



SN2661 ZLNG On/Off Butterfly valve

THE BETTER FUNCTION, QUALITY, DELIVERY AND PRICE !!



AV ACE VALVE CO.,LTD.

WELCOME TO ACE VALVE

THE BETTER FUNCTION, QUALITY, DELIVERY AND PRICE !!

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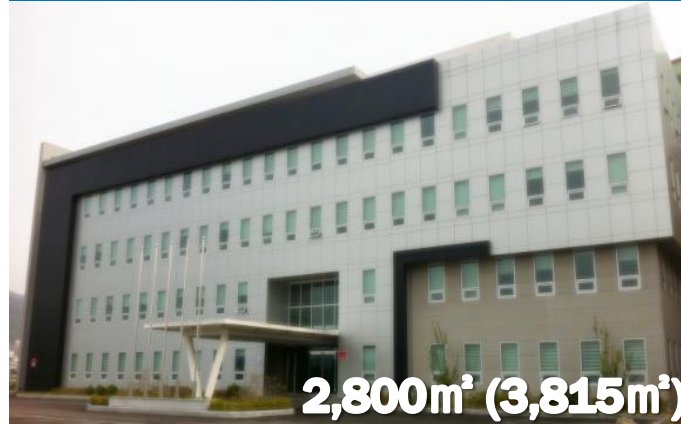




WELCOME TO ACE VALVE
THE BETTER FUNCTION, QUALITY, DELIVERY AND PRICE !!

Introduction

HEAD OFFICE



FACTORY #1



FACTORY #2



2000

- APR. ESTABLISHED AS ACE VALVE COMPANY LIMITED
AUG. **QUALIFIED** BY BVQI FOR ISO 9001
REGISTERED ON AVL OF HYUNDAI HEAVY INDUSTRIES CO., LTD.

2001

- AUG. **REGISTERED** ON AVL OF HITACHI Zosen CORPORATION IN JAPAN
SEP. **REGISTERED** ON AVL OF SAMSUNG HEAVY INDUSTRIES CO., LTD. IN KOREA
OCT. **REGISTERED** ON AVL OF DAEWOO SHIPBUILDING & MARINE ENGINEERING CO.,LTD IN KOREA
NOV. **REGISTERED** ON AVL OF STX SHIPBUILDING CO., LTD. IN KOREA
DEC. **REGISTERED** ON AVL OF GREAT MAN-MADE RIVER AUTHORITY IN LIBYA
OBTAIN FIRE SAFE TYPE APPROVAL CERTIFICATE FOR BUTTERFLY VALVE

2002

- MAR. **REGISTERED** ON AVL OF UNIVERSALSHIPBUILDING CORPORATION IN JAPAN
JUN. **DESIGNATED** AS AN SUPERIOR EXPORTING FIRM BY KOREA AUTHORITY
JUL. **DELIVERED** 2400MM 24BAR BUTTERFLY VALVE TO GMRA
DESIGNATED AS AN EXCELLENT INNO-BIZ FIRM BY KOREA AUTHORITY
DELIVERED LNG CRYOGENIC BUTTERFLY VALVE TO OSAKA VALVE



2003

FEB. OBTAIN TYPE APPROVAL CERTIFICATE BY DNV

MAY. OBTAIN TYPE APPROVAL CERTIFICATE BY ABS

APPROVED BY EXXON MOBIL AS AN OFFICIAL VENDOR OF BUTTERFLY VALVES

2004

FEB. OBTAIN ISO 9001 WITH 2000 EDITION FROM BVQI

MAR. DELIVERED AIR VACUUM RELIEF VALVE TO GMRA

JUL. OBTAIN TYPE APPROVAL CERTIFICATE BY BUREAU VERITAS

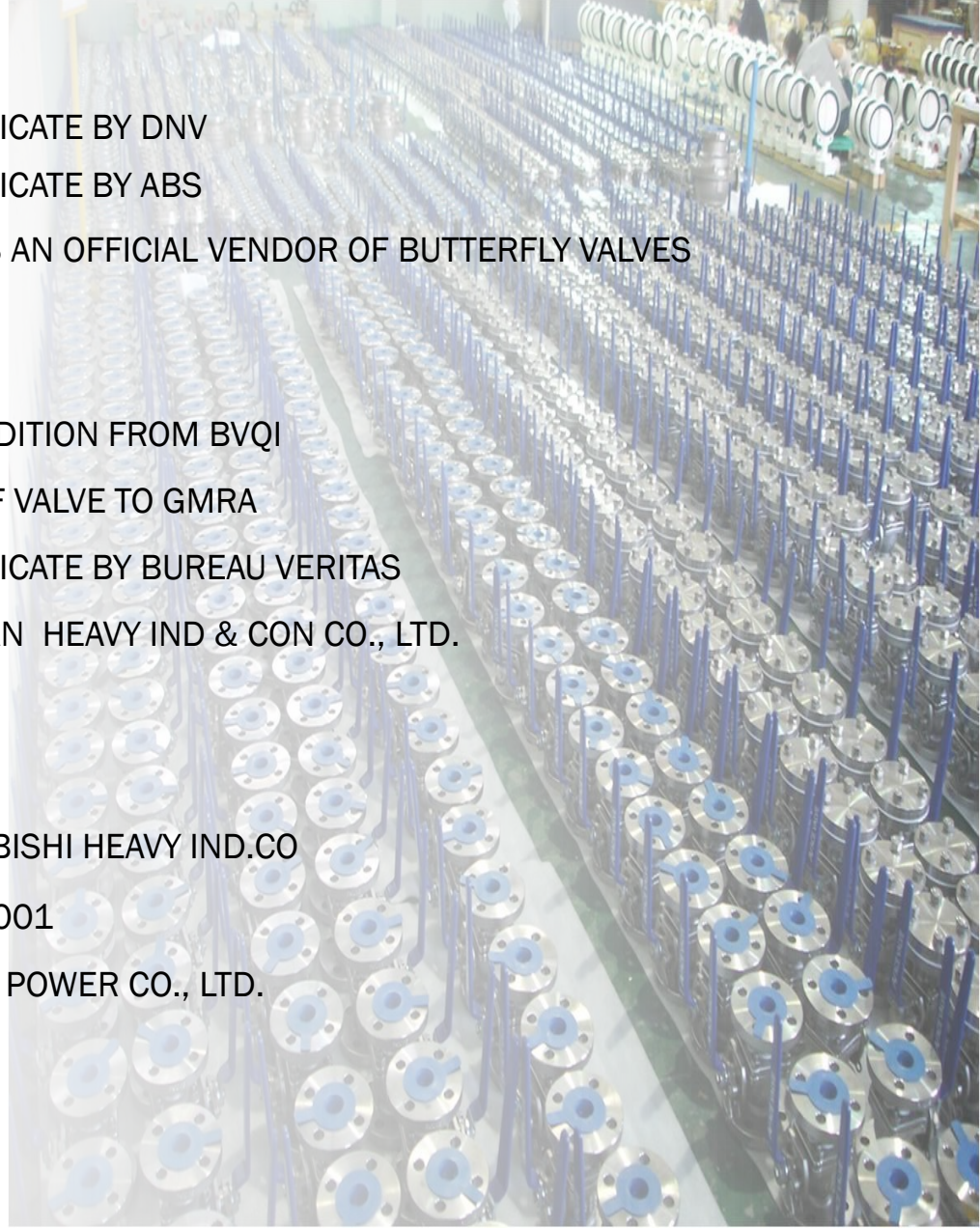
NOV. REGISTERED ON AVL OF DOOSAN HEAVY IND & CON CO., LTD.

2005

FEB. REGISTERED ON AVL OF MITSUBISHI HEAVY IND.CO

MAR. QUALIFIED BY BVQI FOR ISO 14001

OCT. REGISTERED ON AVL OF KOREA POWER CO., LTD.



2006

- JAN. REGISTERED ON AVL OF MINISTRY OF ENERGY STATE OF KUWAIT (MEW)
- MAR. REGISTERED ON AVL OF FISIA ITALIMPIANTI S.P.A
- APR. OFFICIALLY CERTIFIED for RESEARCH & DEVELOPMENT INSTITUTE BY AUTHORITY
- SEP. REGISTERED ON AVL OF SAUDI ARAMCO
- DEC. DEVELOPED GLOBE VALVE FOR LPG

2007

- MAY. DELIVERED TRIPLE ECCENTRIC METAL SEAT BUTTERFLY VALVE
- DELIVERED MECHANICAL COUPLING PN25 × 2400MM FOR GMRA PROJECT
- SEP. REGISTERED ON AVL OF KUWAIT OIL COMPANY
- OCT. DESIGNATED DEVELOP OF CRYOGENIC GLOBE VALVE FOR LNG BY KOREA MINISTRY
- NOV. APPROVED AS OFFICIAL VENDOR BY KUWAIT NATIONAL PETROLEUM COMPANY
- REGISTERED ON AVL OF POSCO ENGINEERING & CONSTRUCTION CO., LTD.



2008

- JAN. OBTAIN CE MARK CERTIFICATE
- APR. REGISTERED ON AVL OF SAMSUNG ENGINEERING CO., LTD. IN KOREA
- JUN. OBTAIN API MONOGRAM FOR API 609
- JUL. TECHNOLOGY TRANSFER FOR INTEGRATED ELECTRO-HYDRAULIC ACTUATOR FROM HYUNDAI HEAVY INDUSTRIES CO., LTD.

2009

- JAN. OBTAIN GOST-R CERTIFICATE
- MAR. DEVELOPED CLASS 2500 TRIPLE ECC. METAL SEATED BUTTERFLY VALVE
REGISTERED ON AVL OF HYUNDAI ENGINEERING & CONSTRUCTION CO., LTD
- APR. REGISTERED ON AVL OF GS ENGINEERING & CONSTRUCTION CORPORATION
DELIVERED 1050MM (TRIPLE ECCENTRIC METAL SEATED BUTTERFLY VALVE FOR LNG
- JUN. DELIVERED BUTTERFLY VALVES FOR U.K. AIRCRAFT CARRIER (CVF CARRIER)
- OCT. REGISTERED ON AVL OF DAERIM INDUSTRIAL CO.,LTD.
- DEC. DEVELOPED VALVE REMOTE OPERATING SYSTEM
OBTAIN ISO 9001 WITH 2008 EDITION

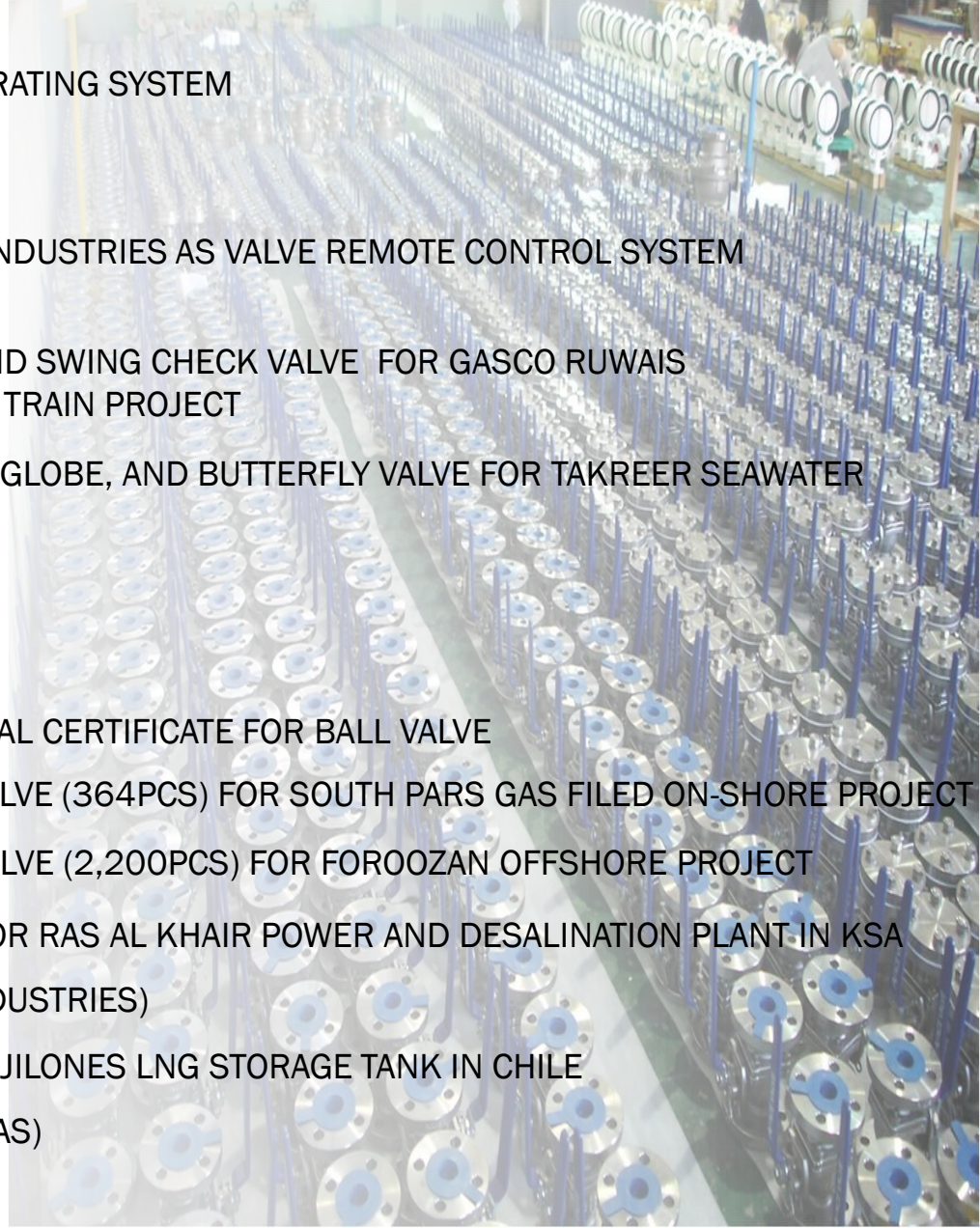


2010

- JAN. **DELIVERED** VALVE REMOTE OPERATING SYSTEM
REGISTERED ON AVL OF GASCO
- JUN. **APPROVED** BY HYUNDAI HEAVY INDUSTRIES AS VALVE REMOTE CONTROL SYSTEM
MANUFACTURER
- AUG. **DELIVERED** GATE, BUTTERFLY AND SWING CHECK VALVE FOR GASCO RUWAIS
FOR GASCO 5th NGL TRAIN PROJECT
- DEC. **DELIVERED** BALL, GATE, CHECK, GLOBE, AND BUTTERFLY VALVE FOR TAKREER SEAWATER
INTAKE-3 PROJECT

2011

- JUN. **OBTAIN** ASME 'N' & 'NPT' STAMP
OBTAIN FIRE SAFE TYPE APPROVAL CERTIFICATE FOR BALL VALVE
- JUL. **DELIVERED** SHUTDOWN BALL VALVE (364PCS) FOR SOUTH PARS GAS FIELD ON-SHORE PROJECT
- SEP. **DELIVERED** MOTORIZED BALL VALVE (2,200PCS) FOR FOROOZAN OFFSHORE PROJECT
- OCT. **DELIVERED** BUTTERFLY VALVE FOR RAS AL KHAIR POWER AND DESALINATION PLANT IN KSA
(DOOSAN HEAVY INDUSTRIES)
- DEC. **DELIVERED** LNG VALVES FOR MEJILONES LNG STORAGE TANK IN CHILE
(TECNICAS REUNIDAS)



2012

MAY. OBTAIN API-6D MONOGRAM FOR BALL, GATE, CHECK VALVES
DELIVERED BALL,GATE,CLOBE,CHECK,BUTTERFLY VALVE FOR SOUTH PARS GAS FIELD
ON-SHORE PROJECT

JUL. DESIGNATED BY KOREAN AUTHORITY AS A DEVELOPER FOR SUBSEA VALVE
(SIL 3 / 3000M SEA DEPTH) RESERCH AND DEVELOPMENT PROJECT

DEC. AWARDED THE GOLD TOWER ORDER OF INDUSTRIAL SERVICE MERIT
DEVELOPED PRESSURE SEAL GATE VALVE (ANSI CLASS 2500LB)
DELIVERED LNG VALVES FOR ZUHAI LNG TERMINAL IN CHINA (TECNICAS REUNIDAS)

2013

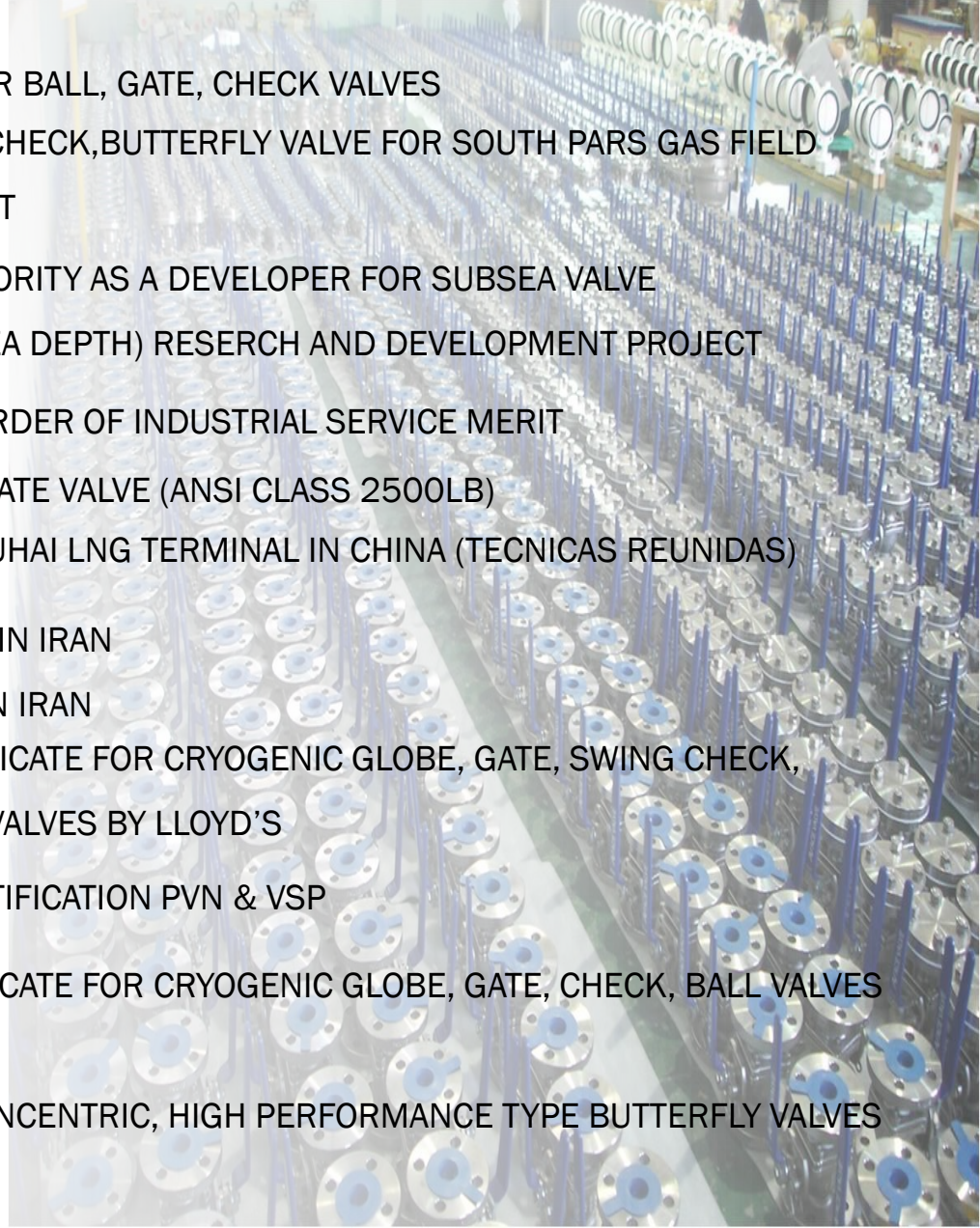
JUN. REGISTERED ON AVL OF NIOEC IN IRAN
REGISTERED ON AVL OF IOOC IN IRAN

JUL. OBTAIN TYPE APPROVAL CERTIFICATE FOR CRYOGENIC GLOBE, GATE, SWING CHECK,
BALL AND BUTTERFLY VALVES BY LLOYD'S

AUG. OBTAIN VENDOR APPROVAL NOTIFICATION PVN & VSP

NOV. OBTAIN TYPE APPROVAL CERTIFICATE FOR CRYOGENIC GLOBE, GATE, CHECK, BALL VALVES
BY ABS

OBTAIN UL CERTIFICATE FOR CONCENTRIC, HIGH PERFORMANCE TYPE BUTTERFLY VALVES



2014

JAN. **APPROVED** AS OFFICIAL VENDOR BY ADMA-OPCO IN U.A.E.

FEB. **REGISTERED** ON AVL OF MA'ADEN IN KSA.

APR. **APPROVED** AS OFFICIAL VENDOR BY ZADCO IN U.A.E.

JUL. OBTAIN UL CERTIFICATE FOR POST INDICATOR VALVE.

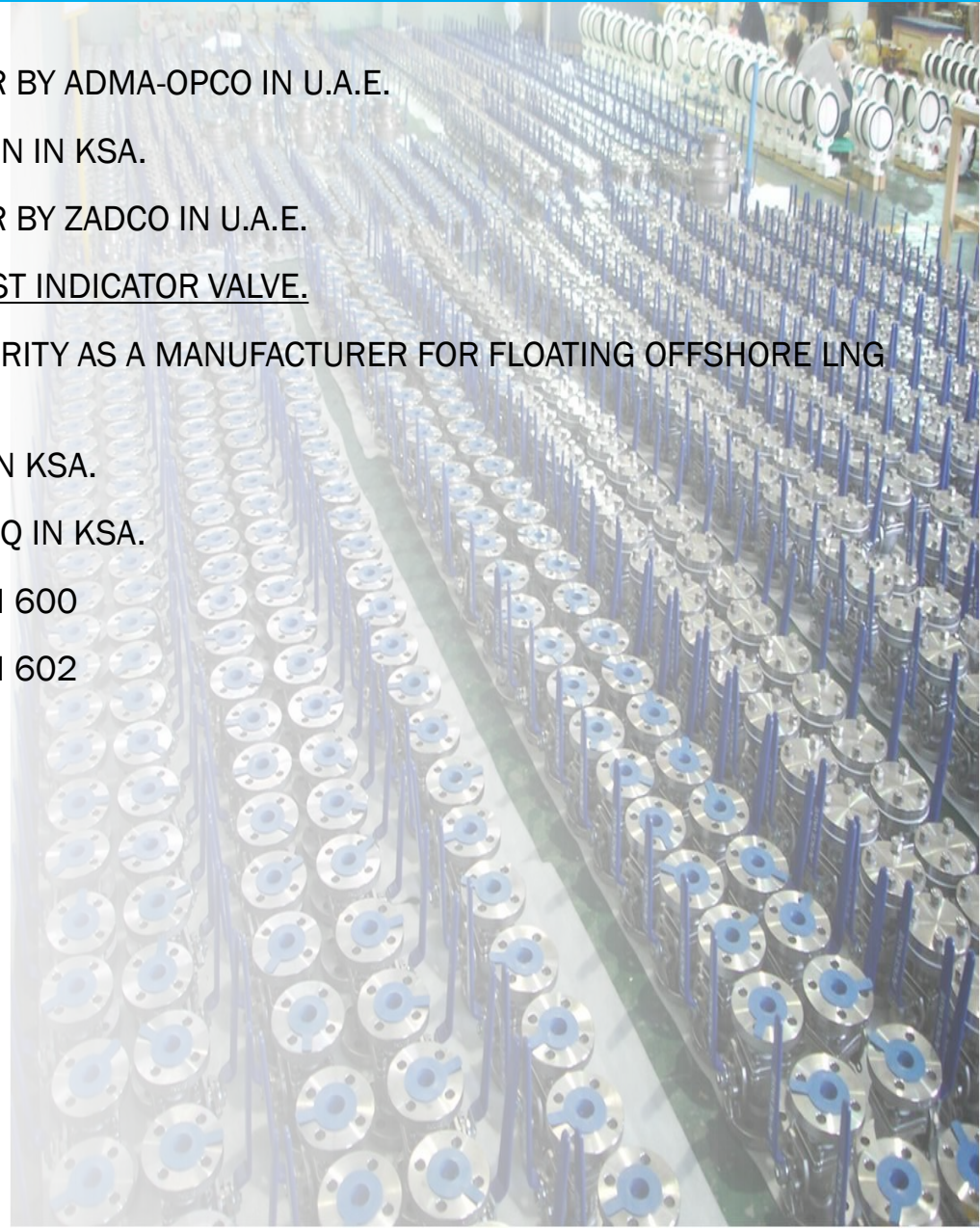
AUG. **DESIGNATED** BY KOREAN AUTHORITY AS A MANUFACTURER FOR FLOATING OFFSHORE LNG BUNKERING SYSTEM PROJECT.

REGISTERED ON AVL OF SABIC IN KSA.

DEC. **REGISTERED** ON AVL OF MARAFIQ IN KSA.

OBTAIN API MONOGRAM FOR API 600

OBTAIN API MONOGRAM FOR API 602



2015

JAN. REGISTERED ON AVL OF SEC IN KSA

AUG. APPROVED & REGISTERED ON AVL OF KOTC IN KUWIAT.

SEP. APPROVED & REGISTERED ON FLUOR IN USA.

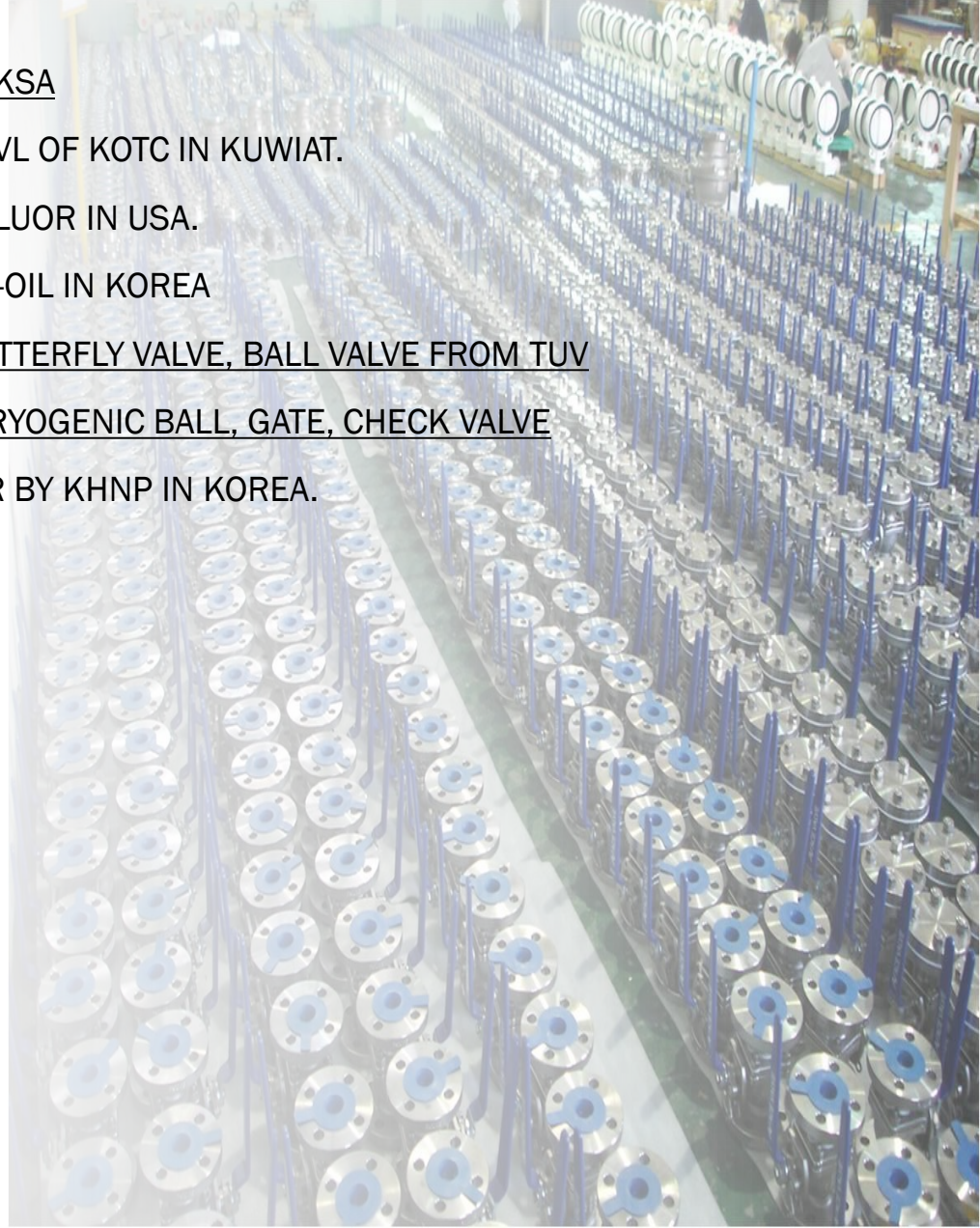
OCT. APPROVED & REGISTERED ON S-OIL IN KOREA

OBTAIN SIL CERTIFICATE FOR BUTTERFLY VALVE, BALL VALVE FROM TUV

DEC. OBTAIN TSG CERTIFICATE FOR CRYOGENIC BALL, GATE, CHECK VALVE

APPROVED AS OFFICIAL VENDOR BY KHNP IN KOREA.

OBTAIN TRCU CERTIFICATE



2016

JUN. OBTAIN FUGITIVE EMISSION TEST CERTIFICATE FOR BALL VALVE

OBTAIN KC CERTIFICATE FOR BUTTERFLY VALVE

JUL. **APPROVED** AS OFFICIAL VENDOR BY PETROLEUM DEVELOPMENT OMAN (PDO) IN OMAN

OBTAIN SIL CERTIFICATE FOR GATE VALVE FROM TUV

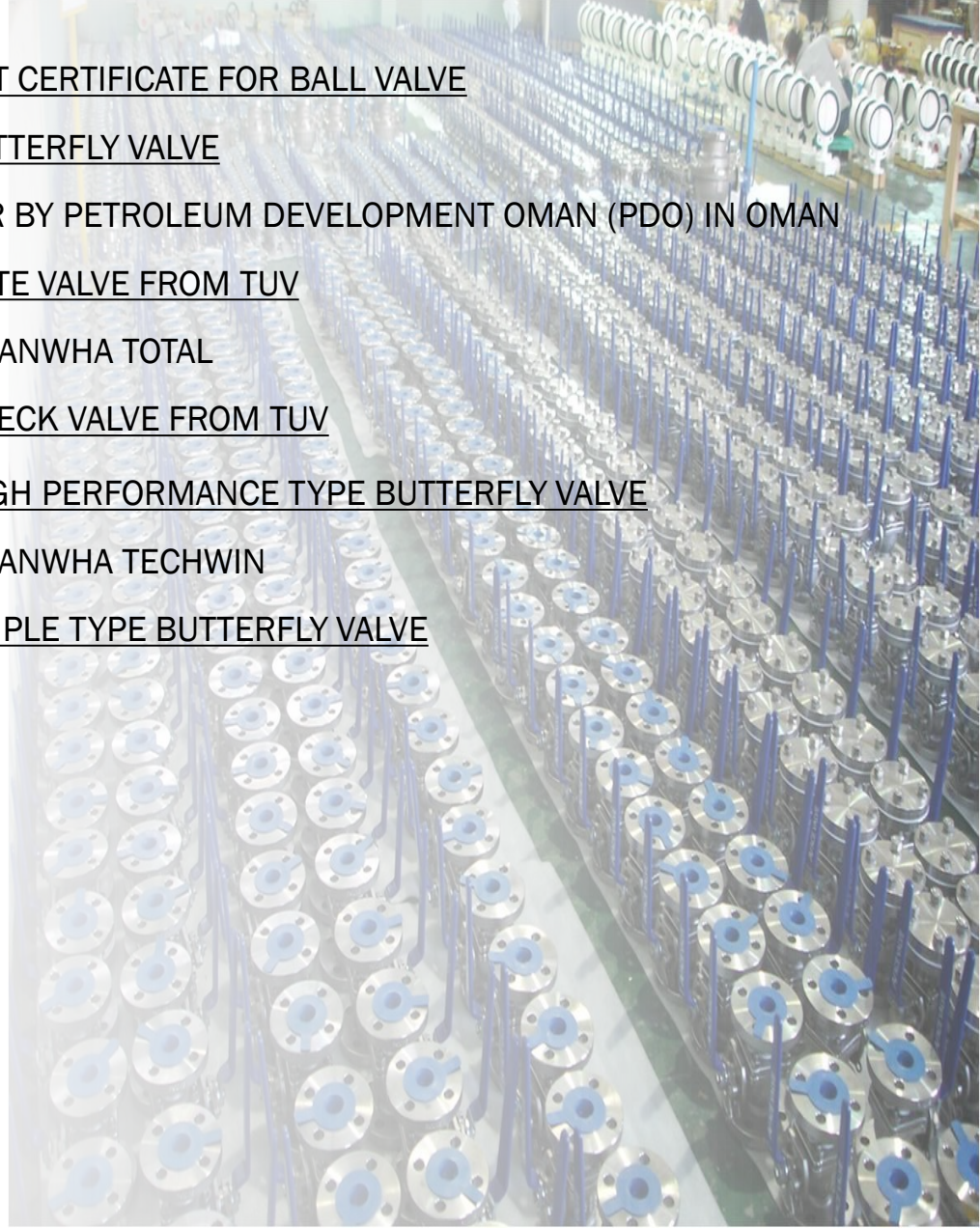
APPROVED & **REGISTERED** ON HANWHA TOTAL

AUG. OBTAIN SIL CERTIFICATE FOR CHECK VALVE FROM TUV

OBTAIN TAT CERTIFICATE FOR HIGH PERFORMANCE TYPE BUTTERFLY VALVE

APPROVED & **REGISTERED** ON HANWHA TECHWIN

SEP. OBTAIN TAT CERTIFICATE FOR TRIPLE TYPE BUTTERFLY VALVE



2017

APR. OBTAIN TAT CERTIFICATE FOR TRIPLE ECCENTRIC BUTTERFLY VALVE

JUN. OBTAIN TYPE APPROVAL CERTIFICATE FOR CRYOGENIC VALVES FROM BV

NOV. OBTAIN FIRE TEST CERTIFICATE FOR BALL VALVE, DUAL CHECK VALVE

2019

MAY SIGNED CONTACT OF INVESTMENT WITH DTI INVESTMENT

JUN. OBTAIN TAT CERTIFICATE FOR CONCENTRIC BUTTERFLY VALVE

JUL. OBTAIN TYPE APPROVAL CERTIFICATE FOR CRYOGENIC VALVES FROM BV

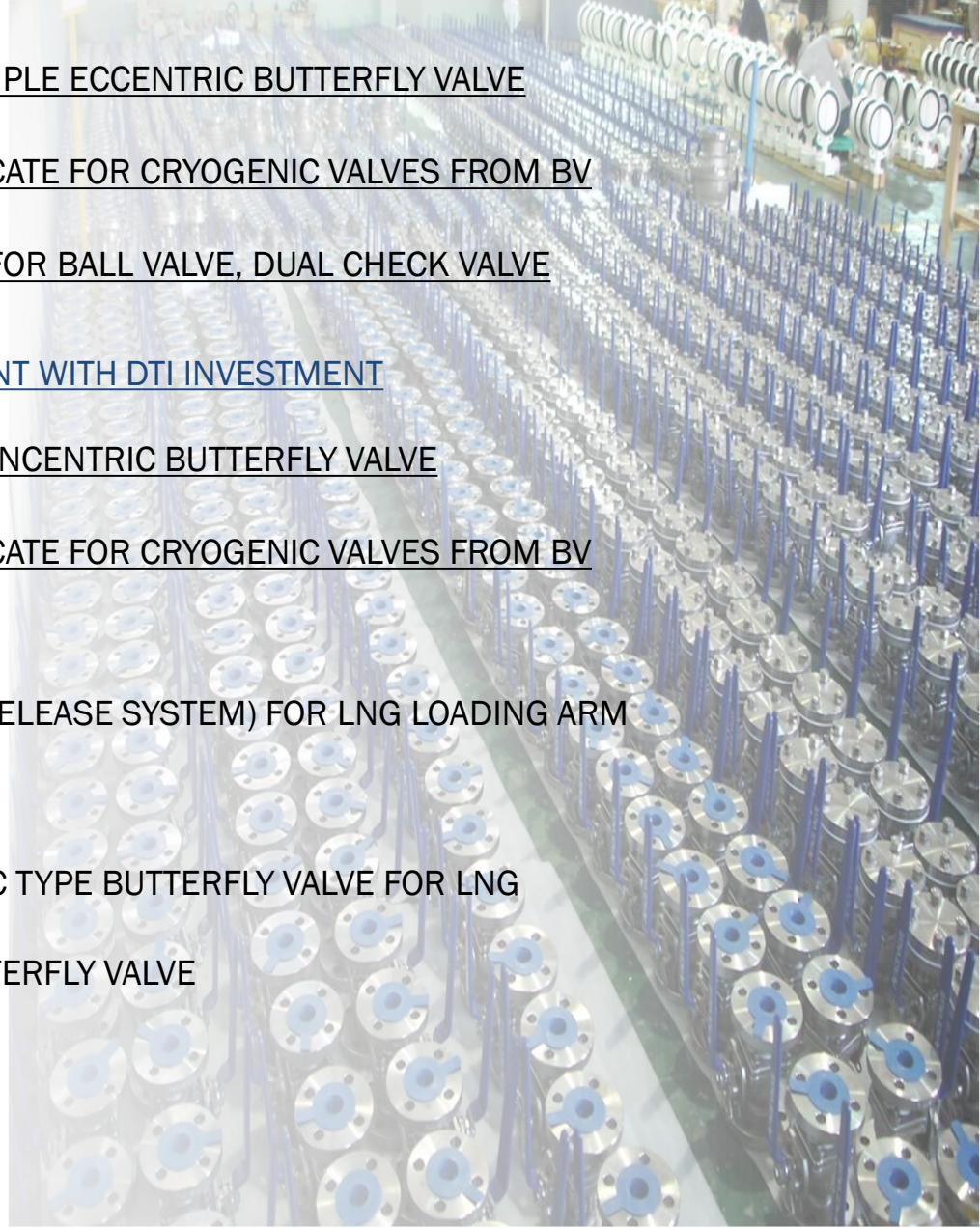
2020

JUL. **DEVELOPED** ERS(EMERGENCY RELEASE SYSTEM) FOR LNG LOADING ARM

2021

JAN. **DEVELOPED** DOUBLE ECCENTRIC TYPE BUTTERFLY VALVE FOR LNG

MAR. **DEVELOPED** PINLESS TYPE BUTTERFLY VALVE



CEO – D.K.WOO & S.H.LEE

QA/QC DEPT.

QUALITY
ASSURANCE

QUALITY
CONTROL &
INSPECTION

SALES DEPT.

DOMESTIC
SALES

OVERSEAS
SALSE

ENGINEERING
DEPT.

DESIGN &
ENGINEERING

RESEARCH &
DEVELOPMENT

PRODUCTION
DEPT.

PRODUCTION
MANAGEMENT 1

PRODUCTION
MANAGEMENT 2

PRODUCTION
PLAN

GENERAL AFFAIRS
DEPT.

GENERAL
AFFAIRS

ACCOUNTING

CUSTOMER SERVICE
DEPT.

AFTER SERVICE

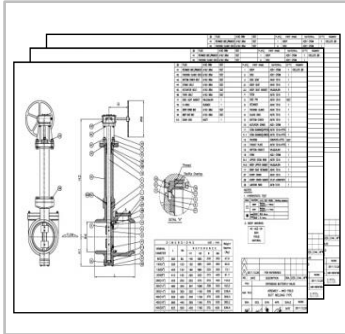
PROJECT
MANAGEMENT

CONTRACT



CONTRACT

ENGINEERING



DESIGN
& DRAWING

PROCUREMENT



MATERIAL ORDER

MANUFACTURING



CASTING

MANUFACTURING



MACHINING



BODY HYDRO TEST



PAINTING



ASSEMBLY

INSPECTION



VISUAL CHECK



OPERATION TEST



SEAT LEAKAGE
TEST

DELIVERY



PACKING



DELIVERY



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Machineries

Manufacturing Equipment

1 TURNING MACHINE



2 BORING MACHINE



- 2set
- CAPACITY : up to 2200mm
- FACTORY NO.1 2sets

- 3set
- CAPACITY : up to 4000mm
- FACTORY NO.1 2sets, FACTORY NO. 4 1set

Manufacturing Equipment

3 MACHINING CENTER



- 6sets
- FACTORY NO. 1 1set, FACTORY NO.2 2sets,
FACTORY NO. 4 3sets

4 MILLING MACHINE



- 1set
- FACTORY NO.4 1set

Manufacturing Equipment

5 UP-RIGHT DRILLING MACHINE



- 15set

- ASSEMBLY FACTORY 14sets, FACTORY NO.4 1set

6 CNC LATHE



- 6sets

- FACTORY NO.4 5sets

Manufacturing Equipment

7 HIGH SPEED LATHE



- 15sets

- ASSEMBLY FACTORY 1set
FACTORY NO.2 4sets, FACTORY NO.4 10sets

8 RADIAL DRILLING MACHINE



- 13sets

- ASSEMBLY FACTORY 11sets, FACTORY NO.4 2sets

Manufacturing Equipment

9 HYDRO-TEST BED



- 7sets

- CAPACITY : up to DN2200mm
- ASSEMBLY FACTORY 7sets

10 CRANE



- 24sets

- ASSEMBLY FACTORY 15sets, STORAGE 1set
- FACTORY NO. 1 2sets, FACTORY NO. 2 2sets, FACTORY NO. 3 2sets, FACTORY NO. 4 2sets,

Inspection & Measuring Device

1 THREE DIMENSION COORDINATE MEASURING MACHINE



2 VACUUM TESTER



3 DIGITAL PRESSURE RECORD



- ULVAC 1set

Inspection & Measuring Device

4 OVERLAY (CLADDING)



- THICKNESS GAUGE 1set
- KAWATERSU ADVANTECK 1set

5 TORQUE WRENCH



- TOHNICHI 5set

6 PMI



- GNR 1set

Inspection & Measuring Device

7 COATING THICKNESS GAUGE



- ELCOMETER 1set
- EASTONG 2sets

8 PAINT ADHENSION TESTER



- ELCOMETER 1set

9 DC HOLIDAY DETECTOR



- ELCOMETER 1set



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Products



Material

- DUPLEX / SUPER DUPLEX (A890 GR 4A / 5A, 6A)
- CAST STAINLESS STEEL (ASTM A351CF8/CF8M/CF3M)
- CAST CARBON STEEL (ASTM A216WCB, A217 C5 / WC6)
- INCONEL (A494 CW6MC, B)
- HASTELLOY (A494 CW12MW)
- TITANIUM (B367 GR. C-3 / GR. C-3 / GR. C-5)
- AL-BRONZE / NI-AL-BRONZE (B148C95500/95800)
- DUCTILE CAST IRON (ASTM A395/536)
- CAST IRON (ASTM A126CLB)
- OTHER SPECIAL MATERIAL UPON REQUIREMENT

1 APPLICATION

- CRYOGENIC SERVICE (LNG, ETHYLENE, AMMONIA, PETROLEUM)
- CHEMICAL, PETRO-CHEMICAL AND OIL REFINERY
- WATER WORKS, DESALINATION PLANT & POWER PLANT
- OIL & GAS SYSTEM FOR ON-SHORE & OFF-SHORE
- SHIPYARD FOR MARINE SERVICE

2 PRODUCTION CAPACITY

- WEIGHT – CAST CARBON STEEL 400Ton / Month
CAST STAINLESS STEEL 150Ton / Month
CAST IRON&DUCTILE IRON 250Ton / Month
CAST ALUMINUM BRONZE 150Ton / Month
- QUANTITY – ABT. 10,000 units / Month

3 AVAILABLE STANDARD

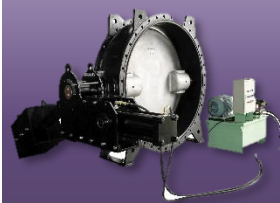
- ASME / API / ASTM / AS / AWWA / BS / DIN / ISO / JIS / KS /
AND OTHER INTERNATIONAL STANDARDS



Cryogenic Valve



Control Valve



Combined Check Valve



Butterfly Valve



**Loading Arm
(QDC)**

Butterfly Valve



Triple Eccentric Metal Seated Butterfly Valve

- DESIGN STANDARD : API 609 CATEGORY B
- END CONNECTION : DOUBLE FLANGED / (WAFER) LUGGED
 - SIZE : DN80mm ~ DN2500mm (3" ~ 100")
 - PRESSURE : UP TO CLASS 2500
 - TEMPERATURE : UP TO 815°C (1,499°F)
- OPERATOR : MOTOR / PNEUMATIC / HYDRAULIC / MANUAL
 - FLOW : UNI-DIRECTION / BI-DIRECTION
- LEAKAGE CLASS : CLASS VI, BUBBLE TIGHT SHUTOFF (ZERO LEAKAGE)

Butterfly Valve



Double Eccentric High-Performance

SPECIFICATION

- DESIGN STANDARD : API 609, ISO 5752, KSV 7490, JIS F 7480, BS 5155 or MSS SP-68
- END CONNECTION : DOUBLE FLANGED / (WAFFER) LUGGED
- SIZE : ~ 1500mm
- PRESSURE : UP TO 50 BAR (CLASS 300)
- TEMPERATURE : -55°C ~ +250°C (SOFT SEAT)
-100°C ~ +400°C (METAL SEAT)
- OPERATOR : MOTOR / PNEUMATIC / HYDRAULIC / MANUAL
- FLOW : BI-DIRECTION
- LEAKAGE CLASS : CLASS VI, BUBBLE TIGHT SHUTOFF (ZERO LEAKAGE)



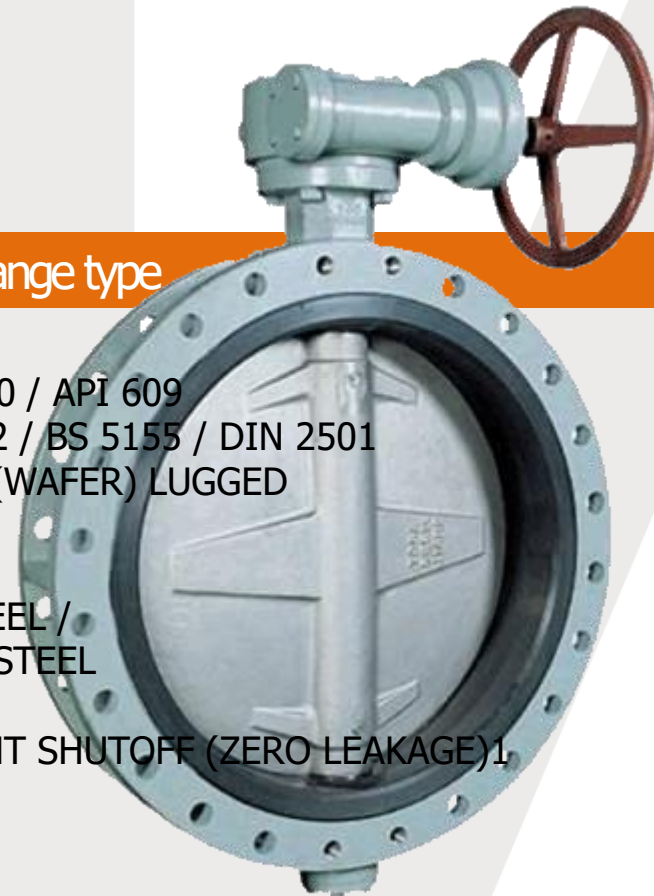
Butterfly Valve



Cocentric Wafer type

SPECIFICATION

- DESIGN STANDARD : ISO 5752 / JIS F7480 / API 609
KSV7490/ JIS B 2032 / BS 5155 / DIN 2501
- END CONNECTION : DOUBLE FLANGED / (WAFER) LUGGED
- SIZE : UP TO DN4000mm (160")
- PRESSURE : UP TO 16 BAR
- MATERIAL : DUCTILE IRON / CARBON STEEL /
NI-AL- BRONZE / STAINLESS STEEL
- FLOW : BI-DIRETION
- LEAKAGE CLASS : CLASS VI, BUBBLE TIGHT SHUTOFF (ZERO LEAKAGE)1



Cocentric Flange type

Butterfly Valve



Double Eccentric Disc Seated Flange type Butterfly Valve

- SPECIFICATION

- DESIGN STANDARD : API, AWWA, KS/JIS, BS, ISO
- END CONNECTION : DOUBLE FLANGED / (WAFER) LUGGED
- SIZE : UP TO DN4000mm (160")
- PRESSURE : UP TO 40BAR
- MATERIAL : DUCTILE IRON / CARBON STEEL / NI-AL- BRONZE / STAINLESS STEEL
- FLOW : BI-DIRETION
- LEAKAGE CLASS : CLASS VI, BUBBLE TIGHT SHUTOFF (ZERO LEAKAGE)

Butterfly Valve

Double Eccentric Flange type Butterfly Valve - Reference



- PROJECT : TALIMARJAN PROJECT
- MATERIAL : DUCTILE IRON + Rubber Lined
- DESIGN STANDARD : AWWA C504
 - FLANGE RATING : AWWA CL.D
 - SIZE : DN1500mm (60")
 - EPC : HYUNDAI ENGINEERING & CONSTRUCTION.

Butterfly Valve

Double Eccentric Flange type Butterfly Valve - Reference



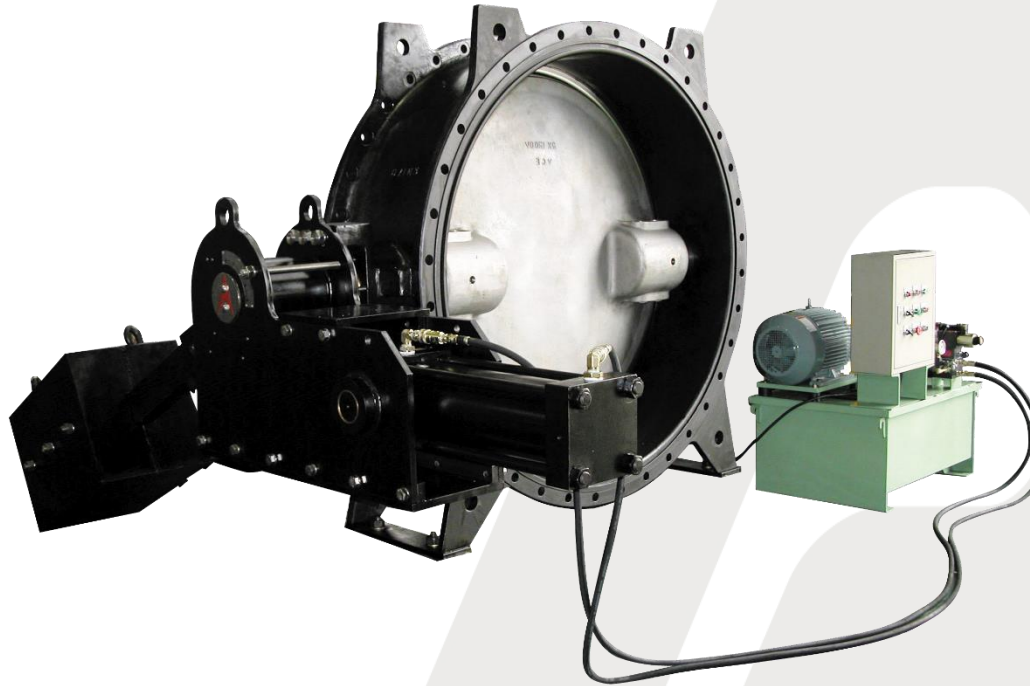
- PROJECT : MA'ADEN PROJECT
- MATERIAL : DUCTILE IRON + Rubber Lined
 - DESIGN STANDARD : AWWA C504
 - FLANGE RATING : 150LB
 - SIZE : DN1650mm (66")
- EPC : DAELIM INDUSTRIAL

Butterfly Valve



Concentric Flange type Butterfly Valve - Reference

- : DOCK-GATE FOR HYUNDAI HEAVY INDUSTRIES
 - MATERIAL : DUCTILE IRON
 - DESIGN STANDARD : ISO 5752
 - SIZE : DN3000mm (120")
 - PRESSURE : PN 10
 - OPERATOR : HYDRAULIC OPERATOR
- EPC : HYUNDAI HEAVY INDUSTRIES CO.,LTD.



Hydraulic Operated Combined Butterfly Check Valve

- SPECIFICATION

- DESIGN STANDARD : AWWA, ISO, BS, API
- END CONNECTION : DOUBLE FLANGED
- SIZE : UP TO DN 4,000mm (160")
- PRESSURE : UP TO 40 BAR
- MATERIAL : DUCTILE IRON / CARBON STEEL / NI-AL- BRONZE / STAINLESS STEEL
- FLOW : UNI-DIRETION
- LEAKAGE CLASS : CLASS VI, BUBBLE TIGHT SHUTOFF (ZERO LEAKAGE)



Combined Butterfly Check Valve - Reference

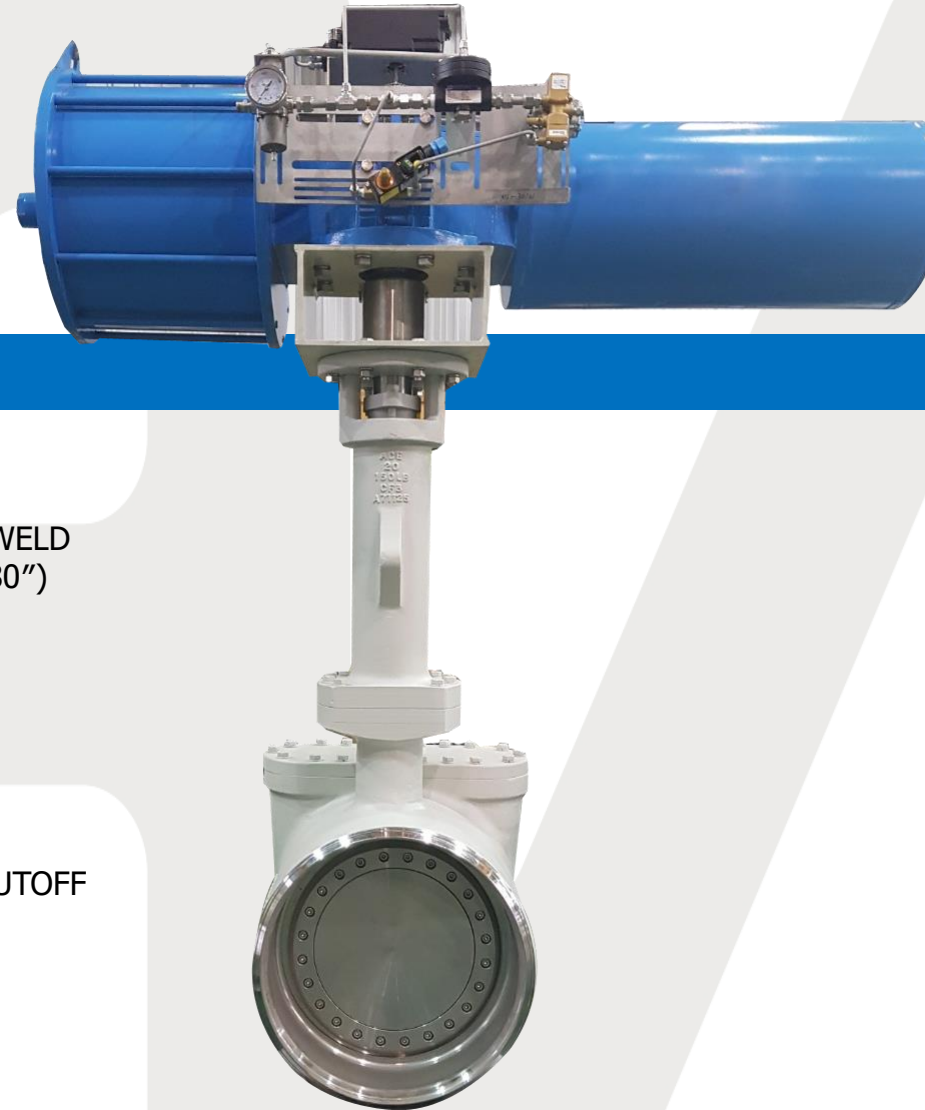
- PROJECT : DAELIM INDUSTRY - OMON 2 PROJECT
 - MATERIAL : A536+RL
- DESIGN STANDARD : AWWA C504
 - SIZE : DN1800mm (72")
 - Q'TY : 2EA
 - PRESSURE : AWWA CLASS D
- OPERATOR : HPU & COUNTER WEIGHT

Cryogenic Valve

Cryogenic Valve

SPECIFICATION

- DESIGN STANDARD : BS6364, API 607
- END CONNECTION : DOUBLE FLANGED / BUTTWELD
- SIZE : BUTTERFLY VALVE - UP TO DN2000mm (80")
 - BALL VALVE – UP TO DN1500mm (60")
 - GATE VALVE – UP TO DN1200mm (48")
 - GLOBE VALVE – UP TO DN600mm (24")
 - CHECK VALVE – UP TO DN600mm (24")
- PRESSURE : UP TO CLASS 300
- MATERIAL : STAINLESS STEEL
- FLOW : BI-DIRECTION
- LEAKAGE CLASS : CLASS VI, BUBBLE TIGHT SHUTOFF
(ZERO LEAKAGE)
- TEST : BS6364 & API 598



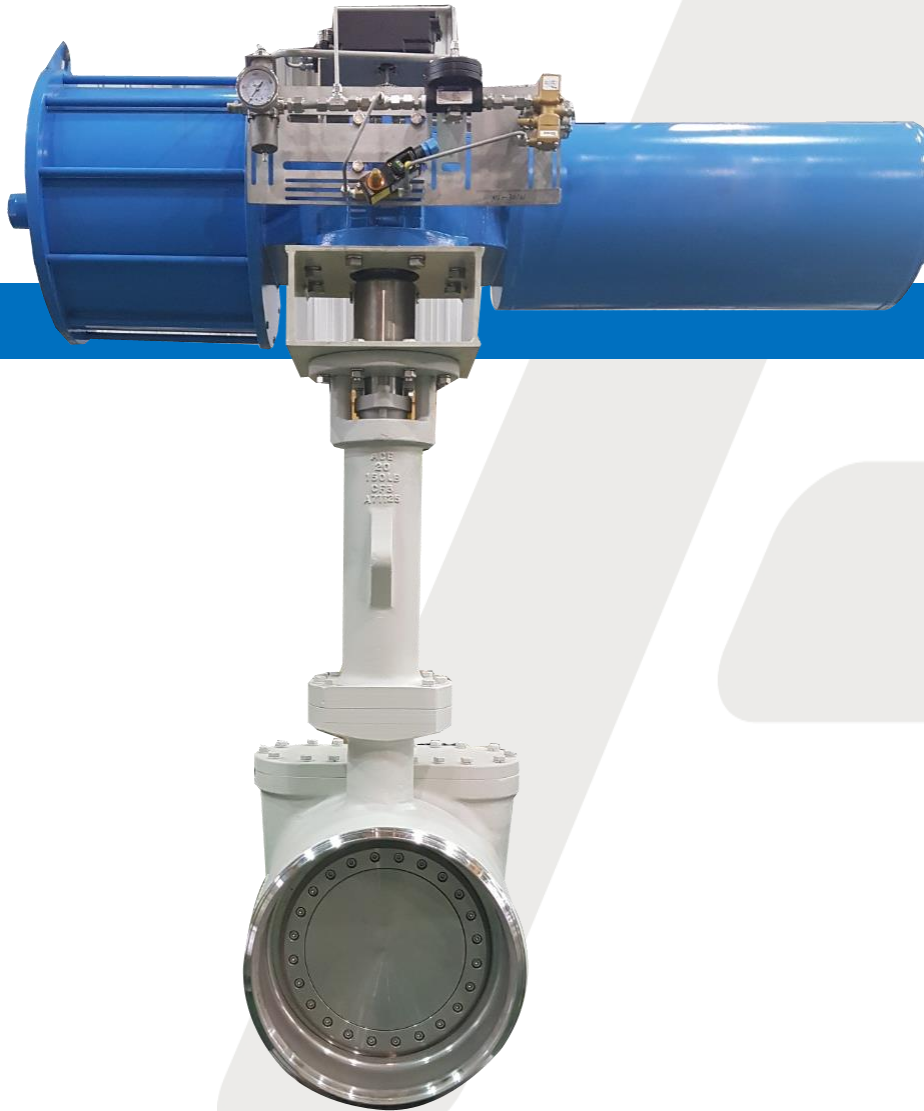
Cryogenic Valve



Cryogenic Valve - Reference

- PROJECT : MEJILONES LNG STORAGE TANK
 - MATERIAL : A351 CF3 STAINLESS STEEL
 - DESIGN STANDARD : API 6D, API 609
 - SIZE : DN40mm ~ DN800mm (1.5" ~ 32")
 - Q'TY : 42sets
 - PRESSURE : 150LB
 - OPERATOR : PNEUMATIC ACTUATOR
 - EPC : TECNICAS REUNIDAS

Cryogenic Valve



Cryogenic Valve - Reference

- PROJECT : PANAMA COLON GAS PROJECT
- MATERIAL : A351 CF3 STAINLESS STEEL
- DESIGN STANDARD : API 6D, API 609
- SIZE : DN500mm ~ DN900mm (20" ~ 36")
 - Q'TY : 11sets
- PRESSURE : 150LB
- OPERATOR : PNEUMATIC ACTUATOR
- EPC : POSCO E&C

Cryogenic Valve



Cryogenic Valve - Reference

- PROJECT : GUANGDONG ZUHAI LNG TERMINAL PROJECT
- MATERIAL : A351 CF3 STAINLESS STEEL
 - DESIGN STANDARD : API 609
- SIZE : DN200mm ~ DN600mm (8" ~ 24")
 - Q'TY : 39sets
 - PRESSURE : 150LB
- OPERATOR : MANUAL & ELECTRIC MOTOR ACTUATOR
 - EPC : TECNICAS REUNIDAS



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 **Network**

MIDDLE EAST

- KNPC
- KOC
- MEW

SAUDI ARABIA

- SAUDI ARAMCO
- SEC
- SWCC
- MARAFIQ
- ROYAL COMMISSION
- SABIC
- SAUDI CHEVRON
- PETRO RABIGH
- MA'ADEN
- SATORP
- SADARA
- YASREF
- SEPCO
- KAUST UNIVERSITY

UAE

- ADNOC
- ADGAS
- ADMA OPCO
- DEWA
- GASCO
- TAKREER
- TAPCO
- ZADCO

QATAR

- KAHRAMAA
- ASHGAL

EUROPE



BRITISH

- ITHACA ENERGY
- ROYAL BRITISH NAVY

DENMARK

- A.P.MOLLER / MAERSK

FRANCE

- TOTAL
- TECHNIP FRANCE
- FMC
TECHNOLOGIES

GERMANY

- SIMENSE

ITALY

- AB PROGETTI SRL
- ENEL
- SAIPEM
- TECHNIMONT

NETHERLANDS

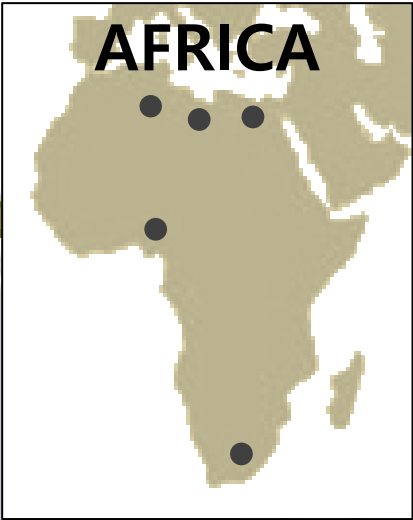
- SBM

ROMANIA

- SANTIERUL NAVAL
CONSTANTA

SPAIN

- TECNICAS REUNIDAS



ALGERIA

- SONATRACH,
SONELGAZ,
CAMEG-GRTG
- GROUPEMENT
BERKINE

NIGERIA

- TOTAL
- NIGERIAN
NATIONAL
PETROLEUM
CORPORATION

EGYPT

- ORASCOM
CONSTRUCTION

LIBYA

- GMRA
- GMRWUA
- ANC

CANADA

- TAIM
- TRANSCANADA
PIPELINES LIMITED
- TUNDRA PROCESS
SOLUTIONS LTD

U.S.A

- FLOUR
- BECTEL
- DOOSAN
HYDROTECHNOLOGY
- EXXONMOBIL
- FMC
TECHNOLOGIES
- KO-BI GROUP
- N.E.I
- TECHTRON
INTERNATIONAL

PERU

- BERMAD
- GRUPO ABSISA
- SAFI GLOBAL

BRAZIL

- PETROBRAS

AMERICA





CHINA

- SWS
- DALIAN SHIPYARD
- NTS SHIPBUILDING
- RONSHENG HEAVY INDUSTRIES

INDIA

- SCI
- EBRO
- HINDUSTAN SHIPYARD

JAPAN

- JGC CORPORATION
- JAPAN GAS CORP.
- MITSUBISHI
- MODEC
- SASAKURA ENGINEERING
- KAWASAKI HEAVY INDUSTRIES

SINGAPORE

- MODEC
- BW OFFSHORE
- SIMENSE

MALAYSIA

- PETRONAS
- TECHNIP
- DANCOMECH
- ALIOGAZ

VIETNAM

- PETROVIETNAM
- VSP (VIETSOVPETRO)
- M&E
- VINASHIN
- TECHMACH
- VIET DAN CO.,LTD

INDONESIA

- PT-TRACON
- MMHE



KOREA(EPC)

- DOOSAN
- DAELIM INDUSTRIES
- GS E&C
- HDEC
- HEC
- HHI
- HANWHA E&C
- KEPCO
- KOGAS
- POSCO E&C
- POSCO ENG
- SAMSUNG E&C
- SAMSUNG C&T
- SK E&C
- HANWHA

KOREA(SHIPYARD)

- SHI
- HHI
- HSHI
- HMD
- HANWHA OCEAN
- K Shipbuilding
- Daehan Shipbuilding
- DSEC
- HHIC

Network – World Wide Network

AV ACE VALVE CO.,LTD.

AGENT

GREECE INTRA MARE

ITALY BEAL S.A.S

SPAIN CUNADO

SINGAPORE LFA GLOBAL PTE LTD

MALAYSIA WTF

CANADA ALL MARINE SPARE

NIGERIA + AFRICA POTENT WORLD

UAE GERAB

KUWAIT ARABIAN DARB

QATAR OITC

OMAN PTECH (PTROLEUM & POWER
TECHNOLOGY COMPANY)

KSA GABAS



WELCOME TO ACE VALVE
THE BETTER FUNCTION, QUALITY, DELIVERY AND PRICE !!

Documents

CERTIFICATE

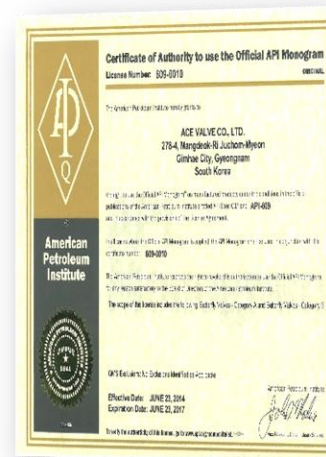
ISO 9001



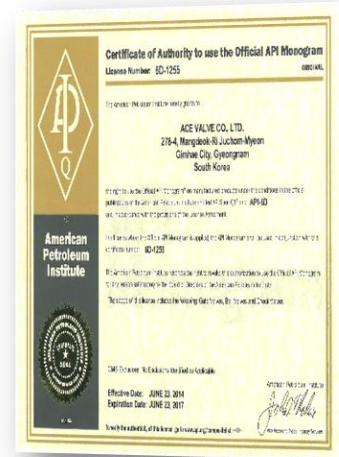
ISO 14001



API 609



API 6D



ASME N



CERTIFICATE

BV

Page 1/1

TYPE APPROVAL CERTIFICATE

ACE VALVE CO., LTD.
General (Company): ACE VALVE CO., LTD.
BUTTERFLY VALVES
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Requirements:
1. ACE VALVE CO., LTD. has been approved for the Certification of Type (COT) for the manufacture and supply of the following products:

Product: Butterfly Valves
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Approval: This certificate is valid until 12 Dec 2023

For Review/Verify/Revoke/Withdraw:
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Signature: [Signature]

Stamp: [Stamp]

DNV

DNV-GL

TYPE APPROVAL CERTIFICATE

ACE VALVE CO., LTD.
General (Company): ACE VALVE CO., LTD.
BUTTERFLY VALVES
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Requirements:
1. ACE VALVE CO., LTD. has been approved for the Certification of Type (COT) for the manufacture and supply of the following products:

Product: Butterfly Valves
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Approval: This certificate is valid until 12 Dec 2023

For Review/Verify/Revoke/Withdraw:
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Signature: [Signature]

Stamp: [Stamp]

KR

KR

TYPE APPROVAL CERTIFICATE

ACE VALVE CO., LTD.
General (Company): ACE VALVE CO., LTD.
BUTTERFLY VALVES
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Requirements:
1. ACE VALVE CO., LTD. has been approved for the Certification of Type (COT) for the manufacture and supply of the following products:

Product: Butterfly Valves
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Approval: This certificate is valid until 12 Dec 2023

For Review/Verify/Revoke/Withdraw:
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Signature: [Signature]

Stamp: [Stamp]

ABS

ABS

CERTIFICATE OF Product Design Assessment

ACE VALVE CO., LTD.
General (Company): ACE VALVE CO., LTD.
BUTTERFLY VALVES
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Requirements:
1. ACE VALVE CO., LTD. has been approved for the Certification of Type (COT) for the manufacture and supply of the following products:

Product: Butterfly Valves
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Approval: This certificate is valid until 12 Dec 2023

For Review/Verify/Revoke/Withdraw:
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Signature: [Signature]

Stamp: [Stamp]

LR

LR

Type Approval Certificate

ACE VALVE CO., LTD.
General (Company): ACE VALVE CO., LTD.
BUTTERFLY VALVES
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Requirements:
1. ACE VALVE CO., LTD. has been approved for the Certification of Type (COT) for the manufacture and supply of the following products:

Product: Butterfly Valves
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Approval: This certificate is valid until 12 Dec 2023

For Review/Verify/Revoke/Withdraw:
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Signature: [Signature]

Stamp: [Stamp]

RMRS

RMRS

RUSSIAN MARITIME REGISTER OF SHIPPING

CHULUUTCTBO O TИПОВОМ ОБОЗНАЧЕНИИ
TYPE APPROVAL CERTIFICATE

ACE VALVE CO., LTD.
General (Company): ACE VALVE CO., LTD.
BUTTERFLY VALVES
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Requirements:
1. ACE VALVE CO., LTD. has been approved for the Certification of Type (COT) for the manufacture and supply of the following products:

Product: Butterfly Valves
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Approval: This certificate is valid until 12 Dec 2023

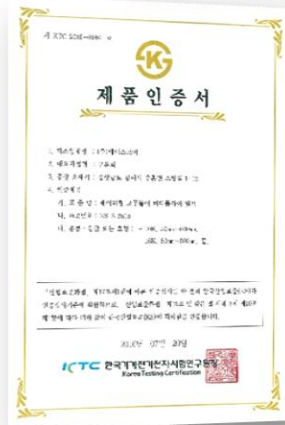
For Review/Verify/Revoke/Withdraw:
ACE VALVE CO., LTD. 1-12, SOMANG-GIL, JACHON-MYUN, GIMHAE, KOREA

Signature: [Signature]

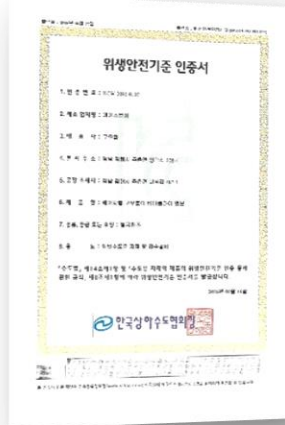
Stamp: [Stamp]

CERTIFICATE

KS B2813



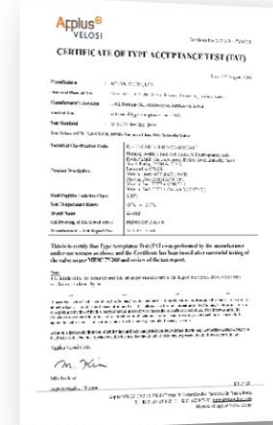
KC



SIL



TAT



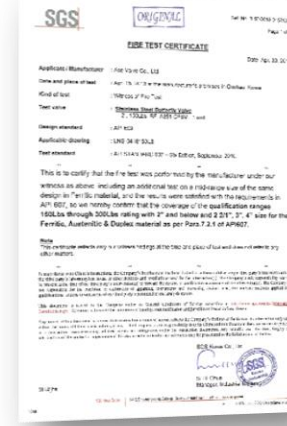
FIRE SAFE - ABS



FIRE SAFE - DNV



FIRE SAFE - B'fly



APPROVAL LETTER

SAUDI ARAMCO

Approval Letter for the supply of valves to Saudi Aramco

Reference: 15000000000000000000

Subject: Valves for the supply of valves to Saudi Aramco

Dear Sirs,

We are pleased to inform you that your application for the supply of valves to Saudi Aramco has been approved.

The following information is for your reference:

- Valve Type: Ball Valve
- Valve Size: 1/2" to 24"
- Valve Material: Stainless Steel
- Valve End Connections: Flange
- Valve Operating Temperature: -20°C to 350°C
- Valve Operating Pressure: 1500 psi

This approval letter is valid for a period of 12 months from the date of issue.

Yours faithfully,

Signature: [Signature]

Name: [Name]

Position: [Position]

Company: [Company]

EXXON MOBIL

Approval Letter for the supply of valves to Exxon Mobil

Reference: 15000000000000000000

Subject: Valves for the supply of valves to Exxon Mobil

Dear Sirs,

We are pleased to inform you that your application for the supply of valves to Exxon Mobil has been approved.

The following information is for your reference:

- Valve Type: Ball Valve
- Valve Size: 1/2" to 24"
- Valve Material: Stainless Steel
- Valve End Connections: Flange
- Valve Operating Temperature: -20°C to 350°C
- Valve Operating Pressure: 1500 psi

This approval letter is valid for a period of 12 months from the date of issue.

Yours faithfully,

Signature: [Signature]

Name: [Name]

Position: [Position]

Company: [Company]

KNPC

Approval Letter for the supply of valves to KNPC

Reference: 15000000000000000000

Subject: Valves for the supply of valves to KNPC

Dear Sirs,

We are pleased to inform you that your application for the supply of valves to KNPC has been approved.

The following information is for your reference:

- Valve Type: Ball Valve
- Valve Size: 1/2" to 24"
- Valve Material: Stainless Steel
- Valve End Connections: Flange
- Valve Operating Temperature: -20°C to 350°C
- Valve Operating Pressure: 1500 psi

This approval letter is valid for a period of 12 months from the date of issue.

Yours faithfully,

Signature: [Signature]

Name: [Name]

Position: [Position]

Company: [Company]

PDO

Approval Letter for the supply of valves to PDO

Reference: 15000000000000000000

Subject: Valves for the supply of valves to PDO

Dear Sirs,

We are pleased to inform you that your application for the supply of valves to PDO has been approved.

The following information is for your reference:

- Valve Type: Ball Valve
- Valve Size: 1/2" to 24"
- Valve Material: Stainless Steel
- Valve End Connections: Flange
- Valve Operating Temperature: -20°C to 350°C
- Valve Operating Pressure: 1500 psi

This approval letter is valid for a period of 12 months from the date of issue.

Yours faithfully,

Signature: [Signature]

Name: [Name]

Position: [Position]

Company: [Company]

KOC

Approval Letter for the supply of valves to KOC

Reference: 15000000000000000000

Subject: Valves for the supply of valves to KOC

Dear Sirs,

We are pleased to inform you that your application for the supply of valves to KOC has been approved.

The following information is for your reference:

- Valve Type: Ball Valve
- Valve Size: 1/2" to 24"
- Valve Material: Stainless Steel
- Valve End Connections: Flange
- Valve Operating Temperature: -20°C to 350°C
- Valve Operating Pressure: 1500 psi

This approval letter is valid for a period of 12 months from the date of issue.

Yours faithfully,

Signature: [Signature]

Name: [Name]

Position: [Position]

Company: [Company]

APPROVAL LETTER

KOREA HYDRO & NUCLEAR POWER

KHNP
Korea Hydro & Nuclear Power Co., Ltd.

유자격공급자 등록증
Certificate of Registration

등록번호 (Certification No.) : 201500634
상호 (Company Name) : ACE VALVE COMPANY LIMITED
공장주소 (Factory Location) : 682-1, Naesam ri, Jichon-myeon, Gimhae-si, Gyeongsangnam-do, Korea
대표자 (Chief Executive officer) : Y. H. KOO

02가 일체는 우리 회사의 공급자관리지침에 따라 심사한 결과 보고하기 위하여 공급업체로 등록되었습니다.
This is to certify that according to KHNP's qualification procedures, this company has been registered as KHNP's Approved BOP Vendor List for the below items.

NO	품목 Item Code	품명 Item Description	품질 등급 Quality Class	등록 분야 Field	등록기간 Authorized Period
1	P7009	ASME B31.1 Manual Steel Gate Globe & Check V/V (Small to Large)	A	원자력	2015.12.10~2018.12.09
2	P2008	ASME B31.1 Steel Gate & Globe V/V With Isolation	A	원자력	2015.12.10~2018.12.09
3	J2034	Butterfly Valve	A	원자력	2015.12.10~2018.12.09
4	J2035	Butterfly Valve for General Service	A	원자력	2015.12.10~2018.12.09

2015.12.10

한국수력원자력(주)
Korea Hydro & Nuclear Power Co., Ltd.

본 등록서는 한국수력원자력(주)의 등록자관리지침 (Registration Management Policy)에 따라 심사한 결과 보고하기 위하여 공급업체로 등록되었습니다. 이 등록서는 한국수력원자력(주)의 등록자관리지침 (Registration Management Policy)에 따라 심사한 결과 보고하기 위하여 공급업체로 등록되었습니다.

1/1

KOREA HYDRO & NUCLEAR POWER

KHNP
Korea Hydro & Nuclear Power Co., Ltd.

유자격공급자 등록증
Certificate of Registration

등록번호 (Certification No.) : 201500634
상호 (Company Name) : (주)에이스비이
공장주소 (Factory Location) : 경상남도 김해시 주촌면 서부로 1548-44 (주촌면 내 상리 682-1번지)
대표자 (Chief Executive officer) : 장우현

02가 일체는 우리 회사의 공급자관리지침에 따라 심사한 결과 보고하기 위하여 공급업체로 등록되었습니다.
This is to certify that according to KHNP's qualification procedures, this company has been registered as KHNP's Approved BOP Vendor List for the below items.

NO	품목 Item Code	품명 Item Description	품질 등급 Quality Class	등록 분야 Field	등록기간 Authorized Period
1	P7009	ASME B31.1 Manual Steel Gate Globe & Check V/V (Small to Large)	A	원자력	2015.12.10~2018.12.09
2	P1048	ASME B31.1 Steel Gate & Globe V/V With Isolation	A	원자력	2015.12.10~2018.12.09
3	J2034	Butterfly Valve	A	원자력	2015.12.10~2018.12.09
4	J2035	Butterfly Valve for General Service	A	원자력	2015.12.10~2018.12.09

2015.12.10

한국수력원자력(주)
Korea Hydro & Nuclear Power Co., Ltd.

본 등록서는 한국수력원자력(주)의 등록자관리지침 (Registration Management Policy)에 따라 심사한 결과 보고하기 위하여 공급업체로 등록되었습니다. 이 등록서는 한국수력원자력(주)의 등록자관리지침 (Registration Management Policy)에 따라 심사한 결과 보고하기 위하여 공급업체로 등록되었습니다.

1/1

등록번호 : 1538-A33C-KAC-ASAB-0309

기자재 공급 유자격 등록증

등록번호 : EASYU2016-02291
업종 : (주)에이스비이
관할 주소 : 김해시 주촌면 서부로 1548-44
담당 : 김형철
유형 : 건설(기타)
유효기간 : 2016-02-03 ~ 2019-02-02

비고 :

2016. 02. 03

한국남부발전(주)
한국중부발전(주)
한국동부발전(주)
KEPCO 한국남부발전

본 등록서는 한국남부발전(주)의 등록자관리지침 (Registration Management Policy)에 따라 심사한 결과 보고하기 위하여 공급업체로 등록되었습니다. 이 등록서는 한국남부발전(주)의 등록자관리지침 (Registration Management Policy)에 따라 심사한 결과 보고하기 위하여 공급업체로 등록되었습니다.

1/1

GMRA

ENEL

mitsubishi

GMRA



CLIENT'S LETTER

HYUNDAI HEAVY INDUSTRIES CO., LTD.,

 현대중공업株式会社

Hyundai Heavy Industry Co., Ltd.
 30, Seodang-ro, Ssangnam-gu, Seoul 055, Korea
 TEL: +82-2-262-6115
 FAX: +82-2-262-6116
 100, BANGRO 3TH Suburban city, Daejeon, 305-380, Korea

TO WHOM IT MAY CONCERN,

Dear Sir,

We would like to certify that ACE Valve Co., Ltd. (Korea) is an approved vendor of the Daewoo Shipbuilding & Marine Engineering Co., Ltd. and has supplied the following materials for Project P123.

Single Eccentric Metal Seated Butterfly Valves
 -----Purchase Order No. P123456789, PL 123456789

The above mentioned materials were supplied by ACE Valve Co., Ltd. And have satisfied all Project P123 requirements - throughout technical verification / approval and were delivered on time, installed "on-site" and have functioned successfully without problems.


 Jung-Hok Kim
 General Manager
 Materials Purchasing Dept's / Special & Naval Shipbuilding Division

SAMSUNG HEAVY INDUSTRIES CO., LTD.,



TO WHOM IT MAY CONCERN

Dear Sir,

We would like to certify that ACE Valve Co., Ltd. (Korea) is an approved vendor of the SAMSUNG HEAVY INDUSTRIES and has supplied the following materials for Project 7074 PDC02 & 7077 PDC01.

Concentric type Butterfly Valves & Double Eccentric High-performance Butterfly Valves
 -----Purchase Order No. A88A00788
 -----Purchase Order No. A88A00886

The above mentioned materials were supplied by ACE Valve Co., Ltd. And have satisfied all Project 7074 & 7077 requirements - throughout technical verification / approval and were delivered on time, installed "on-site" and have functioned successfully without problems.


 Samsung Heavy Industries Co., Ltd.
 Purchasing Section 2

SAMSUNG ENGINEERING CO., LTD.

 SAMSUNG ENGINEERING

< PERFORMANCE CERTIFICATE >

TO WHOM IT MAY CONCERN

Dear Sir,

We would like to certify that ACE VALVE Company Limited having its business address at 278-4 Mangjeok-Ri, Juchon-Myun, Gim-Hae City, Gyeong-nam, Korea, is an approved vendor of the Samsung Engineering Co., Ltd. having its business address at 300 Samsung SEC, Sangil-dong, Gangneung-gu, Seoul, Korea, and has supplied the various valves for particular project as below.

1. Sea Service Recovery DWT Project, Saudi Arabia (Purchase Order No. 450004807-2)
2. Aramco CO2 Capture & Injection Project (Purchase Order No. 450004809-00450)
3. Shipoh NGL Recovery & Utilites (Purchase Order No. 450009809-3)
4. Shipoh NGL Package #2 Inlet & Gas Treatment Project (Purchase Order No. 450005005)

The above mentioned project valves were supplied by ACE VALVE Company Limited, and have satisfied all above project requirement - throughout technical verification / approval and were delivered on time, installed "on-site" and have functioned successfully without any problems.

Your faithfully

 Joon Kook / Manager
 Samsung Engineering

PATENT REGISTRATION CERTIFICATE


특 허 증

특 허 제 0312288 호

출원 번호 제 109-046292 호
출원 일자 1999년 11월 09일
등록 일자 2001년 10월 08일

발명의명칭 2중관을 이용한 도전발열기

특허권자 구윤희(480119-1862511)
울산 남구 삼산동 현대아파트 108-1001

발명자 구윤희(480119-1862511)
울산 남구 삼산동 현대아파트 108-1001

위의 발명은 특허법에 의하여 특허등록원부에 등록되었음을 증명합니다.

2001년 10월 08일

특 허 증 


특 허 증

특 허 제 0421714 호

출원 번호 제 2000-009608 호
출원 일자 2000년 02월 25일
등록 일자 2004년 02월 25일

발명의명칭 압력변형수단을 갖는 심폐기동발열용 기어장치

특허권자 주식회사 에이스브이(184611-0036508)

발명자 장남 김해시 주촌면 당덕리 278-4
구윤희(480119-1862511)
울산 남구 삼산동 현대아파트 108-1001

위의 발명은 특허법에 의하여 특허등록원부에 등록되었음을 증명합니다.

2004년 02월 25일

특 허 증 


특 허 증

특 허 제 0478294 호

출원 번호 제 2000-007911 호
출원 일자 2000년 11월 16일
등록 일자 2005년 03월 14일

발명의명칭 탄력부재가 내입된 장방향 커패시터가 헬프의 서브구조

특허권자 주식회사 에이스브이(184611-0*****)
경남 김해시 주촌면 당덕리 278-4

발명자 구윤희(480119-1*****)
울산 남구 삼산동 현대아파트 108-1001

위의 발명은 특허법에 의하여 특허등록원부에 등록되었음을 증명합니다.

2005년 03월 14일

특 허 증 


특 허 증
CERTIFICATE OF PATENT

특 허 제 10-0592827 호 출원번호 제 2004-000009 호
특허번호 제 10-0592827 호 출원일자 2004년 04월 19일
등록일자 2009년 05월 18일

발명의명칭 TITLE OF THE INVENTION
직선 및 곡선운동에 의한 수밀구조를 갖는 비터올라이 밸브

특허권자 (PATENTEE)
주식회사 에이스브이(184611-0*****)
경남 김해시 주촌면 당덕리 278-4

발명자 (INVENTOR)
구윤희(480119-1*****)
울산 남구 삼산동 현대아파트 108-1001

위의 발명은 「특허법」에 의하여 특허등록원부에 등록되었음을 증명합니다.
(THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN INTELLECTUAL PROPERTY OFFICE.)

2009년 05월 18일

 **특 허 증** 


실용신안등록증

등록 제 0202917 호

출원 번호 제 2000-001749 호
출원 일자 2000년 09월 18일
등록 일자 2000년 09월 18일

고안의명칭 커패시터가 헬프의 고무시트 고정구조

실용신안권자 주식회사 에이스브이(184611-0036508)
장남 김해시 주촌면 당덕리 278-4

고안자 구윤희(480119-1862511)
경상남도 울산시 남구 삼산동 현대아파트 108-1001

위의 고안은 실용신안법에 의하여 실용신안등록원부에 등록되었음을 증명합니다.

2000년 09월 18일

특 허 증 


특 허 증
CERTIFICATE OF PATENT

특 허 제 10-0757489 호 출원번호 제 2004-000009 호
특허번호 제 10-0757489 호 출원일자 2004년 04월 19일
등록일자 2009년 05월 18일

발명의명칭 TITLE OF THE INVENTION
접지선으로부터의 외측 편입된 사르트를 갖는 비터올라이 밸브

특허권자 (PATENTEE)
주식회사 에이스브이(184611-0*****)
경남 김해시 주촌면 당덕리 278-4

발명자 (INVENTOR)
구윤희(480119-1*****)
울산 남구 삼산동 현대아파트 108-1001

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(THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN INTELLECTUAL PROPERTY OFFICE.)

2007년 09월 04일

 **특 허 증** 

PATENT REGISTRATION CERTIFICATE


실용신안등록증

등 록 제 0202918 호 출원 번호 제 2000-007119 호
출원 일자 2000년 09월 20일 등록 일자 2002년 09월 20일

고안의 명칭 베타플라이 밸브의 고무시트 측방 보강구조

실용신안권자 주식회사 에이스코이(194611-003608)
 경남 김해시 주촌면 당리리 279-4

고 안 자 구윤희(400119-1802511)
 경상남도통산시남구삼산동원테아파트 108-1001

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원부에 등록되었음을 증명합니다.

2002년 09월 20일

특 허 장 


실용신안등록증

등 록 제 0256365 호 출원 번호 제 2001-003877 호
출원 일자 2001년 09월 17일 등록 일자 2003년 11월 22일

고안의 명칭 베타플라이 밸브

실용신안권자 주식회사 에이스코이(194611-003608)
 경남 김해시 주촌면 당리리 279-4

고 안 자 구윤희(400119-1802511)
 울산 남구 삼산동 원테아파트 108-1001

위의 고안은 실용신안법에 의하여 실용신안등록
원부에 등록되었음을 증명합니다.

2003년 11월 22일

특 허 장 

이 실용신안권은 실용신안법 제46조에 따라 실용신안법 제42조제4항에 의한 등록유지기간을
만족하지 않은 경우에는 이 실용신안권의 실체와 관계없이 그 권리를 행사할 수 없습니다.


실용신안등록증

등 록 제 0258365 호 출원 번호 제 2001-003998 호
출원 일자 2001년 09월 20일 등록 일자 2003년 12월 10일

고안의 명칭 압력평형수단을 갖는 심폐구동밸브용 기어장치

실용신안권자 주식회사 에이스코이(194611-003608)
 경남 김해시 주촌면 당리리 279-4

고 안 자 구윤희(400119-1802511)
 울산 남구 삼산동 원테아파트 108-1001

위의 고안은 실용신안법에 의하여 실용신안등록
원부에 등록되었음을 증명합니다.

2003년 12월 10일

특 허 장 

이 실용신안권은 실용신안법 제46조에 따라 실용신안법 제42조제4항에 의한 등록유지기간을
만족하지 않은 경우에는 이 실용신안권의 실체와 관계없이 그 권리를 행사할 수 없습니다.


실용신안등록증

등 록 제 0310695 호 출원 번호 제 2000-003809 호
출원 일자 2000년 11월 20일 등록 일자 2002년 04월 03일

고안의 명칭 탄력부재가 내입된 평평한 베타플라이 밸브의 시트구조

실용신안권자 주식회사 에이스코이(194611-003608)
 경남 김해시 주촌면 당리리 279-4

고 안 자 구윤희(400119-1802511)
 울산 남구 삼산동 원테아파트 108-1001

위의 고안은 실용신안법에 의하여 실용신안등록
원부에 등록되었음을 증명합니다.

2002년 04월 03일

특 허 장 

이 실용신안권은 실용신안법 제46조에 따라 실용신안법 제42조제4항에 의한 등록유지기간을
만족하지 않은 경우에는 이 실용신안권의 실체와 관계없이 그 권리를 행사할 수 없습니다.


실용신안등록증
CERTIFICATE OF UTILITY MODEL REGISTRATION

등 록 제 20-0416480 호 출원번호 제 2000-000073 호
REGISTRATION NUMBER 출원 일자 2000년 01월 30일
출원 일자 2000년 01월 30일 등록 일자 2000년 04월 30일

고안의 명칭 (TITLE OF THE DEVICE)
 접지선으로부터 회선 회상된 시트부를 갖는 베타플라이밸브

실용신안권자 (OWNER OF THE UTILITY MODEL RIGHT)
 주식회사 에이스코이(194611-0*****)
 경남 김해시 주촌면 당리리 279-4

고안자 (INVENTOR)
 구윤희(400119-1*****)
 울산 남구 삼산동 원테아파트 108-1001

위의 고안은 「실용신안법」에 의하여 실용신안등록원부에
등록되었음을 증명합니다.
(THIS IS TO CERTIFY THAT THE DEVICE IS REGISTERED ON THE REGISTER OF THE KOREAN
INTELLECTUAL PROPERTY OFFICE.)

2000년 04월 03일

특 허 장 

이 실용신안권은 「실용신안법」 제46조에 따라 「실용신안법」 제42조제4항에 의한 등록유지기간을
만족하지 않은 경우에는 이 실용신안권의 실체와 관계없이 그 권리를 행사할 수 없습니다.


실용신안등록증
CERTIFICATE OF UTILITY MODEL REGISTRATION

등 록 제 0388306 호 출원번호 제 2000-000051 호
REGISTRATION NUMBER 출원 일자 2000년 04월 30일
출원 일자 2000년 04월 30일 등록 일자 2000년 06월 30일

고안의 명칭 (TITLE OF THE DEVICE)
 직선 및 곡면운동에 의한 수밀구조를 갖는 베타플라이 밸브

실용신안권자 (OWNER OF THE UTILITY MODEL RIGHT)
 주식회사 에이스코이(194611-0*****)
 경남 김해시 주촌면 당리리 279-4

고안자 (INVENTOR)
 구윤희(400119-1*****)
 울산 남구 삼산동 원테아파트 108-1001

위의 고안은 「실용신안법」에 의하여 실용신안등록원부에
등록되었음을 증명합니다.
(THIS IS TO CERTIFY THAT THE DEVICE IS REGISTERED ON THE REGISTER OF THE KOREAN
INTELLECTUAL PROPERTY OFFICE.)

2000년 06월 30일

특 허 장 

이 실용신안권은 「실용신안법」 제46조에 따라 「실용신안법」 제42조제4항에 의한 등록유지기간을
만족하지 않은 경우에는 이 실용신안권의 실체와 관계없이 그 권리를 행사할 수 없습니다.

Reference List

S/NO	COUNTRY	BUSINESS FIELD	END-USER	CONTRACTOR	HULL NO./PJT	DESCRIPTION/SPECIFICATION						DELIVERY	
						DISCRPTION	FLANGE RATING	SIZE	QTY	MATERIAL	CLASS	YY	MM
1	AUSTRALIA	OFFSHORE	BW OFFSHORE	APOLLO CO., LTD.	Barossa FPSO	HI-PERFORMANCE BUTTERFLY VALVE	150LB	50A ~ 650A	516EA	A216 WCB/ B148 C95800/ A995 4A		2022	4
2	MYANMAR	OFFSHORE	POSCO INTERNATIONAL	HYUNDAI HEAVY IND. CO., LTD.	SHWE Phase3 Development	CONCENTRIC TYPE BUTTERFLY VALVE TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	150LB	50A ~ 300A	46EA	A216 WCB/ B148 C95800		2022	4
3	MYANMAR	OFFSHORE	POSCO INTERNATIONAL	PNEUMOTION	SHWE Phase3 Development	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	150LB	80A	26EA	B148 C95800		2022	4
4	MYANMAR	OFFSHORE	POSCO INTERNATIONAL	WASCON	SHWE Phase3 Development	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	150LB	50A ~ 250A	15EA	B148 C95800		2022	5
5	MALAYSIA	OFFSHORE	MISC	MMHE	Benchamas 2 FSO	BALL VALVE (AV-B)OSX 2 LEASING B.	150LB	400A	1EA	A216 WCB		2017	6
6	MAURITANIA	OFFSHORE	MISC	MMHE	Benchamas 2 FSO	HI-PERFORMANCE BUTTERFLY VALVE	JIS 16K ~ JIS 5K	100A ~ 550A	8EA	FCD450		2017	6
7	MALAYSIA	OFFSHORE	Vahana	Haeram	Eversendai offshore jackup (JM1401)	HI-PERFORMANCE BUTTERFLY VALVE	150LB	65A ~ 200A	37EA	A395 GR.60-40-18		2017	5
8	MALAYSIA	OFFSHORE	Vahana	Haeram	Eversendai offshore jackup (JM1402)	HI-PERFORMANCE BUTTERFLY VALVE	150LB	65A ~ 200A	37EA	A395 GR.60-40-18		2017	5
9	CHINA	OFFSHORE	ULTRA DEEP SOUTION	YIYO TRADING	MT 6023 AH0004AM	CONCENTRIC TYPE BUTTERFLY VALVE	5K ~16K	40A~350A	448EA	FC / FCD	DNV	2017	5
10	CHINA	OFFSHORE	ULTRA DEEP SOUTION	YIYO TRADING	MT 6023 AH0004AM	DUAL PLATE CHECK VALVE	5K ~16K	50A~250A	125EA	FC / SC/ FCD	DNV	2017	5
11	CHINA	OFFSHORE	ULTRA DEEP SOUTION	YIYO TRADING	MT 6023 AH0004AM	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	16K~20K	50A~200A	30EA	SC / FCD	DNV	2017	5
12	CHINA	OFFSHORE	ULTRA DEEP SOUTION	YIYO TRADING	CMHI-168-1 MANUAL	CONCENTRIC TYPE BUTTERFLY VALVE	5K ~10K	40A~450A	492	FCD	DNV	2017	4
13	CHINA	OFFSHORE	ULTRA DEEP SOUTION	YIYO TRADING	CMHI-168-1 MANUAL	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	10K~16K	50A~200A	39	SC	DNV	2017	4
14	MALAYSIA	OFFSHORE	PETRONAS	TECHNIP MALAYSIA	PETRONAS FLNG	GATE VALVE	150LB	100A	2EA	B148 C95400		2016	10
15	SINGAPORE	OFFSHORE	-	SEMCO MARITIME	PO160617-369-	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	80A~200A	126EA	A995 5A		2016	9
16	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	SELF-PROPELLED JACK UP CMHI-159	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A~300A	109EA	A395 GR.60-40-18		2016	9
17	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	SELF-PROPELLED JACK UP CMHI-159	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	150A	1EA	A395 GR.60-40-18		2016	9
18	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	SELF-PROPELLED JACK UP CMHI-159	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	50A~300A	44EA	A216 WCB / A395 GR.60-40-18	ABS	2016	9
19	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-161	CONCENTRIC TYPE BUTTERFLY VALVE	5K ~16K	40A~400A	607EA	FC / SC / FCD		2016	6
20	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-161	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	16K	50A~150A	23EA	SCS16		2016	6
21	SINGAPORE	OFFSHORE	BW OFFSHORE	BW OFFSHORE	E4307 CATCHER DEVELOPMENT	BALL VALVE	150LB	25A~80A	8EA	B148 C95800		2016	6

Reference List

S/NO	COUNTRY	BUSINESS FIELD	END-USER	CONTRACTOR	HULL NO./PJT	DESCRIPTION/SPECIFICATION						DELIVERY	
						DISCRPTION	FLANGE RATING	SIZE	QTY	MATERIAL	CLASS	YY	MM
22	SINGAPORE	OFFSHORE	BW OFFSHORE	BW OFFSHORE	E4307 CATCHER DEVELOPMENT	GLOBE VALVE	150LB	80A	1EA	B148 C95800		2016	6
23	NETHERLANDS	OFFSHORE	-	GLOBAL VALVE CENTER	RUBIS	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	150A~300A	18EA	A351 CF8M		2016	6
24	SINGAPORE	OFFSHORE	BUMI ARMADA_ENI ANGOLA	TYCO	BUMI ARMADA_ENI ANGOLA	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	50A~300A	101EA	B148 C95800		2016	1
25	CANADA	OFFSHORE	-	ASHCON	-	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	150LB	80A~250A	2EA	A216 WCB		2015	12
26	SINGAPORE	OFFSHORE	BW OFFSHORE	BW OFFSHORE	72448-1	BALL VALVE	150LB	80A	1EA	B148 C95800		2015	12
27	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-158-1/2	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A~200A	12EA	A395 GR.60-40-18		2015	12
28	AUSTRALIA	OFFSHORE	-	AHF	-	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	100A~300A	20EA	A395 GR.60-40-18		2015	11
29	MALAYSIA	OFFSHORE	PETRONAS	VALSER	-	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	900LB	200A	1EA	A351 CF8M		2015	11
30	UK	OFFSHORE	PREMIER OIL UK LIMITED	IHI CORPORATION	BW CATCHER FPSO	CONCENTRIC TYPE BUTTERFLY VALVE	5K~16K	80A~500A	229EA	FCD		2015	11
31	UK	OFFSHORE	PREMIER OIL UK LIMITED	IHI CORPORATION	BW CATCHER FPSO	DUAL PLATE CHECK VALVE	10K~20K	250A~500A	14EA	ALBC2 / SCS10		2015	11
32	UK	OFFSHORE	PREMIER OIL UK LIMITED	IHI CORPORATION	BW CATCHER FPSO	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	5K~20K	80A~500A	290EA	FCD / ALBC3	DNV	2015	11
33	UK	OFFSHORE	PREMIER OIL UK LIMITED	IHI CORPORATION	BW CATCHER FPSO	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	20K	150A~250A	4EA	SCS10	DNV	2015	11
34	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-160-1	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A~450A	164EA	A395 GR.60-40-18		2015	11
35	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-160-1	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	50A~450A	43EA	A216 WCB	ABS	2015	11
36	BRAZIL	OFFSHORE	PETROBRAS	MODEC	MV23	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	10K	850A	4EA	ALBC3	ABS	2015	10
37	NETHERLANDS	OFFSHORE	-	GLOBAL VALVE CENTER	PO150715-472-	CONCENTRIC TYPE BUTTERFLY VALVE	PN10~16	50A~600A	87EA	A395 GR.60-40-18		2015	10
38	NETHERLANDS	OFFSHORE	-	GLOBAL VALVE CENTER	PO150715-472-	CONCENTRIC TYPE BUTTERFLY VALVE	PN10	80A~450A	3EA	A395 GR.60-40-18		2015	10
39	NETHERLANDS	OFFSHORE	-	GLOBAL VALVE CENTER	PO150715-473-	CONCENTRIC TYPE BUTTERFLY VALVE	PN10~16	50A~600A	88EA	A395 GR.60-40-18		2015	10
40	NETHERLANDS	OFFSHORE	-	GLOBAL VALVE CENTER	PO150715-473-	CONCENTRIC TYPE BUTTERFLY VALVE	PN10	80A	2EA	A395 GR.60-40-18		2015	10
41	NETHERLANDS	OFFSHORE	-	GLOBAL VALVE CENTER	RUBIS	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	100A~300A	138EA	A351 CF8M		2015	10
42	UK	OFFSHORE	BRITISH PETROLEUM	HSP	ANGOLA BLOCK	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	100A~700A	7EA	B148 C95800		2015	9

Reference List

S/NO	COUNTRY	BUSINESS FIELD	END-USER	CONTRACTOR	HULL NO./PJT	DESCRIPTION/SPECIFICATION						DELIVERY	
						DISCRPTION	FLANGE RATING	SIZE	QTY	MATERIAL	CLASS	YY	MM
43	ITALY	OFFSHORE	ENI	TYCO MARINE SERVICE	HHI JANGKRIK FPU	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	80A	48EA	B148 C95500		2015	9
44	SINGAPORE	OFFSHORE	BW OFFSHORE	BW OFFSHORE	72448	BALL VALVE	150LB	25A-80A	24EA	B148 C95800		2015	7
45	SINGAPORE	OFFSHORE	BW OFFSHORE	BW OFFSHORE	72448	GLOBE VALVE	150LB	300A	1EA	B148 C95800		2015	7
46	SINGAPORE	OFFSHORE	BW OFFSHORE	BW OFFSHORE	72448	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	200A-300A	8EA	B148 C95800		2015	7
47	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-158-1	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-150A	13EA	A395 GR.60-40-18		2015	7
48	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-158-1	DUAL PLATE CHECK VALVE	150LB	150A-300A	27EA	A395 GR.60-40-18		2015	7
49	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-158-1	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	100A	1EA	B148 C95800		2015	7
50	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-158-2	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-350A	422EA	A216 WCB/ A395 GR.60-40-18	ABS	2015	7
51	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-158-2	DUAL PLATE CHECK VALVE	150LB	150A-300A	27EA	A395 GR.60-40-18		2015	7
52	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-158-2	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	65A-200A	21EA	B148 C95800		2015	7
53	SINGAPORE	OFFSHORE	BW OFFSHORE	BW OFFSHORE	72443	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	80A-300A	86EA	A216 WCB		2015	6
54	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-151-1	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	150LB	65A-200A	26EA	A216 WCB		2015	5
55	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-151-2	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	150LB	65A-200A	26EA	A216 WCB		2015	5
56	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-158-1	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-350A	410EA	A395 GR.60-40-18	ABS	2015	5
57	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-158-1	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	65A-200A	20EA	B148 C95800		2015	5
58	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-128-1	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-350A	84EA	A395 GR.60-40-18		2015	4
59	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-128-2	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-200A	63EA	A395 GR.60-40-18		2015	4
60	NETHERLANDS	OFFSHORE	-	GLOBAL VALVE CENTER	SBM	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	900LB	400A	4EA	A352 LCC		2015	4
61	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-128-1	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	100A-300A	196EA	A395 GR.60-40-18	ABS	2015	3
62	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-128-1	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	100A-300A	219EA	A395 GR.60-40-18	ABS	2015	3
63	BRAZIL	OFFSHORE	SBM OFFSHORE	GLOBAL VALVE CENTER	SERVICE TERMINAL	CARGO TYPE BUTTERFLY VALVE	150LB	200A-400A	5EA	A216 WCB		2015	1

Reference List

S/NO	COUNTRY	BUSINESS FIELD	END-USER	CONTRACTOR	HULL NO./PJT	DESCRIPTION/SPECIFICATION						DELIVERY	
						DISCRPTION	FLANGE RATING	SIZE	Q'TY	MATERIAL	CLASS	YY	MM
64	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-156	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-300A	134EA	A395 GR.60-40-18	ABS	2014	12
65	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-156	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	150LB	80A-150A	7EA	A216 WCB		2014	12
66	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-136-2	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-350A	361EA	A395 GR.65-45-15		2014	10
67	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-136-2	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	65A-200A	26EA	A216 WCB/ A395 GR.65-45-15		2014	10
68	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI 146	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-350A	452EA	A395 GR.65-45-15		2014	9
69	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI 146	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	50A-200A	46EA	A216 WCB		2014	9
70	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-136-1	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-300A	28EA	A395		2014	7
71	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-136-1	HIGH PERFORMANCE BUTTERFLY VALVE	150LB	65A-150A	7EA	A395		2014	7
72	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI131-1/2	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-250A	36EA	A395		2014	6
73	BRAZIL	OFFSHORE	SBM OFFSHORE	GLOBAL VALVE CENTER	CIDADE DE SAQUAREMA /CIDADE DE MARICA	CONCENTRIC TYPE BUTTERFLY VALVE	5K	350A	8EA	A395 GR.60 -40-18		2014	5
74	BRAZIL	OFFSHORE	SBM OFFSHORE	GLOBAL VALVE CENTER	CIDADE DE SAQUAREMA /CIDADE DE MARICA	HIGH-PERFORMANCE TYPE FIRE SAFE SEAT BUTTERFLY VALVE	150LB	100A-400A	112EA	B145 C95800 A216 WCB		2014	5
75	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-131-1	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-350A	130EA	A395 GR.60- 40-18	ABS	2014	4
76	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-131-1	HIGH PERFORMANCE TYPE FIRE SAFE SEAT BUTTERFLY VALVE	150LB	50A-200A	44EA	A216WCB	ABS	2014	4
77	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-131-2	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-350A	130EA	A395 GR.60- 40-18	ABS	2014	4
78	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-131-2	HIGH PERFORMANCE TYPE FIRE SAFE SEAT BUTTERFLY VALVE	150LB	50A-200A	44EA	A216WCB	ABS	2014	4
79	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	FPSO CIDADE DE SAQUAREMA	CARGO TYPE BUTTERFLY VALVE	16K/ 150LB	200A-550A	16EA	A395/ A216WCB		2014	4
80	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	FPSO CIDADE DE SAQUAREMA	HIGH PERFORMANCE TYPE FIRE SAFE SEAT BUTTERFLY VALVE	150LB	50A-750A	87EA	A216WCB		2014	4
81	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	FPSO CIDADE DE MARICA	CONCENTRIC TYPE BUTTERFLY VALVE	16K/ 150LB	125A-550A	20EA	A395, A216WCB		2014	3
82	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	FPSO CIDADE DE MARICA	HIGH PERFORMANCE TYPE FIRE SAFE SEAT BUTTERFLY VALVE	150LB	50A-750A	92EA	A216WCB		2014	3
83	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-131-1	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-350A	331EA	A395 GR.60- 40-18	ABS	2014	2
84	CHINA	OFFSHORE	CHINA MERCHANT HEAVY INDUSTRY	YIYO TRADING	CMHI-131-2	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A-350A	331EA	A395 GR.60- 40-18	ABS	2014	2

Reference List

S/NO	COUNTRY	BUSINESS FIELD	END-USER	CONTRACTOR	HULL NO./PJT	DESCRIPTION/SPECIFICATION						DELIVERY	
						DISCRPTION	FLANGE RATING	SIZE	QTY	MATERIAL	CLASS	YY	MM
85	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	FPSO CIDADE DE MARICA	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	200A	1EA	A395	ABS	2013	12
86	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	FPSO CIDADE DE MARICA	HIGH PERFORMANCE FIRESAFE TYPE BUTTERFLY V VALVE	150LB	250A-500A	4EA	A216WCB	ABS	2013	12
87	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	FPSO CIDADE DE MARICA	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	900LB	400A	4EA	A352 LCC	ABS T.A.	2013	12
88	BRAZIL	OFFSHORE	PETROBRAS	MODEC	PETROBRAS FPSO MV26	HIGH PERFORMANCE TEFLON SEAT TYPE BUTTERFLY VALVE	150LB	250A-600A	6EA	B148C95800		2013	9
89	BRAZIL	OFFSHORE	PETROBRAS	MODEC	PETROBRAS FPSO MV26	HIGH PERFORMANCE TEFLON SEAT TYPE BUTTERFLY VALVE	150LB	100A-350A	9EA	B148C95800		2013	8
90	BRAZIL	OFFSHORE	PETROBRAS	MODEC	PETROBRAS FPSO MV26	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	150LB	150A-250A	14EA	B148C95800		2013	8
91	NIGERIA	OFFSHORE	TOTAL NIGERIA	RKD OIL	USAN FPSO	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	700A	1EA	A216WCB		2013	8
92	INDONESIA	OFFSHORE	PETROBRAS	MODEC	PETROBRAS FPSO MV26	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	80A-450A	11EA	B148C95800		2013	7
93	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	SBM CIDADE DE ILHABE	DAMPER TYPE BUTTERFLY VALVE	5K	600A	2EA	S5400		2013	6
94	BRAZIL	OFFSHORE	OSX 2 LEASING B.V.	SBM OFFSHORE	SBM FPSO OSX2	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	300A	3EA	A216WCB		2013	6
95	BRAZIL	OFFSHORE	-	SBM OFFSHORE	SERVICE TERMINAL	CARGO TYPE BUTTERFLY VALVE	150LB	200A-500A	11EA	A216WCB	LR	2013	5
96	UK	OFFSHORE	ENQUEST	FRENSTAR	FPSO ENQUEST KIGHTSBRIDGE	TRIPLE OFFSET TYPE BUTTERFLY VALVE HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB-300LB	80A-450A	11EA	A995 CE3MN/ S-DUPLEX	ABS T.A.	2013	4
97	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	SBM CIDADE DE ILHABE	TRIPLE ECCENTRIC TYPE BUTTERFLY VALVE	900LB	400A	4EA	A352 LCC	ABS T.A.	2013	4
98	BRAZIL	OFFSHORE	OSX 2 LEASING B.V.	SBM OFFSHORE	SBM FPSO OSX2	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	400A	4EA	A216WCB		2013	4
99	NETHERLANDS	OFFSHORE	-	SBM OFFSHORE	SBM	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	80A-400A	30EA	A216WCB		2013	3
100	BRAZIL	OFFSHORE	OSX 2 LEASING B.V.	SBM OFFSHORE	SBM FPSO OSX2	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB / PN16	400A-600A	8EA	A216WCB		2013	2
101	MALAYSIA	OFFSHORE	MMHE	NVO	CENDOR MARINE FPSO	DUAL PLATE CHECK VALVE HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	50A-500A	49EA	B148C95800/ B148 C95500	ABS	2013	1
102	MALAYSIA	OFFSHORE	MMHE	MAVAIN	CENDOR MARINE FPSO 2	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	300A	4EA	A216WCB		2013	1
103	BRAZIL	OFFSHORE	OSX 2 LEASING B.V.	SBM OFFSHORE	SBM FPSO OSX2	CARGO TYPE BUTTERFLY VALVE CONCENTRIC TYPE BUTTERFLY VALVE HIGH PERFORMANCE TYPE BUTTERFLY VALVE	5K / 150LB / PN10	80A-400A	13EA	NODULAR C.I./FC/A395	ABS	2013	1
104	BRAZIL	OFFSHORE	OSX 2 LEASING B.V.	SBM OFFSHORE	SBM FPSO OSX2	TRIPLE OFFSET TYPE BUTTERFLY VALVE HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB-300LB	100A-150A	4EA	B148C95800/ A216WCB	ABS	2013	1
105	BRAZIL	OFFSHORE	OSX 2 LEASING B.V.	SBM OFFSHORE	SBM FPSO OSX2	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	250A-400A	5EA	A216WCB/ D.I.		2012	12

Reference List

S/NO	COUNTRY	BUSINESS FIELD	END-USER	CONTRACTOR	HULL NO./PJT	DESCRIPTION/SPECIFICATION						DELIVERY	
						DISCRPTION	FLANGE RATING	SIZE	Q'TY	MATERIAL	CLASS	YY	MM
106	BRAZIL	OFFSHORE	OSX 2 LEASING B.V.	SBM OFFSHORE	SBM FPSO OSX2	HIGH PERFORMANCE TYPE BUTTERFLY VALVE CARGO SEMI-LUG BUTTERFLY VALVE	150LB, 16K	150A~750A	84EA	A216WCB/ B148C95800		2012	12
107	BRAZIL	OFFSHORE	PETROBRAS	SBM OFFSHORE	FPSO CIDADE DE ILHABELA	HIGH PERFORMACE TYPE BUTTERFLY VALVE CARGO TYPE BUTTERFLY VALVE	150LB, 16K	100A~500A	13EA	A216WCB		2012	11
108	BRAZIL	OFFSHORE	SBM OFFSHORE	SBM OFFSHORE	SBM	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	PN10	200A	47EA	A395		2012	10
109	BRAZIL	OFFSHORE	SBM OFFSHORE	GLOBAL VALVE CENTER	20120712/WVO	HIGH PERFORMANCE SEAT BUTTERFLY VALVE	PN16	200A	40EA	A216WCB		2012	9
110	NETHERLANDS	OFFSHORE	-	SBM OFFSHORE	SBM	CONCENTRIC TYPE BUTTERFLY VALVE HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	200A~500A	7EA	A216WCB	ABS	2012	9
111	NETHERLANDS	OFFSHORE	-	SBM OFFSHORE	SBM	HIGH PERFORMANCE SEAT BUTTERFLY VALVE	PN16	200A	40EA	A216WCB		2012	9
112	NETHERLANDS	OFFSHORE	-	SBM OFFSHORE	SBM	HIGH PERFORMANCE SEAT BUTTERFLY VALVE	150LB	250A~650A	24EA	A216WCB		2012	8
113	NETHERLANDS	OFFSHORE	-	SBM OFFSHORE	SBM	HIGH PERFORMANCE SEAT BUTTERFLY VALVE	150LB	250A	12EA	A216WCB	ABS	2012	8
114	NETHERLANDS	OFFSHORE	-	SBM OFFSHORE	SBM	HIGH PERFORMANCE SEAT BUTTERFLY VALVE	150LB	250A	12EA	A216WCB	ABS	2012	8
115	KOREA	OFFSHORE	TOTAL	ALFALAVAL K.K. (PUSAN)	CLOV FPSO	CONCENTRIC TYPE BUTTERFLY VALVE HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	50A~300A	17EA	A395 GR.60/ B148C95800		2012	5
116	NETHERLANDS	OFFSHORE	-	SBM OFFSHORE	SBM	HIGH PERFORMANCE SEAT BUTTERFLY VALVE	150LB	350A~550A	3EA	A216WCB	ABS	2012	5
117	NETHERLANDS	OFFSHORE	-	SBM OFFSHORE	SBM	HIGH PERFORMANCE SEAT BUTTERFLY VALVE	150LB	350A~550A	3EA	A216WCB	ABS	2012	5
118	BRAZIL	OFFSHORE	SBM OFFSHORE	GLOBAL VALVE CENTER	SERVICE TERMINAL	DOUBLE ECCENTRIC TYPE BUTTERFLY VALVE	150LB	200A~500A	21EA	A216WCB	LR	2012	5
119	FRANCE	OFFSHORE	TOTAL	ALFALAVAL K.K. (PUSAN)	CLOV FPSO	CONCENTRIC TYPE BUTTERFLY VALVE HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	50A~400A	17EA	A395 GR.60/ B148C95800		2011	10
120	NETHERLANDS	OFFSHORE	GLOBAL VALVE CENTER	GLOBAL VALVE CENTER	FPSO P57-01.17730	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	150A~800A	8EA	NBR R.L.+D.L	ABS	2009	2
121	INDONESIA	OFFSHORE	ECONOSTO	ECONOSTO	FPSO GIMBOA	CARGO TYPE BUTTERFLY VALVE HIGH PERFORMANCE TYPE BUTTERFLY VALVE	16K~20K	100A~250A	30EA	SC		2007	8
122	SINGAPORE	OFFSHORE	PROSAFE PRODUCTION SERVICES	MV RESOURCES LTD.	FPSO KIKEH	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	400A~550A	4EA	NODULAR C.I.		2006	9
123	SINGAPORE	OFFSHORE	PROSAFE PRODUCTION SERVICES	MV RESOURCES LTD.	FPSO POLVO	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	50A~500A	193EA	A216WCB		2006	8
124	SINGAPORE	OFFSHORE	PROSAFE PRODUCTION SERVICES	MV RESOURCES LTD.	FPSO POLVO	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	100A~300A	8EA	A216WCB	ABS	2006	5
125	NORWAY	OFFSHORE	PETROJACK	NORDIC FLOW CONTROL	-	CONCENTRIC TYPE BUTTERFLY VALVE	150LB	50A~400A	58EA	D.I.		2005	9
126	JAPAN	OFFSHORE	MCNULTY OFFSHORE	MISUZU	EAST AREA	HIGH PERFORMANCE TYPE BUTTERFLY VALVE	150LB	50A~350A	32EA	CARBON STEEL		2004	10

Supply scope (On/Off B/F Valve for Hull)

No.	Description	Q'ty
1	On/Off Non Cryogenic Butterfly valve 1) Butterfly valves - API 609 Category A (Concentric Type) : 17EA - API 609 Category B (Double Eccentric Type) : 62EA 2) Hydraulic Actuator - Single Acting Scotch York Type Hydraulic Actuator : 16EA - Double Acting Type Scotch York Type Actuator : 63EA	79
2	- Instrumentation and control system (L/SW & transmitter) - Miscellaneous accessories (mounting, tubing, etc) - Inspection & Testing (including assistance for FAT test) - Surface preparation and offshore painting - Preservation and Export Packing for shipment / transport	
3	Documentation according to VDL	
4	Lifting equipment : Lifting Lug (above 25kg)	
5	First fill of consumables (hydraulic oil)	
6	Consumable list for 1 year normal operation	
7	Construction, Start-up, Preservation, Pre-commissioning, and Commissioning spare parts	
8	1 year spare parts for normal operation	
9	2 years spare parts for normal operation (OPTIONAL)	
10	Capital / Insurance spares (OPTIONAL)	
11	Field Services / Assistance (per Man-Day Basis)	
12	After sales and support in Malaysia/Singapore region	
13	Integrated FAT (IFAT) : communication test between UCP and DCS shall be conducted as per procedure	

ACE VALVE CO., LTD.

[illegible]

Description	First issue		
	Issue date (2)	Purpose (3)	Quantity type (4)
<u>Engineering</u>			
List of Vendor's Documents	+2W	IFR	E
Noise Data Sheets	+12W	IFR	E
Painting specification	+10W	IFR	E
Insulation Procedure	+10W	IFR	E
* Weight Datasheet	+8W	IFR	E
Vibration Data Sheet	+12W	IFR	E
Vendor Data Book (VDB) Register	+16W	IFR	E
Vendor Data Book (VDB)	1W BEFORE DELIVERY	IFR	E + 2C
* Instrument Data Sheets (See Note 5)	+4W	IFR	E
Performance Curves	+4W	IFR	E
Calculation Notes (pressure parts, structures, stack, torque table, sizing, etc.)	+12W	IFR	E
* Utility Consumption List (See Note 5)	+4W	IFR	E
Completed lubricant charts	+12W	IFR	E
Cross Sectional Assembly Drawings (with Part List)	+20W	INF	E
Drawings of Auxiliaries & Itemized Equipment Supplied Loose	+10W	IFR	E
Pressure Vessel Construction Drawings	+12W	IFR	E
Nameplate drawing (All Equipment)	+16W	IFR	E
Flange Tightening Specification (To be included in GA Drawing or Maintenance Manual as table including nozzle number)	+16W	IFR	E

Description	First issue		
	Issue date (2)	Purpose (3)	Quantity type (4)
* General Arrangement Drawings (See Note 5)	+4W	IFR	E
* Loading Plan (See Note 5) (preliminary data for auxiliaries at first issue)	+10W	IFR	E
* List of Instruments (including list of controls, monitoring, safety systems I/O signals, and instrument ranges, set points and setting of alarms and trips)	+10W	IFR	E
Note) Using project template List of Instruments and System Cables with cable gland (type, reference, tag, length, routing), and Electrical Cables	+12W	IFR	E
Note) Using project template List of Junction Boxes, Control Boxes, Cabinets and Panels	+16W	IFR	E
Device Driver for Smart Transmitter	+16W	IFR	E
Instrument Calculation Sheets (Valves, Actuators, Positioner, Safety Devices, Flow Measuring Devices)	+20W	IFR	E
Calculation Sheets for Intrinsically Safe Loops	+18W	IFR	E
Calibration/setting data Sheets, Calibration Curves, Calibration Procedure, Calibration Certificate/report	+8W BEFORE FAT	IFR	E
Tag Register	+16W	IFR	E
Master Tag Register	+24W	IFR	E
Instrument Hook-Up Drawings	+16W	IFR	E
Loop Diagrams (or typical + I/O database or electronic file)	+6W	IFR	E
Logic Diagrams (Interlock & Safety), Sequence Diagrams	+16W	IFR	E
SIL data (if required)	+10W	IFR	E
Electrical Bill of Materials (supplied as loose)	+14W	IFR	E
One Line Diagrams (with component data)	+10W	IFR	E
Terminal box / Junction box / Panel detail drawing showing internal terminal block and components	+16W	IFR	E
Terminal Box Detail Drawing with Termination Details	+16W	IFR	E

Description	First issue		
	Issue date (2)	Purpose (3)	Quantity type (4)
Wiring Drawings (Internal and/or Inter-Panel)	+8W	IFR	E
Earthing/Lightening Drawings	+26W	IFR	E
Electrical Cable Schedule	+16W	IFR	E
Instrument Cable Schedule	+16W	IFR	E
Document to Asset	+30W	IFR	E
SPPID Input Data	+40W	IFR	E
SPI Input Data	+40W	IFR	E
AM Input Data	+40W	IFR	E
Special precautions for handling prior & during erection, Recommendations for storage prior and during installation, Lifting method (if required)	+6M	INF	E
List Of Consumables for Erection, Commissioning & Start-Up	+6M	IFR	E
List of Spare Parts for Erection, Preservation, Commissioning & Start-Up	+6M	IFR	E
List and Complete Set of P-SPLIR Data (In P-SPLIR template)	+6M	IFR	E
List Of Special Tools and Means for Erection And Assembly, List Of Special Tools for Maintenance	+6M	IFR	E
Operation and Maintenance Manuals, Procedure Of Preparation of Equipment for Commissioning, Installation, Start-Up and Commissioning Manuals, Trouble Shooting Check List and Diagrams	3M BEFORE DELIVERY	IFR	E
SPIR BOM LEVEL (Note: This document includes List of Spare parts for one year operation / List of Spare parts for two year operation / List of After Two years Operation Spare part)	+24W	IFR	E
List of Consumable for One Year Operation	+24W	IFR	E
List of Capital Spare	+24W	IFR	E

Description	First issue		
	Issue date (2)	Purpose (3)	Quantity type (4)
Preservation Procedure	+20W	IFR	E
Part List	+12W	IFR	E
HFE Check List	+12W	IFR	E
Material Handling List	+12W	IFR	E

Description	First issue		
	Issue date (2)	Purpose (3)	Quantity type (4)
<u>Inspection</u>			
* Fabrication and Quality Control Plan (Shall include the fabrication and quality control plan of each sub-supplier), Job Quality Assurance Plan (Critical Equipment), Painting Quality Control Plan, ITP.	+8W	IFR	E
Summary of Manufacturing Data Book	+12W	IFR	E
Manufacturing Data Book	1M BEFORE DELIVERY	IFR	E
Testing Procedures (including shop test equipment/instrument calibration certificate)	+16W	IFR	E
Factory Acceptance Tests (FAT) Procedure	+16W	IFR	E
FAT Report	+2W AFTER FAT	IFR	E
Ex Register (include Ex marking, equipment model, manufacturer, Ex certificate number, etc.)	+16W	IFR	E
Site Acceptance Tests Procedure (SAT)	+24W	IFR	E
PWHT Procedure	+8W	IFR	E
NDT Procedure	+12W	IFR	E
Material Specification for Main Sub-Orders	+3M	INF	E
Welders Qualification Certificates	+4M	INF	E

Description	First issue		
	Issue date (2)	Purpose (3)	Quantity type (4)
NDT Record Certificates, including positioning Sketches of Radiographs and others NDT	+3M	INF	E
Hydraulic and other Shop Test Reports	1M BEFORE DELIVERY	INF	E
Material Certificates	2M BEFORE FAT	INF	E
Heat Treatment Record Certificates	2M BEFORE DELIVERY	INF	E
Weighing Certificates	BEFORE SHIPMENT	INF	E
Certificates for Use of Electrical Apparatus in Hazardous Area (IECEX) with Photo	2M BEFORE FAT	IFR	E
SIL Certificates (if required)	2M BEFORE FAT	IFR	E
Material Safety Datasheet	+24W	IFR	E
EEHA Verification Dossier including Ex Register, Ex Inspection Records, etc.	1M BEFORE FAT	IFR	E
Classification Society/Authority/TPIA etc Certificate	1M AFTER FAT	IFR	E+ 1C
Welding book (welding map, welding procedure specification, procedure qualification report)	+12W	IFR	E
Mechanical Completion Check Record	1M BEFORE FAT	IFR	E
PMI Procedure	+16W	IFR	E
PMI Report	+2W AFTER FAT	IFR	E
Dispatch Dossier	1M BEFORE DELIVERY	IFR	1C
Index of Dispatch Dossier	2M BEFORE DELIVERY	IFR	E

Description	First issue		
	Issue date (2)	Purpose (3)	Quantity type (4)
<u>Expediting</u>			
Engineering, Procurement, Manufacturing and Test Schedule (To be in Progress report)	+4W	IFR	E
Progress Report (monthly)	+4W	IFR	E
Sub-Vendors and Main Suppliers' List	+30W	IFR	E
Vendors Procurement Status (Monthly) (To be in Progress report)	+4W	IFR	E
Unpriced Copy of Main Sub-Orders (To be attached to the progress report on the month the Sub-Orders are issued.)	+4W	IFR	E
Preliminary Packing List (For Logistic Preparation)	+8W	IFR	E
Recommendations for Protection During Transportation (For Logistics preparation. To be provided to Freight Forwarder)	2M BEFORE DELIVERY	INF	E
Packing List (Final Packing List to be provided @ Delivery)	2W BEFORE DELIVERY	INF	E
Shipping Documents, Transport Authorization (Final Shipping Documents to be provided @ Delivery)	2W BEFORE DELIVERY	INF	E
Origin Certificates of Equipment (Issued by Exporting Country Chamber of Commerce. Part of Shipping documents, transport authorization)	AT DELIVERY	INF	E



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