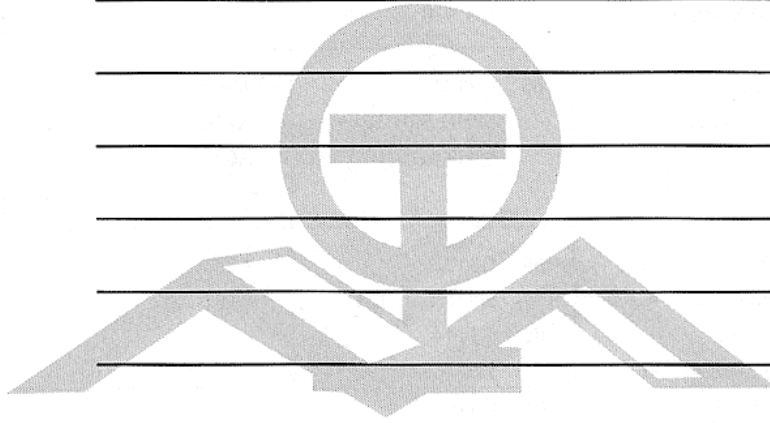


**APPENDIX**



# AVAILABLE SPECIFICATIONS

## Specifications

Application	Standard				
	KS	JIS	ASTM	Others	
Steel for General Structure	KS D3503 SS 34, 41, 50, 55	JIS G3101 SS 34, 41, 50, 55	A36, A113, A242 A233, A284, A441 A529, A573	BS 1449 Part 1 50/35 HR, HS DIN 17100 ST 33-1,2 ST 37-2,3 ST 52-3 RST 37-2 UST 37-2 IS 226 ST 42-5	
Steel for Welded Structure	KS D3515 SWS 41A, B, C SWS 50A, B, C SWS 50YA, YB SWS 53B, C	JIS G3106 SM 41A, B, C SM 50A, B, C SM 50YA, YB SM 53B, C	A36, A242, A283 A284, A440, A529 A573	BS 4360 43A, B IS 2062 ST 42-W AS 250	
Hot Rolled Mild Steel Sheets & Strip	KS D3501 SHP 1, 2, 3	JIS G3131 SPHC, SPHD SPHE	A569 A570 A621	BS 1449 HR 15 HR 4 HR 3	
Pipes & Tubes	Hot Rolled Carbon Steel Strip for Pipes & Tubes	KS D3555 HRS 1, 2, 3, 4 KS D3566 SPS 30, 41, 50, 51	JIS G3132 SPHT 1, 2, 3, 4 JIS G3444 STK 30, 41, 50, 51	A53 A252-2,3	
	Boiler & Heat Exchanger Tubes	KS D3563 STBH 33, 35, 42 KS D3571 STLT 39 KS D3572 STHA 12, 13, 20, 22	JIS G3461 STB 33, 35, 42 JIS G3462 STBA 12, 13, 20, 22 JIS G3464 STBL 39		
	Carbon Steel Pipes for High Temperature Service	KS D3570 SPHT 38, 42	JIS G3456 STPT 38, 42		
	Steel Pipes for Low Temperature Service	KS D3571 SPLT 39	JIS G3460 STPL 39		
	Carbon Steel Tubes for Machine Structure	KS D3517 STKM 11A STKM 12A, B, C STKM 13A, B, C STKM 14A, B, C STKM 15A, B, C STKM 18A, B, C	JIS G3445 STKM 11A STKM 12A, B, C STKM 13A, B, C STKM 14A, B, C STKM 15A, B, C STKM 18A, B, C		

Specifications

Application		Standard			
		KS	JIS	ASTM	Others
Pipes & Tubes	Pipes for Oil Well Tubing & Line Pipes				API 5L(S)-A,B API 5LX(S)-X42, X46, X56, X60, X65,X70 API 5A- H40, J55, K55, N80
	Ordinary Strength Hull Structural Steel				KR - RA, RB, RD AB - A LR - A,B NK - KA NV - A
	Superior Atmospheric Corrosion Resisting Steel		JIS G3125 SPA - H	A441 A588	
	Hot Rolled Sheets & Strips for Automobile Structure	KS D3519 SAPH 32, 38, 41, 45	JIS G3113 SAPH 32, 38, 41, 45		SAE 950B
	Spring Steel	KS D3701 SPS 7	JIS G4801 SUP 9		
	Chromium Molybdenum Steels	KS D3711 SCM 430	JIS G4106 SCM 430		
	Manganese Steels		JIS G4106 SMn 420		
	Carbon Steel for Machine Structure	KS D3752 SM10C ~ SM58C	JIS G4051 S10C ~ S58C		SAE 1006 ~ SAE 1050 AISI 1006 ~ AISI 1050
	Low Alloy High Strength Steels for Structure			A607 - 45, 50, 55 A715 - 50TY7 A572 A242	
	Steel for Boilers & Other Pressure Vessels	KS D3560 SBB 42, 46, 49	JIS G3103 SB 42, 46, 49	A285 A442 A455 A516	
	Steel Sheets & Strip for Gas Cylinders	KS D3533 SG 26, 30, 33, 37	JIS G3116 SG 26, 30, 33, 37	A285-C A455	

## Plates

## Specifications

Application	Standard					
	KS	JIS	ASTM	DIN	BS	Others
Structural Steel Plates	KS D3503	JIS G3101	A283	DIN 17100	BS 4360	ISO R630
	SS34, 41, 50	SS 34, 41, 50	Gr A,B,C,D	U, RST 34-1,2	Gr 40A,B,C,D,E	Fe 33, 37
	KS D3514	JIS G3106	A36	ST 37-1,2,3	Gr 43A,B,C,D,E	CAS G4021
	SWS 41A,B,C	SM 41A,B,C	A284	U, RST 42-1	Gr 50A,B,C,D,E	IS 226
	SWS 50A,B,C	SM 50A,B,C	Gr A,B,C,D	RST 42-2,3	Gr 55C, E, F	ST 42 (S)
	SWS 50YA, YB	SM 50YA,B	A572	RST 46-2,3		ST 42 (S,C)
	SWS 53B,C	SM 58	Gr 42, 50, 60, 65	ST 50-1,2		IS 2062
Weathering & Corrosion Resistant Steel Plates		JIS G3114	A441			
		SMA 41A,B,C	A588			
		SMA 50A,B,C	Gr A,B,C,D,E,F			
		SMA 58				
Steel Plates for Shipbuilding	KR	NK	A131	GL	LR	NV, CR, BV, RINA
	RA, RB, RD, RE	KA, KB, KD, KE	A,B,D,E	A32, D32, E32	AH32, DH32,	A,B,C,D
	RA32,RD32,RE32	KA32, KD32	ABS	A36, D36, E36	EH32	NV, RINA
	RA36,RD36,RE36	KA36, KD36	A,B,D,E		AHS 34,	A27,D27,E27
		AH32, DH32,		DHS 34,	A32,D32,E32	
		EH32		EHS 34	CR, BV	
				AH36, DH36,	A32,D32,E32	
				EH36	A36, D36,E36	
Carbon Steel Plates for Boilers & Pressure Vessels	KS D3560	JIS G3103	A285	DIN 17155	BS 1501-151	
	SBB 35, 42, 46,	SB 35, 42, 49	Gr A,B,C	HI, HII	Gr 360A,B	
	49	JIS G3118	A515	HIII, HIV	Gr 400A,B	
	KS D3540	SGV 42, 46, 49	Gr 55, 60, 65, 70	17Mn4	Gr 430A,B	
	SG 11, 42, 46, 49	JIS G3115	A516	19Mn5	BS 1501-221	
	KS D3521	SPV 24, 32, 46,	Gr 55, 60, 65, 70	VDEhw680	Gr 460A,B	
	SPPV 24, 32, 36,	50	A442	TTST 41	BS 1501-224	
	46, 50		Gr 55, 60	TTST 45	Gr 400A,B	
			A537		Gr 430A,B	
			Class 1, 2		Gr 460A	
		A612		Gr 490A,B		

**Plates**

Specifications

Application	Standard					
	KS	JIS	ASTM	DIN	BS	Others
Low Alloy Steel Plates for Boilers & Pressure Vessels	KS D3560 SBB46M, 49M	JIS G3103 SB46M, 49M JIS G3119 SBV 1A, 1B, 2,3 JIS G3120 SQV 1A,B, SQV 3A,B	A202 Gr A,B A204 Gr A,B,C A533 Type A Class 1,2,3 A533 Type C Class 1,2,3	WSN 5423 16Mo5 DIN 17155 15Mo3 16Mo5	BS 1501-240 1/4Mo BS 1501-261 1/4Mo	
Steel Plates for Low Temperature		JIS G3126 SLA 24 SLA 33A,B SLA 37 JIS G3127 SL3N26 SL3N28 SL3N45	A662 Gr A,B,C A203 Gr A	WDEhw680 TTST 41 TTST 45	BS 1501-224 Gr 430 A,B Gr 460 A,B	
Carbon Steel Pipes for Pressure Service	KS D3562 SPPS 38, 42	JIS G3454 STPG 38, 42				
Steel Plates for Line Pipes			A53 API 5L - A,B API 5LX - X42, X46, X52, X56, X60, X65, X70			
Automobile & Machine Steel Plates	KS D3519 SAPH 32 SAPH 38 SAPH 41 SAPH 45	JIS G3113 SAPH 32 SAPH 38 SAPH 41 SAPH 45				
Machine Structural Steel Plates	KS D3752 SM10C ~ SM58C	JIS G4051 S10C ~ S58C	SAE 1010 ~ SAE 1060			

**HOT ROLLED UNALLOYED STRUCTURAL STEELS****Group 2. a: As per European standards**

Strength grade	EN 10025-93*	EN 10025-93 ( BS EN )	DN 17100-80	MSZ 500-81	MSZ 6280-82	BS 4360-86	GOSZT 380-71
I.	-	-	-	A 0	-	-	SzT 0
II.	S 185	Fe 310-0	St 33-0	A 34	-	-	VSzT2pSz 2
	-	-	-	A 34 B	-	-	VSzT2Sz p2
III.	( S 235 ) 1	( Fe 360 A ) 1	-	-	-	40 A	-
	S 235 JR	Fe 360 B	St 37-2	A 38	-	-	-
	( S 235 JRG1 ) 2	( Fe 360 B )	( USt 37-2 )	( A 38 X )	-	-	-
	S 235 JRG2	Fe 360 B	RSt 37-2	A 38 B	37 B	40 B	VSzT3pSz 2
	S 235 J0	Fe 360 C	St 37-3	-	37 C	40 C	-
	S 235 J2G3	Fe 360 D1	St 37-3 N	-	37 D	40 D	VSzT3Sz p2
	S 235 J2G4	Fe 360 D2	-	-	-	-	-
	-	-	-	-	-	40 E	-
IV.	( S 275 ) 1	( Fe 430 A ) 1	-	-	-	43 A	-
	S 275 JR	Fe 430 B	St 44-2	A 44 B	45 B	43 B	-
	S 275 J0	Fe 430 C	St 44-3	-	45 C	43 C	-
	S 275 J2G3	Fe 430 D1	St 44-3 N	-	45 D	43 D	VSzT4Sz p2
	S 275 J2G4	Fe 430 D2	-	-	-	-	-
V.	( S 355 ) 1	( Fe 510 A ) 1	-	-	-	50 A	-
	S 355 JR	Fe 510 B	-	-	52 B	50 B	-
	S 355 J0	Fe 510 C	St 52-3	-	52 C	50 C	-
	S 355 J2G3	Fe 510 D1	St 52-3 N	-	52 D	50 D	-
	S 355 J2G4	Fe 510 D2	-	-	-	-	-
	S 355 K2G3	Fe 510 DD1	-	-	-	50 DD	-
	S 355 K2G4	Fe 510 DD2	-	-	-	-	-
	-	-	-	-	52 E	50 EE	-
VI.	E 295	Fe 490-2	St 50-2	A 50	-	-	SzT5Sz p3
VII.	E 335	Fe 590-2	St 60-2	A 60	-	-	SzT5Sz p3
VIII.	E 360	Fe 690-2	St 70-2	A 70	-	-	-

1. As per appendix (BS EN)

2. Unkilled, produced as per DIN standard St 37-3 quality

\* With markings of EN 10027

**Group 2. b: As per Japanese standards (JIS G)**

Strength grade	JIS G 3101		JIS G 3113		JIS G 3132-90
	until 1990	from 1991	until 1990	from 1991	
II.	SS 34	SS 330	SAPH 32	SAPH 310	SPHT 1
III.	-	-	-	-	SPHT 2
IV.	SS 41	SS 400	SAPH 41	SAPH 400	SPHT 3
V.	SS 50	SS 490	SAPH 45	SAPH 440	SPHT 4
	SS 55	SS 540			

**Group 2. c: As per American standards (ASTM)**

Strength grade	ASTM				
	A 283 M-90	A 285 M-90	A 515 M-90	A 573 M-90	A 36 M-91
I.	Gr A	Gr A	-	-	-
II.	Gr B	Gr B	-	-	-
III.	Gr C	Gr C	Gr 55	-	-
IV.	-	-	-	Gr 58	Gr 36
	Gr D	-	Gr 60	-	-
	-	-	Gr 65	Gr 65	-
V.	-	-	Gr 70	Gr 70	-

**ATMOSPHERICAL CORROSION RESISTANT STEELS****Group 3:**

Strength grade	MSZ 6259-82	DIN EN 10155-93	BS 4360-86	SEW 087-81	Thyssen Werkstoffblatt 2-532
III.	LK 37 B	-	-	-	-
	LK 37 C	S 235 J 0 W	-	WTSt 37-3	-
	LK 37 D	S 235 J 2 W	-	-	-
IV.	LK 45 B	-	-	-	-
	LK 45 C	-	-	-	-
	LK 45 D	-	-	-	-
V.	LK 52 B	-	-	-	-
	LK 52 C	S 355 J 0 W	WR 50 B	WTSt 52-3	CORTEN B
	LK 52 D	S 355 J 2 G 1 W	WR 50 C	-	-
		S 355 J 2 G 2 W	-	-	-

**STEELS SUITABLE FOR PRODUCTION OF BOILERS AND PRESSURE-TIGHT TANKS****Group 4:**

Strength grade	MSZ 1741-89	DIN EN 10028-93 Part 2	DIN EN 10028-93 Part 3	DIN EN 10207-92	DIN 17155-83	ASTM A 516-90	NFA 36-205-82
I.	KL 1 KL 1 C KL 1 D	- P 235 GH -	- - -	- - SPH 235	- H I -	- Gr 380 -	A 37 CP A 37 AP A 37 FP
II.	KL 2 KL 2 C KL 2 D	- P 265 GH -	- - -	- - SPH 265	- H II -	- Gr 415 -	A 42 CP A 42 AP A 42 FP
III.	- -	- -	P 275 N P 275 NH -	- - SPHL 275	- - -	- - -	- -
IV.	KL 3 KL 3 C KL 3 D	- P 295 GH -	- - -	- - -	- 17 Mn 4 -	- Gr 450 -	A 48 CP A 48 AP A 48 FP
V.	KL 7 KL 7 C KL 7 D KL 7 E	- P 355 GH - -	- - P 355 N P 355 NH -	- - - -	- 19 Mn 6 - -	- Gr 485 - -	A 52 CP A 52 AP A 52 FP A 530 FP1
VI.	KL 8	16 Mo 3	-	-	15 Mo 3	-	-

**STEELS SUITABLE FOR TUBE PRODUCTION****Group 5:**

Strength grade	MSZ 3770-85	DIN 1626-84	DIN 1628-84	DIN 17100-80	DIN 17172-78	API Spec 5L-92
II.	-	-	-	-	-	Gr A
III.	-	St 37-0	St 37-4	RRoSt 37-2 RoSt 37-3	-	-
IV.	DX 42	St 44-0	St 44-4	RoSt 44-2 RoSt 44-3	StE 290,7 TM	Gr B X 42 X 46
V.	DX 52	St 52-0	St 52-4	RoSt 52-3	StE 360,7 TM	X 52 X 56
VI.	DX 60 DX 65	- -	- -	- -	StE 415,7 TM StE 445,7 TM	X 60 X 65



## FINE GRAIN SIZED STEELS

## Group 6: As per European standards

Strength grade	MSZ 6280-82	DVSZ 197-87	DIN EN 10113-93 Part 2	DIN EN 10113-93 Part 3	DIN 10028-92 Part 3	DIN 17102-83	SEW 092-90
IV.	-	-	S 275 N S 275 NL	S 275 M S 275 ML	P 275 N -	StE 285 -	QStE 260 N -
V.	-	DE 360	S 355 N S 355 NL	S 355 M S 355 ML	P 355 N -	StE 355 -	QStE 340 N QStE 340 TM QStE 380 N QStE 380 TM
VI.	E 420 C, D, E	DE 420	S 420 N S 420 NL	S 420 M S 420 ML	- -	StE 420 -	QStE 420 N QStE 420 TM -
		DE 460	S 460 N S 460 NL	S 460 M S 460 ML	P 460 N -	StE 460 -	QStE 460 N QStE 460 TM -
VII.	-	DE 500	-	-	-	StE 500	QStE 500 N QStE 500 TM

Fine grained steel is produced as per standards ASTM A570, A572, A607, A715 as well.

## QUENCHING AND TEMPERING, CASE-HARDENING AND SPRING STEELS

## Group 7:

MSZ 61-85		MSZ 31-85	DVSZ 200*-87	MSZ 2666-88
Carbon Steels	Low-alloyed Steels			
C 10	Mn 1	C 10	DHR 42	51CrV4
C 15	Mn 2	C 15	DHR 52	(50CV 2)
C 22.	CMo1	Bc 2		
C 25	CMo 3	Bc 3		
C 35	CrV 1			
C 40	CrV 2			
C 45	CrV 3			
C 50				

\* Wear resisting steels

## ELECTROTECHNICAL STEELS

## Group 8:

DVMF 025-85	DVSZ 121-89	MSZ 8625-88
DLo 1	Em 1.0	Fermax 1
DLo 2	Em 1.2 Em 1.5	Fermax 2 Fermax AI

## Cold Rolled Coils and Sheets

## Specifications

Application		Standard						
		KS	JIS	ASTM	BS	DIN		POSCO
						1623	1624	
Commercial Quality	SCP 1	SPCC	A366	CR 4 CS 4	St 12	St 0 St 1	CSP 1 CSP 1D	
Drawing Quality	SCP 2	SPCD	A619	CR 3 CS 3	St 13	St 2	CSP 2	
Deep Drawing Quality	SCP 3 SCP 3N	SPCE SPCEN	A620	CR 2 CS 2	St 14	St 3 St 4	CSP 3 CSP 3N	
Extra Deep Drawing Quality	--	--	--	CR 1 CS 1	--	--	CSP 3E	
Structural Quality	--	--	A611	CR 34/20 CR 37/23	--	--	--	
Porcelain Enameling	Commercial	--	A424	--	--	--	CESP 1	
	Drawing	SPP					CESP 2	
Superior Atmospheric Corrosion Resisting	--	SPA-C	--	--	--	--	CASP	
High Strength Steel	--	--	--	--	--	--	CHSP	

## GENERAL COLD ROLLED STEELS

Classification	Standard			Characteristics	End use
	KS	JIS	POSCO		
Class 1	SCP1	SPCC	CSP 1 CSP 1D	General steel used for flattening, bending process (CSP 1) and light drawing (CSP 1D)	Refrigerator, Laundry machine, Other electrical appliances, Drum, etc.
Class 2	SCP 2	SPCD	CSP 2	This quality has a better characteristics of processing for drawing quality	Drawing parts of automobile door, etc.
Class 3	SCP 3	SPCE	CSP 3	This quality improved characteristics of processing of deep drawing material through metallurgical adjustment of metal grain boundary (c: Guarantee non-aging characteristics when designated by the buyer)	Automobile fender, Electrical cable case
	SCP 3N	SPCEN	CSP 3N		
	--	--	CSP 3E	Extra deep drawing steel which has superior characteristics of drawability than SCP 3N	Automobile rear floor panel, etc.

**Hot Dip Galvanised Coils and Sheets**

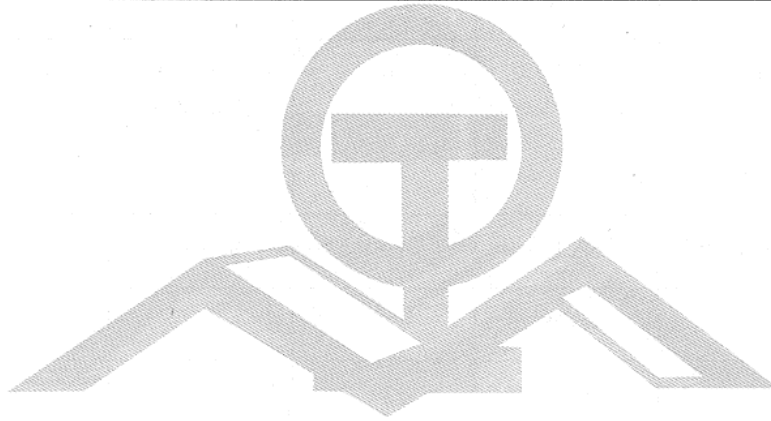
## Specifications

Application	Standard					
	KS	JIS	ASTM	BS	DIN 17162	
	D3506	G3302	A525	2989	Part 1	Part 2
Commercial Quality	SBHG 1	SPGC	A526	Z1	St 01Z	--
Lock Forming Quality	SBHG 2	--	A527	Z1	St 02Z	--
Drawing Quality	SBHG 3	SPGD	A587	Z3	St 03Z	--
Deep Drawing Quality	--	SPGDD	--	Z4	St 04Z	--
Deep Drawing Special Killed	--	--	A642	Z5	St 05Z	--
Extra Deep Drawing Quality	--	--	--	--	--	--
Roofing & Siding Quality	--	SPGR SPGA	A361	--	--	--
Structural Quality	SBHG 4	SPGS	A446	Z25, Z28 Z32, Z55	--	St E250 St E280 St E320 St E350
Corrugating General Quality	SBHG 1-W	SPGH	A361	BS 3083	DIN 59231	--
Corrugating Building Quality	--	SPGW	--	--	--	--
High Strength Steel	--	--	--	--	--	--

# Electrolytic Galvanized Coils and Sheets

Specifications

Application	Standard										
	Pure Zn				Fe-Zn	Ni-Zn	Pb-Sn	Base Metal			
	KS	JIS	ASTM	POSCO	POSCO Designation			KS	JIS	ASTM	POSCO
Commercial	SECC		A591-CQ	EGSC	EFSC	ENSC	ETSC	--	SPCC	A366	CSP 1
Drawing	SECD		A591-DQ	EGSD	EFSD	ENSD	ETSD	SCP 2	SPCD	A619	CSP 2
Deep Drawing	SECE		A591-DQ SK	EGSE	EFSP	ENSP	ETSP	SCP 3	SPCE	A620	CSP 3
Non-Aging Deep Drawing	SECEN			EGSN	EFSN	ENSN	--	SCP 3N	SPCEN	A620	CSP 3N
Extra Deep Drawing	--		--	EGSE	EFSE	ENSE	--	--	--	--	CSP 3E
High Strength Steel	--		--	EGCHSP 35/60	EFCHSP 35/60	ENCHSP 35/60	--	--	--	--	CHSP 35/60



## Stainless Steel Coils &amp; Sheets

## Specifications

Application		Standard			
		AISI	JIS	BS	DIN
Stainless Steel	Austenitic	301, 302 304, 304L 316, 316L 321, 347 385	SUS 301, 302 SUS 304, 304L SUS 316, 316L SUS 321, 347 SUS 385	301S21, 302S17 302S25 304S15, 304S12 304S16 316S16, 316S12 316S49, 316S37 321S12, 347S17 321S49, 347S49	X12CrNi177 X12CrNi188 X5CrNi1810 X2CrNi1911 X5CrNiMo17122 X2CrNiMo17132 X6CrNiMoTi1810 X6CrNi1
	Ferritic	405 409 430	SUS 405 SUS 409 SUS 430	405S17 409S17 430S15	X6CrAl13 X6CrTi12 X6Cr17
	Martensitic	403, 410 420, 420J2 431, 501 502	SUS 403, 410 SUS 420J1, 420J2 SUS 431	430S17, 410S21 420S29, 420S45 431S29	X15Cr13, X6Cr13 X20Cr13, X46Cr13 X22CrNi117
Heat Resisting Steel		314, 446 H-46, 661	SUH 446 SUH 600, 661		X15CrNiSi2520