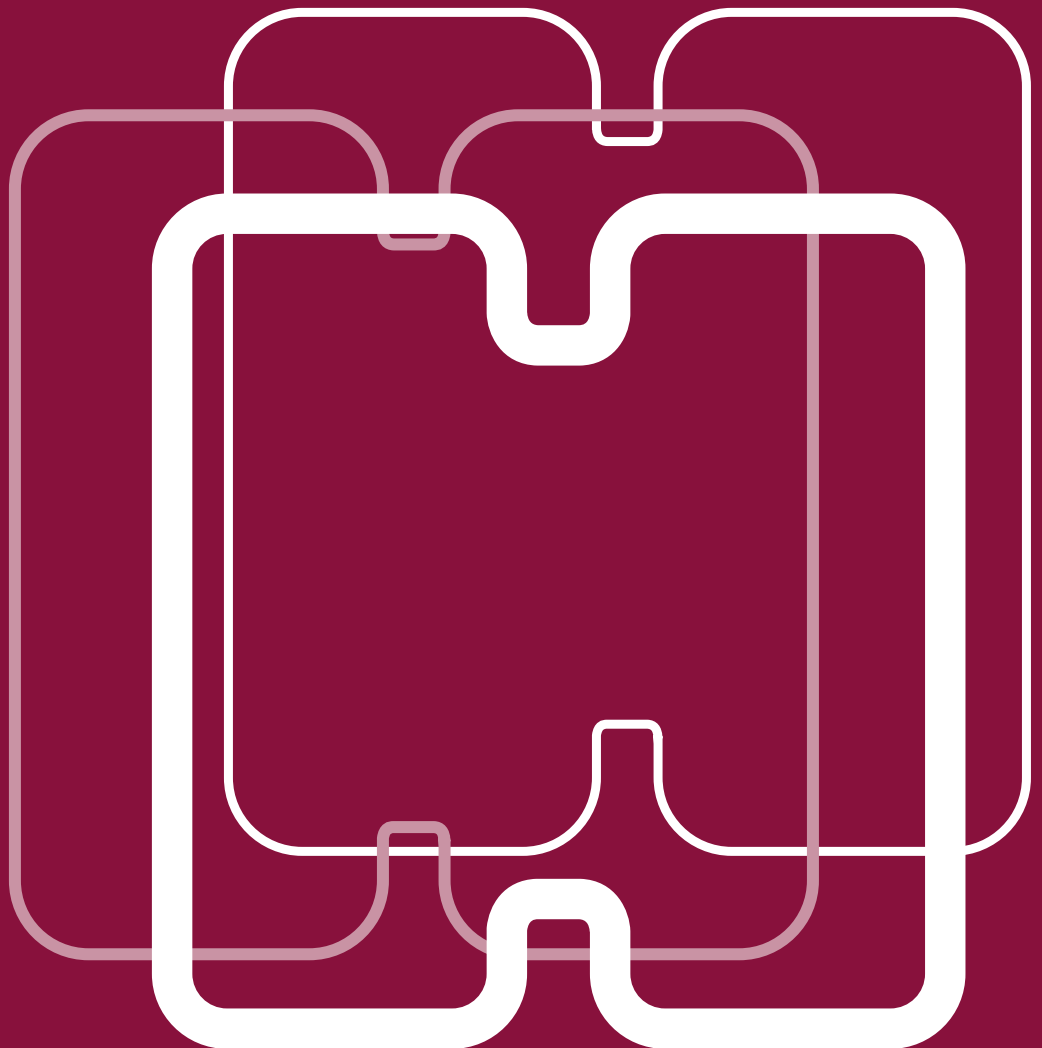


HYUNDAI WELDING COMPANY PROFILE



HYUNDAI Business Group



STEEL



Major steelmaker in Korea
 Ranked 16th in global steel production (19.81Mt)
 Revenue of USD 18 billion per year

SHIPBUILDING



Largest shipyard in the world
 Capable of over 200 million DWT production
 Revenue of USD 23 billion per year

AUTOMOTIVE



Top carmaker in Korea
 Ranked 3rd in global auto sales (Hyundai-Kia Automotive Group)
 Revenue of USD 95 billion per year

CONSTRUCTION



Top construction company in Korea
 Ranked 16th globally in international contractors
 Revenue of USD 15 billion per year

LOGISTICS



Top integrated logistics & distribution company in Korea
 Revenue of USD 17 billion per year

WELDING



Major global producer of welding consumables and equipment
 · Over 50% domestic market share
 · Privately owned entity in close partnership with the Hyundai Business Group

(Source: Rank and revenue in 2021)

COMPANY History

1975

1975. 09
 Establishment of Seo Han Corporation

1977. 01

Establishment of Welding Consumables Factory in Pohang, South Korea

1990~2000

1993. 02

Establishment of HYUNDAI WELDING CHINA CO. LTD

1994. 01

Establishment of HYUNDAI WELDING S'PORE CO. LTD

1997. 02

Establishment of HYUNDAI WELDING PRODUCTS USA

1980~1990

1980. 12

Started Submerged Wire and Flux Production

1987. 01

Changed company name to HYUNDAI WELDING

1989. 10

Establishment of HYUNDAI WELDING JAPAN CO. LTD

2001~2010

2002. 04

Establishment of SUPERTECH(KUNSHAN) CO. LTD

2007. 09

Establishment of HYUNDAI WELDING VINA CO. LTD

2009. 05

Establishment of Plant in Gochang

2011~PRESENT

2011. 08

Establishment of Pohang 2nd Plant

2019. 03

Establishment of Artem Plant, Russia

PRODUCTION Facilities

Pohang Plant



Pohang Main Plant (Pohang, South Korea)

· FCAW / SAW / GMAW Production
 · R&D Center

Pohang 2nd Plant



Pohang 2nd Plant (Pohang, South Korea)

· SMAW / GMAW Production
 · Welding Equipment Production
 · BWTS Production

Gochang Plant



Gochang Plant (Gochang, South Korea)

· FCAW Production

China Plant



China (Kunshan) Plant (Kunshan, China)

· FCAW / SAW / GMAW / SMAW Production
 · R&D Center

Vietnam Plant



Hochimin Plant (Hochimin, Vietnam)

· FCAW / SAW / GMAW Production

INTERNATIONAL Branches & Corporations

Corporations



Welding Consumables Filler Metals for **Carbon and Low-alloy Steel**

Alloy	Type	Base Metal (ASTM)	Welding Process (AWS A5.1-A5.34)					
			SMAW	GTAW	GMAW	FCAW	SAW (Wire/Flux)	
Carbon Steel	General	A36, A106, A131, A283, A512, A513, A515, A516, A523, A524, A529, A572 Gr42, 50, 55, 60, A633	S-7016.H (A5.1 E7016)	ST-50G (A5.18 ER70S-G)	SM-70 (A5.18 ER70S-6)	SF-71 (A5.20 E71T-1C)		
	Low Temperature (-30°C)	A516-ALL	S-7018.G (A5.1 E7018)	ST-50G (A5.18 ER70S-G)	SM-70 (A5.18 ER70S-6)	Supercored 71H (A5.20 E71T-1C, -9C-J)		
			S-7016.H (A5.1 E7016)		SM-70G (A5.18 ER70S-G)	Supercored 71MAG (A5.20 E71T-1M/-9M)		
	Low Temperature (-40°C)	A537-C11 A516	S-7018.1 (A5.1 E7018-1)	ST-72 (A5.18 ER70S-2)		Supercored 71H (A5.20 E71T-1C, -9C-J)	H-12K/Superflux787 (A5.17 F7P8-EH12K)	
			S-7018.1H (A5.1 E7018-1)			SC-71SR (A5.20 E71T-1C, -12C-J)		
	Low Temperature (-60°C)	A516 A203-A	S-7016.LS (A5.5 E7016-G)	ST-1N (A5.28 ER80S-Ni)		Supercored 81-K2 (A5.29 E81T1-K2C)	H-14/Superflux55ULT (A5.17 F7A(P)8-EH14)	
						Supercored 81-K2MAG (A5.29 E81T1-K2M)		
	Higher Strength	80Ksi (60kg)	A572 Gr 65, A537 C12 A514, A517, A710, A633E, A675	S-8016.G (A5.5 E8016-G)		SM-80G (A5.18 ER80S-G)	Supercored 81 (A5.29 E81T1-Ni1C)	
		90Ksi (70kg)	A514, A517, A543	S-9016.G (A5.5 E9016-G)	ST-90.G (A5.28 ER90S-G)	SM-90G (A5.28 ER90S-G)	SC-91K2 Cored (A5.29 E91T1-K2C)	
		100Ksi (80kg)	A514, A517, A543, A671, A709	S-10016.G (A5.5 E10016-G)	ST-100 (A5.28 ER100S-G)	SM-100 (A5.28 ER100S-G)		
110Ksi (90kg)		A514, A517, A543	S-11016.G (A5.5 E11016-G)	ST-110 (A5.28 ER110S-G)	SM-110 (A5.28 ER110S-G)	Supercored 110 (A5.29 E111T1-GC)		
Low-alloy Steel	A1 (0.5%Mo)	A204 Gr. A,B,C A335 Gr. P1 A209 Gr. T1	S-7010.A1 (A5.5 E7010-A1)			SC-81A1 (A5.29 E81T1-A1C)	A-2/S-900SP (A5.23 F9A2-EA2-G)	
			S-7016.A1 (A5.5 E7016-A1)					
			S-7018.A1 (A5.5 E7018-A1)					
	B2 (1.25%Cr-0.5%Mo)	A387 Gr. 11,12 A335 Gr. P11,12 A213 Gr. T11,12 A182 Gr. F11,12	S-7016.B2 (A5.5 E7016-B2)	ST-80B2 (A5.28 ER80S-B2)	SM-80B2 (A5.28 ER80S-B2)	SC-81B2 (A5.29 E81T1-B2C)	B-2/S-777MXT (A5.23 F8PZ-EB2-B2)	
			S-7018.B2 (A5.5 E7018-B2)	ST-80CM (A5.28 ER80S-G)	SM-80CM (A5.28 ER80S-G)		B-2/S-800CM	
	B3 (2.25%Cr-1%Mo)	A387 Gr. 22 A335 Gr. P22 A213 Gr. T22 A182 Gr. F22	S-9016.B3 (A5.5 E8016-B3)	ST-90B3 (A5.28 ER90S-B3)	SM-90B3 (A5.28 ER90S-B3)	SC-91B3 (A5.29 E91T1-B3C)		
			S-9018.B3 (A5.5 E8018-B3)				B-3/S-800CM	
	B9 (9%Cr-1%Mo)	A387 Gr. 9 A335 Gr. P9 A213 Gr. T9 A182 Gr. F9	S-9015.B9 S-9016.B9 S-9016.G	ST-91B9/92B9		SC-91B9 (A5.29 E91T1-B9C, -B9M)	EB9*S-900SP	
Ni1 (1%Ni)		S-7016.LS (A5.5 E7016-G)	ST-1N (A5.28 ER80S-Ni1)	SM-1N (A5.28 ER80S-Ni1)	Supercored 81MAG (A5.29 E81T1-Ni1M)			
D2 (Mn-0.5%Mo)	A302Gr.B,C,D A533Type A,B,C,D		ST-80D2		SC-80D2 (A5.28 E80C-G)			

* All products are fully approved by most common societies. Please contact Hyundai Welding for more information on approvals.



Welding Consumables Filler Metals for **Stainless Steel and Ni-Alloy**

Alloy	Type	Base Metal (ASTM)	Welding Process (AWS A5.1-A5.34)						
			SMAW	GTAW	GMAW	FCAW	SAW (Wire/Flux)	ESW (Strip/Flux)	
Stainless Steel	Martensite	410		ST-410 (A5.9 ER410)	SM-410 (A5.9 ER410)	SW-410 Cored (A5.22 E410T1-1/-4)	YS-410		
			Ferrite	430		ST-430LNb	SM-430LNb	SF-430 (A5.9 EC430)	
	Austenite	312		S-312.16 (A5.4 E312-16)	ST-312 (A5.9 ER312)	SM-312 (A5.9 ER312)			
		310	A240-310 A312 Gr. TP310 A511 MT310S	S-310.15/16 (A5.4 E310-15/16)	ST-310 (A5.9 ER310)	SM-310 (A5.9 ER310)			
		307Si				SM-307Si			
		309L		S-309L.16 (A5.4 E309L-16)	ST-309L (A5.9 ER309L)	SM-309L (A5.9 ER309L)	SW-309L Cored (A5.22 E309LT1-1/-4)	YS-309L/ Superflux300S	YSB-309L /S-300EM
		308L	A240-304,304L A203-D A312 TP308.308L A511 MT304L	S-308L.16N (A5.4 E308L-16)	ST-308L (A5.9 ER308L)	SM-308L (A5.9 ER308L)	SW-308L Cored (A5.22 E308LT1-1/-4)	YS-308L/ Superflux300S	YSB-308L /S-300EM
		316L	A240-316,316L A203-E A312 TP316,316L	S-316.16N (A5.4 E316-16)	ST-316L (A5.9 ER316L)	SM-316L (A5.9 ER316L)	SW-316L Cored (A5.22 E316LT1-1/-4)	YS-316L/ Superflux300S	YSB-316L /S-300EM
		347	A240-347 A312 TP347 A511 MT321,347	S-347.16 (A5.4 E347-16)	ST-347 (A5.9 ER347)	SM-347 (A5.9 ER347)	SW-347 Cored (A5.22 E347T1-1/-4)	YS-347	YSB-347 /S-300EM
		309LNb							YSB-309LNb /S-300EM
	309MoL	dissimilar welding	S-309MoL.16 (A5.4 E309Lmo-16)	ST-309MoL (A5.9 ER309MoL)	SM-309MoL (A5.9 ER309MoL)	SW-309MoL Cored (A5.22 E309LmoT1-1/-4)	YS-309MoL	YSB-309MoL /S-300EM	
	Super-Austenite	904L	B625		SMT-904L (A5.9 ER385)	SMT-904L (A5.9 ER385)			
	Duplex	2209 (Duplex)	A240-S31803 A790-S31803	S-2209.16 (A5.4 E2209-16)	ST-2209 (A5.9 ER2209)	SM-2209 (A5.9 ER2209)	SW-2209 Cored (A5.22 E2209T1-1/-4)	YS-2209/ Superflux209	
		2594 (Super duplex)	A240-S32750 A790-S32750		ST-2594 (A5.9 ER2594)	SM-2594 (A5.9 ER2594)	SW-2594 Cored (A5.22 E2594T1-1/-4)	YS-2594	
	Ni-Alloy	Pure Ni	Nickel200	B162,B725,B730	ST-60 (A5.14 ERNi-1)	SM-60 (A5.14 ERNi-1)		SA-60	
Ni-Cu		Monel400	B127 B165 B163	ST-400 (A5.14 ERNiCu-7)	SM-400 (A5.14 ERNiCu-7)		SA-400		
Ni-Cr		Inconel600	B168,B166	SR-182 (A5.11 ENiCrFe-3)	ST-82 (A5.14 ERNiCr-3)	SM-82 (A5.14 ERNiCr-3)		SA-82	YSB-82 /S-600EM
Ni-Cr-Fe			A553	SR-134 (A5.11 ENiCrFe-4)			SA-08/S-Ni2		
Ni-Fe-Cr		Inconel718	B670,B637		ST-718 (A5.14 ERNiFeCr-2)	SM-718 (A5.14 ERNiFeCr-2)			
		Incoloy800	B424,B423						
Ni-Cr-Mo		Inconel625	A353, A553, A844 B443,B168,B166B688, B675,B676,B564	SR-625	SMT-625 (A5.14 ERNiCrMo-3)	SMT-625 (A5.14 ERNiCrMo-3)	SW-625 (A5.34 ENiCrMo3T1-1/-4) SW-82H (For 9% Ni steel) (A5.34 ENiGT1-1/-4)	SA-625 /Superflux300	YSB-625 /S-625EM
		Hastelloy C-276	B575,B574		ST-276 (A5.14 ERNiCrMo-4)	SM-276 (A5.14 ERNiCrMo-4)		SA-276	
		Hastelloy C-4	B575,B574		ST-455 (A5.14 ERNiCrMo-7)	SM-455 (A5.14 ERNiCrMo-7)		SA-455	
		Hastelloy C-22	B575,B574						
Ni-Mo	Hastelloy B-2	A353,A553 B333,B335		SMT-08 (A5.14 ERNiMo-8)			SA-08		
Cu-Ni	7030			SMT-7030 (A5.7 ERCuNi)	SMT-7030(A5.7 ERCuNi)		SA-7030		
	9010			ST-9010	SM-9010		SA-9010		

Filler Metals for **Aluminum and Copper Alloy**

Alloy	Type	Base Metal (ASTM)	Welding Process (AWS A5.10)				
			SMAW	GTAW	GMAW	FCAW	
Aluminum Alloy	4XXX Alloys (Al-Si)	2038			SMT-4043 (ER4043)	SMT-4043 (ER4043)	
		2010					
		2008					
Aluminum Alloy	5XXX Alloys (Al-Mg)	6052					
		6053					
Aluminum Alloy	Al-Si casting	Al-Si casting					
Aluminum Alloy	5XXX Alloys (Al-Mg)	5083			SMT-5183 (ER5183)	SMT-5183 (ER5183)	
		5456					
Aluminum Alloy	5XXX and 6XXX series alloys				SMT-5356 (ER5356)	SMT-5356 (ER5356)	
Copper Alloy	Silicon bronze			ST-CuSiA (AWS A5.7ERCuSi-A)	SM-CuSiA (AWS A5.7ERCuSi-A)		

* All products are fully approved by most common societies. Please contact Hyundai Welding for more information on approvals.

Welding Equipment

Digital and Inverter Welders

Power Source	Type	Robot application	Low-spatter	Welding Process													STICK	Gouging/CUT	Rated Output			Rated Input			Wire (mm)	Approvals
				CO2 100% MAG: Ar 80%+ CO2 20%		Ar 98% + O2 2% (±1-3%)				Ar 100%		SAW		Current (A)	Duty cycle (%)	AC/DC			Voltage (V)	Phase	Frequency					
				CO2/MAG	Pulse MAG	MIG		Pulse MIG		TIG		Mild	SUS													
				Mild	Mild	SUS	Al	SUS	Al	LIFT TIG	DC Pulse											AC				
Hi	Hi400i	Digital	○	○	○	(○)	(○)	(○)	(○)	(○)								400	60	DC	220 (380) (440)	3phase	50/60Hz	0.9-1.2		
	Hi400P	Digital	○	△	○	○	○	○	○	○								400	60	DC	380/440	3phase	50/60Hz	1.0-1.4	CE	
	Hi500P	Digital	○	△	○	○	○	○	○	○					○	○		500	100	DC	380/440	3phase	50/60Hz	1.0-1.6		
	Hi500MT	Digital			○		○	○			○	○					○	500	100	DC	380/440	3phase	50/60Hz	1.0-1.6	CE	
	Hi500PIPE	Digital	○	△	○	○	○	○	○	○	○	○			○	○	○	500	60	DC	380/440	3phase	50/60Hz	1.0-1.6		
	Hi500T	Digital	○								○	○						500	60	DC	380/440	3phase	50/60Hz			
	Hi700SD	Digital													○			700	100	DC	380/440	3phase	50/60Hz	2.4-4.0		
	Hi700SA	Digital													○			700	100	AC/DC	380/440	3phase	50/60Hz	2.4-4.0		
	Hi1000SD	Digital													○			1000	100	DC	380/440	3phase	50/60Hz	2.4-4.8		
	Hi1000SA	Digital													○			1000	100	AC/DC	380/440	3phase	50/60Hz	2.4-4.8		
	Hi1500SD	Digital													○			1500	100	DC	380/440	3phase	50/60Hz	2.4-6.4		
Hi1500SA	Digital													○			1500	100	AC/DC	380/440	3phase	50/60Hz	2.4-6.4	CE		
H	H350R	Inverter	○	○	○	(○)	(○)	(○)	(○)	(○)								350	60	DC	220/380/440	3phase	50/60Hz	1.2-1.6		
	H350S	Inverter			○		○	○										350	60	DC	220/380/440	3phase	50/60Hz	1.2-1.6		
	H500M	Inverter			○		○	○								○	500	60	DC	220/380/440	3phase	50/60Hz	1.2-1.6			
	H500MS	Inverter			○		○	○								○	500	100	DC	220/380/440	3phase	50/60Hz	1.2-1.6			
	H500MG	Inverter	○		○		○	○								○	500	100	DC	220/380/440	3phase	50/60Hz	1.2-1.6			
	H500MR	Inverter	○		○		○	○								○	500	100	DC	220/380/440	3phase	50/60Hz	1.2-1.6			
	H600M	Inverter			○		○	○								○	600	60	DC	220/380/440	3phase	50/60Hz	1.2-1.6			
	H600MS	Inverter			○		○	○								○	600	100	DC	220/380/440	3phase	50/60Hz	1.2-1.6			
	H600MG	Inverter	○		○		○	○								○	600	100	DC	220/380/440	3phase	50/60Hz	1.2-1.6			
	H600MR	Inverter	○		○		○	○								○	600	100	DC	220/380/440	3phase	50/60Hz	1.2-1.6			
HD AUTO	350S	SCR			○		○	○										350	60	DC	220/380/440	3phase	50/60Hz	1.2-1.6		
	500S/M	SCR			○		○	○										500	60	DC	220/380/440	3phase	50/60Hz	1.2-1.6		
	600S/M	SCR			○		○	○										600	100	DC	220/380/440	3phase	50/60Hz	1.2-1.6		
	800S/M	SCR			○		○	○										600	70	DC	220/380/440	3phase	50/60Hz	1.2-2.4		
LIBERO	600M	SCR			○		○	○										600	100	DC	220/380/440	3phase	50/60Hz	1.2-1.6		
HG	HG200	Inverter			○		○	○			○							200	30	DC	220	1phase	50/60Hz	0.6-1.0	CE	
	HG200DP	Inverter			○	○	○	○	○	○								200	60	DC	220	1phase	50/60Hz	0.6-1.2	CE	
	HG300	Inverter			○		○	○			○							300	60	DC	220/380	1phase	50/60Hz	0.8-1.6	CE(WIP)	
	HG200A	Inverter																150	15	DC	220	1phase	50/60Hz	1.6-3.2		
	HG200AH	Inverter									○							200	30	DC	220	1phase	50/60Hz	1.6-4.0	CE	
	HG200T	Inverter									○	○		○				200	25	AC/DC	220	1phase	50/60Hz		CE	
	HG500SP	Inverter	○		○	○	○	○	○	○								500	100	DC	380	3phase	50/60Hz	0.8-1.6		
	HG40P	Inverter																40	40	DC	220	1phase	50/60Hz			

(○) : To be developed

