

# SUNGWONind

Advanced Fastening Solutions for the Future of Mobility



# Global Fastening Solution for The Automotive Future



## Manufacturing

Precision products are manufactured through advanced technology and automation facilities.



## Quality

Customer trust is being earned through rigorous quality control across all processes.



## Design

SUNGWONind's optimal design solutions develop and create customized solutions for customers.



## Logistics

An on-time, high-efficiency logistics system further ensures a reliable global supply chain.

# HISTORY

## Innovation & Global Excellence | 2010s - 2020s

- 2025.12 Obtained the Family-Friendly Company Certification
- 09 Certified compliant with ISO 45001
- 03 Acquired Mathread License 
- 02 Minister of SMEs and Startups' citation received for contributions to Korean industry
- 2023.10 USD 3 million in export achieved
- 2022.06 Mass production of battery module bolts for Ford BEVs commenced
- 2021. 12 Second compound of factories and employee housing completed
- 2020.12 Patent registered for "cold forging extrusion die"
- 11 Smart factory advancement project completed
- 09 Officially designated as a "Grassroots Company"
- 2018. 12 Awarded the One Million Dollar Export Tower
- 2017. 10 Certified compliant with IATF 16949  
Renamed and incorporated as "Sungwon Ind"
- 2016. 05 Digital production standards developed and applied to mass production
- 2014. 10 Certified compliant with the SQ Hardware "S" requirements of the Hyundai Motor Company and Kia  
Pre-heat-treated steel compressor housing bolts developed for mass production
- 2013. 08 Factory relocated to a newly constructed building automated storage facilities installed (Ujeong, Hwaseong, Gyeonggi-do)
- 2011. 10 SK battery pack bolts developed for mass production
- 2010. 08 Production data system installed

## Foundation & Growth | 1900s - 2000s

- 2005.12 Certified compliant with ISO14001 and TS16949
- 11 Production and supply of compressor housing bolts commenced
- 2004.11 ERP system installed
- 2003.05 Certified compliant with the SQ-Mark requirements of the Hyundai Motor Company and Kia
- 1996. 10 Logistics center established in Daejeon
- 1989. 06 Supply of car air-conditioner fasteners to HL Mando commenced
- 1987. 03 Supply of car air-conditioner fasteners to Hanon Systems commenced
- 1980. 04 Renamed "Sungwon Industry"
- 1977. 05 Established as Sejong Metals (Anyang)

# GLOBAL NETWORK

Through global partnerships and supply chains, Sungwon Ind creates real value in the global market.

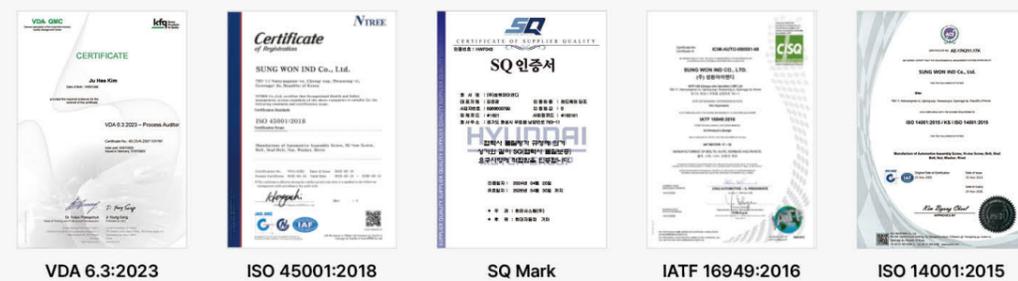


## Partner Network



## Patents & Certifications

### Quality Certification



### Patents



Packaging device with improved counting speed for mechanical parts

# PRODUCT

Sungwon Ind specializes in manufacturing automotive products such as cold forging automotive components, bolts, and rivets.



## MAThread®

### MAThread Bolts

Function: A patented technology designed to eliminate cross-threading of screws prevents misalignment and poor assembly, and achieves high-speed fastening and increased productivity

Thread: M5 ~ M8



# MAThread

# AIR CONDITIONING SYSTEM

Optimal parts for HVAC system components such as compressors and front-end modules (FEMs) achieve durability and precision assembly.

## Compressor

### Compressor Housing Bolts

Function: For fastening compressor housings  
Thread: M6 ~ M7  
Length Range: 100 ~ 140 mm

### Drive Pins

Function: Rotary shafts for rotors  
Thread:  $\Phi$  5 ~ 8  
Length Range: 24 mm

### Hinge Pins

Function: Rotary shafts for hinges  
inside compressors  
Thread:  $\Phi$  5 ~ 8  
Length Range: 32.7~ 48.7 mm

### Bush Pin

Function: Rotary shafts for brushes  
Thread:  $\Phi$  5 ~ 8  
Length Range: 10 mm

### Rivet

Function: For fastening compressors  
to clutches or pulleys  
Thread:  $\Phi$  4 ~ 5.5  
Length Range: 8 ~ 15 mm

### Rotor Rivets

Function: For fastening rotors  
Thread: 35 ~ 60 mm  
Length Range:  $\Phi$  3 ~ 4



## FEM | Front-end Modules

### Washer-assembled Bolts

Function: For fastening front-end modules and radiators  
Thread: M6 ~ M10  
Length Range: 16 ~ 120 mm



## HVAC

### Self-tapping Screw

Function: For fastening injection-molded plastic parts  
Thread: M2 ~ M6.5(TAPPING, FT etc)  
Length Range: 100 ~ 140 mm



## Hose & Pipe

### Stud Bolts

Function: For assembling hoses, pipes, and manifolds  
Thread: M6 ~ M8  
Length Range: 20 ~ 80 mm



## Manifold

### Hex Socket Head Cap Bolt

Function: For fastening compressor to manifold  
Thread: M6 ~ M8  
Length Range: 20 ~ 80 mm



# BRAKING SYSTEM

Precision-forged gear transmission and shaft fastening components enhance vehicle braking performance and overall quality.



# BATTERY SYSTEM

Various types of high-strength bolts ensure secure fastening and reliable sealing of the battery case.



## MOC

### Output Shafts

Function: MOC power transfer gears  
Thread:  $\Phi$  7.2 ~ 9  
Length Range: 11 ~ 13 mm

### Pins

Function: Gear rotary shafts  
Thread:  $\Phi$  3 ~  $\Phi$  4.5  
Length Range: 6 ~ 32 mm

## Door

### Pulley Pins

Function: For assembling door module pulleys  
Thread:  $\Phi$  6 ~ 8

### Self Clinching Bolts

Function: For assembling door module pulleys  
Thread: M6 ~ M8

# DOOR SYSTEM

Custom assembly parts deliver actuation stability and high-strength fastening in door systems.



## Battery

### Hexalobular Socket Countersunk Flat Head Bolt

Function: Bolt for battery cover fastening  
Thread: M4 ~ M6  
Length Range: 10 ~ 165 mm

### Hexalobular Socket Head Cap Bolt

Function: Bolt for battery cover fastening  
Thread: M4 ~ M6  
Length Range: 10 ~ 165 mm

### Hexalobular Socket Pan Head Bolt

Function: Bolt for battery cover fastening  
Thread: M4 ~ M6  
Length Range: 10 ~ 165 mm

### Long Bolt

Function: Bolt for battery cover fastening  
Thread: M4 ~ M6  
Length Range: 10 ~ 165 mm

## ETC

### Insert Nuts

Function: Nut taps for fastening injection-molded plastic parts  
Thread: M4 ~ M8  
Length Range: 10 ~ 20 mm

### Insert Bolts

Function: Bolts for fastening injection-molded plastic parts  
Thread: M6 ~ M8  
Length Range: 10 ~ 30 mm

### Aluminum Hex Nuts

Function: Nuts for preventing oil tank leaks  
Thread: M18 ~ M24



## ETC

Parts with specific functions, such as precision fastening, oil resistance, and insertion-fastening, improve the reliability of industrial processes.

# PRODUCTION FACILITIES

Through global partnerships and supply chains, Sungwon Ind creates real value in the global market.

## Forming Machine



## Automate Storage

### Production Data Management

Vertical storage for maximized storage space

- Up to 478 tons stored in just 172m<sup>2</sup> instead of the previous 760m<sup>2</sup>

Automated intake for dramatically improved efficiency

- Just 10 seconds per pallet compared to the average 260 seconds per pallet

First-in, first-out system for reduced loss of resources across the board

Automated factory release of orders for efficient and paperless operations

Main Businesses	Storage facilities located
Row 2 x Block 8 x No.30 - 2 (in/out) = <b>478</b> cell	MAX <b>93</b> sec / MAX <b>83</b> sec



# INSPECTION FACILITIES

The very best quality, achieved through the most demanding measurement and validation processes.

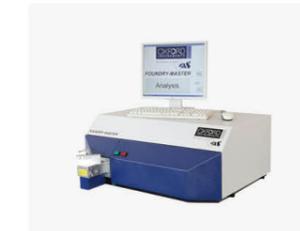
### Axial Force Tester



Measurement of friction and torque coefficients in different locations bolts are applied

Manufacturer : SCHATZ(DE)

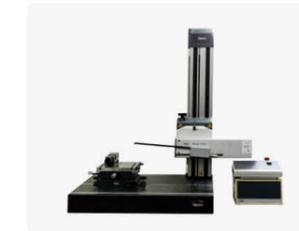
### Spart Emission Spectrometer



Range of wavelengths for analysis of chemical components in raw materials: 160 nm to 800 nm

Manufacturer : OXFORD(DE)

### Shape Measuring Machine



Measurement of profiles and R values of screw threads

Manufacturer : MAHR(DE)

### X-Ray fluorescence spectrometer



Electroplating thickness measurement; nickel/zinc content analysis

Manufacturer : OXFORD(DE)

### Projector



Measurement of bolt forms

Manufacturer : STARRETT(US)

### Vickers/ Rockwell Hardness Tester



Measurement of surface hardness, deep hardness, hardness gradients, and carburization depths

Manufacturer : MITUTOYO(JP) / Samil(KR)

### Salt Spray Tester



Validation of corrosion resistance of plating

Manufacturer : Vision Tech(KR)

### Universal Testing Machine



Tensile strength, and flexure validation of raw materials and products (5 tons or 30 tons used)

Manufacturer : Daegeun Tech(Korea)

### CMM (Coordinate Measuring Machine)



Measurement of concentricity and outer diameters of shafts

Manufacturer : HEXAGON(CH)

### Video Measurement



Measurement of bolt forms

Manufacturer : RATIONAL(CN)



[www.swbolt.co.kr](http://www.swbolt.co.kr)



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