



DAV·Helix



About Helix Family

DESCRIPTION

Finned tube heat exchangers [FTHE] have tubes with transverse fins to enhance the heat exchange rate by increasing the effective heat transfer area between the tubes and surrounding fluid, which is usually gaseous such as air or process gases, while inside tubes may flow either gas, water, steam or oil.

The materials used are chosen according to the applications: carbon steel or stainless steel for pipes, and copper, carbon steel, galvanized steel, stainless steel or aluminum alloy for fins.

The DAV Helix are best suited for

air coolers or high temperature and heavy-duty applications.

Compared to round-tube plate-fin heat exchangers, the FTHE is suitable to much higher temperatures: up to 350°C depending to selected materials.

Mechanically is very robust: each finned tube can slide absorbing different thermal dilatations without deformation of the structure and stress to weldings. An exclusive Dav Coil's manufacturing procedure creates coils by bending finned tubes instead of welding U-return bends, which reduces possible leakages and cracks.

ADVANTAGES

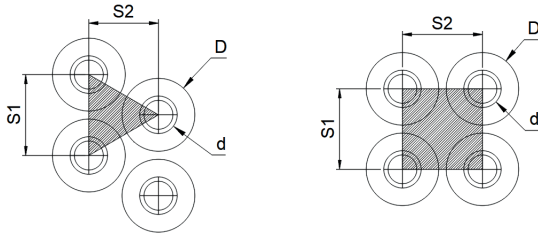
- Heavy duty applications
- Acid proof materials for corrosive environments
- Up to 90% of welded joints less
- Up to 350 °C working temperature





Geometries

with spiral fin tubes



Triangular tube pitch arrangement

Type	S39	S51	S68	S45	S57	S78	S98
S1 [mm]	39	51	68	45	57	78	98
S2 [mm]	34	25,5	19,5	39	49	22,5	28,5
D [mm]	36	36	36	41	51	41	51

Square tube pitch arrangement

Type	Q39	Q51	Q68	Q45	Q57	Q78	Q98
S1 [mm]	39	51	68	45	57	78	98
S2 [mm]	39	39	39	45	57	45	57
D [mm]	36	36	36	41	51	41	51

*other values available on request

Options

Connection types:

threaded nozzle, flange, smooth tube for brazing on site.

Casing designs:

without casing, side plates only, complete casing, air-tight casing, removable cartridge-type.

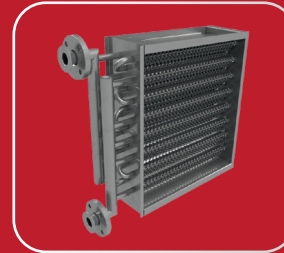
Coatings:

Blygold™, Heresite™, cataphoresis, powder coating.

Accessories:

fan, droplet separator, humidifier, defrosting electric resistors.

Smart Details



STANDARD FRAME



AIR-TIGHT CASING



FINNED TUBES FOR HIGH EFFICIENCY



NO WELDED ELBOW JOINTS

Applications



Power



Oil & Gas



Food & Beverage



Chemical



Heavy Industry



Farming & Greenhouse



Naval



HVAC



Refrigeration



Dryer



Transport



Depuration



Offshore plants





Materials

Tubes	Pre Galvanized Steel	Titanium
	St. steel AISI 304	Aluminum
	St. steel AISI 316L	Nickel alloy
	St. steel AISI 321	

Fins	Carbon steel	Copper
	Galvanized Steel	Stained Copper
	Aluminum	St. steel AISI 304
	Aluminum alloy 5754	St. steel AISI 316L

Fin Material	Fin Thickness [mm]	Fin Pitches [mm]							Geometry							
		3,0	3,7	4,0	6,0	8,0	10,0	12,0	S39	S51	S68	S45	S57	S78	S98	
Carbon Steel	0,4	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Pre Galvanized Steel	0,4	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Aluminum	0,5	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Aluminum alloy 5754	0,8		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Copper	0,3	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Stained copper	0,3	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
SS AISI 304	0,4	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

*other options available on request

