

Process Heat Transfer

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PROCESS HEAT TRANSFER BROCHURE

FAMILY

Process Heat Transfer

Bonded plate, diffusion-bonded, welded plate and shell-and-tube exchangers for difficult media, pressure and temperature duty.



SHELL AND TUBE HEAT EXCHANGER BUNDLE

Process exchangers for difficult media, high pressure, cryogenic duty, safety separation and gas-component separation. The range spans compact bonded cores, large welded plate modules and shell-and-tube units, each selected against process conditions and lifecycle requirements.

Product lines
6

Design standards
ASME VIII Div. 1 / Div. 2 · TEMA R / C / B · API 660 · API 661

Material scope
316L stainless · Duplex 2205 · Titanium · Nickel alloys · Carbon steel

Application scope
LNG · Chemicals · Hydrogen · Pharmaceutical · Refining · Power

Selection route

Start with the duty point, then confirm the family, line, series and equipment envelope. The project datasheet replaces the representative planning values.

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RANGE

6 product lines.

Each line carries its own duty envelope and series depth. The line pages hold the detailed selection data.

PRODUCT LINE	FOCUS	KICKER	SERIES
Bonded Plate Process Heat Exchanger	Bonded plate process exchangers for compact, high-integrity heat transfer where footprint, efficiency, and pressure containment drive equipment selection.	Bonded plate core / compact process duty	2
Desublimators	Batch desublimation units for separating valuable or hazardous components from gas streams by controlled cooling and warming.	Gas separation / cooled fin surfaces	3
K-Flex Style Plate Heat Exchanger	Large welded plate-module exchangers for gaseous, liquid, and two-phase process media with low pressure loss.	Large welded plate modules / low pressure drop	1
Diffusion Bonded Heat Exchanger	Diffusion-bonded compact exchangers for extreme pressure and temperature duties including hydrogen and offshore process applications.	Extreme pressure / compact bonded core	2
Shell & Tube Double Safety	Double-tube shell-and-tube exchangers for applications where accidental media mixing must be detected and prevented.	Leak-monitored double tube systems	3
Shell & Tube Single	Single-wall shell-and-tube exchangers from compact standardized modules to fully customized industrial equipment.	Robust shell-and-tube / modular families	5



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REPRESENTATIVE EQUIPMENT

Range note

Series and variant values are representative planning data. Certified performance and dimensions are issued against the project duty point.

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SERIES

Family series ledger

Configuration routes inside this line. Series codes are Novaryn references; project-specific model codes are confirmed on the order.

CODE	SERIES	RANGE / APPLICATION	CONFIGURATION
NX-PT-067	Compact	Modular bonded plate core	Process skid fit · High transfer density
NX-PT-068	Severe	Demanding process service	Material-led configuration · Pressure-aware planning
NX-PT-069	High Pressure	Pressure desublimator	Demanding gas streams · High separation duty
NX-PT-070	Mini	Compact desublimator	Pilot or smaller streams · Space-constrained systems
NX-PT-071	Switch	Switch condenser	Alternating batch operation · Continuous process support
NX-PT-072	LowDrop	2,500-12,000 m2 planning class	Tube-like and wave-like channels · High flowrate duties
NX-PT-073	HHX	Hydrogen heavy-duty class	Refueling station route · Extreme pressure service
NX-PT-074	SHX	Severe process class	Offshore and cryogenic applications · Low footprint
NX-PT-075	Standard	Cost-efficient safety route	Common industrial duties · Leak monitoring
NX-PT-076	Welded	Demanding requirement route	Higher specification shells · Process-critical duties
NX-PT-077	Sustainable	Special application route	Natural gas and sensitive utilities · Environmental compliance
NX-PT-078	ST-A	Brazed aluminum shell	Compact oil and air cooling · Series equipment route
NX-PT-079	ST-P	Compact modular unit	Standardized parts · Balanced cost and configurability
NX-PT-080	ST-R	Refrigeration unit	Refrigeration applications · Stable thermal duty
NX-PT-081	ST-V	Viscous/high-temperature media	Difficult fluids · High-temperature applications
NX-PT-082	ST-N	Fully customized unit	Industrial special duty · Insert bundle route

Representative planning data. Certified ratings, dimensions, connection details and material schedules are issued against the project duty point.

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APPLICATION

Where the family belongs.

Typical sectors and equipment routes. Project suitability is confirmed against the site conditions and specification.

Applications

- LNG
- Chemicals
- Hydrogen
- Pharmaceutical
- Refining
- Power

STANDARDS & MATERIALS

The engineering framework.

Design standards

ASME VIII Div. 1 / Div. 2 · TEMA R / C / B · API 660 · API 661

Material scope

316L stainless · Duplex 2205 · Titanium · Nickel alloys · Carbon steel

Industry routes

Power & Energy · Heavy & Light Industry · Chemicals · Oil & Gas

Documentation

Brochure · datasheets · drawings · manual

DOCUMENTATION

Family documents

Public documents are downloadable from the product library. Certificates and material reports are issued against the order.

DOCUMENT	TYPE	REV.	PAGES	ACCESS
Process Heat Transfer Brochure	Family brochure	Rev. 04	6	Download
Process Heat Transfer — Installation and Maintenance	Installation manual	Rev. 02	8	Download
Process Heat Transfer — Certificate of Conformity	Certificate	Issued per order	1	On request
Process Heat Transfer — Material Test Report	Material test report	Issued per order	1	On request

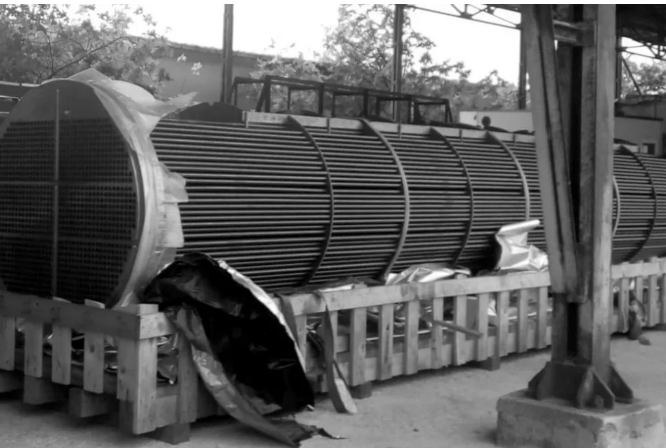
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LIFECYCLE

The family does not end at dispatch.

Spares, inspection, cleaning and retrofit use the same serial record as the original selection.

- Serial-matched spare parts and consumables
- Inspection, cleaning and performance review
- Retrofit, capacity uplift and refrigerant transition
- Commissioning and field service through the partner network
- Installation and maintenance manuals from the product library



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REPRESENTATIVE EQUIPMENT

SERVICE ROUTE	TYPICAL SCOPE	ENTRY POINT
Spares	Gaskets, plates, coils, fans, motors	Serial number
Inspection	Leaks, fouling, performance, condition	Operating data
Retrofit	Capacity, media, refrigerant, envelope	Duty review
Field service	Commissioning, repair, replacement	Partner / Houston

PROCESS HEAT TRANSFER ENGINEERING

Send the duty point.

Media, flow, temperatures, pressure, ambient conditions, plot and access constraints, and the document requirement. If the duty is still forming, send what you have and we will frame the questions.

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