Searle

GEA Searle - NF Ammonia Refrigeration Flatbed

General infomation - The Searle NF - Ammonia Refrigeration Flatbed is part of a family of air side products including the RF - Refrigeration Flatbed, GF – Gas cooler Flatbed for CO2 and LF - Liquid Flatbed. The NF range is primarily designed to work with refrigerants such as NH3. Selection and pricing can be performed using the Searle Product Selection Software which can be downloaded from our website **www.searle.co.uk**

Capacities - 11 kW to 1330kW

Fin material	Description
ST/AL	Stainless steel tube/Aluminium fin
ST/AV	Stainless steel/Epoxy coated Aluminium fin
ST/BG	Stainless steel/Aluminium fin Blygold coated
ST/MB	Stainless steel/Aluminium Magnesium fin Blygold coated
ST/AM	Stainless steel/Aluminium Magnesium fin
ST/CU	Stainless steel/Copper fin
ST/ET	Stainless steel/Copper fin Electro tinned

Coil - The NF range utilises the T-Fin tube configuration for most applications. The T-Fin (11FPI) incorporates 12mm stainless steel tube on an equilateral spacing to achieve optimal heat exchanger efficiency for this tube diameter. The coil is fully supported through its length and depth, by tube sheets and internal fan baffles secured to the continuous one piece side plates. The coil tubes are also supported on Aluminium or Copper centre plates secured to the tube sheets and fan baffles creating an 'H' frame construstion for strength.

Casework - The casework is designed to maximise strength whilst reducing the number of components. Each side plate is cold formed from a single piece of pre-galvanised sheet steel and powder coated RAL7032 (Pebble Grey) on the outside with a Interlock construction creates an 'I' frame structure. This special form which can be maufactured up to 12m long, gives tremendous strength and forms an integral part of the heat exchanger support structure.

Options	Description
Legs Extended	250mm, 500mm (Standard), 750mm, 1000mm
Isolators	Fan mounted isolators
Sub-cooling / Multi-sections	Selection from - 7K at 15K ΔT, 5K at 15K ΔT
Packing	Open crate, Closed boarded crate, Pallet, Hardboard coil protection
Stacking	Flat-bed units can be stacked to reduce transport costs
Vertical Arrangement	Vertical units – no additional cost
Alternative Fin Materials	ST/AL , ST/AV, ST/BG, ST/AM, ST/MB, ST/CU, ST/ET
Special Paint / RAL / C5M	Alternate unit colours or C5M Marine coating
Adiabatic System	Copper or PVC piping
Terminal Box	Terminal box for customer control
Control Box	Available for AC and EC fan motors using - Pressure control, Temperature control
Inverter	Inverter controls for AC fans
Mounted Receivers	Receiver mounting and piping
Housings customised	Condenser housings supplied separately or integrated with the air cooled condenser
Frames	Mounting frames



Fans - Searle offer either AC or EC fans supplied by either EBM Papst, Ziehl-Abegg or Fläkt Woods with options of 800mm, 900mm and 910mm diameter and 6, 8,12 pole.

Controls - Basic options on these ranges are:

- Unwired – Installer wires directly to fan terminal boxes.
- Junction Box – Single or twin according to unit model
- Staged Control – motor switchgear with or without controller.
- Speed Control – EC, inverter or triac.

All the above options are available with fan mounted isolators.

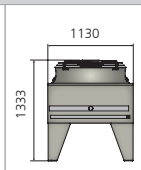
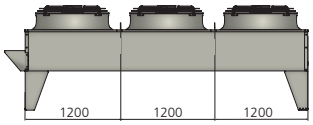
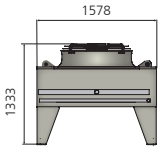
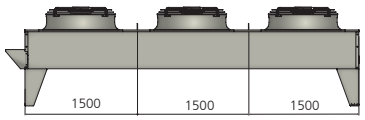
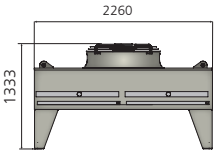
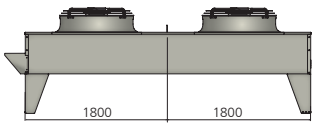
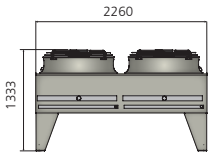
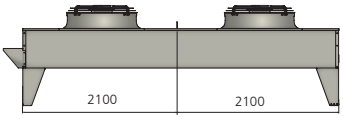
Features

- Performance tested to EN328 and EN13487
- Manufactured to Quality Standard ISO9001:2008
- Formed side channel for strength
- Centre plates for 'H' frame construction
- Forklift channels and lifting eyes from 3 fans and above
- Galvanized steel case, legs and centre plates.
- Aluminium/Copper tube support
- Standard fin spacing 2.3mm on T fin units
- 4 module sizes
- Powder coated RAL 7032 grey
- Stainless Steel (ST) tube, Aluminium (AL) fins
- Stainless Steel headers
- Pressure tested and sealed
- AC and EC fans available as standard

Certification - NF models are "Eurovent Certify All" certified. Searle is a quality assured company to ISO 9001: encompassing Performance Testing, Manufacturing Systems and Inspection Procedures. Searle's products are also CE marked.

Selection software - Selection and pricing can be performed on the Searle Selection software which can be downloaded from our website **www.searle.co.uk**

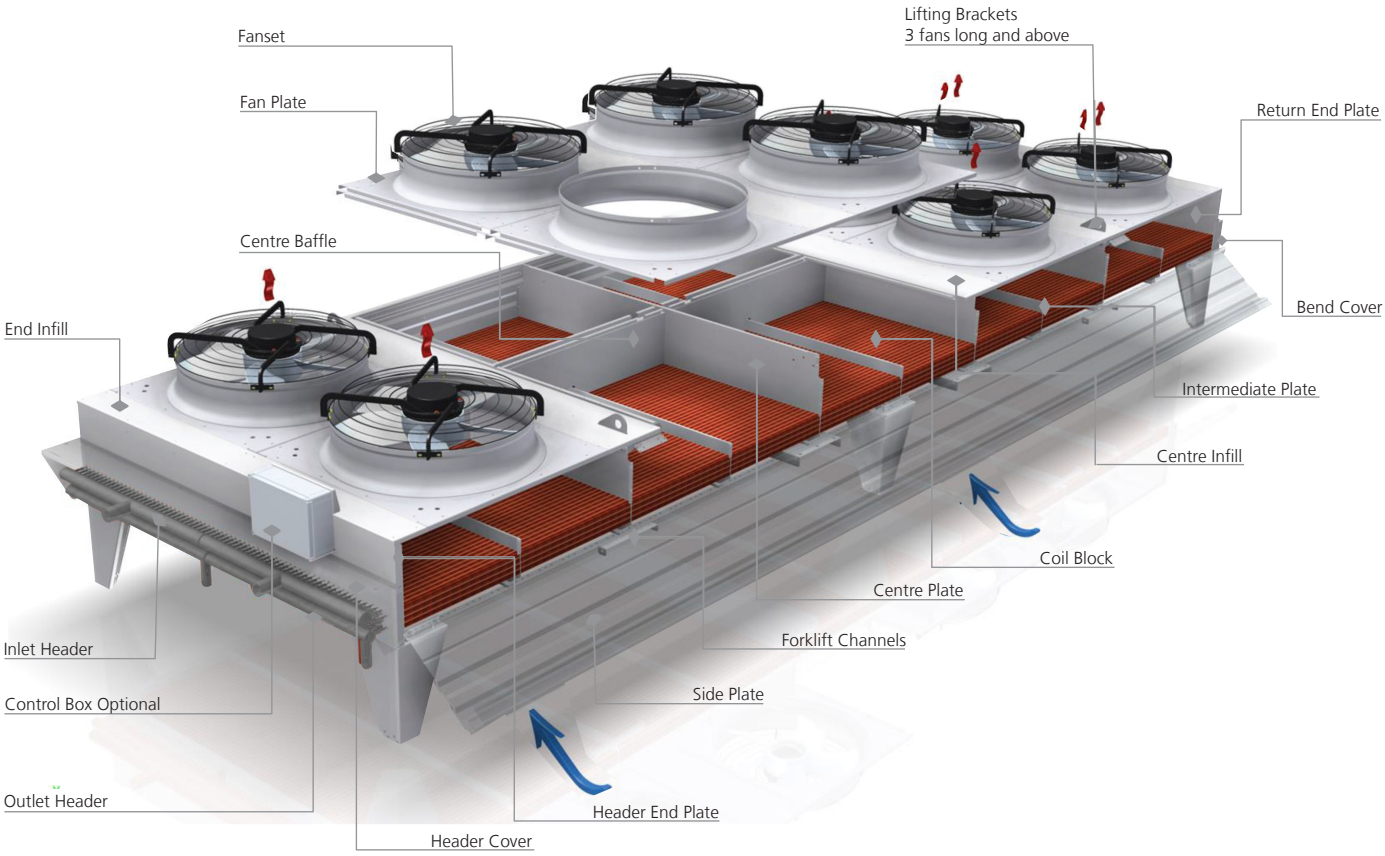
Dimensions drawings

	Module Width	Module Length	Module Width	Module Length
NF-M		A 	NF-N 	B 
NF-P_1		C 	NF-P_2 	D 

Nomenclature

N	F	-	P	A	2	04	T	2	H	-	080	N	06	D

Product series:	**N** = NH3 (ST/ST tube)
Unit form:	**F** = Flatbed
Module width:	**M** = Narrow, **N** = Medium, **P** = Wide
Module length:	**A** = 1200mm, **B** = 1500mm, **C** = 1800mm **D** = 2100mm, other options available
Fan rows:	1 or 2
Fans per row:	1 - 10
Fin type:	**T** = 12mm tube
Coil rows:	2, 3, 4
Orientation:	**H** = Horizontal, **V** = Vertical
Fan Diameter:	**080** = 800mm, **090** = 900mm, **091** = 910mm
Fan type:	**N** = AC Normal Woods, **H** = AC high power, **E** = ebm EC, **P** = Ziehl EC
Speed Options:	06, 08, 12, EC
Motor wiring:	Delta, Star



GEA Heat Exchangers

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