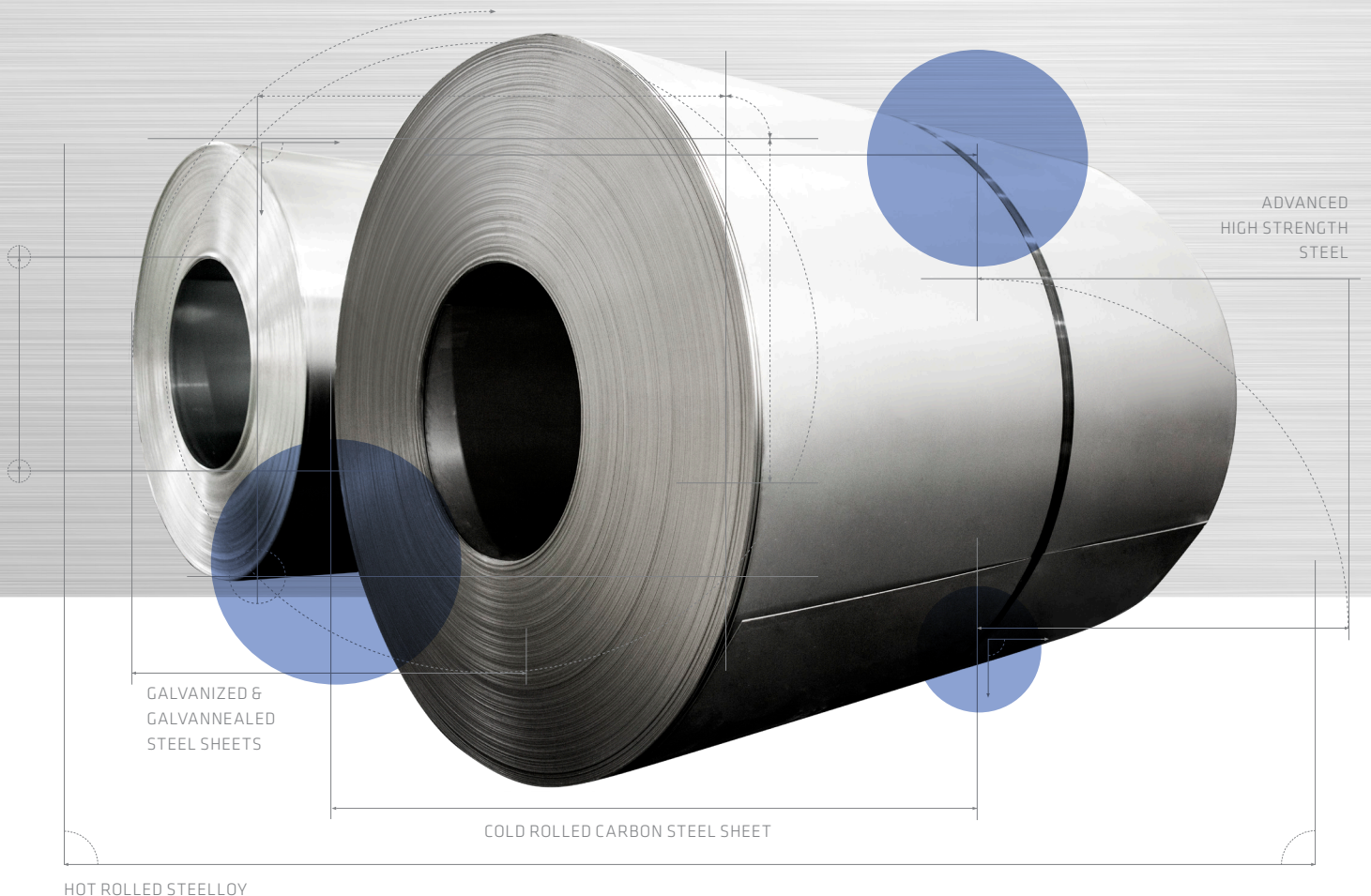


STEEL SOLUTION PROFESSIONAL COMPANY

# DAEHONG KOSTECH

KOREA STEEL TECHNOLOGY



# CEO MESSAGE



## Daehong Kostech Co., Ltd. with pride of confidence stronger than steel

I would like to express my sincere gratitude to our customers for your unswerving

support and patronage that has made what Daehong is today. Daehong has sustained steady growth and development with solid management and advanced technology and has been recognized both at home and abroad. We are going to continue to exert our best effort in producing quality products based on our technical leadership and to further build up customer confidence while meeting increasingly sophisticated customer needs and requirements with uncompromising quality and technology. All of our Daehong family members including myself are committed to achieving excellence of our products and services without being complacent with what we are today and continue to put customer satisfaction above everything else.

Thank you.

**Chairman Jin, Dug-Soo**



## Daehong Kostech Co., Ltd. Steel & Metal Solution Provider

Daehong Kostech Co., Ltd. aims to provide customers with optimal solutions for a comprehensive range of steel & metal issues, including procurement, quality and technical matters and to contribute to enhancing our customer's competitiveness to ensure co-growth and co-prosperity. To this end, our employees are constantly engaging in learning of and researching into purchasing competitiveness, logistics system, production technology, and material characteristics. Daehong Kostech Co., Ltd. is taking a leap into a global hidden champion as a steel & metal solution provider based on our customer confidence and patronage. We are going to continue to serve our customers from their viewpoint and perspective.

**C.E.O Kim, Ki-Hwan**



State-accredited precision  
steel rolling technology 2015.  
Awarded a Silver Tower  
Order of Industrial Service Merit



Selected as a steel firm that  
represents Daegu 2014.  
Selected as a Star Corporation

# THE MOTTO OF A COMPANY

## SEEK A COMPANY WITH DIGNITY!

01

### INNOVATION

Rigorous efforts in R&D and innovation

02

### SHARE

Return the fruit of growth to customers

03

### PRACTICE

Preparedness and Action



ISO 9001 Quality  
Management  
System



ISO 14001  
Environmental  
Management  
System



INNO-BIZ  
Certificate Holder



KOITA In-house  
R&D Center



BIS Certificate



CO(Certificate of  
Origin)





# HISTORY



## 1900

- 1992. 05. 15 • Established Daehong Steel in Yihyeon-dong, Seo-gu, Daegu Metropolitan City
- 1997. 08. 13 • Incorporated Daehong Steel
- 1997. 12. 04 • Purchased and relocated to our worksite located in 908-4 Beonji, Wolam-dong, Dalseo-gu, Daegu Metropolitan City
- 1998. 10. 02 • Introduced and operated medium-sized slitter
- 1998. 12. 15 • Introduced and operated cold rolling mill (first of its kind in Daegu)
- 1999. 07. 01 • Designated as an official local dealer (Daegu) of Dongbu Steel Co., Ltd.

## 2000

- 2001. 08. 25 • Installed and operated large slitter production lines (5-unit size)
- 2004. 07. 02 • Awarded a Presidential Citation (for being an exemplary entrepreneur)
- 2005. 07. 14 • Acquired ISO 9001 (Quality Management System)  
Acquired ISO 14001 (Environmental Management System) certification
- 2006. 10. 25 • Installed and operated medium-sized cold rolling mill (480L) (first of its kind in Daegu)
- 2006. 11. 06 • Changed company name to Daehong Miltec Co., Ltd. (spun off as an affiliate from Daehong Steel)
- 2007. 07. 01 • Designated as an official Co., Ltd. POSTIL (POSCO Branch) Coil Center Designated
- 2008. 05. 30 • Acquired an INNOBIZ Certificate for a venture company
- 2008. 05. 30 • Established in-house R&D Center
- 2008. 02 ~ • Sent all employees to Toyota Motors in Japan for training purposes (TPS Training)
- 2009. 07. 09 • Awarded a Bronze Tower Order of Industrial Service Merit

## 2010

- 2011. 03. 01 • Installed and operated a medium cold rolling mill (Unit 3) (Dalsung 2 Plant)
- 2013. 09. 04 • Awarded a Silver Prize in National Competition on Learning Organization Performance
- 2014. 02. 10 • Changed the company name to Daehong Kostech Co., Ltd.
- 2014. 06. 26 • Selected as a Star Company by Daegu Metropolitan City
- 2014. 10 • Completed building a plant in 571, Dalseo-daero, Dalseo-gu, Daegu Metropolitan City
- 2014. 08 • Acquired a MAIIN BIZ Certificate
- 2015. 09. 09 • Awarded a Silver Tower Order of Industrial Service Merit



# PROGRESS OF PRODUCTION

01

Supplier



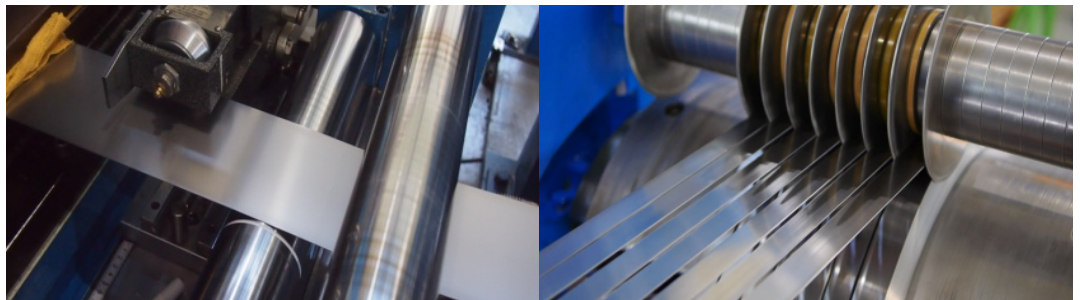
02

Input



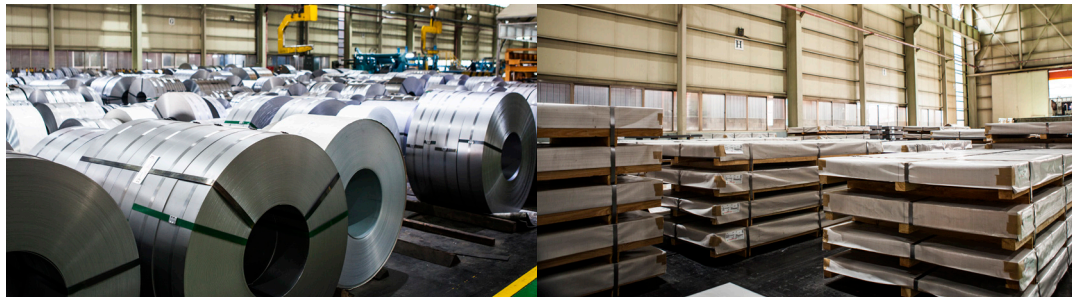
03

Slitter &amp; rolling mill line



04

Output



05

Consumer

Automotive parts



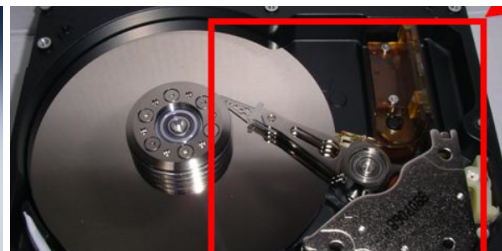
Electronic parts



# APPLICATION



Automobile parts



Hard disk drive VCM Re-roll sheet



Electronic parts



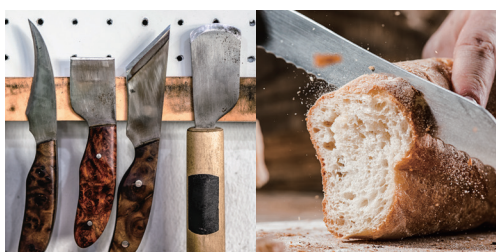
Office Supplies



Solar Energy lower structure



Ship/Building materials



Shoes cutting / Baking Knife



Agricultural machine / tool component

# PRODUCT

PRODUCT  
BY DAEHONG  
KOREA STEEL  
TECHNOLOGY

No	Materials	Major Grade		
1	HR	SS440	SM400	SM570
2	PO	SPHC	SPHD	SPHE
3	CR	SPCC	1/8H, 1/2H	HB
4	High Tensile steel	SAPH440	SPFH590	ASTM A715
5	Special Steel	SK2 ~ SK5	S30C ~ 55C	SNCM220
6	GI / EGI / GA	SGCC / SECC	SGCD / SECD	SGCE / SECE
7	Color Coated Steel	CGCC	ENS350G	-
8	AL (AA)	1000	3000	5052
9	STS (SUS)	301	316	430
10	GL (Galvalume) / POSMAC	In accordance with needs		



## HOT ROLLED STEEL



The thick plate generally adopts a relatively thick hot-rolled steel plate mainly produced by a 4-degree reversible type rolling mill, and a plate with thickness of 6mm or more is called a thick plate while a plate with thickness of 100mm or more is called an ultra thick plate. These plates are an important welded structure as a member of framework, and the major required characteristics include chemical composition, material, dimension, shape, surface, internal quality, etc. Additional requirements, including weldability and processability may be raised depending on the application.

Specification				
KS	JIS	ASTM	BS	API
SS400, 490, 540 / SM400 / 490A, B, C / SM490YA, YB / SM520B, C / SM570	SS400, SS490, SS540 / SM400A, B, C / SM490A, B, C / SM490YA, YB / SM520B, C / SM570	A36, A573 / Gr58, 65, 70 / A572 / Gr42, 50, 60, 65 / A529	4360 / Gr50A, B, C, D, E / Gr55C, E, F	API2H / Gr42, Gr50



### APPLIED PARTS

## PICKLED & OILED STEEL



The pickled-oiled steel sheet is made by having the surface of steel sheet descaled using hydrochloric acid etc. and coated with oil to prevent the occurrence of oxidation and is widely used for automotive steel pipe, mechanical parts and construction. Mechanical, chemical and physical properties are the same as those of hot-rolled steel sheet, but its surface is superior to that of hot-rolled steel sheet in terms of its aesthetics. Thus, it is used for a less expensive application than hot-rolled steel sheet with excellent plating ability.

Main applications: automobile, home appliance, container, start motor (for PO)

Specification
KS D3501, SHP1, SHP2, SHP3
JIS C3131, SPHC, SPHD
ASTM A569, A621, A622
DIN1614
STW22, 23, 24



### APPLIED PARTS



## COLD ROLLED STEEL



This is a processed metal produced from cold-rolled coil with its surface contaminants removed at electrolytic cleaning line, heated at the temperature 600 ~ 850 ℃ in THENS furnace and then maintained for a certain period of time to secure processability, followed by surface finishing and modification on an as-needed basis. It is used as a key material for a variety of products, including automobile, electronic appliance, furniture, office supplies and construction.

CR (SPCC-S, A 1/8H, 1/4H, 1/2H, HB, SAE1005~1008, DIN ST2:ST12)

### APPLIED PARTS



## RE ROLLED HARDEN STEEL

Hardened steel features excellent flatness and surface quality as well as corrosion resistance, heat resistance, and press formability such as fanning and bending by minimizing the thickness variation in the width direction through rolling equipment, and the uniform thickness compared to cold rolled steel sheet makes its surface smooth and aesthetic and enhances the strength of product according to demands, resulting in superior processability that withstand rigorous pressing.

### Hardness and Tensile Test

Tempering degree		Tensile test A	Hardness	Bend test	
Type	Symbol	Tensile strength (kgf/mm <sup>2</sup> )	(HRB)	Bending angle	Inner radius
1/8 Hardness	1/8 H	30~42	50~71	180°	Adherence
1/4 Hardness	1/4 H	38~50	65~80	180°	2/1 of thickness
1/2 Hardness	1/2 H	45~60	74~89	180°	1.0 of thickness
Hardness	HB	More than 56	More than 85	-	-

### Thickness Tolerance

Thickness	Thickness Tolerance	Width Tolerance
T<1.0	±0.010	W<350
1.0≤T<3.2	±0.015	W<350
3.2<T<5.5	±0.020	W<350

## HIGH TENSILE STEEL

Advanced High Strength Steel has its tensile strength of 50kgf /  $\Phi$  or more, which is higher than that of regular steel. It is made by adding silicon, manganese, nickel, chrome, and copper to carbon steel that contains about 0.2% of carbon. High-tensile steel plates may use thinner plates than regular steel plates to meet the same safety standards and are a key element in the lightweightness required by the automotive industry in recent years.

High Tensile Steel (SAPH440, SPFH590, ASTM A715-40~80, A607~45, 55A715-50)



Category	KS	JIS	ASTM	Characteristics	Main applications
Automotive Structural	SAPH 310, 370, 400, 440	SAPH 310, 370, 400, 440	A715-40, 45, 50, 55, 60, 65, 70, 80	High strength, Automotive structural products requiring fatigue and high sophistication	FRAME, WHEEL DISC for Automotive, CLAMP for construction
Automotive processability high tensile steel	SPFH 490, 540, 590 (540Y,590)	SPFH 490, 540, 590 (540Y,590Y)	-	It is used as a high strength material for rigorous processing.	WHEEL DISC for Automotive, CLAMP for construction
High tensile low alloy steel	-	-	A607~45, 50, 55, A715-50	Used for applications requiring high strength by adding alloys	Building construction structures

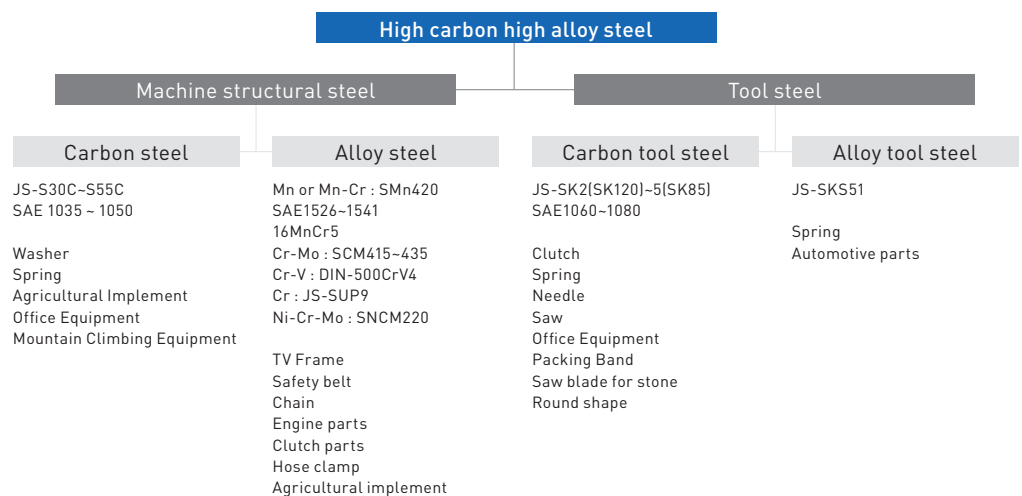


### APPLIED PARTS

## SPECIAL STEEL

Special steel (high carbon steel, alloy steel etc.): classification by carbon content

- Steel with carbon content of 0.30% or more or with carbon content of 0.25% or more and with one or more alloying elements added



### APPLIED PARTS

## GALVANIZED & GALVANNEALED STEEL



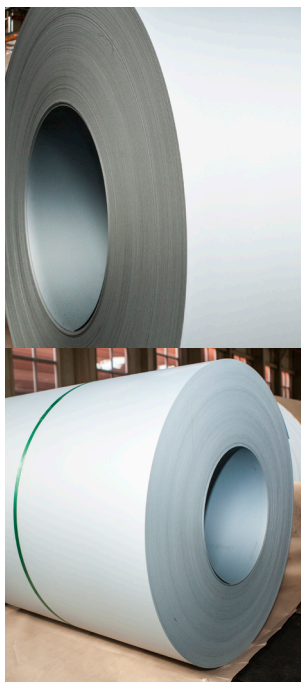
Zinc-coated alloy steel sheet is made out of cold rolled steel or hot rolled steel with its surface coated with zinc, which builds a thick zinc coating layer featuring excellent corrosion resistance.

Designation Type	KS D 3506		JIS G 3302		ASTM		EN
	cold-rolled base metal used	hot-rolled base metal used	cold-rolled base metal used	hot-rolled base metal used	OLD	A653-97	
Commercial Quality	SGCC	SGHC	SGCC	SGHC	A 526	CS Type A & B	EN 10142
Lock Forming Quality	-	-	-	-	A 527	CS Type C	-
Commercial Soft Quality	SGCC-L	-	SGCC-L	-	A 526-L	FS Type A & B	EN 10142
Commercial Soft Quality	SGCH	-	SGCH	-	-	-	-
Drawing Quality	SGCD 1 SGCD 2 SGCD 3	-	SGCD 1 SGCD 2 SGCD 3	-	A 528	DDS EDDS	EN 10142
Structural Quality	SGC340 SGC400 SGC440 SGC490 SGC570	SGH340 SGH400 SGH440 SGH490 SGH540	SGC340 SGC400 SGC440 SGC490 SGC570	SGH340 SGH400 SGH440 SGH490 SGH540	A 446	Grade 230 Grade 255 Grade 275 Grade 340 Class 1,2,3 Grade 550	EN 10147



### APPLIED PARTS

## ELECTRONIC GALVANIZED STEEL



Electro galvanized steel is made of Cold-rolled steel or hot-rolled steel sheet with its surface coated with zinc to enhance corrosion resistance. It is generally less plated than Galvannealed Steel Coils and features uniform and flat surface, leading to excellent finish, corrosion resistance after painting, corrosion resistance and paintability. Therefore, it is suitable to applications that require excellent surface quality, including refrigerator, LCD heatsink, washing machine, microwave oven, vacuum cleaner, and office equipment.

Category	Products Used
Automotive Applications	Interior/exterior parts and components for automobiles, filters, and A/V system, Car Deck, Speakers, Brackets
Electric and Electronic Appliances	A variety of electronic products, including computer and office equipment Air conditioner, microwave, washing machine, refrigerator, gas stove, Kimchi refrigerator, VCR, DVD, DVR, satellite receiver (set-top box), motor, vending machine, water purifier, boiler, air cleaner, stove hood, hot blower, showcase, entertainment devices, power cases, audio system, cash machine
Architecture and Construction Materials	Building materials and furniture, furniture fences, soundproof walls, fire doors, office furniture, partitions
Etc	Agricultural equipment



### APPLIED PARTS



## COLOR COATED STEEL

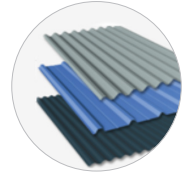
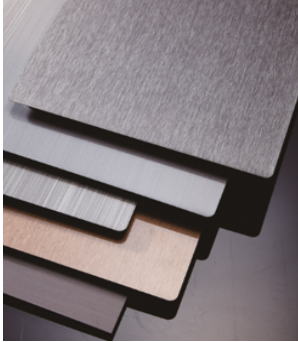
Giving corrosion resistance and fine surface to steel materials such as galvanized steel plate, aluminum galvanized steel plate, and electric zinc galvanized steel plate, or is often used for internal and external appliances. Painting in the manufacture of color steel plate is a surface treatment technology that improve corrosion resistance and durability of steel plate materials, eliminates cold feeling of metal, and gives a variety of colors the honorability.

### Major Products

CGCC, EN DX51D+Z, EN S220GD+Z, EN S280GD+Z, ENS350G

### Applied Parts

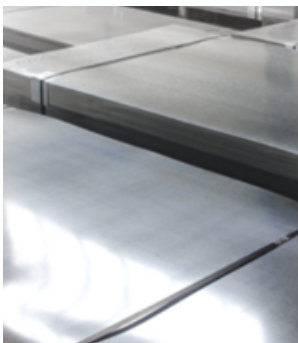
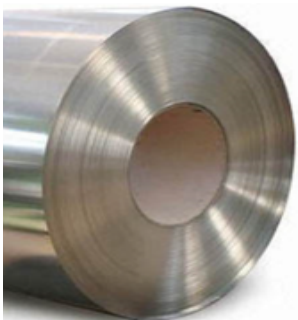
Home appliance out case (Refrigerator Door, Washing machine front panel)  
Electric home appliance case (DVD, VCR, Set-top box, PDP back cover)  
Construction use (External wall, roofing, ceiling, Partition, Interior finish)



### APPLIED PARTS

## ALUMINUM STEEL

Steel grade	Characteristic	Use
AA1050	It features excellent processability and surface treatment. It is the best among aluminum alloys in terms of corrosion resistance with its strength lower than pure aluminum but the lower in purity, the higher to some extent.	Nameplate ornaments, Fin type welding wire
AA1070		
AA1080		
AA1100	General-purpose aluminum with the Al strength of 99.0% or higher. Same as above except that the exterior turns slightly white following the anodizing treatment.	Cookware, Pin Cup printing plate
AA1200		
AA3003	10% higher strength than 1100, excellent processability and corrosion resistance	Cookware Fin, photocopier drum
AA3004	Stronger than 3003, excellent processability and excellent corrosion resistance	Used for roof of Aluminum Can Body
AA3005	20% stronger than 3003 with comparatively excellent corrosion resistance	Construction materials, color aluminum
AA3105	Slightly stronger than 3003 with the rest of the characteristics similar to those of 3004	Construction materials, color aluminum
AA5005	Outstanding processability and corrosion resistance	Building exterior, interior for automobiles and vessels
AA5052	It is a representative alloy with medium-level strength, excellent corrosion resistance, and workability. In particular, it features high fatigue strength and superior seawater resistance.	General-purpose plate, vessels, Can End
AA5056	"Excellent corrosion resistance and cutting surface treatment, anodizing oxidation and coloration."	Cmera Gyeongdong, telecommu- nications and mechanical parts
AA5083	"It features highest strength among alloys for welding structural alloy and practical non-heat treated alloys, corrosion resistant material suitable for welding "	Vessels, low temperature tanks, pressure containers

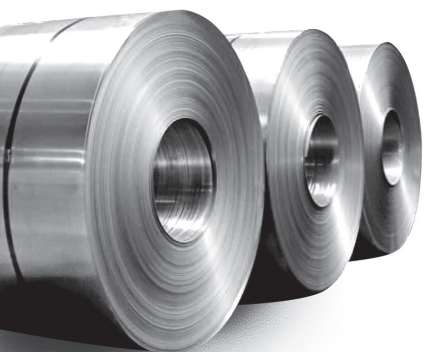


### APPLIED PARTS



## STAINLESS STEEL

Steel grade	Characteristic	Use
301	Less content of Cr and Ni than 304 and hardening by cold working	Interior & exterior materials for trains and railroad cars/ structural parts, electronic parts and components
301L	301 low carbon steel featuring excellent intergranular corrosion resistance and weldability	Railroad cars
304	The most widely used steel type featuring excellent corrosion resistance and mechanical properties	Suitable for both domestic and industrial use
304L	Low carbon 304 with strong resistance to intergranular corrosion	Chemical, petroleum industry equipment, and building materials that require strong intergranular corrosion
304LN	Enhanced strength and corrosion resistance compared to low carbon, nitrogen-added steel, 304	Designed for electric train structure, hot water tank, street light
304J1	Excellent antibacterial and formability with the addition of Cu to 304	Thermos bottle, thermos lunch box, Kitchen sink
316	Superior corrosion resistance, pitting resistance and high-temperature strength	Water piping, seawater facilities, chemical, paper, dye manufacturing facilities
316L	Properties of low carbon, 316 steel with excellent resistance to intergranular corrosion	Chemical Tank, Chemical
316LN	Enhanced strength by adding 0.1 ~ 0.3 wt% of N to 316L steel	Chemical equipment, nuclear reactor
316Ti	Enhanced intergranular corrosion by adding Ti to 316 steel	Equipment that prevents crude oil from being evaporated (crude oil storage tank), heat exchanger cover
430	Iconic steel sheet in ferritic type with low thermal expansion rate and excellent formability and oxidation resistance	Home appliance parts, type 2 western tableware
430J1L	Excellent corrosion resistance, formability and weldability by adding Cu and Nb to 430 steel	Parts for automotive exhaust system, interior and exterior materials, home appliances
430Ti	Excellent adhesion to glass by adding Si and Ti to 20Cr to 430 steel	Monitors, home appliances



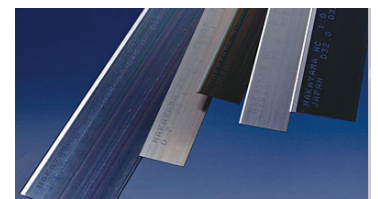
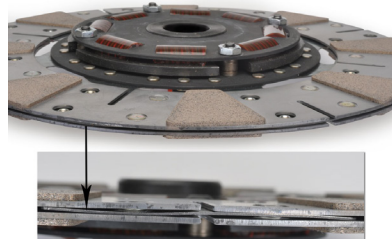
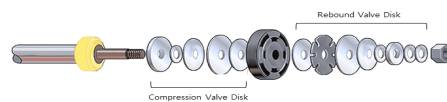
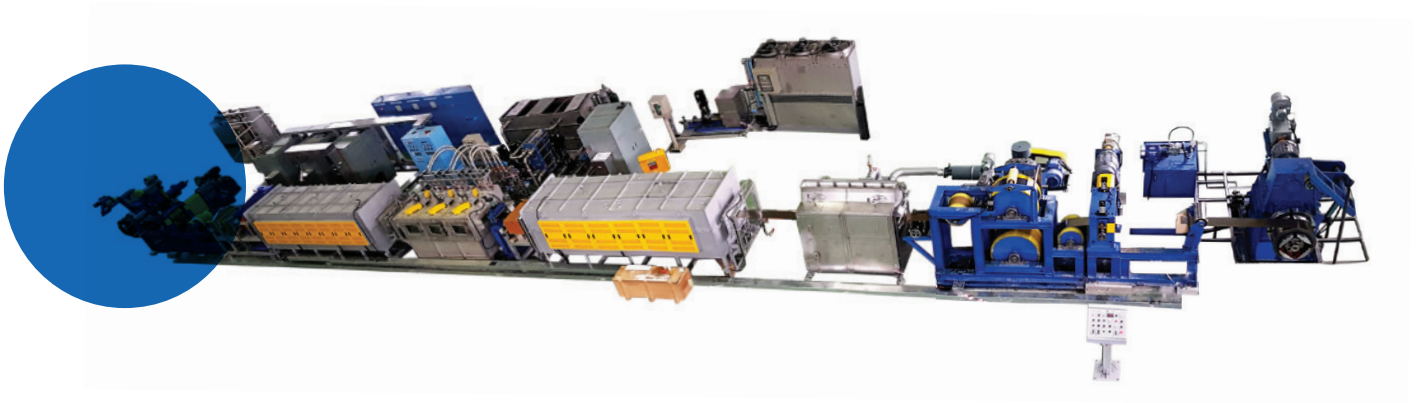
## APPLIED PARTS



# QT HEATING PROCESS LINE-UP

QT continuous heat treatment involves heating high carbon steel such as SK -5, S45C and SCM415 alloy steel plates to Austenite uniformly, and transforming internal and surface tissues to Austenite for the purposes of various Quenchig & Tempering techniques to implement the tissues of martensite, Bainite, Cemite, etc. through tissue control to implement the strength, strength, strength, etc.

- Workable Material : SK3~SK5 / S30C~S55C / SNCM220 / SCM415~435
- Workable Thickness : 0.6T ~ 3.2T
- Workable Width : MIN 80 mm ~ MAX 400mm
- Workable Coil Weight : MAX 4.5 TON
- Workable Hardness : HRC 45 ~ 58
- Workable Inner Diameter : 508ø
- Workable Outer Diameter : 1600ø





# QUALITY MANAGEMENT



## Hardness and Tensile Test

Type	Symbol	Tempering degree		Tensile test		Hardness	Bend test	
		Category	Symbol	Tensile strength kgf/mm <sup>2</sup>		(Hv)	Bending angle	Inner radius
COLD ROLLED STEEL SHEET	Class 1 (for general purpose)	SPCC (SCP1)	Annealing state	A	More than 28	Less than 105	180°	Adherence
			Standard tempering	S	More than 28	Less than 115	180°	Adherence
			1/8 Hardness	1/8H	30~42	95~130	180°	Adherence
			1/4 Hardness	1/4H	38~40	115~150	180°	0.5 of Thickness
			1/2 Hardness	1/2H	45~60	138~185	180°	1.0 of thickness
			Hardness	H	More than 56	More than 170	-	-
COLD ROLLED STEEL SHEET	Class 2 (for Processing)	SPCD (SCP2)	Standard/Annealing	SA	More than 28	Less than 110	180°	Adherence
	Class 3 (for Deep processing)	SPCE (SCP3)	Standard/Annealing	SA	More than 28	Less than 110	180°	Adherence

## Operation ratio test

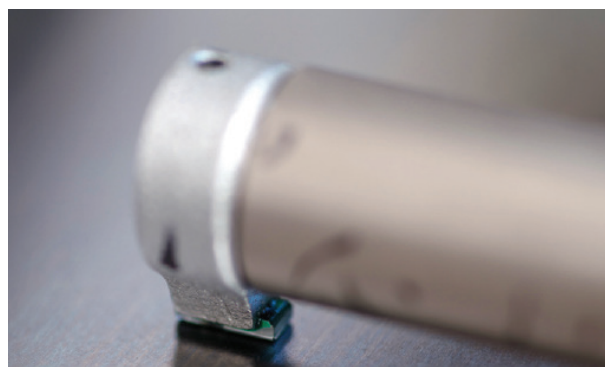
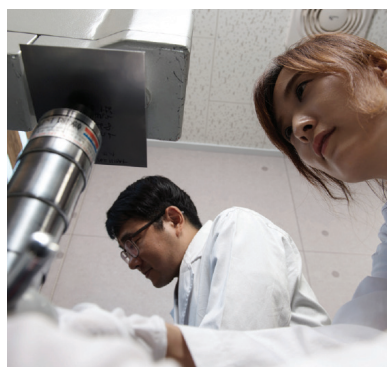


Thickness category mm Symbol	KS D 3506		JIS G 3302		ASTM		Tensile test specimen
	0.25~0.40	0.40~0.60	0.60~1.0	1.0~1.6	1.6~2.5	More than 2.5	
SPCC	(More than 32)	(More than 33)	(More than 36)	(More than 37)	(More than 38)	(More than 39)	No. 5, Rolling Direction
SPCD	More than 34	More than 36	More than 38	More than 39	More than 40	More than 41	
SPCE	More than 34	More than 38	More than 40	More than 41	More than 42	More than 43	

## Chemical components



Category		Symbol	Chemical components(%)				
			C	Si	Mn	P	S
COLD ROLLED STEEL SHEET	Class 1 (for general purpose)	SPCC(SOP1)	Less than 0.12	-	Less than 0.50	Less than 0.40	Less than 0.045
	Class 2 (for Processing)	SPCD(SOP2)	Less than 0.10	-	Less than 0.45	Less than 0.035	Less than 0.035
	Class 3 (for Deep processing)	SPCE(SOP3)	Less than 0.08	-	Less than 0.40	Less than 0.030	Less than 0.030



# DEOKSOO WELFARE FOUNDATION

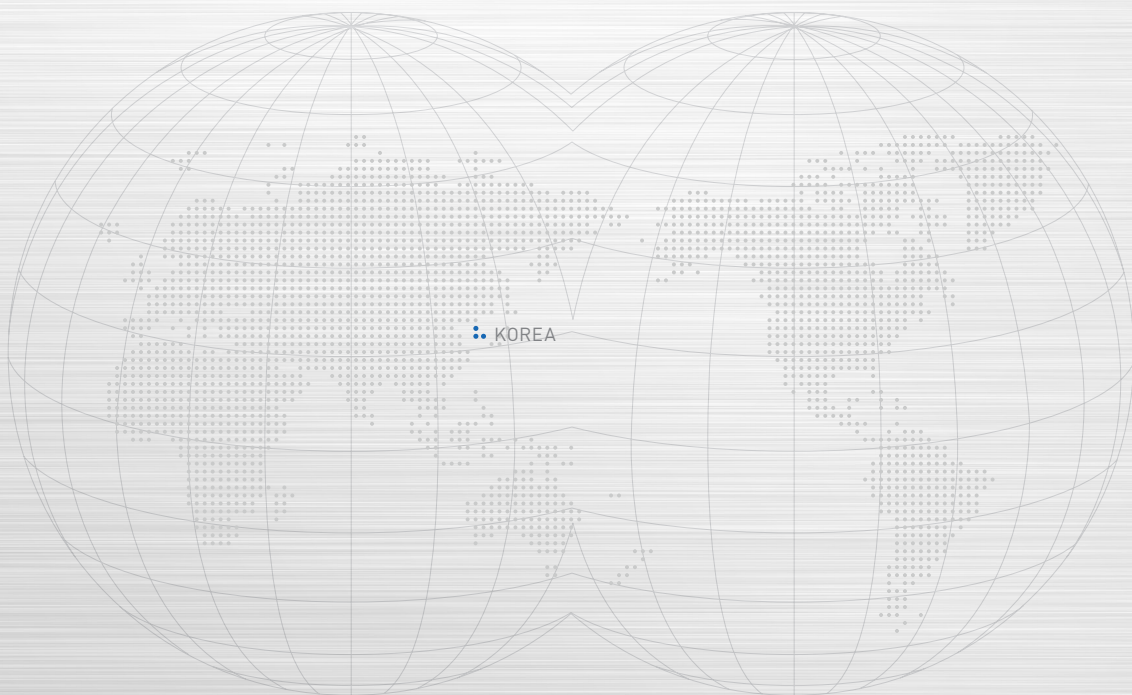
## SOCIAL WELFARE CORPORATION

Dae Hong's commitment to fulfilling its corporate social responsibilities has led to the establishment of Deoksu Welfare Foundation.

Taking the lead in job creation as a solid mid-sized firm, Dae Hong has directly engaged in welfare project starting with the facility for adults and children with severe mental and physical handicaps operated by the local government of Dasa-eup, Dalseong-gun, Dae-gu, contributing to developing welfare and returning some profits back to society. Deoksoo Welfare Foundation established for the purpose of fulfilling corporate social responsibilities and services is going to lay the groundwork for building a country of welfare.

(Smile Village / Love Village / Happiness Village)





#### HEAD OFFICE AND FIRST FACTORY

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Email. [export@daehongkst.com](mailto:export@daehongkst.com) Web. [WWW.DAEHONGKST.COM](http://WWW.DAEHONGKST.COM)

#### DALSEONG SECOND FACTORY

Dalseong2cha 6-ro, Yehyeon-ri, Guji-myeon, Dalseong-gun, Daegu, Republic of Korea2