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QUALIFICATION

**HONOR**

资质荣誉



DIGITIZATION, FINENESS

PROFESSIONAL MANUFACTURING

数字化、精细化—精益生产

+

SMART MANUFACTURING

| 智能智造



**“智”造时代，工艺决定品质**  
 Intelligent manufacturing, process determines quality

凝聚匠心 · 高效至美  
 Intelligent production, high efficiency and beauty

QUALITY

# SAFEGUARD

品质保证

WE MANUFACTURE IT BY PRECISION WORK

领先装备 · 精工智造

+

Since its establishment, AMETECH has continuously introduced industry-leading processing equipment such as welding robots, intelligent plate rolling machines, CNC shearing machines, high-precision waterjet cutting, and high-tonnage presses. Distinguished from the instability and high threshold of traditional manual welding, AMETECH utilizes welding robot technology, a professional technical team, and advanced equipment to achieve production automation, effectively ensuring product quality and stability. This ensures that products remain stable even in high-temperature and high-pressure environments after leaving the factory, realizing the transition from manufacturing to "smart" manufacturing.

	 <p>Raw material cutting workshop</p> 
	 <p>High-precision waterjet cutting workshop</p> 
	 <p>Drilling and bending workshop</p> 
	 <p>Automatic welding workshop</p> 

## CAPACITY TYPE HEAT EXCHANGER

### | 容积式换热器系列

HIGH EFFICIENCY AND HIGH ENERGY

安全稳定 · 高效高能

+

Technical Specifications and Quality Assurance System

American Society of Mechanical Engineers (ASME)

Chinese National Standards (GB/T150, GB50015, CJ/T163)

International Organization for Standardization (ISO9001/14001/18001)

Heat Exchanger Material

Storage Heat Section (Parts in Contact with Water, such as Shell and Head)

Carbon Steel Q235B, Q345R, etc.: Low cost, suitable for water with higher hardness and weaker corrosiveness, and occasions where the water quality requirements at the user end are not strict.

Carbon Steel with Copper Lining, Carbon Steel with Stainless Steel Composite Plate, etc.: Moderate cost, suitable for water with certain corrosiveness, and occasions where the water quality requirements at the user end are moderate.

Stainless Steel SUS304, SUS316L, SUS444, etc.: Relatively high cost, suitable for occasions where the water quality requirements at the user end are high.

Heat Exchange Section (Heat Exchange Tubes, Tube Sheets, etc.)

Heat Exchange Tubes: Purple Copper T2, Stainless Steel SUS304, SUS316L, etc.

Tube Sheets: 20#, 16Mn, stainless steel plates or forgings, composite materials, etc.

Other Components

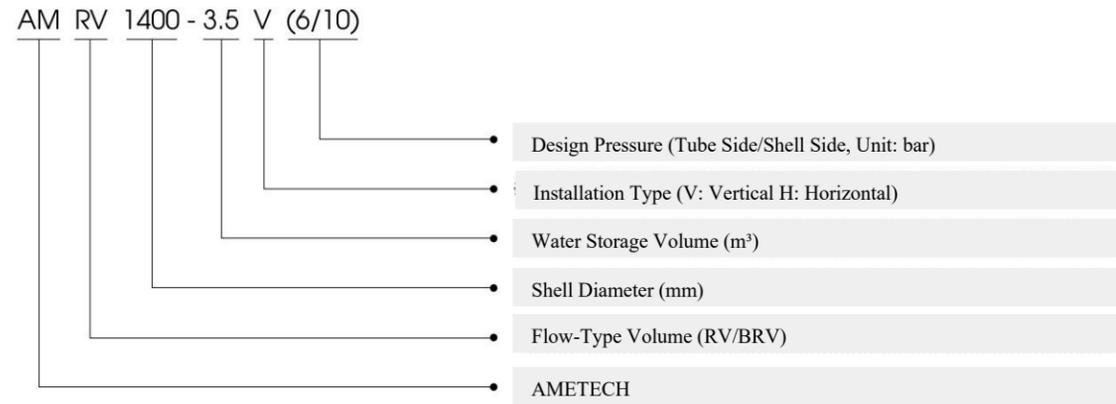
Supports: Carbon Steel Q235B, Stainless Steel SUS304, etc.  
Flanges: 20#, 16Mn, stainless steel plates or forgings, etc.



# HEAT EXCHANGER CAPACITY TYPE

导流容积式换热器

## √ Model Definition



■ In the flow-type volume heat exchanger series, RV stands for U-tube smooth pipe, and BRV stands for U-tube corrugated pipe.

## Performance Features

- The heat exchange part of the heat exchanger is a new type of rapid heat exchange structure, with a deflector device installed inside the tank. The heat transfer coefficient is high, significantly improving heat transfer efficiency. The heat exchange capacity of a single tank is 1.5 to 2.0 times that of other similar volumetric heat exchangers. The heat exchange is thorough, with the condensate temperature dropping to within 60°C, fully utilizing the heat of the steam and improving energy efficiency.
- A tube bundle fixing device is added to prevent deformation, displacement, and breakage of the tube bundle that may occur due to long-distance transportation jolts.
- Additional water distribution holes ensure even heating of the cold water, minimizing dead water zones and achieving a volume utilization rate of over 95%. The head loss on the heated water side is ≤0.5m, maintaining the advantages of low water pressure fluctuation and low head loss in volumetric heat exchangers, which is beneficial for maintaining the pressure balance of hot and cold water in the system.
- A push-pull sliding device for the tube bundle is added inside the tank, making it easy to assemble, disassemble, and maintain the heat exchange tube bundle, saving a significant amount of manpower and resources.

## Basic Design Parameters

No.	Item	Parametric
01	Heat medium	Widely used in saturated steam, superheated steam, high temperature water, heat transfer oil and other different medium
02	Pressure of heat medium	Suggested value is 0.2~1.6MPa.
03	Initial temperature of heated water	5°C、10°C、15°C
04	Final temperature of heated water	50°C、55°C、60°C

## √ Technical parameters

RV-V Vertical Volume Type				Note: Each model can correspond to the back A, B, C, D four kinds of area			
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water production/m/h	
V-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam	The heat medium is high-temperature water
RV1000-1.5	1.5	1000	2520	1560	A 5.9	5.6~6.3	2.7~3.5
					B 7.2	6.3~7.7	3.3~4.2
					C 8.9	7.8~9.5	4.1~5.2
RV1200-2.0 RV1200-2.5	2.0	1200	2460	1760	A 5.9	5.6~6.3	2.7~3.5
					B 7.2	6.3~7.7	3.3~4.2
	2.5		C 8.9		7.8~9.5	4.1~5.2	
			D 10.7		9.3~11.4	4.9~6.2	
RV1400-3.0 RV1400-3.5	3.0	1400	2670	1960	A 5.9	5.6~6.3	2.7~3.5
					B 7.2	6.3~7.7	3.3~4.2
	3.5		C 8.9		7.8~9.5	4.1~5.2	
			D 10.9		9.5~11.6	5.0~6.4	
RV1500-4.0	4.0	1500	2980	2060	A 7.3	6.4~7.8	3.3~4.3
					B 8.8	7.7~9.4	4.0~5.2
					C 10.9	9.5~11.6	5.0~6.4
					D 13.1	11.4~14.0	6.0~7.6
RV1600-4.0 RV1600-4.5 RV1600-5.0	4.0	1600	2760	2180	A 7.3	6.4~7.8	3.3~4.3
					B 8.8	7.7~9.4	4.0~5.2
	4.5		C 10.9		9.5~11.6	5.0~6.4	
			5.0		D 13.1	11.4~14.0	6.0~7.6
RV1800-5.5 RV1800-6.0 RV1800-7.0 RV1800-8.0	5.5	1800		2940	2450	A 9.2	8.0~9.8
			B 11.8			10.2~12.6	5.4~6.9
	6.0		C 16.0	13.9~17.1		7.3~9.4	
			7.0	D 19.7		17.2~21.0	9.0~11.5
RV2000-8.0 RV2000-9.0 RV2000-10.0	8.0	2000		3370	2640	A 10.0	8.5~10.5
			B 13.5			11.5~13.5	5.8~8.0
	9.0		C 17.4	15.1~18.5		7.9~10.4	
			10.0	D 21.4		18.5~22.8	9.7~12.7
RV2400-12.0 RV2400-15.0	12.0	2400		3550	2520	A 15.5	12.5~15.5
			B 22.0			16.0~23.0	8.5~12.5
	15.0		C 26.0	19.5~27.5		10.5~15.5	
			D 30.0	22.5~30.0		12.5~17.0	

Note: The steam in the table is designed based on 0.20.4 MPa saturated steam. The high-temperature water is designed based on a supply temperature of 8595°C / 60~70°C. The inlet water temperature on the cold side is 5°C / 10°C / 15°C, corresponding to outlet water temperatures of 50°C / 55°C / 60°C. The above are standard models and corresponding parameters from our company. Custom designs can be provided based on customer requirements to meet their needs.

# HEAT EXCHANGER CAPACITY TYPE

## 导流容积式换热器

### √ Technical parameters

BRVV Vertical Corrugated Tube Volume (Type) Note: Each model can correspond to the back A, B, C, D four kinds of area							
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water productionm/h	
V-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam	The heat medium is high-temperature water
BRV1000-1.5	1.5	1000	2520	1560	A 5.9	13.5~16.0	7.0~8.0
					B 7.2	15.0~20.0	8.0~10.0
					C 8.9	20.0~25.0	10.0~12.0
BRV1200-2.0 BRV1200-2.5	2.0	1200	2460	1760	A 5.9	13.5~16.0	7.0~8.0
					B 7.2	15.0~20.0	8.0~10.0
	2.5		C 8.9		20.0~25.0	10.0~12.0	
			D 10.7		25.0~30.0	12.0~15.0	
BRV1400-3.0 BRV1400-3.5	3.0	1400	2670	1960	A 5.9	13.5~16.0	7.0~8.0
					B 7.2	15.0~20.0	8.0~10.0
	3.5		C 8.9		20.0~25.0	10.0~12.0	
			D 10.9		25.0~30.5	12.5~15.5	
BRV1500-4.0	4.0	1500	2980	2060	A 7.3	15.0~20.0	8.0~10.0
					B 8.8	20.0~25.0	10.0~12.0
					C 10.9	25.0~30.5	12.5~15.5
					D 13.1	28.0~36.0	15.0~18.0
BRV1600-4.0 BRV1600-4.5 BRV1600-5.0	4.0	1600	2760	2180	A 7.3	15.0~20.0	8.0~10.0
					B 8.8	20.0~25.0	10.0~12.0
	4.5		C 10.9		25.0~30.5	12.5~15.5	
			5.0		D 13.1	28.0~36.0	15.0~18.0
BRV1800-5.5 BRV1800-6.0 BRV1800-7.0 BRV1800-8.0	5.5	1800		2940	2450	A 9.2	20.5~26.0
			B 11.8			26.0~31.5	13.0~16.0
	6.0		C 16.0	33.0~40.0		18.0~21.0	
			7.0	D 19.7		42.0~50.0	23.0~27.0
BRV2000-8.0 BRV2000-9.0 BRV2000-10.0	8.0	2000		3370	2640	A 10.0	25.0~30.5
			B 13.5			28.0~36.0	15.0~18.0
	9.0		C 17.4	35.0~42.0		19.0~22.0	
			10.0	D 21.4		44.0~52.0	24.5~28.5
BRV2400-12.0 BRV2400-15.0	12.0	2400		3550	2520	A 15.5	32.0~39.0
			B 22.0			44.5~52.5	24.8~28.9
	15.0		C 26.0	55.0~65.0		30.0~35.0	
			D 30.0	68.0~78.0		38.0~45.0	

Note: The steam in the table is designed based on 0.20.4 MPa saturated steam. The high-temperature water is designed based on a supply temperature of 85/95°C / 60~70°C. The inlet water temperature on the cold side is 5°C / 10°C / 15°C, corresponding to outlet water temperatures of 50°C / 55°C / 60°C. The above are standard models and corresponding parameters from our company. Custom designs can be provided based on customer requirements to meet their needs.

### √ Technical parameters

RV-H Horizontal Volume (Type) Note: Each model can correspond to the back A, B, C, D four kinds of area						
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water productionm/h
V-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam The heat medium is high-temperature
RV900-1.5	1.5	900	1240	2960	A 3.8	3.0~3.7 /
					B 5.2	4.1~5.1 /
					C 4.0	/ 1.4~1.8
					D 6.2	/ 2.2~2.8
RV1200-3.0	3.0	1200	1550	3270	A 4.5	3.6~4.4 /
					B 7.5	6.0~7.3 /
					C 12.4	/ 4.4~5.6
					D 15.2	/ 5.4~6.8
RV1400-5.0	5.0	1400	1750	4100	A 5.9	4.7~5.7 /
					B 9.8	7.9~9.5 /
					C 13.2	10.6~12.8 /
					D 16.4	/ 5.9~7.4
					E 20.1	/ 7.2~9.0
RV1800-8.0	8.0	1800	2160	4200	A 10.8	8.7~10.5 /
					B 14.3	11.5~13.9 /
					C 19.2	15.4~18.6 /
					D 22.3	/ 8.0~10.0
					E 27.7	/ 9.9~12.5

Note: The steam in the table is designed based on 0.20.4 MPa saturated steam. The high-temperature water is designed based on a supply temperature of 85/95°C / 60~70°C. The inlet water temperature on the cold side is 5°C / 10°C / 15°C, corresponding to outlet water temperatures of 50°C / 55°C / 60°C. The above are standard models and corresponding parameters from our company. Custom designs can be provided based on customer requirements to meet their needs.

# HEAT EXCHANGER CAPACITY TYPE

导流容积式换热器

## √ Technical parameters

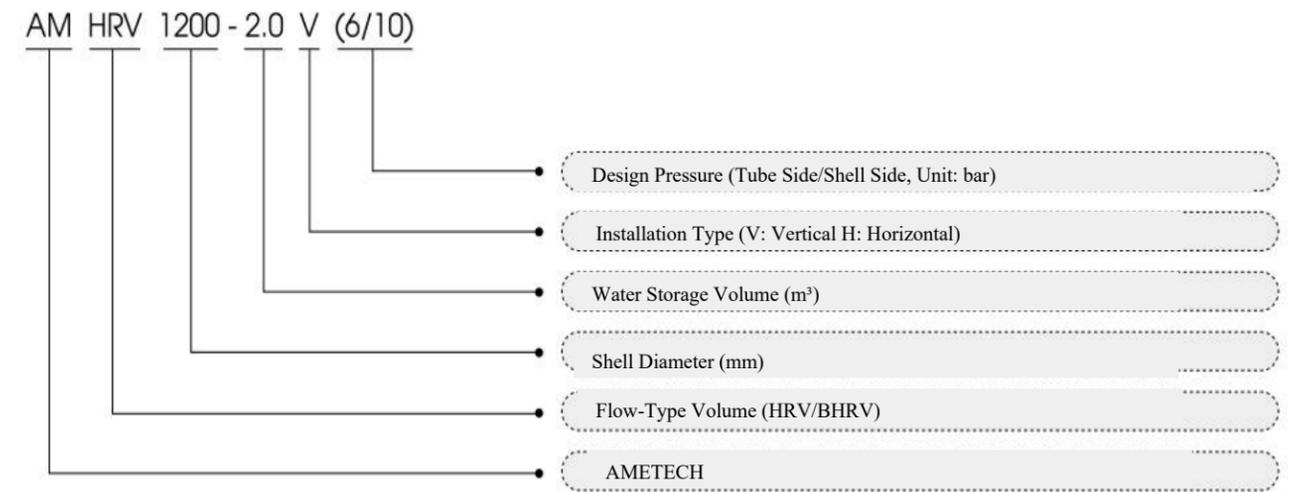
RV-H Horizontal Volume (Type)		Note: Each model can correspond to the back A, B, C, D four kinds of area					
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water productionm/h	
V-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam	The heat medium is high-temperature water
BRV900-1.5	1.5	900	1240	2960	A 3.8	7.0~9.0	/
					B 5.2	9.0~12.0	/
					C 4.0		3.5~4.0
					D 6.2	/	5.5~7.0
BRV1200-3.0	3.0	1200	1550	3270	A 4.5	8.0~10.5	/
					B 7.5	13.0~16.0	
					C 12.4	/	12.0~14.5
					D 15.2		15.0~18.0
BRV1400-5.0	5.0	1400	1750	4100	A 5.9	11.0~14.0	/
					B 9.8	18.0~24.0	/
					C 13.2	24.0~30.0	/
					D 16.4	/	16.0~20.0
					E 20.1	/	20.0~24.0
BRV1800-8.0	8.0	1800	2160	4200	A 10.8	18.5~24.5	/
					B 14.3	25.0~31.0	/
					C 19.2	35.0~45.0	/
					D 22.3		22.0~26.0
					E 27.7	/	28.0~34.0

Note: The steam in the table is designed based on 0.20.4 MPa saturated steam. The high-temperature water is designed based on a supply temperature of 8595°C / 60~70°C. The inlet water temperature on the cold side is 5°C / 10°C / 15°C, corresponding to outlet water temperatures of 50°C / 55°C / 60°C. The above are standard models and corresponding parameters from our company. Custom designs can be provided based on customer requirements to meet their needs.

# HEAT EXCHANGER CAPACITY TYPE

导流半容积式换热器

## √ Model Definition



## Performance Characteristics

- The heat exchange section is an improved model that allows for rapid heat transfer, with a high heat transfer coefficient and large heat exchange capacity. Compared to ordinary semi-volume heat exchangers of the same type, its water production capacity is 2 to 3 times higher.
- High water production efficiency allows for continuous hot water output, making it suitable for scenarios with continuous water usage.
- The storage section is typically designed for 15-20 minutes of heat storage. The tank is small, lightweight, and easy to install and maintain.
- A tube bundle fixing device is added to prevent deformation, displacement, and breakage of the tube bundle due to long-distance transportation jolts.
- The structure is reasonably designed, with no dead water zones in the entire water storage section, achieving a volume utilization rate of 100%.
- The heat exchange is more thorough, with the condensate outlet temperature dropping to within 60°C, making it more energy-efficient.

## Basic Design Parameters

No.	Item	Parametric
01	Heat medium	Widely used in saturated steam, superheated steam, high temperature water, heat transfer oil and other different medium
02	Pressure of heat medium	Suggested value is 0.2~1.6MPa.
03	Initial temperature of heated water	5°C、10°C、15°C
04	Final temperature of heated water	50°C、55°C、60°C

# HEAT EXCHANGER CAPACITY TYPE

## 导流半容积式换热器

### √ Technical parameters

HRV-V Vertical Semi-Volume (Type) Note: Each model can correspond to two different areas, labeled as A and B.							
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water productionm/h	
V-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam	The heat medium is high-temperature water
HRV900-0.8	0.8	900	1840	1675	A 3.6 B 51	4.0~5.2 5.7~74	1.9~2.2 2.7~31
HRV900-1.0	1.0		2140				
HRV900-1.2	1.2		2440				
HRV1200-1.5	1.5	1200	2040	2050	A 8.0 B 12.2	8.9~11.6 13.6~17.8	4.2~4.9 6.4~7.5
HRV1200-2.0	2.0		2440				
HRV1200-2.5	2.5		2840				
HRV1400-3.0	3.0	1600	2670	2280	A 10.0 B 15.5	11.1~14.6 17.2~22.6	5.1~6.1 8.1~9.5
HRV1400-3.5	3.5		2970				
HRV1600-4.0	4.0	1600	2720	2560	A 149 B 23.0	16.6~21.7 25.6~33.4	7.7~9.2 12.0~14.2
HRV1600-4.5	4.5		2970				
HRV1600-5.0	5.0		3220				

Note: The steam in the table is designed based on 0.20.4 MPa saturated steam. The high-temperature water is designed based on a supply temperature of 8595°C / 60~70°C. The inlet water temperature on the cold side is 5°C / 10°C / 15°C, corresponding to outlet water temperatures of 50°C / 55°C / 60°C. The above are standard models and corresponding parameters from our company. Custom designs can be provided based on customer requirements to meet their needs.



### √ Technical parameters

HRV-H Horizontal Semi-Volume (Type) Note: Each model can correspond to two different areas, labeled as A and B.							
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water productionm/h	
V-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam	The heat medium is high-temperature water
HRV700-0.5	0.5	700	1020	1930	A 3.0 B 4.2	3.4~4.4 4.7~6.1	1.6~1.9 2.2~2.6
HRV700-0.8	0.8	700	1020	2710	A 4.8 B 6.8	5.4~7.0 7.6~9.9	2.5~3.0 3.6~4.2
HRV900-1.0	1.0	900	1220	2300	A 6.2 B 8.0	6.9~9.0 9.0~11.6	3.2~3.8 4.1~4.9
HRV900-1.2	1.2	900	1220	2610	A 7.3 B 9.5	8.1~10.7 10.5~13.8	3.8~4.5 4.8~5.9
HRV1200-1.5	1.5	1200	1530	2170	A 8.4 B 13.0	9.4~12.2 14.5~18.9	4.3~5.1 6.7~8.0
HRV1200-2.0	2.0	1200	1530	2600	A 10.8 B 16.7	12.0~15.8 8.6~24.3	5.6~6.7 8.6~10.3
HRV1200-2.5	2.5	1200	1530	3020	A 13.0 B 20.4	14.5~18.9 22.5~29.6	6.7~8.0 10.6~12.6
HRV1400-3.0	3.0	1400	1750	2820	A 11.4 B 17.7	2.6~16.6 9.6~25.8	5.9~7.0 9.2~10.9
HRV1400-3.5	3.5	1400	1750	3100	A 13.0 B 20.4	14.5~18.9 22.5~29.6	6.7~8.0 10.6~12.6
HRV1400-4.0	4.0	1400	1750	3400	A 14.7 B 23.7	6.3~21.3 25.8~33.4	7.7~9.1 12.0~14.2
HRV1600-4.5	4.5	1600	2000	3200	A 18.8 B 28.2	20.8~27.1 31.3~41.0	9.8~11.6 14.6~17.9
HRV1600-5.0	5.0	1600	2000	3460	A 20.7 B 31.0	23.1~30.1 34.6~45.1	10.8~12.8 16.0~19.1

Note: The steam in the table is designed based on 0.20.4 MPa saturated steam. The high-temperature water is designed based on a supply temperature of 8595°C / 60~70°C. The inlet water temperature on the cold side is 5°C / 10°C / 15°C, corresponding to outlet water temperatures of 50°C / 55°C / 60°C. The above are standard models and corresponding parameters from our company. Custom designs can be provided based on customer requirements to meet their needs.

# HEAT EXCHANGER CAPACITY TYPE

## 导流半容积式换热器

### √ Technical parameters

BHRV-V Vertical Corrugated Tube Semi-Volume (Type)Note: Each model can correspond to two different areas, labeled as A and B.							
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water productionm/h	
H-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam	The heat medium is high-temperature water
BHRV900-0.8	0.8	900	1840	1675	A 3.3	8.0~10.4	3.6~4.2
BHRV900-1.0	1.0		<b>2140</b>		B 4.7	11.4~15.0	5.4~6.5
BHRV900-1.2	1.2		<b>2440</b>				
BHRV1200-1.5	1.5	1200	2040	2050	A 7.7	18.8~20.9	8.4~10.2
BHRV1200-2.0	2.0		<b>2440</b>		B 11.8	27.2~35.0	12.8~15.0
BHRV1200-2.5	2.5		<b>2840</b>				
BHRV1400-3.0	3.0	1600	2670	2280	A 9.8	22.2~29.8	10.5~12.5
BHRV1400-3.5	3.5		<b>2970</b>		B 15.2	34.5~44.5	16.5~18.8
BHRV1600-4.0	4.0	1600	2720	2560	A 14.8	33.5~40.8	15.5~18.9
BHRV1600-4.5	4.5		<b>2970</b>		B 22.8	52.2~66.8	24.0~28.2
BHRV1600-5.0	5.0		<b>3220</b>				

Note: The steam in the table is designed based on 0.20.4 MPa saturated steam. The high-temperature water is designed based on a supply temperature of 8595°C / 60~70°C. The inlet water temperature on the cold side is 5°C / 10°C / 15°C, corresponding to outlet water temperatures of 50°C / 55°C / 60°C. The above are standard models and corresponding parameters from our company. Custom designs can be provided based on customer requirements to meet their needs.



### √ Technical parameters

BHRV-H Horizontal Corrugated Tube Semi-Volume (Type)Note: Each model can correspond to two different areas, labeled as A and B.							
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water productionm/h	
H-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam	The heat medium is high-temperature water
BHRV700-0.5	0.5	700	1020	1930	A 2.8	6.9~8.8	3.0~3.7
					B 4.0	9.2~12.0	4.2~5.0
BHRV700-0.8	0.8	700	1020	2710	A 4.5	0.8~14.0	4.2~5.5
					B 6.6	15.2~20	6.0~8.2
BHRV900-1.0	1.0	900	1220	2300	A 5.8	13.8~17.0	5.2~6.8
					B 7.8	18.0~22.6	8.1~9.8
BHRV900-1.2	1.2	900	1220	2610	A 6.8	16.1~20.7	6.8~8.5
					B 9.2	20.5~26.8	8.8~10.9
BHRV1200-1.5	1.5	1200	1530	2170	A 8.2	18.4~24.2	8.3~10.1
					B 12.6	28.5~36.9	12.7~16.0
BHRV1200-2.0	2.0	1200	1530	2600	A 10.5	24.0~30.8	10.6~12.7
					B 16.2	36.6~48.3	6.6~20.3
BHRV1200-2.5	2.5	1200	1530	3020	A 12.8	29.5~37.9	12.7~16.0
					B 20.0	45.5~68.6	20.6~24.6
BHRV1400-3.0	3.0	1400	1750	2820	A 11.0	25.6~33.6	10.9~14.0
					B 17.4	39.6~50.8	18.2~20.9
BHRV1400-3.5	3.5	1400	1750	3100	A 14.4	29.5~37.9	12.7~16.0
					B 20.0	45.5~60.6	20.6~24.6
BHRV1400-4.0	4.0	1400	1750	3400	A 14.4	33.3~42.3	14.7~18.1
					B 22.6	51.8~67.4	24.0~28.2
BHRV1600-4.5	4.5	1600	2000	3200	A 18.5	41.8~54.1	18.8~23.6
					B 28.0	62.3~83.0	28.6~35.9
BHRV1600-5.0	5.0	1600	2000	3460	A 20.0	46.1~60.1	20.8~25.8
					B 31.0	69.6~90.1	32.0~38.1

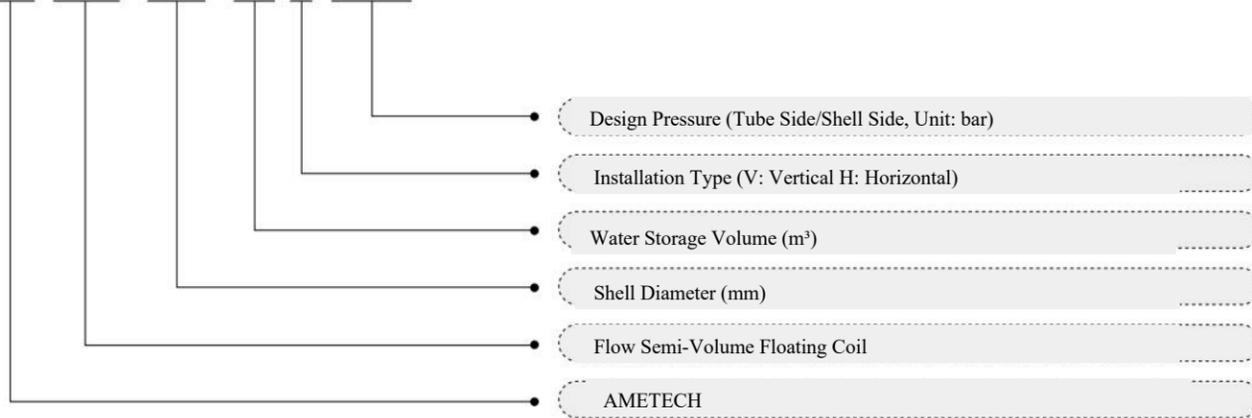
Note: The steam in the table is designed based on 0.20.4 MPa saturated steam. The high-temperature water is designed based on a supply temperature of 8595°C / 60~70°C. The inlet water temperature on the cold side is 5°C / 10°C / 15°C, corresponding to outlet water temperatures of 50°C / 55°C / 60°C. The above are standard models and corresponding parameters from our company. Custom designs can be provided based on customer requirements to meet their needs.

# HEAT EXCHANGER FLOAT COIL

## 导流半容积式浮动盘管换热器

### √ Model Definition

AM FHRV 1200 - 2.0 V (6/10)



### √ Performance Characteristics

- The heat exchange section is in the form of coils, utilizing water flow to generate high-frequency floating and turbulence heat transfer.
- The heat exchanger is of a core-pullable design, allowing the entire heat exchange tube bundle to be pulled out from the shell body for easy replacement and maintenance.
- The storage section is typically designed for 20-30 minutes of heat storage, with a small tank size, lightweight, and easy installation and maintenance.
- A tube bundle fixing device is added to prevent deformation, displacement, and breakage of the tube bundle due to jolts during long-distance transportation.
- The structure is designed reasonably, with no dead water zones in the entire storage section, achieving a volume utilization rate of up to 100%.
- Utilizing the difference in expansion between the thin-walled copper tube and the outer wall structural layer caused by the high-temperature heat medium to automatically remove scale, extending the service life and reducing maintenance costs.



### √ Technical parameters

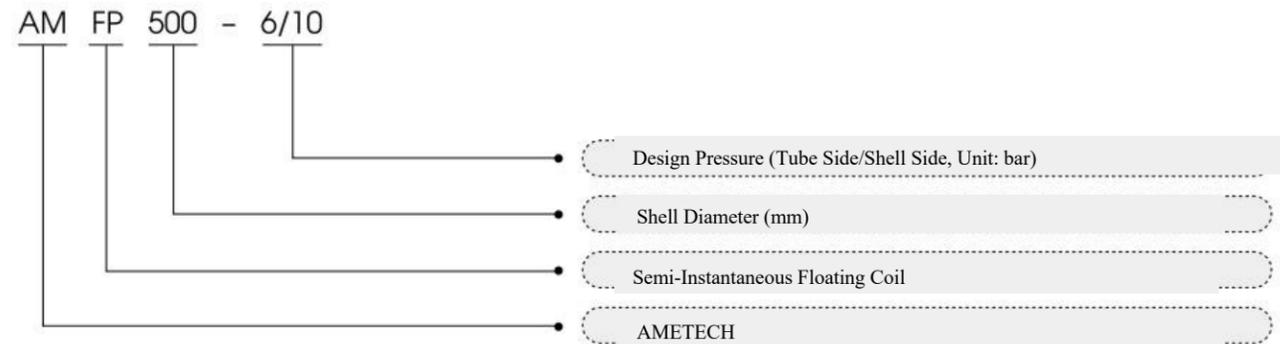
BHRV-H Horizontal Corrugated Tube Semi-Volume (Type)Note: Each model can correspond to two different areas, labeled as A and B.						
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water production m/h
V-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam
FHRV1000-1.0	1.0	1000	1940	A 2.6	5.8~6.3	2.2~2.9
				B 3.5	7.4~8.3	3.0~3.9
FHRV1000-1.2	1.2		2170	C 4.3	9.4~10.3	3.8~4.8
				D 5.2	11.0~12.0	5.0~6.0
FHRV1200-1.5	1.5	1200	2040	A 3.5	7.2~8.4	2.8~3.8
FHRV1200-2.0	2.0		2440	B 5.2	10.9~12.1	5.0~5.7
FHRV1200-2.5	2.5		2840	C 6.9	15.2~16.5	6.8~7.5
FH	3.0	1400	2670	A 5.2	10.9~12.1	5.0~5.7
FHRV1400-3.5	3.5		2970	B 6.9	15.2~16.5	6.8~7.5
		C 7.8		17.1~18.5	6.9~7.2	
FHRV1600-4.0	4.0	1600	2720	A 6.9	15.2~16.5	6.8~7.5
FHRV1600-4.5	4.5		2970	B 8.2	18.2~19.4	8.2~9.1
FHRV1600-5.0	5.0		3220	C 10.4	22.5~23.9	10.5~11.7
FHRV1800-6.0	6.0	1800	3140	A 10.6	23.2~25.6	9.9~11.8
FHRV1800-7.0	7.0		3540	B 12.2	27.5~29.1	12.7~13.8
FHRV2000-8.0	8.0	2000	3350	A 15.0	32.5~35.4	14.8~16.4
FHRV2000-9.0	9.0		3700	B 18.3	39.4~42.4	18.5~20.6
				C 21.6	47.4~50.6	22.8~24.5
FHRV2000-10.0	10.0		4000	D 25.6	58.7~60.2	27.9~30.0

Note: The steam in the table is designed based on 0.20.4 MPa saturated steam. The high-temperature water is designed based on a supply temperature of 85/95°C / 60~70°C. The inlet water temperature on the cold side is 5°C / 10°C / 15°C, corresponding to outlet water temperatures of 50°C / 55°C / 60°C. The above are standard models and corresponding parameters from our company. Custom designs can be provided based on customer requirements to meet their needs.

# HEAT EXCHANGER FLOAT COIL

## 半即热式浮动盘管换热器

### √ Model Definition



### Equipment Overview

- This type of heat exchanger belongs to a type with limited water storage capacity, capable of storing 1~3 minutes of water usage. It can rapidly replenish heat and, under stable flow conditions of hot and cold media, maintains a good balance between heat supply and demand, achieving constant temperature variable water supply.
- Suitable for general industrial and civil buildings for domestic water, heating water, and air conditioning water supply systems. The heat exchange tube bundle is made of thin-wall copper or stainless steel tubes, exhibiting excellent thermal conductivity.
- The heat medium can be steam or high/low-temperature hot water, with the tube side serving as the heat medium channel and the shell side as the cold medium channel.

### Performance Characteristics

- Automatic descaling: The heat exchange spiral coil inside the tank, driven by changes in temperature, pressure, centrifugal force, and the flushing action of heated water flow, can freely move up and down, left and right, and vibrate at high frequencies. This prevents scale from adhering to the outer wall of the tube and enables its automatic removal, providing automatic descaling function.
- Excellent performance: The floating and stretching of the heat exchange coil inside the shell increases the disturbance of heated water and heat medium, enhancing heat transfer, ensuring thorough heat exchange, and improving heat transfer efficiency.
- Energy-saving and efficient: The heat exchange coil is made of copper or stainless steel, with self-cleaning and automatic descaling capabilities. The smooth tube wall ensures high and efficient heat transfer efficiency.
- Easy maintenance: The design of the lower head flange connection facilitates the disassembly of the tube bundle, making it convenient for maintenance of the heat exchange coil.



### √ Technical parameters

FP Series Semi-Instantaneous Floating Coil-Type						
Model number	Capacity	Cylinder diameter	Total height	Total length	Heat exchange area	Hot water production/h
EP-Series	m <sup>3</sup>	mm	mm	mm	m <sup>2</sup>	The heat medium is steam
AMFP400-3.9	0.160	400	3.9	272	306	355
AMFP400-5.1	0.160		5.1	294	328	377
AMFP400-5.8	0.185		5.8	322	356	404
AMFP500-6.4	0.240	500	6.4	361	403	544
AMFP500-7.4	0.279		7.4	394	436	576
AMFP500-8.6	0.318		8.6	434	476	618
AMFP500-9.9	0.357	600	9.9	418	521	663
AMFP600-8.2	0.351		8.2	458	524	790
AMFP600-9.4	0.409		9.4	495	561	834
AMFP600-11.1	0.466		11.1	549	615	895
AMFP600-12.7	0.522		12.7	594	660	946
AMFP600-14.2	0.579		14.2	659	726	1010
AMFP700-9.8	0.494	700	9.8	554	719	947
AMFP700-11.2	0.571		11.2	603	768	1003
AMFP700-13.2	0.648		13.2	675	839	1082
AMFP700-15.0	0.725		15.0	732	897	1146
AMEP700-17.1	0.802		17.1	789	952	1210

The above are our company's standard models and corresponding parameters. Customized designs can be provided based on customer requirements to meet their needs.

HEAT EXCHANGER

# INTERFACE SIZE

换热器接口尺寸一览表

RV-V Vertical Volume Heat Exchanger Interface Size Table						
Model number	Safety valve port	Hot water outlets	Cold water import	Thermal Fluid Import	Thermal fluid outlet	Sewer outfall
RV1000-1.5	DN40	DN50	DN50	DN65	DN65	DN32
RV1200-2.0	DN40	DN50	DN50	DN65	DN65	DN32
RV1200-2.5	DN40	DN50	DN50	DN65	DN65	DN32
RV1400-3.0	DN40	DN50	DN50	DN65	DN65	DN32
DN1A00-3.5	DN50	DN65	DN65	DN80	DN80	DN32
RV1500-4.0	DN50	DN65	DN65	DN80	DN80	DN32
RV1600-4.0	DN50	DN65	DN65	DN80	DN80	DN32
RV1600-4.5	DN50	DN65	DN65	DN80	DN80	DN32
RV1600-5.0	DN50	DN65	DN65	DN80	DN80	DN32
RV1800-5.5	DN65	DN80	DN80	DN80	DN80	DN32
RV1800-6.0	DN65	DN80	DN80	DN80	DN80	DN32
RV1800-7.0	DN65	DN80	DN80	DN80	DN80	DN32
RV1800-8.0	DN65	DN80	DN80	DN80	DN80	DN32
RV2000-8.0	DN65	DN80	DN80	DN80	DN80	DN32
RV2000-9.0	DN80	DN100	DN100	DN100	DN100	DN40
RV2000-10.0	DN80	DN100	DN100	DN100	DN100	DN40
RV2400-12.0	DN80	DN100	DN100	DN100	DN100	DN40
RV2400-15.0	DN80	DN100	DN100	DN100	DN100	DN40

RV-H Horizontal Volume Heat Exchanger Interface Size Table						
Model number	Safety valve port	Hot water outlets	Cold water import	Thermal Fluid Import	Thermal fluid outlet	Sewer outfall
RV900-1.5	DN32	DN50	DN50	DN50	DN50	DN25
RV1200-3.0	DN40	DN65	DN65	DN65	DN65	DN32
RV1400-5.0	DN50	DN65	DN65	DN65	DN65	DN32
RV1800-8.0	DN65	DN80	DN80	DN80	DN80	DN40

HRV-V Vertical Semi-Volume Heat Exchanger Interface Size Table						
Model number	Safety valve port	Hot water outlets	Cold water import	Thermal Fluid Import	Thermal fluid outlet	Sewer outfall
HRV900-0.8	DN40	DN50	DN50	DN50	DN50	DN32
HRV900-1.0	DN40	DN50	DN50	DN50	DN50	DN32
HRV900-1.2	DN40	DN50	DN50	DN50	DN50	DN32
HRV1200-1.5	DN50	DN65	DN65	DN65	DN65	DN32
HRV1200-2.0	DN50	DN65	DN65	DN65	DN65	DN32
HRV1200-2.5	DN50	DN65	DN65	DN65	DN65	DN32
HRV1400-3.0	DN65	DN80	DN80	DN80	DN80	DN32
HRV1400-3.5	DN65	DN80	DN80	DN80	DN80	DN32
HRV1600-4.0	DN65	DN80	DN80	DN80	DN80	DN32
HRV1600-4.5	DN65	DN100	DN100	DN100	DN100	DN32
HRV1600-5.0	DN65	DN100	DN100	DN100	DN100	DN32

HRV-H Horizontal Semi-Volume Heat Exchanger Interface Size Table						
Model number	Safety valve port	Hot water outlets	Cold water import	Thermal Fluid Import	Thermal fluid outlet	Sewer outfall
HRV700-0.5	DN32	DN40	DN40	DN50	DN50	DN25
HRV700-0.8	DN32	DN50	DN50	DN50	DN50	DN32
HRV900-1.0	DN40	DN50	DN50	DN50	DN50	DN32
HPV900.1	DN40	DN50	DN50	DN50	DN50	DN32
HRV1200-1.5	DN50	DN65	DN65	DN65	DN65	DN32
HRV1200-2.0	DN50	DN65	DN65	DN65	DN65	DN32
HRV1200-2.5	DN50	DN65	DN65	DN65	DN65	DN32
HRV1400-3.0	DN65	DN80	DN80	DN80	DN80	DN32
HRV1400-3.5	DN65	DN80	DN80	DN80	DN80	DN32
HRV1400-4.0	DN65	DN80	DN80	DN80	DN80	DN32
HRV1600-4.5	DN65	DN100	DN100	DN100	DN100	DN32
HRV1600-5.0	DN65	DN100	DN100	DN100	DN100	DN32

# HEAT EXCHANGER INTERFACE SIZE

## 换热器接口尺寸一览表

FHRVV Vertical Floating Coil Volume Heat Exchanger Interface Size Table						
Model number	Safety valve port	Hot water outlets	Cold water import	Thermal Fluid Import	Thermal fluid outlet	Sewer outfall
FHRV1000-1.0	DN40	DN50	DN50	DN50	DN50	DN32
FHRV1000-1.2	DN40	DN50	DN50	DN50	DN50	DN32
FHRV1200-1.5	DN40	DN50	DN50	DN65	DN65	DN32
FHRV1200-2.0	DN40	DN50	DN50	DN65	DN65	DN32
FHRV1200-2.5	DN40	DN50	DN50	DN65	DN65	DN32
FHRV1400-3.0	DN40	DN50	DN50	DN65	DN65	DN32
FHRV1400-3.5	DN50	DN65	DN65	DN80	DN80	DN32
FHRV1600-4.0	DN50	DN65	DN65	DN80	DN80	DN32
FHRV1600-4.5	DN50	DN65	DN65	DN80	DN80	DN32
FHRV1600-5.0	DN50	DN65	DN65	DN80	DN80	DN32
FHRV1800-5.5	DN65	DN80	DN80	DN80	DN80	DN32
FHRV1800-6.0	DN65	DN80	DN80	DN80	DN80	DN32
FHRV1800-7.0	DN65	DN80	DN80	DN80	DN80	DN32
FHRV2000-8.0	DN65	DN80	DN80	DN80	DN80	DN32
FHRV2000-9.0	DN80	DN100	DN100	DN100	DN100	DN40
FHRV2000-10.0	DN80	DN100	DN100	DN100	0	DN40

The above are our company's standard models and corresponding parameters. Customized designs can be provided based on customer requirements to meet their needs.



### ▼ Customized Design

With AMETECH's professional technical and process team, along with years of experience in the development and production of heat exchangers and pressure vessels, we can provide customized designs according to customer needs.

### Six Advantages of Customized Design

01

Design supervision



We can design and manufacture according to pressure vessel standards and provide supervision and inspection documentation.

02

Calculate the selection



We can calculate the selection based on customer's medium conditions and process parameters.

03

Design on demand



We can design the structural form according to the customer's size requirements and installation orientation requirements.

04

Customised Craftmanship



We can customize production according to customer requirements, including cleanliness and other process requirements.

05

Material available



Material options can include 304/316L stainless steel, titanium, copper T2, etc., based on customer's medium requirements and conditions.

06

Fulfilment of needs



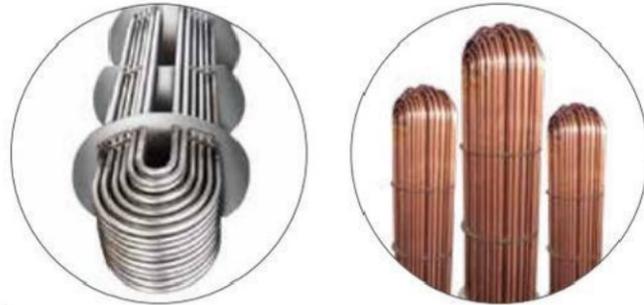
For any other requirements, please contact our sales or technical department.

## HEAT EXCHANGER

# USE AND MAINTENANCE

### 换热器安装使用维修

- Before operation, fill the volume heat exchanger and the entire hot water piping network with cold water.
- Start the circulation pump of the hot water piping network, then open the valves on the hot medium inlet and outlet piping network to uniformly heat the cold water inside the heat exchanger and the piping network to the set temperature. Then, open the automatic temperature control valve to put it into operation, and the system enters normal operation.
- To prolong the service life of the heat exchanger, reduce maintenance workload, save energy, and maintain efficient heat exchange, appropriate water quality softening or water quality stabilizing anti-scaling measures should be taken when the total hardness of the heated water is  $\geq 300\text{mg/L}$ . It is also necessary to regularly clean the scale on the outer wall of the heat exchange tubes.
- Install a safety valve at the top of the heat exchanger. The opening pressure of the safety valve should be 1.05 times the working pressure of the hot water system, and should not exceed the design pressure of the heat exchanger body (this should be stated when ordering the safety valve). The installation and use of the safety valve should comply with the regulations of the State Administration of Quality Supervision, Inspection, and Quarantine's "Regulations on the Safety Supervision of Fixed Pressure Vessels."
- The heat exchanger should be inspected regularly during use. At least one visual inspection should be conducted annually, at least one internal and external inspection should be conducted every three years, and a comprehensive inspection should be conducted at least every six years.
- After the installation and commissioning of the heat exchanger in the hot water supply system, insulation should be applied to its outer surface.



### √ Our Equipment at Customer Sites

AMETECH has always been committed to efficient energy utilization and solutions. Our products are widely used across the country and have been favored by users.

According to the actual needs of customers, AMETECH can provide users with turnkey project services, including engineering consultation and design, project installation, and operation in the later stages of the project.



**Scientific and  
Technological  
Innovation  
Energy Saving  
and Efficiency  
Improvement**

# APPLICATION INDUSTRY

## 应用行业

Pioneer of science and technology, high quality and high efficiency

01 Pharmaceuticals and Biotechnology	Biogas development, ethanol, biodiesel, consumer goods, cosmetics, medical devices, active pharmaceutical ingredient production, etc.
02 Organic Chemistry/Fine Chemicals	Alcohol, formaldehyde, acetaldehyde, ketones.
03 Coal Chemical Industry Performance	Coal industry heating and cooling, lean and rich liquid exchange, mother liquor, ammonia solution.
04 Petroleum Chemical Industry Performance	Petrochemical products, polymers, fibers, inorganic chemicals, materials, fertilizers, specialty chemicals, etc.
05 Food and Beverage	Food, beverages, brewing industry, fisheries, fruits and vegetables, meat and poultry processing, pre-packaged foods.
06 High-End Residential and Villas Performance	Villas, high-end residential properties, influential residential properties beyond district heating.
07 Government and Public Sector Units	Administrative, institutional, government agencies, units related to government administration.
08 District Heating Performance	Thermal companies, district heating projects.
09 Commercial Building Facilities Performance	Office buildings, office properties, shopping complexes, commercial building segments.
10 Hospitals, Schools, Research, and Cultural Institutions	Hospitals, schools, research institutions, academic publishing, and sports centers equipment.
11 Public Facilities Performance	Public facilities like Expo venues, high-speed rail stations, subways, museums, theaters, and sports centers.
12 Machinery Manufacturing Performance	Machinery manufacturing, processing, compressor system cooling, and emulsion cooling.
13 Marine Power and Seawater Desalination	Engine and generator cooling, lubrication oil cooling, marine desalination, preheating, oil drilling platforms, and HVAC heating.
14 Automotive Parts Performance	Automotive manufacturing, painting, air compressor cooling, plant heating, and cooling.
15 Power, Energy, and Nuclear Power Performance	Diesel, coal, nuclear power process cooling and lubrication oil systems, waste heat power generation, and heat recovery systems.
16 Steel, Metallurgy, and Non-Ferrous Metals	Steel, copper, lead, aluminum, zinc, tin, nickel, gold manufacturing process heating and cooling, aluminum oxide projects.
17 Photovoltaic New Energy Performance	Polycrystalline silicon, monocrystalline silicon, photovoltaic film downstream production processes, process water cooling, and heating.



## Our Users

With a professional R&D team and leading smart manufacturing processes, we are strengthened by years of accumulated technical expertise. Over the years, our company has earned industry recognition and user praise due to our stable product quality, high cost-effectiveness, steadfast work ethic, and customer-centric attitude. Our products have consistently ranked among the top in the industry market share. We have undertaken the design, manufacturing, and installation services for over 10,000 energy-saving product projects nationwide. Moving forward, we will continue to strive to provide innovative solutions for the industry and grow together with it.

**AMETECH has established long-term strategic partnerships with numerous well-known enterprises and institutions nationwide.**



# PRODUCT SERVICE

## 产品服务

### Professional service and creating value

AMETECH has always adhered to the principle of "Customer-Centricity", where "Customer Satisfaction" is our sole delivery standard. From initial selection, equipment installation, to after-sales service, AMETECH always maintains a standby status 24/7, promptly addressing customer inquiries and issues, and upholding a professional and efficient service attitude throughout the entire sales process.

With strict control over the production process, excellent product quality, professional marketing and service personnel, and a nationwide service sales network consisting of over 200 branches and service points, along with more than 300 highly skilled sales service engineers, AMETECH confidently stands out as an expert in the field of heat exchangers.

We consider the sale of each product as the starting point of our service. Our consistent demand for product quality and our unwavering commitment to providing service support remain constant.



Over 300 sales and service engineers



More than 200 branches and service outlets



24-hour sales hotline



On-site resolution of equipment failures within 4 hours

#### Free on-site installation guidance service

During the equipment installation, we will send professionals to guide the installation and commissioning until the equipment is operating normally.

#### Free product usage training service

To help you better use our products, our professional after-sales engineers will provide you with operational skills training, ensuring the normal operation of the equipment and the ability to handle common problems and faults.

#### "Three Guarantees" service within the warranty

If any product quality issues arise within the warranty period, we will dispatch professional after-sales engineers to provide on-site service and implement the "Three Guarantees" service based on the actual situation.

#### Fast after-sales service response

With a nationwide service network and professional after-sales engineers, we promise to respond within 2 hours, arrive on-site within 4 hours, and provide a solution within 24 hours. (Response times for Tibet, Xinjiang, and other regions may be extended accordingly.)

#### 24/7 online technical support

We require that technical support engineers and after-sales service engineers keep their phones on 24 hours a day. When customers encounter problems, they must respond quickly.

#### Comprehensive record management

Every product we provide comes with a unique AMETECH identification from the day it is manufactured. Even if it is not properly maintained, we can still provide you with all its information at any time.

#### WeChat official account



#### 24-hour sales hotline

0512 33069666

### SALES SERVICE NETWORK

Northwest	Southwest	North-eastern	Central China	North China	East China	South China
Xi'an	Changsha	Shenyang	Zhengzhou	Beijing	Jinan	Guangzhou
Baoji	Chengdu	Dalian	Wuhan	Tianjin	Shanghai	Shenzhen
Lanzhou	Chongqing	Changchun	Luoyang	Shijiazhuang	Hangzhou	Zhuhai
Yinchuan	Kunming	Harbin	Sanmenxia	Taiyuan	Nanjing	Macau
Xining	Guiyang	Daqing	Pingdingshan	Hohhot	Suzhou	Hong Kong
Baiyin	Dali	Mudanjiang	Yichang	Tongliao	Ningbo	Foshan
Jiuquan	Lhasa	Qiqihar	Nanyang	Qinhuangdao	Xiamen	Haikou
Urumqi	Nanning	Jinzhou	Jiyuan	Ordos	Hefei	Zhongshan

