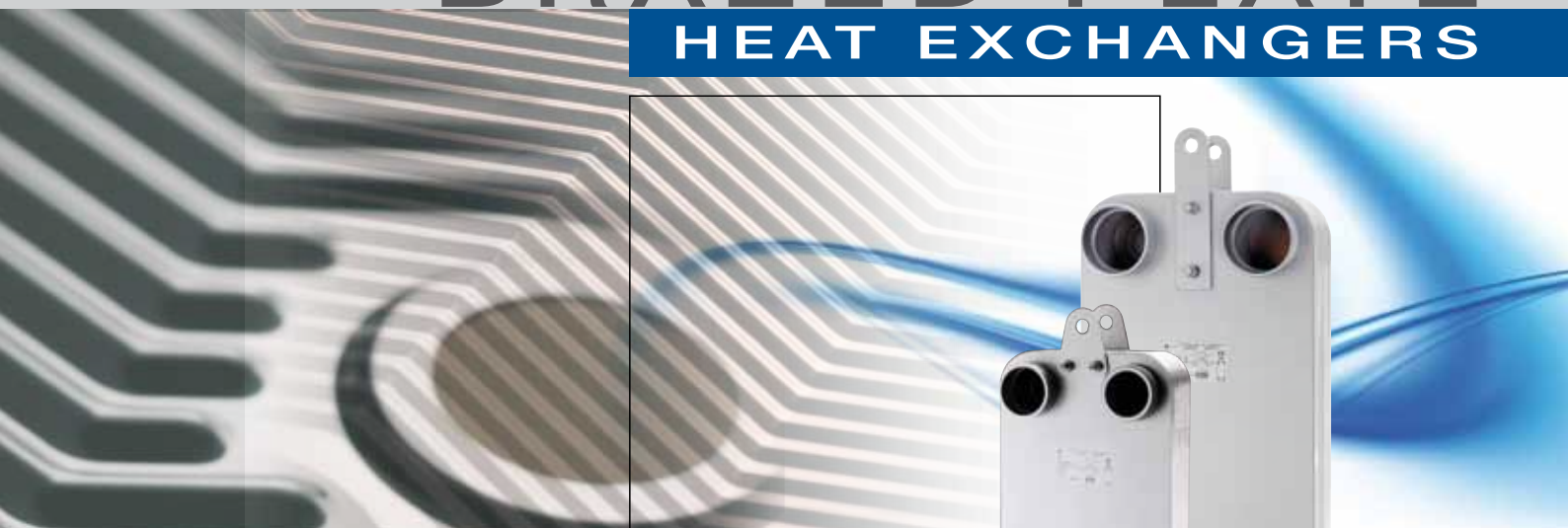


ADVANCED HEAT TRANSFER SOLUTIONS

# BRAZED PLATE HEAT EXCHANGERS





ONDA is a leading company in Heat Exchange, partner of all main Chiller manufacturers. ONDA produces a complete range of Shell & Tube and Brazed Plate Heat Exchangers dedicated to Refrigeration and Air Conditioning. Our evaporators and condensers are available with different raw materials and well adapted to different refrigerants (R22, R134a, R410A...) from 3 to 850 Tons. All our products are manufactured under ISO 9001 with all the main worldwide certifications: ASME, GOST, GL, PED, RINA, UL.

## TECHNICAL INFORMATION

The main applications of our brazed plate heat exchangers are the evaporation and the condensation of the refrigerant gas in the air conditioning and refrigeration plants, the hot water production in heat pumps, the heat recovery.

Suitable refrigerants are all HCFCs, HFCs and others, unless they are compatible with the manufacturing materials.

The dimensional data contained in this catalogue are to be intended indicative taking into account the manufacturing tolerances. We reserve the right to apply changes to this catalogue without prior notice.

## MATERIALS

The top quality materials used to manufacture the ONDA brazed plate heat exchangers satisfy the requirements of the 97/23/EC Directive (Pressure Equipment Directive).

The type construction of the brazed plate heat exchangers consists of:

Plate heat exchangers	Stainless steel thickness 0.0138" (316L type).
Connections	Stainless steel (304L type).
Brazing material	Copper

## ACCESSORIES

Following optionals are available on request:

- Loose or welded mounting supports
- Insulation.

ONDA Brazed plate heat exchangers carry the UL Mark for US and Canada (ref. no.SA32759)



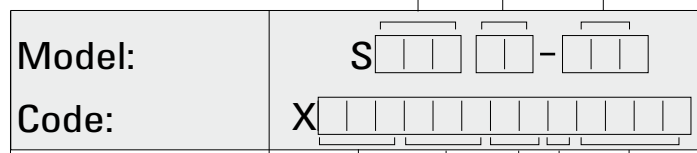
Configuration - connections SINGLE CIRCUIT								
<b>FOUR connections</b>								Code
F1	F2	W1	W2					<b>AA</b>
F1	F2			BW1	BW2			<b>AB</b>
F1	F2	W1			BW2			<b>AC</b>
F1	F2		W2	BW1				<b>AD</b>
	F2	W1		BW1		BF2		<b>AE</b>
	F2	W1			BW2	BF1		<b>AF</b>
F1			W2		BW2	BF1		<b>AG</b>
F1			W2	BW1		BF2		<b>AH</b>
<b>FIVE connections</b>								
F1	F2	W1	W2	BW1				<b>BA</b>
F1	F2	W1	W2			BW2		<b>BB</b>
F1	F2	W1		BW1		BW2		<b>BC</b>
F1	F2		W2	BW1		BW2		<b>BD</b>
<b>SIX connections</b>								
F1	F2	W1	W2	BW1	BW2			<b>CA</b>
F1	F2	W1	W2			BF1	BF2	<b>CB</b>
F1	F2	W1	W2	BW1			BF2	<b>CC</b>
F1	F2	W1	W2		BW2	BF1		<b>CD</b>
<b>SEVEN connections</b>								
F1	F2	W1	W2	BW1	BW2	BF1	BF2	<b>DA</b>
Configuration - connections DUAL CIRCUIT								
<b>SIX connections</b>								
F1	F2	G1	G2			BW1	BW2	<b>MA</b>
F1	F2	G1	G2	W1	W2			<b>MB</b>
<b>SEVEN connections</b>								
F1	F2	G1	G2	W1		BW1	BW2	<b>NA</b>
F1	F2	G1	G2		W2	BW1	BW2	<b>NB</b>
F1	F2	G1	G2	W1	W2	BW1		<b>NC</b>
F1	F2	G1	G2	W1	W2		BW2	<b>ND</b>
<b>EIGHT connections</b>								
F1	F2	G1	G2	W1	W2	BW1	BW2	<b>PA</b>

Both circuits are PNEUMATICALLY tested, to avoid any humidity contamination.

### Progressive number to identify size & type connections

**Operating conditions** D = evaporator with distributor H = High Pressure  
HD = High Pressure with distributor

Model 09, 12, 22, 82, 182, 202, 222, 404, 424, 606



Model 09, 12, 22, 82, 182, 202, 222, 404, 424, 606

Numbers of plates

Configuration connections

**Operating**  
**Single circuit** 0 = evaporator condensator 1 = evaporator with distributor  
 2 = High Pressure 3 = High Pressure with distributor  
**Dual Circuit:** 4 = Cross circuit refrigerant 5 = Cross circuit refrigerant with distributor  
 6 = High Pressure refrigerant 7 = High Pressure refrigerant plus distributor

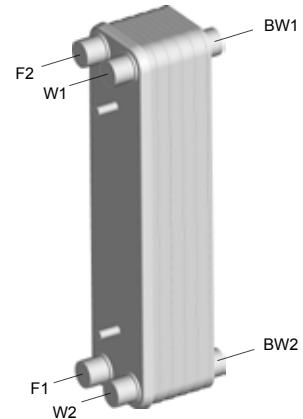
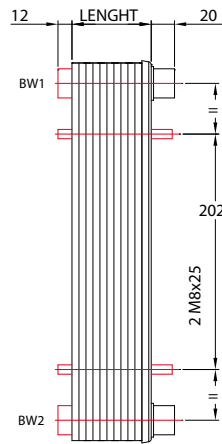
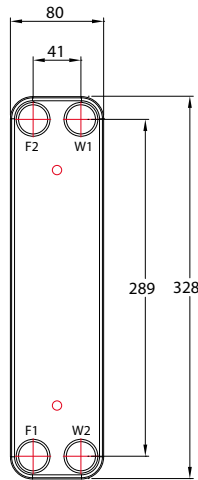
Progressive number to identify size & type connections

Made in Italy

PLEASE READ OPERATING AND INSTRUCTIONS MANUAL BEFORE USE

# S09

## SINGLE CIRCUIT



F1 INLET Refrigerant W1-BW1 INLET Secondary Fluid  
 F2 OUTLET Refrigerant W2-BW2 OUTLET Secondary Fluid

SPECIFICATIONS		S09			
PRESSURE RANGE (bar)		Vacuum to 45			
TEMPERATURE RANGE (°C)		-100°C to 120°C			
MAXIMUM CONNECTIONS AVAILABLE (mm)		18			
MAXIMUM FLOW RATE (m3/h)		5,22			
VOLUME / CHANNEL (liters)		0.047			
DIMENSIONS (mm)		80 x 328			
LENGHT CALCULATION (mm)		$N \times 2,45 + 12$			
WEIGHT CALCULATION (kg)		$N \times 0.09 + 1$			

CONNECTIONS TYPE			
Soldering	Threaded M	Threaded F	Rotalock
S8	C22	F22	R19
S12	C27		R25
S14	G22		
S16	G27		
S18	G30		
S19			
S20			
Standard connections: F1 S18 F2 S20 W1-W2 C22			

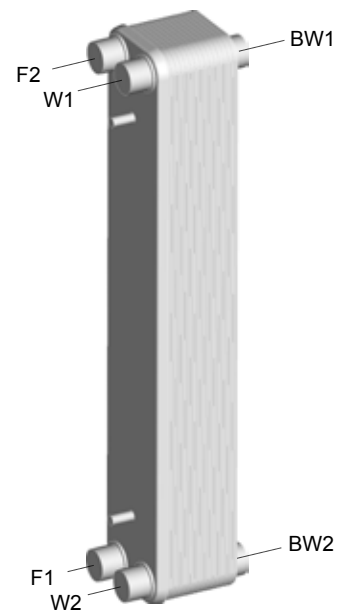
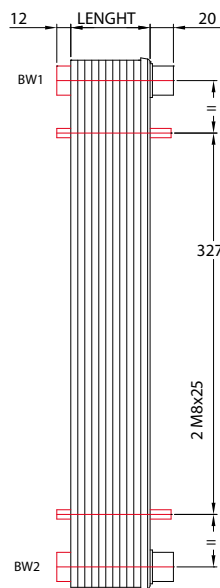
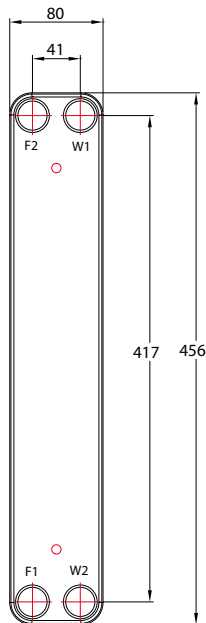
**N** Number of plates

### LETTER TO IDENTIFY CONNECTIONS TYPE

- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL Stainless Steel 316L Thickness 0.35 mm

BRAZING MATERIAL Copper (Cu)



F1 INLET Refrigerant W1-BW1 INLET Secondary Fluid  
 F2 OUTLET Refrigerant W2-BW2 OUTLET Secondary Fluid

SPECIFICATIONS	S22	S22H	CONNECTIONS TYPE			
PRESSURE RANGE (bar)	Vacuum to 30	Vacuum to 45	Soldering	Threaded M	Threaded F	Rotalock
TEMPERATURE RANGE (°C)	-100°C to 120°C	-100°C to 120°C	S8	C22	F22	R19
MAXIMUM CONNECTIONS AVAILABLE (mm)	18	18	S12	C27		R25
MAXIMUM FLOW RATE (m3/h)	5,22	5,22	S14	G22		
VOLUME / CHANNEL (liters)	0.064	0.064	S16	G27		
DIMENSIONS (mm)	80 x 456	80 x 456	S18	G30		
LENGHT CALCULATION (mm)	$N \times 2,45 + 12$	$N \times 2,45 + 20$	S19			
WEIGHT CALCULATION (kg)	$N \times 0.13 + 1,5$	$N \times 0.13 + 3,5$	S20			
			Standard Connections:			
			F1 S18	F2 S20	W1-W2 C27	

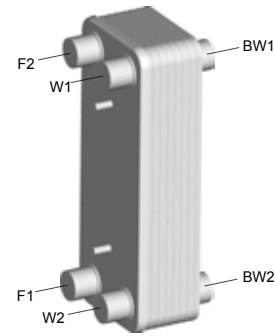
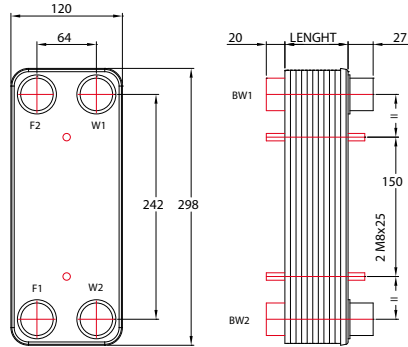
**N** Number of plates

#### LETTER TO IDENTIFY CONNECTIONS TYPE

- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL Stainless Steel 316L Thickness 0.35 mm

BRAZING MATERIAL Copper (Cu)



F1 INLET Refrigerant W1-BW1 INLET Secondary Fluid  
 F2 OUTLET Refrigerant W2-BW2 OUTLET Secondary Fluid

SPECIFICATIONS	S12	S12H
PRESSURE RANGE (bar)	Vacuum to 30	Vacuum to 45
TEMPERATURE RANGE (°C)	-100°C to 120°C	-100°C to 120°C
MAXIMUM CONNECTIONS AVAILABLE (mm)	30,1	30,1
MAXIMUM FLOW RATE (m3/h)	14,07	14,07
VOLUME / CHANNEL (liters)	0.072	0,072
DIMENSIONS (mm)	120 x 298	120 x 298
LENGHT CALCULATION (mm)	$N \times 2,45 + 12$	$N \times 2,45 + 20$
WEIGHT CALCULATION (kg)	$N \times 0.112 + 1,7$	$N \times 0.112 + 4$

CONNECTIONS TYPE				
Soldering	Threaded M	Threaded F	Grooved	Rotalock
S8	C22	F22	V32	R19
S12	C27	F27	BV32	R25
S14	C32	F32	V40	R32
S16	C42	F42	BV40	R44
S18	G22			
S22	G27			
S28	G32			
S30	G42			
Standard Connections:				
F1 S22	F2 S28	W1-W2	C32	

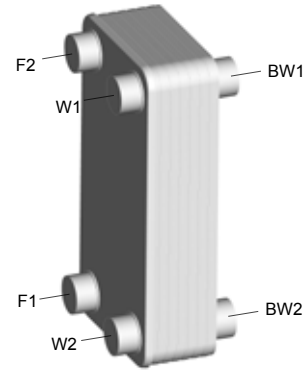
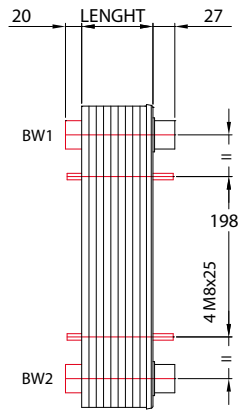
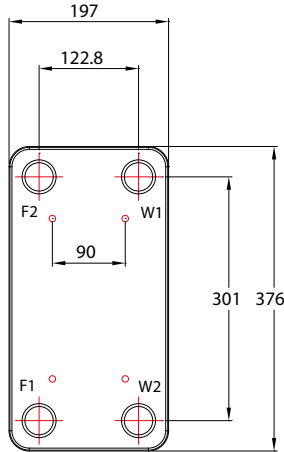
**N** Number of plates

#### LETTER TO IDENTIFY CONNECTIONS TYPE

- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V-BV** Grooved System for Standard Flexible Coupling
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL Stainless Steel 316L Thickness 0.35 mm  
 BRAZING MATERIAL Copper (Cu)

# S101 SINGLE CIRCUIT



F1 INLET Refrigerant W1-BW1 INLET Secondary Fluid  
 F2 OUTLET Refrigerant W2-BW2 OUTLET Secondary Fluid

SPECIFICATIONS	S101	S101H
PRESSURE RANGE (bar)	Vacuum to 30	Vacuum to 45
TEMPERATURE RANGE (°C)	-100°C to 120°C	-100°C to 120°C
MAXIMUM CONNECTIONS AVAILABLE (mm)	42	42
MAXIMUM FLOW RATE (m3/h)	25,4	25,4
VOLUME / CHANNEL (liters)	0,14	0,14
DIMENSIONS (mm)	197 x 376	197 x 376
LENGHT CALCULATION (mm)	$N \times 2,25 + 12$	$N \times 2,25 + 20$
WEIGHT CALCULATION (kg)	$N \times 0.235 + 3$	$N \times 0.235 + 7,5$

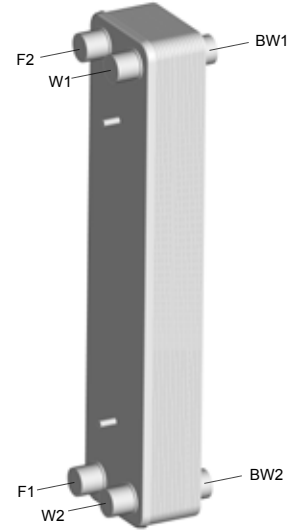
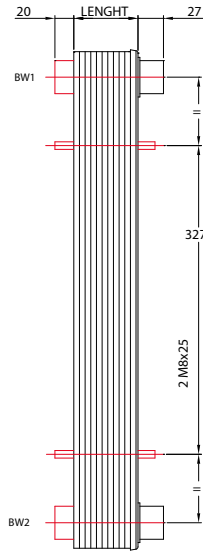
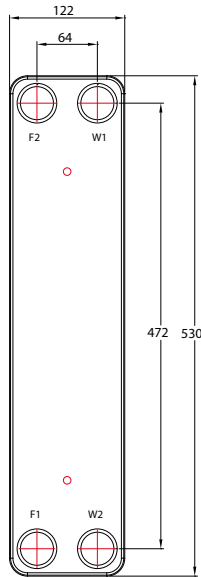
CONNECTIONS TYPE				
Soldering	Threaded M	Threaded F	Grooved	Rotalock
S8	C22	F22	V32	R19
S12	C27	F27	BV32	R25
S14	C32	F32	V40	R32
S16	C42	F42	BV40	R44
S18	C47			
S22	G22			
S28	G27			
S30	G32			
	G42			
	G47			
Standard Connections: F1 S22 F2 S30 W1-W2 C42				

**N** Number of plates

**LETTER TO IDENTIFY CONNECTIONS TYPE**

- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V-BV** Grooved System for Standard Flexible Coupling
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL Stainless Steel 316L Thickness 0.35 mm  
 BRAZING MATERIAL Copper (Cu)



F1 INLET Refrigerant    W1-BW1 INLET Secondary Fluid  
 F2 OUTLET Refrigerant    W2-BW2 OUTLET Secondary Fluid

SPECIFICATIONS	S82	S82H
PRESSURE RANGE (bar)	Vacuum to 30	Vacuum to 45
TEMPERATURE RANGE (°C)	-100°C to 120°C	-100°C to 120°C
MAXIMUM CONNECTIONS AVAILABLE (mm)	38,9	38,9
MAXIMUM FLOW RATE (m3/h)	23,6	23,6
VOLUME / CHANNEL (liters)	0,113	0,113
DIMENSIONS (mm)	122 x 530	122 x 530
LENGHT CALCULATION (mm)	$N \times 2,25 + 12$	$N \times 2,25 + 20$
WEIGHT CALCULATION (kg)	$N \times 0.206 + 2,5$	$N \times 0.206 + 6,5$

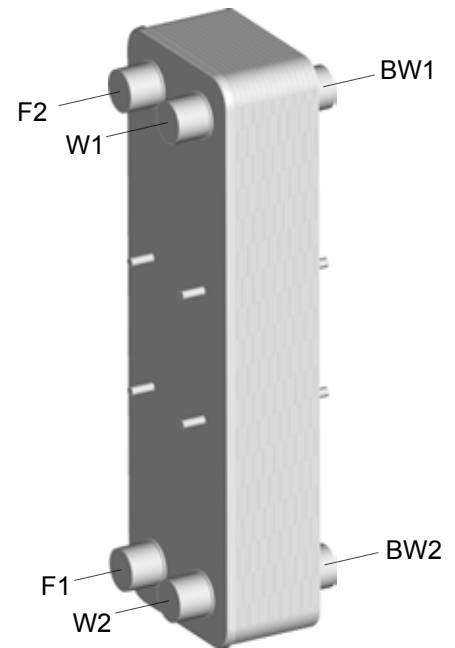
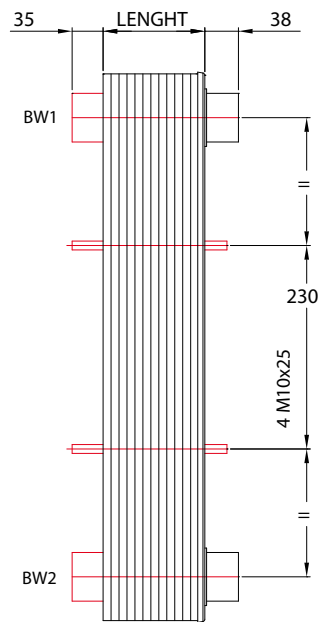
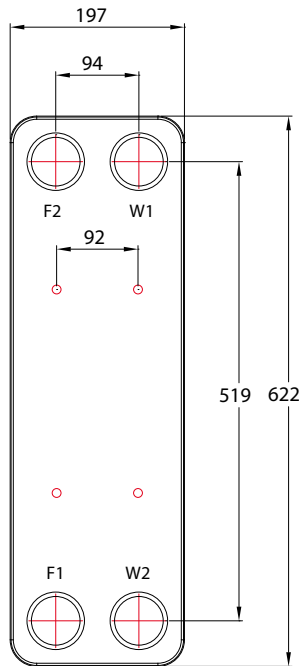
CONNECTIONS TYPE				
Soldering	Threaded M	Threaded F	Grooved	Rotalock
S8	C22	F22	V32	R19
S12	C27	F27	BV32	R25
S14	C32	F32	V40	R32
S16	C42	F42	BV40	R44
S18	G22			
S22	G27			
S28	G32			
S30	G42			
Standard Connections:				
F1 S22	F2 S30	W1-W2	C42	

**N** Number of plates

**LETTER TO IDENTIFY CONNECTIONS TYPE**

- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V-BV** Grooved System for Standard Flexible Coupling
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL    Stainless Steel 316L Thickness 0.35 mm  
 BRAZING MATERIAL    Copper (Cu)



F1 INLET Refrigerant    W1-BW1 INLET Secondary Fluid  
 F2 OUTLET Refrigerant    W2-BW2 OUTLET Secondary Fluid

SPECIFICATIONS	S182	S182H
PRESSURE RANGE (bar)	Vacuum to 30	Vacuum to 45
TEMPERATURE RANGE (°C)	-100°C to 120°C	-100°C to 120°C
MAXIMUM CONNECTIONS AVAILABLE (mm)	57	57
MAXIMUM FLOW RATE (m3/h)	50,62	50,62
VOLUME / CHANNEL (liters)	0,254	0,254
DIMENSIONS (mm)	197 x 622	197 x 622
LENGHT CALCULATION (mm)	$N \times 2,45 + 12$	$N \times 2,45 + 28$
WEIGHT CALCULATION (kg)	$N \times 0.406 + 9,2$	$N \times 0.406 + 18$

CONNECTIONS TYPE				
Soldering	Threaded M	Threaded F	Grooved	Rotalock
S22	C48	F22	V50	R32
S28	C60	F27	V65	R44
S35	G48	F48	V72	R58
S42	G60	F60		
S54	G70			
S60				
Standard Connections:				
F1 S35	F2 S54	W1-W2 C60		

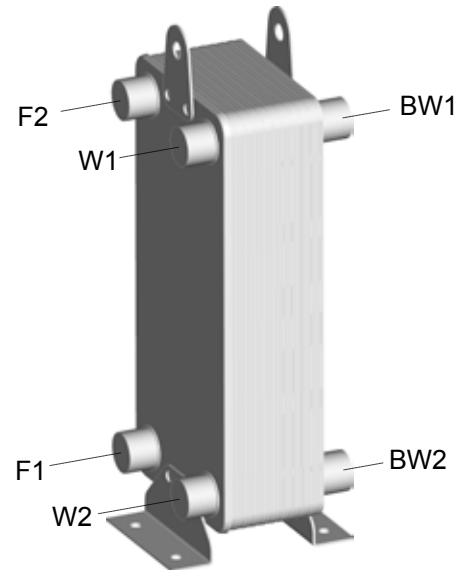
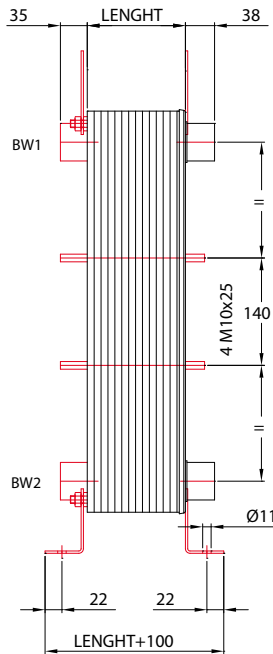
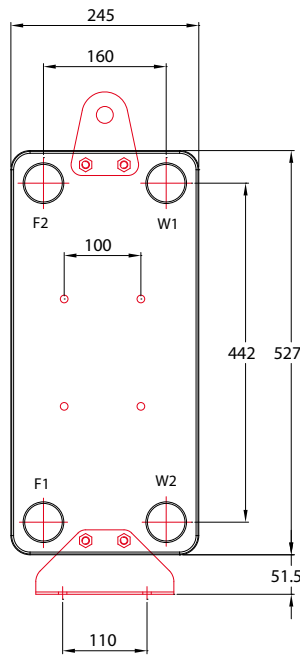
**N** Number of plates

**LETTER TO IDENTIFY CONNECTIONS TYPE**

- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V-BV** Grooved System for Standard Flexible Coupling
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL    Stainless Steel 316L Thickness 0.35 mm  
 BRAZING MATERIAL    Copper (Cu)

# S202 SINGLE CIRCUIT



F1 INLET Refrigerant W1-BW1 INLET Secondary Fluid  
 F2 OUTLET Refrigerant W2-BW2 OUTLET Secondary Fluid

SPECIFICATIONS	S202	S202H
PRESSURE RANGE (bar)	Vacuum to 30	Vacuum to 45
TEMPERATURE RANGE (°C)	-100°C to 120°C	-100°C to 120°C
MAXIMUM CONNECTIONS AVAILABLE (mm)	57	57
MAXIMUM FLOW RATE (m <sup>3</sup> /h)	50,62	50,62
VOLUME / CHANNEL (liters)	0,254	0,254
DIMENSIONS (mm)	245 x 527	245 x 527
LENGHT CALCULATION (mm)	$N \times 2,45 + 12$	$N \times 2,45 + 28$
WEIGHT CALCULATION (kg)	$N \times 0.406 + 9,2$	$N \times 0.406 + 18$

CONNECTIONS TYPE				
Soldering	Threaded M	Threaded F	Grooved	Rotalock
S22	C48	F22	V50	R32
S28	C60	F27	V65	R44
S35	G48	F48	V72	R58
S42	G60	F60		
S54	G70			
S60				
Standard Connections: F1 S35 F2 S54 W1-W2 C60				

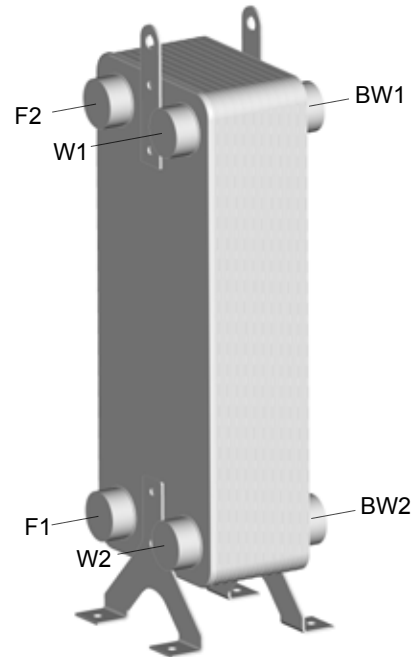
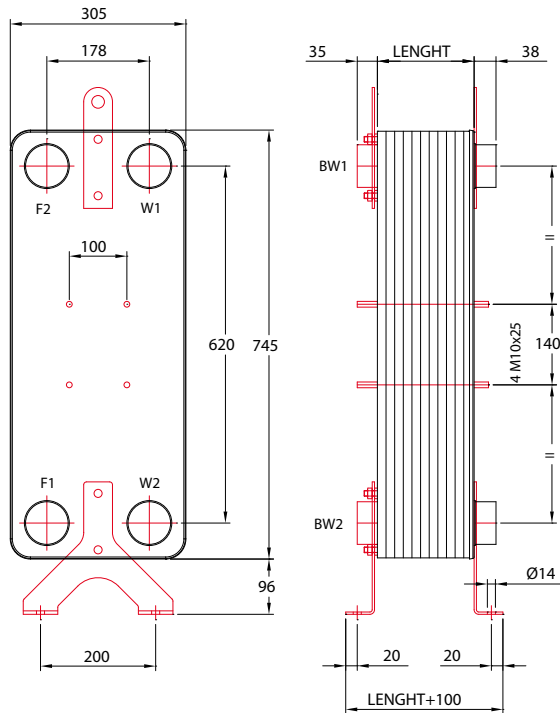
**N** Number of plates

#### LETTER TO IDENTIFY CONNECTIONS TYPE

- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V-BV** Grooved System for Standard Flexible Coupling
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL Stainless Steel 316L Thickness 0.35 mm  
 BRAZING MATERIAL Copper (Cu)

# S404 SINGLE CIRCUIT



F1 INLET Refrigerant    W1-BW1 INLET Secondary Fluid  
 F2 OUTLET Refrigerant    W2-BW2 OUTLET Secondary Fluid

SPECIFICATIONS	S404
PRESSURE RANGE (bar)	Vacuum to 30
TEMPERATURE RANGE (°C)	-100°C to 120°C
MAXIMUM CONNECTIONS AVAILABLE (mm)	84,7
MAXIMUM FLOW RATE (m3/h)	111,68
VOLUME / CHANNEL (liters)	0,56
DIMENSIONS (mm)	305 x 745
LENGHT CALCULATION (mm)	$N \times 2,95 + 12$
WEIGHT CALCULATION (kg)	$N \times 0,720 + 30$

CONNECTIONS TYPE					
Soldering	Threaded M	Threaded F	Grooved	Rotalock	Flanges
S54	C76	F22	V73	R58	NF80
S64	C90	F27	V80		
S76	G76		V90		
S90	G90				
Standard Connections:					
F1 S54		F2 S76		W1-W2 G90	

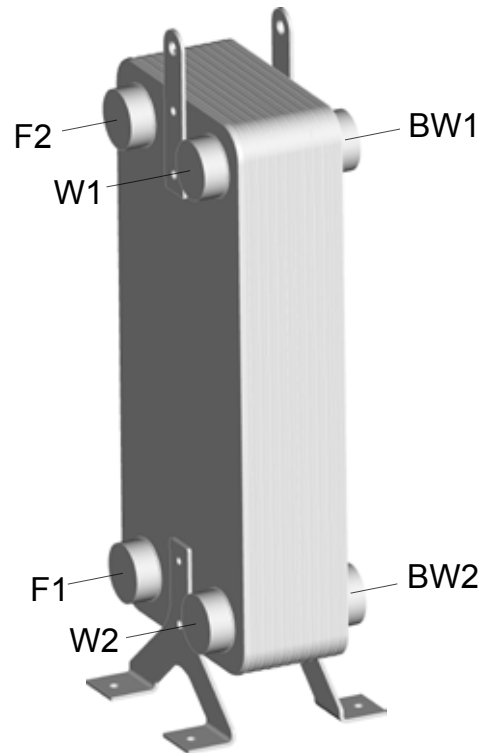
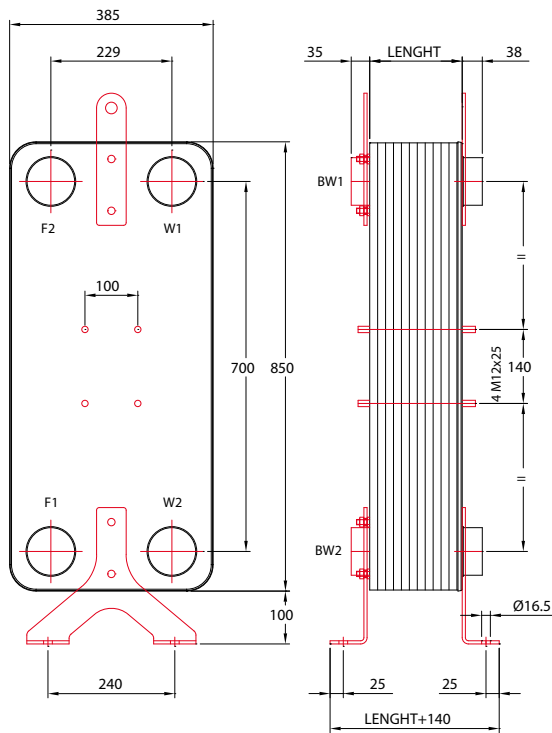
**N** Number of plates

**LETTER TO IDENTIFY CONNECTIONS TYPE**

- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V-BV** Grooved System for Standard Flexible Coupling
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL    Stainless Steel 316L Thickness 0.35 mm  
 BRAZING MATERIAL    Copper (Cu)

# S606 SINGLE CIRCUIT



F1 INLET Refrigerant W1-BW1 INLET Secondary Fluid  
 F2 OUTLET Refrigerant W2-BW2 OUTLET Secondary Fluid

SPECIFICATIONS	S606
PRESSURE RANGE (bar)	Vacuum to 20
TEMPERATURE RANGE (°C)	-100°C to 120°C
MAXIMUM CONNECTIONS AVAILABLE (mm)	110,1
MAXIMUM FLOW RATE (m <sup>3</sup> /h)	188,41
VOLUME / CHANNEL (liters)	0,79
DIMENSIONS (mm)	385 x 850
LENGHT CALCULATION (mm)	$N \times 2,95 + 12$
WEIGHT CALCULATION (kg)	$N \times 1 + 35$

CONNECTIONS TYPE				
Soldering	Threaded M	Threaded F	Grooved	Flanges
S54	C76	F22	V73	NF100
S64	C90	F27	V80	
S76	C100		V90	
S90	G76		V100	
S100	G90			
	G100			
Standard Connections:				
F1 S76		F2 S100		W1-W2 V100

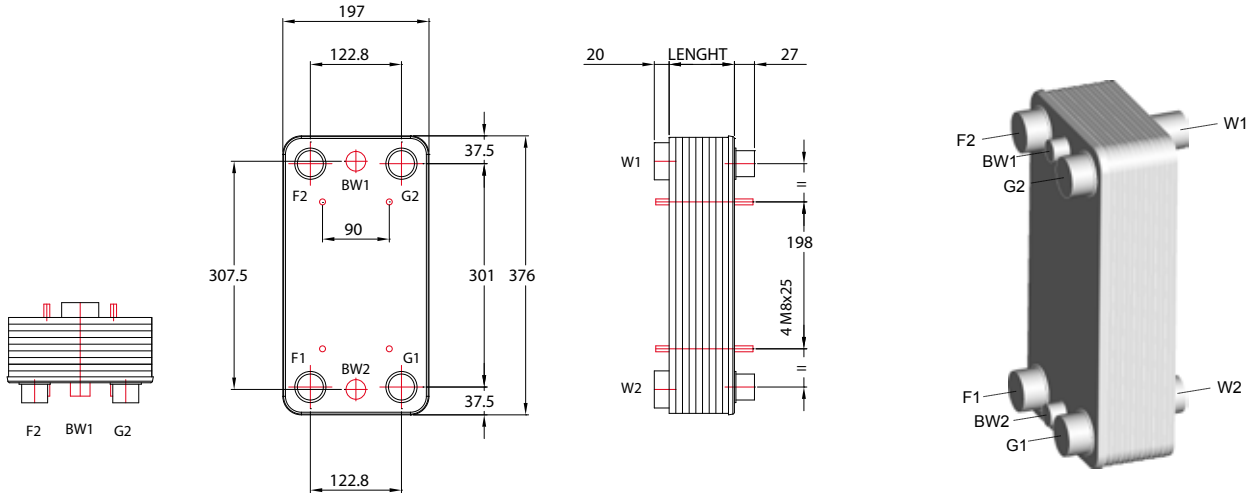
**N** Number of plates

#### LETTER TO IDENTIFY CONNECTIONS TYPE

- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V-BV** Grooved System for Standard Flexible Coupling
- R** Rotolock Connections Male

PLATE HEAT EXCHANGER MATERIAL Stainless Steel 316L Thickness 0.35 mm  
 BRAZING MATERIAL Copper (Cu)

# S121 DUAL CIRCUIT



**F1 INLET** Refrigerant Circuit 1      **F2 OUTLET** Refrigerant Circuit 1  
**G1 INLET** Refrigerant Circuit 2      **G2 OUTLET** Refrigerant Circuit 2  
**W1 INLET** Secondary Fluid            **W2 OUTLET** Secondary Fluid  
**BW1 - BW2** Connections for Sensor

SPECIFICATIONS	S121	S121H	CONNECTIONS TYPE						
			Soldering	Threaded M	Threaded F	Grooved	Rotalock		
PRESSURE RANGE (bar)	Vacuum to 30	Vacuum to 45							
TEMPERATURE RANGE (°C)	-100°C to 120°C	-100°C to 120°C							
MAXIMUM CONNECTIONS AVAILABLE (mm)	42	42							
MAXIMUM FLOW RATE (m3/h)	25,4	25,4							
VOLUME / CHANNEL (liters)	0,14	0,14							
DIMENSIONS (mm)	197 x 376	197 x 376							
LENGHT CALCULATION (mm)	$N \times 2,25 + 12$	$N \times 2,25 + 20$							
WEIGHT CALCULATION (kg)	$N \times 0.235 + 3$	$N \times 0.235 + 7,5$							
			Standard Connections						
			F1-G1 S22	F2-G2 S30	W1-W2 G42	BW1-BW2 F22			

**N** Number of plates

**LETTER TO IDENTIFY CONNECTIONS TYPE**

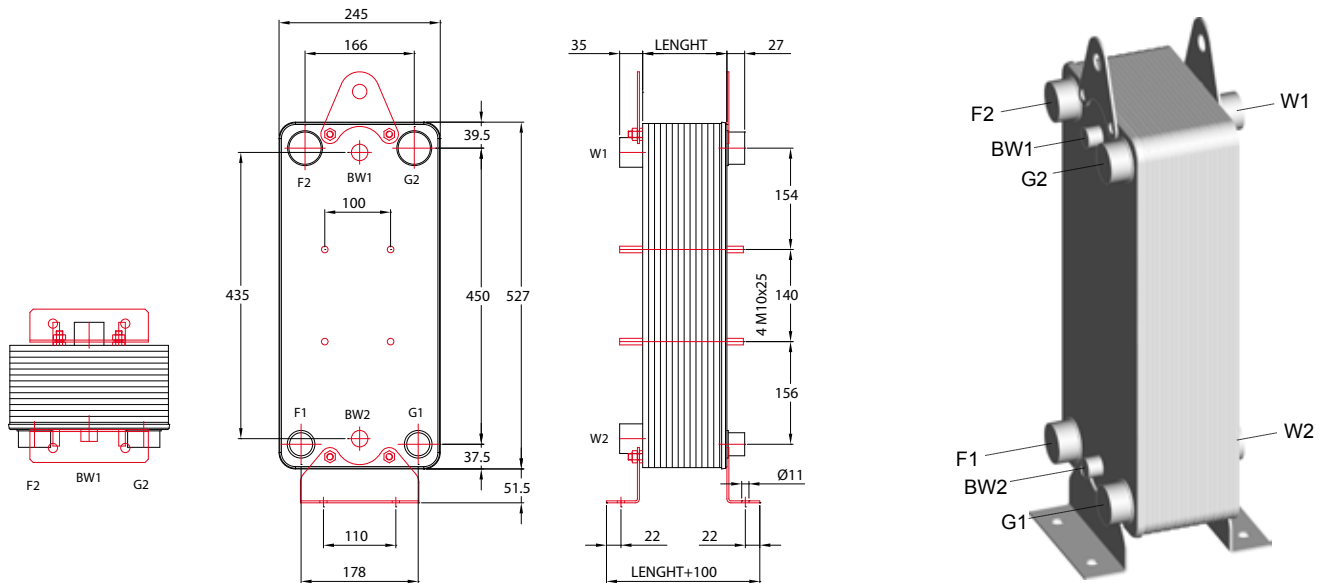
- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V - BV** Grooved System for Standard Flexible Coupling
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL    Stainless Steel 316L Thickness 0.35 mm

BRAZING MATERIAL    Copper (Cu)

Criss-Cross Flow Pattern Available on Request

# S222 DUAL CIRCUIT



**F1 INLET** Refrigerant Circuit 1      **F2 OUTLET** Refrigerant Circuit 1  
**G1 INLET** Refrigerant Circuit 2      **G2 OUTLET** Refrigerant Circuit 2  
**W1 INLET** Secondary Fluid            **W2 OUTLET** Secondary Fluid  
**BW1 - BW2** Connections for Sensor

SPECIFICATIONS	S222	S222H	CONNECTIONS TYPE				
			Soldering	Threaded M	Threaded F	Grooved	Rotalock
PRESSURE RANGE (bar)	Vacuum to 30	Vacuum to 45					
TEMPERATURE RANGE (°C)	-100°C to 120°C	-100°C to 120°C					
MAXIMUM CONNECTIONS AVAILABLE (mm)	57	57					
MAXIMUM FLOW RATE (m3/h)	50,62	50,62					
VOLUME / CHANNEL (liters)	0,223	0,223					
DIMENSIONS (mm)	245 x 527	245 x 527					
LENGHT CALCULATION (mm)	$N \times 2,45 + 12$	$N \times 2,45 + 28$					
WEIGHT CALCULATION (kg)	$N \times 0.406 + 9,2$	$N \times 0.406 + 18$					
			Standard Connections				
			F1-G1 S28    F2-G2 S42    W1-W2 G60 BW1-BW2 F22				

**N** Number of plates

**LETTER TO IDENTIFY CONNECTIONS TYPE**

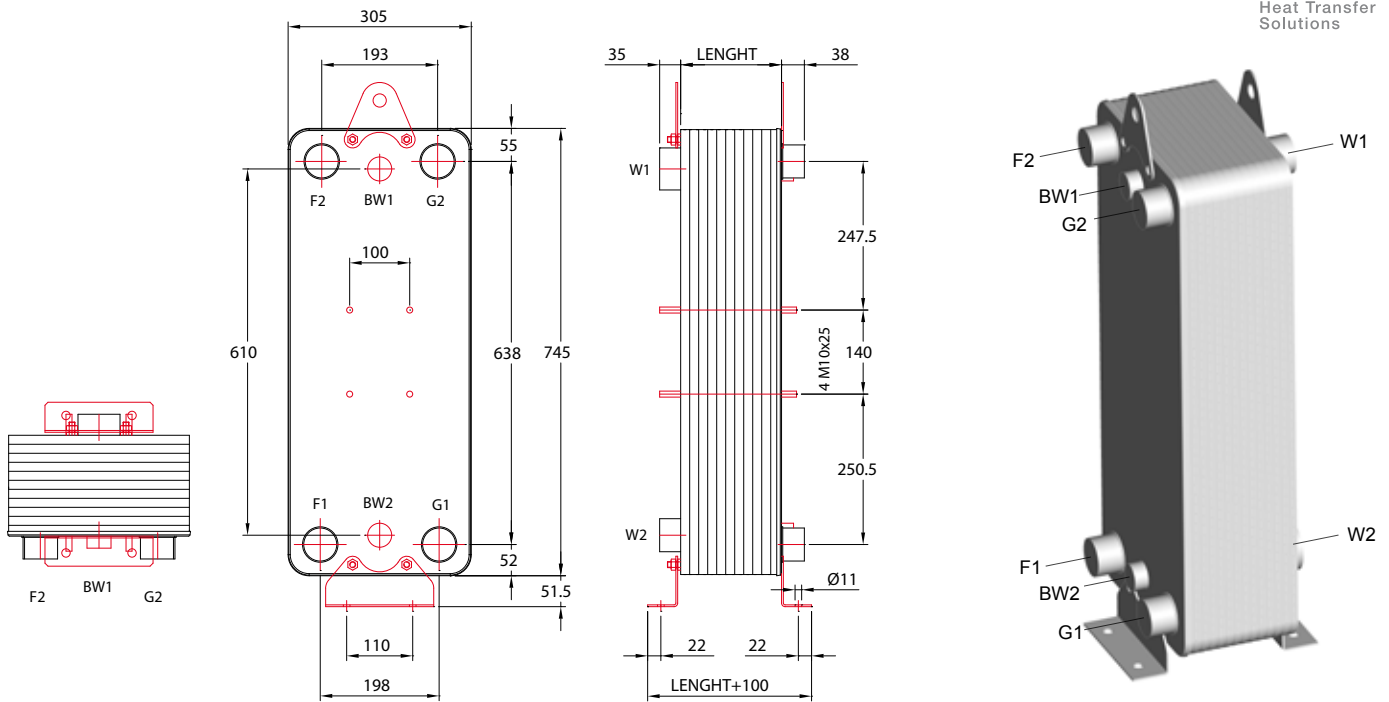
- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V - BV** Grooved System for Standard Flexible Coupling
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL    Stainless Steel 316L Thickness 0.35 mm

BRAZING MATERIAL    Copper (Cu)

Criss-Cross Flow Pattern Available on Request

# S424 DUAL CIRCUIT



**F1 INLET** Refrigerant Circuit 1      **F2 OUTLET** Refrigerant Circuit 1  
**G1 INLET** Refrigerant Circuit 2      **G2 OUTLET** Refrigerant Circuit 2  
**W1 INLET** Secondary Fluid            **W2 OUTLET** Secondary Fluid  
**BW1 - BW2** Connections for Sensor

SPECIFICATIONS	S424	S424H	CONNECTIONS TYPE								
PRESSURE RANGE (bar)	Vacuum to 30	Vacuum to 45	Soldering	Threaded M	Threaded F	Grooved	Rotalock	Flanges			
TEMPERATURE RANGE (°C)	-100°C to 120°C	-100°C to 120°C	S30	C76	F22	V73	R44	NF80			
MAXIMUM CONNECTIONS AVAILABLE (mm)	84,7	84,7	S42	C90	F27	V80	R58				
MAXIMUM FLOW RATE (m3/h)	111,68	111,68	S54	G76		V90					
VOLUME / CHANNEL (liters)	0,484	0,484	S64	G90							
DIMENSIONS (mm)	305 x 745	305 x 745	S76								
LENGHT CALCULATION (mm)	$N \times 2,95 + 12$	$N \times 2,95 + 28$	S90								
WEIGHT CALCULATION (kg)	$N \times 0,720 + 30$	$N \times 0,720 + 60$	Standard Connections: F1-G1 S54    F2-G2 S76    W1-W2 C90 BW1-BW2 F22								

**N** Number of plates

**LETTER TO IDENTIFY CONNECTIONS TYPE**

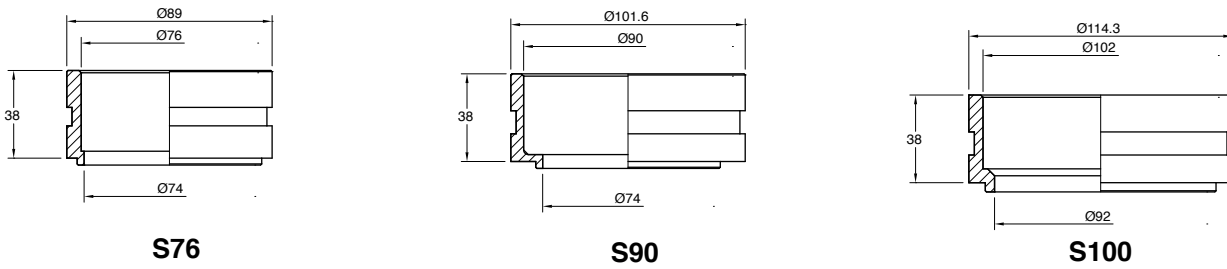
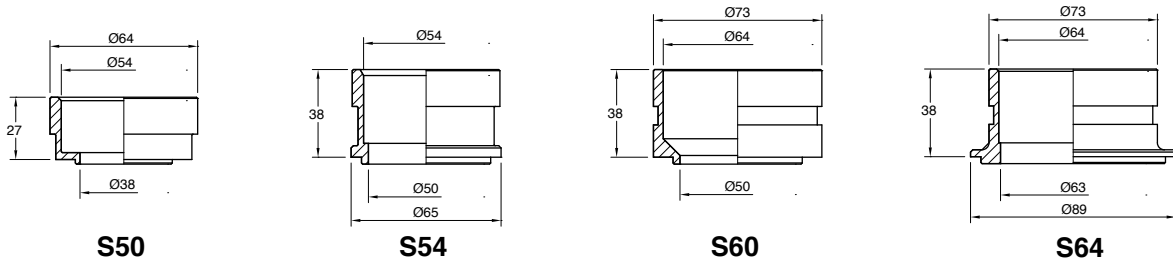
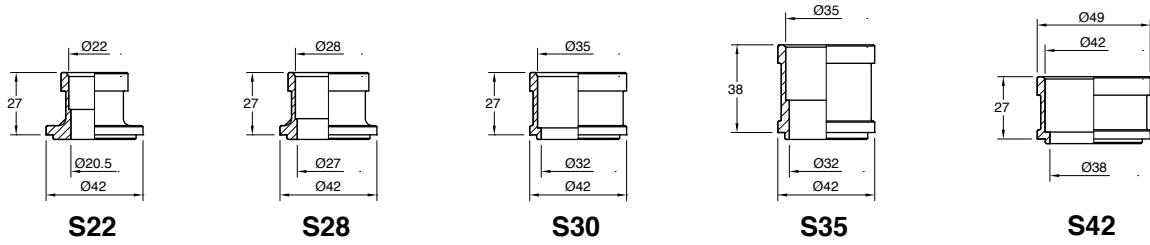
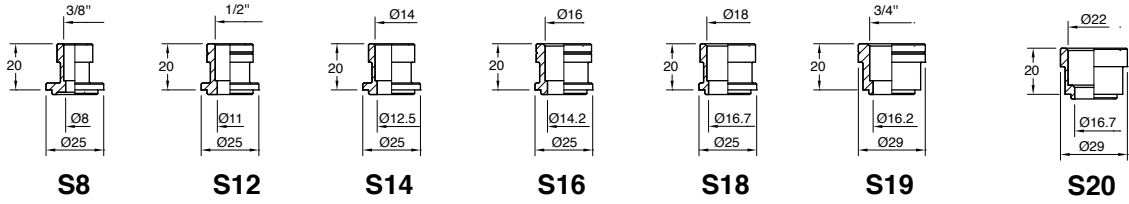
- S** Soldering Connections
- C** Conical Male Gas Threaded Connections
- G** Cylindric Male Gas Threaded Connections
- F** Female Gas Threaded Connections
- V - BV** Grooved System for Standard Flexible Coupling
- R** Rotalock Connections Male

PLATE HEAT EXCHANGER MATERIAL    Stainless Steel 316L Thickness 0.35 mm

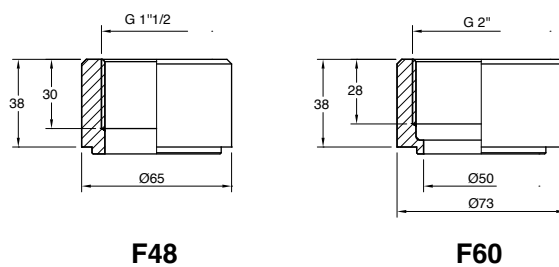
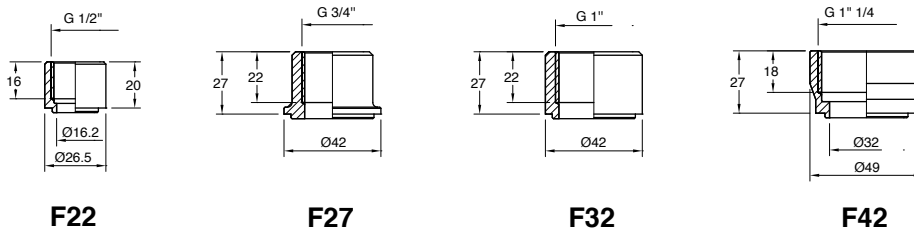
BRAZING MATERIAL    Copper (Cu)

Criss-Cross Flow Pattern Available on Request

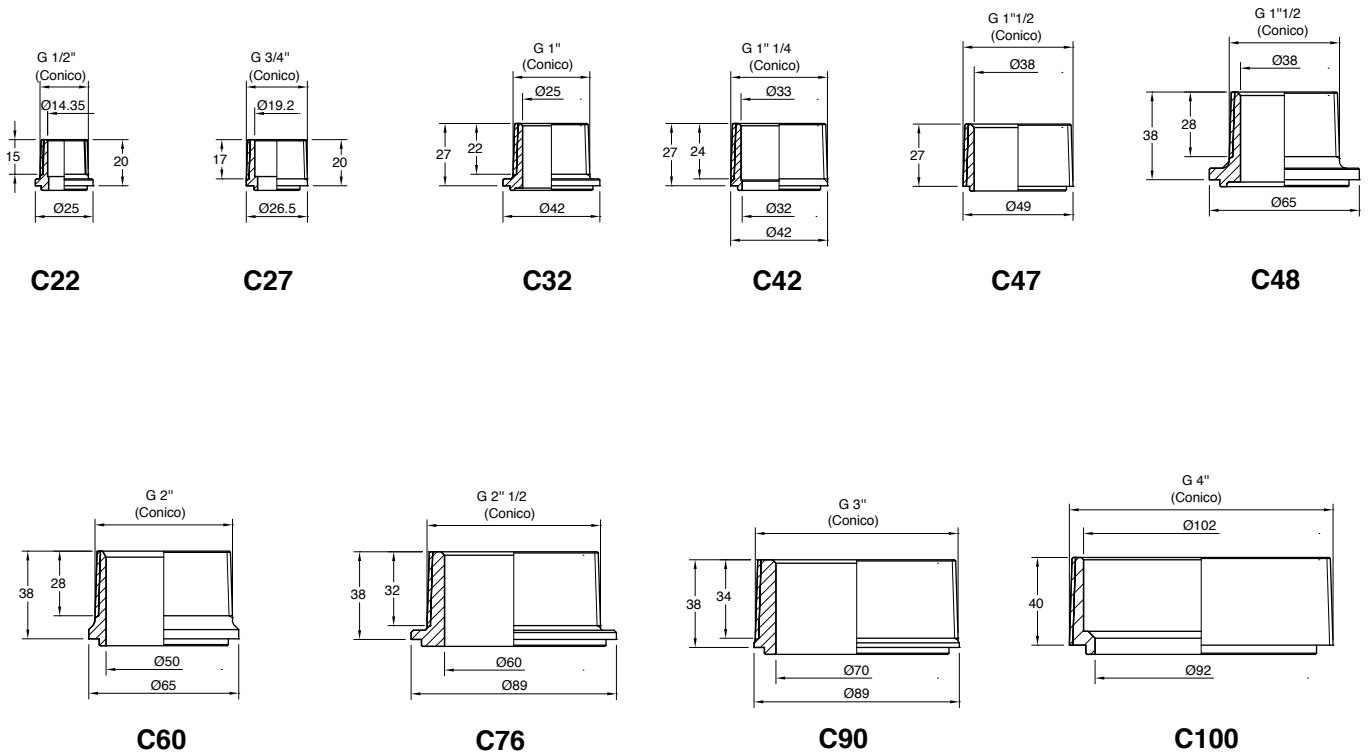
## S Soldering connections



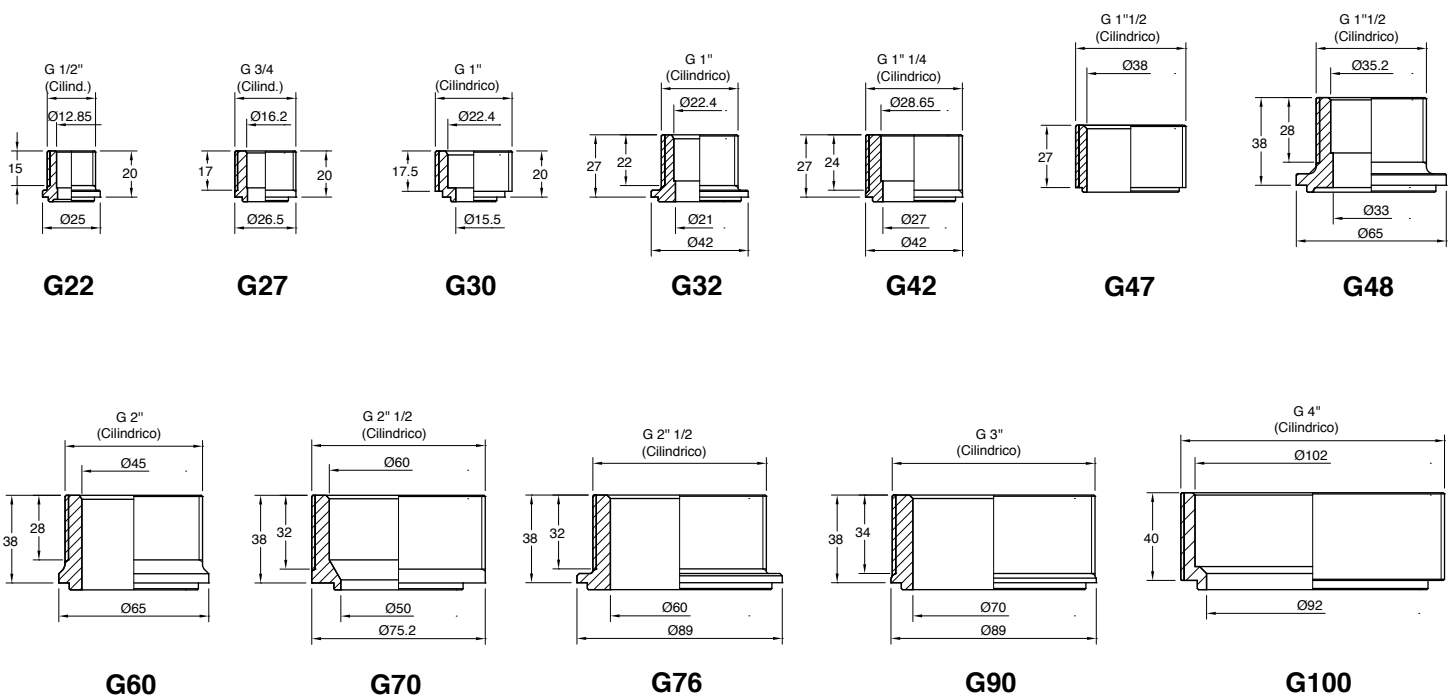
## F Female gas threaded connections



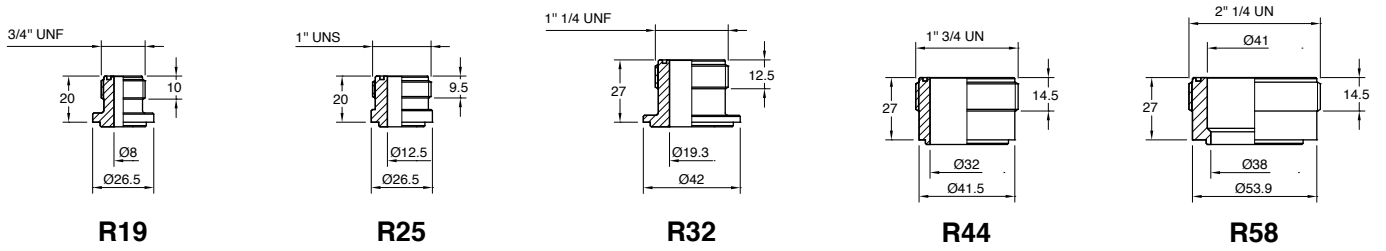
## C Conical male gas threaded connections



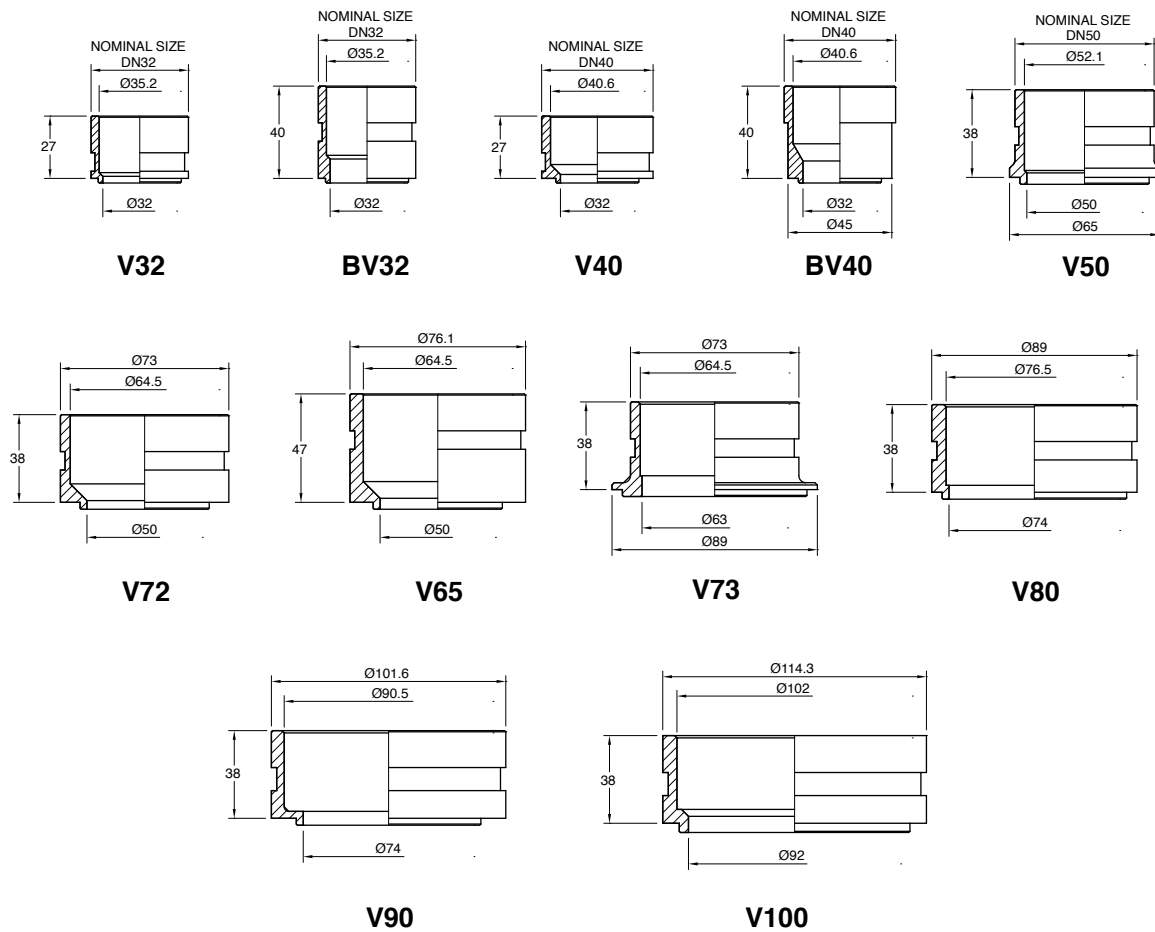
## G Cylindric male gas threaded connections



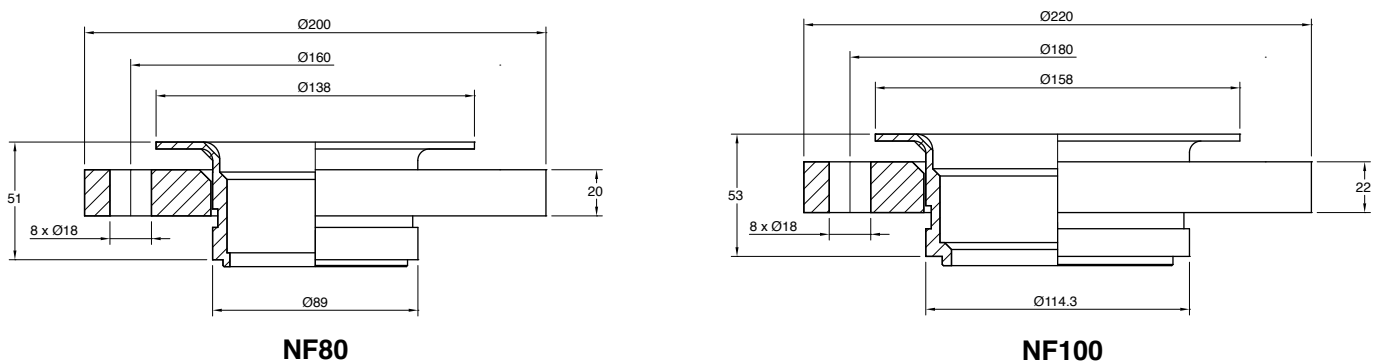
## R Rotalock connections male



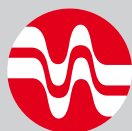
## V - VB Grooved system for standard flexible coupling



## NF DIN flanges PN 10-16







# ONDA

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Heat Transfer  
Solutions

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