



# Plate designs that optimize your plant performance

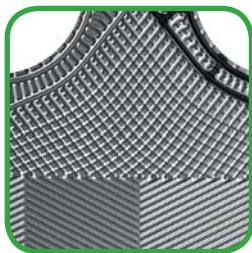
SERIES: ORION, QUASAR, LEO, A, CAPELLA, ZEPHYR, AND SIRIUS

## Plate features for efficient and reliable heat transfer

Plate Heat Exchangers play an important role in maximizing the use of energy in many heating and cooling processes by transferring heat efficiently and recovering heat for reduced energy use and environmental impact. APV plate heat exchangers are used for heating, cooling, condensing and evaporation duties in several industrial processes across various markets – including oil and gas processes, chemicals, electric power generation, general industrial, and HVAC applications. SPX most recent plate design developments offer optimum flow distribution and higher operating pressure capabilities. The superior ratio between plate thickness and pressure rating ensures high thermal efficiency. Plates are characterized by a set of features contributing to the efficiency and reliability of customers' heat transfer processes:

FEATURES	ADVANTAGES	BENEFITS
Distribution area	→ Efficient flow distribution system	→ Preventing mal-distribution
Corrugated plate pattern	→ Plate geometry promoting turbulence and low pressure drop at high efficiency	→ Good heat recovery effect
	→ Easy-to-clean, low-fouling plate rate patterns	→ Maximize run time
APV EasyClip gasket	→ Bevelled gasket edges easily clip into place using your fingers. Stays securely in place and provides high sealing integrity	→ Reliable operation → Easy and quick to replace → No special tools needed
APV Plate Locking Systems	→ APV "Corner Lock" and "Bubble Lock" concepts ensure a stable and well aligned plate pack every time the unit is closed	→ Safe and economic operation → High serviceability → Minimum service downtime

The portfolio of APV gasketed plate heat exchangers are characterized by excellent thermal performance for optimal efficiency, high plate pack stability for long performance, and easy serviceability for reduced service downtime. APV offers a wide range of models in different sizes ranging from high-capacity, heavy-duty units to smaller, compact designs. SPX provides these heat exchangers in various plate and gasket materials in a standard (PED design code) from 10 barg up to 25 barg design pressures.



Distribution Area

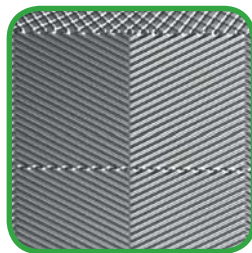


Plate Pattern



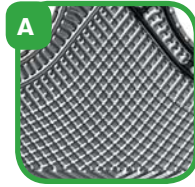
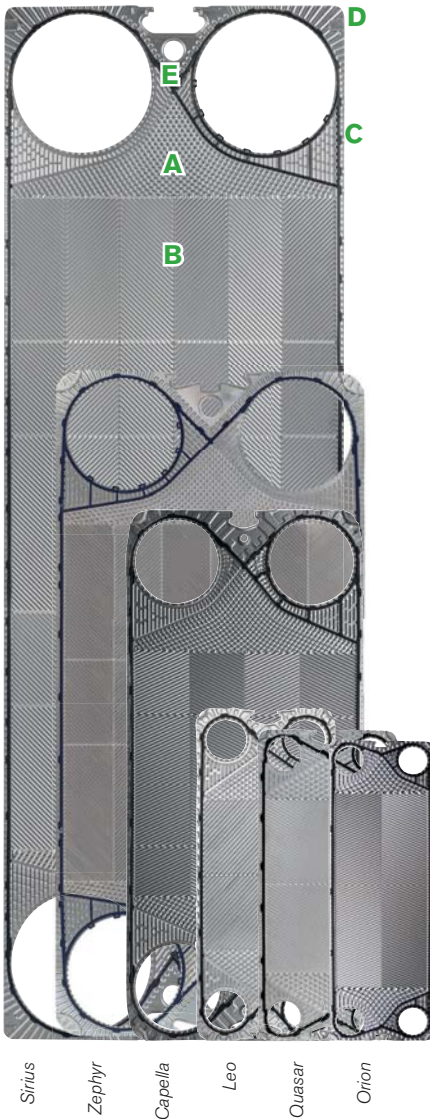
APV Bubble Lock



APV Corner-Lock

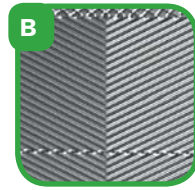


EasyClip



#### A Distribution Area

The distribution area ensures efficient flow distribution and usage of the entire width of the plate, which prevents maldistribution ("dead-spots"). This, in combination with the plate corrugation pattern, results in maximum use of the heat transfer area.



#### B Heat Transfer Area

The heat transfer area is designed to provide the highest turbulence consistent with desired pressure drop and minimal fouling. Various plate sizes, corrugation patterns, and plate angles enable high design flexibility to match specific duty requirements.



#### C APV EasyClip Gasket System

The APV EasyClip gaskets are designed to easily clip into place using your fingers. It stays securely in place during operation and replacement can be done easily and quickly, reducing service downtime. The EasyClip gasket stands out by being fully encapsulated in the plate pack, thus avoiding exposure of the elastomer clip to possible physical or environmental damaging effects (par example UV radiation).



#### APV Plate Locking systems

"D APV Corner-Lock" and "E APV Bubble Lock" the unique plate-alignment systems, provide superior plate pack stability and enable the safe use of thinner and thermally more efficient plates. The excellent plate pack stability prevents against misalignment and possible "snake-effect" as consequence of pressure shocks or pulsation impact. Inspection and service can be done easily and quickly. The plates easily interlock to form an aligned and stable plate pack - avoiding misassembling and reducing service downtime.



Sirius  
Zephyr  
Capella  
Leo  
Quasar  
Orion

## Global locations

#### SPX FLOW TECHNOLOGY

Platinvej 8  
6000 Kolding  
Denmark

T: +45 70 278 444

F: +45 70 278 445

E-mail: apv.emea.heat@spx.com

#### SPX FLOW TECHNOLOGY

1200 West Ash Street  
P.O. Box 1718 Goldsboro  
North Carolina 27533-1718  
USA

T: +1 (919) 735-4570

F: +1 (919) 731-5498

E-mail: answers.us@spx.com

**SESINOKS®**  
METAL VE ENDÜSTRİYEL ÜRÜNLER A.Ş.

Dudullu OSB 2. Yol No:20

Ümraniye - İSTANBUL

Tel: +90 0216 420 10 00 Fax: +90 0216 420 74 39

e-mail: info@sesinoks.com.tr

web: www.sesinoks.com.tr

**SPX**

SPX Flow Technology, Platinvej 8, 6000 Kolding, Denmark

P: +45 70 278 444 F: +45 70 278 445 E: apv.emea.heat@spx.com

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