



경남 창원시 성산구 성주로 53



SAMWOO METAL
INDUSTRIES CO., LTD
www.samwoometal.com



▶ GENERAL

삼우금속공업(주)



삼우금속공업(주)는 1970년 창립 이래 각종 특수분야의 전문성 강화를 목표로 하여 연구 및 기술 개발, 고객의 질적·양적 생산성 만족을 위해 지속적인 노력을 기울이고 있습니다.

삼우금속공업(주)는 금속표면처리분야의 높은 품질성과 기술력을 바탕으로 방위산업, 항공산업, 기계가공 산업 등 다양한 기술 산업에 눈부신 성장을 이루고 있습니다.

그 결과, 삼우금속공업(주)의 전문기술과 협력하고자 많은 고객 분들이 방문해주시고 계십니다.

또한, 삼우금속공업(주)는 고객 만족에 더욱 크게 기여하고자, 역사 전통 기술분야에만 국한하지 않고, 핫 포밍(Hot Forming), 샷피닝(Shot Peening) 등의 신규 사업분야에도 혁신적인 노력을 다하고 있습니다.

삼우금속공업(주)는 고객 만족이 경영 목표의 최우선으로 두고 있으며, 높은 수준의 기술 협력 지원을 보여드리겠습니다.





▶ GENERAL

사 훈



인 화

성 실

신 의



100%
고객만족

인간중심



중심 中心
중심 中心
중심 中心
중심 中心



창조적
경영



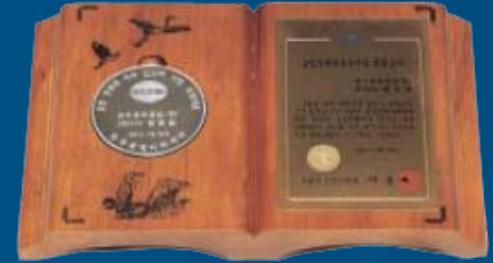


▶ GENERAL

회사 연혁



- 1970.05 금속표면처리회사 설립
- 1983.07 본사 이전 (서울 → 창원)
- 1988.03 ‘보잉’ 사로부터 D1-4426 표면처리 승인 획득
- 1992.11 표면처리 도장 공장 준공
- 1993.11 제1회 산업 안전 보건 관리 대상 수상
- 1997.09 품질 경쟁력 우수 100대 기업선정 (국가기술표준원)
- 1998.06 환경보존 기여 공로상 (환경부 장관)
- 1998.12 기업부설 기술연구소 설립 (과학기술부)
- 2004.09 AS/EN9100 / ISO9100 품질시스템 인증 획득
- 2005.02 국제 항공 분야 특수 공정 인증(NADCAP) 표면처리 공정 인증 획득
- 2006.05 CEO 방호철 은탑산업훈장 수훈 (대한민국 대통령)



1997년 품질 경쟁력 우수 기업 선정



1998년 기업부설기술연구소 설립



2006년 CEO 은탑 산업 훈장 수훈



▶ GENERAL

회사 연혁



- 2007.08 항공 분야 전용 도장 공정 및 비파괴 공정 라인 준공
- 2008.02 벤처기업 지정
- 2009.01 무재해 운동 25배 목표 달성 (한국 산업 안전 보건 공단)
- 2009.08 국제 항공 분야 특수 공정 인증(NADCAP) 표면처리 공정 재인증 획득
- 2009.12 국제 항공 분야 특수 공정 인증(NADCAP) 비파괴 공정 재인증 획득
- 2010.05 대표이사 방남석 취임
- 2010.06 제2사업장 항공기 사업부 설립 (항공기 부품 제작 가공)
- 2012.05 CEO 방효철 금탑산업훈장 수훈 (대한민국 대통령)
- 2013.10 무재해 운동 30배 목표 달성 (한국산업 안전 보건 공단)
- 2014.04 국제 항공 분야 특수 공정 인증(NADCAP) 표면처리공정 재인증 획득
- 2014.06 제 1사업장 Rolls Royce A-Frame 조립 라인 설립



2010년 제2공장 설립



2012년 CEO 금탑 산업 훈장 수훈



2014년 Rolls Royce A-Frame 조립라인 준공



▶ GENERAL

회사 연혁



- 2014.11 국제 항공 분야 특수 공정 인증(NADCAP) 비파괴 공정 재인증 획득
- 2015.04 국제 항공 분야 특수 공정 인증(NADCAP) 표면처리 공정 재인증 획득
- 2015.06 AS/EN9100 품질시스템 인증 획득
- 2015.12 제2사업장 슛피닝(Shot Peening) 장비 설치
- 2016.03 국제 항공 분야 특수 공정 인증(NADCAP) 화학 공정 재인증 획득
- 2016.07 제1사업장 핫포밍(Hot Forming) 장비 설치



2015년 슛피닝 장비 설치



2016년 핫포밍 장비 설치





▶ GENERAL

회사 개요



회 사 명	삼우금속공업(주)	
설립년도	1970년	
인 원	323명 (본사 & 제1사업장 220명 / 제2사업장 103명)	
사 업 장	면 적	주 요 사 업
본 사 제1사업장	17,149m ²	<ul style="list-style-type: none"> - 방위산업 표면처리 (도금, 도장) - 항공산업 표면처리 (도금, 도장) - 비파괴공정 (F.P.I) - 핫 포밍(Hot Froming) - Assembly (Boeing, Rolls Royce, GE 등)
제2사업장	13,890m ²	<ul style="list-style-type: none"> - 항공기 부품 제작 및 가공 - 슛 피닝 (Shot Peening)





▶ GENERAL

회사 조직도



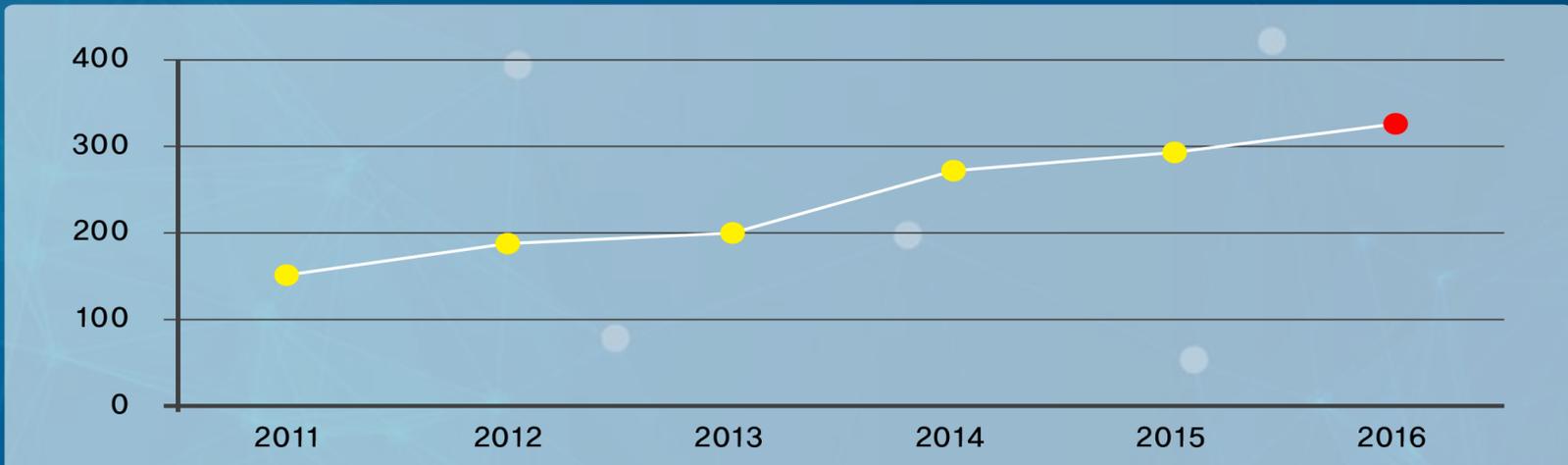


▶ GENERAL

인적자원



년 도	2011	2012	2013		2014		2015		2016	
사 업 장	-	-	Plant #1	Plant #2						
관 리 직	32	55	43	18	50	12	50	28	50	33
현 장 직	118	133	107	30	140	68	146	67	170	70
합 계	150	188	150	48	190	80	196	95	220	103
			198		270		291		323	





▶ GENERAL

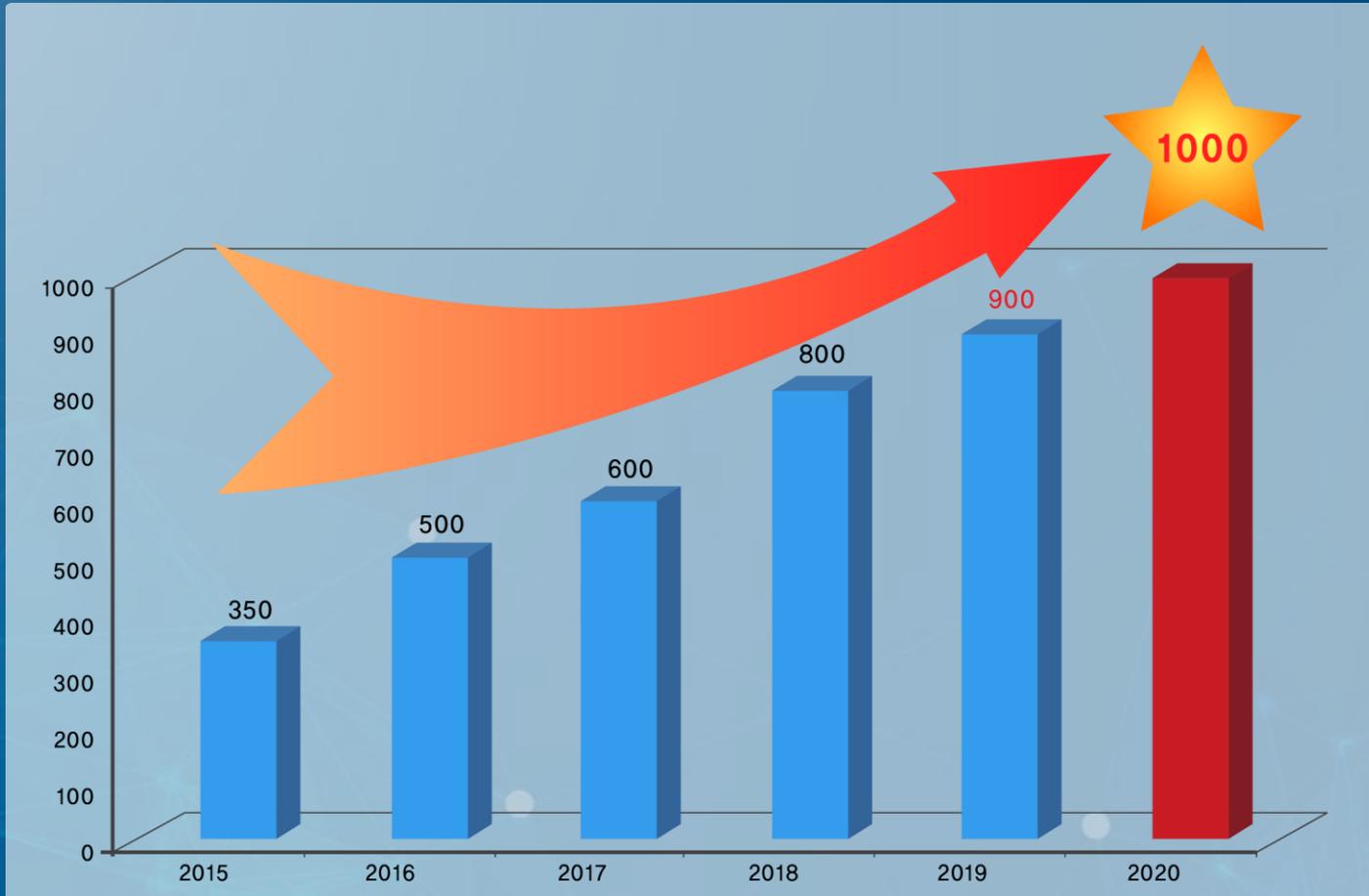
연 매출액 현황





▶ GENERAL

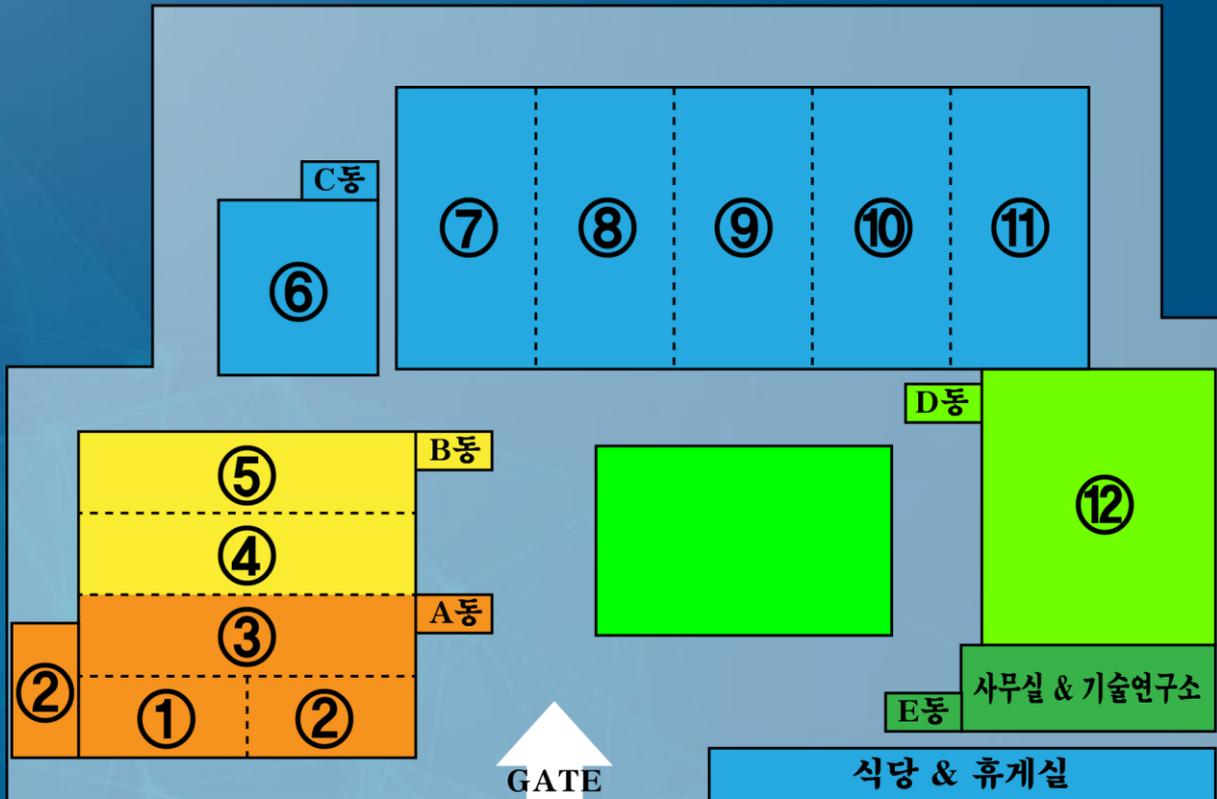
매출 성장 목표





▶ GENERAL

제1 사업장



- ① 핫포밍
- ② 비파괴 라인 1 & 2
- ③ 항공기부품 도장
고객검사실
- ④ 방산부품 도장
실리콘 러버 코팅
- ⑤ A-Frame 본딩 & 부싱 조립라인
제품창고
- ⑥ 폐수 처리 시설
- ⑦ 크로메이트 라인
- ⑧ 최종 품질 검사 라인
- ⑨ 카드뮴 라인
붕산-황산 아노다이징 라인
아노다이징 라인(황산, 크롬산, 하드산)
- ⑩ 질산 세척 라인
흑색 산화 피막라인
- ⑪ 인산염 피막 라인
- ⑫ 분석실 / 측정실 / 염수분무실
초도품관리실 / 고객검사실
인산 아노다이징 라인
본딩용 프라이머실 / 아연라인
주석 라인 / 부동태 라인 /
크롬 도금라인
ES-니켈, 니켈, 금, 은, 구리 도금 라인
샌드 & 블라스팅 라인





▶ SHOP FACILITY

주요사업 현황



Anodizing

Chromic acid	4.1×1.4×1.4
Sulfuric acid	5.0×1.0×1.0
Hard	2.0×1.0×1.0
Boric-Sulfuric acid	3.6×1.4×1.4

Coating

Phosphate	3.0×1.0×1.0
Black Oxide	0.7×0.9×0.5
Si-Rubber	7.0×5.0×2.2
Chemical Conversion	4.4×0.8×1.5
Al Oxide	1.5×1.0×1.5

Assembly

Boeing Parts
 GE Parts
 Rolls Royce Parts

Plating

Chromium	2.4×1.0×1.7
Cadmium	4.9×1.2×1.2
Zinc	2.0×5.0×1.3
Silver	0.5×0.4×0.4
Copper	2.0×1.0×0.9
Solder	1.0×1.0×1.0
Electro - Nickel	-
Gold	0.5×0.3×0.5

Other

Chemical Cleaning	0.7×0.7×0.7
Passivation Treatment	1.0×0.6×0.8
Solid Film Lubricant	7.0×5.0×2.2
Paint	7.0×5.0×2.2
Super Polishing	-
Hot Forming	-
Shot Peening	3.0×1.5×25.0
NDT (FPI:PT)	3.4×1.1×0.8





▶ SHOP FACILITY

표면처리 라인 (1)



Phosphoric Acid Anodizing + Adhesive Primer Coating



Boric-Sulfuric Acid Anodizing Line / Sulfuric, Chromic Acid, Hard Anodizing Line





▶ SHOP FACILITY

표면처리 라인 (2)



Phosphate Coating Line
& Black Oxide Coating Line



Cadmium Plating Line



Nickel Plating Line



Zinc Plating Line



Acid Cleaning Line





▶ SHOP FACILITY

표면처리 라인 (3)



C Chemical Conversion Coating Line





▶ SHOP FACILITY

표면처리 라인 (4)



Paint Shop



Silicon Rubber Coating



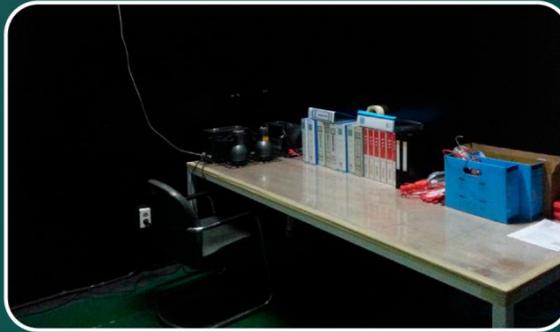


▶ SHOP FACILITY

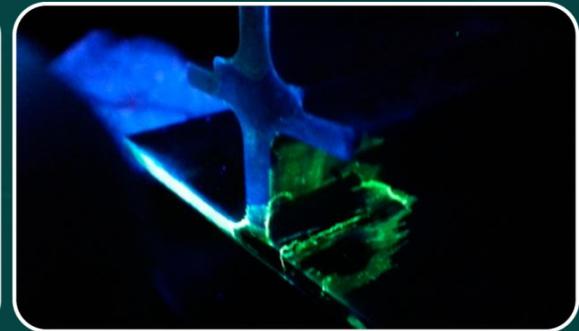
비파괴 공정 라인



NDT Line #1 (FPI)



NDT Line #2 (FPI)





▶ SHOP FACILITY

조립 공정 라인



Rolls-Royce Sub-Assembly Line



Working Room List

- Deburr Room
- Masking & Inspection Room
- Assembly Room
- Paint & Hand Cleaning Room
- Bonding Room
- Dry Blasting Room
- Bushing Install Room





▶ SHOP FACILITY

핫포밍(Hot Forming) : 티타늄



Hot Forming Machine



Manufacture	HOT FORMING ACCUDYNE RUSIA
Press Clamp Capacity	160 Metric Ton
Max. Hydraulic System Working Pressure	3000 PSI
Max. Operating Temp.	900 ° C (1652 ° F)
Max. Heat up rate	150 ° C (270 ° F) / hour
Main Cylinder	14" bore, Heavy-duty construction double acting cylinder, with high temp. seals, packing and wiper to ensure leak proof dry operation
Main Cylinder Stroke	1050mm(41.34")
Platen Area	1400mm(55.1") left to right 900mm front to back
Approximate Weight	24,000 Kg(53,000 lbs.)





▶ SHOP FACILITY

기타 시설



Blast(Sand, Shot) Line



Waste Water Treatment Facility





▶ TEST FACILITY

측정실 & 분석실



T est Table



A brasion Tester (Taber Type)



U prightscope



M icroscope



V ickers Hardness Tester





▶ TEST FACILITY

측정실 & 분석실



Hydrogen Embrittlement



Salt Spray Tester



X-Ray Coating Thickness Tester





▶ TEST FACILITY

측정실 & 분석실



A

Analysis Table



A

Absorptiometer



M

Mounting Press



P

Polishing Machine



A

Automatic Burette



C

Cutting Machine





▶ QMS (Quality Management System)

국제 항공 분야 특수 공정 인증 (NADCAP)



AC7108 Chemical Process

- AC7108/1 THE APPLICATION OF PAINT AND DRY FILM LUBRICANTS
- AC7108/3 SURFACE PREPARATION PRIOR TO METAL BOND
(Etching, Metal Bond Anodize Processes, Sol-Gel, Adhesive Primer)
- AC7108/4 SOLUTION ANALYSIS AND TESTING IN SUPPORT TO AC7108
- AC7108/5 ALPHA CASE REMOVAL AND CHEMICAL MILLING
- AC7108/8 ANODIZING
- AC7108/9 ELECTROPLATING AND ELECTROFORMING
- AC7108/10 ELECTROLESS PLATING
- AC7108/11 CONVERSION COATING
- AC7108/12 ACID CLEANING, DESCALING, PASSIVATION AND ELECTROPOLISHING
- AC7108/15 PRE-PENETRANT ETCH

AC7114 NDT

- AC7114/1 NDT PENETRANT SURVEY
- AC7114/S SUPPLEMENTAL AUDIT CRITERIA FOR NDT SUPPLIERS ACCREDITATION PROGRAM
- AC7114/1S SUPPLEMENTAL AUDIT CRITERIA FOR NDT FACILITY PENETRANT SURVEY

AC7117 Surface Enhancement Peening

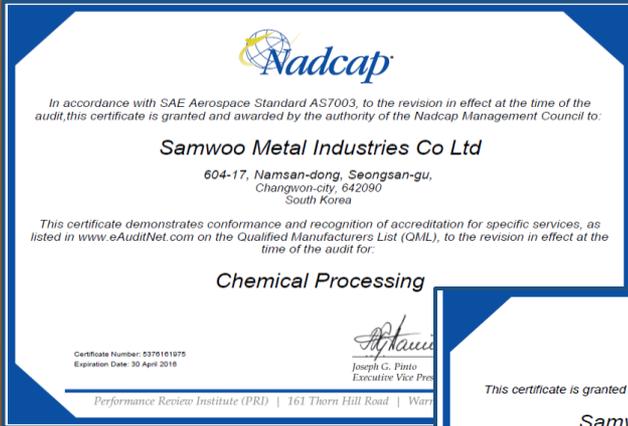
- AC7117/2 AUTOMATED PEENING
- AC7117/5 MANUAL PEENING





▶ QMS (Quality Management System)

인증서



SAMWOO METAL INDUSTRIES CO., LTD



▶ QMS (Quality Management System)

고객 인증서 샘플





Rolls-Royce
Aerospace UK
 ML-118 - B3 Moor Lane
 P O Box 31
 Derby DE24 8BJ
 England

Certificate of Approval

This is to certify that

Samwool Metal Industries Co Ltd
Changwon- City – South Korea

Vendor Number: 221856

is an approved supplier for the scope specified

Scope of approval:

- Control of classified parts to RRES 9000B
- AMS 2473
- RPS 271
- RPS 386
- RPS 407/B & /14
- RPS 482/5 & /13
- RPS 619
- RPS 661/B & /25
- RPS 674 – Procedure B
- RPS 753
- RPS 953 –Section 8
- RRP 50000
- RRP 51000 – Aqueous & Non halogenated solvent degreasing
- RRP 58003 -IA3
- RRP 58007

Approval number: 104760
 Issue date: 13th October 2015
 Expiry date: unlimited

J M Griffin

 On behalf of Rolls-Royce Plc.

This certificate supersedes all previous approval letters/certificates and is subject to the terms on the back hereof

221856 04



Date d'impression : 01/06/2015

F0073
 Quality assurance/Material and process
 135 rue de Pérille
 31079 Toulouse Cedex France

Special Process Qualification Certificate

We attest that the company **SAMWOOL Metal Industries Co Ltd**
 Changwon
 604-17 Nam San-Dong
 SOUTH KOREA 641090

is qualified for the following processes :

These qualifications are applicable for the LATECOERE programs :

Process	N° qualification	Audit	Specification	Customer	Limitation
Cadmium plating	QUAL 0791A/15	AE_15_121	NE40-010	EMBRAER	Sans
Chemical conversion of aluminium alloys	QUAL 0788/15	AE_15_121	NE40-006	EMBRAER	without
			NE40-012	EMBRAER	
Chromic Acid Anodizing of aluminium alloys	QUAL 0786C/15	AE_15_121	NE40-030	EMBRAER	without
			NE40-012	EMBRAER	
Paint on metallic surfaces	QUAL 0792A/15	AE_15_121	NE40-143	EMBRAER	without
			NE40-160	EMBRAER	
			NE40-164	EMBRAER	
			NE40-012	EMBRAER	
Passivation of steel	QUAL 0790A/15	AE_15_121	NE40-081	EMBRAER	without
			NE40-012	EMBRAER	

Qualification responsible :
 M. OTTON

These qualifications are subject to the specific conditions below

- The company qualified under takes to perform series production monitoring in compliance with the LATECOERE requirements and/or customers.
- The product or service are compliant with industrial and technical files produced for the technical evaluation.
- No change to the industrial and technical files validated by LATECOERE is allowed until information and approval is reached from LATECOERE.
- This qualification can be stopped or cancelled at any time, if the manufacturer or the efficiency to the quality assurance system is failing.
- The validity date will be within the time limits described in procedure Q0375M

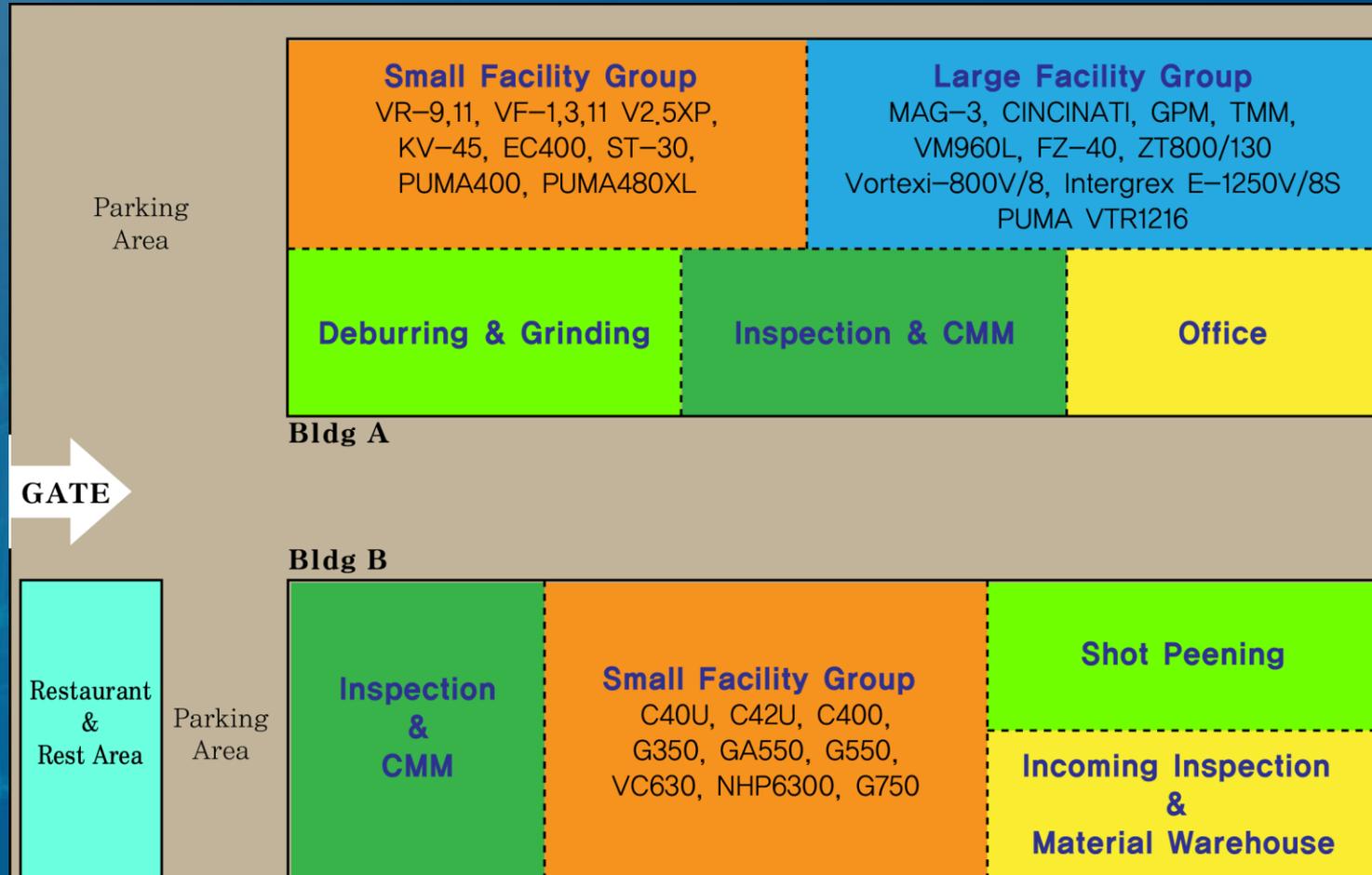
Page(s) : Page 1 sur 1

NF-1042 and B



▶ GENERAL

제2 사업장





▶ SHOP FACILITY

대형 장비 보유 현황



MAG-3 (2EA) 5-Axis Machining (High Productivity)



Manufacture	MAKINO / JAPAN
Travels (X×Y×Z (mm))	3,000×1,500×1,000
Travels (A & C)	A-Axis: ±110° C-Axis: ±360°
Spindle Speed/ Power	33,000 RPM / 78KW



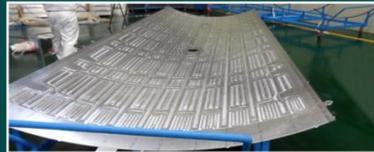
RIB (B737 Program)
Machine : 350 EA/Month



CINCINNATI 3-Axis Machining (TWIN Spindle 30V Roll)



Manufacture	CINCINNATI / USA
Travels (X×Y×Z (mm))	8,000×2,400×750
Travels (A & C)	N/A
Spindle Speed/ Power	10,000 RPM/ 24KW



SKIN (A321 15A Program)
Machine: 44EA/Month



TOP STRINGER (A330/380Program)
Machine: 120EA/ Month



STRINGER (A380 Program)
Machine: 78EA/Month





▶ SHOP FACILITY

대형 장비 보유 현황



1-GPM 3-Axis Machining (1 Spindle)



Manufacture	DAEWOO / KOREA
Travels (X×Y×Z (mm))	8,000×1,850×355
Travels (A & C)	N/A
Spindle Speed/ Power	3,600 RPM/ 26KW

2-GPM 3-Axis Machining (2 Spindle)



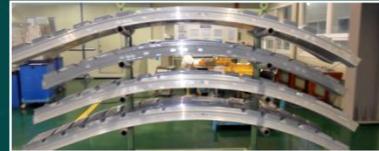
Manufacture	DAEWOO / KOREA
Travels (X×Y×Z (mm))	7,000×2,450×350
Travels (A & C)	N/A
Spindle Speed/ Power	3,600 RPM/ 26KW



SKIN SIDE (A321 Program)
Machine: 30EA/Month



RAIL (Launch Rail Program)
Machine: 8EA/Month



FRAME (A330/340 Section 15 Program)
Machine: 210EA/Month



WEB (B737 Program)
Machine: 24EA/Month





▶ SHOP FACILITY

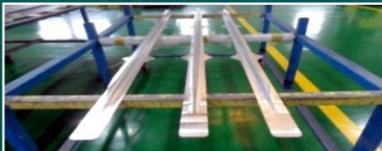
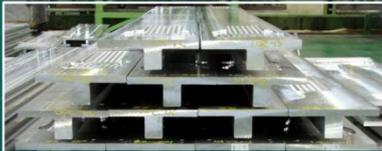
대형 장비 보유 현황



TMM 3-Axis Machining (2 Spindle)



Manufacture	DAEWOO / KOREA
Travels (X×Y×Z (mm))	4,500×2,400×350
Travels (A & C)	N/A
Spindle Speed/ Power	3,600 RPM/ 26KW



TOP STRINGER
(A330/A340/A380 TAST/PD Program)
Machine: 120EA/Month

VM960L 3-Axis Machining



Manufacture	DOOSAN / KOREA
Travels (X×Y×Z (mm))	2,400×900×800
Travels (A & C)	-
Spindle Speed/ Power	6,000 RPM/ 78KW



TOP STRINGER (A330)
Machine: 60EA/Month



Failsafe Chord (B737 Program)
Machine: 24EA/Month



FRAME (B747 Program)
Machine: 8EA/Month





▶ SHOP FACILITY

대형 장비 보유 현황



FZ-40 3-Axis Machining (Vertical)



Manufacture	DAEWOO / KOREA
Travels (X×Y×Z (mm))	1,016×508×365
Travels (A & C)	N/A
Spindle Speed/ Power	3,500 RPM/ 22KW



FRAME (B747 Program)
Machine: 8EA/Month



Failsafe Chord (B737 Program)
Machine: 24EA/Month



TOP STRINGER (A330 Program)
Machine: 60EA/Month

ZT-800/130 5-Axis Machining



Manufacture	RIGD / SWISS
Travels (X×Y×Z (mm))	1,600×1,250×1,320
Travels (A & C)	A-Axis: - 60 ~ + 90° C-Axis: ± 360°
Spindle Speed/ Power	6,000 RPM/ 30KW



A-FRAME (A380, B787 Program)
Machine: 78EA/Month





▶ SHOP FACILITY

대형 장비 보유 현황



Vortexi-800V/8 5-Axis Machining



Manufacture **MAZAK / JAPAN**

Travels (X×Y×Z (mm)) **1,700×1,500×1,150**

Travels (B & C) **B-Axis:150°
C-Axis:360°**

Spindle Speed/ Power **10,000 RPM/
37KW**



Intergrex E-1250V/8S 5-Axis Machining



Manufacture **MAZAK / JAPAN**

Travels (X×Y×Z (mm)) **1,875×1,250×1,345**

Travels (B & C) **B-Axis:150°
C-Axis:360°**

Spindle Speed/ Power **10,000 RPM/
37KW**



PUMA VTR1216 LATHE

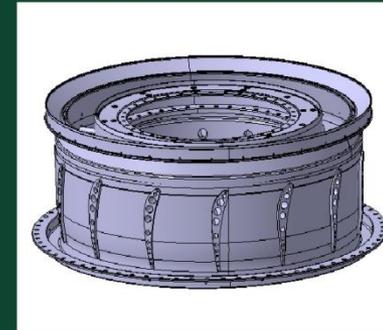


Manufacture **DOOSAN / KOREA**

Travels (X×Y×Z (mm)) **-700/+1,000×1,200×800**

Travels (B & C) **-**

Spindle Speed/ Power **400 RPM/
45KW**



**Core Engine
Machine : 5EA/Month**



A-FRAME (A380, B787 Program) / Machine: 78EA/Month



SAMWOO METAL
INDUSTRIES CO., LTD



▶ SHOP FACILITY

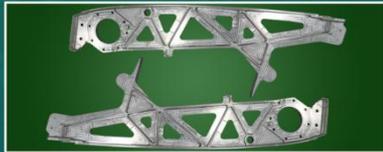
소형 장비 보유 현황



VR-9 5-Axis Vertical Machining



Manufacture	HAAS / USA
Travels (X×Y×Z (mm))	2,134×1,016×762
Travels (A & C)	A-Axis: ±32° B-Axis: ±32°
Spindle Speed/ Power	15,000 RPM/ 22KW



RIB_OUTBD (B747-8 Program)
Machine: 24EA/Month



RIB_OUTBD (B747-8 Program)
Machine: 32EA/Month



FRAME.STRUCT (KUH Program)
Machine: 42EA/Month

VR-11 (5EA) 5-Axis Machining (Vertical)



Manufacture	HAAS / USA
Travels (X×Y×Z (mm))	3,048×1,016×762
Travels (A & C)	A-Axis: ±32° B-Axis: ±32°
Spindle Speed/ Power	15,000 RPM/ 22KW



1532_LWR_PANEL (B787 Program)
Machine: 60EA/Month



1531_MFTE_UPR (B787 Program)
Machine: 50EA/Month



1521_UPR_SPRT (B787 Program)
Machine: 40EA/Month





▶ SHOP FACILITY

소형 장비 보유 현황



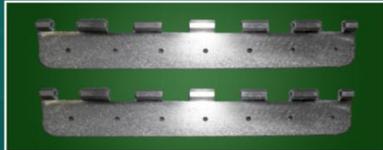
VF-1 3-Axis Machining (Vertical)



Manufacture	HAAS / USA
Travels (X×Y×Z (mm))	500×400×500
Travels (A & C)	N/A
Spindle Speed/ Power	15,000 RPM/ 15KW



HINGE (T-50 Program)
Machine: 210EA/Month



BRACKET (A321 16A Program)
Machine: 400EA/Month

VF-3 3-Axis Machining (Vertical)



Manufacture	HAAS / USA
Travels (X×Y×Z (mm))	1,016×508×635
Travels (A & C)	N/A
Spindle Speed/ Power	15,000 RPM/ 22KW



BRACKET (A321 16A Program)
Machine: 400EA/Month



HINGE (T-50 Program)
Machine: 2EA/Month



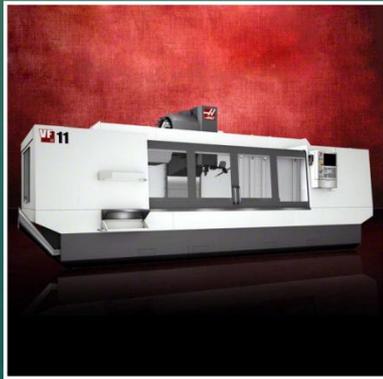


▶ SHOP FACILITY

소형 장비 보유 현황



VF-11 3-Axis Machining (Vertical)



Manufacture	HAAS / USA
Travels (X×Y×Z (mm))	3,045×1,016×762
Travels (A & C)	N/A
Spindle Speed/ Power	10,000 RPM/ 22KW



Lwr-Panel-Beam-01-1 (EMB Program)
Machine: 10EA/Month



Lwr-Panel-Beam-01-1 (EMB Program)
Machine: 10EA/Month



FRAME (S-15 Program)
Machine: 7EA/Month

V 2.5 XP 3-Axis Machining (Vertical)



Manufacture	AKIRA-SEIKI/TAIWAN
Travels (X×Y×Z (mm))	1,016×508×635
Travels (A & C)	N/A
Spindle Speed/ Power	15,000 RPM/ 22KW



LINK (T-50 Program)
Machine: 2EA/Month



FITTING (T-50 Program)
Machine: 2EA/Month



BRACKET (T-50 Program)
Machine: 2EA/Month





▶ SHOP FACILITY

소형 장비 보유 현황



KV-45 3-Axis Machining (Vertical)



Manufacture	WIA/ KOREA
Travels (X×Y×Z (mm))	800 X 500 X 48
Travels (A & C)	-
Spindle Speed/ Power	22.4KW



FITTING (B767 Program)
Machine: 12EA/Month



FITTING (B767 Program)
Machine: 8EA/Month

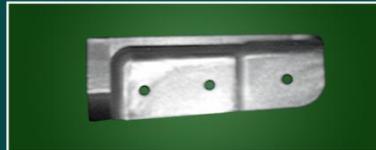


Ifte_Splr_Bm_Splr7_Aux-Hng
(B787 FHI Program)
Machine: 110EA/Month

EC400 (2EA) 4-Axis Machining



Manufacture	HAAS / USA
Travels (X×Y×Z (mm))	508× 508×508
Travels (A & C)	A-Axis:91/130° B-Axis:360°
Spindle Speed/ Power	12,000 RPM/ 22.4KW



FITTING (B787 FHI Program)
Machine: 110EA/Month



FITTING (B787 FHI Program)
Machine: 110EA/Month



FITTING (A321 Program)
Machine: 120EA/Month





▶ SHOP FACILITY

소형 장비 보유 현황



ST30 (2EA) LATHE



Manufacture **HAAS / USA**

Travels (X×Y×Z (mm)) **780×460×520**

Travels (A & C) **N/A**

Spindle Speed/
Power **4,500 RPM/
11KW**

PUMA400 LATHE



Manufacture **DOOSAN / KOREA**

Travels (X×Y×Z (mm)) **15 Inch**

Travels (A & C) **N/A**

Spindle Speed/
Power **2,000 RPM/
53KW**



END FITTING (B737 VF Program)
Machine: 50EA / Month



FRONT FRAME
Machine: 8EA / Month



HURB
Machine: 150EA / Month



PREFORM
Machine: 30EA / Month



HURB
Machine: 150EA / Month



HURB
Machine: 150EA / Month





▶ SHOP FACILITY

소형 장비 보유 현황



PUMA480XL LATHE

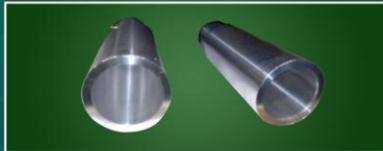


Manufacture **DOOSAN / KOREA**

Travels
(X×Y×Z (mm)) **21 Inch**

Travels
(A & C) **-**

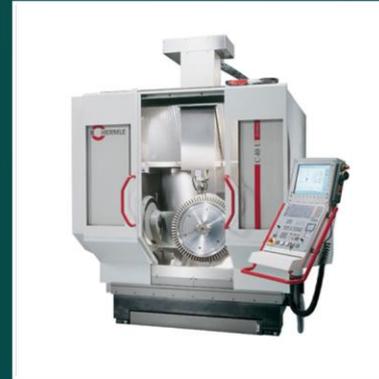
Spindle Speed/
Power **1,500 RPM/
63KW**



PREFORM
Machine: 30EA / Month



C40U (3EA) 5-Axis Machining (Vertical)



Manufacture **HERMLE / GERMANY**

Travels
(X×Y×Z (mm)) **850×700×550**

Travels
(A & C) **A-Axis: ±90°
C-Axis: ±360°**

Spindle Speed/
Power **28,000 RPM/
76KW**



OGV Vane (B787 Program)
Machine: 250EA/Month





▶ SHOP FACILITY

소형 장비 보유 현황



C42U 5-Axis Machining



Manufacture	HERMLE / GERMANY
Travels (X×Y×Z (mm))	870×750×500
Travels (A & C)	A-Axis: ±130° C-Axis: 360°
Spindle Speed/ Power	28,000 RPM/ 24KW



OGV Vane (B787 Program)
Machine: 250EA/Month



FITTING (B767 Program)
Machine: 9EA/Month



JOYSTICK (BIHO Program)
Machine: 17SET/Month

C400 (4EA) 5-Axis Machining



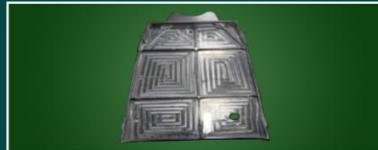
Manufacture	HERMLE / GERMANY
Travels (X×Y×Z (mm))	870×750×500
Travels (A & C)	A-Axis: 91/130° C-Axis: 360°
Spindle Speed/ Power	18,000 RPM/ 24KW



Front Frame
Machine: 8EA/Month



Hat Rack (B767)
Machine: 5EA/Month



RIB FITTING (B787 Program)
Machine: 11EA/Month





▶ SHOP FACILITY

소형 장비 보유 현황



G350 5-Axis Machining



Manufacture **GROB / GERMANY**

Travels (X×Y×Z (mm)) **600×855×805**

Travels (A & C) **A-Axis: 360°
C-Axis: 360°**

Spindle Speed/
Power **18,000 RPM/
39KW**

GA550 (4EA) 5-Axis Machining



Manufacture **GROB / GERMANY**

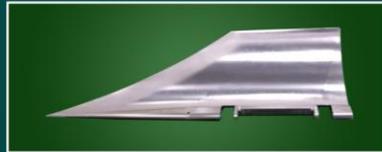
Travels (X×Y×Z (mm)) **800×1,020×1,020**

Travels (A & C) **A-Axis: 360°
C-Axis: 360°**

Spindle Speed/
Power **10,000 RPM/
100KW**



OGV Vane Cavity (B787 Program)
Machine: 250EA/Month



REAR WING
Machine: 500EA / Month



REAR WING
Machine: 500EA / Month



REAR WING
Machine: 500EA / Month





▶ SHOP FACILITY

소형 장비 보유 현황



G550 (2EA) 5-Axis Machining



Manufacture	GROB / GERMANY
Travels (X×Y×Z (mm))	800×1,020×1,020
Travels (A & C)	A-Axis: 360° C-Axis: 360°
Spindle Speed/ Power	18,000 RPM/ 39KW

VC630 5-Axis Machining



Manufacture	DOOSAN / KOREA
Travels (X×Y×Z (mm))	650×765×520
Travels (A & C)	A-Axis:30/120° C-Axis: 360°
Spindle Speed/ Power	18,000 RPM/ 35KW



PIVOT FRAME (B787)
Machine: 84EA/Month



INSPECTION WINDOW (T-50 Program)
Machine: 20EA/Month



ROOT FITTING (B787MAX)
Machine: 10EA/Month



REAR COVER (FA50)
Machine: 3EA/Month



PBH (B787)
Machine: 104EA/Month



Bearing Block (B787)
Machine: 225EA/Month



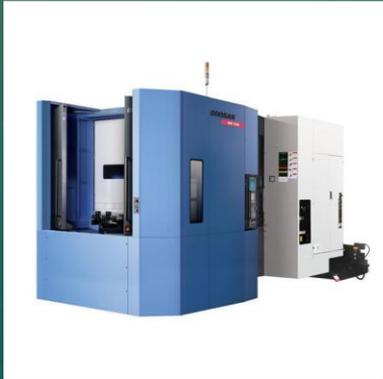


▶ SHOP FACILITY

소형 장비 보유 현황



NHP6300 (2EA) 4-Axis Machining



Manufacture **DOOSAN / KOREA**

Travels (X×Y×Z (mm)) **1,050×900×1,000**

Travels (A & C) **B-Axis:1°**

Spindle Speed/
Power **10,000 RPM/
45KW**



OGV Vane Cavity (B787 Program)
Machine: 250EA/Month

G750 5-Axis Machining

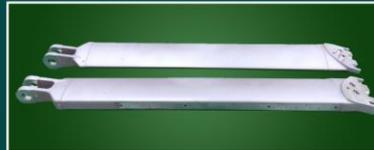


Manufacture **GROB / GERMANY**

Travels (X×Y×Z (mm)) **1,000×1,100×1,170**

Travels (A & C) **A-Axis: ±360°
C-Axis: ±360°**

Spindle Speed/
Power **9,000 RPM/
64KW**



A-FRAME (A380, B787 Program)
Machine: 78EA/Month





▶ SHOP FACILITY

숫 피닝 (Shot Peening M/C)



Auto Machine



Manufacture	SEKWANG SHOT M/C KOREA	
Condition of Application [L×W×H (mm)]	L	101.6 ~ 3,000
	W	76.2 ~ 1,500
	H	19.05 ~ 250.00
Peening Media	Cast Steel	ASH230
	Hardness	55~62HRC
	Size	Ø 0.7mm

Manual Machine



Manufacture	SEKWANG SHOT M/C KOREA	
Condition of Application [L×W×H (mm)]	L	1,200
	W	700
	H	500
Peening Media	Cast Steel	ASH230
	Hardness	55~62HRC
	Size	Ø 0.7mm





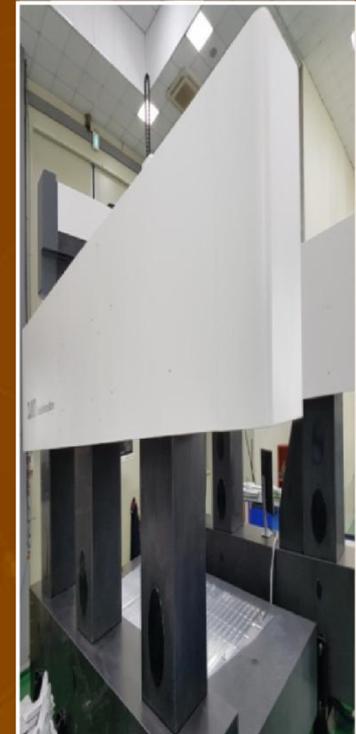
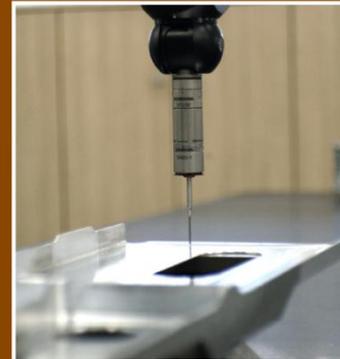
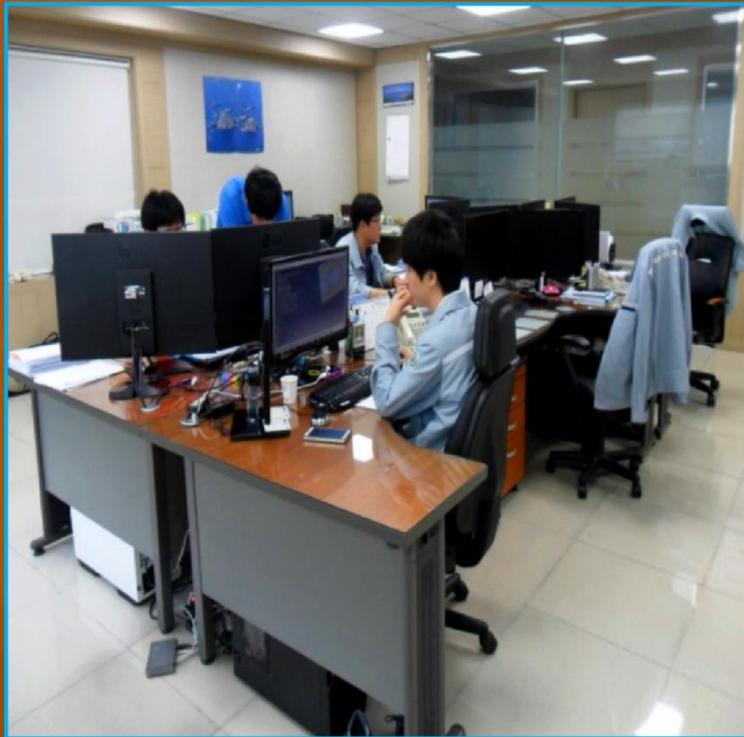
▶ TEST FACILITY

연구 개발 장비



CATIA V5 &
VERICUT NC Program

CMM Measurement (5EA)





감사합니다.

경남 창원시 성산구 성주로 53



SAMWOO METAL
INDUSTRIES CO., LTD
www.samwoometal.com