

KOPICO CO., LTD.

since 1999

Not Big But Strong



HISTORY

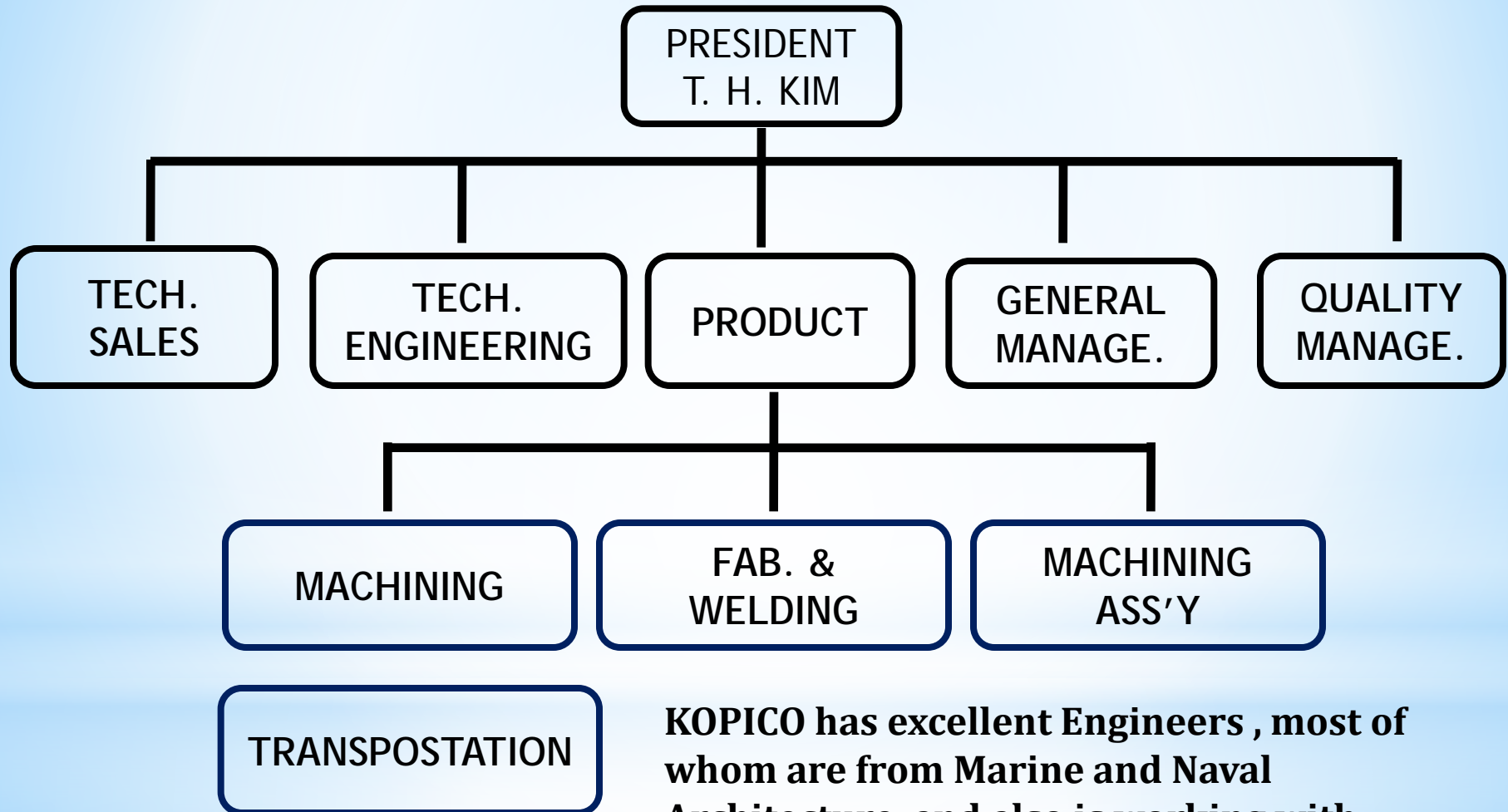
YEAR	HISTORY
2024. 04	Renewed Certificate ISO 9001 , 14001 & 45001
2018. 08	Started Production Becker Marine Rudder
2015. 11	Started Production W.J equipment of High Speed boat for Korean Navy (S-Intake , D-shaft)
2011. 10	Started Production Promas Rudder system For Rolls-Royce Marine (Kongsberg. MT)
2006. 12	Moved to New Factory (Current Position)
2005. 10	Provided Cam Shaft Ass'y to HHI
2004. 10	Approved Patent of Cam Timing Adjusting Device For 2-Stroke Diesel Engine
2000. 03	Supplied Cam Shaft Ass'y to HSD Eng.
1999. 06	Founded as KOPICO Co., Ltd. For Machining Goods to Samsung Eng.

MAIN CUSTOMERS



And world
wide Shipyard
& Agency

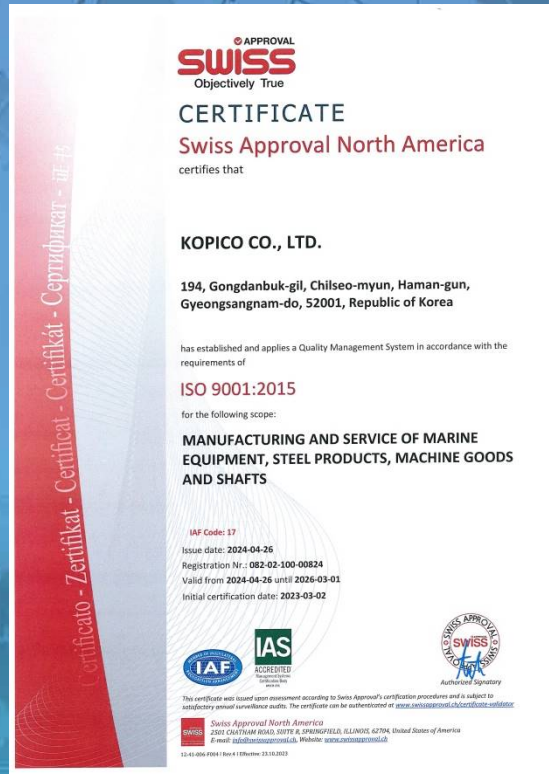
ORGANIZATION



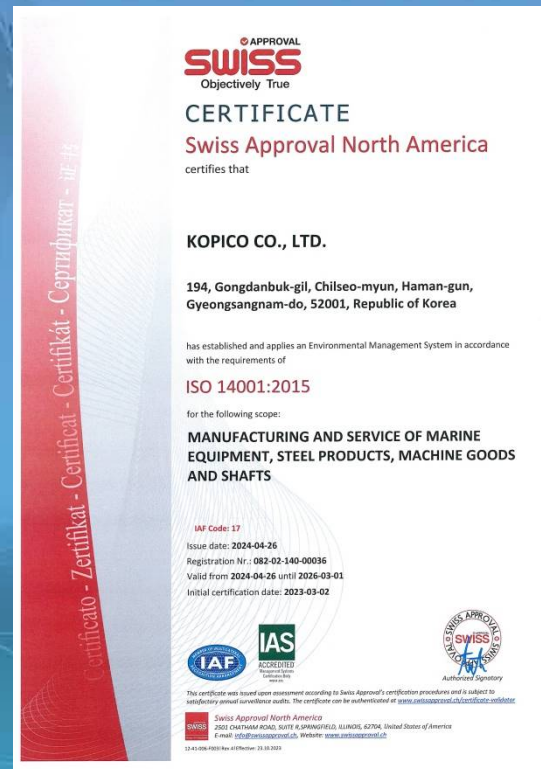
KOPICO has excellent Engineers , most of whom are from Marine and Naval Architecture and also is working with best welders and machining personnel

CERTIFICATE

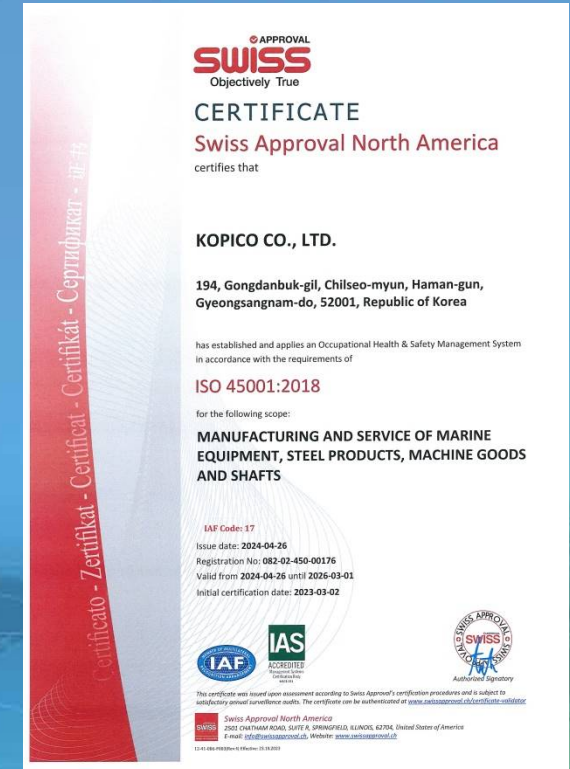
ISO



ISO 9001



ISO 14001



ISO 45001

CERTIFICATE

DNV-GL
Certificate No. **WMA0000101**

**WELDING WORKSHOP
APPROVAL CERTIFICATE**

This is to certify:
That
KOPICO CO., LTD.
194 Gongdanbuk-gil, Chilseo-myeon,
Haman-gun, Korea

is approved for
Welding

in accordance with
DNV GL rules for classification - WMA
DNV GL class programme DNVGL-CP-0351 - Approval of manufacturers - Manufacture of
welded products - Welding workshop

has been approved for the following range of applications:
Hull Equipment
Mechanical Components
and the following materials:
Manufacturer(s) approved by this certificate are accepted to deliver according to
DNV GL, DNV and GL Rules.

Issued at Hamburg on 2013-05-07

This Certificate is valid until 2023-05-06.
DNV GL local station: **Glinhwa**

Approved Engineer: **Gordon Webb**

Welding supervisor: **Seon, Sung-Kim**
Deputy welding supervisor: **Lee, Young-Win**

For DNV GL
Thorstein Lohmann
Head of Station

Form code: WSD-035
Revision: 0310-01
www.dnvgl.com
Page 1 of 1
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**WELDING PROCEDURE
SPECIFICATION**

*REVIEWED DATA OF COMPANY
NAME CHANGED FROM KOPICO 1994
CO. LTD. TO YEUNG CO. LTD.*

CAST4G + EH36 + 2G

NAME OF DRAWING: FLUX CORED AND BOTH SIDE WELDING

CHECKED	JONG MYUNG PARK	DRAWING NO: FC-008
	TEL: 051-901-3015-7	
DRAWN	HONG SEOK KIM	
DATE	24. MARCH 2008	

ADDRESS: 115-8-1 SOHLEUNG-CONG KANGSOO-KU BUSAN, KOREA

APPROVAL OF WELDING PROCEDURE

Issued within the scope of the Bureau Veritas Marine Branch General Conditions

Messrs: **KOPICO CO., LTD.**
#194, Gongdanbuk-gil, Chilseo-myeon, Haman-gun, Gyeongnam, Korea

This is to certify that under mentioned welding procedure specifications with relevant qualification test records have been duly reviewed according to the Rules of this society, and be considered that approval of the welding procedures can be granted under the conditions below:

- Semi-Automatic Flux-Cored Arc Welding (FCAW) / 136) with shielding gas (CO2).**
 - WPS No. : FC-008 (Rev.1)
 - Supporting PQR No. : QPC-009-1 & QPC-009-2
 - Base metal P No. / Gr No. : 1. Gr. 2 (K038 A11) 15140 or Equivalent
 - Steel group (CR ISO 15008) : 1.2 (270N/mm² + heat < 300N/mm²) or Equivalent
 - Thickness range : 10.0mm to 30.0mm
 - Pipe Diameter : O.D. > 150mm (PA or PC) and O.D. > 300mm
 - Min. preheat temp. : 80°C
 - Max. interpass temp. : 240°C
 - Post weld heat treatment : Not applicable
 - Current type : DCSP (SP)
 - Joint type : Single bevel butt groove 1/2 V (without backing)
 - Position : All (Except PG)
 - Welding technique : Multiple, single-run string or weaving
 - Welding technique : Multiple, single-run string or weaving
 - Classification of welding consumables: F No. 8, & No. 1, AWS A5.29 (ER11-42)
 - Brand name: Super Cored 81-K2 (Hyundai) or Eq., 81.6mm
- Semi-Automatic Flux-Cored Arc Welding (FCAW) / 136) with shielding gas (CO2).**
 - WPS No. : KPCP-07-C02-401 (Rev.0)
 - Supporting PQR No. : KPCP-07-C02-401 (1) & KPCP-07-C02-401 (2)
 - Base metal P No. / Gr No. : 1. Gr. 2 (K038 A11) 15140 or Equivalent
 - Steel group (CR ISO 15008) : 1.2 (270N/mm² + heat < 300N/mm²) or Eq.
 - Thickness range : 10.0mm to 30.0mm
 - Pipe Diameter : O.D. > 150mm (PA or PC) and O.D. > 300mm
 - Min. preheat temp. : 80°C
 - Max. interpass temp. : 195°C
 - Post weld heat treatment : Not applicable
 - Current type : DCSP (SP)
 - Joint type : Single V groove (with backing)
 - Position : All (Except PG)
 - Welding technique : Multiple, single-run string or weaving
 - Welding technique : Multiple, single-run string or weaving
 - Classification of welding consumables: F No. 8, & No. 1, AWS A5.29 (ER11-42)
 - Brand name: Super Cored 81-K2 (Hyundai) or Eq., 81.6mm

--- To be continued ---

**WELDING PROCEDURE SPECIFICATION
(W.P.S. & P.Q.R.)**

S355J2N + EH36 + 2G, 3G

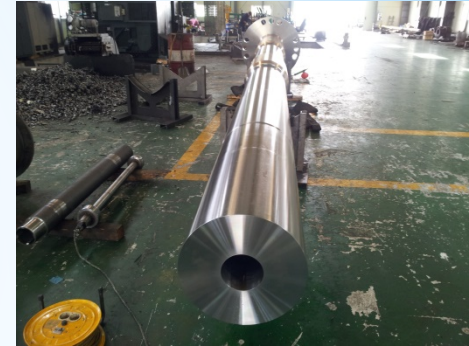
WPS NO. DIRECTOR	WPS NO. : KWP-13-C02-101
APPROVED BY	TEL: 055-586-3070-2 FAX: 055-586-3074
MANAGER	KOPICO CO., LTD
SENIOR STAFF	07102-8590-8, 07102-8590-9, 07102-8590-10, 07102-8590-11, 07102-8590-12, 07102-8590-13, 07102-8590-14, 07102-8590-15, 07102-8590-16, 07102-8590-17, 07102-8590-18, 07102-8590-19, 07102-8590-20, 07102-8590-21, 07102-8590-22, 07102-8590-23, 07102-8590-24, 07102-8590-25, 07102-8590-26, 07102-8590-27, 07102-8590-28, 07102-8590-29, 07102-8590-30, 07102-8590-31, 07102-8590-32, 07102-8590-33, 07102-8590-34, 07102-8590-35, 07102-8590-36, 07102-8590-37, 07102-8590-38, 07102-8590-39, 07102-8590-40, 07102-8590-41, 07102-8590-42, 07102-8590-43, 07102-8590-44, 07102-8590-45, 07102-8590-46, 07102-8590-47, 07102-8590-48, 07102-8590-49, 07102-8590-50, 07102-8590-51, 07102-8590-52, 07102-8590-53, 07102-8590-54, 07102-8590-55, 07102-8590-56, 07102-8590-57, 07102-8590-58, 07102-8590-59, 07102-8590-60, 07102-8590-61, 07102-8590-62, 07102-8590-63, 07102-8590-64, 07102-8590-65, 07102-8590-66, 07102-8590-67, 07102-8590-68, 07102-8590-69, 07102-8590-70, 07102-8590-71, 07102-8590-72, 07102-8590-73, 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MAIN BUSSINESS



Stern Equipment for Vessel

- ◆ Rudder Complete
- ◆ Off-Shore Equipment
- ◆ Propulsion Shafting System
and All of Fab. welding &
Machining Goods



□ FABRICATIONS – RUDDER

All type of rudder system can be manufactured at KOPICO



FULL-SPADE BULB RUDDER



SEMI-SPADE RUDDER



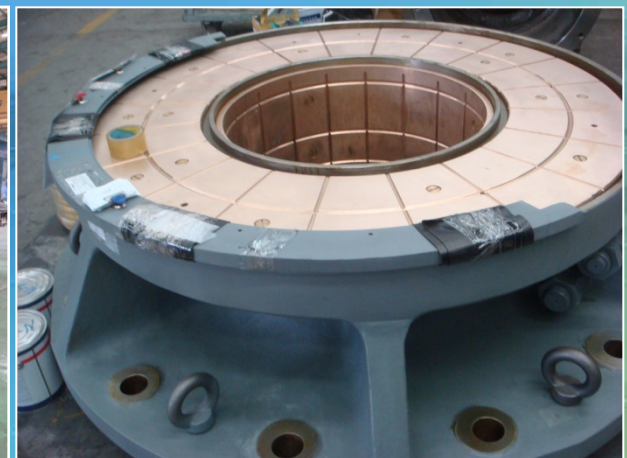
FLAP RUDDER



BLOCK RUDDER TRUNK



RUDDER TRUNK



RUDDER CARRIER

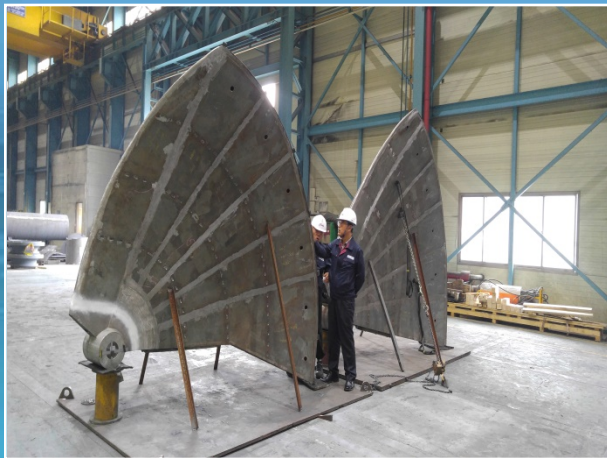
KOPICO has a lot of reference in manufacturing Steel equipment for Off-Shore plant and Naval vessel



STERN ROLLER



DOME CLOSER FOR AZIMUS



HOR. RUDDER FOR SUBMARINE



S/INDUCT FOR WATER JET



S.G.MOTOR FRAME

■ FABRICATIONS – STEEL FITTING



STERN TUBE



RUDDER HORN



STERN BLOCK



KORT NOZZLE



V_STRUT



MOTOR FRAME

□ MACHININGS

KOPICO has necessary machines to product machining goods



RUDDER STOCK



CPP SHAFT



PROP. SHAFT & INTER SHAFT



HYD. NUT

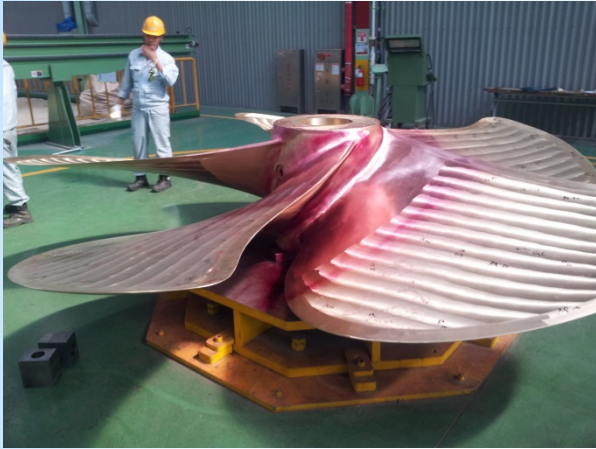


FLANGED RUDDER STOCK



HIGH FREQ. MOTOR SHAFT

PROPLUSION/SPECIAL PRODUCTION



PROPELLER

- CUSTOMER
VIETNAM SHIPYARD ,
MANUFACURED BY
RELATED COMPANY
IN KOREA



STEEL INTAKE FOR WATER JET

- CUSTOMER
HIGH SPEED SHIP
ROKCG, ROKN
MJP



HORIZONTAL RUDDER FOR SUBMARINE

- CUSTOMER
ROKN

CAPABILITY

★ Production Capacity for Rudder Complete per Year

DESCRIP.	FAB. & WELDING AREA(m2)	EACH WORKING AREA(m2)	Q'TY OF PRODUCT BASED ON AREA	MACHIN'G AREA (m2)	Q'TY OF PRODUCT	
					MONTH	YEAR
Q'TY	950.0 (1,266.0)	41.5	6 SETS	900.0	5 SETS	60 SETS

* Above table was based on area of rudder blade is 41.25 m2 (5.5 x 7.5)
and weight per rudder blade is 40.0 tons

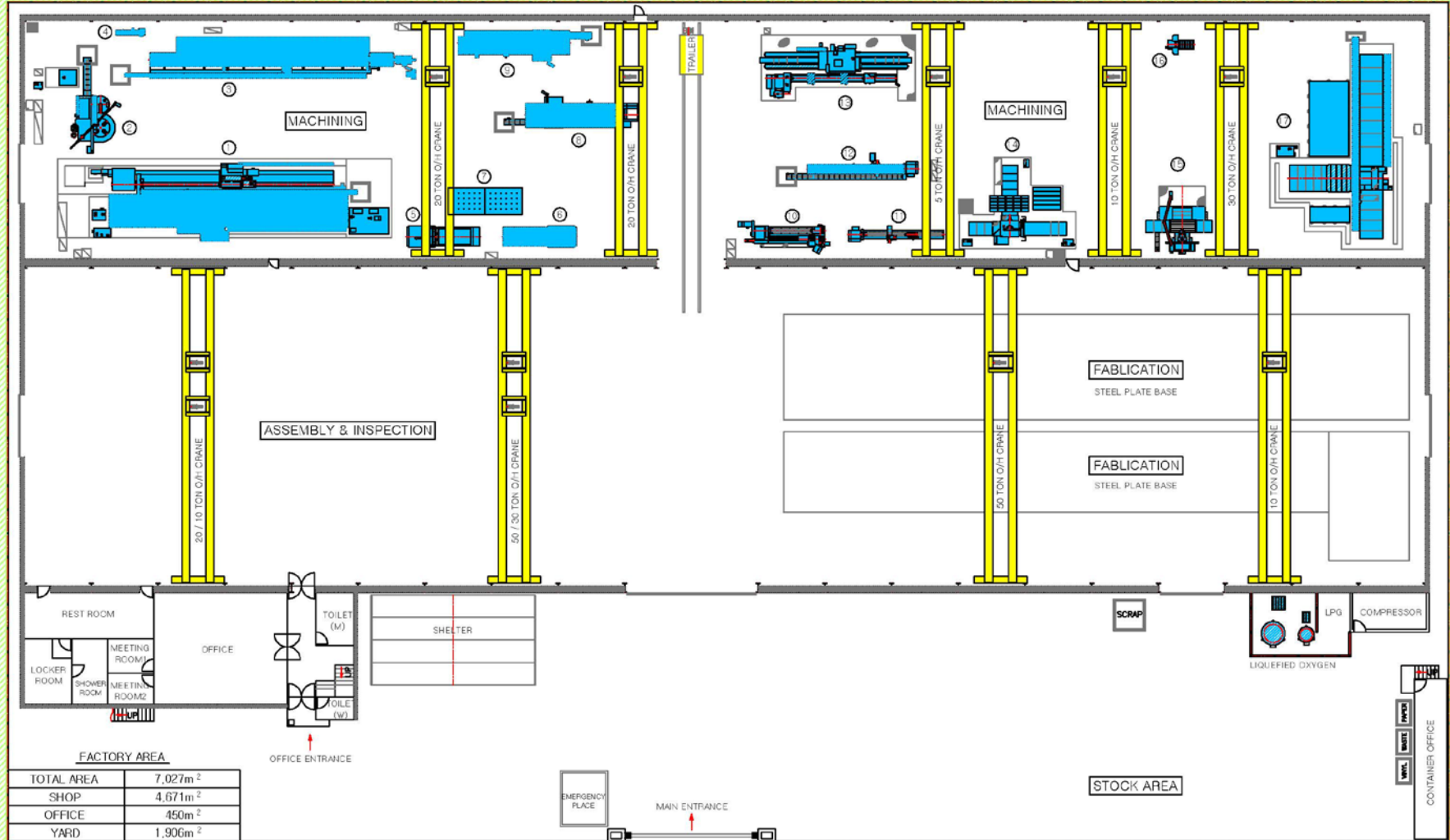
★ Max. handling weight for fabricating work
: 120 tons / set

★ Max. capability of Machining Shaft
: 12,000mm (L) * 1,600 mm(D) * 45 TONS/ set

SHOP LAYOUT

MACHINERY SPECIFICATION

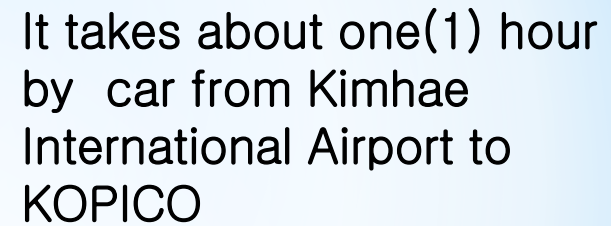
NO.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰
MACHINERY	CNC LATHE	T / MACHINE	CNC LATHE	LATHE	ELEC. HEATER	ELEC. HEATER	PRECISION BASE	CNC LATHE	CNC LATHE	CNC LATHE	CNC LATHE	CNC LATHE	GRINDING MACHINE	CNC B/MACHINE	CNC MILLING	BAND SAW	CNC B/MACHINE
SPEC	φ1500 × 12,000L	φ1500 × 1000H	φ1600 × 16,000L	COMMON	30KW (430°)	30KW (400°)	2000 × 5630	φ1000 × 5,000L	φ1000 × 6,000L	φ800 × 3,000L	φ950 × 5,000L	φ950 × 6,000L	φ950 × 6,000L	φ130 X1200X1550,2500	1500x4000x1000	-	φ192 X6800X1900,21000



← 10M ROAD →

10M ROAD →

WRITTEN DATE: 2020.01.07



It takes about one(1) hour
by car from Kimhae
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