

# Solid bulk material handling solution

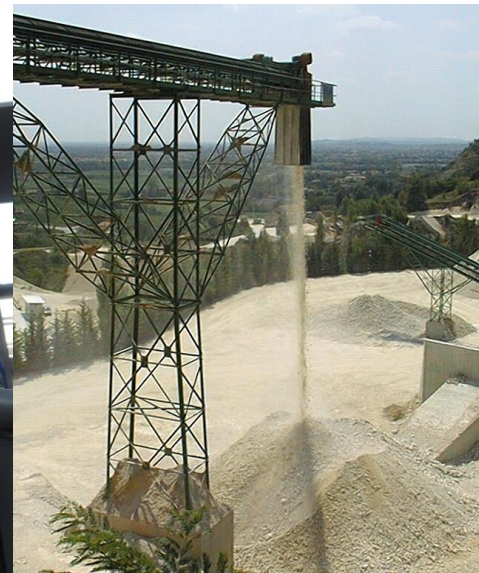


barra project international s.r.l.

**/AIRFLASH®**  
COMPRESSED AIR CANNON  
PLANTS

**/ECOFOG®**  
INDUSTRIAL DUST  
SUPPRESSION BY WATER  
MICRONIZATION

**/RASKIA®**  
CONVEYOR BELT CLEANERS



- /AIRFLASH®**
- Traditional plants
  - **PPI** Pick-Power-Impulser plants
  - Storm plants

*The alternative to vibrated systems!*

- /ECOFOG®**
- Low-pressure water micronization
  - **AIROX®** Nebulizers

*Stop the dust cloud!*

- /RASKIA®**
- Changable modular blades
  - Continuous adherence

*Blades shaped for an efficient cleaning action even in wearing conditions!*



# /AIRFLASH®

## COMPRESSED AIR CANNONS

Controlled air-explosions for:

- Release blockages and concretions, bridges and rat-holes, which hinder the emptying of silos and hoppers.
- Preventive actions against clogging of silos and against the formation of encrustation in hot areas.
- Fluidification and continuous material handling
- Cleaning action, low risk of contamination between materials
- Elimination of dead-areas, limiting the risk of deterioration for organic materials
- Greater safety for operators who no longer have to descent inside the storage structures to unlock them manually

## ***What is the compressed air cannon?***



The compressed air-cannon is an energy accumulator composed by a quick discharge valve (firing valve) and a tank for the storage of the compressed fluid (air).

The cannon generates a shock wave that is instantly released inside the clogged storage structure. The impact breaks up the occlusions that hinder the normal flow of material, restoring its natural fluidity.

Unlike traditional vibration systems, the air-cannon has a direct action on the material and does not stress the structures with mechanical vibrations, thus extending their life cycle.

AIRFLASH air-cannons have a modular structure that allows a high degree of customization and optimization of spare parts management.

Application temperature range: [-10°C ; +100°C]

Tank volume: [0,5Lt ; 150Lt]

Valve exhaust range: [DN20 ; DN150]

# /AIRFLASH® PLANTS

## AIRFLASH air-cannons plants

The most spread and known plant typology.

Controlled via solenoid valve on board of the machine or remotely managed from local PLC or from the control room

Applicable in all working conditions (incandescent dusts, corrosive phenomena, thermal radiation)

Wide range variety for different application sectors (exhaust sections and variable tank volumes)

Ease of installation

Also suitable for the installation of single activation points

TRADITION



AIRFLASH plant on pre-heating cement tower (Algeria)



↑ PPI Plant on cement silos (Italy)

## PPI PICK-POWER-IMPULSER plants

The tanks are replaced by a single accumulation pipe that connects all the firing valves together

Ideal for equipping silos' batches and for applications in tight and confined spaces

Compressed air volume much higher than the one managed by a single cannon and powers can be calibrated for each single valve thanks to KYOTO device

## STORM plants

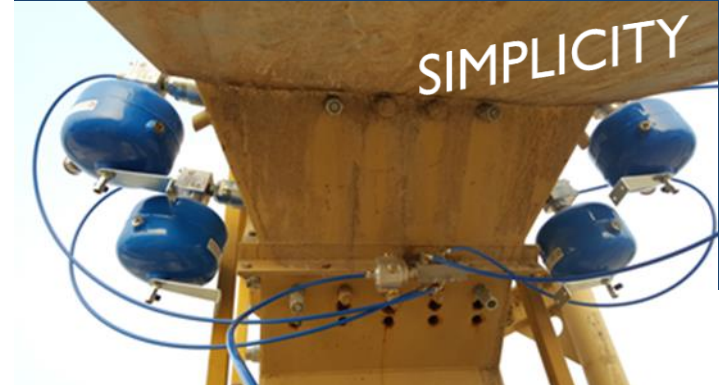
For the simultaneous activation of air-cannons with low tank volumes (from 0.5Lt to 15Lt)

Specific for equipping small and medium-sized silos / hoppers / load cells

Fully pneumatic management without the need for electrical connections is possible

STORM plant on mobile crushing machine (Italy)

↓ STORM on primary crushing machine (Italy)



Efficiency has a name

## /AIRFLASH®<sub>ALU</sub> METALLIC ALLOY OBTURATOR

Medium and high power  
Ideal for heavy and continuous  
exercises  
Applicable both in cold and in  
high temperature areas  
subject to radiation  
phenomena

Temperature range:  
[-10°C; +100°C]  
heat radiation and high  
temperature dusts



AIRFOM



EXTREME



## /AIRFLASH®<sub>OT</sub> CUP OBTURATOR

Small and medium volumes

Ideal for equipping small and  
medium-sized silos, load cells

Applicable both in cold areas  
and high temperature areas

Temperature range:  
[-10°C; +100°C]



## /AIRFLASH®<sub>FOM</sub>

### FLOATING MEMBRANE OBTURATOR

From small to large powers

Low running and maintenance  
costs

Specific for application in room  
temperature areas

Temperature range:  
[-10°C; +60°C]



TITAN

GOLEM

OPEN



CAPPUCCINO

LIGHT

JET

How to deal with material that has an extremely high constipation tendency for avoiding rat-hole problems?

BY COMBINING THE ACTION OF AIRFLASH® WITH OUR DIFFUSORS

- **FLUIDIZER EOLO** for room temperature application
- **TECHNO BLOWERS** in refractory materials, for application in high temperature areas

## EOLO FLUIDIZER

ROUND  
LINEAR  
WITH ARMORED GRID



## TECHNO

**HT** BLOWERS



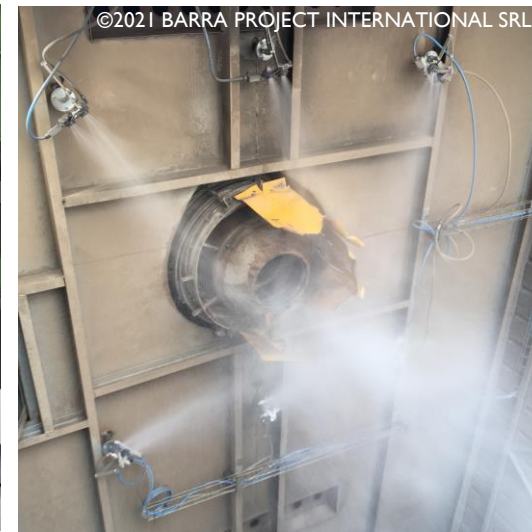
# /ECOFOG®

## INDUSTRIAL DUST SUPPRESSION BY MEANS OF WATER MICRONIZED AT LOW PRESSURE

- Working pressure:  
air: 2÷3bar  
water: 0,2÷0,5bar
- Reduction of material waste: the powders moistened by the artificial fog fall on the material that generated them; the dust are reinserted into the production cycle
- Management costs optimization: infinitesimal H<sub>2</sub>O contribution, there is no need for dryers and filtration systems, there is no sludge formation
- Applicable both in open spaces and in closed structures

Moreover...

ECOFOG helps the handling of those material that are highly volatile



### AIRox® IMPACT



Nebulization  
external to the  
nebulizer

### AIRox® GRC



Nebulization  
internal to the  
nebulizer



DANCERFOG  
Rotating nebulizer

# /RASKIA®

## RUBBER CONVEYOR BELT CLEANERS

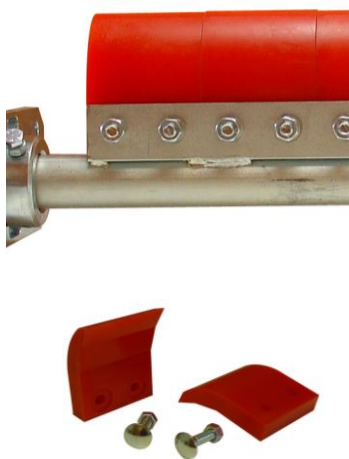
- Simple, robust and space-saving cleaners.
- Scraping blades with modular sectors in polyurethane compound with the possibility of hard metal inserts and elastomer shock absorbers
- Continuous adherence to the belt conveyor both in the presence of non-conformities and in conditions of wear of the scraping blade

Plus...

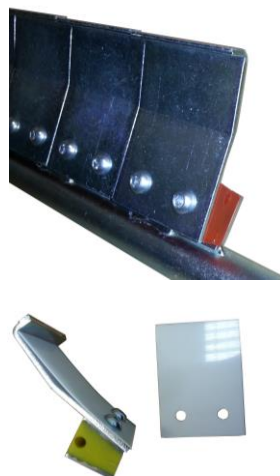
Possibility to have a self-powered, rechargeable pneumatic tensioning system, for hard-to-reach locations.

## /RASKIA® MAIN CLEANERS

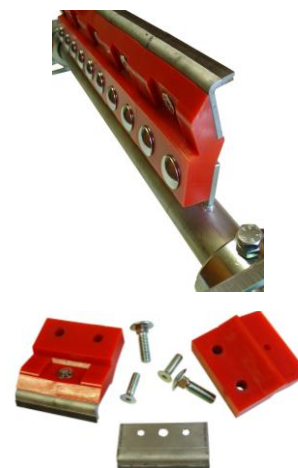
STD



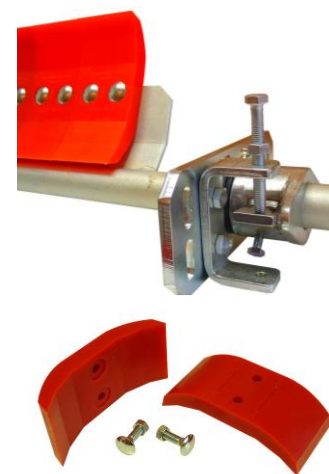
BULLDOG



CONDOR

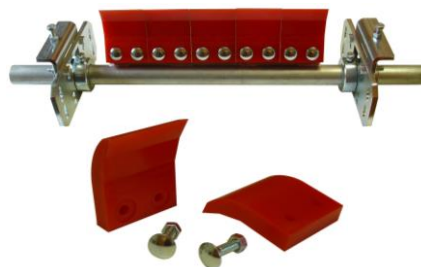


BILAMA



## /RASKIA® SECONDARY CLEANERS

STD



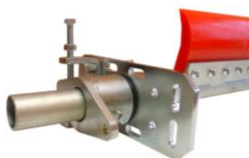
FLIPPER



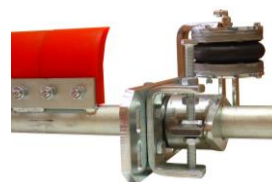
TRANSFORMER



## TENSIONING SYSTEMS



MECHANIC



PNEUMATIC



SELF-POWERED  
PNEUMATIC





barra project international s.r.l.

Thank you for the attention

Our technicians are at your disposal!



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