



Sunpower Presentation

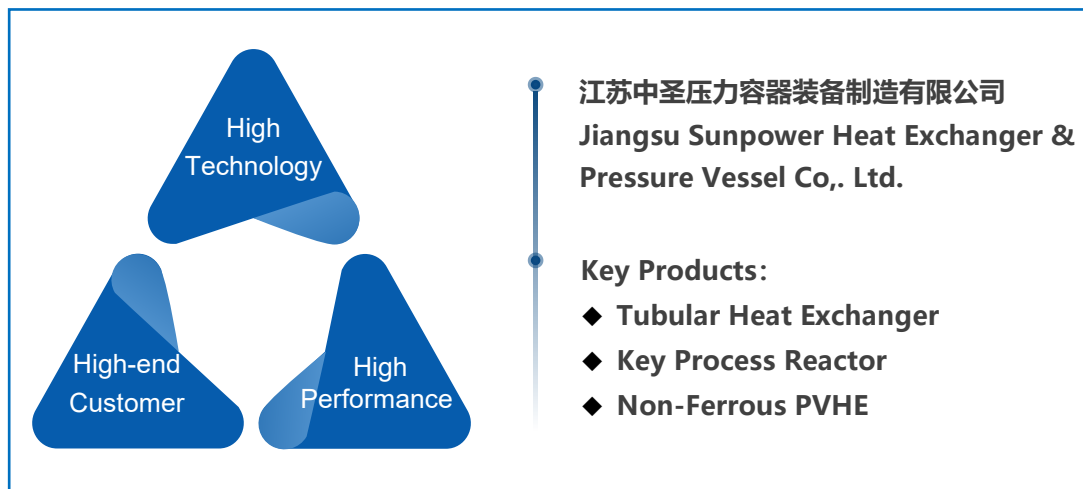
Issue Date: 2025.05.15

www.sunpowertech.cn

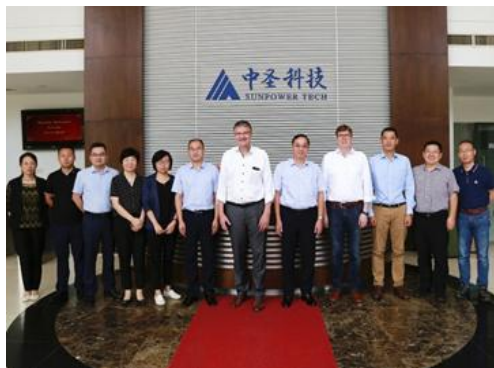
➤ Company Overview



- Established in 1998
- Listed in Singapore Stock Market in 2005



➤ Strategic Cooperation



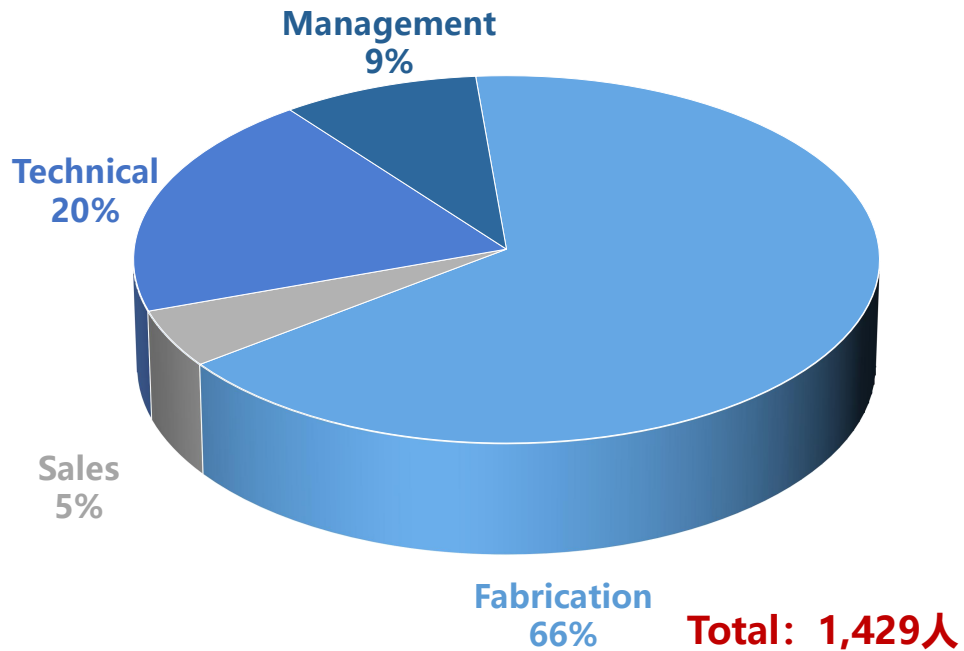
BASF / BP / DOW



SINOPEC / Yongxiang / Wanhua / Formosa



➤ Human Resource



List	PVHE
Engineers	186
Project Manager	26
QA/QC	61
NDE	56
Worker	882
Welder	394
others	232
Total	1429

➤ Quality & HSE

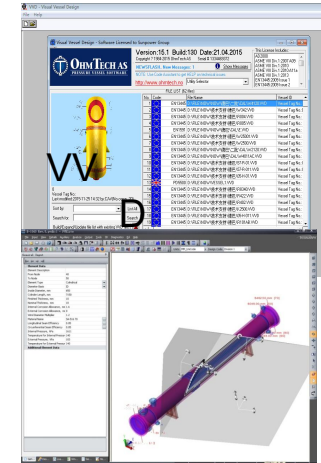
➤ Patent & IP Protection



- ISO14001 Environmental System Authentication
- ISO45001 HSE System Authentication
- ISO9001 Quality System Authentication

- Strong R&D capabilities
- Proprietary technology know-how with 189 patents

➤ Engineering Capabilities



- ASME U2, U, S, R Stamp
- PED Accreditation for Export to Europe
- Class A1, A2 for GB Code in China
- CWB CSA W47.1 Certification of Companies for Fusion Welding of Steel in Canada

- ASME (PVElite)
- TEMA
- EN13445 (VVD)
- AS1210 (PVElite)

- API (PVElite)
- GB (SW6)
- RINA/DNV
- HTRI
- ANSYS

➤ Workshop Capabilities - Plants



- Jiangning Workshop: 19,000 m² (Clean Room: 2,600 m²)
- DN4500, t50mm, L50m



- Jiangning Clean Room: 2500m²
- Super Clean Room: 189 m²
- (10,000 Grade, Air Purification Plant)



- Luhe Workshop: 80,000 m² (SS Workshop: 40,000 m²)
- DN9000, t200mm, L100m



- ZhenJiang Workshop: 15,000m²
- DN10,000 , t250mm, L100m

➤ Workshop Capabilities - Test Center



China National Accreditation Service for Conformity Assessment
LABORATORY ACCREDITATION CERTIFICATE
(Registration No. CNAS L13287)

Physical & Chemical Laboratory of Jiangsu Sunpower
Pressure Vessel & Heat Exchanger Co., Ltd.

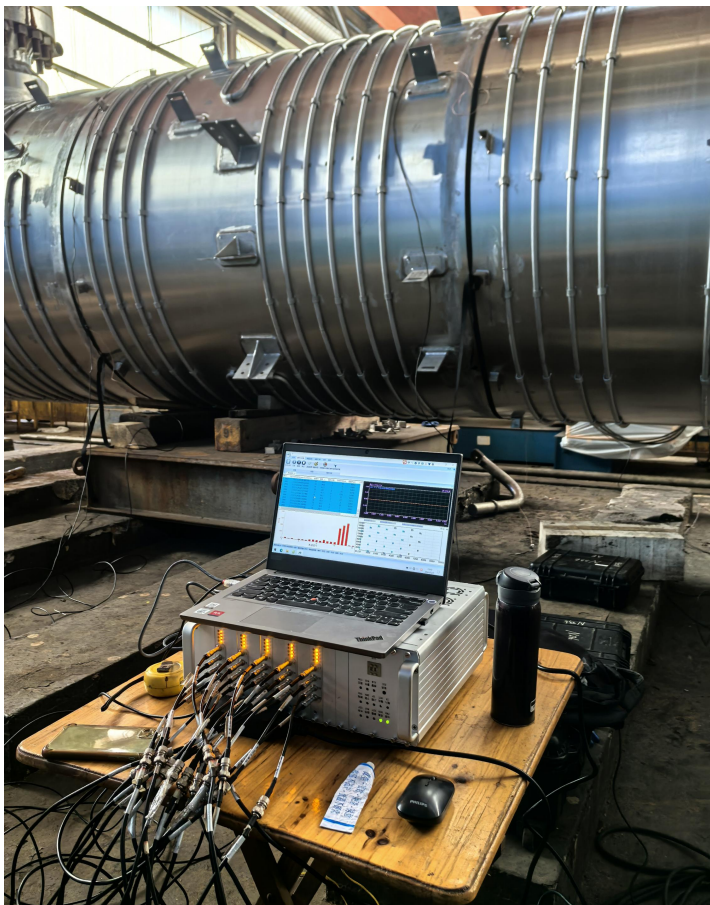
(Legal Entity: Jiangsu Sunpower Pressure Vessel & Heat Exchanger Co., Ltd.)
No.2111, Chengxin Avenue, Science Park, Jiangning District, Nanjing,
Jiangsu, China

is accredited in accordance with ISO/IEC 17025: 2017 General

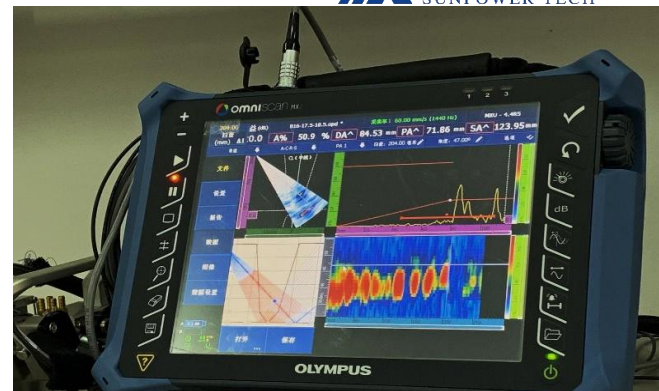
**CNAS (ISO17025)
Laboratory Certification**



RT on Tube-to-tubesheet Joint



Acoustic Emission Testing (AET)



TOFD+PAUT



NIST Charpy Verification Sticker
This machine meets the indirect verification requirements of the current ASTM Standard E23

Machine Serial Number:	1805005
Verification Date:	June 16, 2024
Range of Verification:	From 2.5 J (1/8 ft-lb) to 80% of the machine capacity
Signature:	<i>Raymond Santoyo</i>

Raymond Santoyo, Charpy Program Coordinator
National Institute of Standards and Technology

ASME Impact System

➤ Workshop Capabilities - Machining Center (Key)



Lathe:

- Vertical: 6m (max.)
- Horizontal: 3.6m



CNC Water Jet:

- 25mm
- 50mm



CNC Miller & Driller:

- 7m*7m



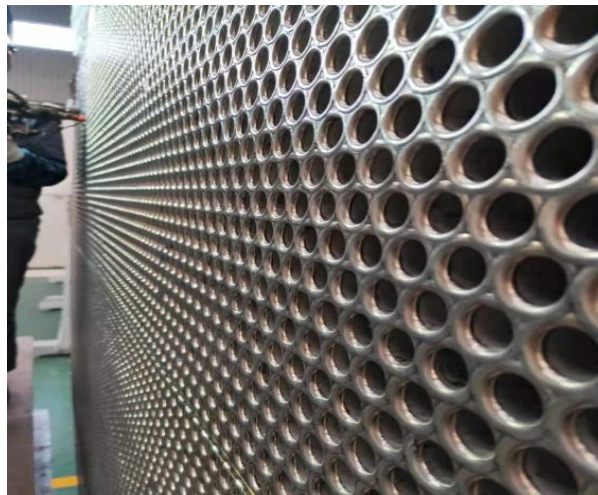
Roller:

- 100mm
- 205mm

➤ Workshop Capabilities - Welding



Foreign W&Q Expert



Tube-to-Tubesheet



Destructive Test

Welding Process & Welder Qualification: GB / ASME / EN13445 / AS

➤ Workshop Capabilities - Heat Treatment Furnace



5.5*6*24m;
Calibration Temperature:900°C



9*9*38m;
Calibration Temperature:750°C



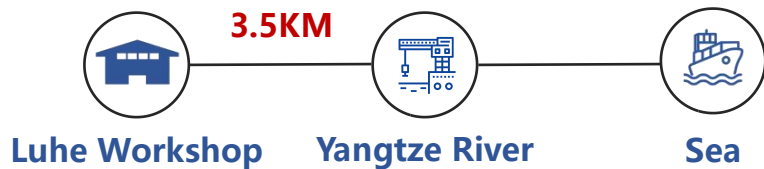
12*12*30m;
Calibration Temperature:750°C

Heat Treatment : Electric Furnace Electric Belts Integrated PWHT



➤ Workshop Capabilities - Logistics

Luhe Workshop



Zhengjiang Workshop Self-Owned Wharf



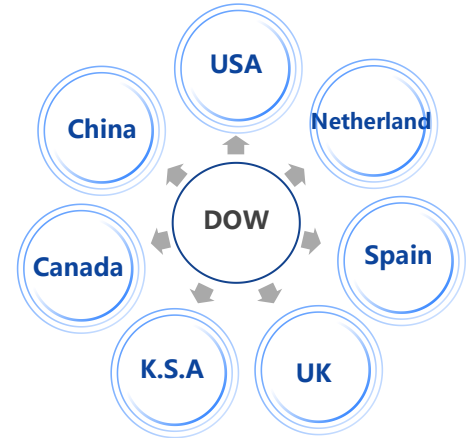
➤ Core Customer – DOW Chemical



MEGlobal BOOKRAMEG Project; USA,
19 Items; DN5200, L=29m, 800ton SS304L



DOW Brazil; ID2667/3277*15570
N02200, 122ton



Total: 190 sets



Zirconium Alloy -- UK;
ASME + CE Mark; DN1500*19000

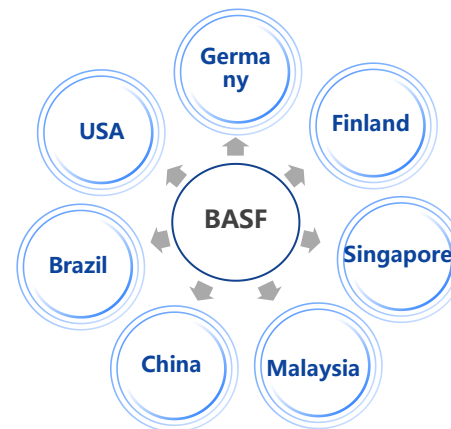
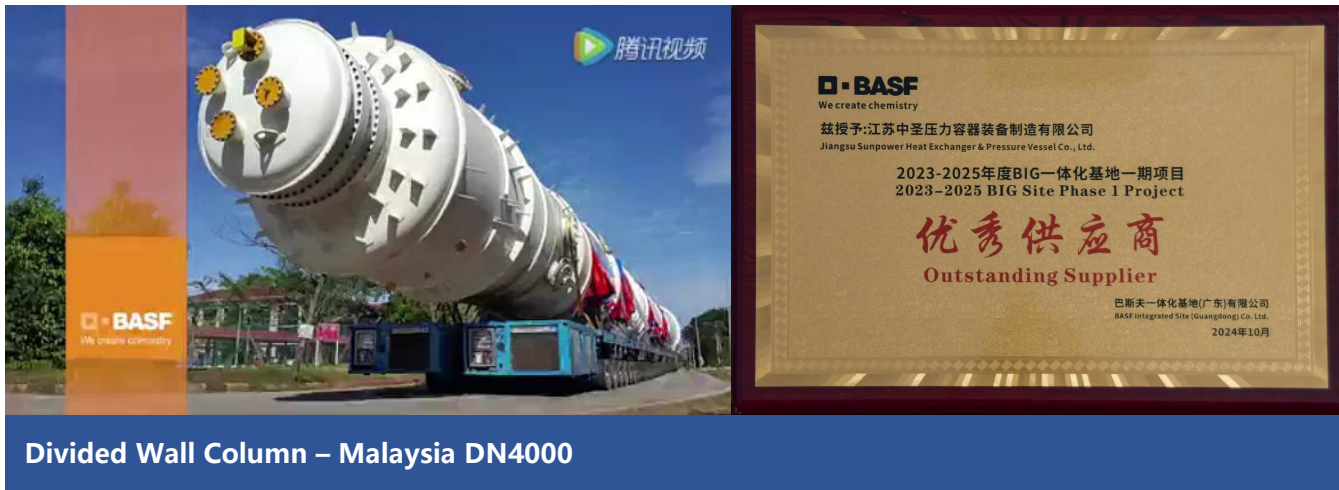


Titanium Alloy - Netherland;
DN1600*12000



Duplex SS -- USA;
Rod Baffle; DN2100

➤ Core Customer – BASF



Total: 1079 sets



BYC SS, DN4250



SBPC C2000, DN1200



EN13445, Titanium, DN2600

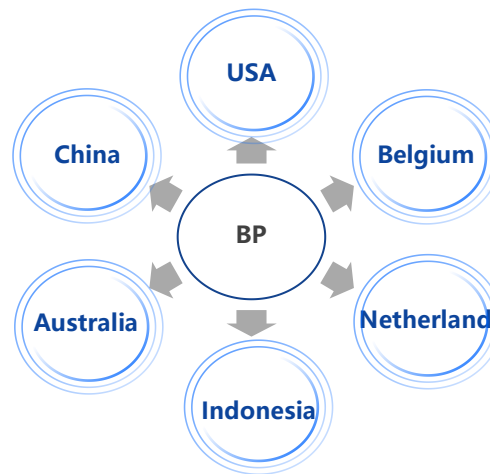


BIG project-R60702, DN2600*9400

➤ Core Customer – BP / INEOS



BP Geel PTA Project – 12 pics; Belgium – Technip;
SB265 Gr.1/SA516 Gr.70N



Total: 127 sets



BP Spiral Baffle Titanium HE– Rotterdam

➤ Core Customer – SABIC

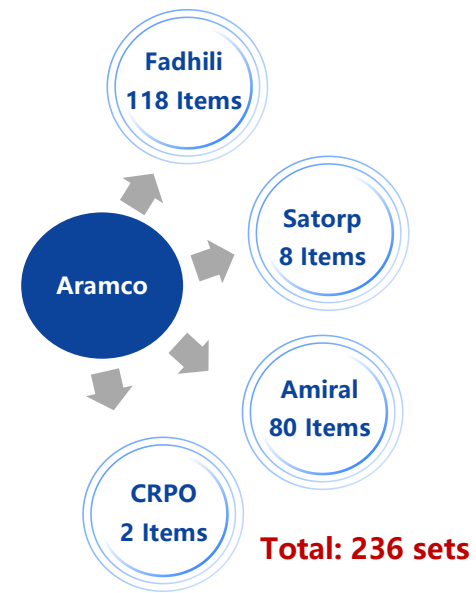


SABIC PTA Project - Saudi Arabia;
Titanium clad, SS316L, S32205, 20 pics



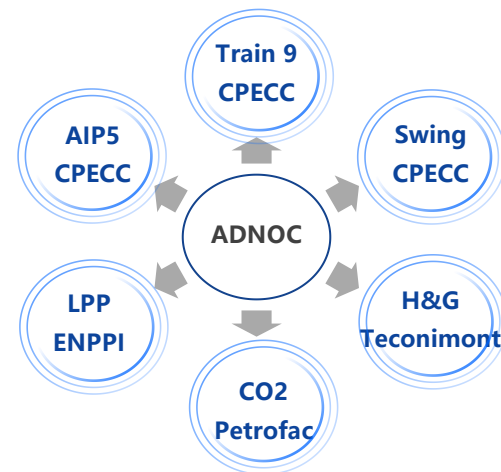
SABIC POM Project – Saudi Arabia;
22 pics, N10276, S32205, SS316L

➤ Core Customer – Aramco



- 9COM for Pressure Vessel
- Material: CS, SS, Nickel Alloy
- Helix Baffle HE

➤ Core Customer – ADNOC



Total: 124 sets

- Heavy Equipment
- Alloy 825 & SS Clad Plate
- High Pressure HE

➤ Core Customer – ExxonMobil



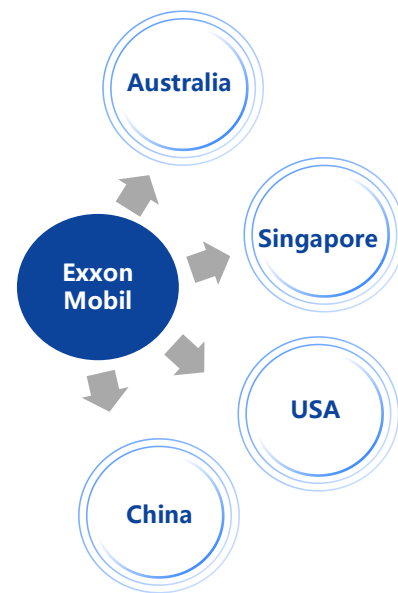
SG Liquid Chloride Treater SA516 Gr.70N



AS Helix Heat Exchanger / SA516 Gr.70



SG Helix Heat Exchanger Bundle / SS316L



➤ Core Customer – SHELL



SHELL/CNOOC Huizhou Refinery Project

- EO/EG Plant, 7 items
- Reactor Feed/Effluent Exchanger
- DN4500*33254, 586 ton, SS304



SHELL BUKOM Project – Singapore

- Underdrain Vessels, 3 items
- DN3048mm / SA516 Gr.70

➤ Core Customer – Alcoa



The Thanks Letter from Alcoa Australia Pinjarra Smelter
The replacement of Alcoa Australia Pinjarra Smelter Blow off Tank to achieve a non-stop expansion and high output in 2009. The project was nominated for the Western Australian Engineering design Excellence Award and Australian Mining Prospects Award in 2010, ultimately, the Project obtained the Highly Evaluate Award under the Australian Mining Prospects Award.

Alcoa Blow-off Tank –Australia; AS1210;
DN6200*14620, SA516 Gr.70N; 6 pics



Mine and Refinery Project-Saudi Arabia - HDEC;
72 HEs; Baffle Rod; Strength Expanded;
DN1700*11900, 46tons; SA516 Gr.70, SA179

➤ Sunpower Advantage Products – Inner Bore Welding



PDH Project

- Feed & Effluent HE FOR Reactor
- Helix baffle with Lummus License
- Inner Bore Welding Technology
- DN3250*22540mm; 251t; SA387 Gr. 11 CL2



Certificate of Authorization 特许生产商认证证书

Certificate 认证号: LHTCNFE - D80F62AC-0EE6-4295-8699-058DC8121C0E

This Certificate accredits the company 兹特许

Jiangsu Sunpower Heat Exchanger & Pressure Vessel Co., Ltd.
江苏中圣压力容器装备制造有限公司

No. 2111 Chenglin Avenue, High-tech Industrial Park, Jiangning District, Nanjing, Jiangsu, P. R. China
中国江苏省南京市江宁高新园成林大道 2111 号

As authorized to market, sell and manufacture the HELIXCHANGER[®], HELITURB[®], HELIFIN[®] heat exchangers subject to the provisions of the License Agreement signed with the undersigned Licensor. 作为特许生产商, 根据与本技术专利商所签订的技术转让合同的规定, 具有营销、销售和生產螺旋折流板换热器 HELIXCHANGER[®], HELITURB[®], 及 HELIFIN[®] 的合法资格。

Authorization Date 发证日期: 2023 年 11 月 02 日

Expiration Date 有效期至: 2028 年 11 月 02 日

Licensor 专利商:

LUMMUS TECHNOLOGY LLC
USA
鲁姆姆技术有限公司
1515 Broad Street, Bloomfield, NJ 07003-0096 USA

President

Roberto Grieco
Director, Heat Exchangers

PDH



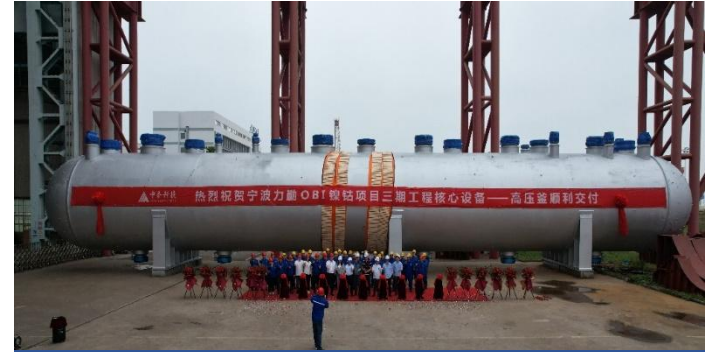
➤ Sunpower Advantage Products – Thick Wall



Cyclohexanone Plant – Reactor
DN5000*3/170*12600 188 ton
(C276/CS Clad)



Cyclohexanone Plant - Reactor
DN3400*3/110*18000
139 ton (C276/CS Clad)



HPAL – AutoClave
DN5600*8/134*37000, 1022 ton (Titanium Clad)



LNG Terminal – IFV
DN1900*115*12000 120 ton (SS)



Wacker Ethylene – Reactor
DN2100*98*13400 97 ton (SS)



Polysilicon Project
Fluidized Bed Reactors (800H, 8120)
DN4500*90*23000, 255ton

➤ Sunpower Advantage Products – Large Size Column



PDH Project- Thailand – CTCl; DN5100*70000, CS, 580ton



HengLi Petro Chemical; Dehydration Column;
DN8800*47200; 328.5tons; Duplex S32205

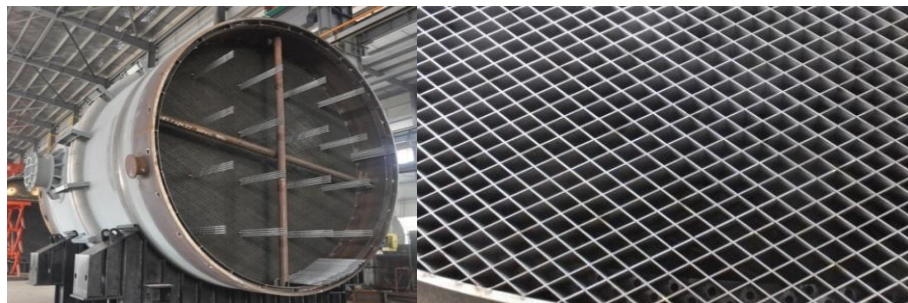
➤ Sunpower Advantage Products – Large Size Heat Exchanger



Synthesis Gas to Glycol Unit
Coupling Reactor
DN6000, 497tons
17,793 tubes, SS304



MEGlobal BOOKRAMEG Project USA, 19 Items (Column+HE);
DN5200, L=29m, 800ton, SS304L



Grating Baffle

➤ Sunpower Advantage Products – Large Size Reactor



**Bio-Reactors Steelanol
Project- Geel
Reactors 4 Sets
DN5800/7400*70000
SA516 Gr.70N / SS**



**OC Reactor
Thailand – MES - 2014
Indonesia – Uhde - 2015
Hungary – BorsodChem
- 2025
DN5800; 250tons
SS304, N10276, CS**

➤ Sunpower Advantage Products – Welding Deforming Control



Acetate Project
Prime Distillation Column
DN3985 * (8~12), L=34000mm
N08020



Formaldehyde Synthesis Reactor
DN4924*8450mm, 58tons
17,400 tubes, SS304, Tubesheet 50mm

➤ Sunpower Advantage Products – High Efficiency HE

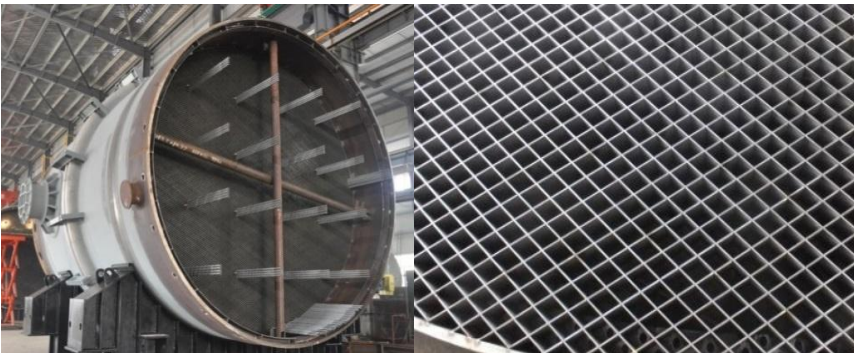


Sinopec Wuhan Ethylene Plant – HE
Low fin tube – Titanium

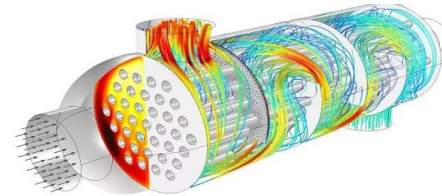
+38%



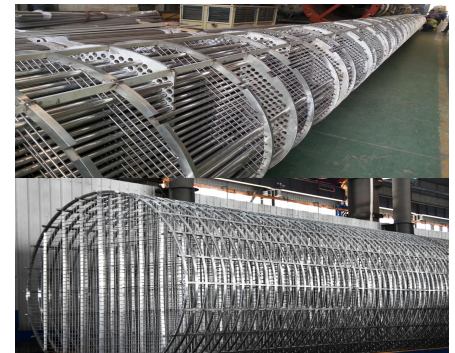
UOP Process PDH Project - High Flux Tube Heat Exchanger
CS, Copper Alloy Material (Thailand, Canada)



Grating Baffle HE – Coupling Reactor
DN6000, 17,793 tubes, 497tons, SS



Helix Baffle HE
Lummus License



Rod Baffle Heat Exchanger

➤ Sunpower Advantage Products – LNG Business



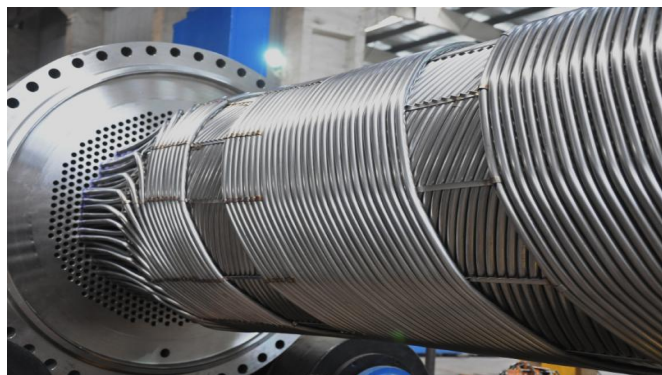
ORV – Open Rack Vaporizer



Spiral Wound Heat Exchanger



IFV – Intermediate Fluid Vaporizer



LNG Plant
Liquefaction Condenser
DN2600*11,671mm
F = 2,640m²; 95 tons
S30408

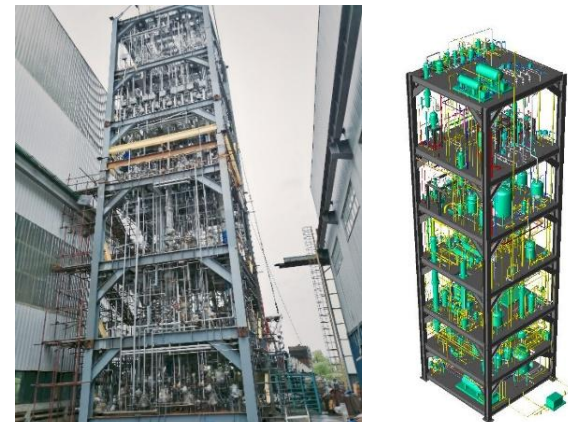
➤ Sunpower Advantage Products – Skid



BASF Chongqing Process Platform



Fine Chemical Plant Modularization



Chemical Plant Modularization



Material Accumulation Platform



Sea Water Desalination



Polysilicon CVD Reactor Skid

➤ Sunpower Advantage Products – Titanium Alloy Material



Column DN6500mm*60000;456t; (INVISTA)



Oxidizing Reactor DN7300mm;Ti+CS



Titanium Condenser DN5500mm



Titanium Condenser DN3000mm;



Crystallizer DN8100mm;S32205



Crystallizer DN7100mm;TA1/Q235A

➤ Sunpower Advantage Products – Zirconium Alloy Material



Zirconium U-Type HE DN1600mm;ZR



Zr/TA1/CS Clad Plate Reactor DN3500mm



Floating-type Condenser DN1600mm;R60702



BASF BIG Project – R60702 DN2600

➤ Sunpower Advantage Products – Nickel Alloy Material



1,000,000t/year Ethylene Project – PO/SM Unit
Dehydration Reactor
DN4300*15000, 103tons, N08020



UOP PDH Project
Regeneration - N06600 DN2740



Fluorine Chemical Project
DN2600*41850; N08825



Energy Recovery Project
DN3200; N10276



Column for Acetic Anhydride Project
DN1600*41850; N10276



Polysilicon Project
Cold Hydrogenation Reactor DN4000; N08120

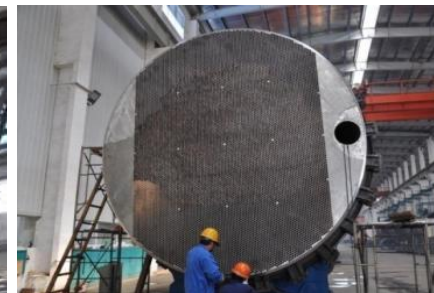
➤ Sunpower Advantage Products – Copper Alloy Material



Silicon Copper Alloy Condenser
DN1440*7000mm
SB96 C65500



1st, 2nd & 3rd Effect Evaporation Reboilers
Glycol EO/EG Project
DN4000, 150tons, SB111 C70600 B10



➤ SMajor Customer





THANKS!

📍 Jiangsu Sunpower Heat Exchanger & Pressure Vessel Co., Ltd.

☎ Tel.: 025 52169771

📠 Fax.: 025 52169700

✉ ISD@sunpowertech.cn

🌐 www.sunpower.com.cn



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