

Sep. 29. 2020

KUNYOUNG TECH

Company Profile

Kunyoung Tech

KUNYOUNG TECH

CEO	GUK-GEON, LIM
Date of Establishment	1 st DEC. 1992
Sales Amount	\$14.5M ('15), \$16M ('16), \$20.2M ('17), \$24M ('18)
Employees	88 Employees
Contact	http://www.kunyoungtech.com +82 55-262-8916 / ky006@kunyoungtech.com
Main Products	Handle, Fuel/Urea Cap, Filler Neck, Strainer, Lock, Latch, Catch, Seat Frame Ass'y, Hinge, Non-slip Plate etc.



World Best Locking Solution Provider

Business Innovation For World Best Company

QPC

Best Company

Best Product

Best Quality

Customer Satisfaction

Quality Goal

SUSTAINABLE BUSINESS MODEL BY
QUALITY MGT & CUSTOMER SATISFACTION

Enthusiasm

Quality

Customer

Business Goal

INNOVATION

SUPPLIER

EMPLOYEE

EDUCATION

ONE TABLE TEAM



Talent Security



Human Respect



Social Responsibility

YEAR	EVENT
1992	Establishment (1st December)
1994	Registered as Tier1 with TATA CV, Hyundai Heavy Patent Registered (Air Vent Cap), Registered as Tier2 VOLVO CE
1998	Registered as Tier1 with Doosan Infracore
2001	Quality Certified with QS9000, Developed Door Lock for Doosan Infracore
2002	Registered as Tier1 Dae-Dong Industrial , CLARK Forklift Registered as Tier2 Hyundai WIA, Hyundai Rotem , KIA Motors, Quality Certified ISO 9001,14001
2006	Developed Door Lock (Hyundai Heavy), Patent Applied 24 Items
2007	Patent Applied Nonslip Plate (Hyundai Heavy)
2011	Quality Certified TS16949, Developed Seat Frame(Middle Plate) Hyundai Heavy, Established R&D Lab.
2012	Established the third Plant (51-20, Yeondeok-ro, 15beon-gil, Changwon)
2013	Developed Fan Guard(Doosan Infracore), Registered as Tier1 KUBOTA(Japan) - Developed Cabin Locking System
2014	Developed Cabin Locking System (VOLVO), Applied Seat Frame(Middle Plate)-Set for HHI (ALL MODEL)
2015	Registered as Tier2 Ssangyong Motors, Developed Cable Entry (Hyundai Wia)
2016	Developed Steering Column (Clark Forklift), ERP System Launching Awarded Best CEO by Seoul Economy, Developed Cabin / Cowl Exterior Solution (CNH America)
2017	Developed Fuel Cap (Yanmar), Developed Door Latch System(SDLG), Awarded Best Company (By Government)
2018	Join Intermat Show (France) EIMA show (Italy), BAUMA show (China), CONEXPO show (India)

C/E

Volvo C/E

Doosan Infracore

Hyundai C/E

Kubota

Yanmar

Hitachi C/E

CNHi Industrial

**Commercial
Vehicle**

Hyundai Motors

Kia Motors

Tata Daewoo Motors

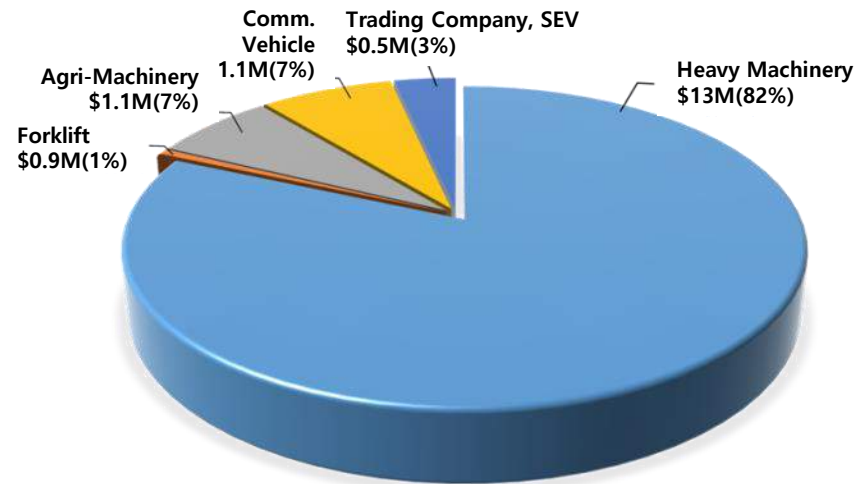
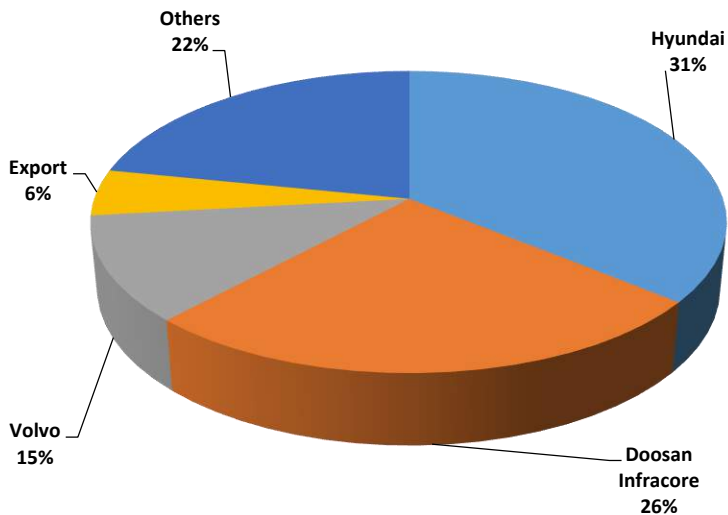
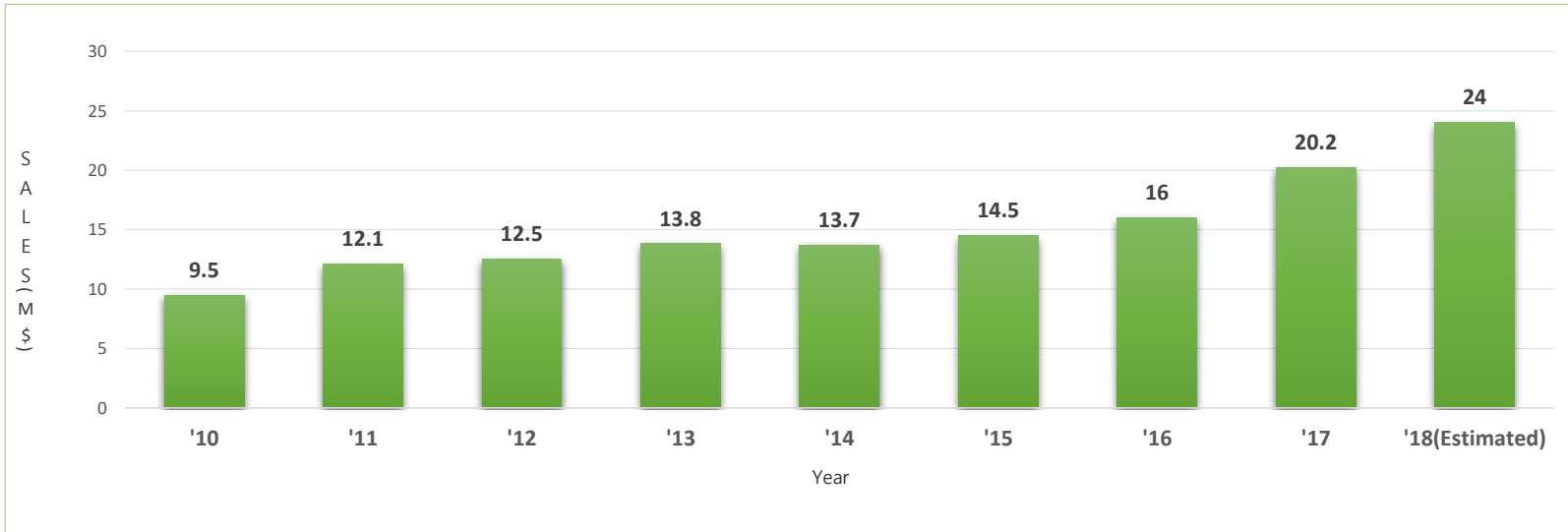
**Agricultural
Industrial
Machinery**

Kioti Tractor

LS Mtron

Clark Forklift

KUNYOUNG Tech has been growing steadily.



HANDLE / LOCK



HANDLE



HANDLE



DOOR LOCK

SIDE DOOR
LOCK-CBDOOR
LOCK
-FHASIDE DOOR
LOCK
-FGASIDE DOOR
LOCK-G

CATCH



CATCH-A

CATCH
LOCKCATCH
LOCK-BJ

CATCH-B

CATCH
LOCK-CACATCH
LOCK-BICATCH
LOCK-BCCATCH
LOCK-A6CATCH
LOCK-AG

LATCH / LOCK

HOOD
LATCH-BROTOR
LATCH-CDOOR
CLAMP-ASNACH
LOCK-BLATCH
SLIDEFRONT
LATCHPULL
LATCHINNER
LATCH-AROTOR
LATCH
ASS'Y

CONSOLE FRAME



MIDDLE PLATE
SUB ASS'Y



MIDDLE PLATE SUB
ASS'Y



RELIABILITY TEST



SAFETY ASS'Y



SUNGLASS CASE

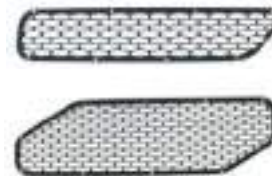


RACHET ASS'Y

PLATES

FRONT
NON SLIP

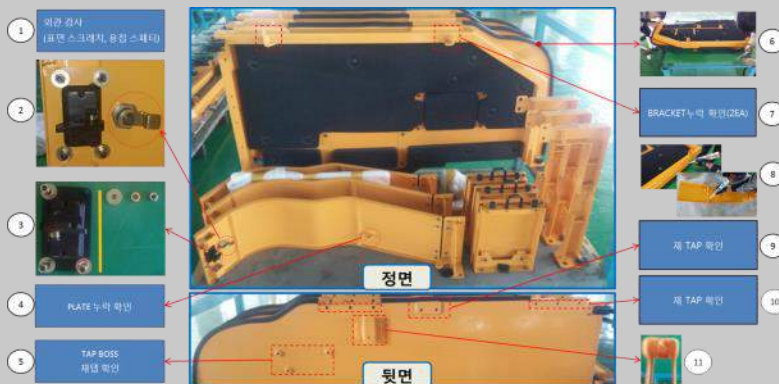
FAN GUARD-A



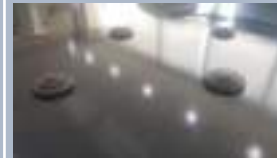
GRILL

FRAME
COVER
WELD ASS'Y

MCV BOX

SUPPORT
ASSYBATTERY BOX
ASS'YREAR FENDER
WELD ASS'Y

ANTI SLIP PLATE

TPU
TYPEDIE CASTING
TYPEPRESS
TYPE

HINGE



HINGE-A

HINGE
-ECAHINGE
-JHINGE
-DDHINGE
-HAHINGE
-QHINGE
-EBA

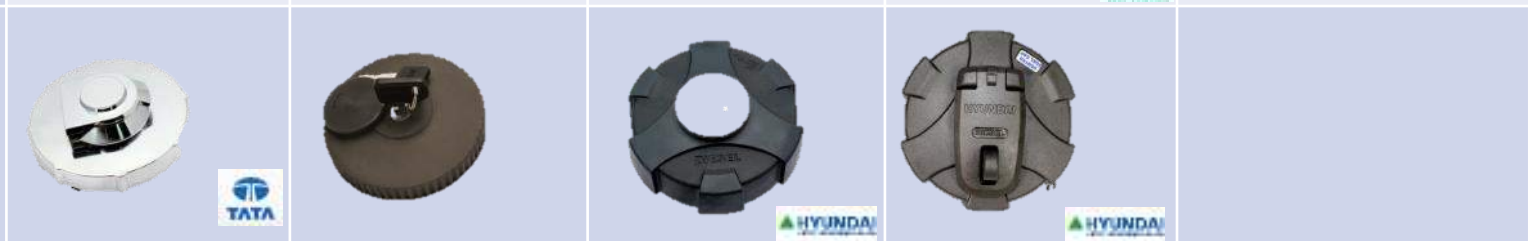
HINGE-S

HINGE
-L

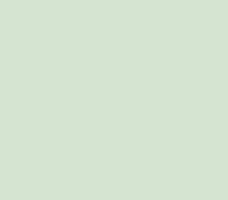
COWL (4.8 TON)



LIST By CAP Size

CAP 50
(Φ66~68mm)CAP 80
(Φ100mm)CAP 100
(Φ122mm)

LIST By Neck Size

NECK 50
($\Phi 51$)NECK 80
($\Phi 80 \sim \Phi 84 \text{mm}$)NECK 100
($\Phi 95 \sim 105 \text{mm}$)



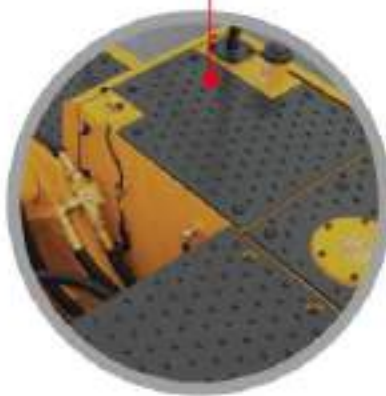








첨단소재
미끄럼방지 플레이트





FUNCTION PART

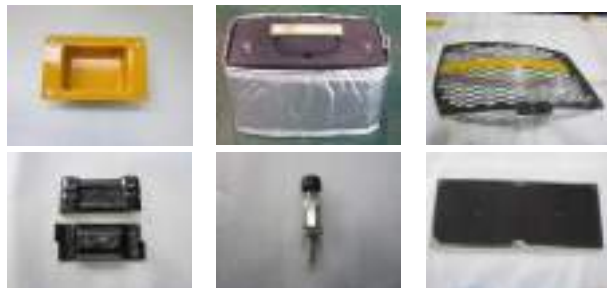
- E/G HOOD FRAME
- HAND RAIL
- CABIN
- 5 Ton BUCKET



- COWL FRAME
- SIDE DOOR
- REAR COVER



FUNCTION PART







* Currently supplying Items



HOOD LATCH



FUEL CAP



HYD-CAP



HANDLE

STEERING COLUMN



* FUEL&HYD MODULE

KEY-TYPE



NON-KEY



PULL LATCH



FUEL CAP



DOOR LOCK



HANDLE



FUEL CAP



FILLER NECK



ADBLUE CAP



ADBLUE NECK







● MANUFACTURING PROCESS

● Sheet Metal



● Laser Cutting



● Bending



(유압 및 부자재 입고)

● Welding



● Assembly



● Painting



● Sanding

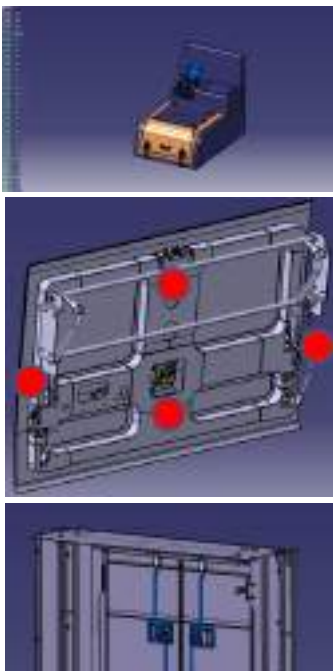


● Surface Treatment

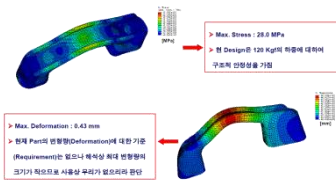
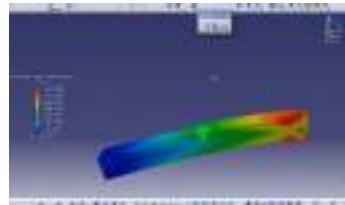


FUNCTION PART PROCESS OF R&D -

Design



ANALYSIS



• Result summary

Gate Location	Structural Analysis		Flow Analysis	
	Stress	Deformation	Fill Time	Pressure
Gate-1			1.04 sec	41.8 MPa
Gate-2	28.0 MPa	0.43 mm	1.05 sec	63.5 MPa
Gate-3			1.03 sec	31.2 MPa

- 결론
- 1) 본 Design은 120Kgf의 하중에 구조적으로 안전하나 내부 flow의 경우는 실 Test를 통한 규명이 필요
 - 2) Gate 위치의 경우 Gate-3의 높은 결과를 보이고 있으나 피관상 문제나 균형제어의 편의상 Gate-1이 유리 (이사를 후 문제 일관시 Gate-3로 수정가능)

TEST



PRODUCTS



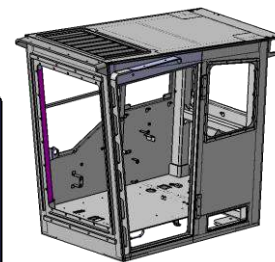
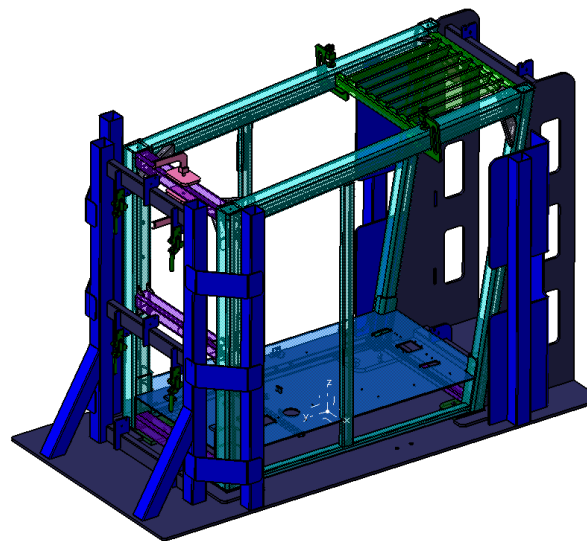
MANUFACTURING PART - CABIN

EQUIPMENT



PRODUCTS

◇ CABIN (HCE, DOOSAN, DONGYANG)



- ▶ 2009 TYM Tractor CABIN
- ▶ 2010 CLARK CABIN
- ▶ 2010 HCE Forklift
- ▶ 2019 Doosan & HCE Forest Machine CABIN

● MANUFACTURING PART - E/G HOOD FRAME, COWL FRAME

EQUIPMENT



PRODUCTS

◇ E/G HOOD FRAME



◇ COWL FRAME

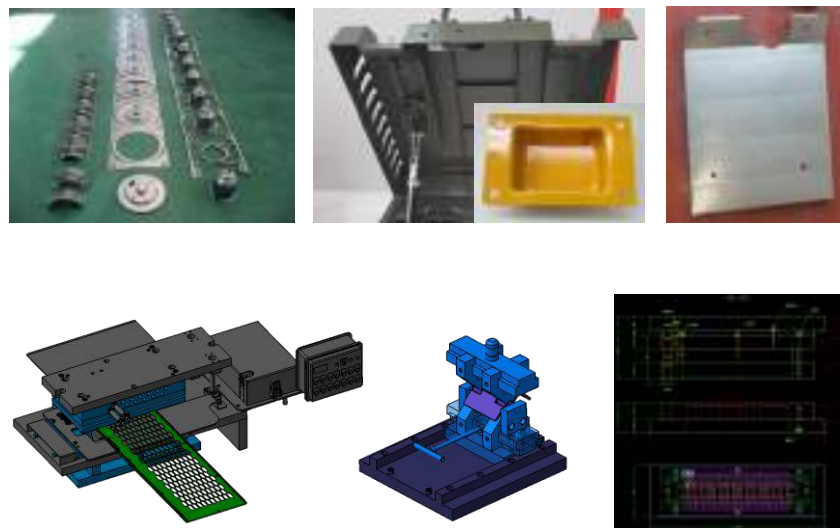


PRESS PART

EQUIPMENT



PRODUCTS



FUNCTION PART

EQUIPMENT



PRODUCTS



1st,2nd Plant

- Kunyoung Tech, 51-21, Yeongdeok-ro 15 beon-gil, Seongsan-gu, Changwon 51571 Gyeongnam, KOREA
- 3,306 m²
- Latch, Handle, Fuel Cap, Filler Neck , Seat Console, Step etc.

**3rd PLANT**

- 4-4, Wanam-ro 3, Seongsan-gu, Changwon 51570
- Gyeongnam, KOREA
- 826m²
- Non-Slip Plate , Grill Cabin Lift Jack

**4th PLANT**

- 33 129 Beongil, Golden Root ro, Gimhae
- Gyeongnam, KOREA
- 3,306 m²
- E/G Hood Frame, Handrail, Cabin Parts, Hinge





HANDLE

■ 핸들 개발 예제1
Out Deep Handle Simulation analysis type

1. Structural analysis

2. Flow analysis

3. Weight control

구분	기존 설계		신규 설계	
	중량 (g)	중량 (g)	중량 (g)	중량 (g)
구분 1	100.0	100.0	100.0	100.0
구분 2	100.0	100.0	100.0	100.0
구분 3	100.0	100.0	100.0	100.0

■ 핸들 개발 예제2

구분 1, 2, 3, 4, 5, 6

KUNYOUNG TECH

FUEL CAP

■ CAP

1. Structure

2. Fuel Cap

3. 연료캡 압력 측정

구분 1, 2, 3, 4, 5, 6

구분	기존 설계		신규 설계	
	중량 (g)	중량 (g)	중량 (g)	중량 (g)
구분 1	100.0	100.0	100.0	100.0
구분 2	100.0	100.0	100.0	100.0
구분 3	100.0	100.0	100.0	100.0
구분 4	100.0	100.0	100.0	100.0
구분 5	100.0	100.0	100.0	100.0
구분 6	100.0	100.0	100.0	100.0

KUNYOUNG TECH

350 TON PRESS



LASER (4KW)



200 TON PRESS



LASER (1.8KW)



WELDING

SPOT
WELDINGCO2
WELDINGROBOT
WELDING

BENDING, MILLING, LATHE



Milling



BENDING



LATHE



Servo Press 5 TON



Servo Press 5 TON



Servo Press 10 TON

분류	설비/장비명	형식/규격	수량	MAKER
제 관 설 비	LASER M/C	50tX5X10/4Kw	2	한강
	BENDING M/C	9tX3100L	2	대인기계
	BENDING M/C	4.5tX2000L	1	AMADA
	SHEAGING M/C	4.5tX2500L	1	대인기계
	MILLING M/C	2호기	1	화천기계
	SPOT WELD M/C	330KVA	2	대양
	DRILLING M/C	13, 23mm	6	삼천리
	COMPRESSOR	20, 30, 100HP	3	한신
	CO2 WELDING M/C	350A, 500A, 600A	30	효성, 파나소닉
	TIG WELDING M/C	350A, 500A	2	
	WELDING ROBOT	300Kg	1	HHI
	WELDING ROBOT	500A	1	HHI
	WELDING ROBOT	350A	1	파나소닉
	WELDING ROBOT	350A	1	OTC
	CRANE	10T,5T,1T	10	삼성중공업
	유압 및 메커니컬 금형 일체			자작, 외주가공
	각종 제관 JIG류			자작
	액상 도장설비	2.5M X 2.5M	1	코만도

분류	설비/장비명	형식/규격	수량	MAKER
P R E S S 설 비	MECHANICAL PRESS	250 TON (D-CRK)	1	국일
	MECHANICAL PRESS	200 TON	2	한얼
	MECHANICAL PRESS	160 TON	1	동신
	MECHANICAL PRESS	110 TON	5	국일/우진
	MECHANICAL PRESS (고속)	80, 60, 45 TON	4	국일/AIDA, KOMATSU
	UNCOIL-LEVELER ,NC ROLL FEEDER	NF-303	7	대양
	AUTO REEL REWINDER		2	동남
	LID & FRAME ASS'Y M/C		2	SK
	초음파 세척기	3조식	1	금성
	ARC WELDER	10 KVA	3	대림
	PROJECTOR	10 배율	1	MITUTOYO
	MICROSCOPE	40 배율	1	OLYMPUS
	RADIAL M/C	5호기	1	
	N/C MILLING M/C	5호기	1	
	MILLING M/C	2호기, 1.5호기	2	
	성형 연삭기		1	
	평면 연삭기		1	
	범용선반	4 x 8	1	
	DRILLING M/C 및 CONTOUR M/C		4	

Equipment	Model	Specification	Q'ty	Made in
LAY-OUT M/C (3차원 측정기)	BK-1500	X2500,Y1300,Z1500	1 Set	Japan
HEIGHT GAUGE	MA514-600S	0~600	1 Set	BLUEBIRD
VERNIER CALLIPERS	530-502	1000	1 Set	Japan
DIAL CALLIPERS	505-673	300	1 Set	Japan
MAGNET BLOCK	CKY-2B	150X150X150	2 Set	Korea
온도 측정기	JT-450C	830413	1 Set	Japan
전류 측정기	TK-601AD	467065	1 Set	Korea
도막 측정기, 색차계	QNIX 4200	1225110	1 Set	Japan
외경 마이크로 미터	103-129,103-130	0~50	2 Set	Japan
실린더 게이지	468-982~4	12~75	3 Set	Japan

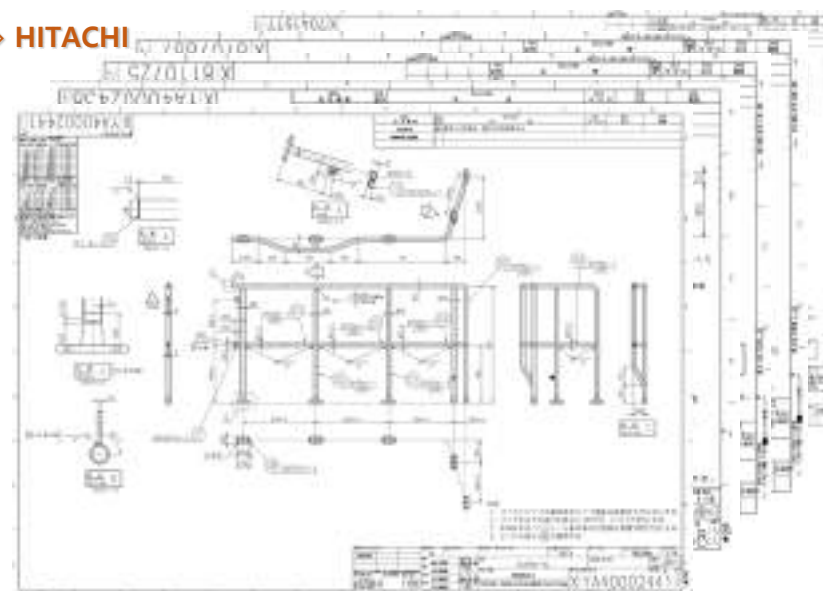
● MANUFACTURING PART - HANDRAIL

EQUIPMENT



PRODUCTS

◇ HITACHI



- ▶ 세진산업(주)은 2018년 히타치와 신기종 거래 계약을 하여 현재 본격 생산 준비중에 있음
- ▶ PIPE 절곡은 협력업체에서 가공후 전공정을 세진산업(주)에서 생산함

TROLLY Line (160m)

LWH : 2000 X 1500 X 800



REAR FENDER



LATCH,CATCH



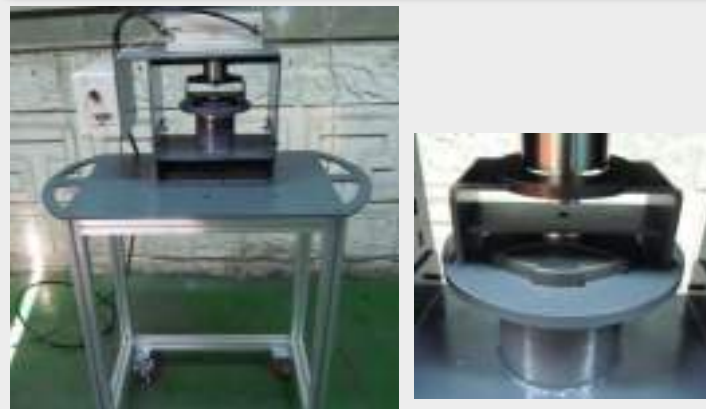
BELT CONVEYOR Line



CABIN ENDURANCE TESTER



FUEL CAP ENDURANCE TESTER



MATERIAL TESTER



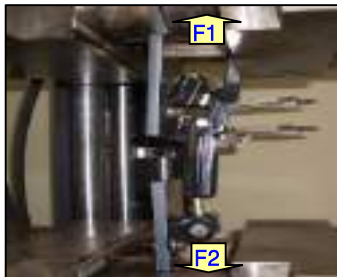
OPEN PERFORMANCE TESTER



MATERIAL TESTER

KEY RELIABILITY
TESTER

KEY ON/OFF TESTER

ASSY TENSILE
STRENGTH TEST

CRACK TEST



SPRING RELIABILITY

PUSH-PULL GAUGE



CATCH PERFORMANCE

MATERIAL TESTER



CRACK TEST

LOCK RELIABILITY
TESTER

CLOSE



OPEN

LATCH TEST 50,000 TIMES

KEY ON/OFF TESTER



KEY RELIABILITY

PUSH-PULL GAUGE



LATCH PERFORMANCE



Quality Certification System

ISO9001 : 2015
(2017 Renewal)



Environment Certification System

ISO14001 : 2015
(2017 Renewal)



Quality Certification System

ISO/TS16949 : 2016
(2017 Renewal)

- Only Main Patents are mentioned

PATENT LIST

Serial Number	Name	Other
20-2007-0003980	For Heavy equipment, Door Lock	Utility Model
20-2007-0002722	Fuel Cap	Utility Model
10-2007-0126017	Non-slip	Patent
20-2007-0010808	For Heavy equipment, Hood Latch	Utility Model
30-2004-0027494	For Heavy machinery Door Handle	Design
10-2011-0035287	For C/E, Front Door Lock	Patent
10-2008-0086566	For Heavy equipment, Pivot Hinge	Patent
30-2007-0029048	For C/E Door, Damper	Design
10-2011-0066571	For C/E Cabin Door Lock	Patent
PCT/KR2008/000199	Non-slip	Internatioanl_PCT
20-2008-0015683	For C/E Door, Stay	Utility Model
10-2011-0106779	For Heavy equipment, Lift Jack	Patent
20-2004-0027082	For Heavy equipment, Door Lock	Utility Model
10-2012-0076663	Sunroof Door Handle	Patent
20-2004-0027083	For Heavy equipment, Door Lock	Utility Model
20-2004-0028163	For C/E, Front Door Lock	Utility Model
10-2012-0003394	Fuel Tank & Cap for Vehicles	Patent
20-2007-0003980	For Heavy equipment, Door Lock	Utility Model
10-2014-0057628	Stand Controller for Vehicles	Patent

50 Patents, 20 Utility Models, 30 Design, Total 100



THANK YOU!!



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