SWEP

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All-Stainless

Durable, compact, and efficient BPHEs
for the most demanding applications

Best in class for corrosion resistance, leaching, hygiene, and efficiency

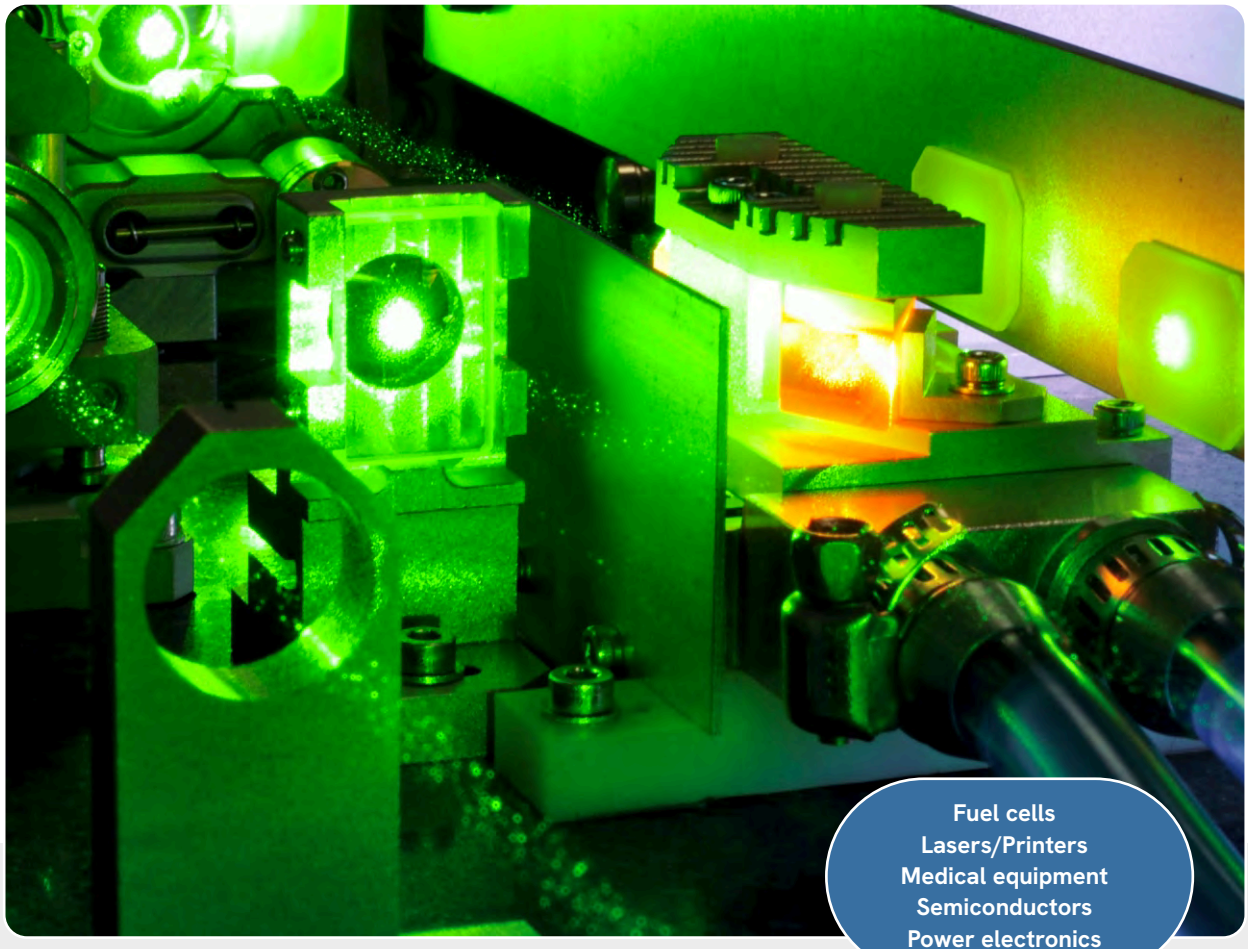
Ammonia

Ammonia is aggressive to copper. In systems with ammonia as the heat transfer media, traditional copper-brazed BPHEs are at high risk of corrosion leading to system failure. SWEP All-Stainless BPHEs are ideal for preventing copper corrosion and avoiding system failure. The robust construction is suitable for various ammonia applications, including demanding cascade applications.

The SWEP All-Stainless range is the ideal choice for a wide range of industrial and utility applications that impose high demands on corrosion resistance and have a low tolerance for contamination. Our robust and durable stainless steel range is also optimal for high-temperature and high-pressure applications. Their combination of highly efficient heat transfer and compact design makes SWEP All-Stainless BPHEs the perfect solution for many confined spaces. We can also customize this modular product to meet your specific requirements.

Side-stepping corrosion and leaching
The SWEP All-Stainless range is especially suitable for systems where the heat exchanger must withstand aggressive media and where contamination must be avoided at all costs.

Stainless steel BPHEs have channel plates made of genuine stainless steel. They are brazed together with an iron-based copper-free filler material that mimics the composition of the plates. The carefully considered composition delivers superior corrosion resistance and makes the SWEP All-Stainless range suitable for aggressive media such as ammonia, deionized water, and fluids with a high sulfur content. Being 100% copper-free, our All-Stainless BPHEs are the ideal replacement for traditional copper- and nickel-brazed heat exchangers where leaching must be avoided.



Deionized water

Deionized water is one of the most aggressive solvents known, and can corrode many metals, including copper. At low conductivity levels copper can dissolve into the DI water resulting in contamination and gradual weakening of the brazing joints. With SWEP All-Stainless BPHEs you can be confident that you are eliminating the risk of contamination and copper corrosion and prolonging the lifetime of your system.

SWEP All-Stainless models combine high resistance to corrosion, low risk of contamination, and high thermal strength in a single BPHE with no compromise on outstanding thermal performance.

Low maintenance – longer lifetime
SWEP BPHEs have no gaskets or loose parts, so they can be cleaned without disassembly. The All-Stainless construction means there is no need for replacements caused by copper corrosion. Furthermore, the copper-free material maintains oil quality and minimizes the need for oil replacement. The SWEP All-Stainless range keeps maintenance to a minimum, and avoids labor costs and expensive downtime.

Higher efficiency – lower carbon impact
With 100% stainless steel construction and minimal use of raw material in their construction relative to their mechanical strength, our All-Stainless BPHEs are all about increasing efficiency. The SWEP All-Stainless

Biogas drying
Biogas compressing

Biogas

Drying and compressing biogas impose high demands on components such as heat exchangers because of the highly corrosive sulfur content. SWEP copper-free All-Stainless BPHEs are ideal for these applications because they combine highly efficient heat transfer with excellent corrosion resistance and a small footprint.

range combines robustness and durability with highly efficient heat transfer in a compact unit. Furthermore, the material in SWEP All-Stainless products can be more easily recycled, which helps reduce the carbon footprint of heat transfer.

Oils

Although copper-brazed BPHEs are successfully used in many oil cooling systems, for some systems with more aggressive oils, copper leaching may be triggered. This may result in initial or regular oil changes, which is time-consuming and costly.

When you choose SWEP All-Stainless products, you get a compact solution that delivers extremely efficient heat transfer while ensuring zero copper leaching, thanks to their copper-free material.

Customized flexibility
We pride ourselves on our application knowledge and an ever-evolving product range. This is only possible by maintaining very close connections with our customers, in which we listen, learn, guide, and adapt to changes and demands.

Our modular concept and flexible design allow us to customize both the plate and the brazing materials to achieve the best possible fit to the specification for your application. And to deliver with sh

Pharmaceuticals
CBD extraction equipment

Pharmaceuticals

All-Stainless heat exchangers are preferred for many applications where contamination from the heat exchanger material must be kept low and where hygiene is important, for example in pharmaceuticals, drinking water, and CBD extraction industries.

Our All-Stainless BPHEs have proven performance when contamination by both copper and nickel must be avoided.

All-Stainless advantages

- Highly efficient heat transfer with compact brazed plate technology
- Exceptional corrosion resistance
- Low contamination tendency
- Robust design withstanding high pressures and temperatures
- Compact design fits into small spaces
- Low carbon footprint with efficient use of material
- Extended lifetime with minimal maintenance and cleaning
- Customized flexibility with modular concept
- Low refrigerant charge leading to lower environmental impact

Safeguarding quality and performance

We test our All-Stainless range extensively to ensure optimal performance, quality, and durability at all times.

Our testing scheme includes thermal and hydraulic performance, corrosion and leaching, mechanical and thermal fatigue, and pressure and leakage testing to certify the very best performance, lifetime, and efficiency of our All-Stainless range.

All-Stainless product range

BPHE Model		B4TS	B5T	B10TS	B15T	B80S	B85S	B221	B222
Plate type		H	H	H	H	H	H	H/L	H/L
Dimension	mm	194x77	193x75	289x119	468x76	526x119	526x119	529x271	529x271
	inch	7.66x3.03	7.59x2.95	11.3x4.68	18.43x2.99	20.7x4.68	20.7x4.68	20.8x10.6	20.8x10.6
Port size	mm	18	16	24	16	33	33	42	53
	inch	0.689	0.63	0.945	0.63	1.30	1.30	1.65	2.09
PED Pressure @135°C	bar	133/133	31/31	31/31	30/30	27/19	31/31	40/40	25/25
	psi	1929/1929	450/450	450/450	435/435	392/276	450/450	580/580	363/363
UL max pressure	bar	140/120	31/31	31/19	28/28	27/19	27/19	35/35	21/21
		2030/1740	449/449	449/275	406/406	391/275	391/275	507/507	304/304
Max temperature	°C	350	350	350	350	350	350	200	200
	°F	662	662	662	662	662	662	392	392
Max number of plates (NoP)		100	60	140	60	140	140	150	150

At SWEP, we believe our future rests on giving more energy than we take – from our planet and our people. That's why we pour our energy into leading the conversion to sustainable energy usage in heat transfer. Over three decades, the SWEP brand has become synonymous with challenging efficiency.

SWEP is a world-leading supplier of brazed plate heat exchangers for HVAC and industrial applications. With over 1,100 dedicated employees, carefully selected business partners, global presence with production, sales and heartfelt service, we bring a level of expertise and customer intimacy that's redefining competitive edge for a more sustainable future. SWEP is part of Dover Corporation, a multi-billion-dollar, diversified manufacturer of a wide range of proprietary products and components for industrial and commercial use.

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