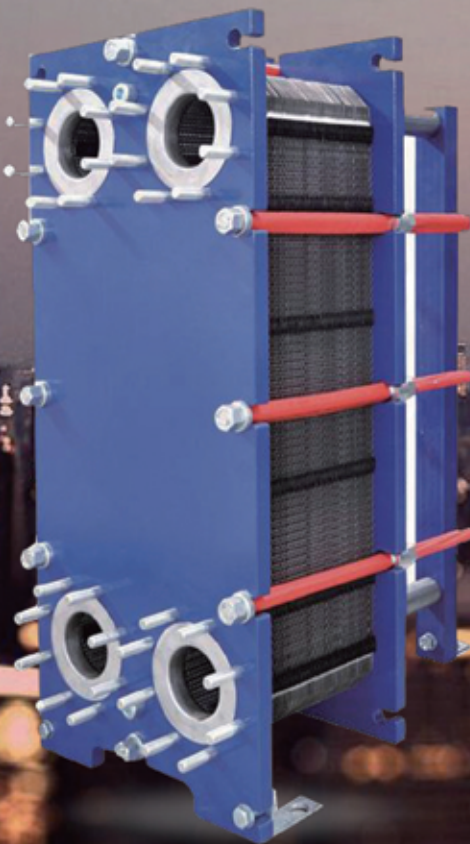


King Du Pont®
金多邦

半焊式 板式换热器

Semi-welded Plate Heat Exchanger

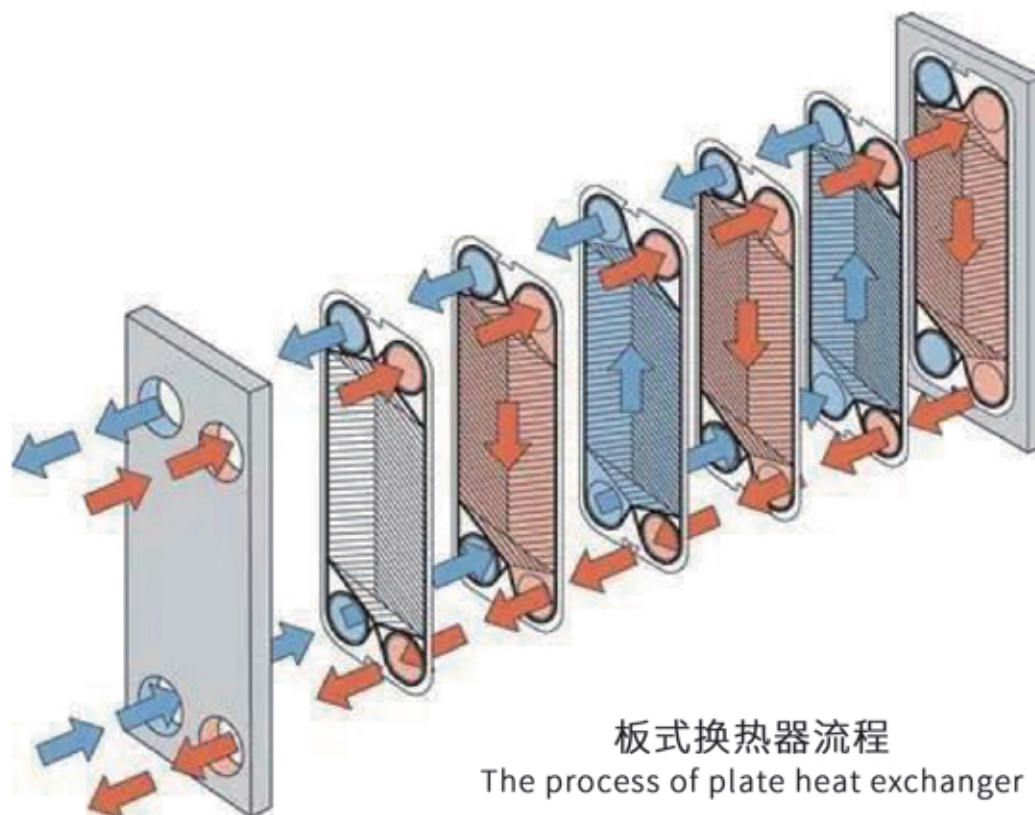
金多邦成套机械设备（江苏）有限公司



多年经验 完美品质 全力创新 用心设计

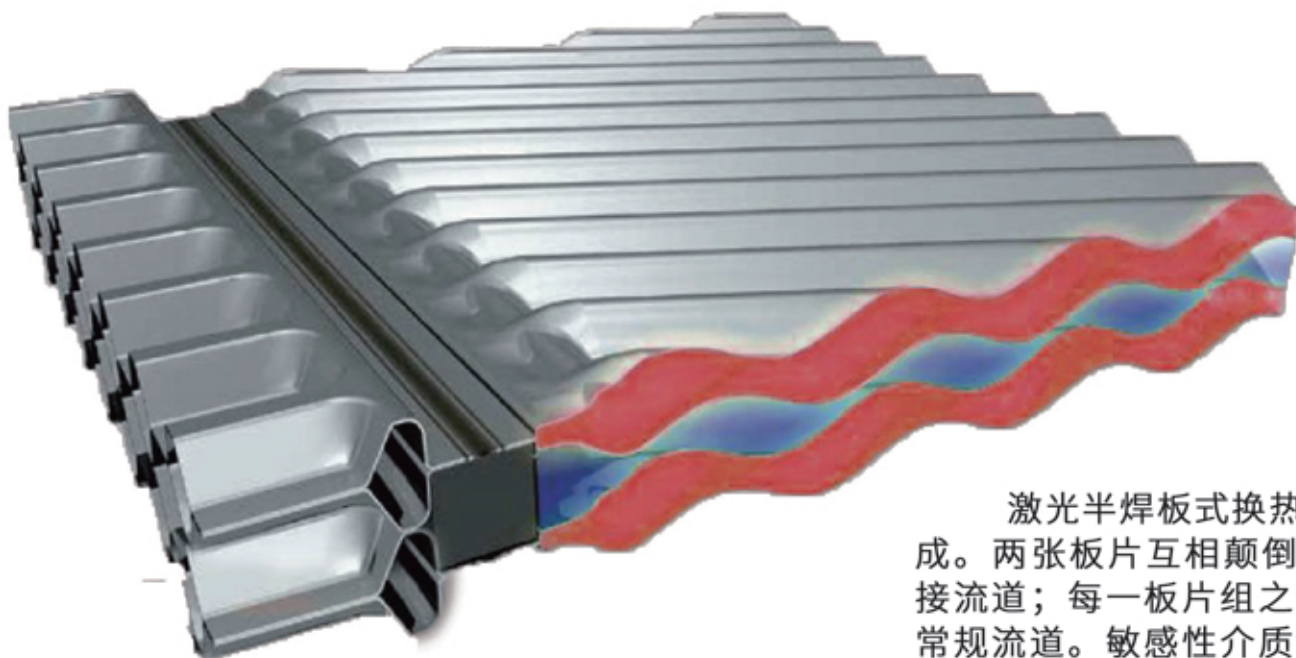
YEARS OF EXPERIENCE · PERFECT QUALITY · ALL-OUT INNOVATION · DELIBERATE DESIGN





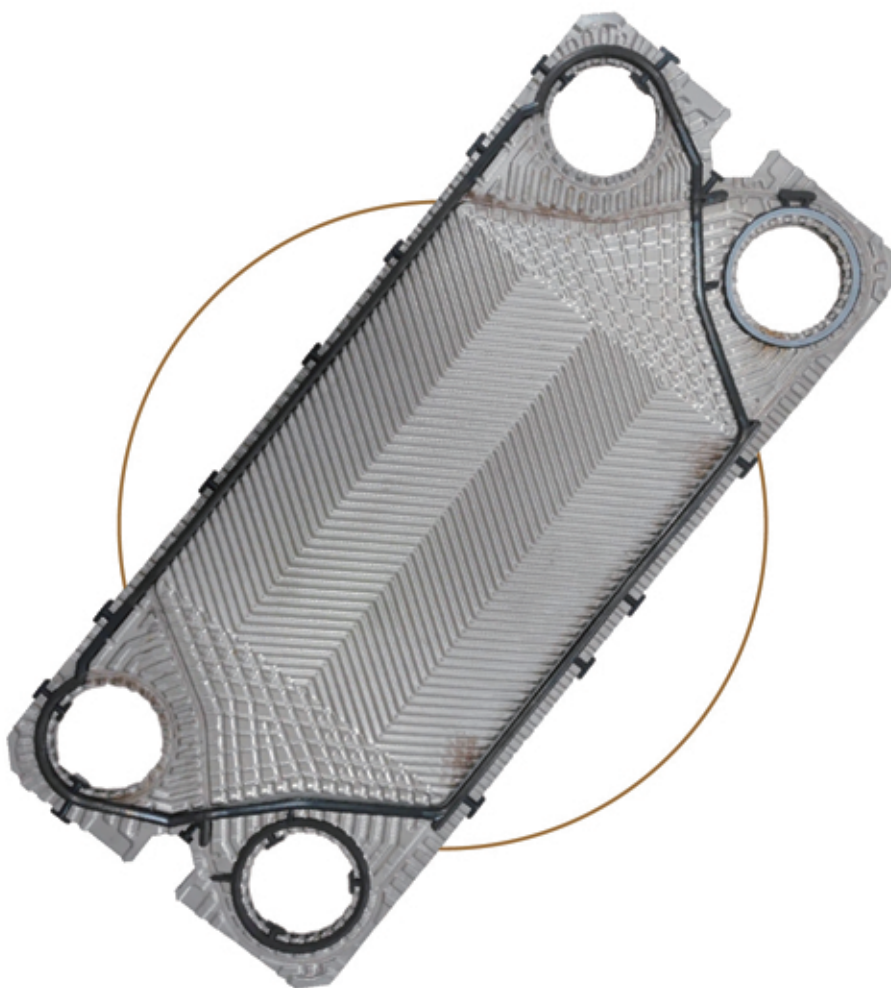
密封垫附着在传热板上，形成流动通道，起到密封流体不外泄的作用。换热板的数量是根据流体的量、流体的物理性质、压降和热条件来确定的。盖板防止板因压力差而弯曲。在板的装配中，有垫片的表面指向固定盖，各板在相反方向交替悬挂。这样两种液体就可以在各自的区域内流动并传递热量。

Gasket is attached to the heat transfer plate with forms flow channel and acts seal up the fluid not to leak to the outside. The number of the heat transfer plate is determined according to the amount of fluid, physical properties of fluid, the pressure drop and thermal condition. The covers prevent the plates bended from the difference of pressure. In the assembly of plate, the surface with gasket is directed to the fixed cover and each plate is hanged in opposite direction alternately. Then two fluids can flow in their own area and transfer heat.



激光半焊板式换热器由焊接通道和常规流道交替组成。两张板片互相颠倒180度焊接而成板片组，形成焊接流道；每一板片组之间采用密封垫密封，形成可拆的常规流道。敏感性介质流经焊接流道，常规介质流经常规流道进行换热。

The laser half-welded plate heat exchanger is composed of welding channels and conventional runners alternately. The two plates are reversed 180 degrees and welded to form a plate group to form a welding runner; each plate group is sealed with a gasket to form a detachable conventional runner. The sensitive medium flows through the welding runner, and the conventional medium flows through the conventional runner for heat exchange.



激光半焊板式换热器特别适用于氨和氟利昂等制冷剂的蒸发和冷凝，对于化工和一般工艺热交换中对垫片产生腐蚀的介质亦是理想的热交换设备。

The laser semi-welded plate heat exchanger is especially suitable for the evaporation and condensation of refrigerants such as ammonia and freon. It is also an ideal heat exchange equipment for the medium that corrodes the gasket in the heat exchange of chemical and general processes.



激光焊接技术
Laser Welding Technology

半焊式板式换热器是由板片对组成，每两张板片用激光焊焊接成板片对。以叠加的形式夹装在固定压紧板、活动压紧板中间。

The semi-welded heat exchanger is composed of a plate box, and a plate box is formed by laser welding of two plates. This structure is welded on one side and gasket on the other side, eliminating the risk of corrosion of the sealing strip.

激光焊接技术 LASER WELDING TECHNOLOGY

■ 01

冲灌量小，经济环保

特殊介质冲灌量小，有利于环境保护和降低运行成本。

Small Irrigation volume, economic and environmental

The irrigation volume of special medium is small, which is beneficial to environmental protection and reducing operation cost.

■ 02

结构紧凑，占地面积小

管壳式换热器管程和壳程的容积都很大，要使系统正常工作，必须充满大量的介质，而半焊式板式换热器一方面体积小，另一方面间距尺寸也小，因此占地面积小，易于安装，节省空间。

Compact structure, small footprint

The volume of tube and shell heat exchanger tube and shell is very large, to make the system work normally, must be filled with a large number of media, and the semi-welding plate heat exchanger on the one hand small volume, on the other hand the spacing size is small, so the floor area is small, easy to install, save space.



■ 03

传热效率高，便于检修

板片对采用激光焊接技术，再用密封垫密封，传热效率高，使用寿命长，不易泄漏，便于检修，安全系数高。

High heat transfer efficiency, easy maintenance

The plate pair adopts laser welding technology, and then uses sealing pad to seal, high heat transfer efficiency, long service life, not easy to leak, easy maintenance, high safety factor.

■ 04

结冻倾向小，抗冻性能高

由于水在低流速时，就能在板式换热器中形成高速紊流，温度分布非常均匀，从而减少了冷冻水的冻结倾向。即使发生了结冻，也更能承受冻结所产生的压力，并且可以在冻结后继续使用，而不像管壳式换热器那样容易使管胀裂。

Low freezing tendency and high freezing resistance

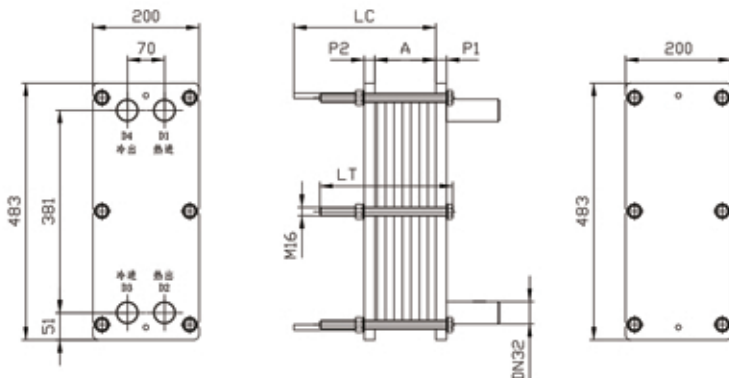
Because the water at low velocity, can form high speed turbulent flow in the plate heat exchanger, the temperature distribution is very uniform, thus reducing the freezing tendency of frozen water. Even if freezing occurs, it is more able to withstand the pressure generated by freezing, and can continue to use after freezing, and it is not as easy as tube and shell heat exchanger to crack the tube.



KDP Machinery Jiangsu Co.,Ltd.
金多邦成套机械设备（江苏）有限公司

SEMIWELDING HEAT EXCHANGER TYPE
半焊接板式换热器型号

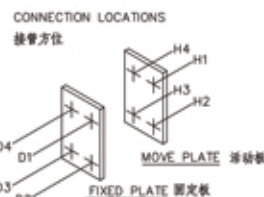
BR0.05W



序号	板片数量 N	导杆长度 LC	拉杆长度 LT	端板P1/P2
1	0~20	200	200	TP≤1.6MPa: P1/P2:20mm/20mm
2	21~40	300	300	
3	41~60	400	400	

D1D2D3D4口径规格: DN32 槽深: M=2.6

A=N(2.6+X) N=板片数量; X=板片厚度; TP=设计压力
以上参数适用于1.6MPa设计压力,此板型焊接制还适用于其他更高压力等级: 2.5/3.0/4.0/5.0MPa,
框架参数需另询我司。



* ALL DIMENSIONS IN mm.
所有尺寸均为mm

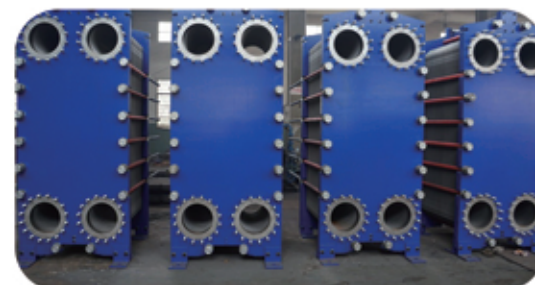
审核	设计	日期 DATE	图号 NO.	修订号 REV	部门 DEPT
		2022.12.15	JPHC-221215-A10	0	技术部

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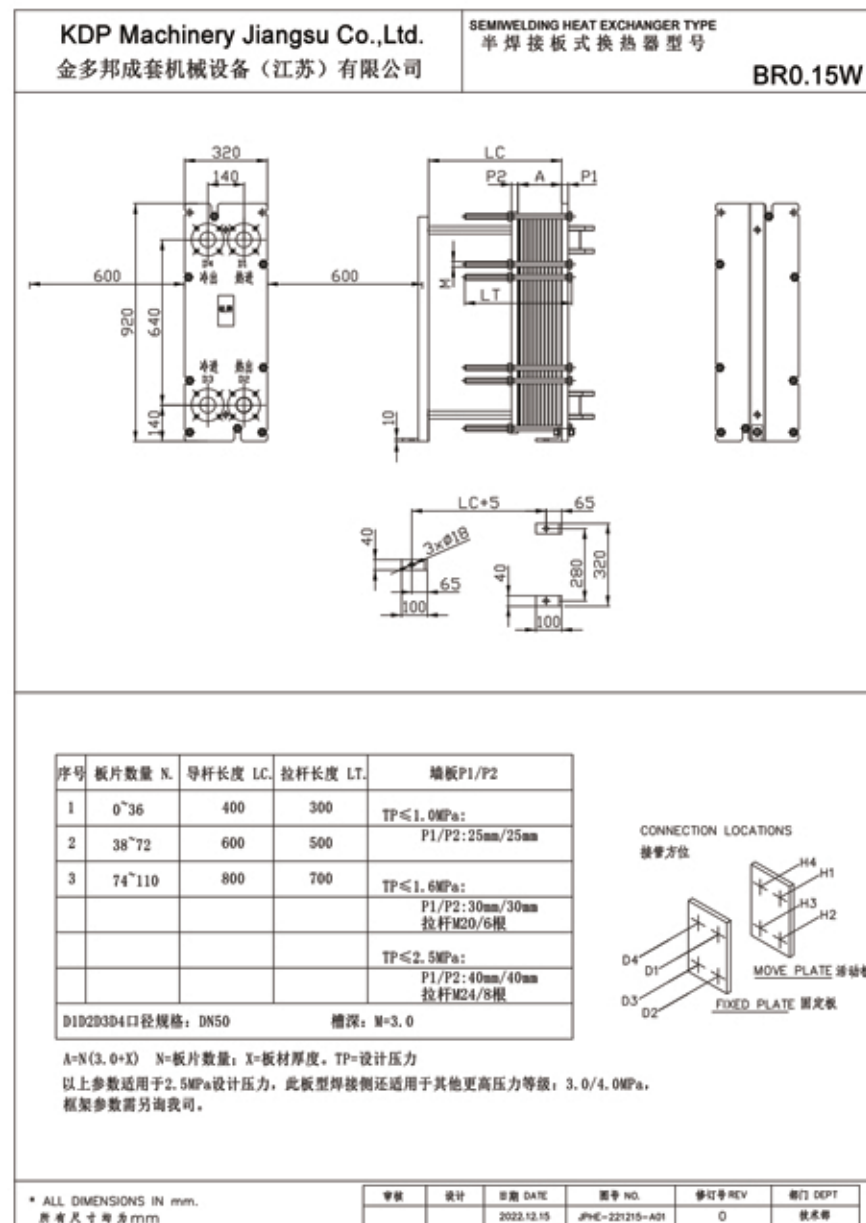
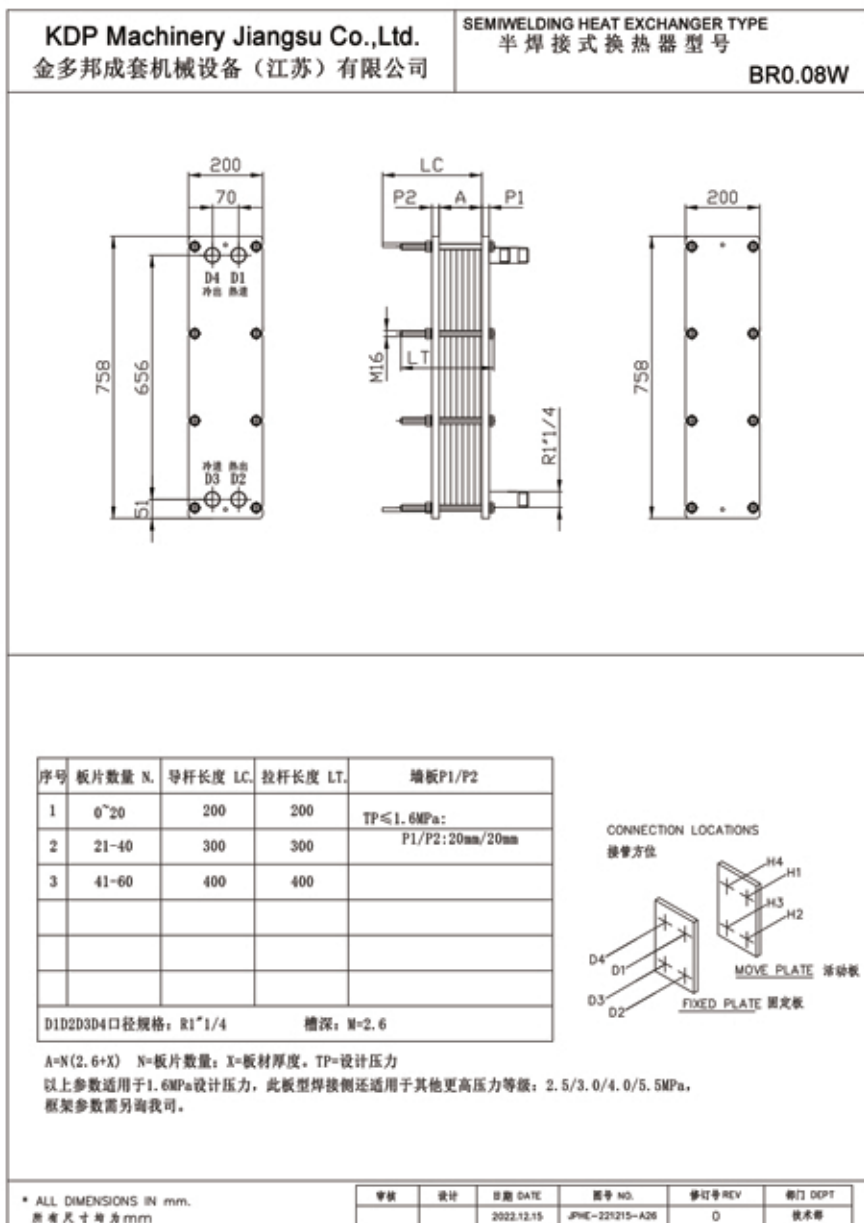


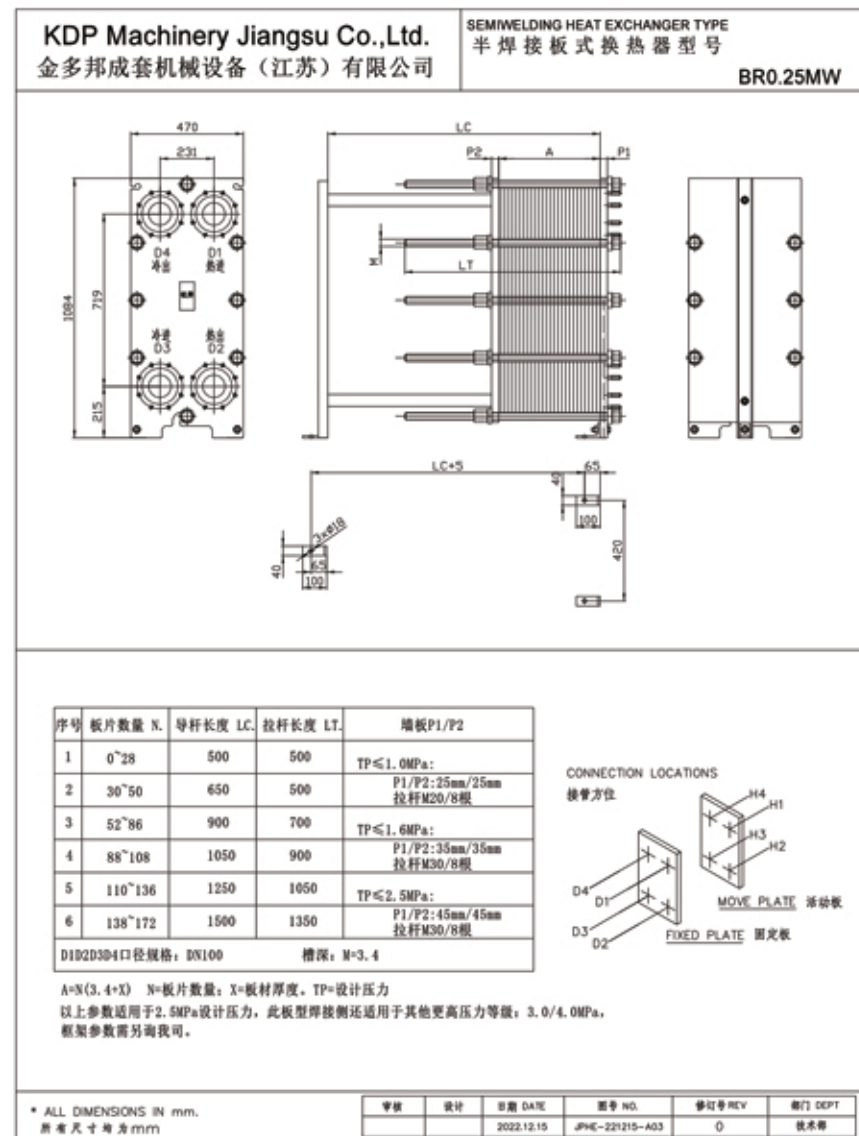
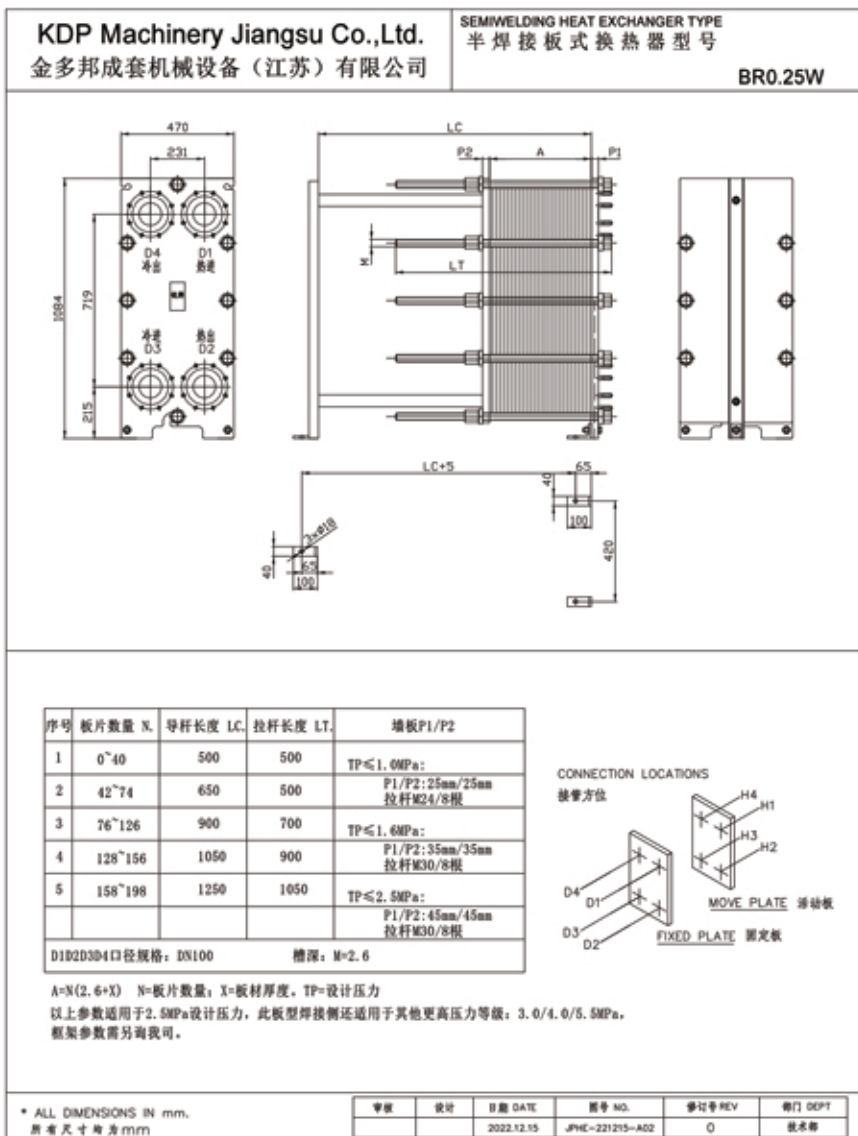
板式换热器
PLATE HEAT
EXCHANGER

德国IPG原装
激光焊接
GERMAN IPG ORIGINAL
LASER WELDING



工厂实拍
FACTORY
SHOOT

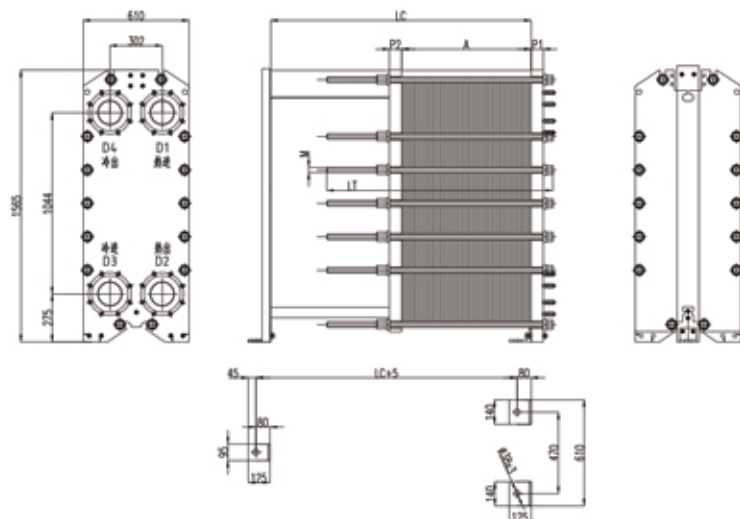




KDP Machinery Jiangsu Co.,Ltd.
金多邦成套机械设备（江苏）有限公司

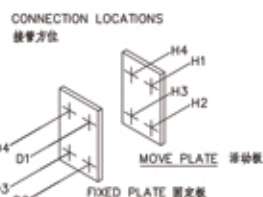
SEMIWELDING HEAT EXCHANGER TYPE
半焊接板式换热器型号

BR0.5W



序号	板片数量 N	导杆长度 LC	拉杆长度 LT	端板P1/P2
1	0~70	750	750	TP≤1.0MPa:
2	72~100	900	750	P1/P2:35mm/35mm 拉杆M30/8根
3	102~130	1050	900	TP≤1.6MPa:
4	132~160	1200	1050	P1/P2:50mm/50mm 拉杆M30/10根
5	162~220	1500	1350	TP≤2.5MPa:
6	222~280	1800	1650	P1/P2:70mm/70mm 拉杆M30/14根

D1D2D3D4口径规格: DN150 槽深: W=2.6



A=N(2.6+X) N=板片数量; X=板片厚度; TP=设计压力
以上参数适用于2.5MPa设计压力, 此板型焊接侧还适用于其他更高压力等级: 3.0/4.0/5.5MPa,
框架参数需另询我司。

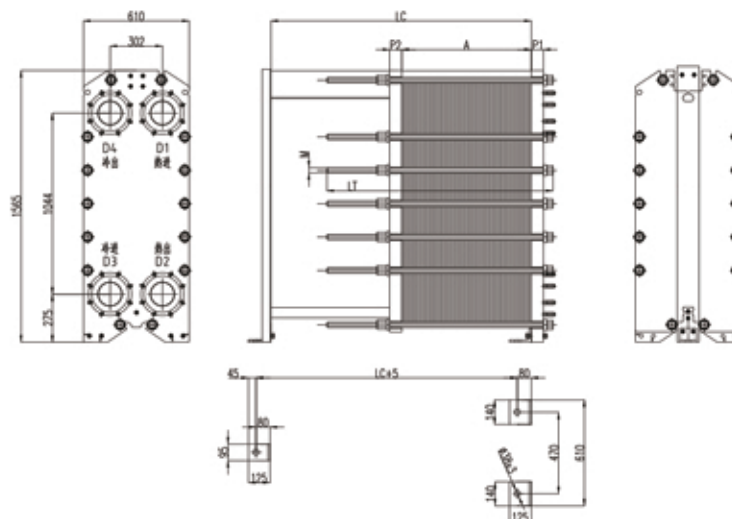
* ALL DIMENSIONS IN mm.
所有尺寸均为 mm

审核	设计	日期 DATE	图号 NO.	修改号 REV	部门 DEPT
		2022.12.15	JPHC-221215-A04	0	技术部

KDP Machinery Jiangsu Co.,Ltd.
金多邦成套机械设备（江苏）有限公司

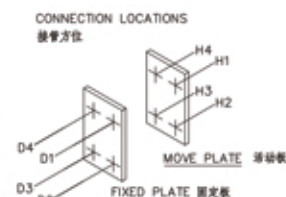
SEMIWELDING HEAT EXCHANGER TYPE
半焊接板式换热器型号

BR0.5MW



序号	板片数量 N	导杆长度 LC	拉杆长度 LT	端板P1/P2
1	0~74	900	750	TP≤1.0MPa:
2	76~118	1200	1050	P1/P2:35mm/35mm 拉杆M30/10根
3	120~160	1500	1350	TP≤1.6MPa:
4	162~204	1800	1650	P1/P2:50mm/50mm 拉杆M30/10根
5	206~250	2100	1950	TP≤2.5MPa:
				P1/P2:80mm/80mm 拉杆M30/14根

D1D2D3D4口径规格: DN150 槽深: W=3.4



A=N(3.4+X) N=板片数量; X=板片厚度; TP=设计压力
以上参数适用于2.5MPa设计压力, 此板型焊接侧还适用于其他更高压力等级: 3.0/4.0MPa,
框架参数需另询我司。

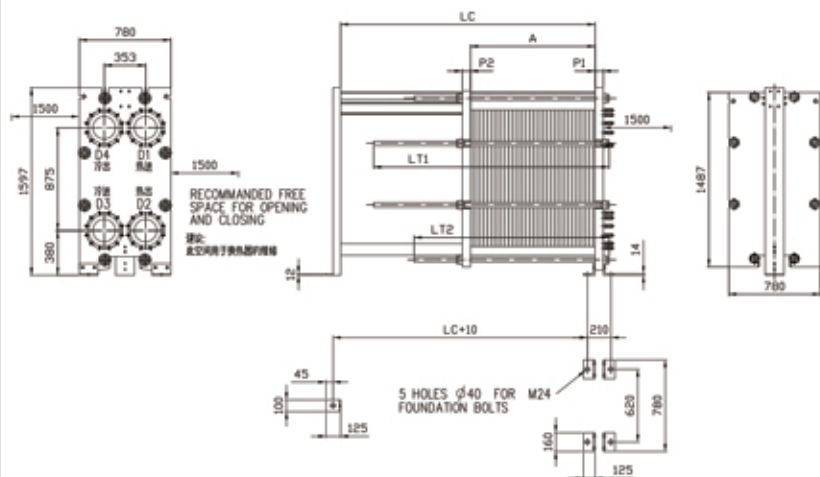
* ALL DIMENSIONS IN mm.
所有尺寸均为 mm

审核	设计	日期 DATE	图号 NO.	修改号 REV	部门 DEPT
		2022.12.15	JPHC-221215-A05	0	技术部

KDP Machinery Jiangsu Co.,Ltd.
金多邦成套机械设备（江苏）有限公司

SEMIWELDING HEAT EXCHANGER TYPE
半焊接板式换热器型号

BR0.6W



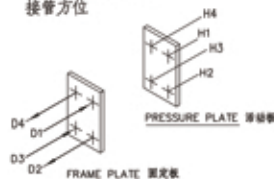
序号	板片数量 N	导杆长度 LC	拉杆长度 LT	端板 P1/P2
1	0~90	900	750	TP≤1.0MPa: P1/P2:50mm/50mm 拉杆K06/8根
2	92~146	1200	1050	TP≤1.0MPa: P1/P2:70mm/70mm 拉杆K06/10根
3	148~200	1500	1350	TP≤1.0MPa: P1/P2:90mm/90mm 拉杆K09/10根
4	202~254	1800	1650	TP≤2.5MPa: P1/P2:90mm/90mm 拉杆K09/14根

D1/D2/D3/D4口径规格: DN200 槽深: M=2.6

A=N(2.6+X) N=板片数量; X=板片厚度; TP=设计压力

以上参数适用于2.5MPa设计压力, 此板型焊接侧还适用于其他更高压力等级: 3.0/4.0/5.0MPa, 框架参数需另询我司。

CONNECTION LOCATIONS
接管方位



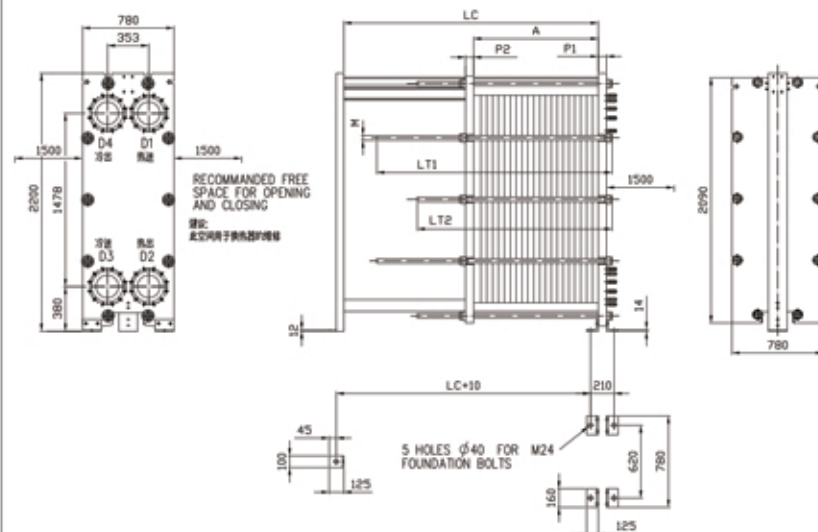
* ALL DIMENSIONS IN mm.
所有尺寸均为 mm

审核	设计	日期 DATE	图号 NO.	修订号 REV	部门 DEPT
		2022.12.15	JPH-221215-A01	0	技术部

KDP Machinery Jiangsu Co.,Ltd.
金多邦成套机械设备（江苏）有限公司

SEMIWELDING HEAT EXCHANGER TYPE
半焊接板式换热器型号

BR0.85W



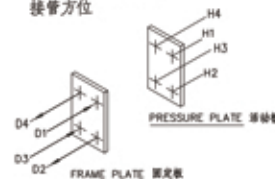
序号	板片数量 N	导杆长度 LC	拉杆长度 LT	端板 P1/P2
1	0~90	900	750	TP≤1.0MPa: P1/P2:50mm/50mm 拉杆K06/8根
2	92~146	1200	1050	TP≤1.0MPa: P1/P2:70mm/70mm 拉杆K06/10根
3	148~200	1500	1350	TP≤1.0MPa: P1/P2:90mm/90mm 拉杆K09/10根
4	202~254	1800	1650	TP≤2.5MPa: P1/P2:90mm/90mm 拉杆K09/14根
5	256~310	2100	1950	TP≤2.5MPa: P1/P2:90mm/90mm 拉杆K09/14根
6	312~364	2400	2250	TP≤2.5MPa: P1/P2:90mm/90mm 拉杆K09/14根

D1/D2/D3/D4口径规格: DN200 槽深: M=2.6

A=N(2.6+X) N=板片数量; X=板片厚度; TP=设计压力

以上参数适用于2.5MPa设计压力, 此板型焊接侧还适用于其他更高压力等级: 3.0/4.0/5.0MPa, 框架参数需另询我司。

CONNECTION LOCATIONS
接管方位



* ALL DIMENSIONS IN mm.
所有尺寸均为 mm

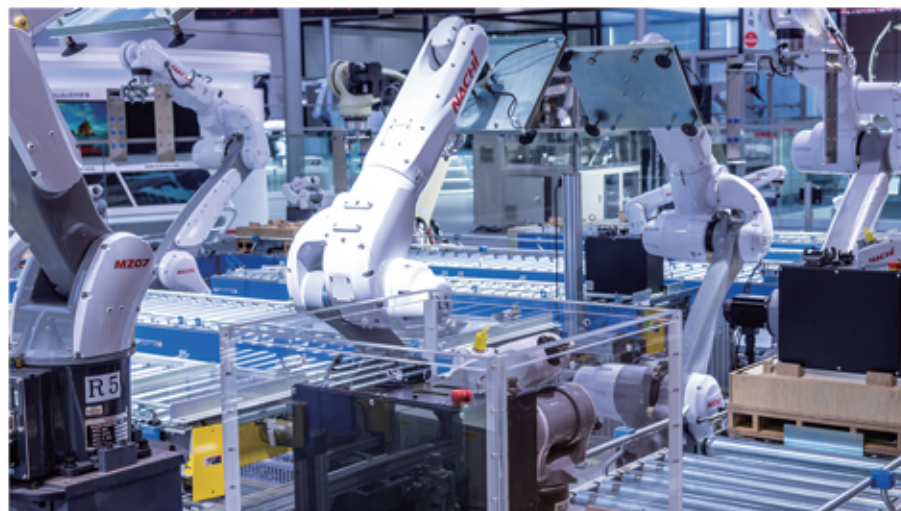
审核	设计	日期 DATE	图号 NO.	修订号 REV	部门 DEPT
		2022.12.15	JPH-221215-A01	0	技术部

智能制造

INTELLIGENT MANUFACTURING

在冷冻、制冷行业，如氨制冷与氟利昂制冷系统，也适用半焊接。低压蒸汽、小型发电厂的蒸汽冷凝、蒸发、分流系统的冷凝、高真空介质的冷凝、航煤等轻质染料的冷凝。

In refrigeration, refrigeration industry, such as ammonia refrigeration and freon refrigeration system, also suitable for semi-welding. Low pressure steam, small power plant steam condensation, evaporation, shunt system condensation, high vacuum medium condensation, jetcoal and otherlight dye condensation.



典型案例 TYPICAL KPI

中信泰富特钢科技大楼、张家港玖隆物流园、常熟梅园宾馆、江阴市市政府、江阴国际会展中心、江阴长江国际会展中心、江阴金陵国际酒店、江阴市第二中学、江阴市成化高级中学

Citic Pacific Special Steel Technology Building, Jiulong Logistics Park, Zhangjiagang, Changshu Meiyuan Hotel, Jiangyin Municipal Government, Jiangyin International Convention and Exhibition Center, Jiangyin Changjiang International Convention and Exhibition Center, Jiangyin Jinling International Hotel, Jiangyin No. 2 Middle School, Jiangyin Chenghua Senior High School



应用领域 · APPLICATION FIELD

石油化工

PETROCHEMICAL INDUSTRY

酸碱盐溶液的冷却，工艺介质的加热、冷却、循环水冷却，油冷却，电解液冷却，电镀业冷却，除油液加热，磷化液冷却等。

Acid, alkali and salt solution cooling, process medium heating, cooling, circulating water cooling, oil cooling, electrolytic liquid cooling, electroplating cooling, oil removal heating, phosphating liquid cooling, etc.



King Du Pont®
金多邦



典型案例 TYPICAL KPI

中国石油天然气股份有限公司大庆石化分公司南京大汇新材料有限公司、江苏中鼎化学有限公司神木富油能源集团、晓星氨纶(嘉兴)有限公司晓星氨纶(滁州)有限公司、诸暨华海集团、华润包装有限公司、腾龙特种树脂(厦门)有限公司蓝恒达化工(江西)有限公司

Petrochina Daqing Petrochemical Branch Nanjing Dahui New Materials Co., LTD., Jiangsu Zhongding Chemical Co., LTD. Shenmurich Oil Energy Group, Xiaoxing Spandex (Jiaxing) Co., LTD. Xiaoxing Spandex (Chuzhou) Co., LTD., Zhuji Huahai Group, China Resources Packaging Co., LTD., Tenglong Special Resin (Xiamen) Co., LTD

应用领域 · APPLICATION FIELD

电力工业

ELECTRIC POWER INDUSTRY

开式、闭式循环水冷却、传动油冷却、透平油冷却、润滑油冷却、活塞和涡轮机及发动机冷却液冷却、柴油发电站热回收、废汽热回收等。

Open and closed circulating water cooling, transmission oil cooling, turbine oil cooling, lubricating oil cooling, piston and turbine and engine cooling liquid cooling, diesel power station heat recovery, waste steam heat recovery, etc.



King Du Pont®
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典型案例 TYPICAL KPI

洛阳忠诚电力集团有限公司、国电哈密电厂、山东阳城电厂、大塘金竹山电厂二期、国电益阳电厂一期

Luoyang Zhongfidelity Power Group Co., LTD., Guodian Hami Power Plant, Shandong Yangcheng Power Plant, Datang Jinzhushan Power Plant Phase II, Guodian Yiyang Power Plant Phase I

应用领域 · APPLICATION FIELD

酸化工行业

ACID CHEMICAL INDUSTRY

在化工和一般工艺热交换对垫片会产生腐蚀的介质时候，当一侧介质对橡胶有腐蚀性，无法有效密封时，适合用半焊接热交换器。

In chemical and general process heat exchange on the gasket will produce corrosion medium, when one side of the medium is corrosive to rubber, can not be effectively sealed, suitable for semi-welded heat exchanger.



King Du Pont®
金多邦



典型案例 TYPICAL KPI

腾龙特种树脂(厦门)有限公司、华润包装材料有限公司、福州瑞闽铝材彩涂有限公司、伊犁川宁生物技术有限公司

Tenglong Special Resin (Xiamen) Co., LTD., China Resources Packaging Materials Co., LTD., Fuzhou Ruimin Aluminum Color Coating Co., LTD., Yili Chuanning Biotechnology Co., LTD



更多信息请点击：<http://www.kingdupont.com>

King Du Pont[®]
金多邦

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KDP Mechanical (JiangSu) Co.,Ltd.

地址：江苏省江阴市徐霞客镇峭岐中山路198号

ADD: No.198 Zhongshan Road, Qiaoqi, Xuxiake Town, Jiangyin City, Jiangsu, China

网址·Web: <http://www.kingdupont.com>