이케이중공업(주)
EK Heavy Industries Co., Ltd.

경남 고성군 동해면 조선특구로 1236 (용정리)
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은광산업(주)
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釜山市江西区ノクサン産団46路67

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Heavy Industries Co., Ltd.

The trustworthy company towards the client.
The leading company that opens the future.

대표이사
CEO / 代表取締役

이 종 열
Lee, Jong-yeol

CEO Greetings

1992년 흥화산업으로 시작한 EK는 언제나 완벽을 추구해 왔습니다.
고객이 맡긴 단 하나의 공정이라도 최선을 다했습니다.

최선으로 최상의 결과를 내 온 EK의 정신을 고객은 알아주셨습니다.
산업기계플랜트에서 조선 해양플랜트, 우주 항공 분야와 모듈화 사업까지
EK의 기술을 필요로 하는 모든 고객을 위해 연구를 멈추지 않았습니다.

혁신과 도전을 위해 시간과 열정을 투자했고 고객의 성장과 함께,
고객의 위대한 프로젝트와 함께 EK도 성장했습니다.

이제 EK는 세계의 기업과 함께하는 파트너로 나아갑니다.
오차 없는 완벽함을 위해 더 마음을 다잡겠습니다.

Clients acknowledge our spirit to produce the best outcome by putting forth our best efforts.

We relentlessly research for our clients to meet their needs for our technologies stemming from industrial machinery plant, shipbuilding, offshore plant, and aerospace engineering to modularization business by bringing together our know-how, complementary skills, and capabilities. We have invested to create innovation and take up new challenges while we grow along with our client and their various projects.
EK continues to be acknowledged for and a preferred choice in our industry through our commitment to quality and flawless performance.

1992年、フンファ産業として出発した、EKは常に完璧を追い求めてきました。
顧客から任せられた、ただ一つの工程であっても最善を尽くしてきました。
最善を尽くし、最上の結果を出してきたEKの精神を顧客は認めてくれました。
産業機械プラントから造船海洋プラント、宇宙航空分野とモジュール化事業に至るまで、
EKの技術を必要とするすべての顧客のため、EKは絶えず研究を重ねてきました。
革新と挑戦に向けて時間と熱情を投資し、顧客の成長と共に、
顧客の偉大なプロジェクトと共に、EKも成長してきました。
今やEKは世界の企業と共に進むパートナー企業です。
欠点のない完璧さを追い求め、より一層精進してまいります。

완벽을 추구하는 EK의 정신
고객이 만족하는 EK의 기술

EK Spirit Pursuing Perfection
EK Technology Satisfying Customers

完璧を追い求める、EKの精神
顧客が満足する、EKの技術

New Idea
새로운 생각
新しい発想

Confidence
당당한 자세
堂々とした姿勢

Great Passion
뜨거운 열정
強い熱情

Precision
완벽한 실행
完璧な実行

EK가 걸어온 길
History / 沿 革

1992 흥화산업 설립 / フンファ産業設立
Established Heunghwa Industry

1993 삼성중공업(주) 등록 / サムスン重工業(株)登録業者
Registered in Samsung Heavy Industries Co., Ltd.

1994 위아(주) 및 로템(주) 등록
ウィア(株)およびロテム(株)登録業者
Registered in WIA Co., Ltd. and Rotem Co., Ltd.

국내 최초 골리앗크레인 Multi-Layer 제작
韓国初のガントリークレーン、multi-layerの製作
Manufactured Korea's first multi-layered Goliath shipyard crane

현대중공업(주) 등록 / 現代重工業(株)登録業者
Registered in Hyundai Heavy Industries Co., Ltd.

1995 두산중공업(주) 등록 / 斗山重工業(株)登録業者
Registered in Doosan Heavy Industries & Construction Co.,Ltd.

대우조선해양(주) 등록 / 大宇造船海洋(株)登録業者
Registered in Daewoo Shipbuilding & Marine Engineering Co.,Ltd.

한진중공업(주) 등록 / 韓進重工業(株)登録業者
Registered in Hanjin Heavy Industries & Construction Co., Ltd.

1996 국내 최초 TRANSMISSION SHAFT 개발
韓国初のTRANSMISSION SHAFT開発
Developed Korea's first transmission shaft

은광산업(주)로 법인전환 / ウングァン産業(株)へと法人名変更
Incorporated as Eunkwang Industrial

POSCO 등록 / POSCO登録業者 / Registered in POSCO

KEPCO 등록 / KEPCO登録業者 / Registered in KEPCO

2002 ISO 9001:2000 인증 / ISO 9001:2000認証取得
Obtained ISO 9001:2000 Certification
본사 이전 및 확장 (부산 녹산공단)
本社移転および拡張(釜山ノクサン工団)
Relocated and expanded (Noksan Industrial Complex in Busan)

2006 국내 최초 보잉 787기 후방동체 금형 가공
韓国初のボーイング787型機胴体後方金型加工
Manufactured Korea's first Boeing 787 Rear Fuselage Mold

2007 EK중공업(주) 설립 / EK重工業(株)設立
Established EK Heavy Industries Co., Ltd.
ASME S & U 획득 / ASME S & U獲得/ Obtained ASME S & U

2008 기술연구소 등록 / 技術研究所登録
Established the Institute of Technology

2009 DNV, ABS, LR, KR, WPS

2010 ASME NPT & KEPIC MN획득 / ASME NPT & KEPIC 獲 得
Obtained ASME NPT & KEPIC MN

2012 삼성중공업(주) 등록 / サムスン重工業(株)登録業者
Registered in Samsung Heavy Industries Co., Ltd.

2013 OHSAS 18001:2007
대우조선해양(주) 등록 / 大宇造船海洋(株)登録業者
Registered in Daewoo Shipbuilding & Marine Engineering Co., Ltd.

2014 국내최대 1만톤 해상크레인 back stay제작
韓国大の1万トン海上クレーンback stay製作
Manufactured Korea's Largest 10,000 ton offshore crane back stay

2015 세계최초 양광시스템 문풀구조물 설계, 제작 및 운용
世界初の揚鉱システムのムーンプール設計、製作および運用
Designed, manufactured and operated world's first moon pool structure with ocean mining pipe system

대우건설(주) 등록
大宇建設(株)登録業者
Registered in Daewoo Engineering & Construction Co., Ltd.

2016 한국발전 기자재공급 유자격자 등록
韓国発電資機材供給有資格者登録
Registered as a qualified equipment and material supplier in Korea Power Co., Ltd.

한국발전 정비적격기업 등록 / 韓国発電修理適格企業登録 Registered as a qualified maintenance business in Korea Power Co., Ltd.
Becker marine system 등록 / Becker marine system登録
Registered in the Becker marine system

2017 천만불 수출의 탑 수상 / 千万ドル輸出塔の受賞
Won a 10-million-dollar export monument award

2018 고용우수기업 인증
雇用優秀企業の認証 / Certified as Top Employer

세계최초 최대 골리앗크레인 제작
Manufactured the world's first and largest Goliath crane
世界初の最大ガントリークレーンの製作

2020 국내최초 중·대규모 수력발전 핵심부품 수차러너 국산화 개발
Developed Korea's first localized Water Turbine Runner for medium and large-scale hydropower core parts

2022 국내최초 연안선박 맞춤형 LNG벙커링 시스템 선박 개발
Developed Korea's first LNG Bunkering vessel for coastal trade with LNG-fueled ships

품질경영방침

Quality Management Policy / 品質経営方針

품질의 개선과 관리 品質の改善と管理 Improvement and management of quality	품질개선을 위한 목표를 수립하여 품질혁신을 이루고, 체계적인 품질관리를 통해 일류기업으로 도약한다. Innovate quality by establishing objectives for quality improvement, and become a leading company through systematic quality management 品質改善の目標を定め品質確信を実現し、体系的な品質管理により一流企業へと飛躍する
규정 및 절차서 준수 規定および手順書の遵守 Compliance with regulations and procedures	품질 방침에 맞는 제 규정 및 절차를 준수한다. Comply with all regulations and procedures for quality policy 品質方針に合う諸規定および手続きを遵守する
커뮤니케이션 활성화 コミュニケーションの活性化 Communication activation	전 임직원 및 협력사에 대하여 적절한 의사소통 체계를 확립하여 품질 개선 활동에 적극적인 참여를 유도한다. Induce all employees and subcontractors to participate actively in quality improvement activities by establishing proper communication system 全職員および協力会社との適切な意思疎通体制を確立、品質改善活動への積極参加を促す

조직도

Organization Chart / 組織図

- **대표이사** CEO 代表取締役
  - **경영관리본부** Business Administration Division 経営管理本部
    - **영업부 / 営業部** Sales Department
      - **영업1팀 / 営業第1チーム** Sales 1 Team
      - **영업2팀 / 営業第2チーム** Sales 2 Team
    - **경영기획부 / 経営企画部** Business Planning Department
      - **총무인사팀 / 総務人事チーム** General Affairs and Personnel Team
      - **정보기획팀 / 情報企画チーム** Information Planning Team
    - **재무회계부 / 財務会計部** Financial Accounting Department
      - **재무회계팀 / 財務会計チーム** Financial Accounting Team
  - **생산관리본부** Production Management Division 生産管理本部
    - **생산부 / 生産部** Production Department
      - **생산팀 / 生産チーム** Production Team
    - **조선해양사업부 / 造船海洋事業部** Shipbuilding & Offshore Department
      - **조선해양사업팀 / 造船海洋事業チーム** Shipbuilding & Offshore Business Team
    - **기계가공부 / 機械加工部** Machining Department
      - **가공팀 / 加工チーム** Manufacturing Team
    - **공무부 / メインテナンス部** Technical Support Department
      - **공무팀 / 工務チーム** Technical Support Team
    - **설계기술부 / 設計技術部** Design Technology Department
      - **설계팀 / 設計チーム** Design Team
  - **구매부 / 購買部** Procurement Department
    - **구매팀 / 購買チーム** Procurement Team
  - **품질보증부 / 品質保証部** Quality Assurance Department
    - **품질보증팀 / 品質保証チーム** Quality Assurance Team
  - **환경안전부 / 環境案全部** H.S.E. Department
    - **환경안전팀 / 環境安全チーム** H.S.E. Team
  - **기술연구소 / 技術研究所** Institute of Technology
    - **기술연구팀 / 技術研究チーム** Technology Research Team

쉼 없는 혁신 속에 이뤄낸 EK의 성장

Our Growth Goes with Constant Innovation
絶えない革新をより成し遂げてきたEKの成長

특허·인증서 Patent and Certificate / 特許・認証書

DERRICK

선박용 또는 해양구조물용 드릴링 데릭의 제조 방법 : 특허 제 10-0935368호
Method of manufacturing drilling derrick for ship or offshore structure
Patent No. 10-0935368
船舶用または海洋構造物向けの掘削やぐらの製造方法: 特許第10-0935368

선박용 또는 해양구조물용 드릴링 데릭의 제조 방법 : 특허 제 10-0935369호
Method of manufacturing drilling derrick for ship or offshore structure
Patent No. 10-0935369
船舶用または海洋構造物向けの掘削やぐらの製造方法: 特許第10-0935369号

데릭 리프트 : 특허 제 10-1262756호
Derrick lift : Patent No. 10-1262756 やぐら式リフト: 特許第10-1262756

심 플레이트 조정기 : 특허 제 10-1210559호
Seam plate regulator : Patent No. 10-1210559 シムプレートレギュレータ : 特許第 10-1210559号

해양구조물의 데릭 승강 시스템 및 해양구조물의 데릭 승강구조 : 특허 제 10-1414222호
Derrick lifting system and structure for offshore structure
海洋構造物向けのやぐら乗降システムおよび海洋構造物のやぐら式乗降構

해양구조물의 승강구조형 데릭 및 데릭 승강 방법 : 특허 제 10-1414223호
Lifting structure Derrick of offshore structure and method of derrick lifting
海洋構造物の乗降式やぐらおよびやぐらの乗降方法

해양구조물의 데릭 승강 시스템 및
그 데릭 승강 시스템의 데릭 레벨 조절구조 : 특허 제 10-1552596호
Derrick lifting system of offshore structure and Derrick level control structure of the Derrick lifting system : Patent No. 10-1552596
海洋構造物向けのやぐら乗降システムおよびそのやぐら乗降システムのやぐら レベル調節構造: 特許第10-1552596号

해양구조물의 데릭 승강 및 위치 고정장치 : 특허 제 10-1552579호
Derrick lifting and position, and fixing device of offshore structure Patent No. 10-1552579
海洋構造物向けのやぐら乗降および位置固定装置: 特許第10-1552579号

IBOP

드릴 스트링의 인사이드 폭발 및 유체 역류방지 장치 : 특허 제 10-1548267호
Interior blowout and back draft prevention device in drill string Patent No. 10-1548267
ドリルストリングのインサイド爆発及び流体逆流防止装置 : 特許第10-1548267号

TOP Drive

해양구조물의 탑드라이브 시스템 : 특허 제 10-1434956호
Top drive system of offshore structure
海洋構造物のトップドライブシステム

탑드라이브 시스템의 모터 배치구조 : 특허 제 10-1434957호
Motor layout structure of top drive system
トップドライブシステムのモーター配置

해양구조물의 위치조절형 드릴시스템 : 특허 제 10-1481419호
Position controlling drill system of offshore structure
海洋構造物の位置調整型ドリルシステム

TORQUE MACHINE

시추용 파이프의 체결 및 해체를 위한
토크렌치의 시추용 파이프 체결 해체방법 : 특허 제 10-1631960호
Connecting and separating method of drilling pipes using a torque wrench to connect and separate drill pipes : Patent No. 10-1631960
掘削用パイプの締結及び解体のためのトルクレンチの掘削用パイプの締結解 体方法: 特許第10-1631960号

3-Roller 구조형 토크 렌치 시스템 : 특허 제 10-1631965호
Three-roller structure–type torque wrench system : Patent No. 10-1631965
3-Roller構造型トルクレンチシステム: 特許第10-1631965号

TURN TABLE 및 공작기계

Turning Table and Machine Tool
ターンテーブルおよび工作機械

슬라이드 유압 척을 구비한 자동 센터링장치 : 특허 제 10-0927106호
Automatic centering apparatus equipped with hydraulic slide chuck
Patent No. 10-0927106
スライド油圧チャックを備えた自動センタリング装置 : 特許第 10-0927106号

틸팅 가능한 턴 테이블을 갖는 공작기계 : 특허 제 10-1162627호
Machine tool with tiltable turntable : Patent No. 10-1162627
チルト可能なターンテーブルを持つ工作機械: 特許第 10-1162627号

멀티 턴 테이블 장치 : 특허 제 10-1333139호
Multi turntable apparatus : Patent No. 10-1333139
マルチターンテーブル装置: 特許第 10-1333139号

포터블 보스 가공용 보링 머신 : 특허 제 10-1436055호
Boring machine for portable boss machining
ポータブルボス加工用のボーリングマシーン

원자력발전소의 고준위 핵폐기물 저장용기 및 그의 가공방법 :
특허 제 10-2319122호
High-level nuclear waste storage container and processing method for nuclear power plant : Patent No. 10-2319122
原子力発電所の高レベル放射性廃棄物貯蔵容器と処理方法 : 特許第10-2319122号

CERTIFICATES

기술혁신형 중소기업 확인서 : INNO-BIZ
INNO-BIZ certificate / 技術革新型中小企業確認書: INNO-BIZ

ISO 9001 : Quality Management System
경영혁신형 중소기업 확인서 : MAIN-BIZ
MAIN-BIZ certificate / 経営革新型中小企業確認書: MAIN-BIZ

소재·부품 신뢰성인증서 : 해양시추선용 탑드라이브머신 감속기
Materials and components reliability certificate : Top drive machine speed reducer for offshore drilling ship
素材·部品信頼性認証書: 海洋掘削船用トップドライブマシーン減速期

EKHI 벤처기업 확인
EKHI Venture Business Certificate / EKHIベンチャー企業確認

기업부설연구소 인정서
Company Annex Research Institute Certificate / 企業敷設研究所認定書

정비적격업체 인증서
Qualified Maintenance Business Certificate / 修理適格業者認証書

ASME-S / ASME-U / ASME-U2
OHSAS18001 / ISO14001
ASME-NPT / KEPIC MN

생산공정

Production Process / 生産工程

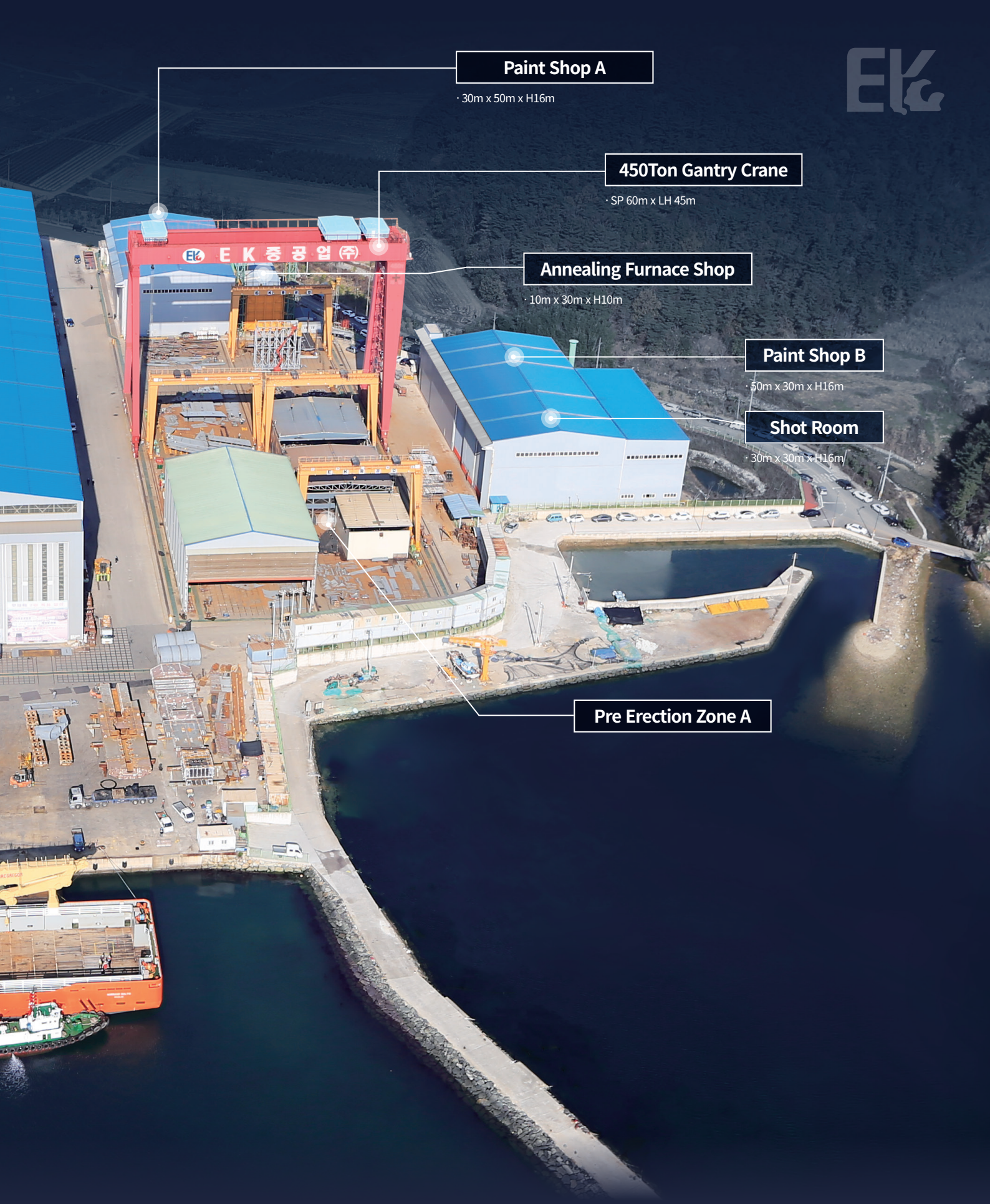
설계
Design / 設計

절단
Cutting / 切断

용접
Welding / 溶接

열처리
Heat Treatment
熱処理

가공
Machining / 加工



조립
Assembly / 組立

쇼트
Shot Blasting
ショット

페인트
Painting / 塗装

포장
Packaging / 梱包

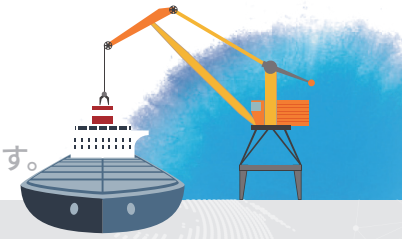
출하
Shipment / 出 荷

▶ Total Area : 74,186.9 ㎡ ▶ Location : N 35°00'37.3" E 128° 28' 57.6"

완벽을 향한 열정, 고객을 위한 준비!
EK정신은 여기서 출발합니다.

Passion for Perfection Getting Ready for Clients! EK Spirit Starts Here

完璧を追い求める熱情、顧客のための万全な準備！EK精神はそこから出発します。



비전 Vision / ビジョン

미래 신성장 동력 사업 발굴을 위한 끊임없는 기술개발을 통해

EK연구소는 세계적 수준을 지향합니다.

With continuous technological development to find new future growth engines,
The EK Institute aims for world-class technology.

未来の新成長動力となる事業を発掘するため、絶えない技術開発を通して、EK研究所は世界的水準を目指しています。

01 운반, 하역 설비 및 자동화 핵심 기기 기술 개발
Develop technologies of transportation, off-loading equipment and core automated device
運搬、荷役設備及び自動化核心器機技術の開発

02 세계적 수준의 조선 해양플랜트 분야 제조 및 부품 기술 경쟁력 확보
Obtain world-class competitiveness of manufacturing and parts technologies for the shipbuilding & offshore plant sector / 世界的水準の造船海洋プラント分野の製造及び部品技術競争力の確保

03 글로벌 수준의 에너지 발전기술개발 확보
Secure global-level technologies for energy and power generation development
グローバル水準のエネルギー発展技術の開発

04 우주항공 분야 핵심 시스템 및 기자재 기술 개발
Create core aerospace system and equipment technologies
宇宙航空分野の核心システム及び機資材技術の開発

조직도 Organization Chart / 組織図

EK기술연구소
EK Institute of Technology / EK技術研究所

운영위원회
Operation Committee / 運営委員会

정책연구 및 기술기획파트
Policy Research and Technology Planning Part
政策研究および技術企画パート

기술연구소
EK Institute of Technology

산업기계융합파트 및 조선해양플랜트
Industrial Machinery Convergence Shipbuilding & Off-Shore Plants
産業機械融合部門 造船海洋プラント部門

원자력 및 신재생에너지파트
Nuclear Energy, and New & Renewable Energy Parts
原子力及び新再生エネルギーパート

연구추진전략 Research Strategies / 研究推進の戦略

01 자료수집
Data Collection / 資料収集

- **논문 및 기술자료 분석**
  Analyze papers and technology data
  論文および技術資料の分析
- **특허분석 (국,내외)**
  Analyze patents (domestic and foreign)
  特許分析(内外)
- **규격조사 (API, DNV, ASME 등)**
  Research standards, such as API, DNV, ASME, etc. / 規格調査(API、DNV、ASMEなど)

02 기능분석
Functional Analysis / 機能分析

- **Functional Discription 작성 P**
  Prepare functional description
  Functional Descriptionの作成
- **RBD (Reliability Block Diagram)**
- **규격분석 (API, DNV, ASME 등)**
  Standard analysis (API, DNV, ASME, etc.)
  規格分析(API、DNV、ASMEなど)

03 Concept 설계
Concept Design / コンセプト設計

- **기본설계 도출**
  Derive a basic design / 基本設計の導出
- **세부사양 선정**
  Select specifications / 詳細仕様の選定
- **FMEA 분석**
  Analyze FMEA / FMEA分析
- **설계 및 해석**
  Design and analyze / 設計および解析

04 Detail 설계
Detail Design / 詳細設計

- **상세설계 도출**
  Derive a detail design / 詳細設計の導出
- **추가해석 보완**
  Supplement additional interpretation
  追加解析による補完
- **세부사양 확정**
  Finalize specifications / 詳細仕様の確定
- **도면 출도**
  Complete a drawing / 図面の出図

05 시제품 제작
Prototype Manufacturing / 試作品の製作

- **제작 및 조립**
  Manufacture and assemble
  製作および組立
- **평가안 도출 및 절차서 수립**
  Derive evaluation scheme and establish procedures / 評価案の導出および手順書の策定
- **시험평가**
  Test / 試験評価
- **신뢰성 검증**
  Verify reliability / 信頼性検証

06 사업화
Commercialization / 事業化

- **판로 확보**
  Secure a market 販売ルートの確保
- **판매전략 수립**
  Establish sales strategies
  販売戦略の策定
- **제품홍보**
  Marketing 製

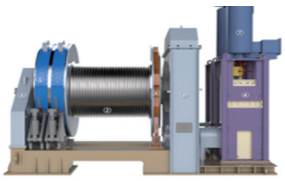
연구사업 Research Project / 研究事業

해상크레인용 150톤급 Winch 개발

기간 : 2015. 05. 01. ~ 2018. 04. 30.
산업통상자원부

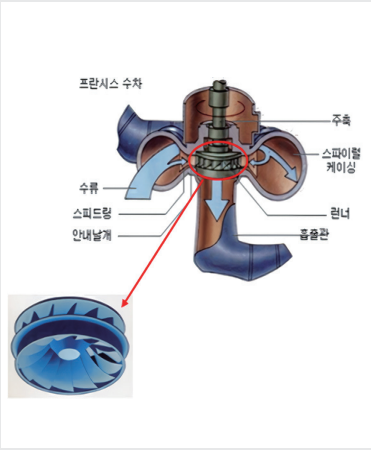
Item Description

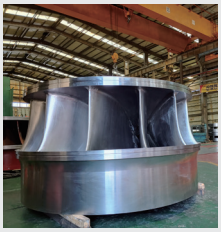
① BAND BRAKE
② DRUM
③ MAIN GEAR BOX
④ GEAR BOX
⑤ SKID A ASSY
⑥ RACHET ASSY
⑦ ELECTRIC MOTOR



50MW급 프란시스 수차 런너 기술개발

기간 : 2015. 06. 01. ~ 2020. 09. 30.
산업통상자원부





연구사업 Research Project / 研究事業

낮은 유속 지역에 적합한 최소 5kw급 수중 조류발전장치 개발

기간 : 2016. 12. 01. ~ 2020. 01. 31.
산업통상자원부

15,000psi급 시추용 유정 고압 제어를 위한 Manifold 시스템 개발

기간 : 2018. 09. 01. ~ 2019. 08. 31.
산업통상자원부

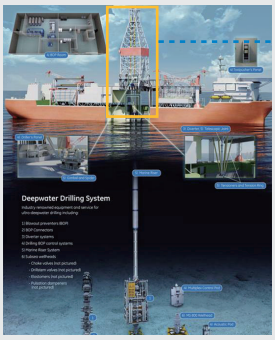

Manifold 시제품 (with SKID)


Repair kit 시제품


Manifold System Test 장비

수직이동형 데릭(Derrick) 시스템 개발

기간 : 2010. 04. 01. ~ 2015. 03. 31.
산업통상자원부

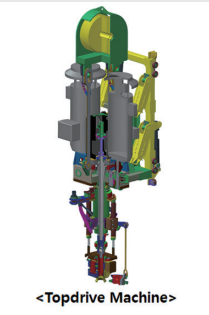


수직이동
기능추가


Derrick System

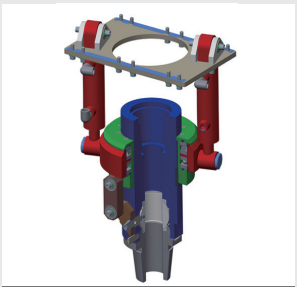
해양시추용 Top Drive와 Drill Bit 및 Collar의 기술개발

기간 : 2011. 12. 01. ~ 2015. 06. 30.
산업통상자원부


<Topdrive Machine>

해양플랜트 IBOP (Inside Blow Out Preventer) System 기술개발

기간 : 2013. 06. 17. ~ 2015. 06. 16.
미래창조과학부


IBOP System

해양플랜트의 외경 90파이 이상급 드릴 파이프 체결용 토크 머신 기술개발

기간 : 2014. 07. 01. ~ 2016. 06. 30.
중소기업청


Torque Machine

암모니아 혼소 연료추진시스템 실증 선박 구축 사업

기간 : 2023. 01. 01. ~ 2024. 12. 31. 중소벤처기업부

규제특구명

암모니아 혼소 연료추진시스템 선박 규제자유특구

사업목적

무탄소 연료활용 선박 실증을 통한 온실가스 규제 대응 및 신시장 진입

실증기간

2023. 1. 1 ~ 2024. 12. 31 (24개월)

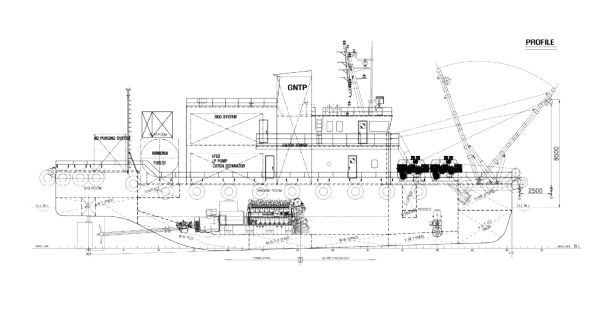
사업비

총 315,91억원 (국비 163,02 지방비 108,73 민자 44,16)

특구사업자

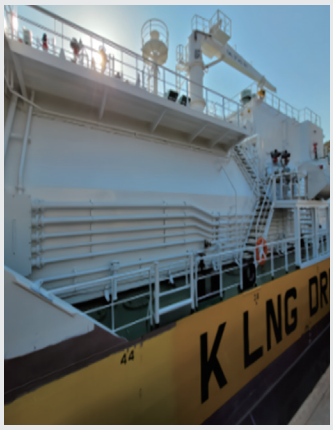
선보공업, 한화오션, 엠엔에스아이, 대양산전, 휴먼중공업, 삼우중공업, 발맥스기술, 협성철광, 선박해양플랜트연구소, 에스티엑스엔진, 엔알텍, 이케이중곡업, MS가스, 대창솔류션, 경남테크노파크 총 15개사
※ 특구사업자가 아닌 참여기관 : 한국선급, 한국화학융합시험연구원

특구위치 옥포국가산업단지 및 해상실증구역 등 / 총 14.06km2



LNG벙커링 핵심기술개발 및 체계구축

· 연안선박 맞춤형 LNG벙커링 시스템 개발
· LNG벙커링 운영체계 및 위험도 평가기반 운영기술개발
기간 : 2018. 04. 16. ~ 2023. 04. 30. 해양수산부



조선 해양플랜트

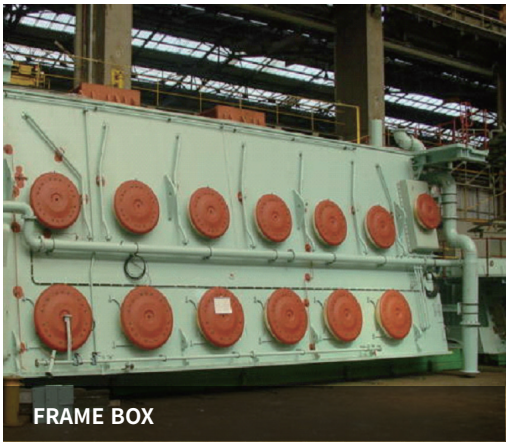
Shipbuilding & Offshore Plant
造船海洋プラント

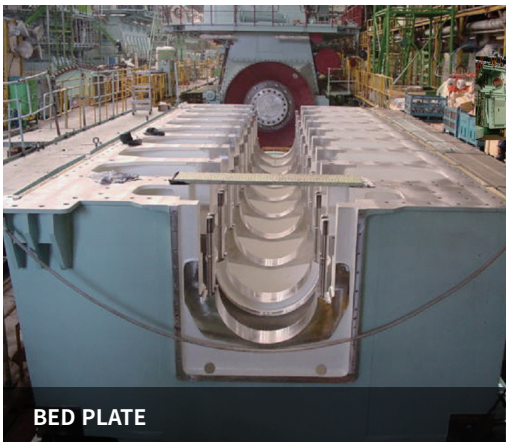
바다에 세워지는 새로운 고객의 역사.
EK의 기술력이 함께하겠습니다.

A new history of our clients is to be built on the sea.
EK is here with excellent technologies.
海の上に建てられる、新しい顧客の歴史。
EKの技術力が一緒に歩んでいきます。

Shipbuilding & Offshore Plant


DETRRICK ASSEMBLY


FRAME BOX


BED PLATE


RUDDER HORN


SCRUBBER


STERN BOSS

Shipbuilding and Offshore Plant

1.2MW AMMONIA ANCHOR HANDLING SHIP

MAIN DESIGN DIMENSIONS

- LOA : 36.00m
- LBP : 33.40m
- Breadth : 11.00m
- Depth : 5.00m
- Design Draft : 3.20m

MACHINERY

- M/E : STX 8L22AG Max. 1,520kW x 900 RPM
- Propulsion : Skeg type, Twin rudder

SERVICE SPEED

Speed : 8.0kts at Trial Max

CLASSIFICATION

Korean Register

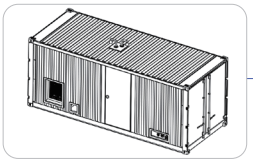
COMPLEMENT

5 PERSONS

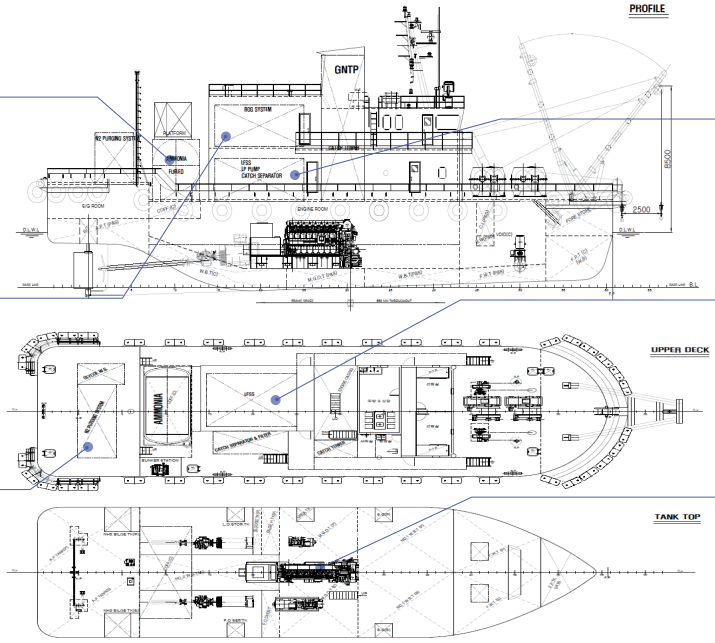
Main Facility | 주요설비

암모니아 탱크 Ammonia Tank

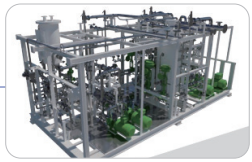
재액화 시스템 BOG system



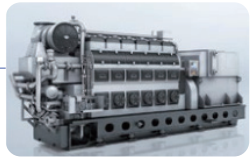
질소 퍼징 시스템 N2 purging system



암모니아 캐치 시스템 Ammonia catch system



연료 공급 시스템
LFSS(Low-flashpoint fuel supply system)



암모니아 디젤 혼소 연료 엔진
Main engine (STX,8L22AG)

주기관모델 DF Engine(AMMONIA-DISEL)STX 8L22AG	
수 량	1대
형 식	4-Cycle, 12-Cylinder, V-Type, Turbo-Charged
연속 최대출력	1,200kW x 900RPM

500CBM LNG Bunkering Vessel

MAIN DESIGN DIMENSIONS

- LOA : 48.50m
- LBP : 25.65m
- Breadth : 12.40m
- Depth : 4.50m
- Design Draft : 2.50m

MACHINERY

- M/E : One(1) x 900kW x 900RPM
- Propulsion : Two azimuth thruster (320kw)

SERVICE SPEED

Speed : 8.0kts at Trial Max

CLASSIFICATION

Korean Register

COMPLEMENT

6 PERSONS

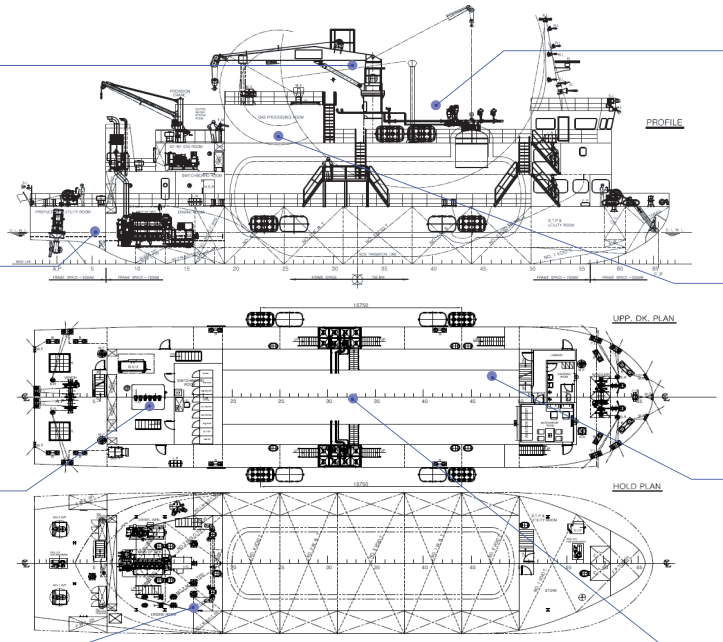
Main Facility | 주요설비

갑판설비 Deck Equipment

연료공급설비 Gas Processing Room

전방위추진기 Azimuth Thruster

기관설비 Engine Room



주기관모델 DF GNESET(LNG-DISEL) STX-MAN 6L23/30DF	
수 량	1대
형 식	Water cooled, 4-stroke DF engine
연속 최대출력	900 kW × 900 RPM

항해 및 통신설비 Navigation & Radio Equipment

조타실 Wheelhouse

거주설비 Accommodation

LNG 저장탱크 LNG Tank

Shipbuilding and Offshore Plant

FISHERY INSPECTION BOAT

MAIN DESIGN DIMENSIONS

- LOA : 25.20m
- LBP : 22.50m
- Breadth : 5.30m
- Depth : 2.50m
- Design Draft : 1.40m

MACHINERY

- M/E : MTU, Two(2) x 1,450HP x 2250rpm
- Propulsion : Twin Water Jet, Hamilton HM651

SERVICE SPEED

Speed : 20.0kts at Trial Max

CLASSIFICATION

Korea Ship Safety Technology Authority

COMPLEMENT

5 PERSONS

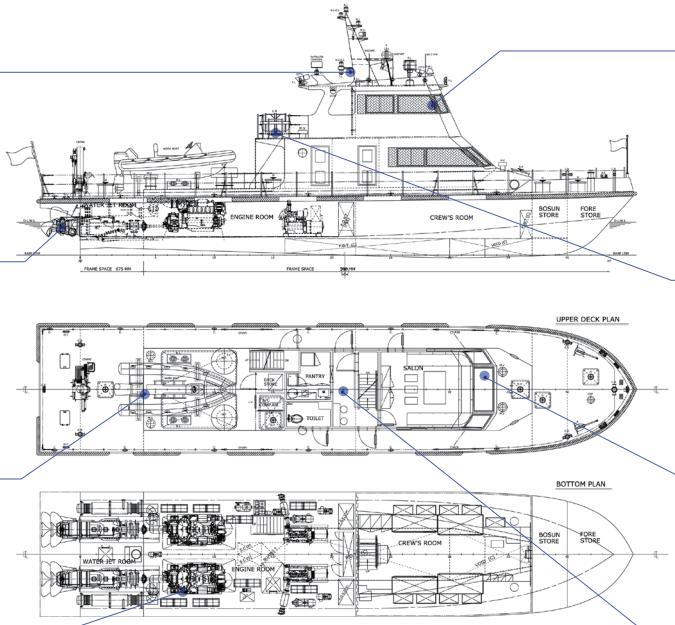
Main Facility | 주요설비

항해 및 통신설비 Navigation & Radio Equipment

워터제트 Water Jet

갑판설비 Deck Equipment

기관설비 Engine Room



주기관모델 MARINE DIESEL ENGINE (MTU 12V2000M72)	
수 량	2대
형 식	4-Cycle, 12-Cylinder, V-Type, Turbo-Charged
연속 최대출력	1,468 PS (1,450 BHP / 1,080 kW) × 2,250 RPM

조타실 Wheelhouse

구명설비 Life-saving Equipment

회의실 Meeting room

거주설비 Accommodation

TUGBOAT

MAIN DESIGN DIMENSIONS

- LOA : 38.10m
- LBP : 32.00m
- Breadth : 10.00m
- Depth : 4.50m
- Design Draft : 3.50m
- Gross Tonnage : abt. 290tons

MACHINERY

- M/E : Two(2) x 2500hp x750rpm, Niigata 6L28HX
- Propulsion : Two(2), Niigata ZP-41A, Azimuth type
- Diesel Generator : Two(2) x 253HP x 1800rpm

SERVICE SPEED

- Sea Trial speed : 13.5kts at MCR without S.M.
- Bollard Pull : abt. 64tons at 110% MCR

CLASSIFICATION

- Korean Register
- +KRS OC –Tug Boat
- +KRM OC

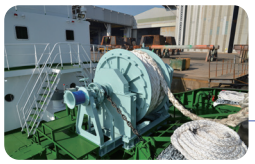
COMPLEMENT

5 PERSONS

Main Facility | 주요설비

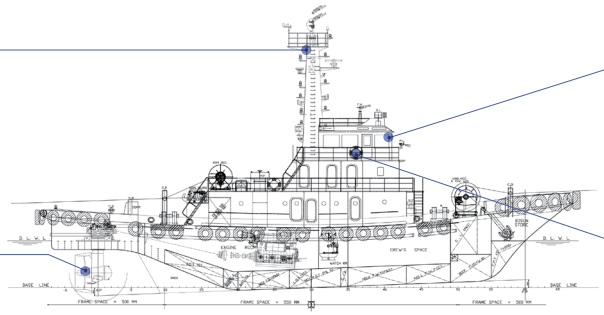
항해 및 통신설비 Navigation & Radio Equipment

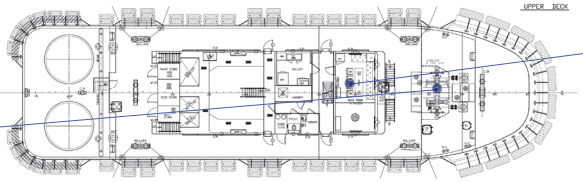
제트프로펠러 Z-DRIVE PROPELLER

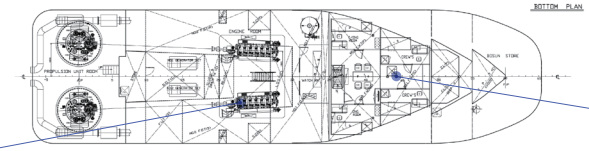


갑판설비 Deck Equipment

기관설비 Engine Room







조타실 Wheelhouse

구명설비 Life-saving Equipment

회의실 Meeting room

거주설비 Accommodation

Shipbuilding and Offshore Plant

DCM BARGE

PRINCIPAL DIMENSIONS		
LENGTH	O. A.	ABT. 67.00 M
LENGTH	B. P.	67.00 M
BREADTH	(MLD)	30.00 M
DEPTH	(MLD)	3.50 M
DRAFT	(MLD) SCANTLING	2.40 M

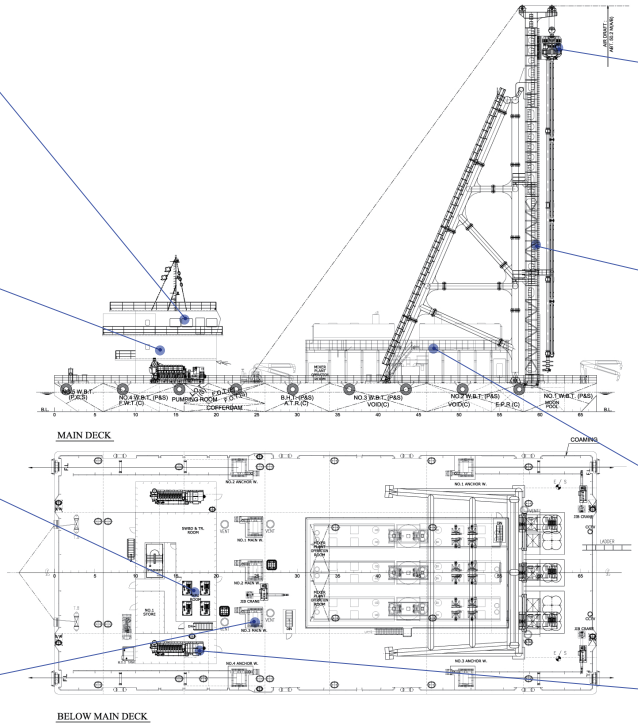
Main Facility | 주요설비

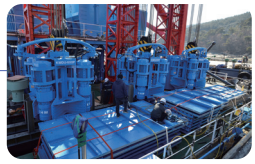

Control Room


ELEC. EQUIP, Room


HUP Room


Main Winch




AUGER


LEADER


Mixer Plant Operation Room


Engine Room

3500 DWT OIL TANKER

GENERAL

- Single fixed pitch propeller, diesel engine driven
- oil products, flash Point below and/or above 60°C
- 10 cargo tanks, 1 slop tank, 8 ballast tanks,
- Costal Service

MAIN DESIGN DIMENSIONS

- LOA : 87.30m
- LBP : 79.80m
- Breadth : 14.00m
- Depth : 7.30m
- Design Draft : 5.80m
- Scantling Draft : 5.90m
- DWT : abt. 3,500tons

SERVICE SPEED

- 13.00kts at 85% MCR with 15% S.M.
  (FOC : 184g/Kw.h + 5%)

CARGO CAPACITY & PUMP

- Cargo piping segregation : Three (3)
- Cargo tanks incl. slop tank : abt. 3,940㎥
- Slop tanks : 140㎥
- Cargo Pumps : 2sets x 750㎥/h x 1,110rpm
  2sets of diesel engine driven in PR
- Slop Pump : One(1) x 100㎥/h, elec-motor driven
- Tank Coating : Modified Epoxy

MACHINERY & EQUIPMENT

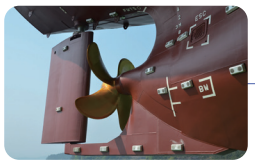
- M/E : One(1) x 2,206kW(3,000PS) x 250rpm, Tier-II
- D/G : Two(2) sets x 360PS x 1800rpm, Tier-II
- Boiler : One(1) set x 4ton/h
- Portable Tank Cleaning Machine : 1 x 14.0㎥/h
- Tank Cleaning heater : One(1) set, 5°C~7°C
- Windlass : Two(2) x 7tons x 9m/min
- Mooring Winch : Two(2) x 5tons x 15m/min

CLASSIFICATION

- Korean Register
- KR, +KRS0C-Oil tanker(Double hull) "ESP"(FBC)Product
- +KRM0C

Main Facility | 주요설비

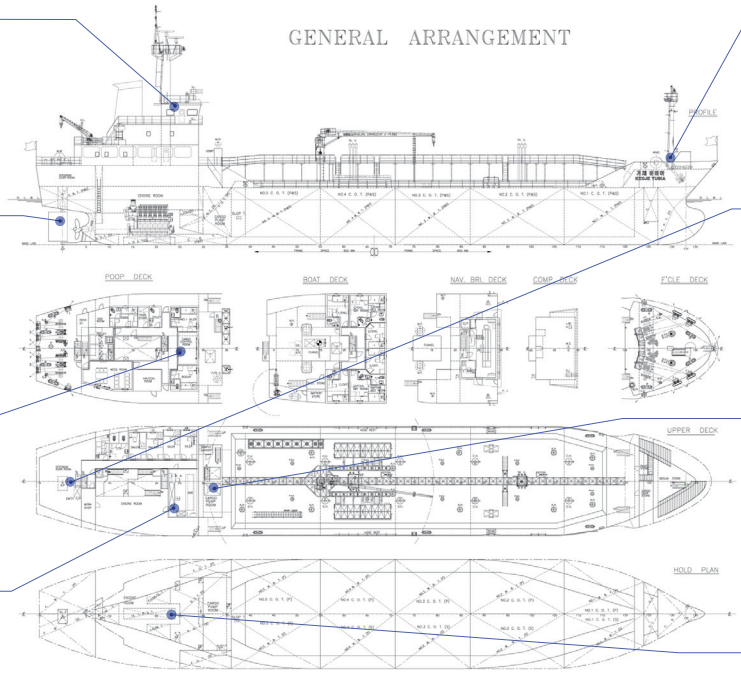
조타실 Wheelhouse



프로펠러 Propeller

펌프실 Cargo Contorl room

기관실 Engine Control Room



갑판설비 Deck Equipment

조타설비 Steering Gear Room

펌프설비 Cargo Pump Room

기관설비 Engine Room

발전플랜트

Power Plant
発電プラント

더 깨끗하고 재생 가능한 에너지.
고객과 함께 새로운 에너지 생산의 길을 갑니다.

Clean and renewable energy
We journey together with our clients for new energy production.
よりきれいで、再生可能なエネルギー。
顧客と共に新しいエネルギー生産の道を歩いていきます。

Power Plant

PULVERIZER INSTALLATION WORK AT KUDGI SITE

PULVERIZER FOR THERMAL POWER GENERATION

RISING SECTOR GATE

WIND POWER GENERATION

WINCH GOR FLOOD GATE FOR WATER POWER GENERATION

PULVERIZER

CHANNEL HEAD FOR NUCLEAR POWER GENERATION

LOWER SHELL FOR NUCLEAR POWER GENERATION

Power Plant

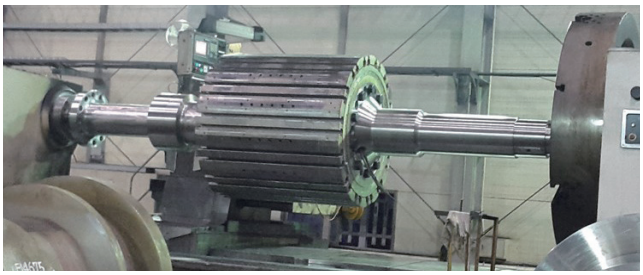

Runner for 50MW Francis Turbine

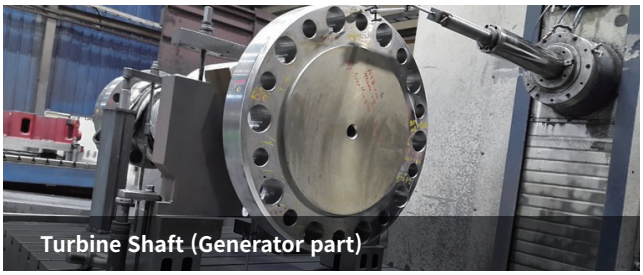

Runner for 45MW Francis Turbine


Bottom Ring for 45MW Francis Turbine


Head Cover for 45MW Francis Turbine


Main Shaft for 45MW Francis Turbine




Turbine Shaft (Generator part)


Assembly jig for 45MW Francis Turbine

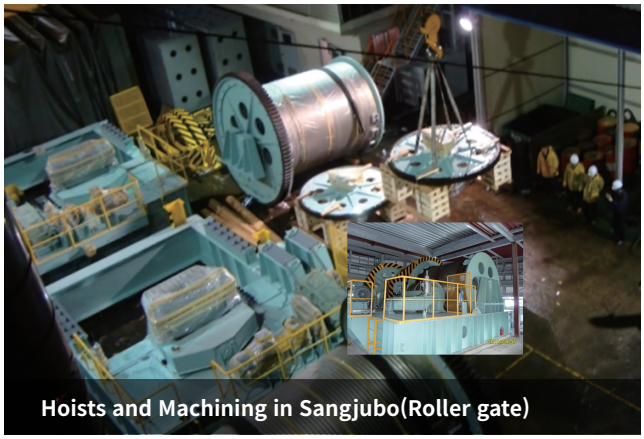
Power Plant


Repair of Kaplan Tubine (Head cover)


Repair of Kaplan Tubine (Runner)


Main floodgates and discharge facilities(Radial gate)

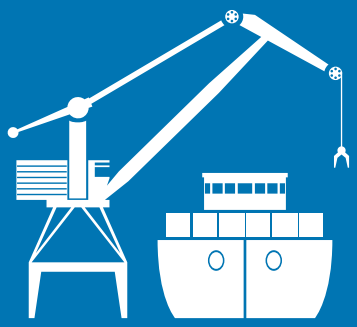

Main floodgates and discharge facilities(Radial gate)


Hoists and Machining in Sangjubo(Roller gate)


Hoists and Machining in Sangjubo (Roller gate)


Hoists and Machining in Buyeobo(Roller gate)


Hoists and Machining in Buyeobo(Roller gate)



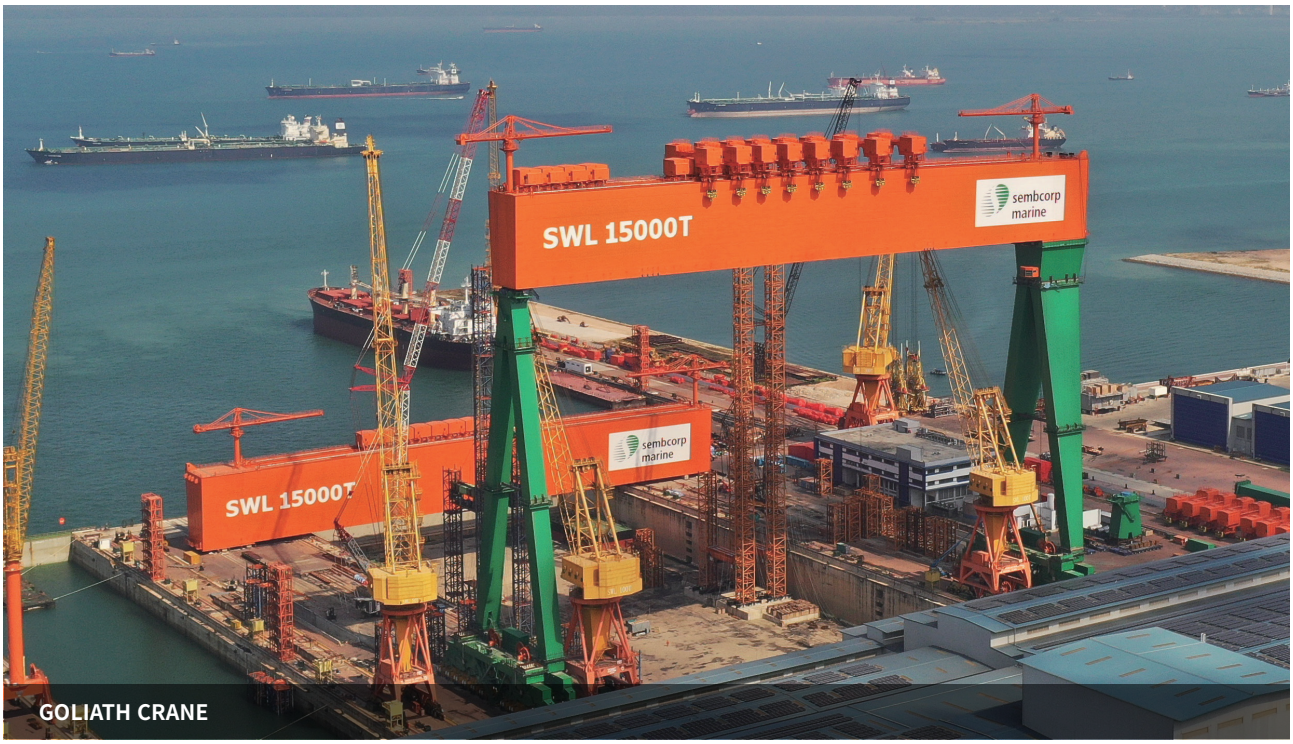
산업플랜트

Industrial Plant
産業プラント

고객의 큰 미래를 그려 나갈 산업 플랜트.
고객의 설치 시간과 장소, 기대에 완벽히 맞추겠습니다.

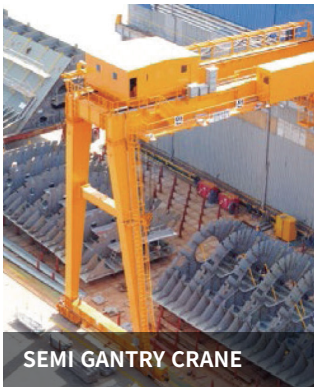
Industrial plants shape a great future for our clients.
We deliver installation whenever, wherever and whatever they want.
顧客の大きな未来を描いていく産業プラント。
顧客の設置時間と場所、期待に、完璧に応えます

Industrial Plant



GOLIATH CRANE


GANTRY CRANE


SEMI GANTRY CRANE


LEVEL LUFFING CRANE


TROLLEY FOR GOLIATH CRANE


OVER HEAD CRANE


RAIL MOUNTED QUAYSIDE CRANE

Industrial Plant

BACK STAY STRUCTURE AND WINCHES (45SETS) FOR HD 10000 ton HEAVY LIFTING VESSEL

PORTAL STRUCTURE FOR LEVEL LUFFING CRANE

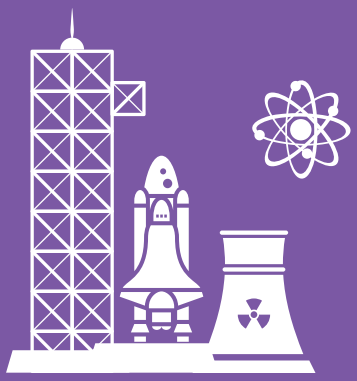
WINCH FOR 10,000 ton HEAVY LIFTING VESSEL

BACK STAY


WINCH FOR FLOODGATE


900 ton HOOK ASSEMBLY


TOP CROSS TIE BEAM

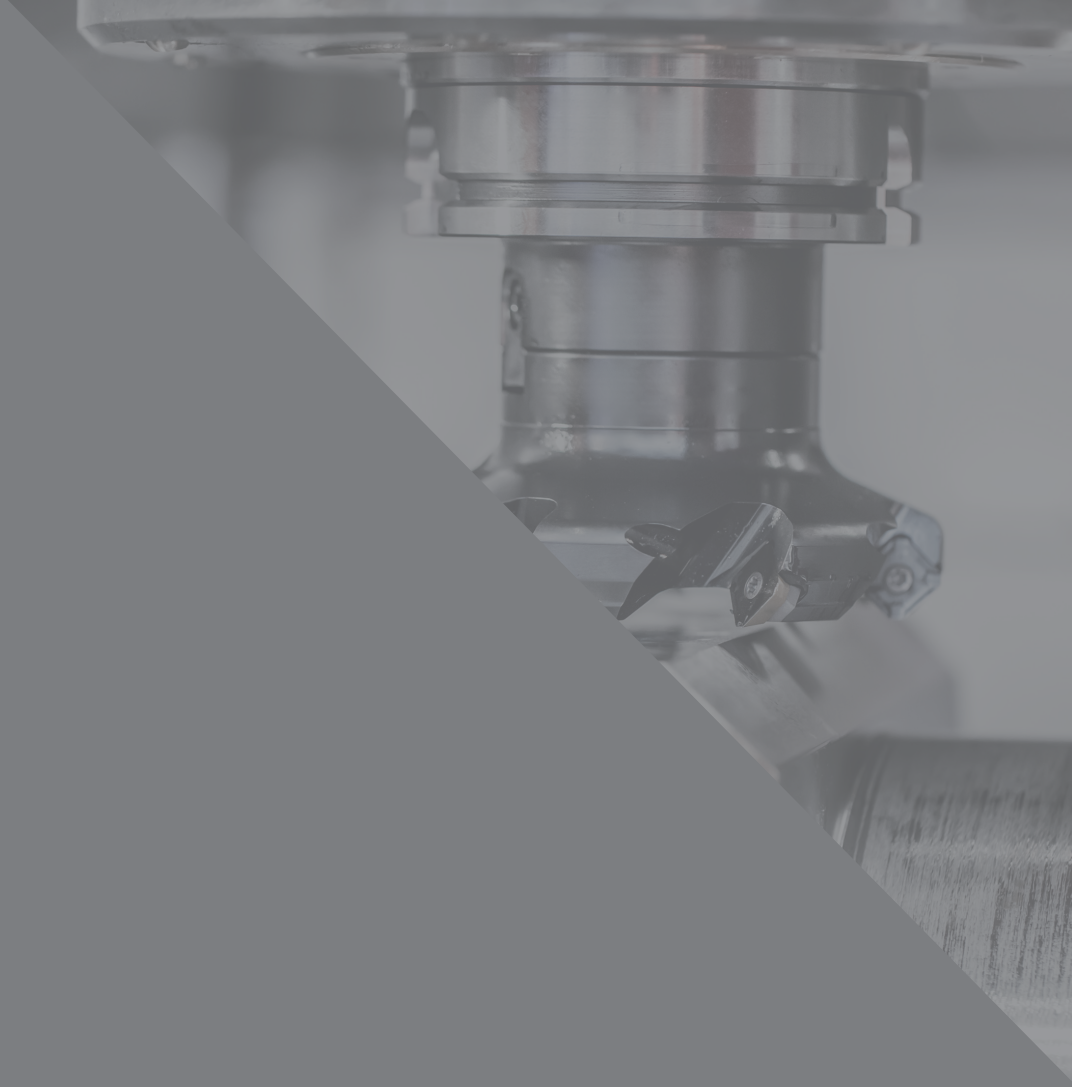


핵융합 및 우주항공분야

Nuclear fusion & Aerospace
核融合& 宇宙航空分野

핵융합과 우주항공 분야의 꼭 필요한 기업으로 성장하고 있습니다.

We are growing as an indispensable business partner in nuclear fusion and aerospace.
核融合と宇宙航空分野において無くてはならない必要な企業として 成長しています。



가공분야

Machining Business
加工分野

거대한 결과를 만들어내는 섬세한 기술력.
EK를 선택하신 고객의 믿음입니다.

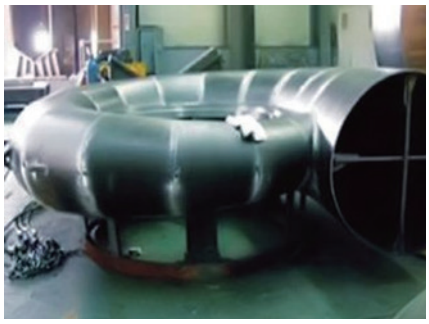
Our sophisticated technology comes with great outcome.
That is why EK is a reliable choice of our clients.
巨大な結果を作り出す繊細な技術力。
EKを選択した顧客の信頼です。

Machining Business

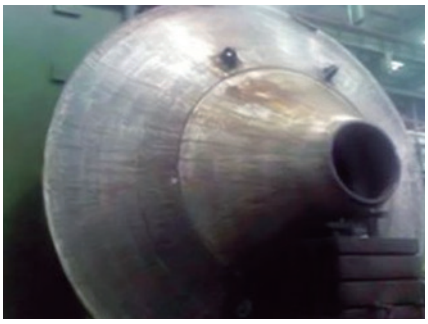
MAIN FRAME

MAIN SHAFT

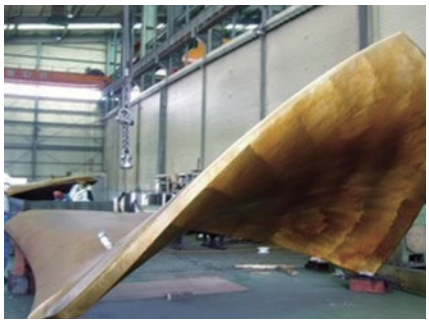
HOOK MACHINING WORK



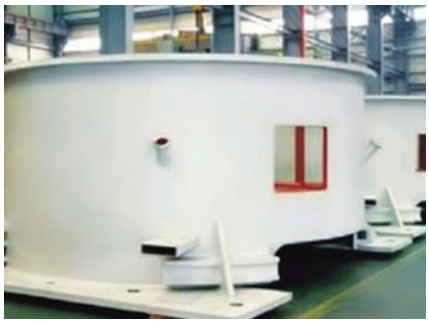
HYDRO SPIRAL CASING



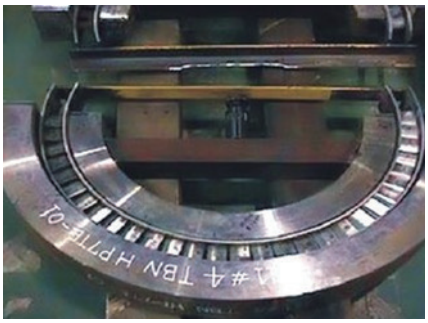
HYDRO CROWN



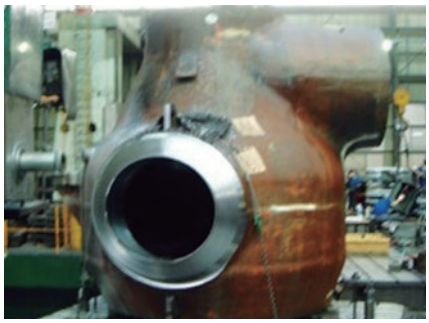
HYDRO BLADE



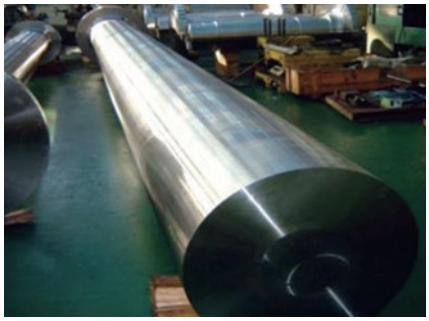
MILL SIDE HOUSING



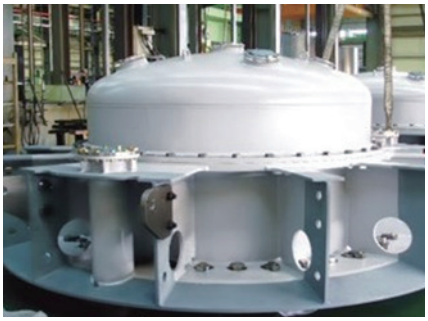
DIAPHRAGM



CRV CASING



PROPELLER SHAFT

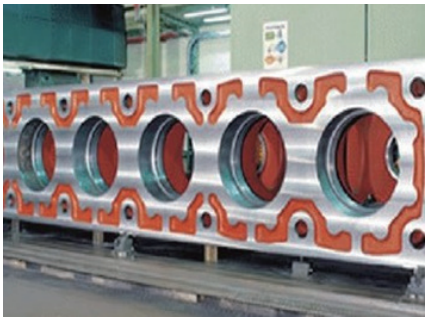


THRUSTER SEAT

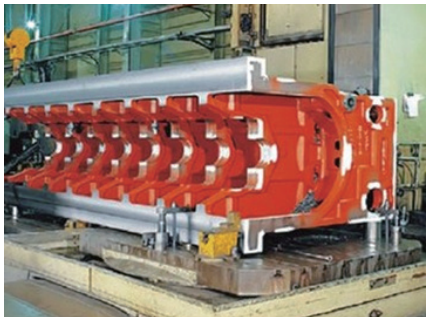
INTERMEDIATE SHAFT

Machining Business

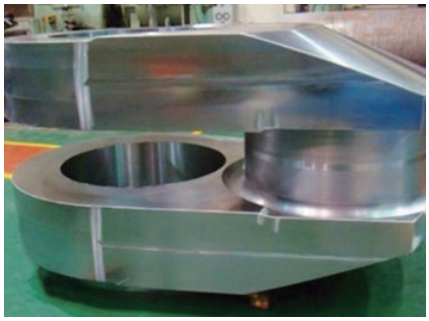
CYLINDER FRAME



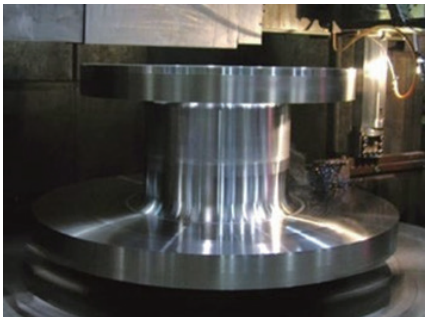
CYLINDER FRAME



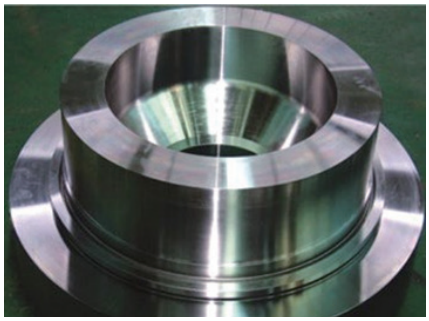
B&W TYPE TWO STROKE DY'L FRAME



CRANK THROW



COUPLING



CYLINDER COVER

CONVERT SHELL(UPPER)

TRUNION

SHELL

모듈사업분야

Steel Structure & Modular Construction
鉄骨構造物事業分野

EK's Modular products turn our clients' plan into reality.
モジュールで積み上げていく顧客のビジョン。
EKが共にします。

EK의 장인정신,
은광과 함께합니다.

기계 가공 분야 외길을 걸어 온 은광.
세계가 주목하는 은광이 되기 위해 최선을 다하겠습니다.

EK Craftmanship Is Shared by Eunkwang. EKの職人精神、ウングァンと共にします。

Eunkwang has been walking a single path of machining. It will strive to attract the world's attention.
機械加工分野の一本道を歩んできたウングァン。世界から注目されるウングァンになるため、最善を尽くしていきます。

은광산업(주)

Eunkwang Industrial Co., Ltd. /
ウングァン産業 (株)

부산광역시 강서구 녹산산단 46로 67
67, Noksansandan 46-ro, Gangseo-gu, Busan, Korea
釜山市江西区ノクサン産団46路67
T. +82-51-831-7890

시설·장비 보유현황

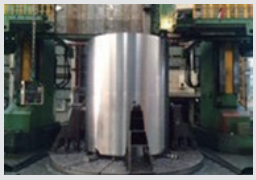
Facilities · Equipment List / 施設 · 裝備保有現況

EKHI

NO	Subsidiary Name	Name	Working Capacity				CNC	Maker
			Diameter	X-axis	Y-axis	Z-axis		
1	EKHI ISOTHERMAL-ISOHUMDITY CONTROL (항온항습실 완비)	VERTICAL LATHE	Ø10000			5200	0	EK
2		VERTICAL LATHE	Ø8500			7000	0	EK
3		BORNG MACHINE	Ø225	23000	8300	1300	0	MITSUBISH
4		BORING MACHINE	Ø210	14000	5400	1500	0	SHIBAURA
5		PLANO MILLER		23000	6300	1500	0	WALDRICH SIEGEN
6		PLANO MILLER		30000	8000	1300	0	EK
7		PLANO MILLER		21000	9000	1600	0	MITSUBISH

1. VERTICAL LATHE

2. VERTICAL LATHE



3. BORING MACHINE

4. BORING MACHINE

5. PLANO MILLER

6. PLANO MILLER

7. PLANO MILLER

8. PLANO MILLER

9. PLANO MILLER

10. PLANO MILLER

CO2 WEIDING MACHINE

Maker	Dweltech Co., Ltd.
Form	LW-600
Current	600A
Voltage	380V
Quantity	280EA

20 ton FORKLIFT

Facilities NO.	경남04-1837
Form	HERMES45
Kind	20ton, 16ton, 8ton, 7ton, 4.5ton

600 ton TRANSPORTER

Model	Dweltech Co., Ltd.
Dead Weight	LW-600
Pay load	600A
Total Weight	380V
Axle load	280EA
Tires(80-fold)	315/80 R22.5
Engine	HYUNDAI
Drivers cabin	2 Set

OVERHEAD CRANE

Facilities NO.	EK-가OH-02
Maker	Germany ASUS
Quantity	19EA
100+(100+100)ton	

SEMI CRANE

Facilities NO.	EK-조SG-04
Maker	Bando
Quantity	14EA
O/H 10ton	

GANTRY CRANE

Facilities NO.	EK-Ayard-Goliath
Maker	TAEYOUNG ENG
Quantity	8EA
450, 150, 150+150, 150ton	

EUNKWANG

NO	Subsidiary Name	Name	Working Capacity				CNC	Maker
			Diameter	X-axis	Y-axis	Z-axis		
1	EUNKWANG	3900 LATHE	Ø3900	1500		17000	0	K3TC
2		3100 LATHE	Ø3100	1400		7500	0	K3TC
3		2700 LATHE	Ø2700	1100		10000	0	FUJI SEIKI
4		2100 LATHE	Ø2200	950		10000	0	HANKOOK
5		4500 PLANO MILLER		11700	4500	1600	0	WALDRICH SIEGEN
6		4200 PLANO MILLER		10300	4200	900	0	TOSHIBA
7		2600 PLANO MILLER		6200	4020	1000	0	MITSUBISH
8		200T HORIZONTAL BORING MACHINE	Ø200	8650	3770	1390	0	TITAN
9		180T HORIzONTAL BORING MACHINE	Ø180	8300	5000	960	0	MITSUBISH
10		150T HORIZONTAL BORING MACHINE	Ø150	10000	3500	900	0	SACEM
11		130T HORIZONTAL BORING MACHINE	Ø130	5580	3350	700	0	IKEGAI
12		8500 VERTICAL BORING MACHINE	Ø8500			5020	0	TITAN
13		6200 VERTICAL LATHE	Ø6300			6400	0	MITSUBISH
14		4000 VERTICAL LATHE	Ø3830			4700	0	K3TC

1. 3900 LATHE

2. 3100 LATHE

3. 2700 LATHE

4. 2100 LATHE

5. 4500 PLANO MILLER

6. 4200 PLANO MILLER

7. 2600 PLANO MILLER

8. 200T HORIZONTAL BORING MACHINE

9. 180T HORIZONTAL BORING MACHINE

10. 150T HORIZONTAL BORING MACHINE

11. 130T HORIZONTAl BORING MACHINE

12. 8500 VERTICAl BORING MACHINE

13. 6200 VERTICAL LATHE

14. 4000 VERTICAL LATHE