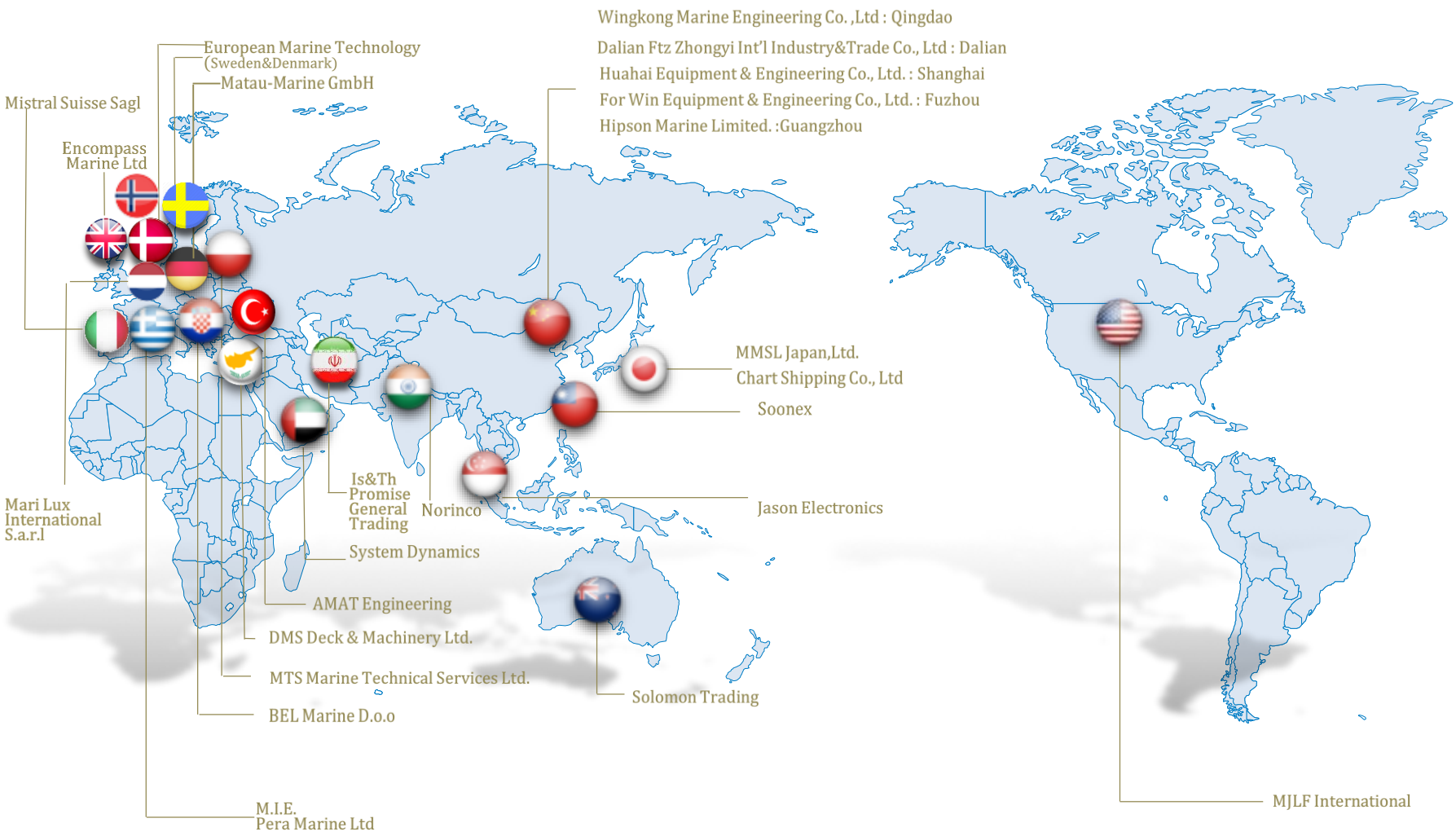
Global Network

After Sales Service Station



Global Network

Sales Network



TECHCROSS