



AIRWASH Abrasive Recycling System

Racohi AIRWASH Abrasive Recycling System is designed & manufactured with high quality materials to be the most robust and reliable in the industry. It is an innovative system that recycles various types of abrasive using Airwash technology. The right choice is essential to achieve maximum productivity at blasting work and recycling. Racohi has a more comprehensive program to reduce downtime and maximize blasting processes.

RACOHİ AIRWASH ABRASIVE RECYCLING SYSTEM:

RC-50-20 (system for one blasting pot)

RC-50-160 (system for two blasting pots)

Available magnetic tubular system (manual) inside the silo discharge on request. With this system you can collect all magnetic particles from the abrasive (such as separating steel particles from scrap copper, etc.).



RC-50-20:

RC-50-20 is a mobile abrasive recycling which can be used inside or outside.

Several types of reusable abrasive can be recycled by the RC-50-20, the rate of recycling depends upon the type of abrasive being processed. Garnet can be recycled at a rate of up to 5 tons per hour, steel abrasive can be recycled at a rate of up to 12 tons per hour*. (actual performance depends upon many variable factors – the performance figures shown are to be used as a guide and cannot be considered actual in all environments)

Used abrasive is manually feed into the intake hopper from where it is collected by the bucket elevator and transported up the funnel. At the top of the funnel the abrasive is poured onto the spreading plate which ensures an even, shallow and wide flow down into the cascade cleaner. Inside the cascade cleaner the larger particles are separated into a dust bag, and the smaller particles are extracted by a separate cartridge filter which features solenoid controlled automatic pulse cleaning. Depending upon which abrasive is being recycled the unit can be adjusted to ensure that the abrasive flow and particle separation are fine tuned to be as effective as possible. The cleaned abrasive is deposited into a hopper ready for reuse.



The unit is manufactured in Europe from 3mm and 5mm steel to the highest quality standards. The motors and gearboxes are sealed and lubricated for life. The unit requires an electrical connection of 400 volts – 50 Hz as well as compressed air.

System RC-50-20 includes:

Elevator E50:

Total height: 4000mm

Capacity: 50 liters per minute

Motor power: 0,75kw

Electric power: 230/400 volt, 50 hz

Made from 2 and 3 mm sheet steel, reinforced with steel profile. Equipped with a motor, gearbox, dust free rolling element, and an inspection hatch.

K350 Cascade Cleaner:

Height: 650mm

Width: 350mm

Made from 3 and 5 mm steel plate. The cleaner is mounted between the elevator and the stock silo.

PF 1-L Dustfilter (for Cascade Cleaner):

Cartridge Filter with automatic continuous solenoids which activate pulse cleaning.
Filter installation made from 3 mm steel plate with sleeve profiles and reinforcements.

The filter installation consists of the following components:

- Undercarriage with preseparator and dust silo with rubber plug valve
- Filter cabinet with integrated compressed air filter cartridge and cleaning system
- Fan

Technical specifications:

Capacity: 960m³/h

Static pressure: 1,200 Pa

Motor power: 0,75kw

Motor voltage: 400/690 -50 Hz

Filter cartridge: 1 pc.

Type cartridge: diam. 325x1000mm

Filter area: 15m²

Filter material: polyester nonwoven NA 806

Max. dust emission: <1.5mg/nm³

Dedusting: automatically by compressed air; max. 6 bar

Valves: 1 piece 1 1/2" G

Pulse pressure: ± 5 bar

Pulse time/ cycle: momentary action, guide value 0.3 seconds

Exhaust pulse: 1 cartridge equivalent

Noise level: 78 dBA

Dust extraction: PVC bag

S-200 Hopper:

Abrasive silo 200 liters. Made from 3 mm sheet steel, reinforced with steel profile and equipped with a grit valve and closing lid.

RC-50-160:

Dimensions (in standing position):

Height: 4450mm
Width: 2400mm
Depth: 2000mm

Technical Specification:

Weight (with empty silo): 3000 kg
Total power: 1.6kw 230/400 volt- 50Hz
Compressed air: min. 4 bar
Silo capacity: 1.600 liters
Recycling capacity: 3000 liters/hour
(for garnet: this is $2,3 \times 3000 / 1000 = 6,9$ ton/hour)
(for Steel grit, this is $4,5 \times 3000 / 1000 = 13,5$ ton/hour)

The used abrasive has to be put into the abrasive hopper, which generates a regulated flow of abrasive to the elevator inlet. From the elevator, the grit flows into a rotary sieve, with Æ 3.0 / 3.5 / 4.0 or 5.0 mm at choice. This rotary sieve separates contaminants like coating scale, glass, cigarette-butts and other big parts, from the (polluted) abrasive by the rotating movement. The rotary sieve compartment is executed with a dust exhaust connection. After passing the rotary sieve, the abrasive flows into the cascade cleaning system.

The air wash system can be regulated to control the size of the reusable abrasive. Dust and non-usable (too fine) abrasive are automatically discharged and collected in big bags or extracted by the separate filter PF-1. The cleaned abrasive is put into the storage silo, ready to be used again in the blast vessels or big-bags.

The installation comes complete with crane hooks and inspection covers.

RC-50-160 System includes:

Abrasive Hopper with inlet sieve

Opening Dimensions:

Height above floor: 650mm

Width aprox.: 700mm

Depth: 500mm

Made of 3 mm. Steel plate complete with sieve and grit regulating system to prevent bucket conveyor overload.



Bucket elevator E-50

Total height, approx. : 4400mm

Width: 460mm

Closed dust free bearing system. Special belt with Columbus buckets.

Nord Gear Motor: 0,37kw with electro/mechanical brake

Capacity: 50L/min.

Automatic self cleaning rotary screen TZ-80

Capacity 80 liters per minute

Dimensions:

Height: 520mm

Width: 400mm

Depth: 750mm

HOles: diam. 3, 3.5, 4 o 5

Construction: Made of 2 mm and 3 mm steel plate, reinforced with profiles. Provided with motor reductor 0,37 kW 230/400 Volt, dust-closed bearings and an inspection cover.

Abrasive cleaning: The Rotary Sieve must be used if the abrasive is polluted with big parts like coating-scale, wood chips, glass, etc.. The contamination is separated through the rotating movement of the sieve. Further, the sieve comes complete with a dust exhaust connection.

Grit cascade cleaning system

Consisting of one heavy -duty cascade system with double air wash action of the abrasive, mounted directly onto the outlet of the rotary sieve.

The air wash action can be regulated to control the size of re-usable abrasive. The dust and non-useable abrasive (too fine) are discharged automatically and collected in big bags or extracted by the separate filter PF- 1.

Technical specification filter separator PF-1:

Exhaust capacity: 960m³/h

Total pressure: 2000 Pa

Motor capacity: 0,82kw, 230/400 volg, 50 Hz

Filter cartridge: 1 ud.

Filter area: 15,6m²

Filter medium: Polyester membrane SF 806

Dust collecting bag (s): 1 ud.

Max. Dust emission: <3 mg/nm³

The system comes complete with regulating valve and ducting.

Abrasive storage silo 1600 liters

Silo for abrasive storage with top cover, connection to grit cleaner and two outlets for 2 blast vessels.

Electric panel

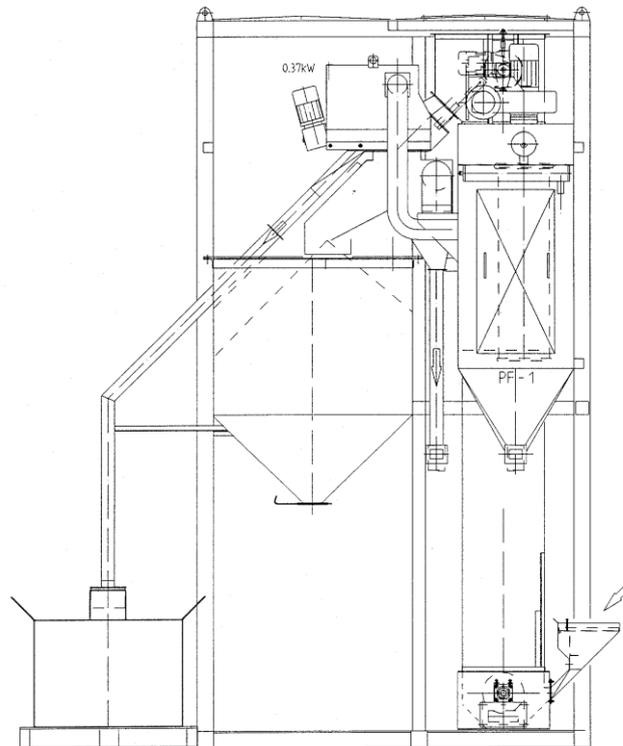
Complete with automatic switch controllers, safety switches, main switch, signaling lamps and control buttons for filter, rotary screen and elevator.

Complete frame

All components are mounted within a sturdy steel frame, so the unit is easy to transport and requires little downtime to set up.

Recovery Unit especially suitable for cleaning garnet (of course other abrasive can then be cleaned as well). The cleaned Garnet is discharged in a silo, and from the silo into 2 blast vessels or 2 big bags.

The Roof is completely closed with steel plate. Further, the frame is open.



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