

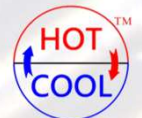
Presentation for Air/Oil Coolers



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Index

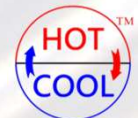
- Introduction & Range
- Nomenclature of Part Number
- How to select cooler & Enquiry
- Test of Cooler Selection
- Cooler Selection & Technical Formula
- Equivalent coolers against competitors
- Potential Industry
- Potential Customers
- Strength and Weaknesses



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Introduction & Range

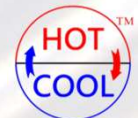
- We proudly Introduce Alu Vacuum Brazed Air-Oil Cooler with our Own Brand “VARALKA” make
- Coolers are Imported from Europe and we are doing assembly in India
- Range from 2.5 Lpm to 700 Lpm in Single Cooler
- Cooler with DC Fan, Hydraulic Motor, Three Phase, Single Phase Power Supply
- Special Drain line Coolers of Emmegi Italy
- Offline Cooling Units



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Nomenclature of Part Number

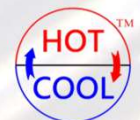
- Example: V-255004001
 - ✓ V – Varalka Make
 - ✓ 25 – (Cooler Series) S Series
 - ✓ 50 – (Cooler model) 2050K
 - ✓ 04 – (Fan Type) Cooler with Electric B14 Motor
 - ✓ 0 – Thermostat Range
 - ✓ 01 – (Fan Type) Suction



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



How to select Cooler & Enquiry

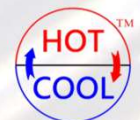
- How we can take Requirement from Customer.
- What we will do if sufficient data is not available
- How we can guess technical data?
- Mandatory Require Data for cooler selection:
 - Oil Flow / Pump Flow
 - Heat Load / Main Motor HP
 - Oil Inlet Temp / Oil Temp needs to maintain
 - Ambient Temp/ Area/ City of Installation
 - Oil Grade & Power Supply & Application
- Cooler Selection – Manual / Software



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Test of Cooler Selection

- Requirement 1

Flow: 100 lpm, HL: 25Kw, Amb: 45, Oil Inlet: 70

- Requirement 2

Flow: 70 lpm, HL: 10,000Kcal/hr, Amb: 40, Oil Inlet: 65

- Requirement 3

HPP = Flow: 80 lpm, Motor: 20HP, Amb: 40, Oil Inlet: 70

- Requirement 4

FLS- Flow: 200 Lpm – HD: 1500 Kcal/min- Oil temp to maintain 65 Deg.C

- Requirement 5

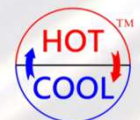
Flow: 500 Lpm – HD: 70 Kw- Oil In: 70 Deg- Ambient 45



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Test of Cooler Selection

- Requirement 6

Flow: 80 Lpm – Oil In: 70 Deg- Oil Outlet: 60 Deg - Ambient 45

- Requirement 7

Oil Temp to maint: 55 Deg- Ambient 40- Oil Tank: 3000L- Offline cooler

- Requirement 8

Flow: 80 Lpm – Oil In: 70 Deg- Oil Outlet: 60 Deg - Ambient 45, Heat Load: 20 Kw

- Requirement 9

Flow: 80 Lpm – Oil In: 70 Deg- Motor HP- 40 HP

- Requirement 10

Cooler Require of – 5,000 Kcal/hr

- Requirement 11

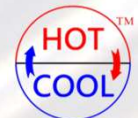
Cooler Require of – 10,000 Kcal/hr - Flow: 50 to 100 lpm



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Cooler selection & Technical Formula

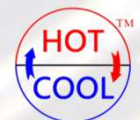
- Please refer Oil Cooler Selection Catalogue
- Temp Drop Formula is $\Delta T = Kw \times 34 / LPM$
- 1 Kw = 860 Kcal / hr
- 1 Hp = 0.754 Kw
- Min 34% power of Main Motor as Heat Load of Hyd System in General
- For Press – PI take 50% Power as Heat Load of Main Motor



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Equivalent Models & Competitors

- Competitors: AKG, StanHex, Olaer, ACE & AMA
- VARALKA Equivalent Models against AKG, OLAER & Standard Radiators (StanHex)

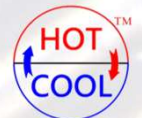
[VR & Sales Doc\Comparison Sheet with Competitors\Varalka Equivalent models Against AKG, StanHex, Olaer.xlsx](#)



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Potential Industry

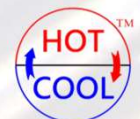
- Hydraulic Power Pack Mfg
- Hydraulic Press Machine Mfg
- Crushers Mfg
- Gear Box Mfg
- Fluid Coupling Mfg
- Lub Oil System Mfg
- Concrete Pumps Mfg
- Concrete Block Making Machines Mfg
- Briquetting Machine Mfg
- Hydraulic Lifts Mfg
- Hydraulic Trolley Mfg



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Potential Customers

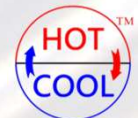
- KLR Industries Ltd
- Puzzolana Machineries Ltd
- Proman Infrastructure
- Kamakshi Engineering Ltd
- Propel Machines
- Elecon Engineering / Hydraulics
- Hydac India Ltd
- Bosch Rexroth Ltd
- Preston Hydraulics Ltd
- Khushbu Hydraulics Ltd
- Voith Ltd– Hyderabad
- Fluidomat Ltd
- Premium Transmission
- Mark Hydraulik
- Rachitech Engg
- Cenlub Systems
- SKF industrial
- Pearey Lal & Sons
- Parishram Machines
- Dropco Multilub



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry



Strength and Weaknesses

- Good Quality
- Value for Money
- Technical Support
- PAN India Sales Network
- Ex Stock – on Time Delivery
- Available cooler range with 3Ph Integrated, External Motor, DC Fan & Hyd Motors
- Identical replacement with Emmegi coolers
- Customer can easily accept us who is regularly taking PHEs from us.
- Disadvantage – Varalka is well-known for PHEs but not for Air-Oil Coolers.



VARALKA
HEAT EXCHANGERS



thermowave
PHE for process and industry

