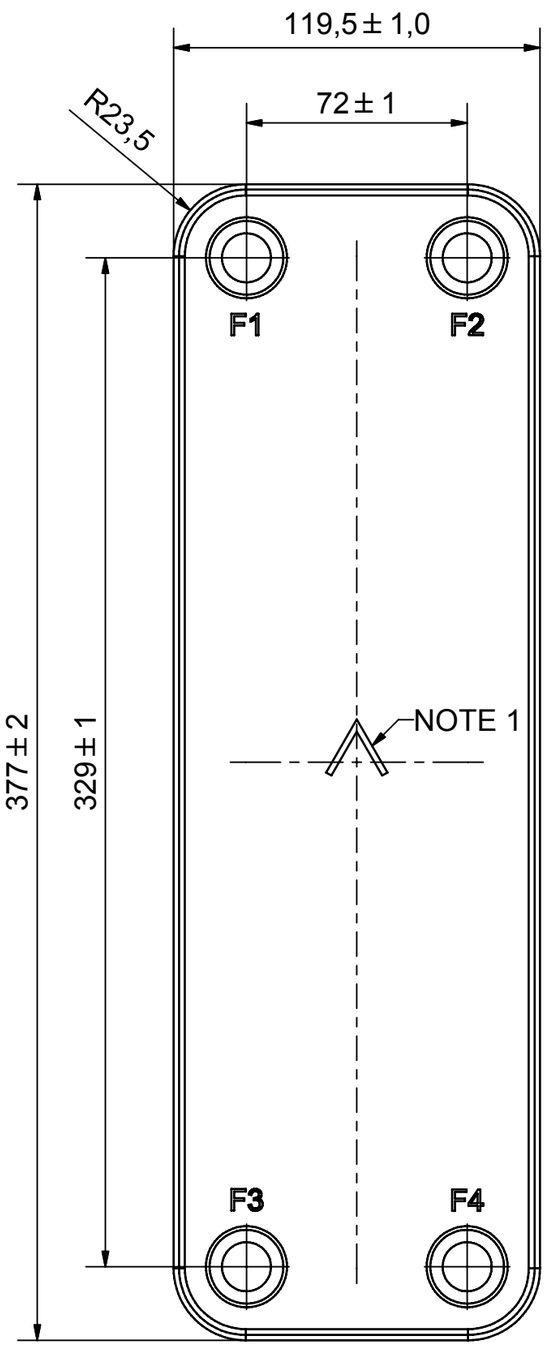
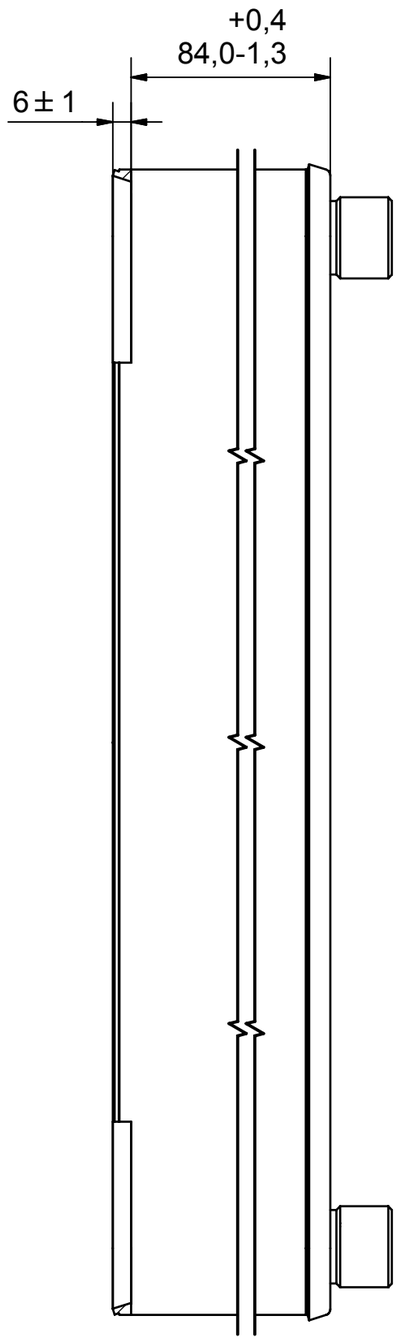
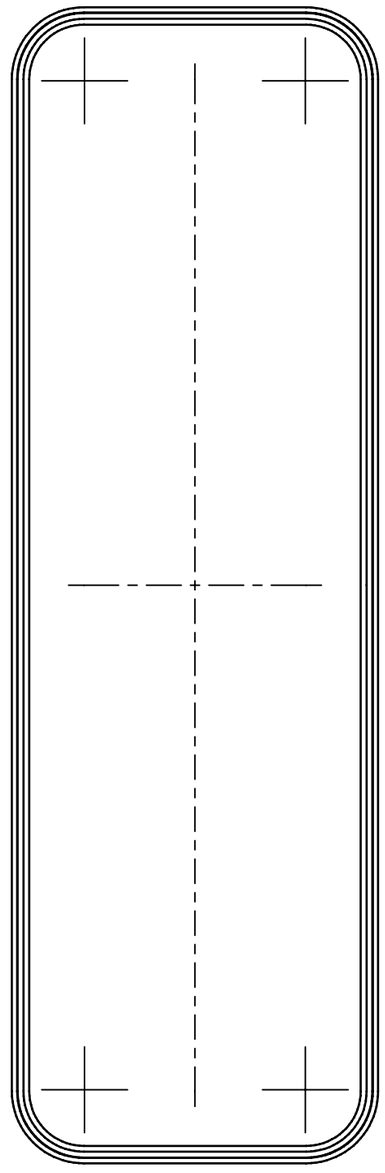
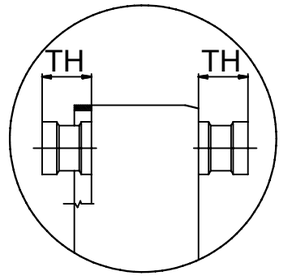
hein.vanzyl@swep.net









NOTE 1 ALTERNATE MARKING: STICKER OR STAMP

Pos	Article No	Title / Denomination, code, material, dimension etc	Drawing No./ref
F4	45048	ISO-G 3/4, TH = 20.1	CD000035
F3	45048	ISO-G 3/4, TH = 20.1	CD000035
F2	45048	ISO-G 3/4, TH = 20.1	CD000035
F1	45048	ISO-G 3/4, TH = 20.1	CD000035

Pos	Article No	Title / Denomination, code, material, dimension etc	Drawing No./ref

Title: BDW16DWHx40/1P-SC-S 4*3/4"

A DOVER COMPANY

Created Date	Created By
2009-03-23	AU
Article/Configuration number	**Drawing number**
13477-40	AU00018800

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PRODUCT SHEET

BDW16DW

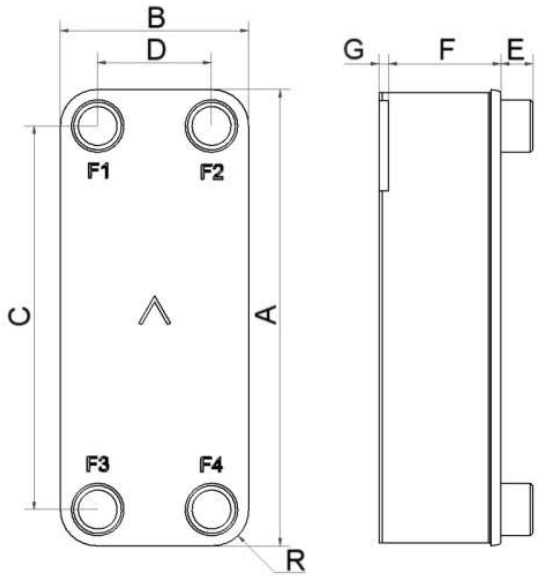
This double-wall product is designed for applications requiring high thermal efficiency, minimal leakage, and improved leak detection. The design offers the same compactness and thermal performance as other SWEP BPHEs.



Basic specifications

Maximum number of plates (NoP)	140
Max flow	11.3 m³/h (49.75 gpm)
Channel volume	0.061 dm³ (0.0022 ft³)
Material	316 stainless steel plates, copper brazing
Weight excl. connections	1.55+(0.22*NoP) kg 3.42+(0.485*NoP) lb

Standard dimensions



#	MM	IN
A	377	14.84
B	119.50	4.7
C	329	12.95
D	72	2.83
F	4.00+1.96*(NoP)	0.16+0.08*(NoP)
G	6	0.24
R	23.50	0.93
E_1	20.10	0.79

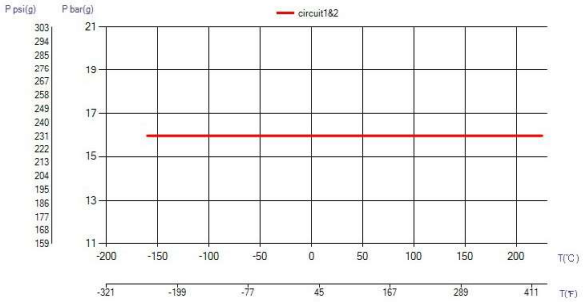
Available connections



Solder Connection | Threaded Ultra High Approved | Threaded Connection | Combo Connection | Victaulic Connection | Hose Connection | Weld Connection | O-Ring Connection

*For specific dimensions, or information about other types of connections, please contact your SWEP sales representative.

PED Pressure / Temperature



Product concept

The Brazed Plate Heat Exchanger (BPHE) is constructed as a plate package of corrugated channel plates with a filler material between each plate. During the vacuum brazing process, the filler material forms a brazed joint at every contact point between the plates, creating complex channels. The BPHE allows media at different temperatures to come into close proximity, separated only by channel plates that enable heat from one media to be transferred to the other with very high efficiency. The concept is similar to other plate and frame technology, but without the gaskets and frame parts.

3rd party Approvals

Most SWEP products are approved by below listed certification organizations: Europe, Pressure Equipment Directive (PED) America, Underwriters Laboratories Inc (UL) Japan, Kouatsu-Gas Hoan Kyoukai (KHK) Additionally SWEP holds approvals from a vast variety of other certification organizations. For more details please contact your local SWEP representative. SWEP reserves the right to make changes without prior notice.

Find product solution - SSP

With SWEP's unique SSP, the SWEP Software Package, you can do advanced heat transfer calculations yourself. It's also easy to choose connections and generate drawings of the complete product. If you would like advice, SWEP offers all the service and support you need. Several SWEP accessories are also available to fulfill additional needs.

Disclaimer

The information and recommendations in regards to the products are presented in good faith, however, SWEP makes no representations or warranties as to the completeness or accuracy of the information. Information is supplied upon the condition that the purchasers will make their own determination as to the products' suitability for their purposes prior to use. Purchasers should note that the properties of the products are both application and material selection dependent and that products containing stainless steel are still object to corrosion if used in unsuitable environments. Standard data is presented, product variants with different data may exist. Contact your SWEP sales representative for more details. SWEP may change any data without notice.

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MONOPHASIQUE - DIMENSIONNEMENT

SWEP SSP G8 2024.1217.3.0

ÉCHANGEUR: BDW16DWHx40/1P-SC-S (BDW16DWH/1P-SC-S 4x3/4")

Date: 29/01/2025

Code Art.: 13477-040

Alias SSP: B16DW

DÉTAILS DES OFFRES

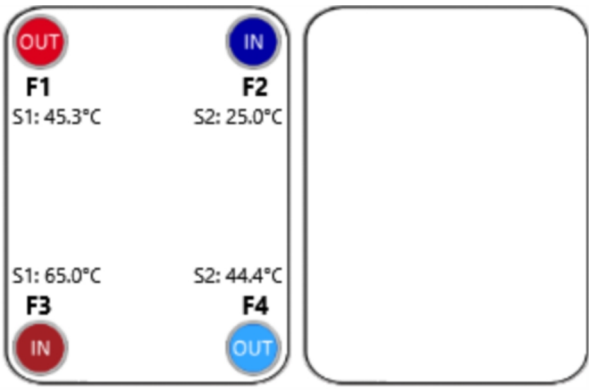
Référence: • Echangeur plaques 45 kw

DONNÉES DE CONNEXION

Port	NND	Dénomination
F1	18	ISO-G 3/4" A NON-CASTED (20)
F2	18	ISO-G 3/4" A NON-CASTED (20)
F3	18	ISO-G 3/4" A NON-CASTED (20)
F4	18	ISO-G 3/4" A NON-CASTED (20)

LIEU DE CONNEXION	Côté 1 (S1)	Côté 2 (S2)
Entrée	F3	F2
Sortie	F1	F4

CONFIGURATION DU FLUX DE PORT



F - Côté P - Côté

NOTES DE CONNEXIONS

F2, F3: Pressure drop in inlet connection is >= 1 kPa

SPÉCIFICATIONS		Côté 1		Côté 2
Fluide		**Eau**		**Eau**
Circulation			**Contre-Courant**	
Circuit		Contenu		Contenant
Puissance	kW		**45.00**	
Température d'entrée	°C	**65.0**		**25.0**
Température de sortie	°C	45.3		44.4
Débit	m³/h	**2.000**		**2.000**
Pertes de charges (PdC de conception)	kPa	10.2 **(20.00)**		10.1 **(20.00)**
NUT		0.97		0.95

ÉCHANGEUR À PLAQUES		Côté 1		Côté 2
Surface d'échange	m²		1.56	
Flux thermique	kW/m²		28.9	
Différence de température moyenne	K		20.4	
Overall heat transfer coefficient obligatoires	W/m²,°C		1420	
Pertes de charge - totals	kPa	12.5		12.4
- dans les ports	kPa	0.435		0.446
- connexions d'entrée	kPa	1.54		1.56
- connexions de sortie	kPa	0.716		0.740
Diamètre de ports (Haut/Bas)	mm	27.0/27.0		27.0/27.0
Nombre de canaux par passe		19		20
Nombre de plaques			40	
Surpuissance	%		179	
Facteurd'encrassement	m²,°C/kW		0.443	
Nombre de Reynolds		1008		677.0
Vitesse dans les ports (Haut/Bas)	m/s	0.965/0.965		0.973/0.973
Vitesse dans les canaux	m/s	0.172		0.164
Tensions de cisaillement	Pa	25.6		25.3

ÉCHANGEUR À PLAQUES		Côté 1		Côté 2
Moyenne température de paroi	°C	47.0		43.6
Différence maxi de températures de paroi	K		3.8	
Min./Max. température de paroi	°C	37.4/57.0		33.6/53.2

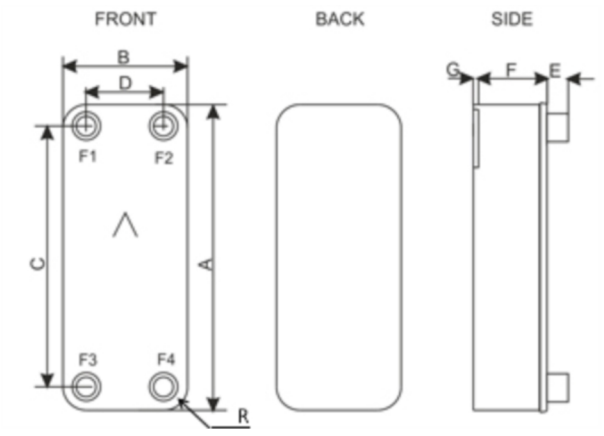
NOTES

i *An AHRI model might be possible. Please contact your local SWEP sales office for more information*

PROPRIÉTÉS PHYSIQUES		Côté 1	Côté 2
Température de référence	°C	55.1	34.7
Viscosité dynamique	cP	0.503	0.724
Masse volumique	kg/m³	985.7	994.2
Chaleur massique spécifique	kJ/kg,°C	4.183	4.178
Conductivité	W/m,°C	0.6494	0.6228
Coefficient de film	W/m²,°C	10100	9300

TOTAUX		Côté 1		Côté 2
Masse totale vide	kg		10.57	
Masse totale plein	kg		12.93	
Volume (Contenu Circuit)	dm³		1.16	
Volume (Contenant Circuit)	dm³		1.22	
Diamètre Port F1/P1	mm		27	
Diamètre Port F2/P2	mm		27	
Diamètre Port F3/P3	mm		27	
Diamètre Port F4/P4	mm		27	
Matière plaques			AISI316 Acier inoxydable	
Matière Brasage			Cuivre	
Pression maxi de service	bar(g)		16	
Pression d'épreuve	bar(g)	29		29
Min./Max. Température de service	°C		-196/225	

DIMENSIONS



A	mm	377 ±2
B	mm	119.5 ±1
C	mm	329 ±1
D	mm	72 ±1
E	mm	20 ±1
F	mm	84.4
G	mm	6 ±1
R	mm	23.5

**Ceci est un plan schématique. Pour obtenir les plans précis, veuillez utiliser la fonction commande de plans ou contacter votre représentant SWEP.*

EMPREINTE CARBONE	Unit	Value
Sweden - Landskrona	kg	53.3
USA - Tulsa	kg	55.9
Slovakia - Košice	kg	60.6
Malaysia - Kuala Lumpur	kg	84.4
China - Suzhou	kg	144.8

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