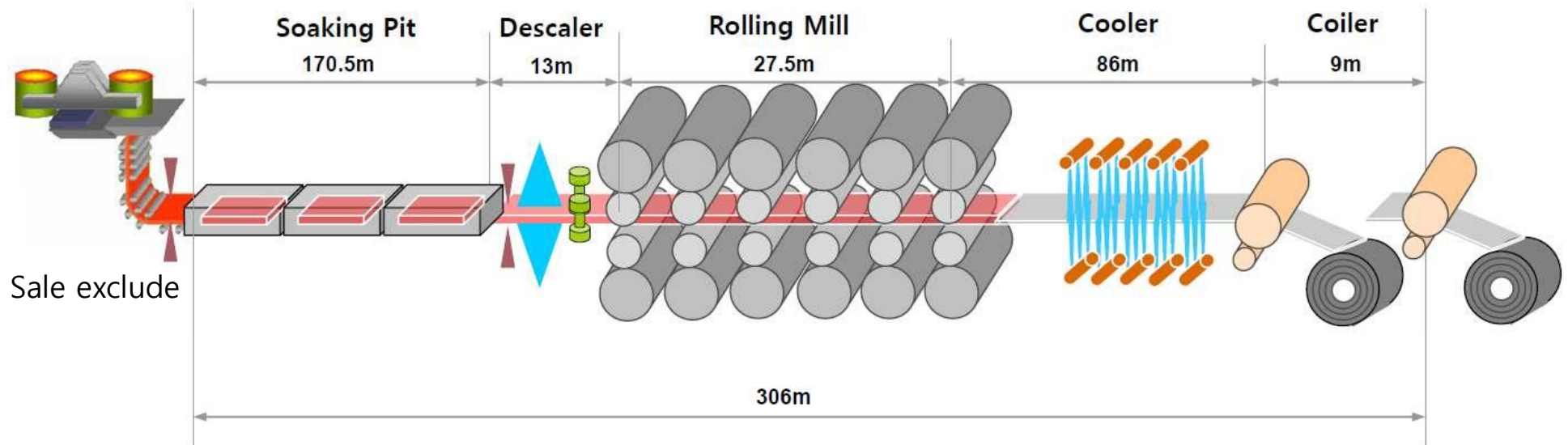

HOT STRIP ROLLING MILL PLANT

1. General Specification

- Strip Rolling Mill : 1995/2005 operation ~ 2020 halted
- Product size(coil) : 1.4~16mmT x 900~1,560mmW - 28ton / roll
- Continuous Casting Machine : 1995/2005 operation ~ 2020 halted
(2 sets)
- Material size (Slab size) : 55mmT x 900~1,560mmW x 20,000~43,000mmL
210mmT x 600~1,890mmW x 37,790mmL

2. Hot strip rolling mill layout

Hot Rolling Mill Workflow



Hot Rolling Mill Products

Products	Specification	Notes
Slab	Thickness: 50-60, Width: 900~1,560, Length: 20,000-43,000mm	Current thickness : 55mm
Coil	Thickness: 1.4~16, Width: 900~1,560mm, Unit weight: MAX 28 tonnes	

3. Summary of Strip Mill

1. Continuous Casting

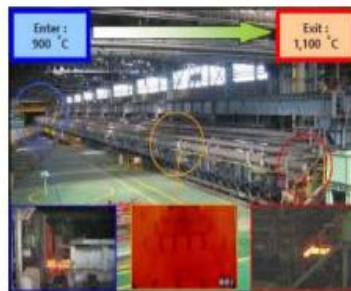
- Produces semi-finished products by continuously casting molten metal



Type	• Vertical Curved Continuous Casting 1MC x 1 Strand
Mfr.	• SMS (DEU)
Capacity	• Max 5.5m/min
Size	• 55mm(T) X 900~1,560mm(W)
Other	• Ladle turret : 260 tonnes (X 2sets) • Tundish capacity : 28 tonnes (Max 30 tonnes) • Mold type : Funnel

2. Soaking pit

- Heats slabs processed by continuous casting



Type	• Hearth Roller / SWIVEL
Mfr.	• Bricmont (USA)
Other	• Burner : 194 EA (Line A 98, Line B 96) 47.98MMkcal/hr • Working time : 10 ~ 15min • Roche : 1.96W X 1.38H X 170.5m (2 Mach.) • Fuel : LNG → COG (since May 2012)

3. Descaler

- Removes scale from the surface using high-pressure water



Type	• EMERGENCY SHEAR – Descaler – Edger
Mfr.	• Machinery : SMS (DEU) • Control : SIEMENS (DEU)
Other	• EMERGENCY SHEAR - Pressure : 6,800kN - Cutting: MAX.600mm • Descaler - Quantity : 287m³/hr - Water pressure : Column 1 : 200 bar Column 2 : 300 bar • Edger - Pressure : 50 kN (high pressure)

4. Rolling Mill Machine

- Processes slabs to create rolls with desired thicknesses



Type	• 4 HIGH 6 STAND
Mfr.	• Machinery : SMS (DEU) • Control : SIEMENS (DEU)
Other	• Motor : 7,000 kW X 6EA • Distance between machines : 5.5m • Pressure: - F1 ~ F3 : 4,000 tonnes - F4 ~ F6 : 3,200 tonnes • Thickness control : AGC (Automatic Gauge Control)

5. Laminar

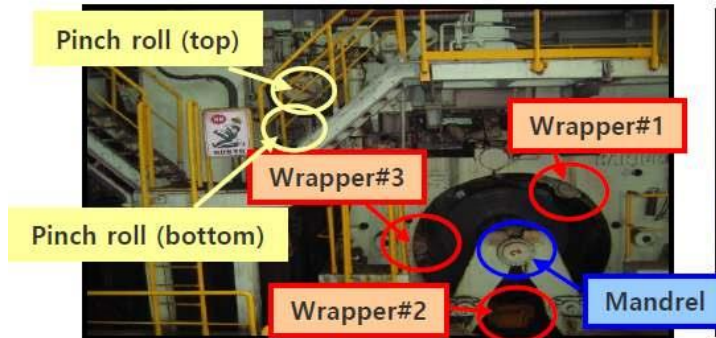
- Makes various-shaped steel from semi-finished products by rolling, modifying, and cooling



Type	• Laminar Cooling • Inner cooling + Outer cooling roller
Mfr.	• Machinery : SMS (DEU) • Control: SIEMENS (DEU)
Capacity	• 5,300 m³/hr
Other	• Temperature : - FDT 860 → CT 520 / 680 °C • Length : 50.4m • Roller : 186 EA (MAX 15m/s)

6. Rewinder

- Winds cooled strips into coils



Mfr.	• Machinery : SMS (DEU) • Control : SIEMENS (DEU)
Speed	• 15m/s
Other	• Pinch roll: Directs strips into mandrel to maintain optimal tension - Top : $\Phi 900 \times 1,700\text{mm}$ - Bottom : $\Phi 400 \times 1,700\text{mm}$ • Mandrel : Rolls strips into coils (Extended : 787mm, Contracted : 727 mm) • Wrapper : Prevents loose coil while rolling (3EA) - $\Phi 900 \times 1,700 \text{ mm}$

7. 1. SPM

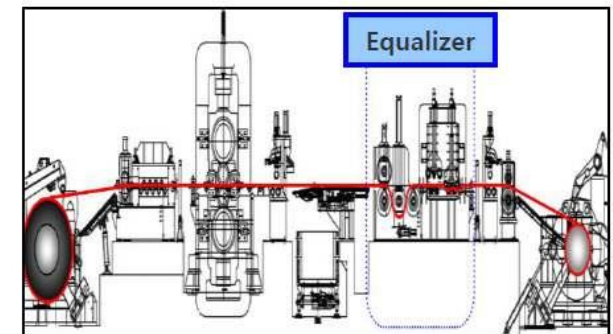
- Packages temper rolls and products



Mfr.	• Machinery : KOBE • Electricity : Yaskawa (JPN)
Production Capacity	• 600,000 tonnes/yr
Product	• Thickness: 1.4~6.5mm
Other	• Pressure : Maximum 1,000 tonnes • Roll : Work roll : $630\Phi \times 1,730$, Backup roll : $1,200\Phi \times 1,660$ • Packaging : Outer diameter : 3 pts, Inner diameter : 4 pts

7. 2. Equalizer (EQ)

- Packages products after rolling and shaping (installed in Jul 2013, expanded in Jan 2014)



Mfr.	• Delta (USA)
Production Capacity	• 450,000 tonnes/yr
Product	• Thickness: 1.2~6.5 mm
Other	• Pressure : Max 2,000 tonnes • Roll : Work roll : $500\Phi \times 1,800$, Backup roll : $1,000\Phi \times 1,720$ • Packaging : Outer diameter : 3 pts, Inner diameter : 4 pts

4. Specification of Equipment

CONTINUES CASTING MACHINE



MAKER	SMS
MODEL	55 MM CSP CASTER
TYPE	STRAIGHT BENDING
YEAR	2005
QUANTITY	2 EA (TWIN CASTER) ·A-1 : 2005 ~ 2020 ·A-2 : 2005 ~ 2007
PRICE	₩ 34,100,000,000 (CRANE, WATER TREATMENT FACILITIES NOT INCLUDED)
SPEC.	·CASTING RADIUS : 3,000 MM ·NUMBER OF STRAND : 1 ·CASTING SIZE : 900 ~ 1,560 ·CUTTING LENGTH : 47,600 MM ·CASTING SPEED : 2.5 ~ 5.5 M/MIN ·LADLE CAPA. : MAX 150 TON ·TUNDISH CAPA. : MAX 28.5 TON ·FLOW CONTROL : STOPPER (VESUVIUS) ·MOULD TYPE : COPPER PLATE (FUNNEL, HEIGHT 1,100 MM) ·MOULD LEVEL CONTROL : Co60 ·MOULD OSCILLATION : HYDRAULIC 4 CYLINDER 0~10 MM STROKE, 60~400 CYCLE (2013 RENEWAL - SMS) ·WITHDRAWAL : AC MOTOR DRIVING (16.2 Kw X6P) 360 MM ROLL DIA HYDRAULIC CYLINDER ·CUTTING DEVICE : PENDULUM TYPE HYDRAULIC SHEAR 510 TON CAPA. PULSE COUNTER LENGTH DETECTION

CONTINUOUS CASTING MACHINE



MAKER

SMS

MODEL

55 MM CSP CASTER

TYPE

STRAIGHT BENDING

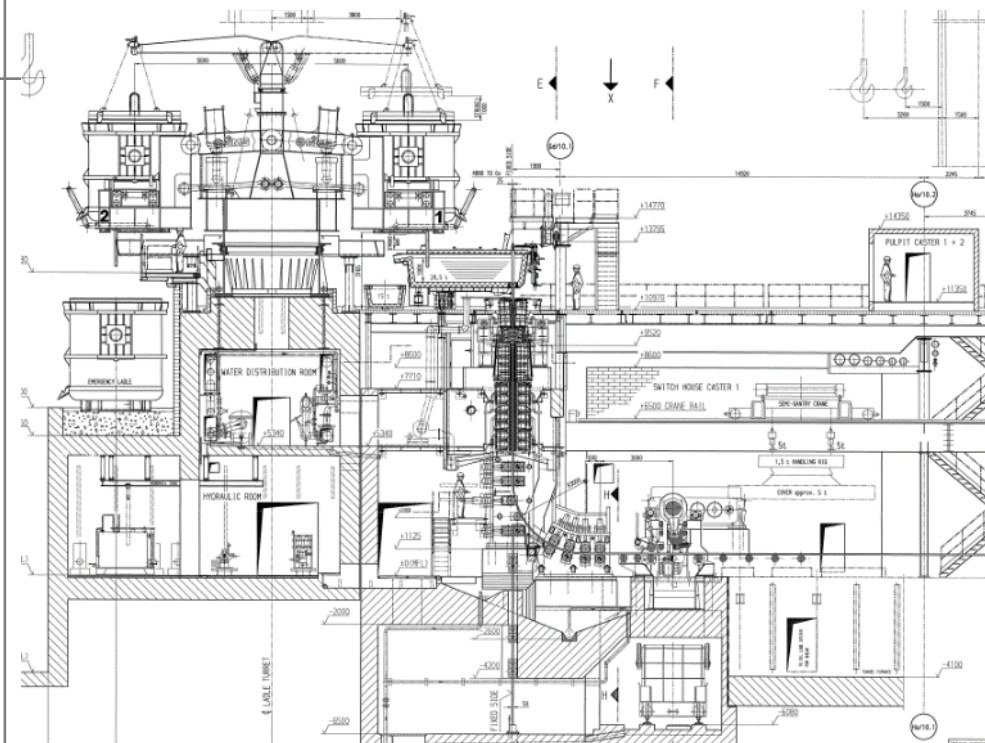
YEAR

2005

QUANTITY

PRICE

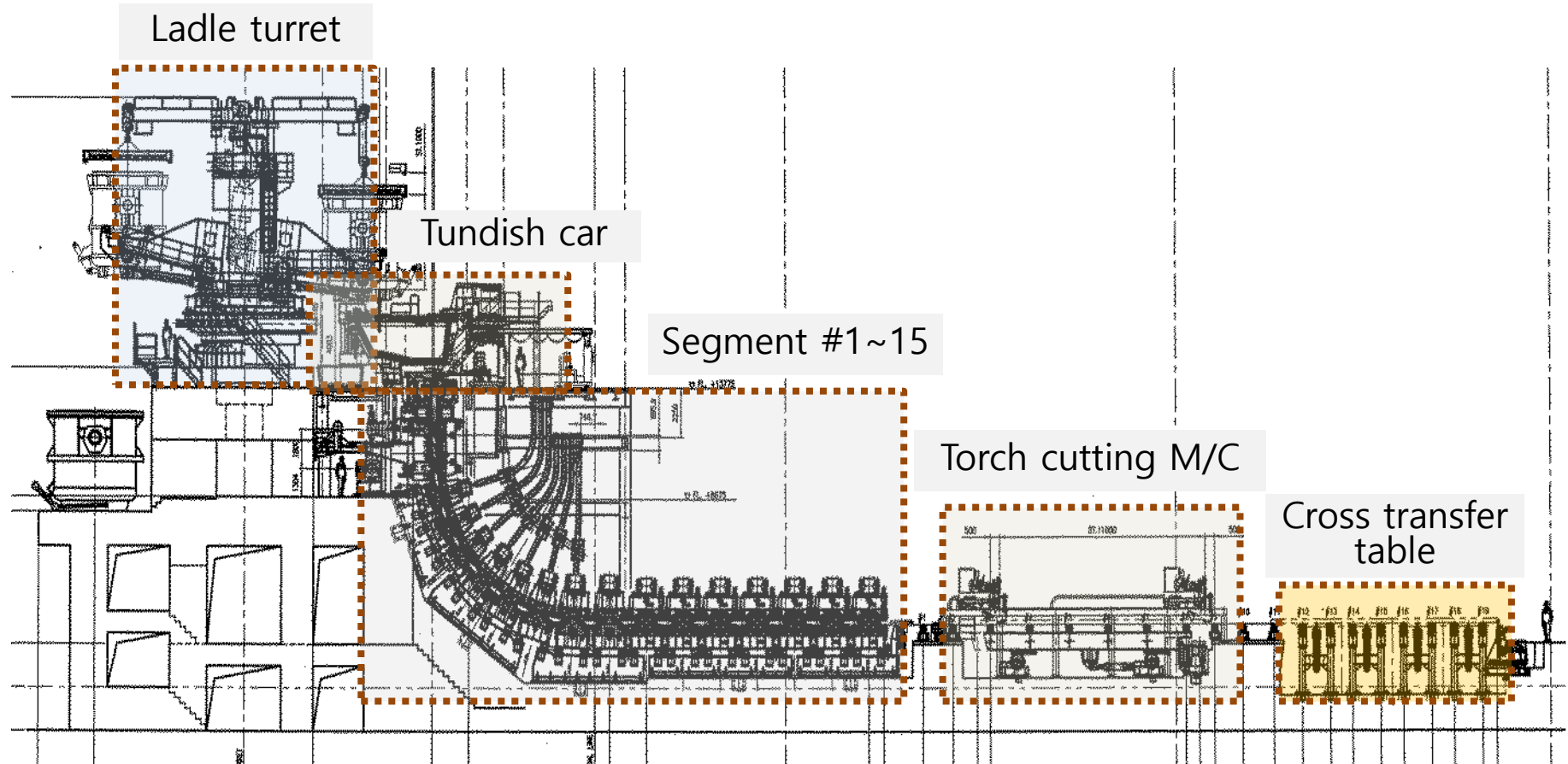
SPEC.



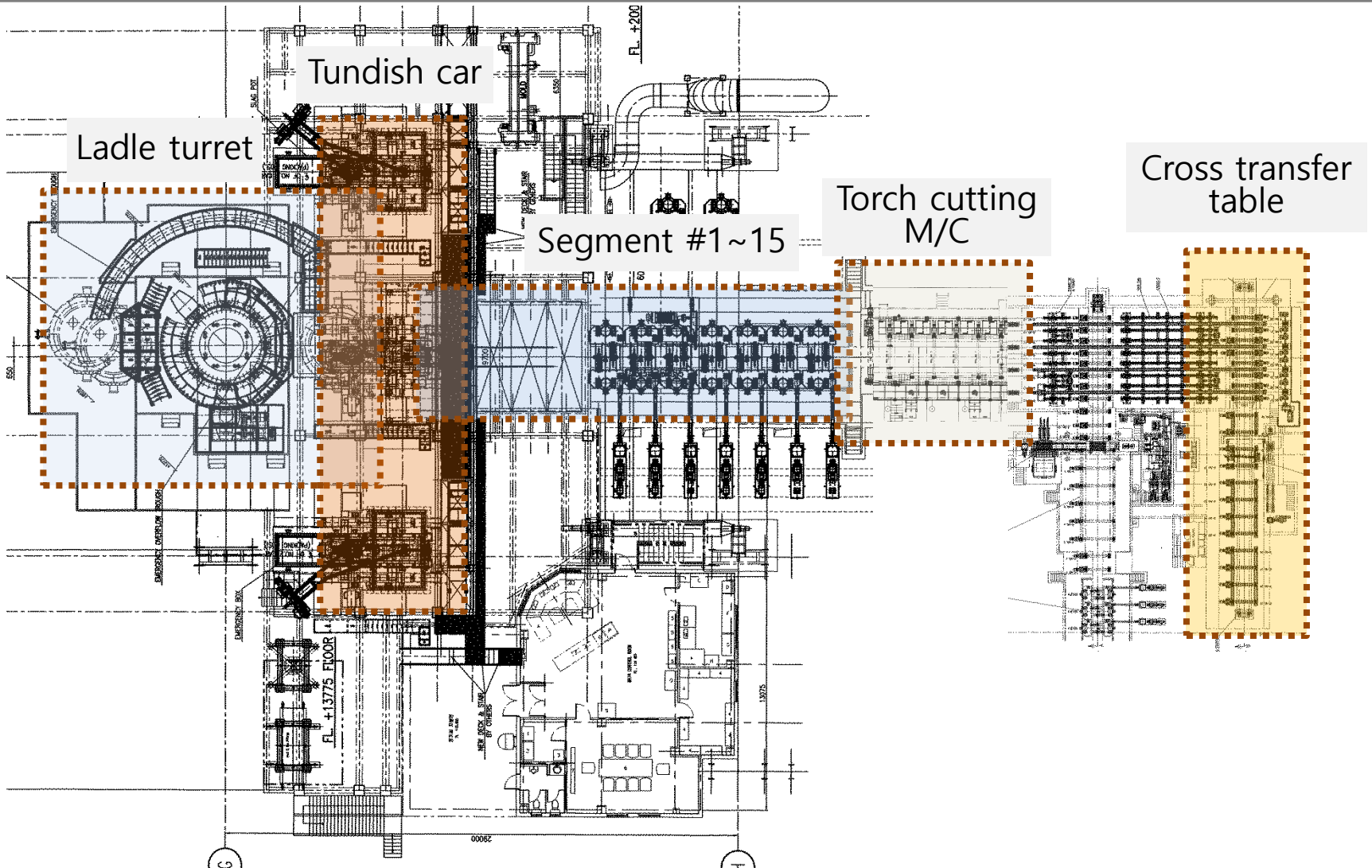
CONTINUES CASTING MACHINE



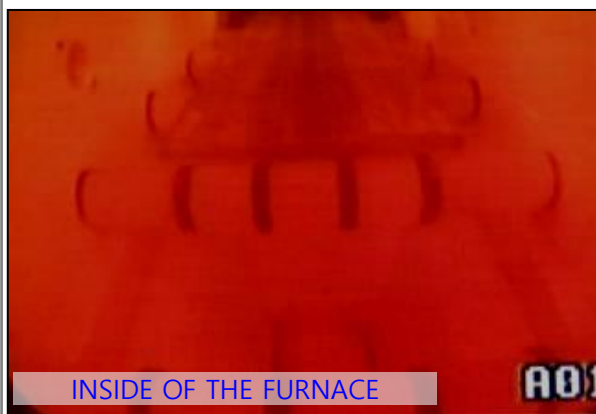
MAKER	SUMITOMO HEAVY IND.
MODEL	210 MM SLAB CASTER
TYPE	VERTICAL BENDING
YEAR	2007 ~ 2011
QUANTITY	1
PRICE	₩27,500,000,000 (CRANE, WATER TREATMENT FACILITIES NOT INCLUDED)
SPEC.	·CASTING RADIUS : 8,000 MM ·NUMBER OF STRAND : 1 ·CASTING SIZE : 600 ~ 1,890 ·CUTTING LENGTH : 37,790 MM ·CASTING SPEED : 0.5 ~ 2.0 M/MIN ·LADLE CAPA. : MAX 150 TON ·TUNDISH CAPA. : MAX 32.3 TON ·FLOW CONTROL : STOPPER (VESUVIUS) ·MOULD TYPE : COPPER PLATE (HEIGHT 900 MM) ·MOULD LEVEL CONTROL : EDDY CURRENT ·MOULD OSCILLATION : AC MOTOR 3~15 MM STROKE, 50~250 CYCLE ·CUTTING DEVICE : TORCH CUTTING (GEGA) RANGE 4,500 ~ 12,000 MM LNG + OXYGEN / BOUBLE TORCH ·DEBURRING DEVICE : MULTI KNIFE ·MARKING : AI-WIRE (NEMTEC)



CONTINUOUS CASTING MACHINE



FURNACE



MAKER

MACHANICAL PARTS : BRICMONT(USA)
ELECTRICAL PARTS : SIEMENS

MODEL

-

TYPE

HEARTH ROLLER / SWIVEL

YEAR

1995

QUANTITY

2

ORIGINAL PRICE

₩20,079,710,901

SPEC.

- FURNACE
- SIZE : (W)1.96m×(H)1.38m×(L)170.5m
- FUEL : L.N.G or C.O.G (COG LINE was installed in 2012)
- B LINE without ROLLER & BUNER : SHUT DOWN since 2007

SHEAR / DESCALER / EDGER	
	SHEAR
	EDGER
DESCALER	

MAKER	SMS
MODEL	-
TYPE	-
YEAR	1995
QUANTITY	EMERGENCY SHEAR 1EA, DESCALER 1EA, EDGER ROLL 1EA
ORIGINAL PRICE	₩7,950,926,286
SPEC.	■ EMERGENCY SHEAR - 2 HYDRAULIC CYLINDER - PRESSURE : 5800KN ■ DESCALER - LOW PRESSURE HEADER, HIGH PRESSURE HEADER - PRESSURE : LOW 200BAR, HIGH 300BAR ■ EDGER ROLL - PRESSURE : 50KN

FINISHING MILL



MAKER	MACHANICAL PARTS : SMS ELECTRICAL PARTS (PLC) : SIEMENS	
MODEL		
TYPE	4HIGH 6STAND	
YEAR	1995	
QUANTITY	6 STAND	
ORIGINAL PRICE	₩68,766,593,403	
SPEC.	■ FINISHING MILL - ELECTRICAL SYSTEM UPGRADE : 2009 - MOTER : 7,000KW × 6EA - DIMENSION OF ROLL	
	NO.	WORK ROLL
	F1~F3	MAX. Φ800 / MIN. Φ730
	F4~F6	MAX. Φ600 / MIN. Φ545
	BACKUP ROLL	
	MAX. Φ1450 MIN. Φ1350	
	- ROLL FORCE : F1~F3 40MN / F4~F6 32MN - ROLLING SPEED : MAX. 12.6 m/s - STRIP SIZE : WIDTH 900 ~ 1560mm, THICK. 1.4~16.0mm	

FINISHING MILL MOTOR



MAKER

SIEMENS

MODEL

1DQ4852-6DA03-Z / 7,000kw

TYPE

Three-Phase Synchronous Motor

YEAR

1993(6 SET) / 2020(1 SET, SPARE)

QUANTITY

7 SET (6 STAND + 1 SPARE)

ORIGINAL PRICE

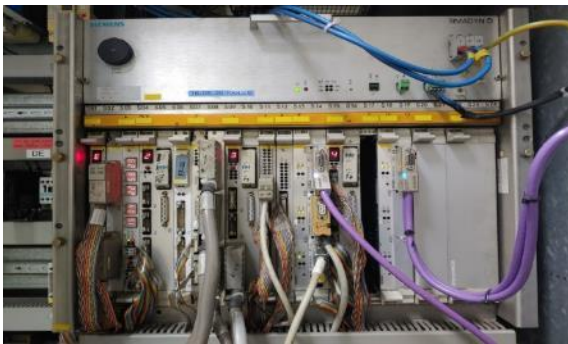
₩4,606,865,171(6 SET) / ₩2,276,460,000(1 SET, SPARE)

SPEC.

Type Unit	1DQ4852-6DA03-Z 1	Cooling System Cooling Circuit	IC86W sec. prim. water air	Mounting Enclosure	IM7311 IP44
Drive for	Rolling Mill, Continuous Warm	Cool. Medium		Enclosure Sliprings	IP23
Standard	IEC 60034	Inlet Temp.	32 °C 45 °C	Insul. System	Micalastic
Rotation	cw/ccw	Ventilation System	bilat.	Thermal Class	F
Excitation	static	Type of Fan	separate	Service Altitude	≤ 1000 m
Over-Speed	480 min ⁻¹				
Converter Sinamics SL150 1 System		Load Curve		Part 1: 0.00 - 1.00 · NN : m = const Part 2: 1.00 - 3.08 · NN : m = 1/n	
Operating Data		Rated Point	Max. cont.	Peak	Peak
Output	kW/HP	7000	8050	14000	14000
Voltage	V	953	953	953	953
Frequency	Hz	6.50	6.50	6.50	20.00
Current	A	2512	2903	5115	5148
Speed	min ⁻¹	130.0	130	130	400
Power Factor		1.00 u	1.00	1.00 u	1.00 u
Exc. Voltage MM at 130 °C	V	176	196	330	312
Exc. Current MM	A	612	683	1150	1087
Cooling Temperature sec./prim.	°C	32 / 45	32 / 45		
Stator Winding Temperature	°C	≤ 125 (ETD)	≤ 145 (ETD)		
Field Winding Temperature	°C	≤ 130 (R)	≤ 150 (R)		
Duty Type		S9	S1	peak 20s	peak 20s
Remark					

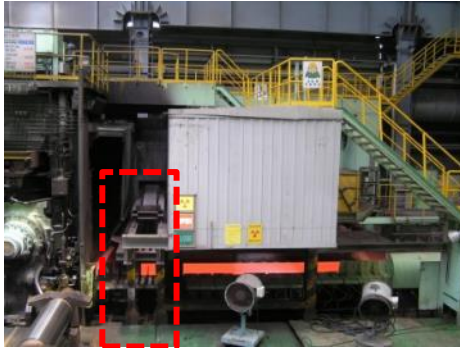
·1 spare motor is state of packing, It has been in stock from 2020

FINISHING MILL DRIVE



MAKER	SIEMENS
MODEL	Symadyn D / SL150
TYPE	Drive Panel
YEAR	1994 / 2012
QUANTITY	6 STAND
ORIGINAL PRICE	₩3,742,369,625 /
SPEC.	These drives control motors of the following specification. 7,000kw 130/400RPM 6.5/20HZ 953V(1650V:√3) 2516/5032A Excitation: 623A, 186V #4 stand drive was replaced from Symadyn D to SL150 in 2012.

MEASURING HOUSE
(THICKNESS & WIDTH)



<Thickness gauge>



<Width gauge>

MAKER	IMS MESSSYSTEME GMBH
MODEL	-
TYPE	THICKNESS&PROFILE GAUGE : C-Frame, r-ray Source, CS137 WIDTH GAUGE : Infrared Line CCD Camera type
YEAR	THICKNESS&PROFILE GAUGE : 1995 WIDTH GAUGE : 2012
QUANTITY	THICKNESS&PROFILE GAUGE 1EA WIDTH GAUGE 1EA
ORIGINAL PRICE	₩1,580,137,609
SPEC.	■ Thickness & Profile gauge · Source : r-ray source, cs137, Photo energy 660keV *2EA · Detector : Ion-chamber, KG60/CS18 *38EA · Accuracy : Within $\pm 0.1\%$ of thickness or $0.2\mu\text{m}$ · Measuring Range : 0.8~16mm , width 1650mm · Processor : M-server , C-client · C-frame control unit : IKL-118LT1-4*3 LED · Oscillation Drive : Induction Motor with Inverter ■ Width gauge · Type : Infrared Line CCD Camera type * 2EA · Accuracy : $\pm 1\text{mm}$ · Measuring Range : 600mm~1650mm · Processor : M-server, C-client

MEASURING HOUSE
(SURFACE INSPECTION SYSTEM)



<Top Back Light>



<Bottom Back Light>



<Processor>

MAKER	PRIMETALS
MODEL	SIAS system
TYPE	CCD Line Camera 2EA(Top, Bottom)
YEAR	2008(Server Revamp : 2017)
QUANTITY	1
ORIGINAL PRICE	₩1,020,648,845
SPEC.	- Type : CCD Line Vamera 2EA - Lighting System : Top(Sodium Lamp * 8EA), Bottom(LED) - Processor : SIAS Server, Real Time station

LAMINAR COOLING



MAKER	MACHANICAL PARTS : SMS ELECTRICAL PARTS (PLC) : SIEMENS
MODEL	
TYPE	
YEAR	1995
QUANTITY	1
ORIGINAL PRICE	₩5,671,299,410
SPEC.	LAMINAR COOLING - ELECTRICAL SYSTEM UPGRADE : 2009 - LAMINAR LENGTH : 50M - LAMINAR COOLING QUANTITY : 5300M³/Hr - MAIN COMPONENT : COOLING HEADER, RUN OUT TABLE ROLLER

DOWN COILER



MAKER

MACHANICAL PARTS : SMS
ELECTRICAL PARTS (PLC) : SIEMENS

MODEL

TYPE

YEAR

1995

QUANTITY

2

ORIGINAL PRICE

₩11,815,252,447

SPEC.

- DOWN COILER
- ELECTRICAL SYSTEM UPGRADE : 2009
- MAIN COMPONENT : PINCH ROLL, MANDREL, WRAPPER ROLL
- DIMENSION OF MANDREL : MAX. $\Phi 762$ / MIN. $\Phi 727$

SAMPLE SHEAR & CONVEYOR



MAKER

SAMPLE SHEAR : HYO JUN PRECISION (KOR)
CONVEYOR : SMS

MODEL

TYPE

HYDRAULIC

YEAR

2006

QUANTITY

SAMPLE SHEAR 1EA, CONVEYOR 1EA

ORIGINAL PRICE

₩1,850,820,663

SPEC.

- SAMPLE SHEAR
 - HYDRAULIC PRESSURE : MAX. 140KG/CM²
OPERATING 120KG/CM²
 - STRIP SPEC.

PART	SPEC.
STRIP WIDTH	930 ~ 1600MM
STRIP THICK.	1.0 ~ 16.0MM
TENSILE STRNGTH	30~60KG/MM ²

- CONVEYOR
 - WAIKING BEAM TYPE, HYDRAULIC CYLINDER
 - CONVEYOR WITH WEIGHING DEVICE (1EA),
OUT DIA. BANDING MACHINE (2EA)

ROLL GRINDER



MAKER	MACHINE : TOSHIBA ELECTRICAL (PLC) : TOSHIBA		
MODEL	NO.	HARDWARE	SOFTWARE
	NO.1	KWA-1660C(CH)	TOSNUC-800G
	NO.2	KWA-1055	TOSNUC-800G
	NO.3	KWA-1055C	TOSNUC-PX100G
TYPE	-		
YEAR	1995		
QUANTITY	3		
ORIGINAL PRICE	₩3,386,558,981		
SPEC.	■ GRINDER SPEC. - NO.3 SOFTWARE UPGRADE : 2019		
	NO.	DIA. (mm)	LEN.(mm)
	NO.1	545	6,000
	NO.2	~	5,500
	NO.3	1,600	5,500
	- Include ROLL TRANSFER		

POLISHING STONE CHANGER



MAKER	SUNGMYUNG ENG. (KOR)
MODEL	-
TYPE	PNEUMATIC
YEAR	2019
QUANTITY	1
ORIGINAL PRICE	₩78,900,000
SPEC.	■ SPEC. - SIZE : 6580 × 3003 × 1672

B.U.R CHOCK CHANGER



MAKER	KIHEUNG(KOR, DESIGNED BY SMS)
MODEL	-
TYPE	HYDRAULIC
YEAR	1995
QUANTITY	1
ORIGINAL PRICE	Include in ROLL GRINDER
SPEC.	SPEC. - SIZE : 9310 × 12310

B.U.R CHOCK TILTER



MAKER

KIHEUNG(KOR, DESIGNED BY SMS)

MODEL

-

TYPE

HYDRAULIC

YEAR

1995

QUANTITY

1

ORIGINAL PRICE

Include in ROLL GRINDER

SPEC.

W.R CHOCK CHANGER



MAKER

KIHEUNG(KOR, DESIGNED BY SMS)

MODEL

-

TYPE

HYDRAULIC

YEAR

1995

QUANTITY

1

ORIGINAL PRICE

Include in ROLL GRINDER

SPEC.

■ SPEC.
- SIZE : 1650 × 2525

ROLL (with CHOCK)



MAKER	PART		MAKER		
	FINISHING MILL	WORK ROLL	HYUNDAI STEEL (POHANG)		
		BACKUP ROLL	DOSAN(KOR), JCFC(JPN)		
	SKIN PASSMILL	WORK ROLL	HYUNDAI STEEL (POHANG)		
		BACKUP ROLL			
	EQUALIZER	WORK ROLL			
BACKUP ROLL					
MODEL	-				
TYPE	-				
YEAR	-				
QUANTITY	REFER TO THE BELOW				
ORIGINAL PRICE	₩20,688,735,800				
SPEC.	PART			DIA.	QUANTITY
	FINISHING MILL	WORK ROLL	F1~F3	800~730	143
			F4~F6	600~545	176
		BACKUP ROLL		1450~1350	39
	SKIN PASS MILL	WORK ROLL		630~570	33
		BACKUP ROLL		1200~1100	8
	EQUALIZER	WORK ROLL		550~500	27
		BACKUP ROLL		1000~900	7

HOT FINAL LINE

LAY-OUT



TELESCOPE CORRECTOR



INNER DIA. BANDING



OUT DIA. BANDING



MAKER

REFER TO THE BELOW

MODEL

-

TYPE

HYDRAULIC & PNEUMATIC

YEAR

REFER TO THE BELOW

QUANTITY

1

ORIGINAL
PRICE

₩1,753,292,063

SPEC.

- HOT FINAL LINE
- MAIN COMPONENT
- : CONVEYOR, TELESCOPE CORRECTOR
- OUT DIA. BANDING MACHINE
- INNER DIA. BANDING MACHINE
- COMPONENT SPEC.

PART	MAKER	TYPE	YEAR
CONVEYOR	POSCON (KOR)	HYDRAULIC	1995
TELESCOPE CORRECTOR	HYO JUN PRECISION (KOR)	HYDRAULIC	2012
OUT DIA. BANDING	SIGNODE (KOR)	PNEUMATIC	2015
INNER DIA. BANDING	SIGNODE (KOR)	PNEUMATIC	2013

SKIN PASS MILL



MAKER

MACHINE : KOBE
ELECTRICAL (PLC) : YASKAWA

MODEL

-

TYPE

HYDRAULIC & PNEUMATIC

YEAR

1995

QUANTITY

1

ORIGINAL PRICE

₩13,246,294,694

SPEC.

■ SKIN PASS MILL - MAIN COMPONENT SPEC.

PART	MAKER	TYPE	YEAR
ENTRY/EXIT CONVEYOR PAY-OFF-REEL MILL TENSION-REEL	KOBE / YASKAWA	HYDRAULIC	1995
TELESCOPE CORRECTOR	SIGNODE (KOR)	HYDRAULIC	2017
AUTO LABEL MACHINE	AUTOEN (KOR)	PNEUMATIC	2017
OUT DIA. BANDING	SIGNODE (KOR)	PNEUMATIC	2018
INNER DIA. BANDING	SIGNODE (KOR)	PNEUMATIC	1995

- PRODUCT SPEC.

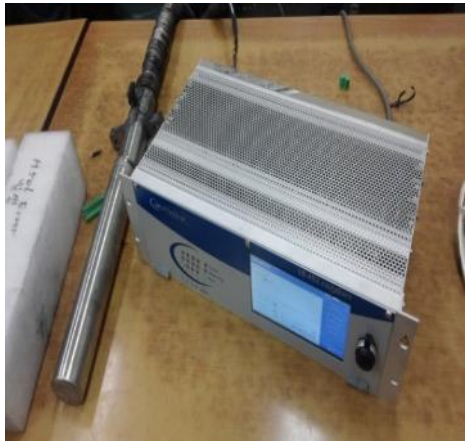
PART	SPEC.
STRIP WIDTH	930 ~ 1600MM
STRIP THICK.	1.4 ~ 6.5MM

EQUALIZER



MAKER	MACHANICAL PARTS : DELTA(USA), HYUNDAI ROTEM (KOR) ELECTRICAL PARTS (PLC) : SIEMENS			
MODEL				
TYPE	HYDRAULIC & PNEUMATIC			
YEAR	2014			
QUANTITY	1			
ORIGINAL PRICE	₩22,060,496,197			
SPEC.	■ EQUALIZER - MAIN COMPONENT SPEC.			
	PART	MAKER	TYPE	YEAR
	ENTRY/EXIT CONVEYOR STRAIGHTNER PAY-OFF-REEL MILL EQUALIZER LEVELER TENSION-REEL	DELTA, HYUNDAI ROTEM / SIEMENS	HYDRAULIC	2014
	TELESCOPE CORRECTOR	SIGNODE (KOR)	HYDRAULIC	2014
	AUTO LABEL MACHINE	AUTOEN (KOR)	PNEUMATIC	2014
	OUT DIA. BANDING	SIGNODE (KOR)	PNEUMATIC	2014
	INNER DIA. BANDING	SIGNODE (KOR)	PNEUMATIC	2014
	- PRODUCT SPEC.			
	PART	SPEC.		
	STRIP WIDTH	650 ~ 1650MM		
STRIP THICK.	1.2 ~ 4.5MM			

MEASURING DEVICE PICTURE

Mold Level System	FM Roll Force Measuring (KELK, 2006)	FM Roll Force Measuring (ABB, 2014)	Surface Inspection System
	 <F1~F3 >	 <F4~F6 >	 <Top Back Light>  <Bottom Back light>  <control panel>
FM Profile & Thickness Gauge	FM Width Gauge	DC Width Gauge (IMS, 2018)	DC Coil Weigher (Kumyong Yamato, 1995)
			

MEASURING DEVICE PICTURE

SPM Thickness Gauge (Thermo Fisher Scientific, 2011) 	SPM Width Gauge (Palmatech, 2018) 	SPM Center Position Controller (Nireco, 2015) 	SPM Coil Weigher (Kumyong Yamato, 2019) 
EQ Thickness Gauge (IMS, 2014) 	EQ Roll Force Measuring (ABB, 2014) 	EQ Center Position Controller (Nireco, 2014) 	EQ Edge Position Controller (Nireco, 2014) 

CRANE (No.13)



MAKER

HYUNDAI HEAVY INDUSTRIES

MODEL

260 / 70 / 10 TON

TYPE

OVER HEAD CRANE

YEAR

1995

QUANTITY

1

PRICE

₩ 1,800,000,000

SPEC.

- RATED LOAD : 260/70/10 TON
- SPAN : 23M
- LIFT

MAIN	AUX
31M (+27M, -4M)	32.5M (+31.5M, -1M)

- SPEC

구분	MAIN	AUX	TS	TL
SPEED	6/3	12	30	80
MOTOR	2-200KW	200KW	2-15KW	4-37KW
BRAKE	MAG+THR	MAG+THR	THR	THR

- RAIL : 100kg/M (travelling/transverse/ditto)
- ELECTRIC SOURCE : AC 3Ø, 440V, 60HZ, 4WIRE

CRANE (No.8)	MAKER	HYUNDAI HEAVY INDUSTRIES																						
	MODEL	175 / 50 / 15 TON																						
	TYPE	OVER HEAD CRANE																						
	YEAR	1995																						
	QUANTITY	1																						
	PRICE	₩ 900,000,000																						
	SPEC.	• RATED LOAD : 175/50 TON • SPAN : 28.2M • LIFT <table><tr><td>MAIN</td><td>AUX</td></tr><tr><td>28M (+23M, -5M)</td><td>31M (+28M, -3M)</td></tr></table>					MAIN	AUX	28M (+23M, -5M)	31M (+28M, -3M)														
		MAIN	AUX																					
28M (+23M, -5M)		31M (+28M, -3M)																						
• SPEC <table><tr><td>구분</td><td>MAIN</td><td>AUX</td><td>TS</td><td>TL</td></tr><tr><td>SPEED</td><td>10</td><td>12</td><td>30</td><td>90</td></tr><tr><td>MOTOR</td><td>2-200KW</td><td>132KW</td><td>22KW</td><td>4-30KW</td></tr><tr><td>BRAKE</td><td>MAG+THR</td><td>MAG+THR</td><td>THR</td><td>THR</td></tr></table>					구분	MAIN	AUX	TS	TL	SPEED	10	12	30	90	MOTOR	2-200KW	132KW	22KW	4-30KW	BRAKE	MAG+THR	MAG+THR	THR	THR
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BRAKE	MAG+THR	MAG+THR	THR	THR																				
• RAIL : 100kg/M (travelling), 73kg/M (transverse) • ELECTRIC SOURCE : AC 3Ø, 440V, 60HZ, 4WIRE																								