D'HONDT THERMAL SERVICES SOLUTIONS

ELBRONS

DRY CLEANING METHOD

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ONWARDS & UPWARDS

AIR COOLED HEAT EXCHANGE UNITS FINALLY DEBOTTLENECKED USING SPECIALIZED ELBLASTTM TECHNOLOGY

A plant capacity in middle-east was heavily limited by the performance of the ACHE (Air cooled heat exchangers), especially during hot ambient air temperature conditions.

This call to action made the end-user decide to contact **ELBRONS BV** and **D'Hondt Thermal Solutions** who are specialized in ACHE performance assessment, improvement by specialized solutions and manufacturing of new air cooled heat exchange units.

Main objectives of ELBRONS / DHTS:

- To assess the current performances of critical ACHE (through extensive performance tests, general and visual inspections);
- Ø To perform **ELBLAST**[™] dry cleaning method;
- To debottleneck the ACHE in order to increase the plant's capacity.

Based on visual inspection of external fouling, the bundles seemed extensively contaminated.

An external cleaning campaign on an Oil & gas, (Petro)-chemical site can be quite an extensive activity regarding eventual work permits, scaffolding, shutting down fans (hence loss in production). Therefore it is essential to maximise the effect of that activity.

Improper external cleaning of finned tube bundles can lead to considerable production losses during hot summer days that can reach levels as much as 20% loss solely due to poor external cleaning.

Our **ELBLAST**[™] dry on-line cleaning technology is the answer to this problem.

The **ELBLAST**[™] process is a non-destructive method for dry on-line cleaning adapted specially for induced & forced draft air cooled heat exchangers. The **ELBLAST**[™] process of cleaning is an extremely brittle material that has micro fragmentation on impact, literally exploding away surface materials without damage to the substrate. We propel non-abrasive **ELBLAST**[™] with compressed air through a blasting unit and out of a special blast nozzle, in order to clean heat transfer surfaces of the air cooled heat exchangers.



Process outlet temperatures air cooled heat exchange unit

The unit is successfully cleaned using the **ELBLAST**[™] cleaning method with airflow improvements between +53% and +125%.



The **ELBLAST**[™] process is mainly used to clean "critical" air-cooled heat exchangers and allows these facilities to recover close to design values and operations running characteristics.

Additional benefits of ELBLAST™

- No production losses as on line cleaning (while fans are running)
- No more lengthy motor isolation procedures as cleaning can be carried out while fans are in operation (on line cleaning)
- No scaffolding or wooden boards required
- No damage on fins due to spray jetting as the work pressure is low (8-10 Bar)
- No risk of damage to fins as our specialists do not need to walk on fins at all (we stay under the finned tube bundle)
- No more lengthy issuing of entry permits
- No more damage on pumps, motor, bearings due to water ingress
- No EEC classification for transportation or storage

Global

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