



HIGH PERFORMANCE ALLOYS



KPC Metal Co., Ltd.
With Confidence, Service and Pride

COMPANY HISTORY

- 1977. 10.** Established Korea Precision Casting Co.
- 1982. 03.** Started Ball Valve Division
- 1987. 09.** Started Special Alloy Casting & Forging
- 1988. 06.** Started Vacuum Arc Re-melting Division
- 1997. 12.** Started Titanium Casting & Forging
- 1998. 08.** Reactive Metal Research Institute Registered
- 2004. 03.** Operated Wachon 1st Factory (Vacuum Melting, Open Die Forging)
- 2006. 11.** Operated Deokchon Factory (Machining, Welding)
- 2007. 05.** Operated Sowol 1st & 2nd Factory (Rolling Mill, Extrusion, Radial Forging, Centrifugal Casting)
- 2010. 12.** KPC Metal Co., Ltd. Spun off from KPC Corporation
- 2015. 08.** AS9100 : Certified by DNV-GL
- 2015. 10.** Awarded the Gold Tower Order of Industrial Service Merit from the Korean Government
- 2017. 02.** Operated Sangam Factory (Aerospace & Defense Casting, Forging)
- 2019. 08.** NADCAP (Heat Treatment) Certified by PRI



CLASSIFICATION OF SUPPLYING MATERIALS

LOW ALLOY STEEL

- » GE Material
- » AISI 9310, D6AC, SPM1700
- » 9Cr Alloy F9, F91, F92
- » F11, F22

STAINLESS

- » Austenite 304(L), 321, 347, 316(L), 310, 317(L)
- » Super Austenite S31254, N08926, N08904
- » Martensite 410, 403, 431
- » Duplex S31803, S32205
- » Super Duplex S32750, S32760
- » Precipitation Hardening S15500, S17400, S66286

NICKEL & NICKEL ALLOY

- » N02200, N02201
- » N04400, N05500
- » N06600, N06625, N07718, N06690
- » N08800, N08810, N08811, N08825, N09901, N09925
- » N10276, N06002(Hast-X)

TITANIUM

- » C.P. Titanium : Ti Gr.1~4
- » Titanium Alloy : Ti Gr.5, Gr.7, Gr.9, Gr.13, Gr.16, Gr.23
- » Ti. Target 2N, 3N

MARAGING STEEL

- » C250, T250
- » C300, T300

INVAR

- » Invar 36(F1684 K93603)
- » Super Invar 32-5(F1684 K93500)

COPPER ALLOY

- » C70600, C71500

ALUMINIUM

- » A7175, A7075, A7050
- » A6061, A2219, A1050



VAR & ESR INGOTS



FORGING

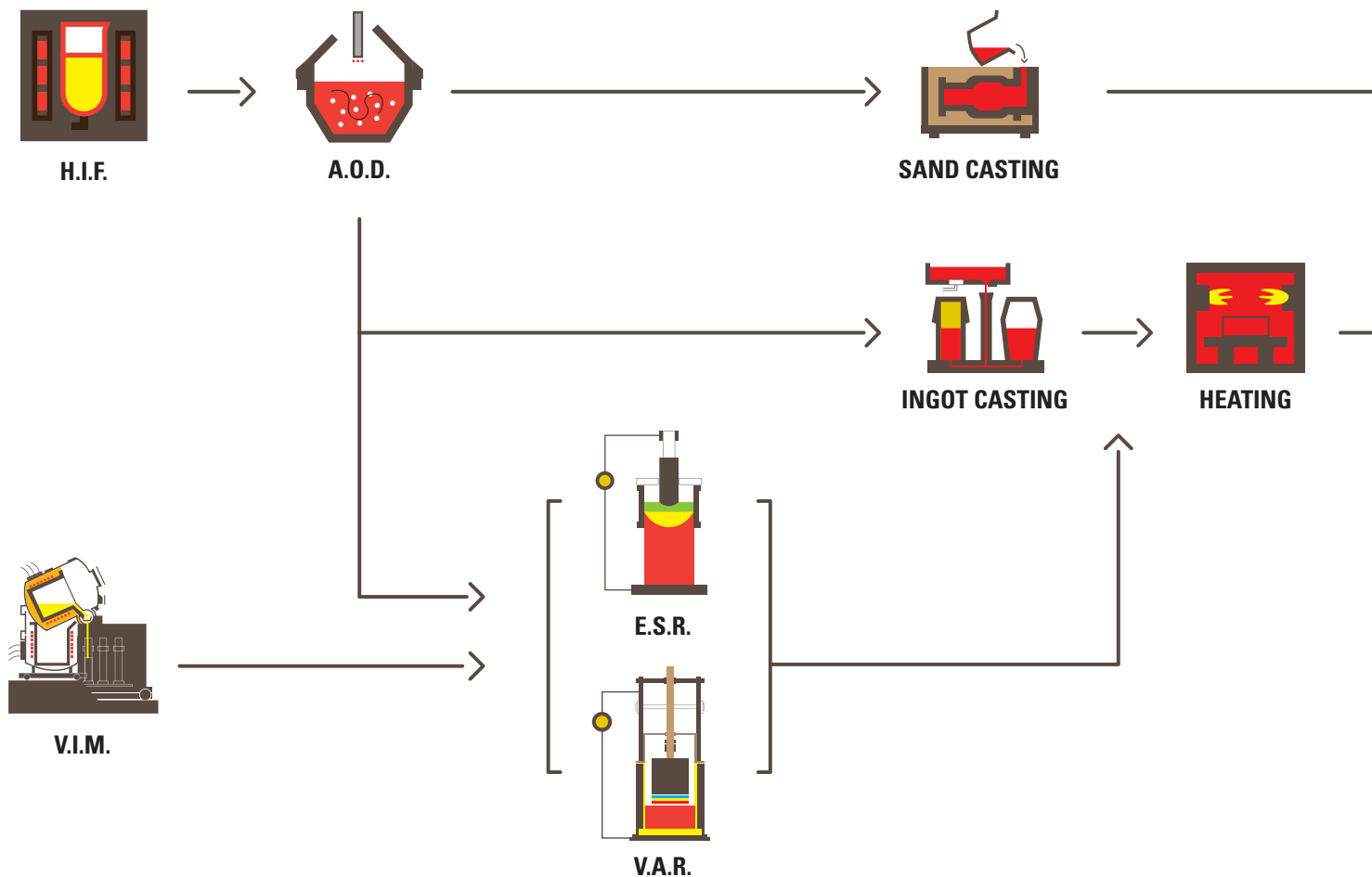
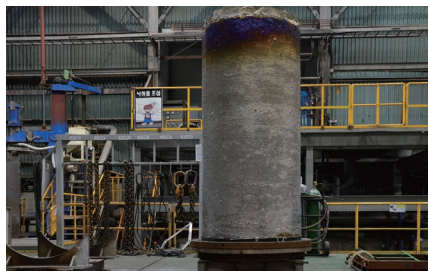


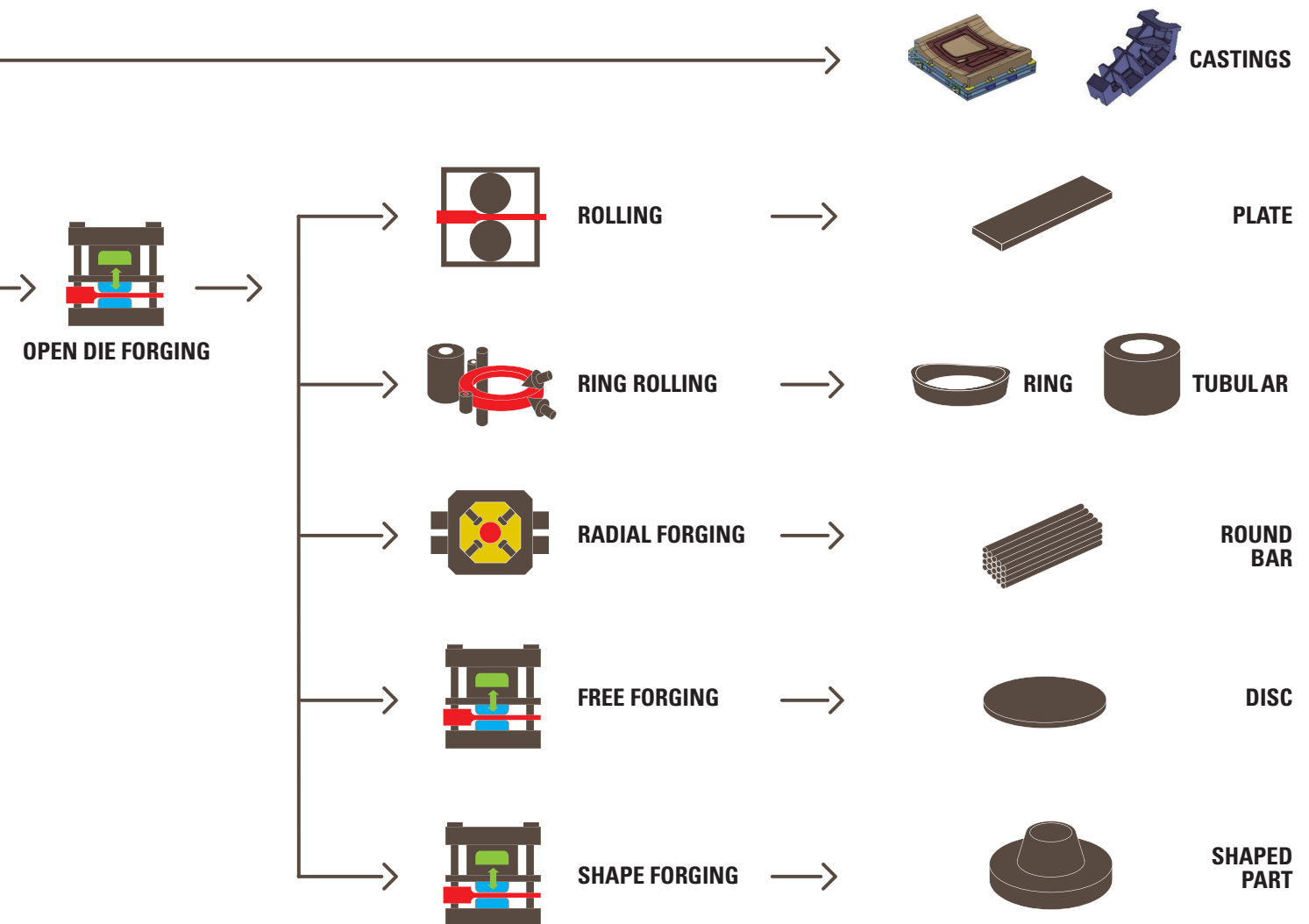
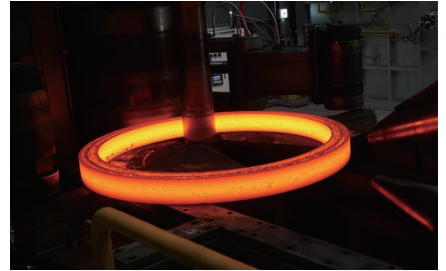
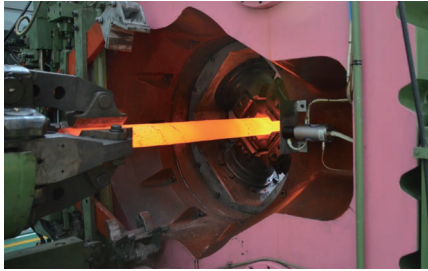
FORGED BAR STOCKS

MANUFACTURING PROCESS



We provide individual and tailor-made solutions to your needs.





MIILITARY & AEROSPACE



MISSILE COMPONENTS

- Material
- » Ti Gr.5(Ti-6Al-4V)
 - » D6AC
 - » Maraging C250 & T250
 - » SPM1700
- Products
- » Warhead
 - » Body
 - » Cover



AIRCRAFT TOOLING

- Material
- » Low Expansion Nickel Alloy (Invar 36)
- Products
- » Layup Mandrel





SPACE LAUNCH VEHICLE COMPONENTS

- Material**
- » Ti-6Al-4V
 - » F316L
 - » Duplex
 - » Al7175, Al7050 & A7075
 - » Inconel 718 & 625

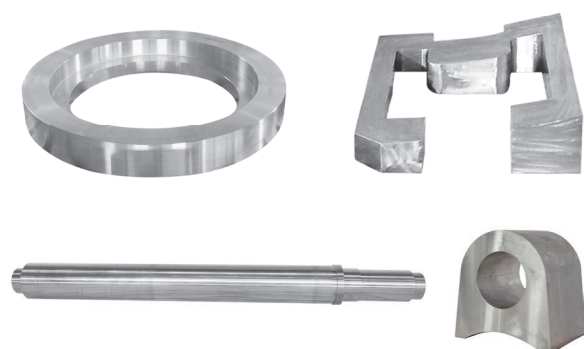
- Products**
- » Combustion Tube Nozzle
 - » Liquid Fuel Burner
 - » Skirty & Cylinder
 - » Turbo Pump Component



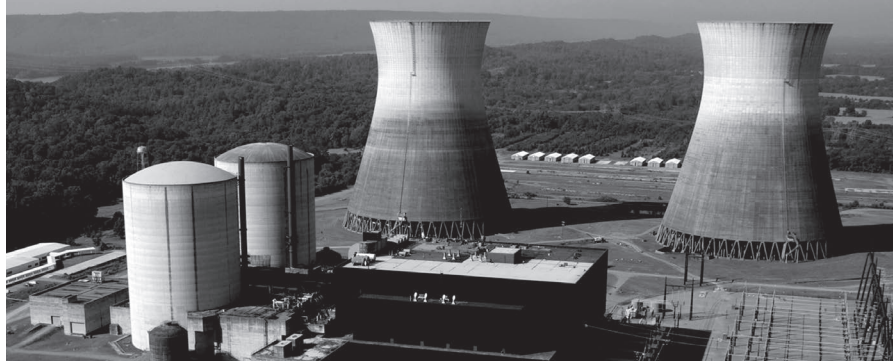
SUBMARINE COMPONENTS

- Material**
- » 1.4462
 - » 1.4313

- Products**
- » Shaft
 - » Setting Ring
 - » Bearing



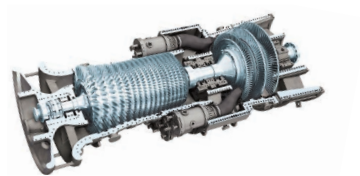
POWER GENERATION



TURBINE BLADE PART

- Material**
- » B50A949A (Ti-6Al-4V)
 - » B50A1004 (N06625)
 - » X5CrNiMoCuNb14-5
 - » X22CrMoV12-1

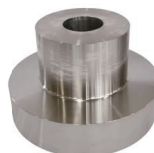
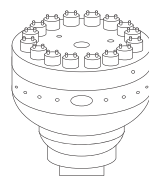
- Products**
- » Flat bar for blade



TURBINE CONTROL VALVE PART

- Material**
- » B50A305B (Alloy 901)
 - » 9Cr Alloy (F91, F92)
 - » 12Cr Alloy (B50A249C)
 - » Ni-Cr-Mo Alloy (B50A164B)
 - » N06625 & N07718

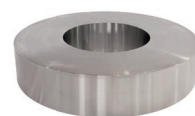
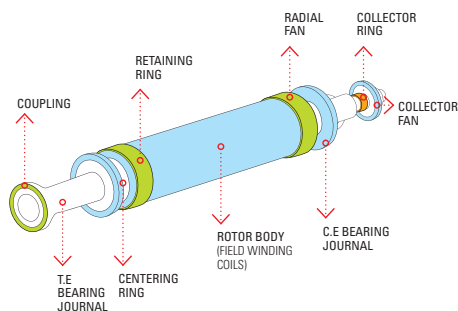
- Products**
- » Stem
 - » Pin
 - » Bush
 - » Body
 - » IV Disc
 - » Balance Chamber



GENERATOR PARTS

- Material**
- » GE Material

- Products**
- » Collect Ring
 - » Centering Ring
 - » Retaining Ring
 - » Shaft Extension
 - » Fan Blade



OIL & GAS

On-shore & Off-shore



VESSEL & PIPING PART

Tube Sheet	» Max. O.D. 4,000mm (20Ton)
Forged Ring	» Max. O.D. 4,000mm
Flange	» ½ Inch ~ 60 Inch / 150# ~ 2500# (ASME, DIN, API)
Nozzle	» Max. O.D. 4,000mm
Boss	» Max. O.D. 4,000mm



FORGED BAR

(O.D 35~800mm)

Shaft

Forged Pipe

VALVE PART

Body & Cap

Stem

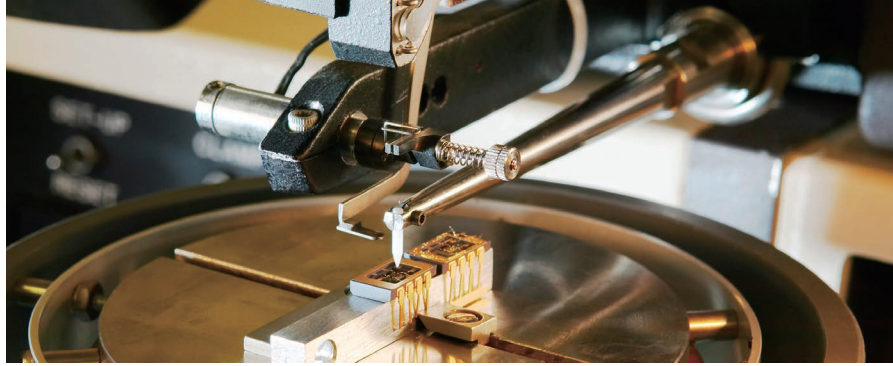
Ball

Seat ring

Disc



INDUSTRIAL EQUIPMENT



TURBO COMPRESSOR IMPELLER

Material » Ti Gr.5(Ti-6Al-4V)
» S17400(17-4PH)
» N07718



PRESSURE VESSEL WALL

Material » S17400(17-4PH)
» S15500(15-5PH)
» F304
» F316(L)



INVAR FOR AMOLED MANUFACTURING FACILITIES

Material » K93603



PRESS DIE FOR AUTOMOBILE & INDUSTRIAL

Material » HK600, HKS-2 & HK700



QUALITY CONTROL

TEST & INSPECTION

- » Chemical analysis by ASTM, ASME
- » Mechanical analysis
 - Tensile test by ASTM A370, E8/E8M
 - High temperature tensile test by ASTM E21
 - Impact test by ASTM A370, E23
 - Stress rupture test by ASTM E139
- » Micro structure test by ASTM E407
- » Macro test by ASTM E340, E381
- » Corrosion test by ASTM A262, A923, G48
- » NDE (UT, PT, MT) by AMS 2154 Type, ASTM A388 & A745, MIL-STD-2154 (Immersion UT)
- » 3D Dimensional check
- » EN10204 3.2 Certification

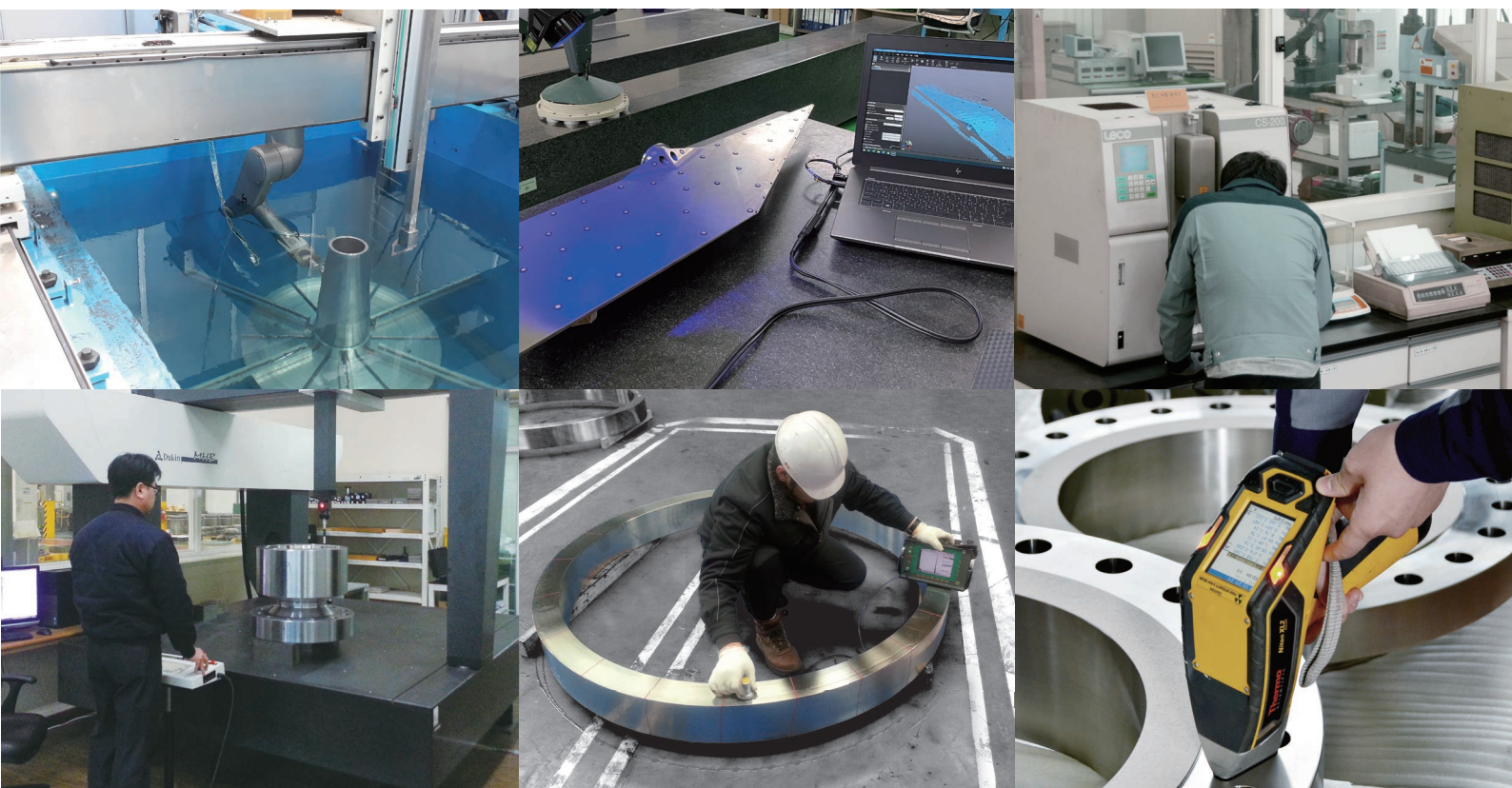
CERTIFICATION & APPROVAL

CERTIFICATION

- » ISO 9001
- » PED
- » NORSOK M650 QTR
- » AS9100
- » ISO 13485
- » OSHAS 18001
- » NADCAP
- » ISO 17025

APPROVAL

- » GE
- » Toshiba
- » Total (Moho nord pj.)
- » Poongsan
- » Israel Aerospace Industries
- » Chevron (Future Growth Pjt.)
- » ExxonMobil (Tapis Eor & Rejuvenation pj.)
- » Aramco (Sadara pj., Jazan Refinery & Terminal pj.)
- » Mitsubishi
- » Hitachi pj.
- » Siemens pj.
- » Inpex (Ichthys pj.)
- » Korean Air
- » Hanwha Power System
- » Hanwha Aerospace
- » Doosan Heavy Industries & Construction
- » Hyosung Chemical



CLIENTS



LOCATIONS



Wachon Factory

Vacuum melting
Casting
Open die forging



Deokchon Factory

Machining
Overlay welding



Sowol Factory

Radial forging
Rolling
Extrusion



Sangam Factory

Ring Rolling
Open die forging
Casting



KPC Metal

Main office & factory

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