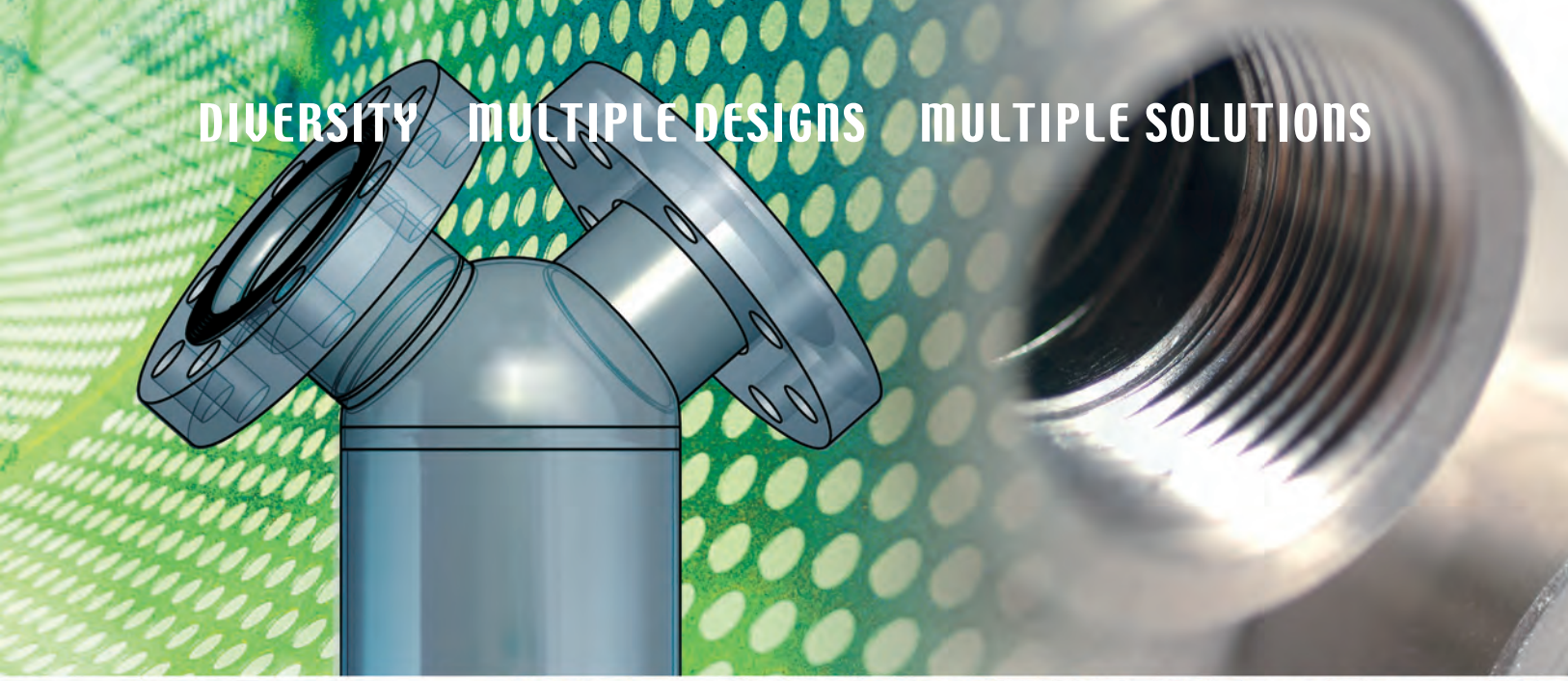
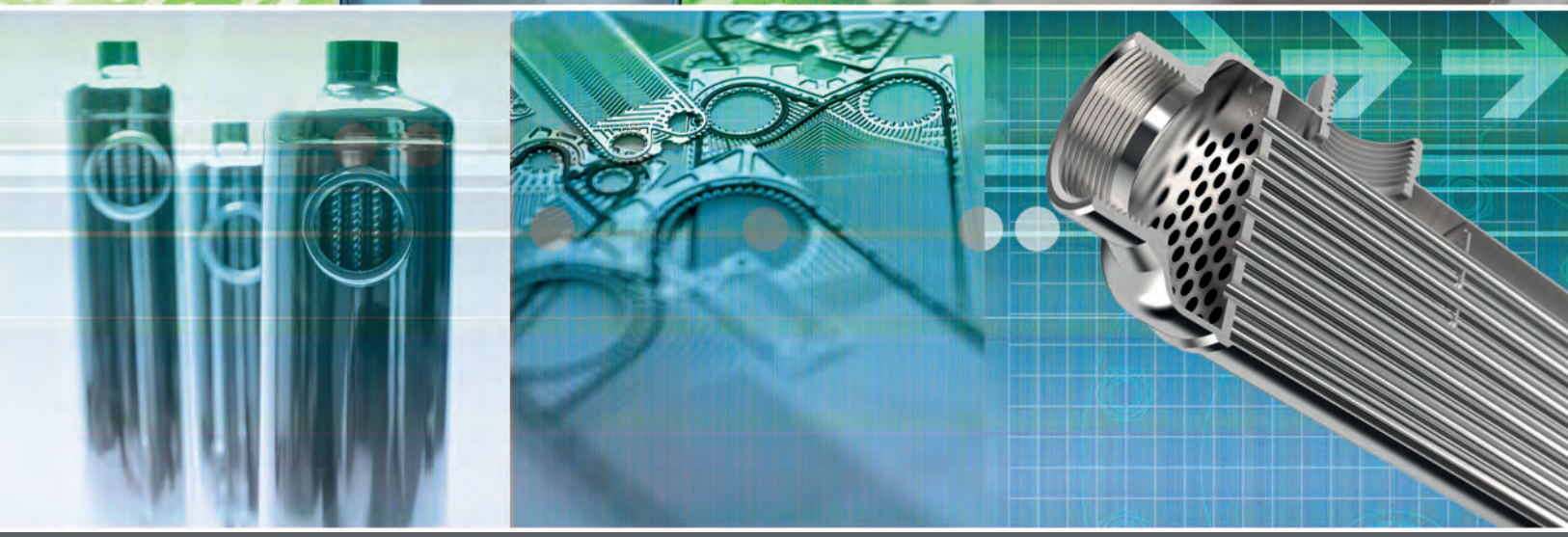
DIVERSITY MULTIPLE DESIGNS MULTIPLE SOLUTIONS





HEAT EXCHANGERS

aic

Experience the quality and diversity of the **AIC brand.** Our focus on design efficiency is complemented by our commitment to pursue leading edge technology that sets new standards in the heat transfer field.

AIC has in-depth knowledge and years of experience working with versatile applications. We are experts in designing, engineering, and manufacturing heat exchangers that will fulfill the requirements of the various process industries in the world.

aic

A LINE

AIC is pleased to introduce the latest plate and frame technology to the heat transfer marketplace.

At the heart of the efficient **A-Line** system are a series of models available in a variety of materials and plate designs. This provides our clients with flexible, reliable, cost-effective means of achieving precision heat transfer. These advantages make the **A-Line** series the ideal choice for chemical, pharmaceutical, HVAC and food industries.

PLATES

- Extensive range of heat transfer areas
- Varying plate thickness
- Available materials: SS 304, SS 316, Titanium, Hastelloy.

GASKETS

- Glued or Clipped on
- Easy assembly
- Available materials: EPDM, NBR, VITON

JAD Line

Advantages of JAD Series Vertical Heat Exchangers.

High Efficiency: Helically corrugated tubes packed closely together provide a large heat transfer area and an increase in thermal efficiency.
Compact Size: Compact and lightweight design requires less installation space and low installation costs.
Flexibility of design: Wide range of models and configurations available to suit various applications.
Flexibility of conditions: Applicable for a wide range of pressures, flows, and temperatures. Ideal for steam and water heating systems.
Low Maintenance: Helically corrugated tubes produce turbulence that aids in the reduction of scale buildup and fouling. Unit can be easily removed from the system, and flushed if necessary.

Distinguishedfor their unique helically corrugated coil design, complete stainless steel welded structure, and defining angular connections.

P-SERIES

POOL POWER PRODUCTS

The AIC series of Pool Power Products define innovation with attention to design excellence and uncompromising quality. Market-driven and market-proven, these products excel in the most rigorous and demanding of environments with unsurpassed performance and finesse. Each intricate design is versatile, yet grounded in rigid standards. Robust, yet finely crafted with the most technically superior materials.

APPLICATIONS

- Pools, spas, hot tubs
- Oil coolers
- Waste water heat recovery
- In-Floor heating
- Boiler sample cooler

B6 line

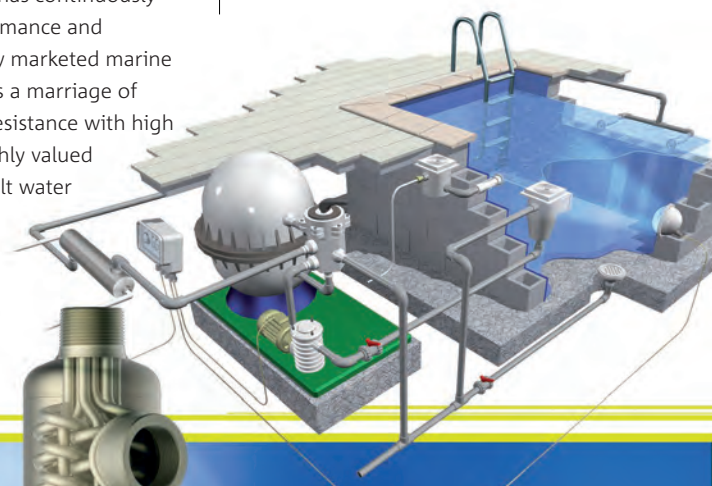
A product with a purpose. Complete welded construction with high strength 316L stainless steel, underlined by distinctive densely packed precision tubing, this series is formulated for consistent, reliable performance with high fluid velocities and
a close temperature approach.

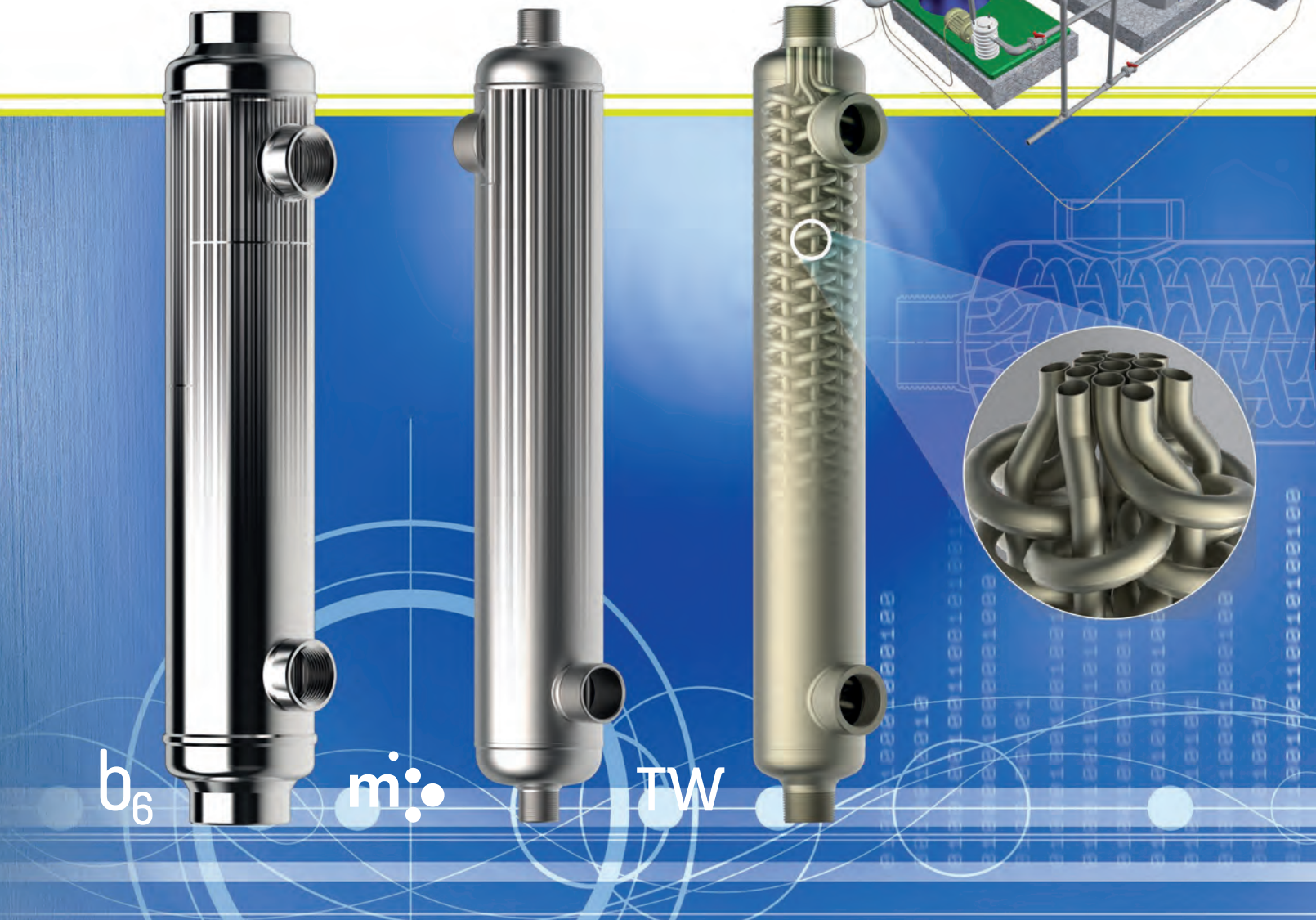
M line

Combine engineering ingenuity with nature's vitality, and yield a resilient, super austenitic marine alloy product series that has continuously demonstrated its superior performance and strength over other commercially marketed marine alloys. True to form, the M-Line is a marriage of resistances: superior corrosion resistance with high erosion corrosion resistance, highly valued for its use in the seawater and salt water environments.

TW line

A unique heating coil geometry that captures and enhances the closest of temperature approach. A one-piece welded pure titanium masterpiece, intrinsically designed for the most aggressive of environments. Exceptional material strength and corrosion resistance, matched with unparalleled quality.





PS/PW

PS/PW Line

LIQUID – STEAM / LIQUID – LIQUID

Features

- Removable U-tube bundles made from stainless steel tubing
- 2 or 4 pass construction with lengths up to 10 ft. and shell diameters up to 30 in
- Heat transfer area ranging from 5 to 1380 sq. ft. in 2 and 4 pass units
- Sturdy, rugged cast-iron or steel head
- Steel shell body
- Mounting saddles

1 Connections
Standardized sizes for easy assembly.

2 Tube Sheet
U-bend tubes expanded into tube sheet allow for tube expansion and contractions due to thermal fluctuations.

3 Gaskets
High quality compressed fibers (reusable).

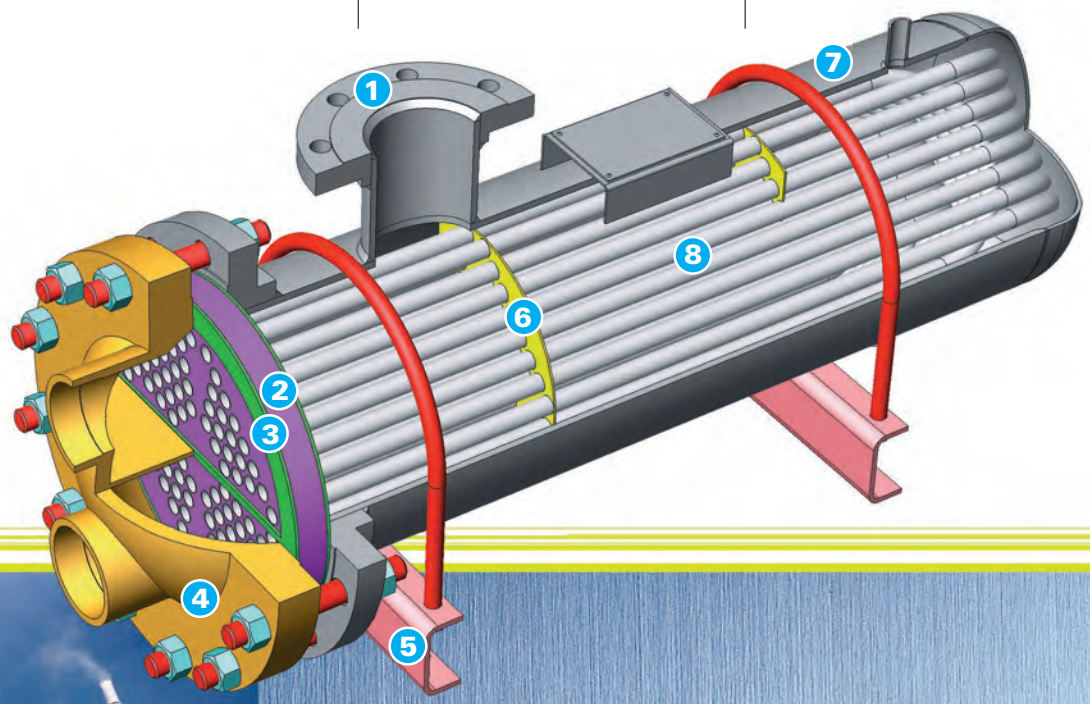
4 Head
Standard cast iron or steel head for heavy-duty services.

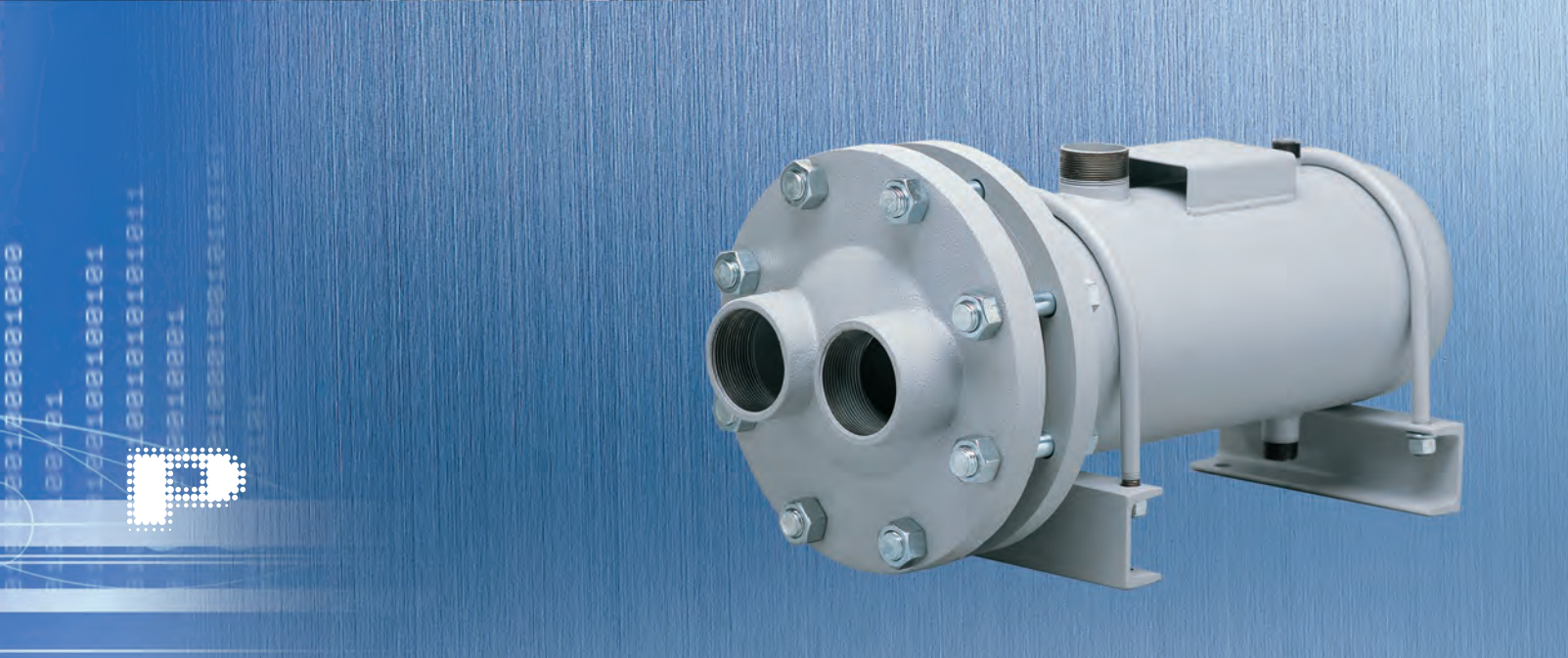
5 Mounting
Saddles attached with standard units for quick & easy mounting.

6 Baffles
Punched baffles with minimum clearances between tubes ensure correct fluid flow and minimized bypass.

7 Shell
Welded shell with high quality paint for corrosion resistance.

8 Tube Bundle
Stainless steel tubes allow for strong, durable performance over a wide range of applications.





L Line

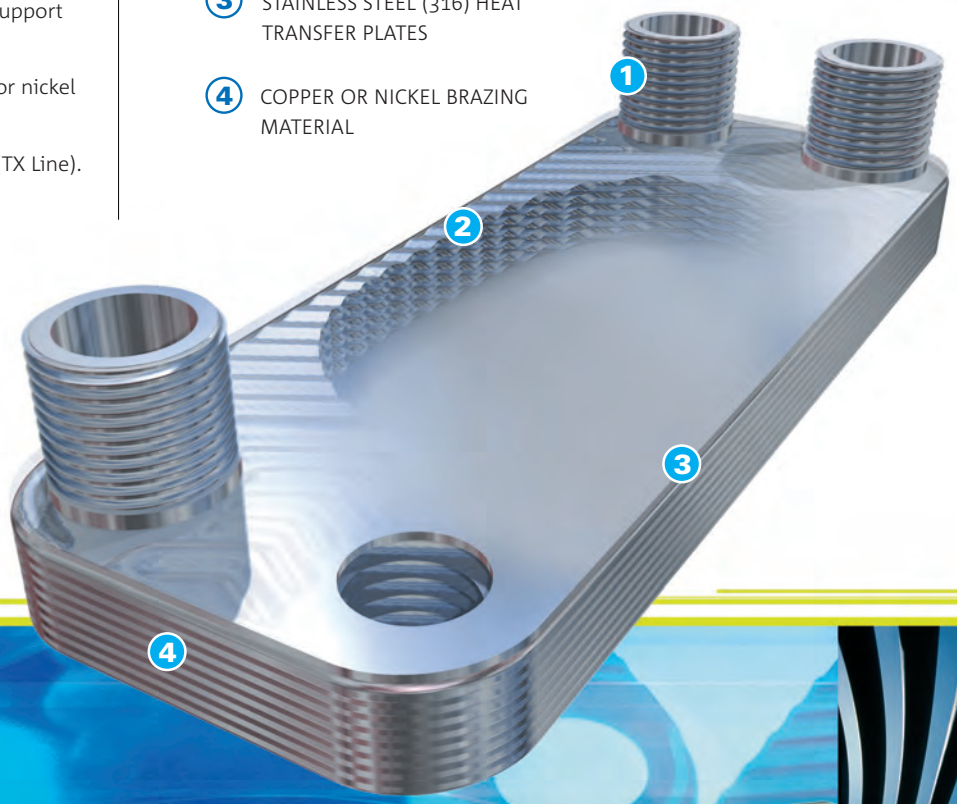
Advantages of AIC Brazed Plate Heat Exchangers

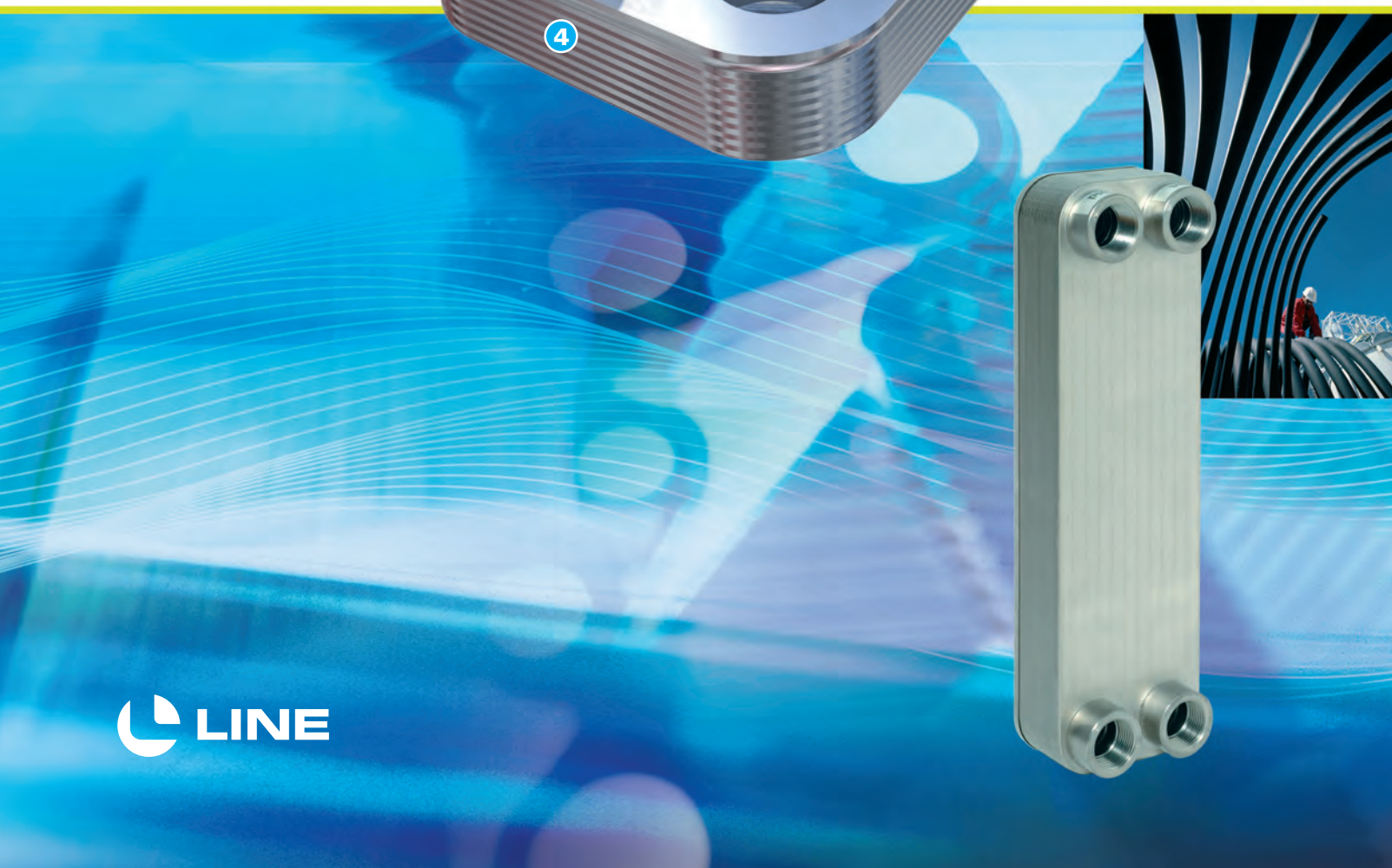
Compact models with high heat transfer capacity.
Stainless steel plates with corrugated surface ensure turbulent flow and structural support to the unit.
Single or double wall option. Copper or nickel brazing material available.
Exclusive design with titanium plates (TX Line).
Quick and easy installation.

1. STAINLESS STEEL CONNECTIONS
2. CORRUGATED PLATE SURFACE
3. STAINLESS STEEL (316) HEAT TRANSFER PLATES
4. COPPER OR NICKEL BRAZING MATERIAL

APPLICATIONS

- Condensers and Evaporators in Refrigeration Systems.
- Oil Coolers.
- Close approach fluid-to-fluid heat transfer.





LINE

A Line Technical Product Specifications

Model		A40X	A80	A70	A140	A200	A90	A190	A310	A210	A470	A640	A410	A620	A860	A1100	A1300	A1880	A3150
Height	in	18.62	29.45	23.46	39.13	47.00	24.65	37.24	51.03	51.50	76.93	92.96	68.90	84.72	100.55	116.30	115.90	127.75	144.09
	mm	473	748	596	994	1194	626	946	1296	1308	1954	2361	1750	2152	2554	2954	2944	3245	3660
Width	in	7.83	7.83	11.81	11.81	11.81	15.55	15.55	15.55	19.49	19.49	19.49	25.20	25.20	25.20	25.20	30.31	38.19	51.18
	mm	199	199	300	300	300	395	395	395	495	495	495	640	640	640	640	770	970	1300
Length	ft	1.71	2.57	3.38	3.38	3.38	3.41	3.41	3.41	13.45	13.45	13.45	13.45	13.45	13.45	13.45	20.38	20.38	13.94
	mm	521	783	1030	1030	1030	1039	1039	1039	4100	4100	4100	4100	4100	4100	4100	6212	6212	4249
Max. Area	ft^2	40	115	117	239	334	198	429	627	1806	3857	5163	3251	4897	6481	8641	15246	1,634	21497
	m^2	4	11	11	22	31	18	40	58	168	358	480	302	455	602	803	1416	1824	1997
Max Flow rate	USGPM	97	97	350	350	350	400	400	400	949	949	949	2134	2134	2134	2134	3830	8800	16300
	L/min	367	367	1325	1325	1325	1514	1514	1514	3592	3592	3592	8078	8078	8078	8078	14498	33312	61702
Connection	in	1.25"	1.25"	2"	2"	2"	2.5"	2.5"	2.5"	4"	4"	4"	6"	6"	6"	6"	8"	12"	16"

Materials of Construction

Plates

Standard	*Optional*
SS 304	TITANIUM PALLADIUM
SS 316	HASTELLOY C276, C22,B-2
TITANIUM	AVESTA 254 SMO
	NICKEL 201
	INCOLOY 825

Frame

Standard	*Optional*
CARBON STEEL	SS304 SANDBLASTED
EPOXY PAINTED	SS316 SANDBLASTED

Gaskets

Standard	*Optional*
NITRILE	PTFE
EPDM	AFLAS
VITON	SILICON
	HYPALON

Connections

Standard	*Optional*
THREADED NPT SS316L	TRI-CLAMP SS 316L
RAISED FACE & STUDS	THREADED NPT TITANIUM
LINED FLANGE SS316	LINED FLANGE TITANIUM

Design Parameters

FRAMES AVAILABLE

Pressure

28 bar (400 PSI)

Temperature

185°C (366°F)

L Line Technical Product Specifications

Model	Dimensions mm (in)					Plate Area	Channel Volume	Maximum Flow	Max. Number of Plates	Weight (empty)
	A	B	C	D	F	m^2 (sq.ft)	L (USGal)	L/min (GPM)		kg (lb)
LA 14	194 (7.6)	80 (3.1)	154 (6.1)	40 (1.6)	10.0+2.3NP(0.39+0.09NP)	0.012 (0.13)	0.021 (0.005)	110 (29)	80	0.8+0.05NP(1.8+0.10NP)
LA 22	300 (11.8)	79 (3.1)	260 (10.2)	42 (1.7)	9.0+2.3NP(0.36+0.09NP)	0.022 (0.24)	0.034 (0.009)	68 (18)	80	1.1+0.09NP(2.4+0.20NP)
LA 34	469 (18.5)	80 (3.1)	432 (17.0)	42 (1.7)	9.0+2.3NP(0.36+0.09NP)	0.034 (0.37)	0.054 (0.014)	68 (18)	80	1.7+0.12NP(3.7+0.26NP)
LB 31	306 (12.0)	126 (5.0)	250 (9.8)	70 (2.8)	12.4+2.4NP(0.49+0.09NP)	0.032 (0.34)	0.054 (0.014)	290 (77)	150	2.2+0.16NP(4.8+0.35NP)
LB 47	414 (16.3)	122 (4.8)	360 (14.2)	68 (2.7)	9.0+2.3NP(0.36+0.09NP)	0.047 (0.51)	0.072 (0.019)	190 (50)	150	2.1+0.18NP(4.6+0.40NP)
LB 60	506 (19.9)	126 (5.0)	444 (17.5)	64 (2.5)	12.4+2.4NP(0.49+0.09NP)	0.058 (0.62)	0.097 (0.026)	240 (63)	150	3.6+0.25NP(7.9+0.55NP)
LC 110X	530 (20.9)	248 (9.8)	456 (17.9)	174 (6.9)	13.0+2.4NP(0.51+0.09NP)	0.113 (1.22)	0.196 (0.052)	450 (119)	200	7.2+0.52NP(15.8+1.14NP)
LC 110H	463 (18.2)	255 (10.0)	378 (14.9)	170 (6.7)	10.0+2.4NP(0.39+0.09NP)	0.110 (1.18)	0.162 (0.043)	550 (145)	200	4.3+0.39NP(9.4+0.86NP)
LC 110Y	523 (20.6)	241 (9.5)	430 (16.9)	148 (5.8)	13.4+2.8NP(0.53+0.11NP)	0.104 (1.12)	0.216 (0.057)	700 (185)	200	7.2+0.55NP(15.8+1.21NP)
LC 110Z	523 (20.6)	241 (9.5)	430 (16.9)	148 (5.8)	13.4+2.8NP(0.53+0.11NP)	0.104 (1.12)	0.216 (0.057)	900 (238)	200	7.2+0.55NP(15.8+1.21NP)
LC 170	685 (27.0)	255 (10.0)	600 (23.6)	170 (6.7)	10.0+2.4NP(0.39+0.09NP)	0.170 (1.83)	0.255 (0.067)	500(132)	200	5.9+0.60NP(13.0+1.32NP)
LD235	784 (30.9)	306 (12.0)	682 (26.9)	204 (8.0)	12.0+2.6NP(0.47+0.10NP)	0.235 (2.53)	0.398 (0.105)	1500 (396)	280	19.0+0.81NP(41.8+1.78NP)

NP - number of plates

Standard Connections

Model	Solder	Threaded
	d* (in)	d (in)
LA 14	7/8"	3/4"
LA 22	7/8"	3/4"
LA 34	1-1/8"	1"
LB 31	1-1/8"	1"
LB 47	1-1/8"	1"
LB 60	1-1/8"	1"
LC 110X	1-5/8"	1-1/2"
LC 110H	1-5/8"	2-1/2"
LC 110Y	1-5/8"	2-1/2"
LC 110Z	1-5/8"	3"
LC 170	1-5/8"	2-1/2"
LC 235	2-1/8"	3"

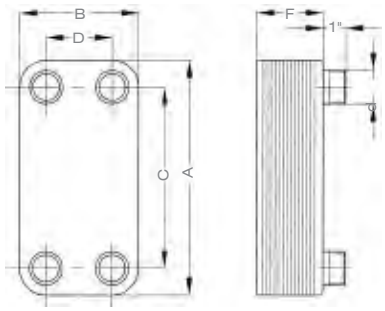
* *inner diameter of connection*

Standard Construction:

- Plates & Connections: AISI 316
- Brazing Material: Copper (Optional - Nickel, Stainless)
- Single Wall Plates (Optional - Double-Wall)

Design Parameters:

- Working Temperature up to 230°C (445°F)
- Working Pressure up to 45 bar (650 PSI)



JAD Line Technical Product Specifications

Model	Heat Transfer Area	Connections
	$m^2(ft^2)$	in
HELICALLY CORRUGATED TUBES		
H-0K	0.29 (3.1)	3/4"
H-1K	0.76 (8.2)	1"
H-2K	1.32 (14.2)	1"
JAD XK 2.11	1.20 (12.9)	1-1/2"
JAD XK 2.11.08.68	0.63 (6.8)	1-1/2"
JAD XK 3.18	2.00 (21.5)	2"
JAD XK 3.18.08.75	1.20 (12.9)	2"
S-0XK	2.30 (24.8)	2"
S-1XK	3.14 (33.8)	2-1/2"
JAD XK 5.38	4.00 (43.1)	2"
JAD XK 5.38.08.71	2.30 (24.8)	2"
JAD XK 6.50	5.70 (61.4)	3"
JAD XK 6.50.08.72	3.14 (33.8)	3"
JAD XK 9.88	10.70 (115.2)	4"
JAD XK 9.88.08.85	6.20 (66.7)	4"
JAD XK 9.88.08.65	4.97 (53.5)	4"
JAD XK 12.114	18.40 (198.1)	4"
JAD XK 12.114.08.75	8.78 (94.5)	4"
JAD XK 12.114.08.60	6.46 (69.5)	4"
JAD XK 12.114.08.50	6.25 (67.3)	4"
JAD K 14.163.08.120	25.00 (269.1)	4"
JAD XK 17.340.08.120	60.80 (654.4)	6"

Model	Heat Transfer Area	Connections
	$m^2(ft^2)$	in
SMOOTH TUBES		
JAD X 2.11	1.20 (12.9)	1-1/2"
JAD X 3.18	2.00 (21.5)	2"
JAD X 5.38	4.00 (43.1)	2-1/2"
JAD X 6.50	5.70 (61.4)	3"
JAD X 9.88	10.70 (115.2)	4"
JAD X 12.114	18.40 (198.1)	4"

THREADED CONNECTIONS AVAILABLE UP TO 2-1/2 INCH

FLANGE CONNECTIONS AVAILABLE FROM 2 INCH AND LARGER - COMPATIBLE TO PN 10/ PN 16 OR ANSI 150LB / 300LB

Materials of Construction	*standard*	*optional*
SHELL	STAINLESS STEEL 316L	———
TUBES	STAINLESS STEEL 316L	———
NOZZLE	STAINLESS STEEL 316L	———
FLANGES	STAINLESS STEEL 316L LINED	SOLID STAINLESS STEEL

Standard Design Parameters	*TUBES*	*SHELL*
TEMPERATURE	217°C (422°F)	217°C (422°F)
PRESSURE	21 bar (300 PSI)	21 bar (300 PSI)

b6 | m | TW

Heat Exchanger Model	Nominal Capacity		Hot Water Side		Cold Water Side		Connections		Heat Transfer Area	
			flow		flow					
	kW	BTU/h	l/min	USGPM	l/min	USGPM	Shell	Tubes	m^2	sq ft
B6-280	82	280,000	125	33.0	250	66.1	1"	1"	0.47	5.10
B6-390	114	390,000	260	68.7	520	137.4	1½"	1½"	0.60	6.50
B6-700	205	700,000	215	56.8	430	113.6	1½"	1½"	1.15	12.40
B6-1200	352	1,200,000	238	62.9	476	125.8	1½"	1½"	2.14	23.00
M-180	53	180,000	100	26.4	150	39.6	1½"	1½"	0.44	4.70
M-300	88	300,000	105	27.7	157	41.6	1½"	1½"	0.84	9.00
M-500	146	500,000	120	31.7	180	47.6	1½"	1½"	1.56	16.80
TW-100	29	100,000	17	4.6	38	10.0	1½"	1½"	0.21	2.24
TW-200	57	200,000	28	7.5	61	16.0	1½"	1½"	0.38	4.15
TW-300	87	300,000	36	9.5	76	20.0	1½"	1½"	0.58	6.26
TW-400	113	400,000	35	9.1	265	70.0	1½"	1½"	0.72	7.71

Maximum allowable working pressure	
B6 LINE	10 bar / 150 PSIG
M LINE	10 bar / 150 PSIG
TW LINE	10 bar / 150 PSIG
Maximum allowable working temperature	
B6 LINE	208°C / 406°F
M LINE	208°C / 406°F
TW LINE	120°C / 248°F

Standard materials	
B6 LINE	Stainless Steel 316 L
M LINE	Nicrom-24
TW LINE	Titanium

Materials of Construction

	Standard	Optional
SHELL	STEEL	STAINLESS STEEL (304/316)
TUBES	STAINLESS STEEL 304	COPPER, SS316, 90/10 CuNi
TUBESHEET	STEEL	STAINLESS STEEL (304/316)
CONNECTIONS	STEEL	STAINLESS STEEL (304/316)
HEAD	CAST IRON / STEEL	STAINLESS STEEL (304/316)
GASKETS	NON-ABESTOS, COMPRESSED FIBER	

Standard Design Parameters

	Design Pressure	Design Temperature
SHELL	10 bar (150 PSI)	190°C (375°F)
TUBES	10 bar (150 PSI)	190°C (375°F)

Optional Design Parameters

	Design Pressure	Design Temperature
SHELL	21 bar (300 PSI)	217°C (422°F)
TUBES	21 bar (300 PSI)	217°C (422°F)

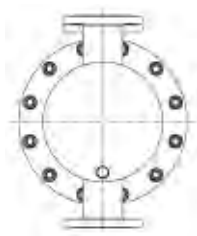
Model Number Key

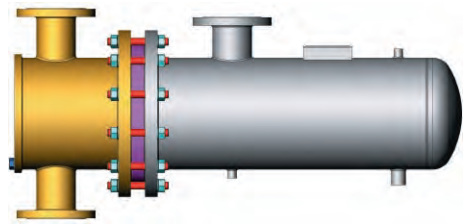
P S 2 04 1

- Length indicator
- Nominal shell diameter
- Number of tube passes
- Steam type
- U tube

4 pass

2 pass





Quality Management System

At AIC we are committed to providing exceptional service and value to our diverse clientele.

Our stringent quality processes and management systems fulfill and are certified to the requirements of **ISO9001.**

AIC heat exchangers are designed, tested, and manufactured according to ASME Code Section VIII, Div.1 and will bear the U or UM stamp accordingly. Our products are certified by many national and international technical inspection authorities: Canadian CRN, CSA, UL, HLW, H, PED(97/23/EC). We can also work closely with our clients to design products to meet their exact criteria.

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