

# RC50-150

## Grit Recycling System



The RC50-150 is an abrasive recycling system which can be used inside or outside. Several types of reusable abrasive can be recycled by the RC50-150 into bigbags or blast vessels. The rate of recycling depends upon the type of abrasive being processed. Garnet can be recycled at a rate of up to 6.9 tons per hour, steel abrasive can be recycled at a rate of up to 13.5 tons per hour\*.

### Operating principle:

Dust laden air enters through the inlet plenum of the collector, where heavy particles fall immediately into the hopper. As the air flows through the filtercartridges, dust is deposited on the outside of the filtering media. The filtercartridges are cleaned automatically and continually without interrupting the operation of the dustcollector. An adjustable timer controls the cycletime. Solenoid valves introduce jets of high-pressure air into the cartridges in turn, through the venturi opening above each cartridge. The resulting reverse airflow cleans the filtercartridges. Dust removed from the filtersurface settles into the hopper. As each pair of filtercartridges is cleaned in succession, the remaining stay.

The used abrasive has to be put into the abrasive hopper, then it comes in a regulated flow to the elevator. From the elevator it comes in the rotariesieve, with holes  $\varnothing$  4, 5 and 6 mm at choice, if the abrasive is polluted with big parts like coatingscale, woodchips, glas, etc. these contamination are separated through the rotating movement of the sieve. Further is the sieve complete with a dust exhaust connection. After the sieve the abrasive is flowing through a cascade system.

The air wash action can be regulated to control the size of the reusable abrasive. Dust and non-usable (to fine) abrasive are automatically discharged and collected in big bags or extracted by the separate filter. The cleaned abrasive will fall into the abrasive silo and is ready to be stored into bigbags or into blast vessels.

The system is supplied complete with: crane hooks, inspection covers and flexibel dust-exhaust ducting to the bigbags.

\* 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.

## **TECHNICAL SPECIFICATIONS**

Dimensions (in standing position):	Height	: 4.780 mm
	Width	: 2.180 mm
	Depth	: 2.180 mm
Weight (empty)	:	3.500 kg
Total electrical power	:	2 kW 400 Volt – 50/60 Hz.
Compressed air	:	5 bar
Capacity silo	:	1.600 Liter
Capacity elevator	:	3.000 Liter/hour
		> for garnet this is $2,3 \times 3.000 / 1000 = 6.9$ ton/hour
		> for steel grit this is $4,5 \times 3.000 / 1000 = 13.5$ ton/hour

## **DELIVERY INCLUDES**

### **ABRASIVE HOPPER WITH INLET SIEVE**

Opening dimensions:	Width approx.	:	700 mm
	Depth approx.	:	500 mm
	Height approx.	:	650 mm

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

### **BUCKET ELEVATOR E-50**

Gear motor	:	0,75	kW
Capacity	:	50	ltr./min.

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

### **AUTOMATIC SELF CLEANING ROTARY SCREEN TZ-80** (capacity 80 Liter per minute)

Made of 2 mm and 3 mm steel plate, reinforced with profiles. Provided with motor reductor 0,37 kW 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 CLEANING SYSTEM**

Consisting of one heavy-duty cascade system with double air wash action of the abrasive, mounted directly onto the outlet of the elevator. Oversized materials are separated by screens in the bucket elevator hopper. Cascade cleaner is connecting with a sucking ducting Ø 180 mm to the filterunit.

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.

### **Technical specifications**

Exhaust capacity	:	960	m <sup>3</sup> /h
Total pressure	:	1.200	Pa
Motor power	:	0.75	Kw, 400/690 Volt, 3-Ph, 50 Hz
Filter cartridge	:	1	pc. Ø 325 x 1000 mm
Filter area	:	15	m <sup>2</sup>
Filter material	:	polyester fabric	
Filter percentage	:	99,9	%
Max. dust emission	:	< 1,5	mg/nm <sup>3</sup>
Cleaning	:	continuous by compr. air	max. 5 bar
Solenoid valves	:	1	pcs (1" G)
Cleaning pressure	:	4	bar
Cycle time	:	adjustable	
Sequence	:	1	cartridge simultaneous
Dust collecting bags	:	pvc bag	

### **ABRASIVE STORAGE SILO 1500 LTR**

Silo constructed of 3mm steel plate and profiles complete with abrasive stop and connection for 2 bigbags or 2 blast vessels.

### **ELECTRIC PANEL**

Complete with automatic switch controllers, mainswitch, failure lamp and control buttons.

### **STEEL FRAME CONSTRUCTION**

All components are mounted within a sturdy steel frame complete with crane hooks, so in this case the unit is easy to transport and requires little down-time to set up.

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