VOLGA HVAC®

GCT
مصنع برج التبريد العالمي
Global Cooling Tower Factory

VOLGA COOLING TECHNOLOGIES-USA

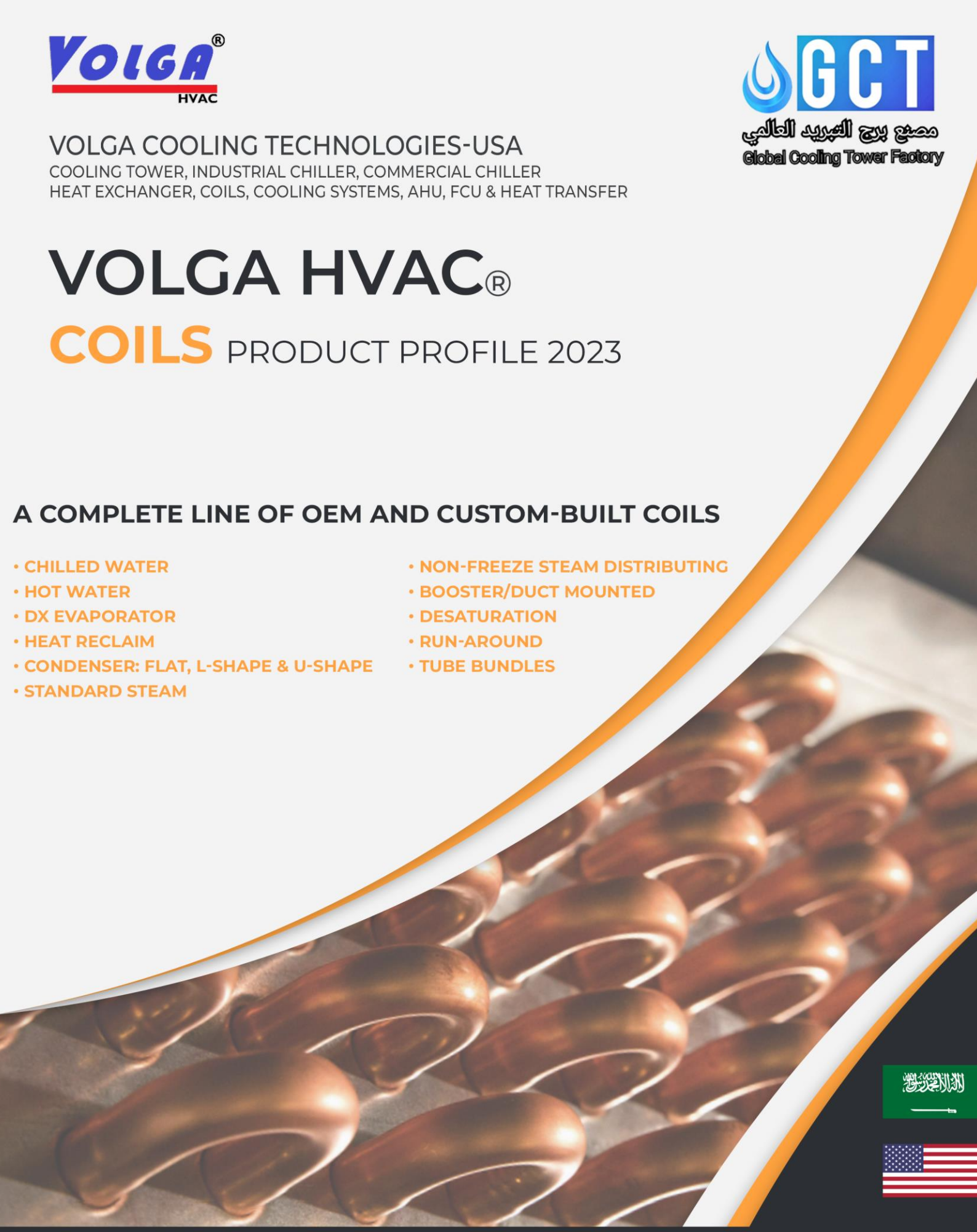
COOLING TOWER, INDUSTRIAL CHILLER, COMMERCIAL CHILLER
HEAT EXCHANGER, COILS, COOLING SYSTEMS, AHU, FCU & HEAT TRANSFER

VOLGA HVAC®

COILS PRODUCT PROFILE 2023

A COMPLETE LINE OF OEM AND CUSTOM-BUILT COILS

- CHILLED WATER
- HOT WATER
- DX EVAPORATOR
- HEAT RECLAIM
- CONDENSER: FLAT, L-SHAPE & U-SHAPE
- STANDARD STEAM
- NON-FREEZE STEAM DISTRIBUTING
- BOOSTER/DUCT MOUNTED
- DESATURATION
- RUN-AROUND
- TUBE BUNDLES



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CUSTOM COILS

Built from the highest-grade materials for optimal performance and long-lasting reliability, our custom commercial coils are designed to match every detail of your existing coil.

BOOSTER COILS Designed for air heating applications using hot water with a variety of casing confi gurations available, including fully fl anged, slip and drive or end plates only.

CHILLED WATER COILS Tube-and-fi n heat exchangers usually consisting of 4–12 rows of tubes that pass through sheets of formed fi ns bonded through tube expansion. As warm air passes across the coil and contacts the cold surface, heat transfers from the water fl owing through the tubes to the air entering the coil. Entering chilled water temperatures range from 40o–55o depending on engineered specifi cations.

DX EVAPORATOR COILS Designed to be used in air-side applications for cooling, heating and dehumidifying with various circuiting options, as well as face split and intertwined designs.

STEAM COILS Designed for medium temperature applications where the entering temperature is approximately 55o or higher, with many material construction options to accommodate all steam pressures.

HOT WATER COILS Tube-and-fi n heat exchangers consisting of 1–4 rows with typical entering water temperatures between 120o–180o. As cold air passes across the coil and contacts the hot fi n surface, heat transfer occurs. Construction for hot water coils is the same process as chilled water coils.

STEAM DISTRIBUTION COILS Also known as non-freeze steam coils, they are designed for low temperature applications with entering air temperatures of 55o or lower. The design consists of one header, a tube-within-a-tube confi guration and steam jets that pass the steam from the inner tube to the outer tube. After the steam leaves the inner tube, it condensates and fl ows back to the return connection. Steam distribution coils are typically manufactured using a pitched casing for optimal condensate fl ow back to the return connection.

CONDENSER COILS Built to rigorous specifi cations for effi cient heat transfer that's ideal for outdoor use. We place an emphasis on brazed connections to combat thermal expansion, as well as harsh environments. All feeds have oversized tube sheet holes to allow unrestricted expansion and contraction of the copper tubes, increasing the reliability of our condenser coils. Designed for use with all refrigerants, including HFCs and HCFCs

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CUSTOM COILS

Chilled Water Coils

Tube-and-fin heat exchangers usually consisting of 4–12 rows of tubes that pass through sheets of formed fins bonded through tube expansion with entering water temperatures ranging from 40˚-55˚.

Tubes

Materials
Copper
Cupro-Nickel
Stainless Steel

Sizes
3/8"
1/2"
5/8"

Wall Thickness
3/8" & 1/2"
• 0.016
• 0.020
5/8"
• 0.020
• 0.025
• 0.035
• 0.049

Fins

Materials
Aluminum
Copper
Stainless Steel

Specifications
3/8": 10-20 FPI
1/2": 6-16 FPI
5/8": 6-14 FPI

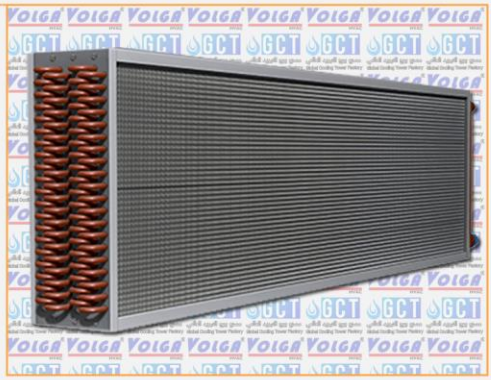
Fin Thickness
• 0.006
• 0.008
• 0.010

Headers

Materials
Copper
Cupro-Nickel
Stainless Steel

Casing

Materials
Galvanized Steel
Stainless Steel



Hot Water Coils

Tube-and-fin heat exchangers consisting of 1–4 rows with typical entering water temperatures between 120˚-180˚. As cold air passes across the coil and contacts the hot fin surface, heat transfer occurs.

Tubes

Materials
Copper
Cupro-Nickel
Stainless Steel

Sizes
3/8"
1/2"
5/8"

Wall Thickness
3/8" & 1/2"
• 0.016
• 0.020
5/8"
• 0.020
• 0.025
• 0.035
• 0.049

Fins

Materials
Aluminum
Copper
Stainless Steel

Specifications
3/8": 10-20 FPI
1/2": 6-16 FPI
5/8": 6-14 FPI

Fin Thickness
• 0.006
• 0.008
• 0.010

Headers

Materials
Copper
Cupro-Nickel
Stainless Steel

Casing

Materials
Galvanized Steel
Stainless Steel

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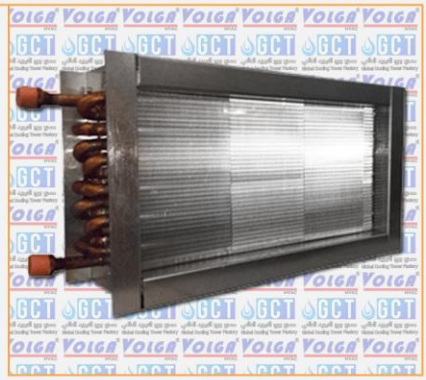
CUSTOM COILS

Booster Coils

Similar to a hot water coil but without a header. Designed for heating applications with a variety of casing configurations available, including fully flanged, slip and drive or end plates only.

Tubes	Fins	Headers	Casing
Materials Copper Cupro-Nickel Stainless Steel	**Materials** Aluminum Copper Stainless Steel	Not available on Booster Coils	**Materials** Galvanized Steel Stainless Steel
Sizes 3/8" 1/2" 5/8"	**Specifications** 3/8": 10-20 FPI 1/2": 6-16 FPI 5/8": 6-14 FPI		
Wall Thickness 3/8" & 1/2" • 0.016 • 0.020 5/8" • 0.020 • 0.025 • 0.035 • 0.049	**Fin Thickness** Aluminum • 0.006 • 0.008 • 0.010 Copper • 0.006		



Condenser Coils

Built to rigorous specifications for efficient heat transfer that's ideal for outdoor use.
We place an emphasis on brazed connections to combat thermal expansion, as well as harsh environments.

Tubes	Fins	Headers	Casing
Materials Copper	**Materials** Aluminum Copper	**Materials** Copper	**Materials** Galvanized Steel Stainless Steel
Sizes 3/8" 1/2" 5/16"	**Fin Thickness** • 0.006 • 0.008 • 0.010		
Wall Thickness 3/8" & 1/2" • 0.016 • 0.020 5/16" • 0.016	Copper • 0.006		

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CUSTOM COILS

DX Evaporator Coils

Designed to be used in air-side applications for cooling, heating and dehumidifying with various circuiting options, as well as face split and intertwined designs.

Tubes

Materials
Copper
Stainless Steel
Cupro-Nickel

Sizes
3/8"
1/2"
5/8"
5/16"

Wall Thickness
3/8" & 1/2"
- 0.016
- 0.020

5/8"
- 0.020
- 0.025
- 0.035
- 0.049

5/16"
- 0.016

Fins

Materials
Aluminum
Copper
Stainless Steel

Specifications
3/8": 10-20 FPI
1/2": 6-16 FPI
5/8": 6-14 FPI

Fin Thickness
Aluminum
- 0.006
- 0.008
- 0.010

Copper
- 0.006

Headers

Materials
Copper
Cupro-Nickel
Stainless Steel

Casing

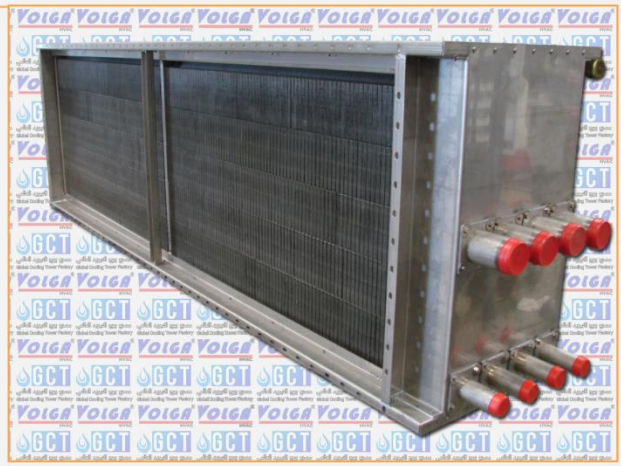
Materials
Galvanized Steel
Stainless Steel

Industrial Coils

Built to withstand harsh environments, our industrial

coils are manufactured from thicker, heavier-grade materials.

Even in extreme conditions, industrial coils deliver lasting performance.



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CUSTOM COILS

Standard Steam Coils

Designed for medium temperature applications where the entering temperature is approximately 55° or higher with many material construction options to accommodate all steam pressures.

Tubes

Materials
Carbon Steel
Copper
Cupro-Nickel
Stainless Steel

Sizes
5/8"
1"

Wall Thickness
.025": 1-25 PSIG
.035": 25-75 PSIG
.049": 75-125 PSIG

Fins

Materials
Aluminum
Copper
Stainless Steel

Specifications
5/8": 6-14 FPI
1": 6-12 FPI

Fin Thickness
Aluminum
• 0.006
• 0.008
• 0.010

Copper
• 0.006

Headers

Materials
Carbon Steel
Copper
Cupro-Nickel
Stainless Steel

Casing

Materials
Galvanized Steel
Stainless Steel

Steam Distribution Coils

Also known as non-freeze steam coils, they are designed for low temperature applications consisting of one header, a tube-within-a-tube configuration and steam jets that pass the steam from the inner tube to the outer tube.

Tubes

Materials
Carbon Steel
Copper
Cupro-Nickel
Stainless Steel

Sizes
5/8"
1"

Wall Thickness
.025": 1-25 PSIG
.035": 25-75 PSIG
.049": 75-125 PSIG

Fins

Materials
Aluminum
Carbon Steel
Copper
Stainless Steel

Specifications
5/8": 6-14 FPI
1": 6-12 FPI

Fin Thickness
Aluminum
• 0.006
• 0.008
• 0.010

Copper
• 0.006

Headers

Materials
Carbon Steel
Copper
Cupro-Nickel
Stainless Steel

Casing

Materials
Galvanized Steel
Stainless Steel

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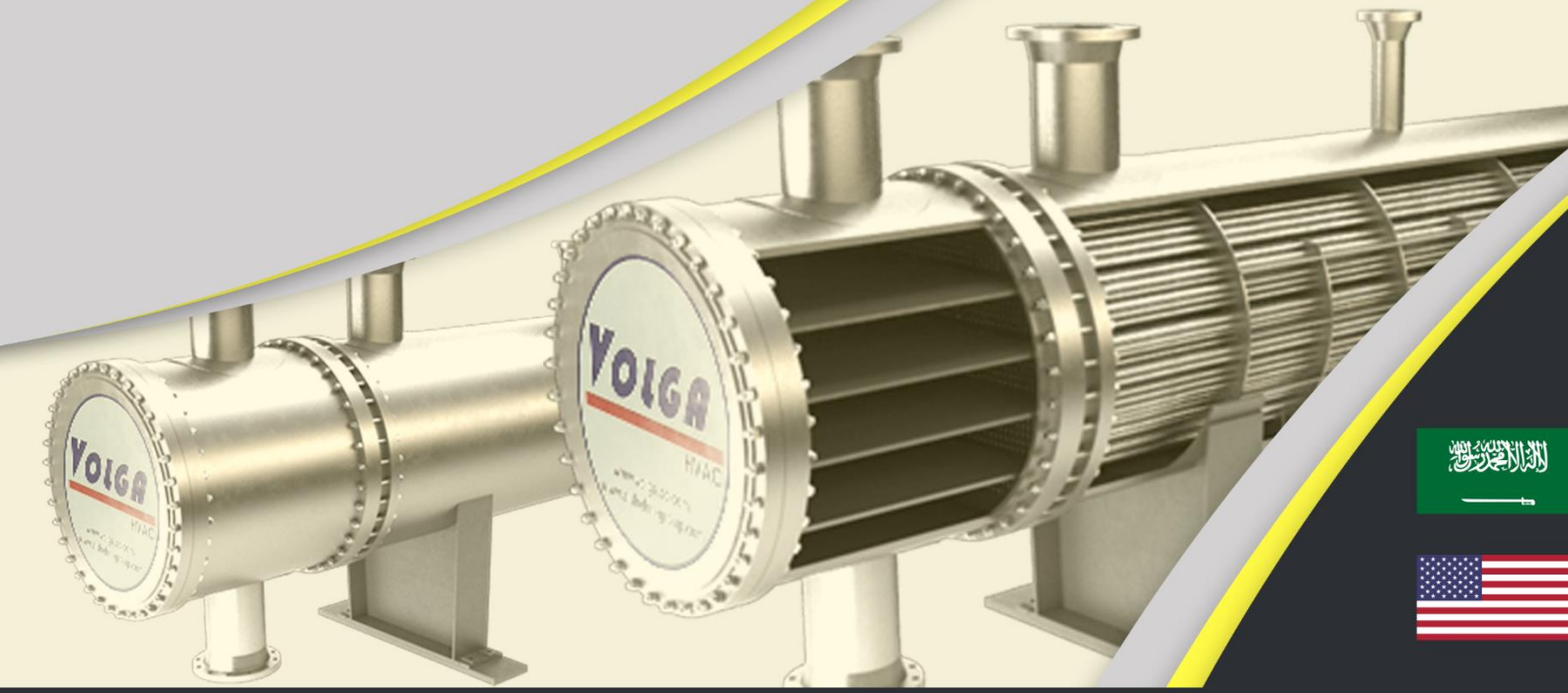
HEAT EXCHANGER

PRODUCT PROFILE 2023

HEAT EXCHANGER TECHNOLOGIES

- SHELL & TUBE CONDENSERS
- SHELL & TUBE EVAPORATORS
- HYDROLIC OIL COOLERS



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HEAT EXCHANGER TECHNOLOGIES

Built from the highest-grade materials for optimal performance and long-lasting reliability,

SHELL & TUBE HEAT EXCHANGER

PERFORMANCE:

VOLGA -HVAC. Shell & Tube Heat Exchangers are used in industrial and comfort cooling units. manufactured in order to provide low pressure loss and high efficiency used in cooling applications where city water and storage water are used and in cooling applications with sea water.
Having adopted customer satisfaction as its main principle, VOLGA -HVAC. also renders services for customer focused projects under different working conditions in addition to its standard product range.

Oil cooling exchangers are ideal for heat transfer fluids, lubricating oils. These high-quality products are manufactured by latest production techniques using the best raw materials. Standard manufacturing range involves 4 fresh-water-cooled and sea-watercooled product groups. The products are marked by high efficiency, ease of cleaning, durability and low cost.

DESIGN AND MATERIAL

VOLGA -HVAC. Condensers are designed in order to minimize performance decreasing factors such as vibration and corrosion. and resistant to corrosive effects of sea water. Materials used are selected according to "European Pressure Vessel Codes"
Heat transfer pipes with a special geometry and inside and outside grooves enabling the heat transfer are

- made of copper, stainless steel 316
- Tube sheets and bodies are made of steel
- Head Covers are made of cast iron, SS316
- Bolts are made of steel alloy, SS316
- Gaskets are made of asbestos free materials that are compatible with HCFC and HCF cooling gases.

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HEAT EXCHANGER, COILS, COOLING SYSTEMS, AHU, FCU & HEAT TRANSFER

GLOBAL CCOLING TOWER FACTORY

MEMBER OF

MOHAMMAD ALSHEHRI GROUP

VOLGA COOLING TECHNOLOGIES

MADE IN SAUDI ARABIA

CERTIFIED

(CTI), (ISO 9001:2015), (ISO 45001:2018), (ASO: QCMS: 1/2020),

(ASO: CSAMS: 1/2021), (ASO: OHSMS: 1/2021) CERTIFICATES.

CONFORM/ DESIGNED VOLGA - HVAC ® FOR KSA & GCC. COUNTRIES.

2023 CTI, STANDARD – USA.

GLOBAL COOLING TOWER FACTORY. **KSA.**

VOLGA COOLING TECHNOLOGIES. **USA.**

(ASO: QCMS: 1/2020) (ASO: OHSMS: 1/2021) (ASO: CSAMS: 1/2021) (ISO 9001:2015) (CTI) ISO 9001:2015

IAS ACCREDITED Management Systems Certification Body MSCB-244

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