



fluidized bed cleaning of metal parts

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**Panweld Thermal Cleaning**  
 Sdn Bhd

**Standard models**

Reactor size		12B	22B	33B	44C	53C	64D	85D
Long	[m]	0,5	1	1,5	2	2,5	3	4
Wide	[m]	0,5	0,5	0,75	1	0,75	1	1,25
Deep	[m]	0,6	0,6	0,6	0,85	0,85	1,1	1,1
<b>Capacity</b>								
Metal weight	[kg/bat ch]	75	150	338	850	797	1650	2750
Cured paint	[kg/bat ch]	3,5	7	16	29	27	46	76
Plastics - Rubber	[kg/bat ch]	1,2	2,5	5	10	9	15	25

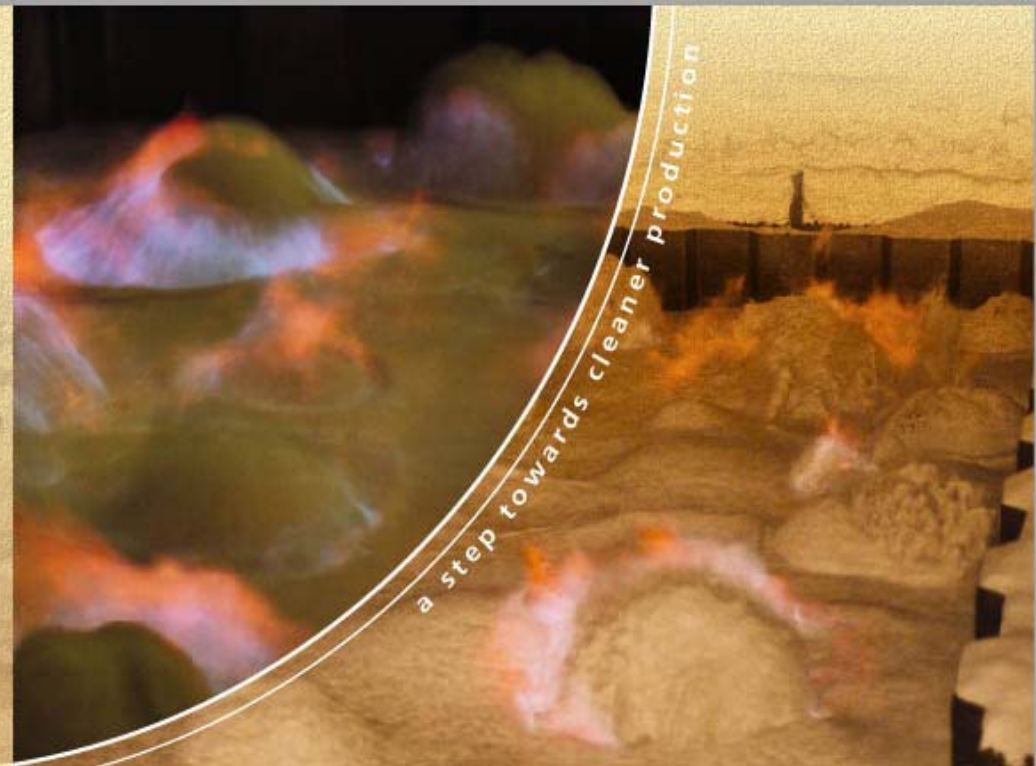
SOROCCO Cleaning systems are developed to comply with applicable local and European laws and regulations.  
 Other custom made sizes can be offered, from below 0,5 m<sup>3</sup> to over 10 m<sup>3</sup>  
 Specifications may be changed for improvement without prior notice  
 Manufactured under license from Arena Belgium

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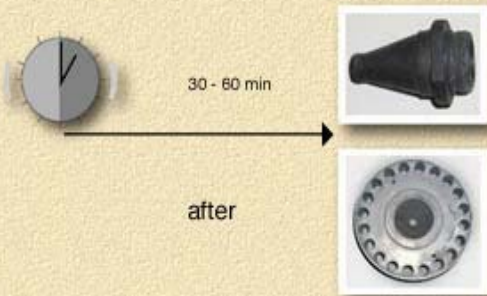
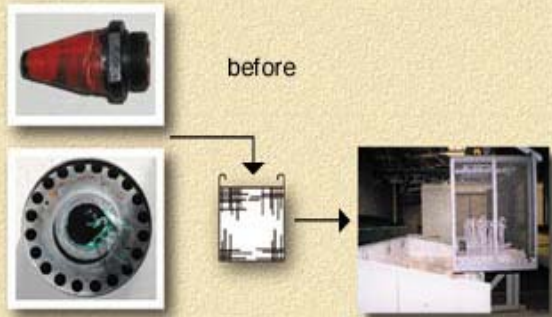
company no. 454208-U

No. 1 & 3, Jalan Nilam 1/8, Subang HI-Tech Park, Batu Tiga,  
 40000 Shah Alam, Selangor Darul Ehsan, Malaysia.  
 Tel: +(6)03 5637 2015 Fax: +(6)03 5637 2014  
 Hunting Line : +(6)03 5637 1833  
 Contact us at : [info@thermalcleaning.net](mailto:info@thermalcleaning.net)

a step towards cleaner production



## Cleaning In Fluidized Bed scirocco systems



- Paint .....
- Plastics .....
- Rubber .....

Scirocco Systems are powerful high quality cleaning systems for recycling metal objects by removing organic contamination. The cleaning technique is a hot 'suspended silica reactor' with an integrated postcombustion.

The simplified concept guarantees maximum reliability and ease of use. The built in 'active atmosphere control' and the highly efficient cyclones or ceramic fibre filters are designed to minimize environmental impact.

Scirocco Systems are especially suitable for cleaning high value tools (plastic processing industries), for short cycle cleaning needs (typically 1 hr. processing time or less) and for applications where a high capacity is required (parts with a high degree of contamination e.g. paint).



The particles in the reactor are fluidized (suspended) by air and gas injection, and heated up to stand-by temperature (~420°C).

The carrier with contaminated parts is submerged in the bubbling silica as in a boiling liquid.

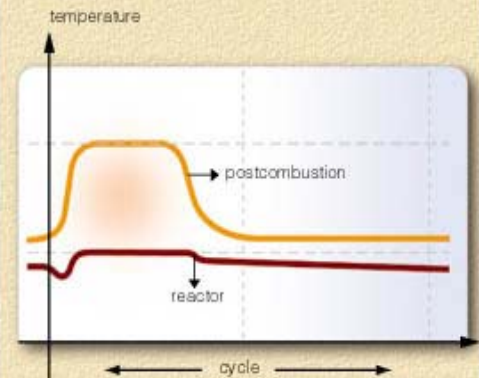
The first part of the cleaning cycle begins immediately: the organic contamination oxidizes in the hot sand - without combustion-, and the reactor heats up to the cleaning temperature of around 450°C.

Lighter organic substances evaporate quickly, partially oxidize, and rise through the bubbling sand. Passing through the flame screen on the reactor surface with permanent pilot, they are ignited immediately and enriched with air to provide a turbulent high temperature post combustion.

Heat released during this process is directly recovered and absorbed by the sand to maintain the reactor temperature.

In the second part of the cycle, the oxidation process in the reactor is completed and the reactor re-assumes stand-by temperature.

The movement of the bubbling sand sustains the cleaning action and removes remaining inorganics from the parts.



The cleaning process happens at a perfectly controlled and homogeneous temperature in the suspended silica reactor - without flames or combustion - and is suitable for high precision and costly parts.

### Key Advantages

- Fast, powerful & high capacity process
- High quality cleaning
- Homogeneous temperatures avoiding deformation
- Very low maintenance & running costs
- Controlled for minimum Environmental Impact
- Safe to operate

