

ANSWER

Your Reliable Partner



Made In Korea

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Thank you for visiting Answer Co., Ltd.

Our company, as a manufacturer of pressure vessels, heat exchanger, industrial machineries and others, specializes in manufacturing various steel structures. Starting from structures, valves and small tanks, we have accumulated experience and technologies over the years, and currently owns manufacturing technologies of various product groups covering mid and large-size structures as well as high pressure vessels. We have grown consistently while maintaining our clients' trust.

(주)앤써를 찾아주신 모든 분들께 감사말씀 드립니다.

당사는 압력용기 및 열교환기, 산업기계 등을 제조하는 회사로서 플랜트 설비의 기초 기술인 용접을 이용하여 각종 제관물을 제작하는 전문 기업입니다. 구조물, 밸브, 소형탱크를 시작으로 다년간의 경험과 기술축적을 통하여 중대형물, 나아가 고압용기에 이르기까지 다양한 제품군의 제작기술을 보유하고 고객들과 신뢰를 유지하며 꾸준히 성장하여 왔습니다.

History of answer

Our challenge in global plant technologies equipped with world-class competitiveness will continue.

세계 최고의 경쟁력을 갖춘
글로벌 플랜트 기술을 향한 도전은 계속됩니다.

2000 - 2002

- 2000** 04. Establishment of ANSWER Manufacturing
[앤써 매뉴팩처링 설립]
- 2001** 08. Acquisition of ISO 9001
[ISO 9001 획득]
- 10. Developed "Answer Valve"
["Answer Valve" 개발]
- 2002** 01. Converted to Answer Co., Ltd.
[주식회사 앤써로 법인등록]

2009 - 2013

- 2009** 07. Acquisition of ASME 'U', 'S' Stamp
[미국 ASME 'U', 'S' Stamp 취득]
- 2011** 02. Acquisition of CSEL D1 & D2
[중국 CSEL D1 & D2 취득]
- 2012** 12. Acquisition of ASME 'U2' Stamp
[미국 ASME 'U2' Stamp 취득]
- 2013** 11. Acquisition of OHSAS 18001
[OHSAS 18001 취득]

2004 - 2008

- 2004** 12. Certified Clean Manufacturer by Local Region
[클린사업장 선정]
- 2005** 11. Registered POSCO E&C Sourcing Group
[POSCO E&C 외주그룹 등록]
- 2008** 04. Acquisition of KGS (Korea Gas Safety corporation)
[한국가스안전공사 공장허가]

2014 - 2019

- 2014** 03. Established R&D Center
[기술연구소(R&D Center) 설립]
- 2014** 12. Achieved \$1,000,000 Export
[백만불 수출의탑 달성]
- 2016** 06. Acquisition of National Board 'R' Stamp
[내셔널 보드 'R' Stamp 취득]
- 2017** 07. Registration of Qualified Supplier for Power Plant
[5대 발전소 유자격공급자 등록]
- 2019** 01. KR Shop Approval
[한국선급 공장 승인]
- 05. ABS, DNV-GL, BV, LR, NK, KR Welder Approval
[ABS, DNV-GL, BV, LR, NK, KR 용접사 자격승인]

Organization

Answer is comprised of technology organization per business field equipped with outstanding specialized technologies and management organization to achieve efficient and transparent management.

앤써는 우수한 전문기술을 지닌 사업 분야별 기술조직과 경영의 효율성과 투명성을 위한 경영지원 조직으로 구성되어 있습니다.



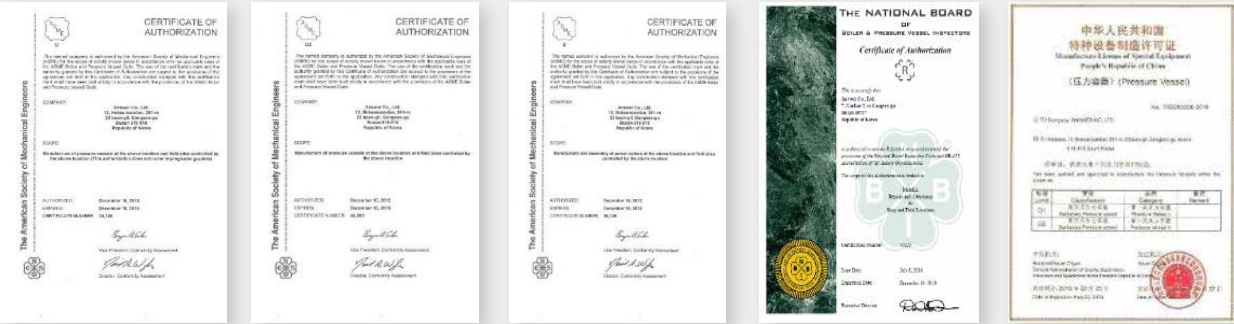
Certificates

The quality policy of Answer involves materializing cost reduction through high quality products and enhancing productivity by securing necessary resources based on the implementation of a quality system according to the international specifications and codes, ultimately providing the best products and lowest prices.

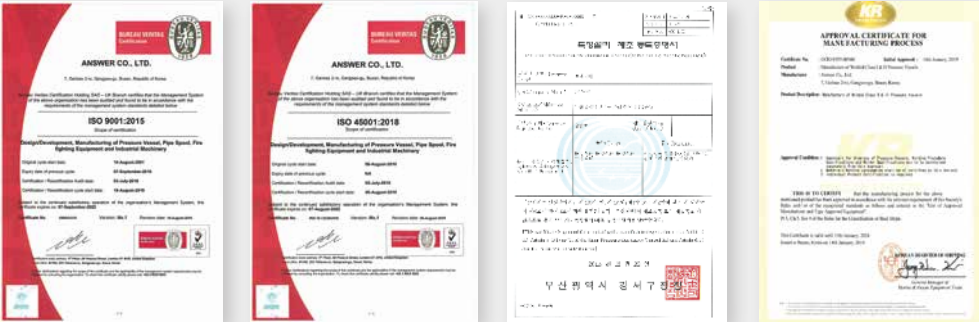
앤써의 품질방침은 국제규격과 코드에 따른 품질시스템의 이행을 기본으로
필요한 자원을 확보하여 고품질의 제품과 생산성 증대를 통한 비용절감을 실현하여
최고의 제품과 최저의 가격을 제공합니다.



ASME / NB / CSEL - U, U2, S, NB[R], CSEL



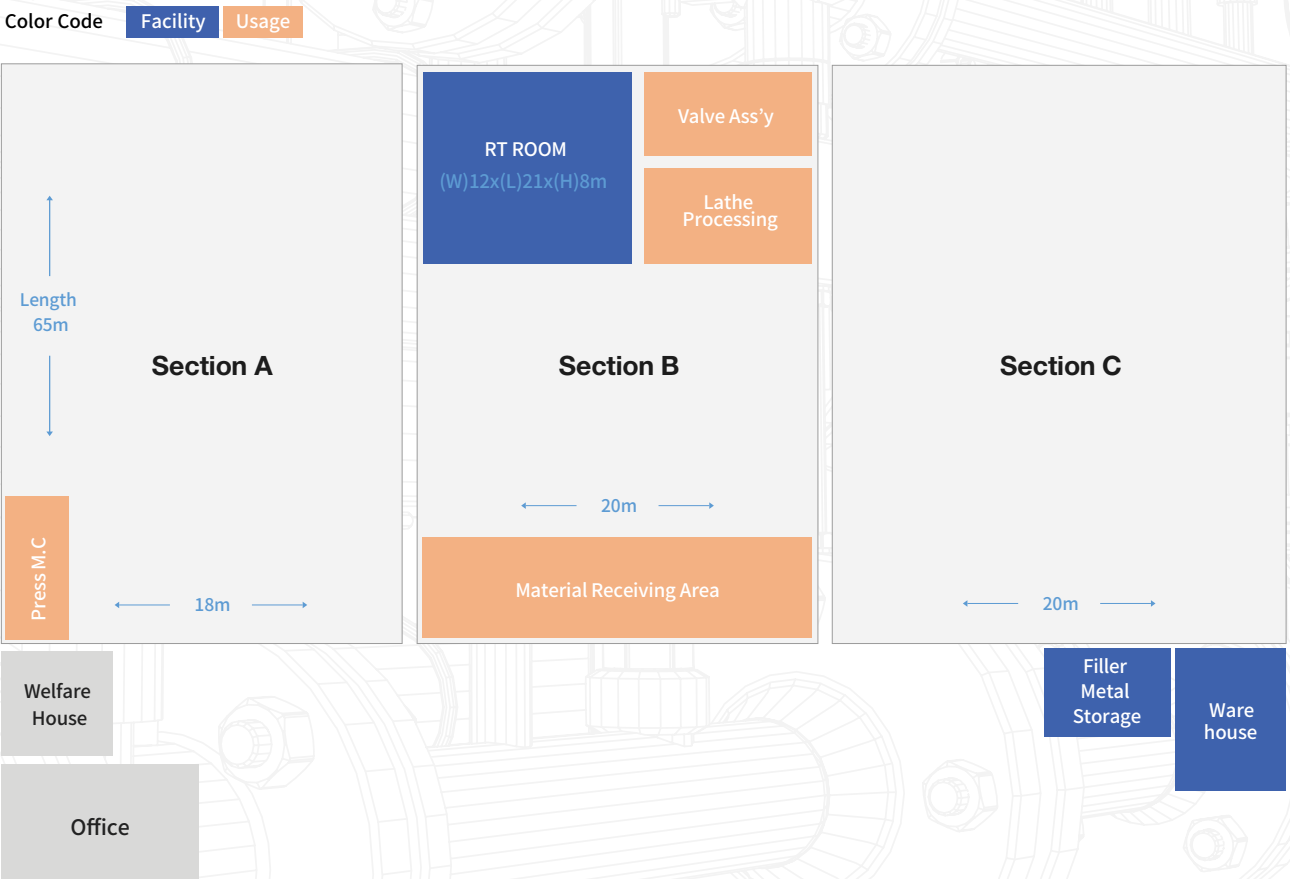
ISO / KGS / KR - ISO 9001:2015, ISO 45001:2018, KGS, KR



Factory layout

Our company has optimized equipment allocation in order to maximize the internal productivity, is minimizing external force that could be applied to materials by classifying work spaces, and prevents problems that could be caused between different materials. Furthermore, spaces are allocated per process so that fabrication, welding, inspection and other activities can be executed independently. With the radiographic examination room, non-destructive examination can be executed internally

당사는 사내 생산성 증대를 위해 설비 배치가 최적화 되어 있고 작업 공간을 구분함으로 소재가 받을 수 있는 외력을 최소화하고, 이중 소재간에 발생할 수 있는 문제를 예방합니다. 또한, 공정별로 공간을 지정하여 제작, 용접, 검사 등의 활동이 독립적으로 수행가능합니다. 방사능 검사시설의 보유로 내부에서 비파괴검사까지 가능합니다.



Equipment

Manufacturing Equipment

No	Description	Q'ty	Maker
1	Bed M/C 580 x 2000L	1	Namsun
2	Bed M/C 400 x 1000L	1	Hoseng
3	Milling M/C No. 2	1	Namsun
4	Radial M/C DRD-960	1	Doosan
5	Radial M/C DRD-1100	1	Doosan
6	Drilling M/C ø22	3	Heenam
7	CO2 welding M/C 500A	7	Korea welding
8	CO2 welding M/C 500A	3	Daewoo
9	TIG welding M/C 500A	9	Daewoo
10	Arc welding M/C 20kW	3	Korea welding
11	Plasma welding M/C 100A	1	Hyundai
12	Gouging M/C 1000A	2	Hanheung
13	Plasma cutting M/C 300A	2	Hyundai
14	Auto. Cutting M/C 3100mm	1	Yamaha
15	Forming M/C 610mm	1	Answer
16	Shape cutting M/C	1	Yukwang
17	Compressor 10kg/cm2	3	Youngchang
18	Turning M/C	9	Answer
19	Crane 30 ton	4	Kyeongmin hoist
20	Crane 20ton	3	Kyeongmin hoist
21	Crane 15 ton	2	Kyeongmin hoist
22	Crane 10 ton	1	Kyeongmin hoist
23	Bending M/C, 50t	1	Answer
24	Vacuum Pump	3	Woosung

Inspection Equipment

No	Description	Q'ty	Maker
1	Hydro, tester 300 Kg/cm2	1	KEW, Germany
2	Calipers 600mm	2	Mitutoyo, Japan
3	Calipers 600mm	2	Mitutoyo, Japan
4	Calipers 600mm	2	Mitutoyo, Japan
5	Calipers 600mm	2	Mitutoyo, Japan
6	Micrometer 0,25 mm	1	Mitutoyo, Japan
7	Micrometer 0,25 mm	1	Mitutoyo, Japan
8	Micrometer 0,25 mm	1	Mitutoyo, Japan
9	Micrometer 0,25 mm	1	Mitutoyo, Japan
10	Micrometer 0,25 mm	1	Mitutoyo, Japan
11	Cylinder gauge 18~60mm	1	Mitutoyo, Japan
12	Cylinder gauge 18~60mm	1	Mitutoyo, Japan
13	Int. micrometer 8~25mm	1	Mitutoyo, Japan
14	Int. micrometer 8~25mm	1	Mitutoyo, Japan
15	Pressure gauge 0~1kg/cm2	2	Konics
16	Pressure gauge 0~5kg/cm2	2	Konics
17	Pressure gauge 0~10kg/cm2	6	Konics
18	Pressure gauge 0~50kg/cm2	2	Konics
19	Pressure gauge 0~100kg/cm2	7	Konics
20	Pressure gauge 0~150kg/cm2	1	Konics
21	Pressure gauge 0~250kg/cm2	1	Konics
22	Pressure gauge 0~400kg/cm2	1	Konics
23	Pressure gauge 0~1000kg/cm2	1	Konics
24	Thickness gauge	1	JFE, Japan
25	Laser Level gauge	1	ZEUS

Scope of work

Answer Co., Ltd. generates new values for the plant with the objective of maximizing added value to all stakeholders. By reinforcing the competency of all fields such as planning, design, manufacturing and operation, it is further strengthening global competitiveness for obtaining orders.

(주)앤써는 모든 이해관계자의 부가가치 극대화를 목표로 플랜트의 새로운 가치를 창출하고 있습니다. 기획, 설계, 제작, 운영 등 모든 분야의 역량을 강화함으로써 글로벌 수주 경쟁력을 더욱 키워가고 있습니다.

Engineering & Design

Verification and Test for Welding Specification

Welding & Machining

Inspection & Examination of Product

Installation & Fabrication(Site Assembly)

Repair & Alteration for Maintenance



Applicable Welding Process

GTAW(Gas Tungsten-Arc Welding)
: Small size Pipe & Fitting and Thin plate welding

FCAW(Flux-Cored Gas Arc Welding)
: Normal size pipe & plate welding

SAW(Submerged-Arc Welding)
: Thick Plate welding(Generally over 20mm)

SMAW(Shielded Metal-Arc Welding)
: Site welding and repair welding(if necessary)

Type of Items



LNG / LPG Supply System

Pressure Vessel



Spherical Tank

Storage Tank



Reactor

Heat Exchanger



Water Treatment Unit

Scrubber

Manufacturing Process

Answer's manufacturing process is comprised of planning, designing, production and inspection and such processes are being controlled and monitored by a Smart Factory system.

앤써의 제작공정은기획, 설계, 구매, 생산, 검사로 이루어져있으며 이러한 공정은 스마트팩토리 시스템에 의하여 관리 및 모니터링 되고 있습니다.

Quality Management System

Design & Specification Control

Design Calculations & Fabrication Drawing
(ASME/CSEL/KGS/KR/PED/TEMA/GOST/etc.)

Production Realizing

+ Purchase Order Specification

+ Welding Control

+ Purchase Order Requisition

+ Heat Treatment Control

+ Purchase Order for Material

+ Surface Treatment Control

+ Material Control

Record Control

+ Manufacturer's Data Report

+ Traveler

+ Material Test Report & Certification

+ NCR & Disposition Control

+ Welding Procedure Specification

+ Pressure Test Record

+ NDE Report and Film

Inspection & Examination System

+ Inspection & Test Plan

+ Welding Visual and Suitability Examination

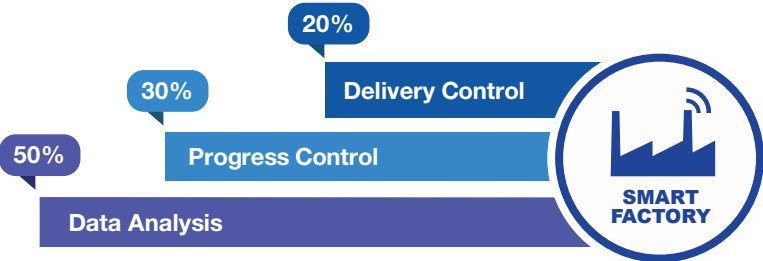
+ Inspection & Test Procedure

+ Pressure Test & Leak Test

+ Receiving Inspection

+ Calibration Control

+ MTR Verification



Process

01 Design 설계

02 Material Receiving 소재입고

03 Receiving Inspection 입고검사

04 Bending & Machining 벤딩 & 가공

05 Fabrication 제관

06 Fit-up & Welding 취부 & 용접

07 Nondestructive Examination 비파괴검사

08 Visual & Dimensional Inspection 육안 및 치수검사

09 Final Pressure Test 최종압력시험

10 Surface Treatment 표면처리

11 Painting 도장

12 Final Acceptance Test 최종검사

13 Packing 포장

14 Delivery 출하



Air Holder Tank

As equipment for storing gas or preserving pressure in the middle of a process, the product manufactured by our company has received ASME U2 certification as high pressure vessel and has been installed at site. Our company has been in charge of design, fabrication and site installation of this project.

기체를 보관 또는 프로세스 중간에 압력을 보존하기 위한 설비로서
당사에서 제작한 제품은 고압용기인
ASME U2 인증을 받아 현장에 설치된 제품입니다.
본 프로젝트는 설계, 제작, 현장설치까지 진행한 건입니다.

Product name	Air Holder Tank	Applicable code	ASME
Client / Owner	Linde	Pressure & capacity	5.5MPa / 220m3
Installation country	Korea	Material	SA537-CL2
Special Note	Approved by Korea Gas Safety With ASME 'U2' Certificate		

Spherical Tank

As a pressure vessel of spherical type, it is equipment that saves gas, crude oil and others and can manage supply by saving a large amount of fluid, not only in refining equipment, but also in chemical plants. Our company can supply entire parts through design review of the device concerned, forming, bending and shop welding and also provides supervision for site installation.

구체 형태의 압력용기로서 가스 및 원유 등을 저장하는 설비이며,
정제설비 뿐만아니라 화학공장에도 대용량의 유체를 저장하여 공급을 관리할 수 있는 설비입니다.
당사는 해당 장치의 설계검토 및 성형, 밴딩, 삼용접을 통한 전체 파트들의
공급이 가능하고, 현장설치를 위한 관리감독까지 제공하고 있습니다.

Product name	LPG Storage Tank	Applicable code	ASME
Client / Owner	POSCO	Pressure & capacity	3.04MPa / 2,000m3
Installation country	Indonesia	Material	SA537-CL2
Special Note	Engineering and Supervising of Field Assembly		





LNG Fuel Gas Supply Tank

As a product that is currently being developed with R&D, this product is the world’s first type of Lattice Type LNG Fuel Gas Supply System Tank that has been manufactured. It is a product with a new concept, offering outstanding insulation and approximately 40% increased LNG storage capacity compared to vessels of equivalent level

현재 연구개발과 함께 진행 중인 제품으로 본 제품은 세계최초 Lattice Type으로 제작된 LNG Fuel Gas Supply System Tank입니다. 단열성이 우수하며 동급선박 대비 40%정도 LNG 저장용적이 늘어난 신개념의 제품입니다.

Product name	LNG Fuel Gas Supply Tank	Applicable code	IGF & ASME
Client / Owner	Sunbo Industry	Pressure & capacity	9bar / 15m3
Installation country	Korea(Ship)	Material	SA240-304(Inner) & SA516-70(Outer)
Special Note	Approved by Korean Register(KR) Lattice Type Design		



LNG Storage Tank

As a storage container for liquefied natural gas, the product is installed for the purpose of supply LNG through a pipeline set up in LNG station. The internal and external fabrication, insulator filling and vacuum work are carried out.

액화천연가스의 저장용기로 LNG의 공급시설에 설치되어 파이프라인을 통한 LNG의 공급을 목적으로 설치되는 제품입니다. 내조와 외조의 제작과 단열재 충전 및 진공작업까지 수행하고 있습니다.

Product name	LNG Storage Tank	Applicable code	ASME & KGS(Domestic)
Client / Owner	E&CO	Pressure & capacity	0.97MPa / 40m3
Installation country	Korea	Material	SA240-304(Inner) & SS400(Outer)
Special Note	-		





Steam Drum

The steam drum, as a device that generates vapor that exists within the boiler, plays the role of boiler water storage, the role of storing steam produced and role of separating steam and water. Steam drum can be manufactured in various types depending on the type of boiler, such as smoke tube type, water tube type, horizontal type and vertical type.

스팀드럼은 보일러내에 존재하는 증기를 발생시키는 장치로 보일러수를 저장하는 역할, 발생된 스팀을 저장하는 역할, 스팀과 워터를 분리하는 역할 등으로 사용됩니다. 스팀드럼은 연관식, 수관식, 수평형, 수직형 등 보일러의 형태에 따라 다양한 타입으로 제작할 수 있습니다.

Product name	Steam Drum	Applicable code	ASME Section I
Client / Owner	TD Power	Pressure & capacity	5.4MPa / 15.5m3
Installation country	Thailand	Material	SA516 - 70
Special Note	Engineering & Manufacturing / With ASME "S" Certificate / Including Water Column		

LP Co2 Fire Fighting System

This product, as a fire-fighting equipment that is installed in preparation for fire within power plant, is an equipment that extinguishes fire by blocking the supply of oxygen -which is one of 3 elements of fire, inflammable material, air (oxygen) and source of ignition, places carbon dioxide in a consistent container for storage then discharges it within the fire, extinguishing the subject manually or automatically to reduce the concentration of oxygen, thus stopping the combustion. The container that stores such carbon dioxide is designed, fabricated and supplied with surrounding structures for operation. Fire fighting system for not only power plant but also for ship are being manufactured.

본 제품은 육상 발전소내의 화재발생에 대비하여 설치되는 소화설비로 화재의 3요소인 가연물, 공기(산소), 점화원 중의 하나인 산소의 공급을 차단함으로써 질식 작용에 의한 화재를 진압하며 이산화탄소를 일정한 용기에 담아 저장시켜 놓았다가, 화재시 수동 또는 자동으로 소방대상물 내에 방사하여 산소의 농도를 저하함으로써 연소작용을 정지시키는 소화설비입니다. 당사에서는 그러한 이산화탄소를 저장하는 용기를 설계, 제작하고 운용을 위한 주변 구조물과 함께 공급합니다. 육상발전소 뿐만 아니라 선박에 설치되는 소화장치까지 제작하고 있습니다.

Product name	LP Co2 Fire Fighting System	Applicable code	ASME
Client / Owner	Korea Hydro & Nuclear Power Co. Ltd.(한국수력원자력)	Pressure & capacity	2.59MPa / 4.3m3
Installation country	Korea	Material	SA516-70
Special Note	Including Refrigerator & Insulation		





Water Treatment Unit

Hydrocarbon and combustion products are collected in the wash water, which is circulated while operating in close mode. The Wash Water Treatment Unit which is installed to remove (purify) impurities, consists of a sludge settling tank and device that removes moisture from the sludge, for the maximum performance. A high speed coagulator using an inclined slate is applied with the precipitation device and the condensed facility of sludge contained in scrubber wash water, and this equipment is based on the fact that precipitation area has a greater effect on precipitation efficiency than duration time. The sludge, which is condensed in the settling tank, is re-condensed and the water and sludge are separated and the separated water is stored in the wash water tank and holding tank while the sludge is dehydrated again to decrease water content and minimize the amount of sludge that is discarded.

Scrubber를 Close Mode로 운전시 순환되는 Wash Water내에는 Soot 등이 축적됩니다. 이러한 불순물들을 제거하기 위해 설치되는 Wash Water Treatment Unit는 Sludge 침전조, Sludge내 수분제거기의 조합으로 구성되어 최적의 Performance를 구현합니다. 경사판을 이용한 고속응집 침전장치는 Scrubber 세정수 내 Sludge의 침전 및 농축설비가 적용되었으며, 침전효율이 체류시간보다 침전면적에 더 큰 영향을 받음을 응용한 장치입니다. 수분제거기는 침전조에 침전된 Sludge를 재응집하여 물과 Sludge를 분리한후 물은 Wash Water Tank 및 Holding Tank 로 이동되며, Sludge는 압축방법으로 수분을 제거하여 Sludge 배출을 최소화합니다.

Product name	Water Treatment Unit	Applicable code	None
Client/Owner	Panasia	Pressure & capacity	ATM
Installation country	Korea(ship)	Material	Super Duplex
Special Note	-		

Paddle Dryer

As a machinery product manufactured in the OEM method from a Japanese specialist company, it is divided into dryer and cooler depending on the purpose and it is a product that dries fluid with heat dispersion through heat transfer (or refrigerant) while transferring and pulverizing fluid through a rotating axis with wings in the center. This product is utilized for precise processes such as crystallization, coating and flash work, is usually used for pulverizing and drying powder-types of fluid and is used in many fields.

일본의 전문메이커로부터 OEM방식으로 제작하고 있는 기계제품으로서 용도에 따라 건조기와 쿨러로 나뉘며 중앙의 날개달린 회전축을 통하여 유체를 이송시켜 분쇄하면서 열매(또는 냉매)를 통한 열분산으로 유체를 건조시키는 제품입니다. 본 제품은 결정화, 코팅, 석화작업 등과 정교한 공정을 위하여 활용되며 분말타입의 유체를 분쇄 및 건조하기 위해 주로 쓰이며 사용분야는 다양합니다.

Product name	Paddle Dryer & Cooler	Applicable code	JIS & ASME
Client/Owner	Nara Machinery	Pressure & capacity	Variety
Installation country	Korea, Japan, China, Belgium, USA, Thailand	Material	SA240-304
Special Note	Making a powder and drying your material by paddle shaft		

