

ASSEMBLY AUTOMATION MACHINERY MACHINING

One Stop Process

GEM accomplishes
design, machining, manufacturing,
set-up, and commissioning
entirely in house

www.gemasia.kr



GEM Co., Ltd. supplies the Best Quality Products with Competitive Prices !

GEM Co., Ltd. established in 2002, is an expert on SPECIAL MACHINE, MACHINE TOOLS, FA SYSTEM, JIG FIXTURE, ROBOT AUTOMATIONS and GANTRY LOADER. GEM accomplishes design, machining, manufacturing, set-up, and commissioning entirely in house.

We are expanding market share by exporting not only to domestic but also to China, the US and Japan with continuous R&D and enterprising investment. In particular, we are doing customer satisfaction by establishing local corporations in China and the US.

GEM Co., Ltd. gives greater satisfaction to our customers based on your interest, encouragement, love and unchanging trust.

Thank you.

President of GEM Co., Ltd. *Song, Chill Young*



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GEM guarantees the Best Technology and Quality.

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About GEM Co., Ltd.

GEM guarantees
the Best Technology and Quality.

History of GEM

2022	06	Move to current factory (Site / Floor area : 10,820m ² /8,970m ²)
2018	10	Nominated as "Gyeongnam STAR Company" (Ministry of SMEs and Startups, Gyeongsangnam-do)
2016	03	Achieve the actual export record of \$ 20 million
2014	12	Nominated as "Promising Export Firm"
	04	Convert to corporation (GEM Co., Ltd.)
2012	07	Technical agreement with Roemheld in Germany Export Special machines & FA system
2011	04	Established China Office (A/S for HYUNDAI MOBIS, HYUNDAI WIA)
2006	06	Partner of HYUNDAI MOBIS, HYUNDAI WIA and MANDO
2005	05	Certified ISO 9001 / ISO 14001 Established company-affiliated R&D centers
2002	09	Partner of ZF SACHS Korea
	05	Established G.E.M.

Business Policy

GEM continue to implement of the following policies to provide quality products and services which can meet customer needs.



In order to achieve this, we all employees

- Continue to implement of an effective satisfied quality management system as quality management standards 'ISO 9001' requirement.
- Conscientious implementation of responsibility and authority with understanding this policy in prescribed manuals
- Best efforts to achieve through regular management, establish a goal, practice, and regular measurement activity

THE WORLD'S LEADING PROFESSIONAL EQUIPMENT AND SPECIALIZED MANUFACTURING COMPANY.

Research & Development

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the Best Technology and Quality.

Laboratory Introduction

Development of New Equipment

- Develop new equipments and industrializes according to customer needs
- Share new business information with partner companies / items by creating synergies
- Searching new future fusion hybrid items

Secure Research Original Technology

- Secure infrastructure of simulation analysis
- Professional research staff recruitment
- Participation in academic / national projects

R&D Control Tower

- R&D resource allocation, and build R&D network
- Business area R&D adjustment challenges and directions given

Certification & Patent



ISO 9001



ISO 14001



Inno-biz



KITA member



Promising export firm



Fabrication for
vehicle height
controlling device



Belt tensioning
device



Sliding module



Block locking system



Vice equipment



Index drive device

Assembly Automation Line

GEM guarantees the Best Technology and Quality.

CV Joint Integrated Hub Assembly Line



- The world's first integrated HUB CVJ assembly line
- Mixed production of EV & general CG
- Ball & I/Race selective input by grade with automation
- Application : CVJ for EV, CVJ for general vehicles

Axle Assembly Line

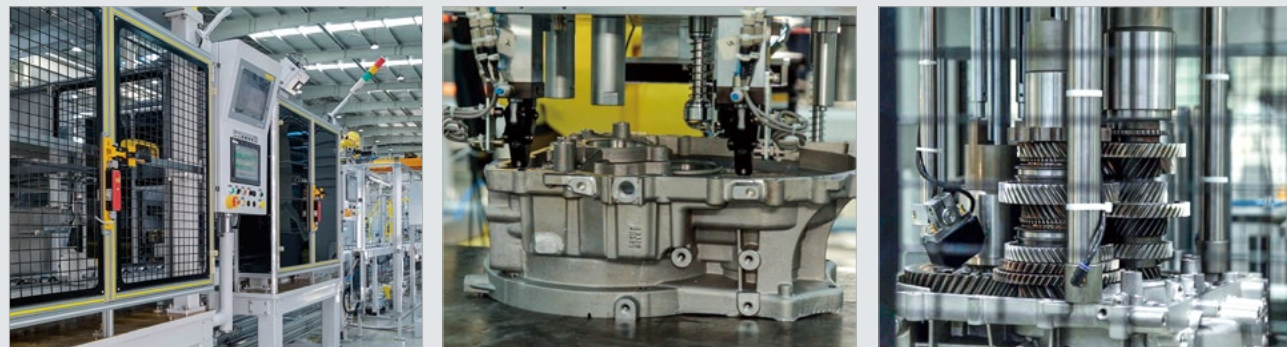


- Korea's first common line for FF & FR
- Mixed production of FR(3 types) / FR(5 types)
- AXLE assembly line with maximum automation rate
- Application : FF & FR AXLE assembly line

Assembly Automation Line

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■ Mission Assembly Line



- Korea's first 8-speed DCT & 8-speed FR assembly line
- Mixed production of 2WD & 4WD
- Multi-axis robot for RFID and multi-vehicle handling
- Application : 8-speed DCT, 8-speed FR assembly line

■ Caliper Assembly Line

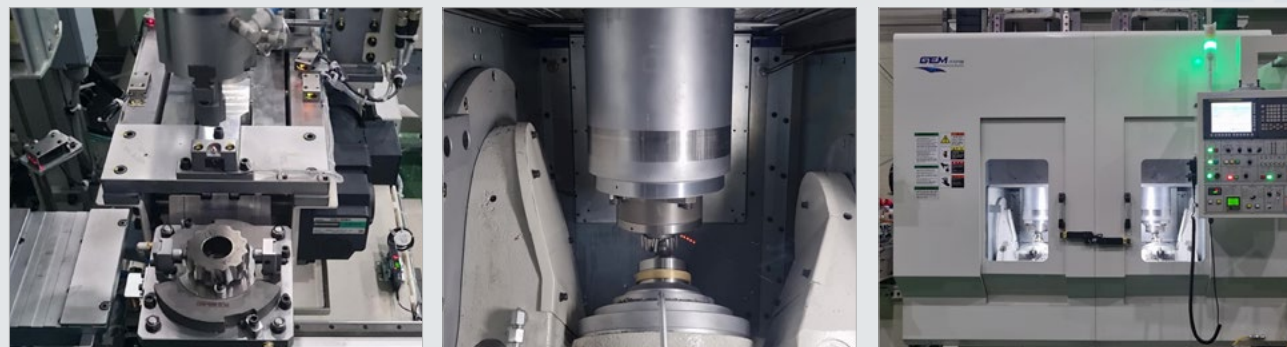


- Mixed production of 1Piston & 2Piston
- Vision, Marking, and EFD V/V for QA & tracking system
- Nut runner for secure fastening force & manage torque
- Application : Caliper, drum brake assembly line

Special Machine Automation Line

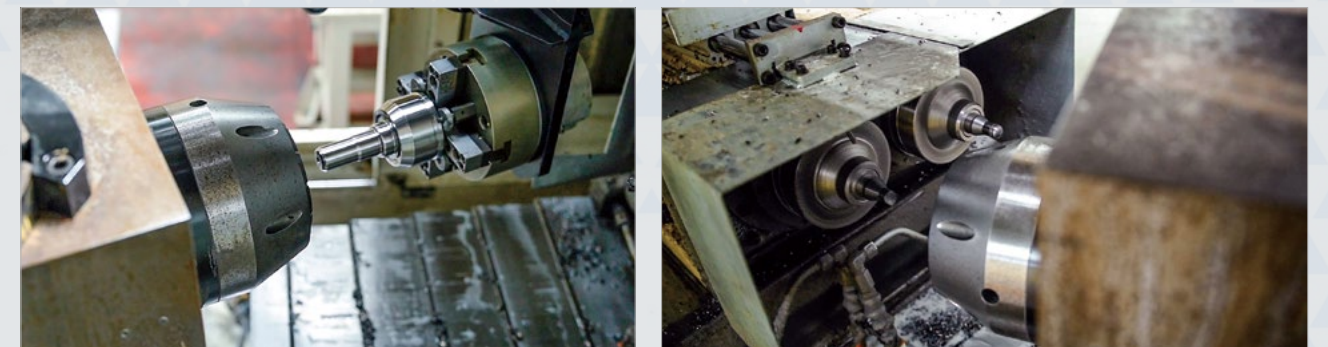
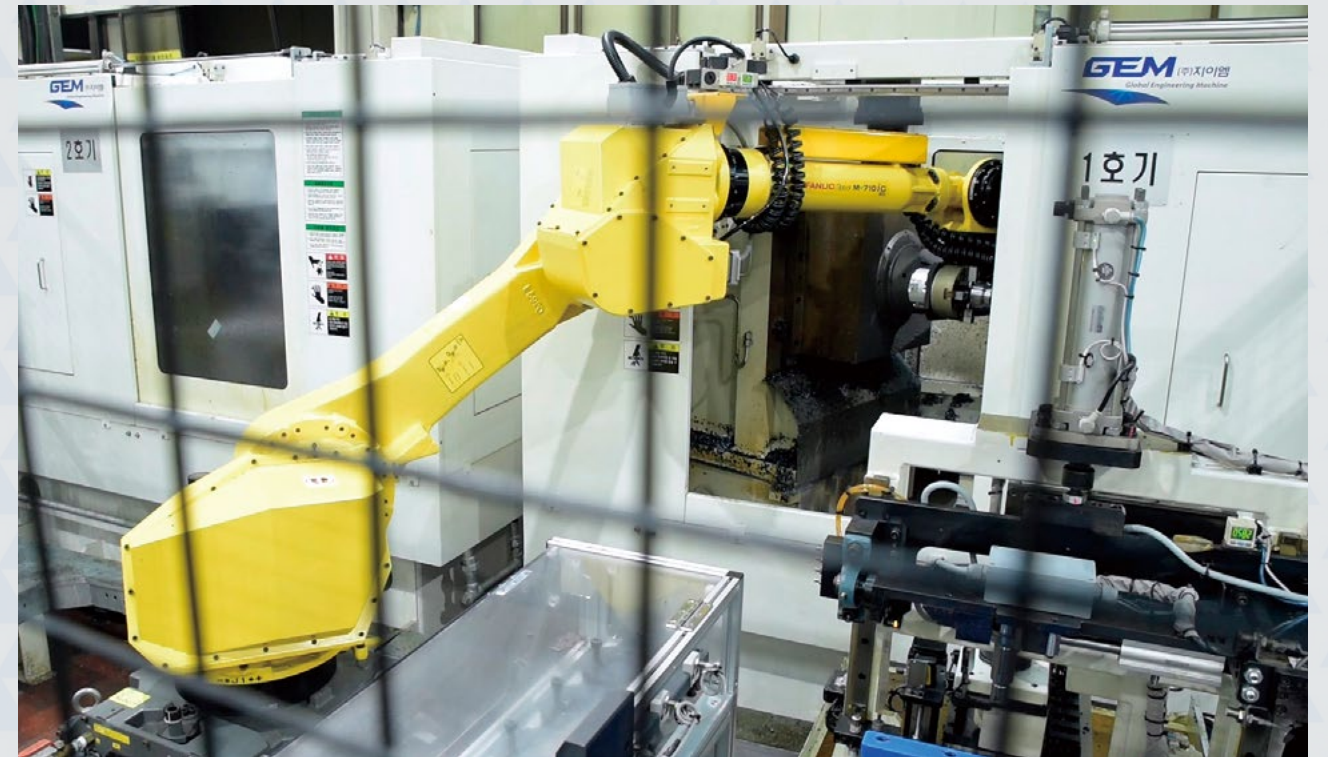
GEM guarantees the Best Technology and Quality.

Hard Milling Machine Automation Line



- Machining special machine with 7-axis for O/RACE & I/RACE
- Soft Milling : Roughing, Finishing & Hard Milling : Grinding
- Eco-friendly with dry machining (No cutting oil)
- Reduced investment cost with simplified process

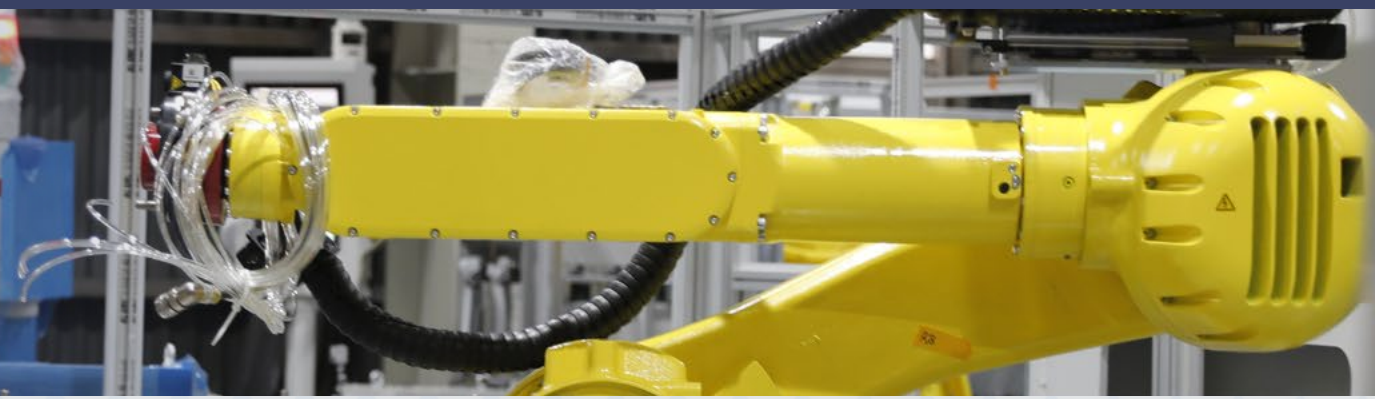
Soft Milling Machine Automation Line



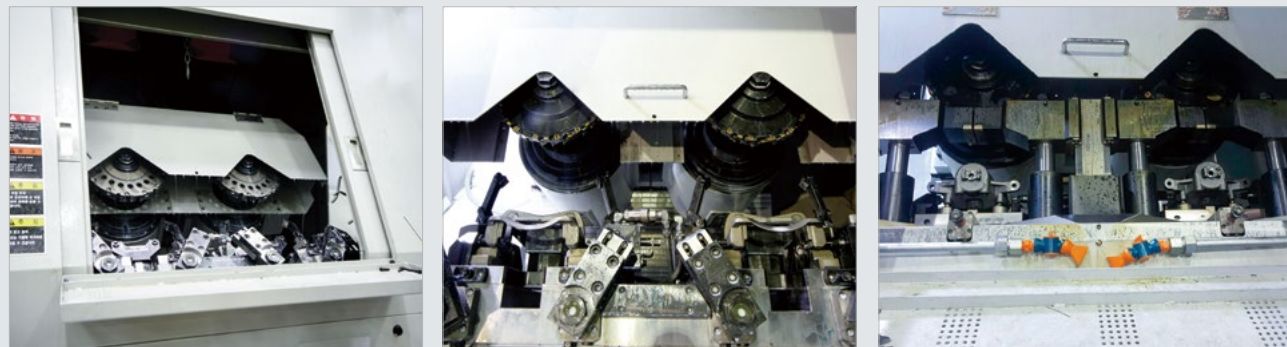
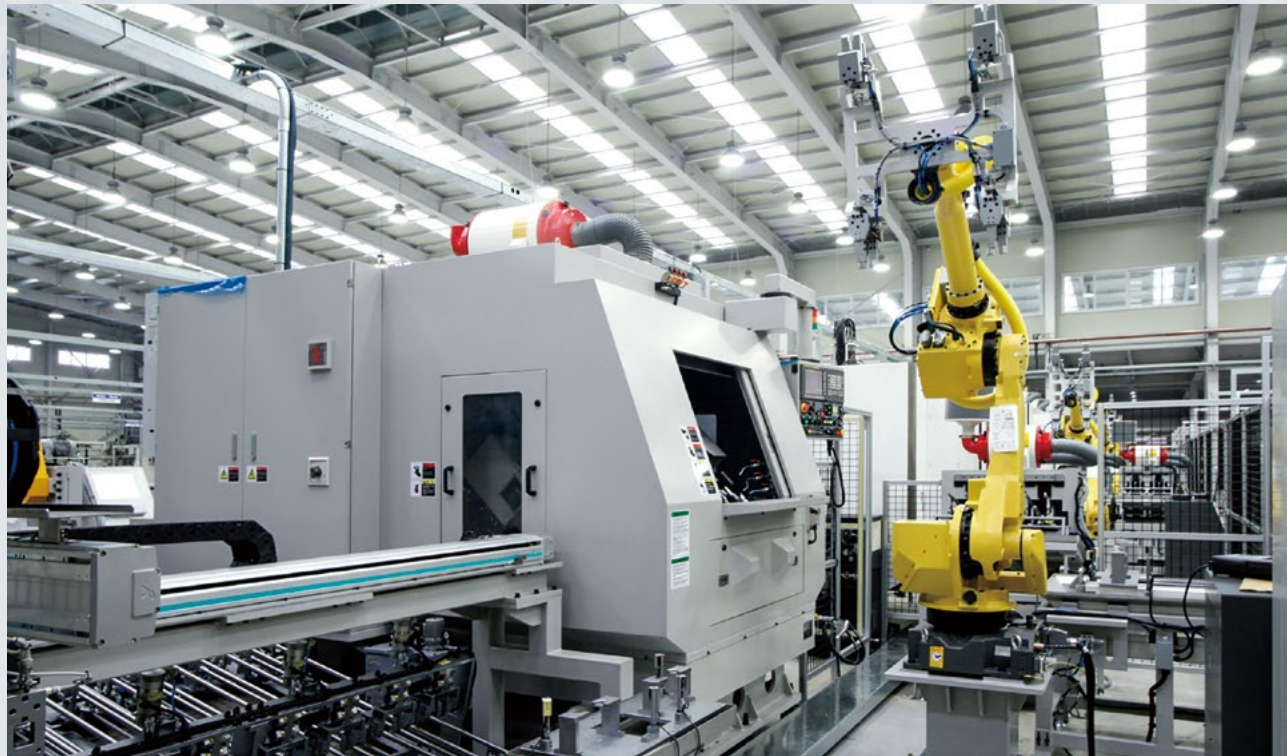
- Machining special machine with 6-axis for O/RACE & I/RACE
- Soft Milling : Roughing, Finishing
- Ball Groove : Rigid machining with curvic coupling
- Cross Groove : Simultaneous machining with worm and index

Special Machine Automation Line

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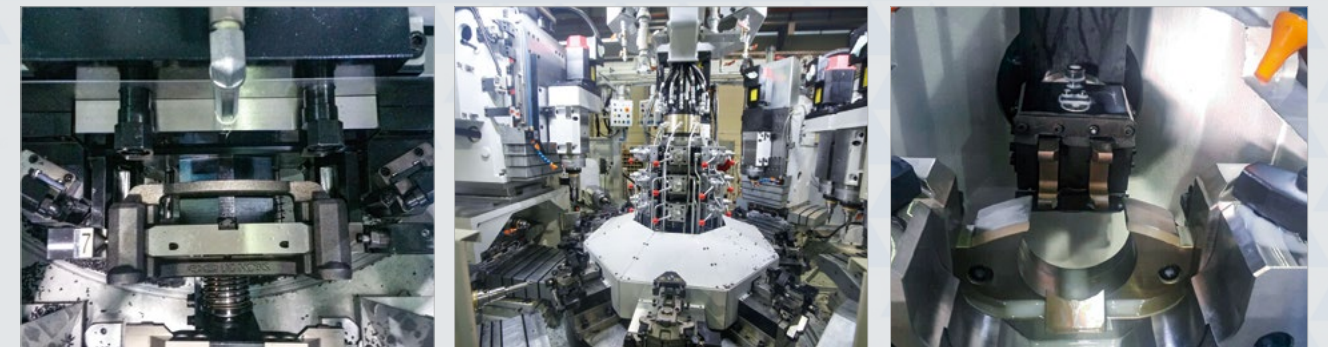


■ Milling Machine Automation Line



- Fast cycle times (A brake Caliper Body per 22sec)
- Configured 2 axis spindle head and 1 axis feed unit
- Spindle head controlled individually
- Easy to replace Jig due to Jig base standardization

■ Rotary Index Machine Automation Line



- Fast cycle times (Torque Member per 20sec)
- Configured 2 axis spindle head and 1 axis feed unit with 8 axis index
- Each index controlled individually
- Easy to replace Jig due to Jig base standardization

Automation System

GEM guarantees the Best Technology and Quality.

Robot Automation



- The total system with industrial multi joints robots
- Machining automation & Assembly automation (Measuring system, 2D Vision system)
- Automation in die casting / press / welding / palletizing, etc.

Gantry Loader

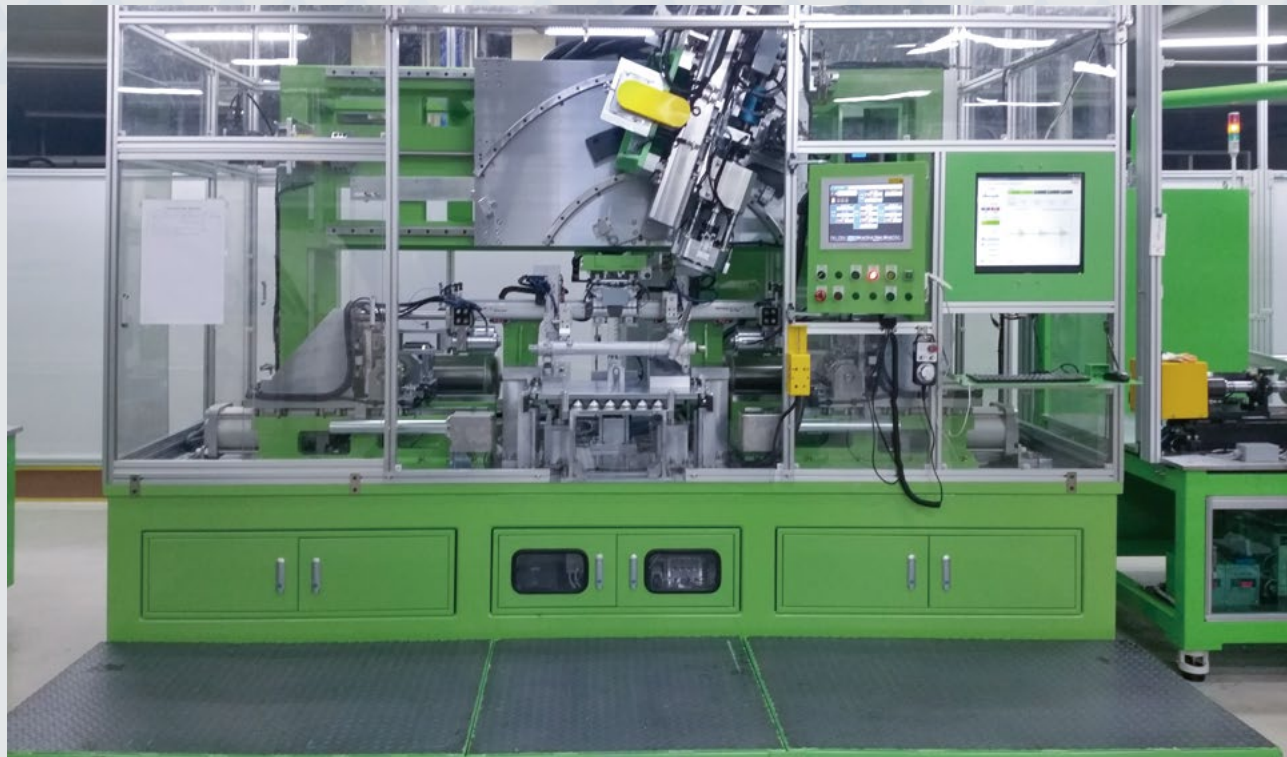


- Robust and compact structure
- Implementing low noise with applied Helical Rack, Pinion & Retainer, and LM GUIDE
- Easy to operate with increased user comfort applied upgraded teaching pendant

Testing Machine

GEM guarantees the Best Technology and Quality.

Noise Inspection System



- Inspect defective product by the abnormal sound during Steering Gear manufacturing
- Check interval noise measurement by acceleration sensors
- Check test results on the PC
- Set up detection of each item by each result parameter

Impulse Test Bench



- A comprehensive durability measurement equipment which complies with the ISO regulations
- Measures the characteristics such as the lifetime limits caused by the fatigue with applying high-temperature instantaneous fluid
- Detect defects such as oil leak from the material caused by pressure

Jig Fixture

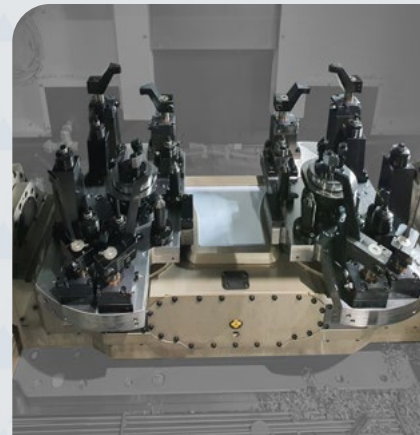
GEM guarantees the Best Technology and Quality.



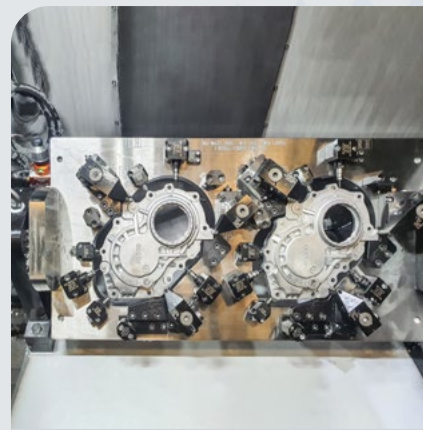
Knuckle



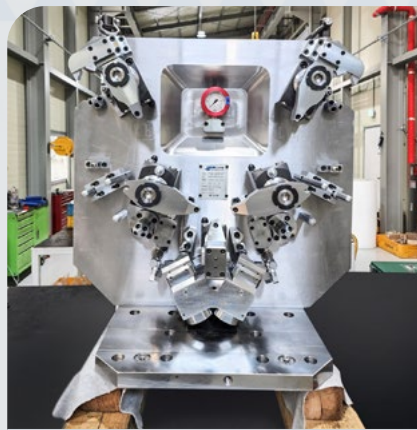
iMEB



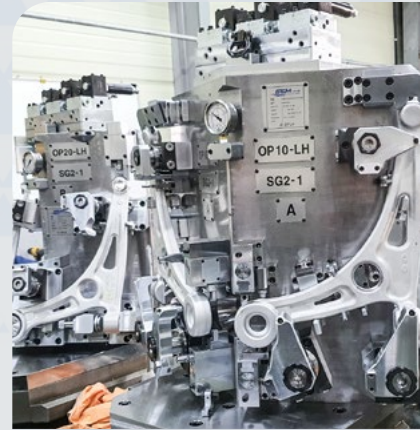
Carrier



PTU Cover



Comp. Arm



FL Control Arm



FL Control Arm



Lateral Arm



Offset Housing

Machinery Parts

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HUB



RING GEAR



CARRIER ASS'Y



SPINDLE



CASE



SPROCKET, IDLER

Major Performance

GEM guarantees the Best Technology and Quality.

※ USD 500,000 or more / Project

HYUNDAI WIA

DESCRIPTION	FIELD	DATE
CVJ Main Assembly Line Automation @SLOVAKIA_VOLVO	Assembly	'23. 04
CVJ Sub Assembly Line Automation @INDIA_VOLVO	Assembly	'23. 04
FF Axle Assembly Line Automation - 3 Stage/6th Line	Assembly	'22. 10
CVJ Painting Line Automation	Assembly	'22. 03
CVJ Assembly Line Automation @INDIA - 8 Stage/6th Line	Assembly	'22. 01
Hair Pin Sub Assembly Line	Electrification	'21. 09
PTU Lapping Line Robot Automation	Machining	'21. 07
Chisel Machining Line Robot Automation	Machining	'21. 07
CVJ Assembly Line Automation @INDIA - 7 Stage/5th Line	Assembly	'21. 06
PE Module Assembly Line Automation @HMGICs in SINGAPORE - NE EV	Electrification	'21. 05
Jig Fixture_PTU Case Machining @STAMA	Jig Fixture	'21. 05
IDA CVJ Assembly Line - CN7 N	Assembly	'20. 09
IDA CVJ Assembly Line -KA4	Assembly	'20. 08
FF & FR Axle Assembly Line Automation - 2 Stage/5th Line	Assembly	'20. 03
IDA CVJ Assembly Line Automation - EV Platform	Electrification	'20. 02
IDA CVJ Assembly Line -CN7	Electrification	'19. 08
Transmission Assembly Line @HMC - M3 Platform 8-Speed	Assembly	'18. 11
Transmission Assembly Line @PTC_GEELY	Assembly	'18. 07
DCT Assembly Line Automation @DYMOS	Assembly	'18. 06
CVT Pulley Sub Assembly Line Automation @PTC	Assembly	'18. 01
Transmission Assembly Line Automation @HMC - M3 Platform 8-Speed	Assembly	'17. 07
PTU Case Machining Line	Jig Fixture	'17. 05
Transmission Main Assembly Line Automation @PTM	Assembly	'17. 03
Auto 6-Speed Clutch Sub Assembly Line Automation @CHANGAN	Assembly	'16. 11
Jig Fixture_PTU Case Machining @STAMA, DMG	Jig Fixture	'16. 08
Jig Fixture_PTU Case, Housing, Cover Machining @STAMA (UM)	Jig Fixture	'15. 02
Jig Fixture_PTU Housing, Cover Machining @STAMA	Jig Fixture	'14. 06
Cam Shift Machining Line Gantry Loader Automation @BEINEI	Machining	'14. 04

HYUNDAI MOBIS

DESCRIPTION	FIELD	DATE
Caliper Assembly Line (PU, HR, PE)	Assembly	'16. 08
Caliper Assembly Line Automaiton ×2Line	Assembly	'16. 07
Steering Gear Machining Line Automation ×3Line	Machining	'16. 05
Caliper Machining M/C (MMC, PD)	Machining	'15. 11
Steering Gear Pinion Shaft Machining Line	Machining	'14. 12
Caliper Assembly Line (JF)	Assembly	'14. 12
2-Piston Caliper Assembly Line Automation	Assembly	'14. 12
Caliper Assembly Line ×4Line	Assembly	'14. 09/11
Caliper Assembly Line (UM)	Assembly	'14. 06
Jig fixture_MEB Machining @SW	Jig Fixture	'13. 11
Jig fixture_Steering Gear Machining @MAKINO	Jig Fixture	'13. 08
Caliper Assembly Line (LF, UM Rr)	Assembly	'13. 07
Jig fixture_MEB Machining @SW	Jig Fixture	'13. 06
Caliper Assembly Line (YP)	Assembly	'13. 05
Jig fixture_MEB Machining @GROB & SW	Jig Fixture	'12. 10

WUXI MOBIS (CHINA)

DESCRIPTION	FIELD	DATE
Steering Gear Pinion Shaft Machining Line (QM)	Machining	'16. 06
Caliper Machining Line (UC&IDC)	Machining	'15. 11
Steering Gear Pinion Shaft Machining Line Automation	Machining	'15. 09
Jig Fixture_MEB Machining	Jig Fixture	'15. 08
Rack Bar & Pinion Shaft Machining Line Automation	Machining	'15. 01
DIH Assembly Line	Assembly	'14. 07
Jig Fixture_Steering Gear Machining @MAKINO × 3Line	Jig Fixture	'13. 08
Caliper Machining Line (GC)	Machining	'13. 07
Jig Fixture_Steering Gear Machining @MAKINO	Jig Fixture	'12. 10

Major Performance

GEM guarantees the Best Technology and Quality.

※ USD 500,000 or more / Project

SHINWHA

DESCRIPTION	FIELD	DATE
Caliper Machining Line Relocation (MOBIS → SHINWHA)	Machining	'22. 07
Cover-Carrier Machining Line Automation @ ENG	Machining	'22. 05
Hard Turning M/C_Outer Race Machining @ AutoTec (IDA)	Machining	'21. 09
Track Milling M/C_Outer Race @ PIC	Machining	'21. 02
Grinding & Lapping Line Automation @ ENG	Machining	'21. 02
Jig Fixture_Cover-Carrier	Jig Fixture	'21. 02
Knuckle Machining Line Automation @ MOTEK (CN7)	Machining	'20. 12
Casting Machining Line Automation @ Auto Tec, USA	Machining	'20. 01
Complex Hard Milling Automation Line @ ENG	Machining	'20. 05
Jig Fixture_Knuckle, Carrier @ ENG (NX4)	Jig Fixture	'20. 02
Casting Machining Line Automation @ Motek	Assembly	'19. 12
Track Milling M/C_Outer Race @ ENG	Machining	'19. 09
R-cutting Milling M/C_Caliper Processig @ PIC	Machining	'19. 05
Auto Sawing M/C @ PIC	Machining	'19. 01
Hard Turning M/C_Outer Race Machining @ ENG	Machining	'18. 12
Forging M/C_Tubular Shaft @ PIC	Machining	'18. 11
8-Index Rotary M/C_Caliper Machining @ PIC	Machining	'18. 10
Track Milling M/C_CVJ Machining @ ENG	Machining	'16. 08
Caliper Machining Line Automation_2nd @ PIC	Machining	'15. 11
Caliper Machining Line Automation @ PIC	Machining	'15. 09
Jig Fixture_TM Case Machining @ PIC	Jig Fixture	'15. 02

ZFLK, ZF Sachs Korea, ZF Automotive Korea(TRW)

DESCRIPTION	FIELD	DATE
Jig Fixture_Control Arm, Comp. Arm, Lateral Arm	Jig Fixture	'18. ~
Shock absorber prototype	Assembly	'02. ~
Equipment parts	Assembly	'02. ~
Steering Gear Assembly Line Automation, Noise Inspection M/C (SK3)	Assembly	'17. 05

CTR

DESCRIPTION	FIELD	DATE
Ball Joint Assembly Line Automation_ T社 EVEREST	Assembly	'23. 04
Ball Joint Assembly Line Automation_GM BEV3	Assembly	'23. 04
BT1CC Toe Link Assembly Line Automation	Assembly	'22. 06
Knuckle Machining Line Robot Automation @CMS_HONDA CR-V	Machining	'22. 04
Knuckle Machining Line Robot Automation @CMS_HONDA ACCORD	Machining	'22. 04
Jig Fixture_Knuckle Machining (HONDA ACCORD) @CMS	Jig Fixture	'22. 02
Jig Fixture_Knuckle Machining (HONDA CR-V) @CMS	Jig Fixture	'21. 11
Screw Shaft Machining (Axial Forming) M/C @MOTEK	Machining	'20. 05
Jig Fixture_Lateral, Compliance Link Machining (TESLA) @CHINA	Jig Fixture	'20. 05
Jig Fixture_for Ball Joint & OTR @VINA	Jig Fixture	'18. 09
IMEB Master Cylinder & Leak Inspection M/C	Assembly	'17. 08
Drum Brake Assembly Line Automation @MOTEK	Assembly	'16. 10
Caliper Machining M/C @CHINA	Machining	'15. 05
Caliper Machining Line Automation @CHINA	Machining	'15. 02
Pinion Shaft Machining Line Automation @MOTEK	Machining	'14. 07

CUSTOMER	DESCRIPTION	FIELD	DATE
Edward Korea	Jig Fixture_Pump Machining	Jig Fixture	'17. ~
Jinmyung Ltd.	Track Milling M/C_Outer Race	Machining	'22. ~
Mando	Caliper Machining Line Automation_FIAT	Machining	'08. ~ '14
Youngshin Precisiong (China)	Caliper Machining Line (NX4c) / (DN8c)	Machining	'19. ~ '20
Sm Instruments Inc.	Steering Gear Noise Inspection M/C @MOBIS	Assembly	'14. ~ '15
DK Austech	Rear Axle Machining M/C @RENAULT (LJL, HJB)	Machining	'14. ~ '22
Dm Tech	Wear Compensator Assembly Line Automation	Assembly	'21. 03
	ARS Adjust Assembly Line Automation	Assembly	'21. 03
Dongyang Industrial	PBS Asseby Line	Assembly	'21. 10
	ARB Drive & Idler Link Asseby Line	Assembly	'20. 08
Manuli Fluiconnecto Korea	Impulse Test Bench	Assembly	'18. 06
Iljin	Knuckle Machining Line Automation @SLOVAKIA	Machining	'17. 03

Equipment Status

GEM guarantees the Best Technology and Quality.

We are machining and supplying the metal parts for the product in-house !

NO.	Equipment	MODEL	Specifications	Manufacture	QTY
1	Vertical MCT	VX750M	700×1,800	WIA	1
2	Vertical MCT	KV60N	600×1,600	WIA	1
3	Vertical MCT	VX50N	470×1,100	WIA	1
4	Vertical MCT	KV45	460×1,150	WIA	1
5	Vertical MCT	F500	500×1,200	WIA	5
6	CNC Lathe	SKT300L	12"	WIA	1
7	CNC Lathe	SKT28	12"	WIA	1
8	CNC Lathe	SKT28	10"	WIA	1
9	CNC Lathe	SKT200	8"	WIA	1
10	CNC Lathe	L280	12"	WIA	1
11	CNC Lathe	PUMA 280L	8"	DOOSAN	2
12	CNC Milling	COMBI-U6	2,200×600	Giheung Machines	1
13	Complex Milling	HMTH-1100	200×900	HWACHEON	1
14	General Lathe	NARA6015	24"	WIA	1
15	Radial Drilling M/C	PRD-1500	800×1,500	CHANGJO	1
16	Tapping Drilling M/C	STD-410	410	SAMCHULLY	1
17	Tapping Drilling M/C	WSDT-23	23	WOOSEONG	1
18	3D Measure M/C	Global Classic SR 9128	900×1,200×800	BROWN & SHARPE	1
19	3D Measure M/C	Global Advantage 153010	1,500×3,000×1,000	HEXAGON	1
20	3D Measure M/C	Global S Green 7.10.7	700×1,000×660	HEXAGON	1
21	2D Measure M/C	MICRO-HITE 600	600	TESA	1
22	Cylindric Grinding M/C	DGS-520HA	200×450	DAESAN	1





Major Customers


GEM guarantees the Best Technology and Quality.


Machinery Manufacturing and Specialized Machining Company


GEM accomplishes design, machining, manufacturing, set-up, and commissioning entirely in house.























* Logos are property of customers.

Direction

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