

# KOMSA



# Soluzioni complete per luoghi di lavoro puliti ed efficienti

KOMSA è lo specialista nell'analisi e nella soluzione dell'intero problema dell'inquinamento aria. Il processo inizia con l'analisi del problema di inquinamento aria del cliente, seguito dalla progettazione del sistema per la soluzione dell'inquinamento aria, polveri, fumo, fumi, nebbia oleosa, offrendo i prodotti per l'installazione del sistema e il servizio post-vendita. KOMSA vanta una lunga esperienza nell'installazione di sistemi anti-inquinamento montati in tutta Italia e si avvale delle più moderne tecnologie.

KOMSA pone particolare attenzione alle soluzioni individuali delle specifiche necessità del cliente, grazie all'esperienza e competenza maturate in oltre 40.000 sistemi di depurazione. I nostri prodotti garantiscono un'elevata affidabilità, un basso consumo energetico e la conformità a tutta la normativa vigente per una vasta gamma di applicazioni in molti settori industriali diversi in tutta Italia.

KOMSA offre un servizio completo: dallo studio, progettazione installazione, messa in funzione, fino all'assistenza e manutenzione.



Long term experience in combination with our engineering teams work with our clients' experts to develop the best solutions for individual plants.

Nederman is the world leader in the purification of harmful gases and different sorbent products for the most part flue gas cleaning.

Sorption of harmful gases requires a great variety of different adsorbents. The range extends from carbon adsorbents such as activated lignite, activated carbon and petroleum coke via alkaline additives such as hydrated lime and sodium hydrogen carbonate to more exotic substances such as alumina or zeolites.

- Flat bag dust collectors
- Tubular Bag
- Flat tube coolers, optionally with air pre-heater and/ or heat recovery
- Dry scrubbers
- Additive injectors
- Static mixing reactors
- Preseparators like cyclones and skimmers

Nederman installs various industrial applications a large number of plants such as:

- Flue gas cleaning from biomass and coal fired boiler plant
- Dry sorption of harmful gases from waste incineration and crematory plants
- Flue gas cleaning and dry sorption from aluminium and copper smelting plant
- Dust and Fume extraction system for foundry and metal industry
- Dust extraction system for bulk handling
- Dust extraction system for general manufacturing industry
- .....and many more

**Nederman** is also paying attention after the plant commissioning. 24/7 attendance and service centers all over the world assure that unbureaucratic assistance by competent experts is available on short notice. We maintain a broad spare part stock to avoid expensive downtimes.

# Panoramica drodotti



- \* Air flow volume 15,000 - 400,000 m<sup>3</sup>/h
- \* Max. dust concentration 500 g/m<sup>3</sup>
- \* Under pressure operation
- \* Hi-temperature applications
- \* Low energy cleaning

- \* Filtration area 82 to 2,400 m<sup>2</sup>
- \* Multiple medias
- \* Heavy duty
- \* Flat bag cleaning by reverse air / pulse jet while running with offline



- \* As a part element in a filter system, dosing a precoat like lime into the filter.
- \* The adding of lime ensures a stable function of the filter and prevents clogging of the filter material.
- \* Typically approximately 1 g/m<sup>3</sup> air.
- \* This gives for instance 1 stroke per 54 seconds at 1,000 m<sup>3</sup>/h and 1 stroke per 11 seconds at 5,000 m<sup>3</sup>/h.
- \* The dosage depends on the application.



Industrial Fan

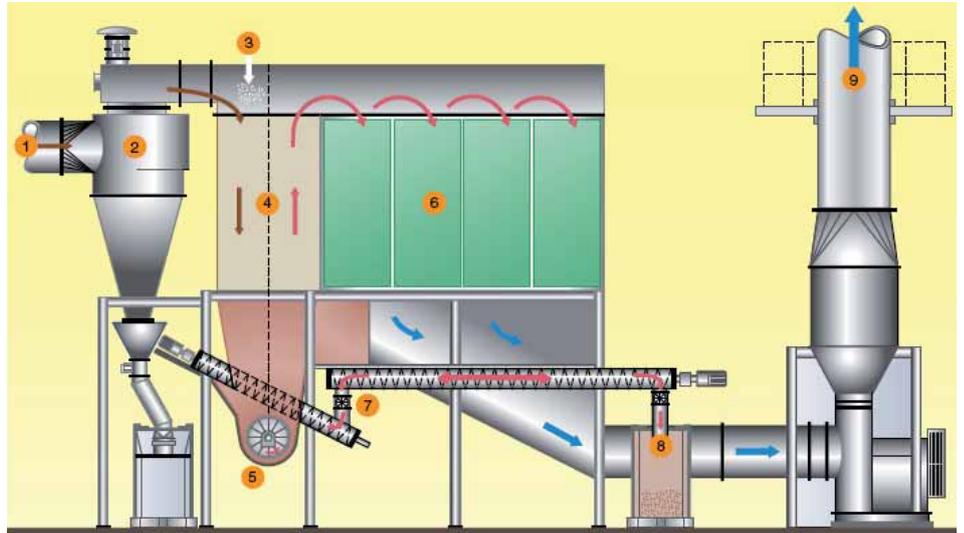


# Assorbimento a secco di gas nocivi

## Dry sorption of harmful gases

We are not restricted to just one process but offer several different solutions – from purely dry via quasi-dry to wet processes.

Adsorption of dioxines and furan for example is possible with the additive in the air stream and in the dust/additive cake on the filter bags. Furthermore, the content of noxious gases such as SO<sub>2</sub> and especially HF and HCl can be reduced by adsorption by example CA(OH)<sub>2</sub> (lime).



- |                       |                    |
|-----------------------|--------------------|
| 1 Dirty gas           | 2 Preseparator     |
| 3 Fresh hydrated lime | 4 Reactor          |
| 5 Rotor               | 6 Bag Filter       |
| 7 Re-circulation      | 8 To residues silo |
| 9 Cleaned gas         |                    |

## Advantage of the Rotosorp process:

- High recirculation rates by easy mechanical means
- Humidification of the dust for SO<sub>2</sub> - removal possible
- Homogeneous distribution of the recirculated dust in the flue gas
- Highest possible efficiencies for the compliance with all regulations for SO<sub>x</sub> / HCL / HF / PCDD / PCDF



**Rotor with chains housing**

# Depurazione dei gas di combustione

**Nederman** supplies systems for reduction of dust/smoke filtration from processes like furnaces, incinerators, crematories, coal, wood or oil fired boiler plants. All systems are characterized by low energy consumption and low residual contents.

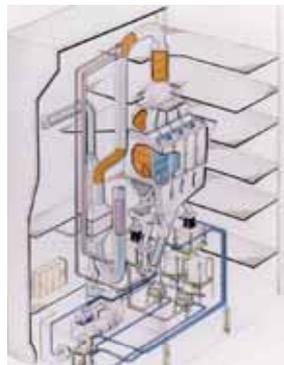
The flue gases reach, via the dirty gas ductwork, a cyclone preseparator where the coarse particles and sparks are being separated. The gases from cyclones pass through the dirty gas hood into the dirty air chamber of the filter and then passes through the filter bags to the clean gas side of the filter. The dust are restrained by the filter bags.

A special control system reassures a safety operation of the filter cleaning system as well as a sufficient dust layer on the filter bags.

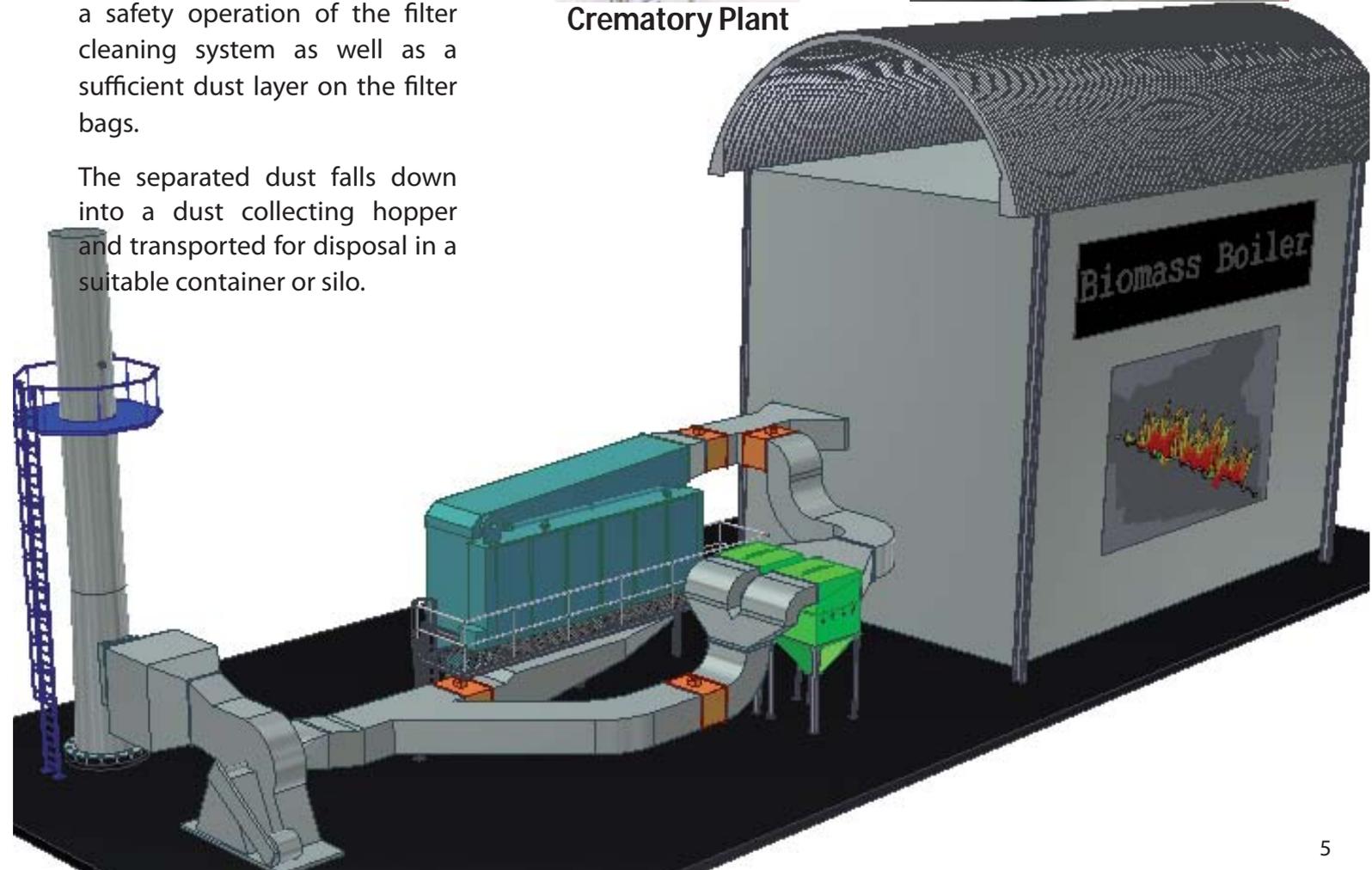
The separated dust falls down into a dust collecting hopper and transported for disposal in a suitable container or silo.



**Waste Removing**



**Crematory Plant**



# Altre applicazioni

**Conveyer Venting  
Extraction**



**Intake  
Hoppers**



**SiloSafe on Silo  
SiloSafe on fly ash silo**



**Dry sorption with  
humidification and  
re-circulation**



## Our Solution

Nederman is design solution with making the right selection, the process choice also plays a major role in offering the customer the most economic and reliable solution.



# Le nostre referenze



**ALCHIN, Centrale termoelettrica a biomassa**  
Natural finished wood from forestry and woodworking,  
Untreated wood from industry, scrap wood, lemon peel



**Alva Aluminium, Tailandia**  
FS722 / 9,00 / 1260 with Skimmer, Lime feeding and  
recirculation system, for 2 gas fired tilt rotary furnace



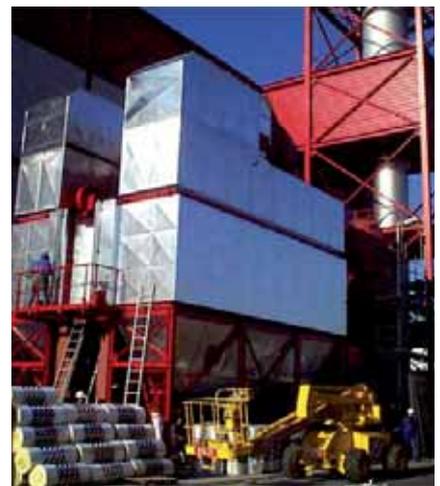
**Harpen EKT, Berlino (Germania)**  
Wood fired power plant "Gropiusstadt"  
Emission Data: dust < 5mg/m<sup>3</sup>



**FLS, Germania**  
FS Filter for temp 135 deg. C  
Application: fume gas cleaning for garbage incineration



**Otto-Rudiger Schulze, Wilmersdorf (Germania)**  
Biomass power plant, air volume max. 58,000 Nm<sup>3</sup>/h  
Temp. boiler end 180-200°C, SO<sub>x</sub>, HCl in raw gas



**Themoselect S.A., Locarno (Svizzera)**  
Waste gas cleaning for garbage disposal plant separating  
of dust and sulphur dioxide



**Centrale elettrica di Bua Yai, Tailandia**  
Flu gas cleaning, Biomass Power Plant  
Extraction from boiler ash dust, Fuel rice husk, Biomass



**Therm Engineering, Tailandia**  
Waste gas cleaning for garbage disposal plant separating  
of dust and sulphur dioxide

## Industrie clienti

### Soluzioni di controllo inquinamento aria

Nederman focuses on individual solutions for customer needs. We leverage the experience and expertise of air cleaning systems for wide range of applications.

**Alluminio**

**Fonderie**

**Chimica**

**Industria Alimentare**

**Metallo & Fusioni**

**Imballaggi**

**Carta**

**Farmaceutica**

**Granigliatura**

**Tabacco**

**Agricoltura**

**Cemento**

**Elettronica**

**Metalmeccanica**

**Verniciature**

**Gomma**

**Acciaio**

**Industria del legno**

... e molto di più

# Soluzioni KOMSA per le vostre necessità di aspirazione

Vi mostriamo qui di seguito alcuni esempi di sistemi di aspirazione che fanno parte della nostra ampia gamma di prodotti.

Per maggiori informazioni potrete visitare il nostro sito internet: [www.komsa.it](http://www.komsa.it)

## Bracci di aspirazione



## Sistemi di aspirazione per gas di scarico veicoli



## Elettroventilatori



## Filtri



## Filtri per impianti centralizzati



## Filtri carrellati



## Aspiratori industriali ad alta pressione



## Arrotolatori per tubi e cavi



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# KOMSA

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