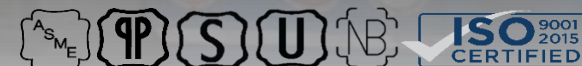




UNIWEI Corporation

HIGHEST QUALITY
AND CONFIDENCE



Company name		UNIWEEL Corporation					
대표자		백 구현 / 백 창훈					
주 소	본사	울산광역시 울주군 삼동면 암리3길 26-8					
	양산 공장	경상남도 양산시 양산대로 1041					
	서울 지점	서울시 금천구 가산디지털1로219 벽산디지털밸리 6차 1211호					
설립일		1980년 8월 1일					
직원 수		92					
주요 제품		Heat exchangers (S&T Type, Fin tube type), Pressure vessel & tank, Reactors, Air fin cooler, Column, Fin tubes					
연 매출 (단위: 백 만원)		2018	2019		2020 예상		
		24,286	26,300		30,000		
신용 평가		신용 등급	현금흐름 등급	여신 건전성 등급	판매 거래 등급	구매 거래 등급	차입금
	한국기업데이터	A-	CR-1	LR-1	SR-2	PR-3	무
	이크레더블	BBB	A	-	-	-	무



울주 본사 및 공장		울주공장 외부 전경	울주공장 내부 전경
대 지	13,500m ²		
건 평	7,000m ²		
주요제품	Heat exchangers(S&T type, Fin tube type), Pressure vessel & tank, Reactors, Air fin cooler, Column, High frequency resistance welded finned tube		
양산 공장		양산공장 외부 전경	양산공장 내부 전경
대 지	3,500m ²		
건 평	2,000m ²		
주요제품	Multi Material Welding fin tube, Aluminum fin tube, Copper/Alloy fin tube		

2010's

2019 03월 **신개념 핀튜브기계 개발**
(Multi-Material Welding machine)

04월 LG화학 우수협력사 선정



2018 03월 **철탑산업훈장** 수상



2014 06월 한국기계연구원(KIMM)으로부터
KIMM-family 기업으로 선정



2013 10월 한국기계연구원(KIMM)과 히트파이프
시험 프로그램 및 실험설비 공동 개발

12월 **천만불 수출의 탑** 수상



2012 07월 히트파이프 열교환기 제조특허 획득



2000's

2009 01월 모로 공장 등록 및 HRSG 핀튜브 전문 생산
11월 **오백만불 수출의 탑** 수상



2007 11월 삼백만불 수출의 탑 수상



2006 12월 본사 이전 및 김해 공장 병합 (부산->울산)
상호 "**주식회사 유니웰**" 로 변경



2004 07월 동경 현지 영업 사무소 본사 이관

2003 08월 동경 현지 영업 사무소 개설



2001 11월 한국 중부 발전 유자격 공급자 등록
(열교환기, 압력용기)



1990's

- 1999** 01월 김해 제 2 공장 증축
- 1998** 01월 Separated heat pipe type heat exchanger
제작 기술 및 기술 면허 협정 체결 (POSCO)
- 11월 백만불 수출의 탑 수상
- 12월 열교환기, 압력용기 ISO 9001 획득
(미국 ABS quality evaluations Inc.)
- 1997** 12월 우수 기술 보유 기업 선정 (한국 기술신용 보증기금)
- 1995** 10월 제 2 생산 공장 확장 이전 (부산 → 김해)
- 1991** 12월 제 2 생산 공장 설립 (부산)
- 1990** 09월 한국가스안전공사 Gas tank 및 용기 제작 허가 획득



1980's

- 1989** 11월 ASME "U", "S", "PP" stamp 획득 
- 1988** 03월 서울사무소 (영업사무소) 개설 
- 1986** 06월 고성능 Heat pipe type 열교환기 개발
KIMM과 폐열 회수 처리 열교환기 공동 개발
07월 연합기계공업주식회사로 상호 및 형태 변경
소재지 이전 (부산 → 양산) 
- 1983** 01월 Reactor, Condenser 생산 시작
- 1980** 08월 **연합기계공업사** 설립 (부산)
한국 최초로 핀튜브 생산 시작
열교환기 제품 생산 시작 

PRODUCTS

8



S&T H.Ex.



Pressure vessel



Fin tube type H.Ex.



Column



Air fin cooler



Reactor

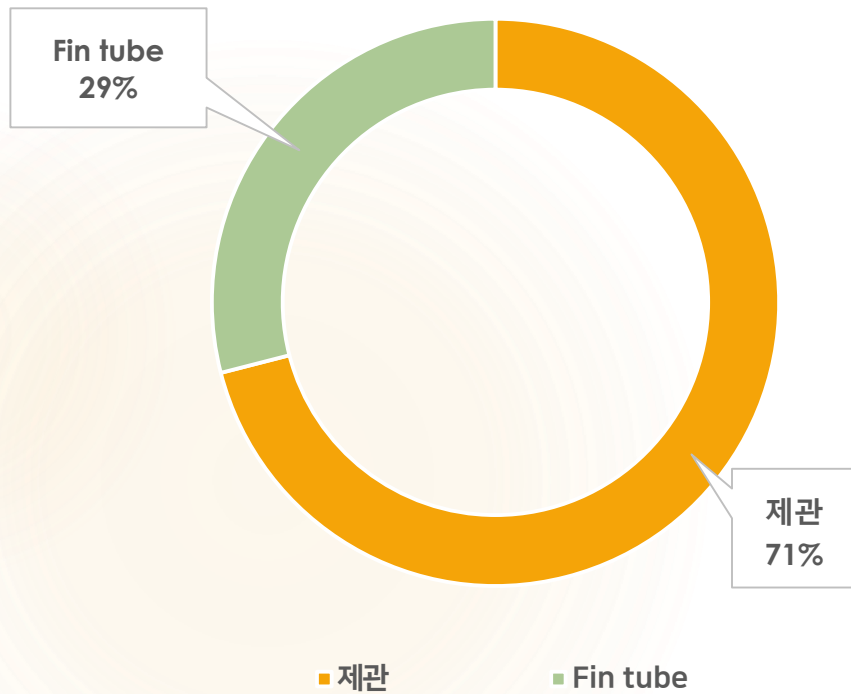


Fin tube



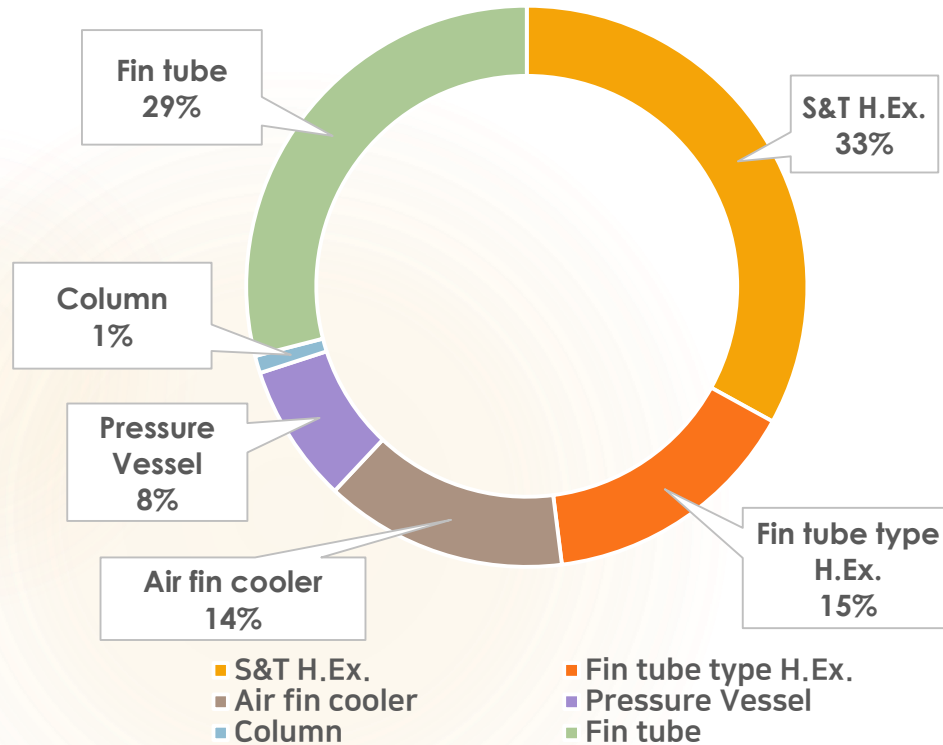
HIGHEST QUALITY AND CONFIDENCE

Total sales

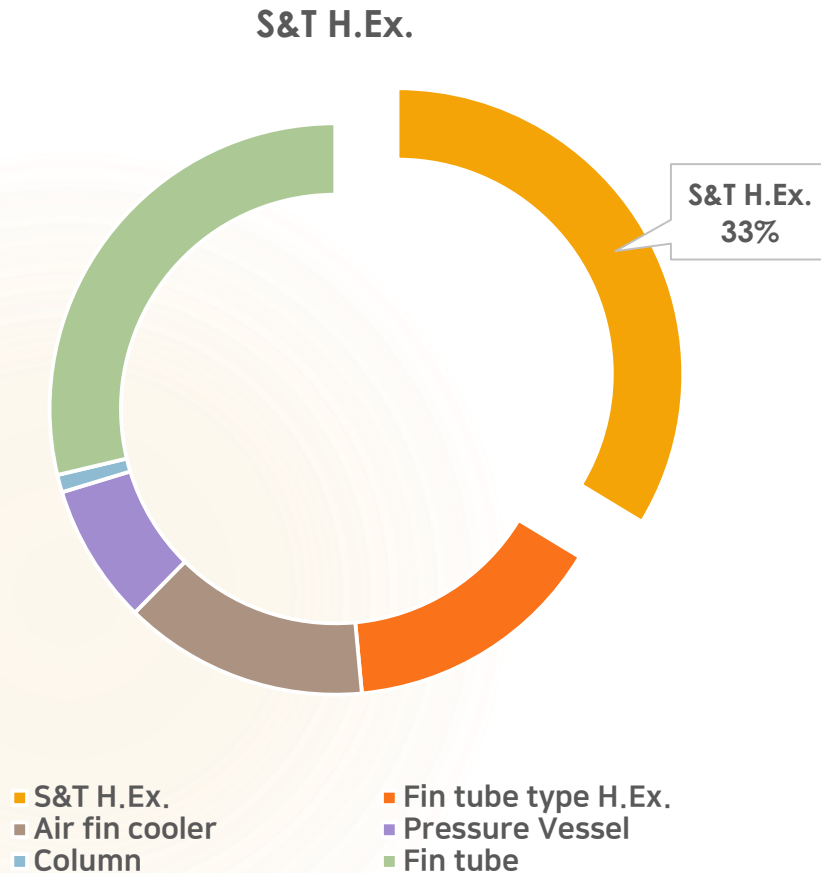


Item	2019 매출	비율
제관	186.7억 원	71%
Fin tube	76.3억 원	29%
TOTAL	263억 원	100%

Total sales



Item	2019 매출	비율
S&T H.Ex.	86.8억 원	33%
Fin tube type H.Ex.	39.5억 원	15%
Air fin cooler	36.8억 원	14%
Vessel	21억 원	8%
Column	2.6억 원	1%
Fin tube	76.3억 원	29%
TOTAL	약 263억 원	100%



Manufacturing capabilities

Max. design pressure	500 kg/cm ² (g)
Max. design temperature	700 °C
Max. weight	250 tons
Max. size	I.D. 4,000 x 20,000L
Yearly production	2,400 tons

HIGHEST QUALITY AND CONFIDENCE



Project detail		
End user	LG CHEMICAL	
Client	LG CHEMICAL	
Project name	NCC revamping project	
Item No. / Name	401-C8 / PRC condenser	
Type	H-NXN / TEMA "R"	
Size / Weight	I.D. 2,120 mm x 9,754 mmL / 99,000 kg	
Gross Size / Weight	14,000mmL x 2,500mmW x 3,700mmH / 100,000 kg	
Side	Shell	Tube
Material	A516-70N+S5	A179 (Low finned)
Fluid	Propylene refrigerant	Cooling water
Design pressure	21.5 kg/cm ² (g)	16.6 kg/cm ² (g) + F.V.
Design temperature	125 °C / -18 °C	125 °C / -28 °C



Project detail		
End user	LOTTE CHEMICAL	
Client	LOTTE CHEMICAL	
Project name	339-CA/CB/CC 제작	
Item No. / Name	339-CA/CB/CC / C3 splitter condenser	
Type	H-NXN / TEMA "R"	
Size / Weight	I.D. 2,140 mm x 11,300 mmL / 99,000 kg	
Gross Size / Weight	14,000mmL x 2,300mmW x 3,100mmH / 102,000 kg	
Side	Shell	Tube
Material	SA516-70	A179 (Low finned)
Fluid	Propylene	Cooling water
Design pressure	20 kg/cm ² (g)	13.3 kg/cm ² (g) + F.V.
Design temperature	65 °C	75 °C

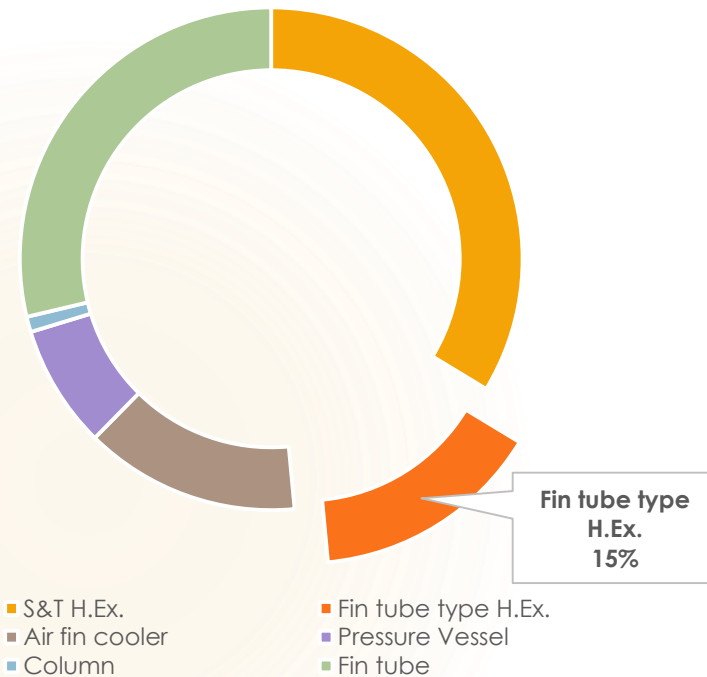


Project detail		
End user	LOTTE CHEMICAL	
Client	LOTTE CHEMICAL	
Project name	D-NC, 생산유지 운전 위한 열교환기 교체	
Item No. / Name	B-10-C207-C1_C2 / PGC 5 th stage discharge cooler	
Type	H-NXN / TEMA "R"	
Size / Weight	C1 : I.D. 1,900 mm x 8,500 mmL / 76,870 kg	
	C2 : I.D. 1,900 mm x 8,500 mmL / 79,670 kg	
Side	Shell	Tube
Material	A516-70	A179
Fluid	Process gas	Cooling water
Design pressure	46 kg/cm ² (g)	30.8 kg/cm ² (g) + F.V.
Design temperature	145 °C	343 °C



Project detail		
End user	Pt. ASAHIMAS CHEMICAL	
Client	Pt. ASAHIMAS CHEMICAL	
Project name	Heat exchanger revamping	
Item No. / Name	HE-C304A / Hiboil column reboiler	
Type	V-BEM / TEMA "C"	
Size / Weight	I.D 2,200 x 6,000 mmL / 50,830 kg	
Gross Size / Weight	10,700mmL x 3,200mmW x 3,325mmH / 53,840 kg	
Side	Shell	Tube
Material	A516-70N	A179
Fluid	Propylene	Cooling water
Design pressure	10 kg/cm ² (g) + F.V	7.7kg/cm ² (g) + F.V.
Design temperature	185 °C	185 °C
Thermal calculation	HTRI by UNIWEI	

Fin tube type H.Ex.



Manufacturing capabilities

Max. design pressure	250 kg/cm ² (g)
Max. design temperature	800 °C
Max. weight	100 tons
Max. size	5,000W x 4,000H x 22,000L
Yearly production	1,000 tons

HIGHEST QUALITY AND CONFIDENCE



Project detail		
End user	LOTTE MCC (구 LOTTE MRC)	
Client	SPIRAX SARCO KOREA	
Project name	롯데 MCC 대신 소각로 배기가스 폐열 회수	
Item No. / Name	E-6142 / BFW pre-heater	
Type	Fin tube type heat exchanger	
Size / Weight	4,825mmL x 3,350mmW x 2,954mmH / 24,740 kg	
Side	Shell	Tube
Material	A516-70	A179 (Tube) / A1008 (Fin)
Fluid	Gas	Water
Flow rate	124,300 kg/hr	75,000 kg/hr
Design pressure	0.1 kg/cm ² (g)	80kg/cm ² (g)
Design temperature	350 °C	350 °C
Thermal calculation	HTRI by UNIWEEL	

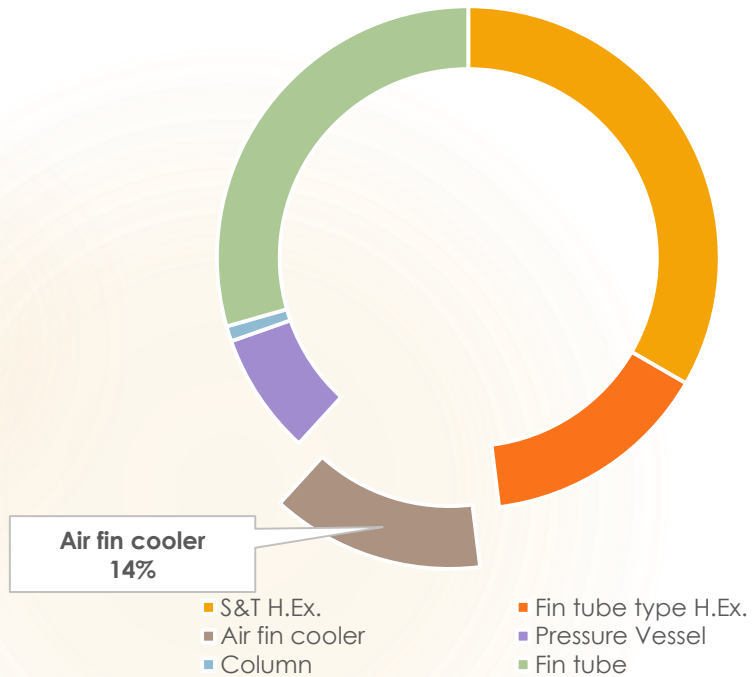


Project detail				
End user	INODORAMA ELEME FERTILZER AND CHEMICALS LIMITED			
Client	TOYO ENGINEERING CORPORATON			
Project name	IEFCL-2 project			
Item No. / Name	U-EA601/602/603/604 / Chiller for product cooler (NH3)			
Type	Fin tube type heat exchanger			
Size / Weight	9,488mmL x 6,968mmW x 4,100mmH / 80,000 kg			
Material (Shell / Tube / Fin)	A283-C / A179 / A1100			
Bundle	NH3		Steam	
Side	Shell	Tube	Shell	Tube
Fluid	Air	NH3	Air	Steam
Flow rate (kg/hr)	245,115	19,918	239,024	558
Design pressure	0.045kg/cm ² (g)	18 kg/cm ² (g)	0.045kg/cm ² (g)	8 kg/cm ² (g)
Design temperature	80 °C	-12°C/65°C	80°C	2000 °C
Thermal calculation	HTRI by UNIWEI			



Project detail			
End user	LG CHEMICAL		
Client	LG CHEMICAL		
Project name	LG CHEMICAL C1 project		
Item No. / Name	HE-1401 / Product cooler		
Type	Special heat exchanger (Fin tube + TEMA "R")		
Size / Weight	I.D. 2,000 mm x 3,850 mmL / 19,000 kg		
Gross Size / Weight	6,600mmL x 2,800mmW x 3,500mmH / 19,100 kg		
Side	Shell	Tube	Coil
Material	A240-347H	A213-TP347H (Tube)	A312-TP347H
		A240-310S (Fin)	
Fluid	Product	Cooling water	Cooling water
Design pressure	3.5 kg/cm ² (g)+F.V	7.0kg/cm ² (g)	7.0kg/cm ² (g)
Design temperature	700 °C	700 °C	100 °C

Air fin cooler



Manufacturing capabilities

Max. design pressure	200 kg/cm ² (g)
Max. design temperature	450 °C
Max. weight	40 tons
Max. size	4,000W x 18,000L
Yearly production	1,000 tons



Project detail		
End user	HANWHA CHEMICAL	
Client	HANWHA POLYSILICON	
Project name	ORANGE project	
Item No. / Name	EA-22021A~D / Hot cooling water cooler	
Type	Horizontal	
Size / Weight	11,114mmL x 2,000mmW x 3,700mmH / 27,000 kgs	
Side	Shell	Tube
Material	A516-70N	A179 (Tube)
		A1100 (Fin)
Fluid	Air	Water
Flow rate	-	1,760,000 kg/hr
Design pressure	-	13 kg/cm ² (g) + F.V
Design temperature	-	160 °C

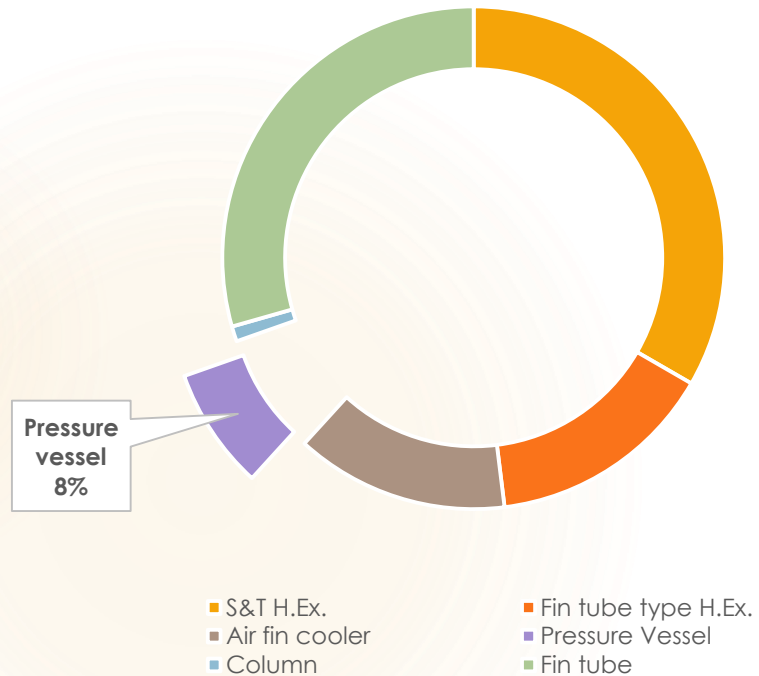


Project detail		
End user	HANWHA CHEMICAL	
Client	용호 기계 기술	
Project name	VCM-1 공정 증산 EPC project	
Item No. / Name	E-211 / T-210 condenser	
Type	Horizontal	
Size / Weight	5,800mmL x 3,520mmW x 3,675mmH / 16,500 kgs	
Side	Shell	Tube
Material	A516-70	A179 (Tube)
		A1060 (Fin)
Fluid	Air	VCM+HCL
Flow rate	289,171 kg/hr	27,015 kg/hr
Design pressure	-	12.7 kg/cm ² (g)
Design temperature	-	93.3 °C



Project detail		
End user	OCI COMPANY Ltd.	
Client	OCI COMPANY Ltd.	
Project name	DOTP project	
Item No. / Name	E-5521 / Crude ester air cooler	
Type	Vertical	
Size / Weight	4,320mmL x 1,435mmW x 1,545mmH / 4,100 kgs	
Side	Shell	Tube
Material	A516-70	A179 (Tube)
		AL (Fin)
Fluid	Air	DOTP
Flow rate	95,782 kg/hr	24,700 kg/hr
Design pressure	-	10 kg/cm ² (g)
Design temperature	-	260 °C
Thermal calculation	HTRI by UNIWEI	

Pressure vessel



Manufacturing capabilities

Max. design pressure	200 kg/cm ² (g)
Max. design temperature	700 °C
Max. weight	150 tons
Max. size	I.D. 4,000 x 27,000L
Yearly production	1,200 tons



Project detail			
End user	LG CHEMICAL		
Client	LG CHEMICAL		
Project name	LGC POE 200 KTA project		
Item No. / Name	45-1206/2206-D / Let down vessel		
Type	Pressure vessel (ASME 'U' Stamp) / H-Saddle		
Size / Weight	I.D. 3,200 mm x 5,050 mmL / 81,918 kg		
Gross Size / Weight	9,080mmL x 4,524mmW x 4,062mmH / 83,500 kg		
Side	Shell	Jacket	Coil
Material (Thickness)	A516-70N (82t)	A516-70N (47t)	A106-B (1 ½" Sch.xxs)
Fluid	Hexane + Polyethylene	Steam	MS Steam
Design pressure	8.7 kg/cm²(g) +F.V.	21 kg/cm²(g) +F.V.	21 kg/cm²(g) +F.V.
Design temperature	250 °C	250 °C	250 °C

HIGHEST QUALITY AND CONFIDENCE

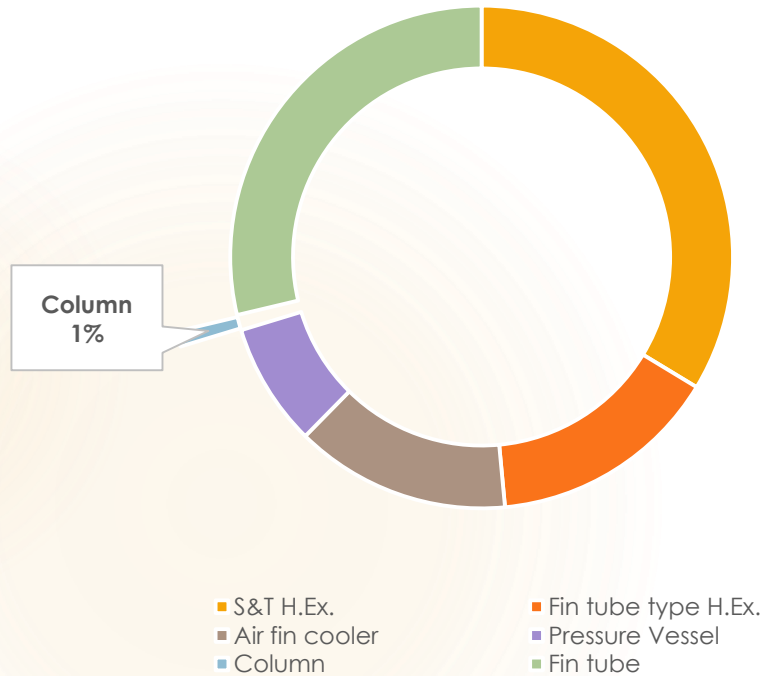


Project detail			
End user	MCNS 울산공장		
Client	MCNS		
Project name	RIGID 증설 project		
Item No. / Name	R-9701/9702/9703/9704 / Reactor		
Type	Pressure vessel (Reactor) / V-lug		
Size / Weight	I.D. 4,100 mm x 3,400 mmL / 24,960 kg		
Gross Size / Weight	6,300mmL x 3,800mmW x 3,800mmH / 25,150 kg		
Side	Shell	Jacket	Coil
Material (Thickness)	A240-304 (34t)	A240-304 (10t)	A312-TP304 (2" Sch.40s)
Fluid	Polyol	Cooling water	Cooling water
Design pressure	10 kg/cm ² (G) +F.V.	5.5 kg/cm ² (G)	7.0 kg/cm ² (G) +F.V.
Design temperature	180 °C	80 °C	180 °C



Project detail	
End user	LG CHEMICAL
Client	LG CHEMICAL
Project name	TPEE project
Item No. / Name	TK-6107 / THF water tank
Type	Pressure vessel / H-Saddle
Size / Weight	I.D. 3,720 mm x 7,000 mmL / 11,000 kgs
Gross Size / Weight	8,900mmL x 4,150mmW x 4,800mmH / 12,300 kgs
Material (Thickness)	A240-304 (7t)
Fluid	THF / Water
Design pressure	0.1 MPa(G)
Design temperature	60 °C

Column



Manufacturing capabilities

Max. design pressure	200 kg/cm ² (g)
Max. design temperature	450 °C
Max. weight	40 tons
Max. size	2,500W x 28,000L
Yearly production	500 tons

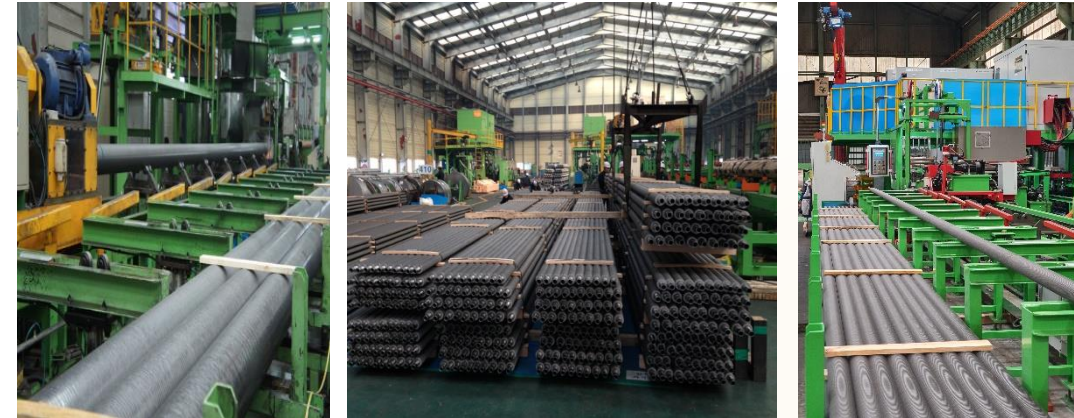
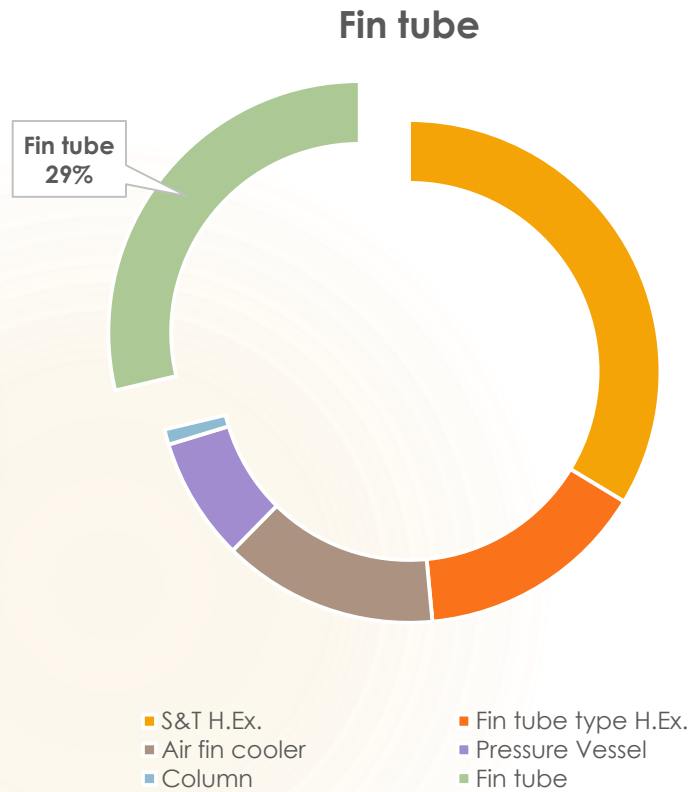
HIGHEST QUALITY AND CONFIDENCE



Project detail	
End user	HANWHA CHEMICAL
Client	HANWHA E&C
Project name	DEHCH 증설 project
Item No. / Name	T-6311 / 2-EH stripper
Type	Column
Size / Weight	I.D. 850 x 25,280mmL / 10,463 kgs
Material (Thickness)	A240-304 (18t)
Fluid	DOTP / N2
Design pressure	3.5 bar(g) + F.V.
Design temperature	250 °C



Project detail	
End user	AEKYUNG PETROCHEMICAL
Client	AEKYUNG PETROCHEMICAL
Project name	Capa-up project
Item No. / Name	F-1505/1506/1507 / Bleacher
Type	Column
Size / Weight	I.D. 1200 x 6,600 mmL / 15,000 kgs
Material (Thickness)	A240-304 (8t)
Fluid	Glycerine
Design pressure	8 kg/cm ² (g) + F.V.
Design temperature	140 °C



Manufacturing capabilities (Solid type)

Tube O.D.	15.88 mm ~ 219.1 mm
Fin thickness	0.8 mm ~ 3.0 mm
Fin pitch	1 FPI ~ 8.6 FPI
Max. length	23 meters (26 meters for HRSG)
Yearly production	12,000 tons

HIGHEST QUALITY AND CONFIDENCE



Project detail				
End user	GS CALTEX			
Client	PETROCHEM KOREA			
Project name	GS CALTEX MFC project			
Type	High frequency resistance welded solid finned tube			
Fin tube Spec.				
Tube		Fin		Q'ty
A312-TP304H	Φ219.1mm x 12.7mmT x 13,710mmL	A240-TP310S	2.59mmT x 12.7mmH x 118FPM x 13,560mmL	1,240
A335-P11	Φ219.1 x 8.18mmT x 14,525mmL	A240-TP409	1.27mmT x 12.7mmH x 197FPM x 13,560mmL	560
A106 Gr.B	Φ114.3 x 6.02mmT x 14,765mmL	A1008	1.27mmT x 19.05mmH x 197FPM x 13,560mmL	2,520



Project detail				
End user	TOTAL PETROCHEMICALS & REFINING USA, Inc.			
Client	CB & I (LUMMUS TECHNOLOGY)			
Project name	TOTAL US ethane cracker project			
Type	High frequency resistance welded solid finned tube			
Fin tube Spec.				
Tube		Fin		Q'ty
A312-TP347H	Φ168.3 x 7.11mmT x 22,513mmL	A240-TP304	1.5mmT x 12.7mmH x 118FPM x 22,124mmL	144
A335-P91	Φ73.0 x 9.53mmT x 11,029mmL	A240-TP410S	1.27mmT x 12.7mmH x 197FPM x 13560mmL	576
A106 Gr.B	Φ168.3 x 7.11mmT x 10,962mmL	A1008	1.5mmT x 19.1mmH x 165FPM x 10,714mmL	1,944



Project detail

End user	INDORAMA ELEME FERTILIZER AND CHEMICALS LIMITED
Client	TOYO ENGINEERING
Project name	IEFCL 2 fertilizer project
Type	High frequency resistance welded solid finned tube

Fin tube Spec.

Tube		Fin		Q'ty
A312-TP304H	Φ114.3 x 8.56mmT x 7,600mmL	A240-TP304	1.5mmT x 9.5mmH x 197FPM x 7,250mmL	216
A335-P11	Φ114.3 x 13.13mmT x 12,595mmL	SUH 409L	1.5mmT x 15.9mmH x 138FPM x 11,180mmL	432



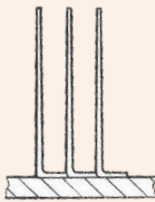
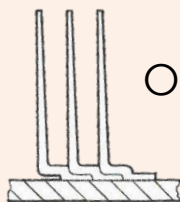
Project detail

End user	ARAMCO OVERSEAS COMPANY B.V. / SUMITOMO CHEMICAL Ltd.
Client	BHI Co., Ltd.
Project name	RABIGH II IPP project
Type	High frequency resistance welded solid finned tube For HRSG

Fin tube Spec.

Tube		Fin		Q'ty
SA213-T91	Φ38.1 x 4mmT x 22,834mmL	A240-TP409	1mmT x 19mmH x 228FPM	8,736
SA210-A1	Φ38.1 x 2.6mmT x 22,829mmL	A1008	1mmT x 19mmH x 275FPM	25,164
SA192	Φ38.1 x 2.4mmT x 22,720mmL	A1008	1mmT x 19mmH x 259FPM	25,284

HIGHEST QUALITY AND CONFIDENCE

Tube O.D	Embedded (G-Type)	Wrap on (L-Type)	Wrap on Knurled (L knurled Type)	Over lapped (W-type)
19.0 mm		11mmH – 10,11 FPI Al+Cu	11mmH – 10,11 FPI	15.9mmH – 10,11 FPI
21.7 mm		11,15.9mmH – 10,11 FPI Al+Cu	11,15.9mmH – 10,11 FPI	
25.4 mm	12.7, 15.9mmH - 7,8,9,10, 11FPI Al+Cu Perforated available	15.9mmH – 10,11 FPI Al+Cu Perforated available	15.9mmH – 10,11 FPI Al+Cu Perforated available	15.9mmH – 10,11 FPI Al+Cu
31.8 mm	12.7, 15.9mmH – 9,10,11 FPI			
38.1 mm	12.7, 15.9mmH – 10,11 FPI Al+Cu Perforated available			
Shape	 Embedded fin	 L-shape footed fin	 L-shape footed fin Knurled	 Over lapped footed fin
	Tube material : Carbon steel, Copper, Low alloy steel, Aluminum, Stainless steel		Fin material : Aluminum ASTM B 209, Al1100 or Al1060, Copper	



Project detail				
Client		NIPPON STEEL TRADING KOREA CO., LTD.		
Type		Embedded & Wrap-on type aluminum finned tube		
Fin tube Spec.				
Tube		Fin		Q'ty
SB-163 N08825	Φ25.4 x 2.11mmT x 9,140mmL	A1100	0.4mmT x 12.7mmH x 433FPM	256
SUS304L TB-SC	Φ25.4 x 2.11mmT x 6,096mmL	A1100	0.4mmT x 12.7mmH x 354FPM	439

Project detail				
Client		IPEC		
Project name		기간적 설비 개량공사(고압증기 부수기 개량공사)		
Type		Wrap-on type aluminum finned tube		
Fin tube Spec.				
Tube		Fin		Q'ty
STB340 -SC	Φ31.8 x 2.0mmT x 10,900mmL	A1060	0.4mmT x 15.9mmH x 354FPM	680

THERMAL CALCULATION

STRENGTH CALCULATION

LOADING DATA

Designed by	
Thermal calculations	HTRI program
Strength calculations	COMPRESS program
Heat Pipe Design	HPEX Program
Drawings	AUTOCAD program (2D, 3D)
Applicable codes	ASME section VIII, division I
	ASME section I
	ASME B31.1
	ASTM
	ANSI
	API
	JIS
	TEMA class R / C / B
	AWS
	BS
	DIN
	KS

HIGHEST QUALITY AND CONFIDENCE

No.	Equipment name	spec	Minimum scale
1	Anemometer	2.0~20.0 /s	
2	Charpy impact machine	30 kgf.m	-
3	Clamp meter	-	-
4	Coating thickness gauge	0~500 μm	1 μm
		0~1000 μm	1 μm
5	Cylinder gauge	10 ~ 18.5 mm	0.5 mm
		18 ~ 35 mm	0.5 mm
		35 ~ 60 mm	0.5 mm
6	Dead weight tester	1~1000 kgf/cm	1 kgf/cm
7	Digital coating thickness gauge	0~1500 μm	1 μm
8	Digital temperature gauge	-200 ~ 1300°C	0.1°C

No.	Equipment name	spec	Minimum scale
9	Infrared thermometer	-30°C~550°C	-
10	Outside micrometer	0~25 mm	0.01 mm
		25~50 mm	0.01 mm
11	Pulse meter	600~90000	0.1 min
12	Radiation thermometer	-50 °C~650 °C	0.1 °C
13	Sound level meter	125~8000 Hz	125 Hz
14	Ultrasonic thickness gauge	0~200 mm	1mm
		0~500 mm	0.01 mm
15	Universal testing machine	0~3 ton.f	1 kg.f
		50 ton.f	1 kg.f
16	Vibration meter	20~1000 Hz	20 Hz

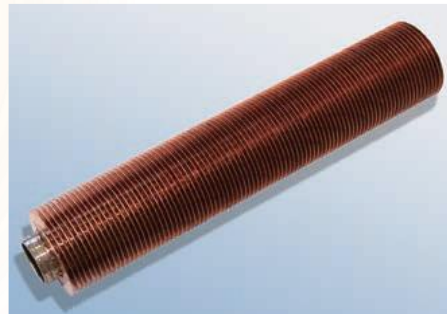


RT Room (in Ulju shop)

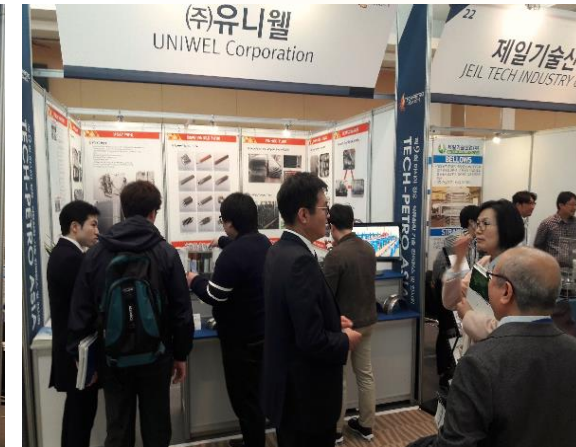
6m (W) x 6m (H) x 12.1m (L)



HIGHEST QUALITY AND CONFIDENCE

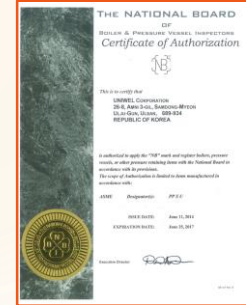
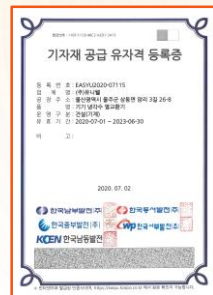
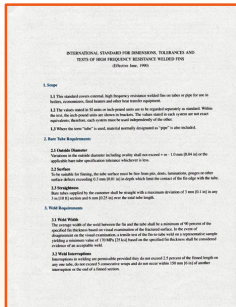
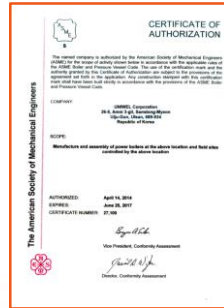


MMW finning machine		
Applicable specifications	Material	Aluminium, Copper, Carbon steel, Stainless steel, Inconel, Titanium
	Tube O.D. (mm)	15.88 ~ 50.8
	Fin thickness (mm)	0.45 ~ 2.0
	Fin height (mm)	5 ~ 19
	Fins per inch	5 ~ 13



TECH-PETRO ASIA 2019 전시회 참여 (Mar.2019)

HIGHEST QUALITY AND CONFIDENCE



List of certifications

ASME "U" stamp

ASME "S" stamp

ASME "PP" stamp

International standard for dimensions, tolerances and tests of high frequency resistance welded fins

ISO 9001 for heat exchangers, pressure vessels, finned tubes

Vendor registration for Korea electric power Co., Ltd.
- ASME VIII heat exchanger

HTRI membership

The national board of boiler & pressure vessel inspectors



Overseas

Domestic



HIGHEST QUALITY AND CONFIDENCE

Items	End user	Client	PJT name	Material			Size (mm)	PJT total Q'ty	PJT Total Weight (ton)	Site	Year delivered
				Shell Side	Tube Side	Tube					
Shell & tube H.Ex.	HANWHA Chem.	HANWHA E&C	V-3 PJT	A516-70	A516-70	A179	Ø1,470 / Ø2370 x 6,096L	29	175	Korea	2019
	ASAHIKAS Chem.	ASAHIKAS Chem.	Heat exchanger revamping	A516-70N	A516-70N	A179	Ø2,200 x 6,000L	1	51.8	Indonesia	2018
	LG Chem.	LG Chem.	R PJT	A516-70N	A516-70N	A179	Ø2,600 x 3,000L	28	330	Korea	2018
	LG Chem.	LG Chem.	POE PJT	A516-70	A516-70	A179	Ø910 x 4,484L	40	231.7	Korea	2017
	LG Chem.	LG Chem.	NCC revamping PJT	A516-70N+S5	A516-70N+S5	A179	Ø2,120x 9,754L	1	100	Korea	2015
	LOTTE Chem.	LOTTE Chem.	339-CA/CB/CC fabrication	SA516-70	SA516-70	A179	Ø2,140x 11,300L	3	304.1	Korea	2015

Items	End user	Client	PJT name	Material			Size (mm)	PJT total Q'ty	PJT Total Weight (ton)	Site	Year delivered
				Shell Side	Tube	Fin					
Fin type H.Ex.	I.E.F.C.L.	TOYO Eng	IEFCL-2 PJT	A283-C	A179	A1100	9,488L x 6,968W x 4,100H	4	120.8	Nigeria	2019
	THAI MMA	THAI MMA	2E-6203 fabrication	A516-70	A179	A1008	2,800L x 2,500W x 2,950H	1	5.4	Thailand	2019
	GS CALTEX	GS E&C	MFC PJT	-	SA179	A1008	3,800L x 1,600W x 2,000H	5	9	Korea	2019
	LOTTE MCC	SPIRAX SARCO KOREA	롯데MRC 대산 소각로 배기가스 폐열회수	A516-70	A179	A1008	4,825L x 3,350W x 2,954H	1	24.7	Korea	2017
	LG Chem.	LG Chem.	C-1 PJT	A240-347H	A213-TP347H	A240-310S	6,600L x 2,800W x 3,500H	2	46.3	Korea	2016

Items	End user	Client	PJT name	Material			Size (mm)	PJT total Q'ty	PJT Total Weight (ton)	Site	Year delivered
				Shell Side	Tube	Fin					
Air fin cooler	HENGYUAN REFINING COMPANY BERHAD	NEUMAN & ESSER SOUTH EAST ASIA Ltd.	HQSM-HRC-II PJT	A516-70	A213-304	A1100	1,750L x 2,000W x 3,700H	1	1.6	Malaysia	2019
	LG Chem.	LG Chem.	TPEE PJT	A516-70	A179	A1008	3,150L x 1,950W x 2,200H	3	6.6	Korea	2019
	PETRON	TECHNICAL KOREA	Malaysia PETRON Ulsado PJT	A283-C	SA179	ALUMINIUM	10,713L x 3,400W x 6,214H	1	25.78	Malaysia	2019
	IHI	IHI	2020 TA air finned cooler tube bundle fabrication	-	SA179	SA516-60-SR+HIC	13,302L x 2,728W x 1,281H	21	258.2	Japan	2019
	HANWHA Chem.	용호기계기술	VCM-1 공정 증산 EPC PJT	A516-70	A179	A1060	5,800L x 3,520W x 3,675H	1	16.5	Korea	2018

Items	End user	Client	PJT name	Material		Size (mm)	PJT total Q'ty	PJT Total Weight (ton)	Site	Year delivered
				Shell Side	Coil					
Pressure vessel	MCNS 울산 공장	MCNS	Rigid 증설 PJT	A240-304 (34t)	A312-TP304 (2" Sch.40s)	Ø4,100 x 3,400L	4	100	Korea	2019
	LG Chem.	LG Chem.	TPEE PJT	A240-304 (7t)	-	Ø3,720 x 7,000L	39	100	Korea	2019
	SKC	MCNS USA	Systempolyol facility	SA240-304(12t)	A312-TP304 (1 ½" Sch.40s)	Ø2,800 x 3,800L	3	34	U.S.	2018
	LG Chem.	LG Chem.	POE 200 KTA PJT	A516-70N (82t)	A106-B (1 ½" Sch.xxs)	Ø3,200 x 5,050L	62	545	Korea	2017
	S-OIL	DAELIM INDUSTRIAL	S-OIL residue upgrading complex PJT	A240-304 (19t)	-	Ø3,500 x 3900L	21	112	Korea	2017

Items	End user	Client	PJT name	Material		Size (mm)	PJT total Q'ty	PJT Total Weight (ton)	Site	Year delivered
				Shell Side	Coil					
Column	HANWHA Chem.	HANWHA E&C	DEHCH 증설 PJT	A240-304(18t)	-	Ø850 x 19,830L	1	11.5	Korea	2019
	대한유화	대한유화	울산 1공장 C3 TREATER 제작 공사	A516-70 (28t)	-	Ø1,600 x 9,400L	2	30.4	Korea	2017
	AEKYUNG PETROChem.	AEKYUNG PETROChem.	Capa-up PJT	A240-304 (8t)	A312-TP304	Ø1200 x 6,600L	3	10	Korea	2015
	LG Chem.	LG Chem.	Column fabrication	A240-304 (16t)	-	Ø1,300 x 24,450L	1	32.3	Korea	2012
	OCI	ETEC E&C	N5 PJT	A240-304 (6t) + PTFE (3t)	-	Ø1,250 x 10,053L	4	50	Korea	2011

Items	End user	Client	PJT name	Fin tube specification				Quantities (Sets)	Site	Year delivered
				Tube		Fin				
Fin tube	THAI OIL PUBLIC COMPANY	JNK HEATERS	THAI OIL clean fuel PJT	A312-TP347H	Φ219.1mm x 7.9mmT x 7,246mmL	A1008	1.3mmT x 25.4mmH x 197FPM x 6,030mmL	468	Korea	2020
				A312-TP316Ti	Φ141.3mm x 6.55mmT x 11,302mmL	A240-TP409	1.3mmT x 25.4mmH x 157FPM x 9,930mmL			
	GS CALTEX	PETROCHEM KOREA	MFC PJT	A312-TP304H	Φ219.1mm x 12.7mmT x 13,710mmL	A240-TP310S	2.59mmT x 12.7mmH x 118FPM x 13,560mmL	4320	Korea	2019
				A335-P11	Φ219.1mm x 8.18mmT x 14,525mmL	A240-TP409	1.27mmT x 12.7mmH x 197FPM x 13,560mmL			
	I.E.F.C.L.	TOYO ENG.	IEFCL-2 PJT	A312-TP304H	Φ114.3 x 8.56mmT x 7,600mmL	A240-TP304	1.5mmT x 9.5mmH x 197FPM x 7,250mmL	648	Nigeria	2019
				A335-P11	Φ114.3 x 13.13mmT x 12,595mmL	SUH409L	1.5mmT x 15.9mmH x 138FPM x 11,180mmL			
	ARAMCO OVERSEAS / SUMITOMO Chem.	BHI Co., Ltd.	RABIGH II IPP PJT	SA213-T91	Φ38.1 x 4mmT x 22,834mmL	A240-TP409	1mmT x 19mmH x 228FPM	59,184	Saudi Arabia	2014
				SA210-A1	Φ38.1 x 2.6mmT x 22,829mmL	A1008	1mmT x 19mmH x 275FPM			
				SA192	Φ38.1 x 2.4mmT x 22,720mmL	A1008	1mmT x 19mmH x 259PM			
	TOTAL PETROCHEMICALS & REFINING USA	CB & I (LUMMUS TECHNOLOGY)	TOTAL U.S. ethane cracker PJT	A312-TP347H	Φ168.3 x 7.11mmT x 22,513mmL	A240-TP304	1.5mmT x 12.7mmH x 118FPM x 22,124mmL	2664	U.S.	2018
				A335-P91	Φ73.0 x 9.53mmT x 11,029mmL	A240-TP410S	1.27mmT x 12.7mmH x 197FPM x 13560mmL			



UNIWEEL Corporation

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