

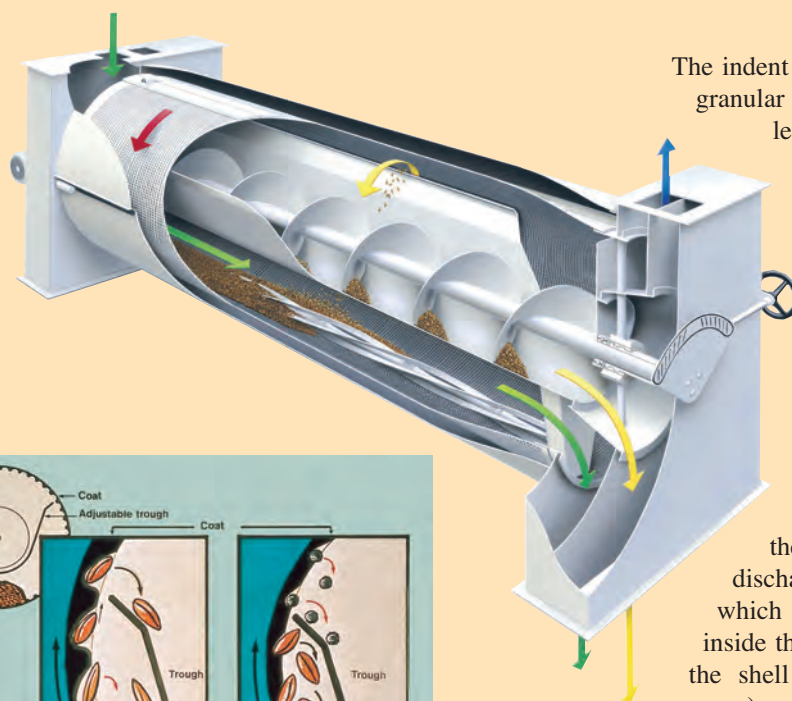


# *AL* HSR Indent Cylinder Separators





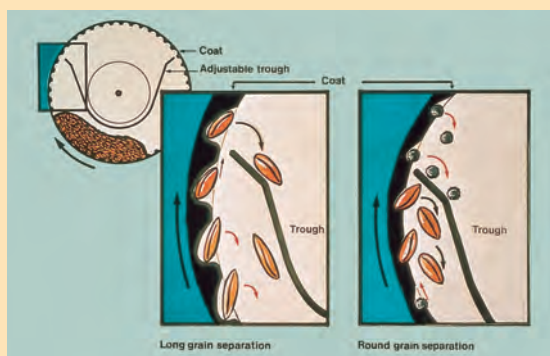
## Application and Function



The indent cylinder is used for grading by length all granular materials such as wheat, oats, fine seeds, lentils, for separating stalks from sunflower and beet seeds and for separating unwanted long or short product impurities. The size of grains can vary between 1.0 mm and 24 mm.

The product passes from the inlet housing into the interior of the rotating cylinder, the cover of which is provided with impressed pockets or so-called indents. The grains that embed themselves in the indents, will be carried and after a certain distance, will fall out of the pockets into the trough (yellow arrows), and will be discharged by a screw conveyor. All grains which are larger than the indents, will remain inside the shell and be carried to the outlet where the shell empties into the outlet casing (green arrows).

Depending on the required grading the incoming product will be sorted according to roundness or length.



## Series Production

Cimbria Heid manufactures machines in series production which enables them to guarantee short delivery periods. Before it is delivered, each machine has to pass several specific quality controls to ensure the highest quality standards and a long service life.





# M Machine Range



Round grain / long grain cylinder



Round grain / long grain cylinder with regrader



Flour mill separator with round grain and long grain regrader





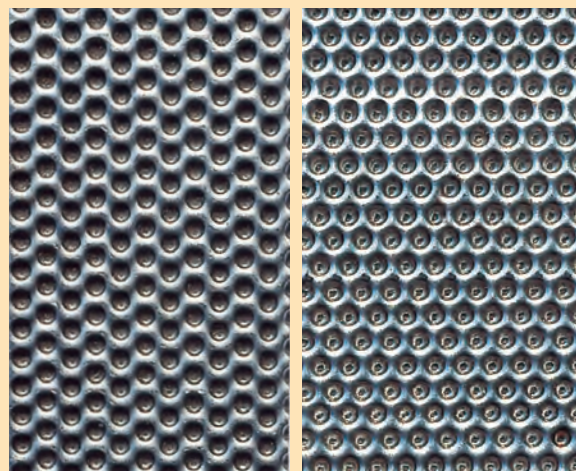
# The cylinder shell

The cylinder shell is the most important part of the separator. The quality of the separation and the quantity of the waste depend on the construction of the cylinder. For this reason we attach special importance to the quality and workmanship of its construction.

## Pockets per cm<sup>2</sup>

Cimbria Heid is one of the few manufacturers of grain separation cylinders which fabricates its own cylinder segments. This makes us independent of suppliers and enables us to fulfil special customer requirements.

We have minimized the distance between the individual pockets in order to achieve the highest possible number of grading pockets per cm<sup>2</sup>. We can therefore provide a higher sorting output and better separation quality than our competitors. The staggered arrangement of our pockets increases the service life of the segments.



**Others**

**Cimbria Heid**



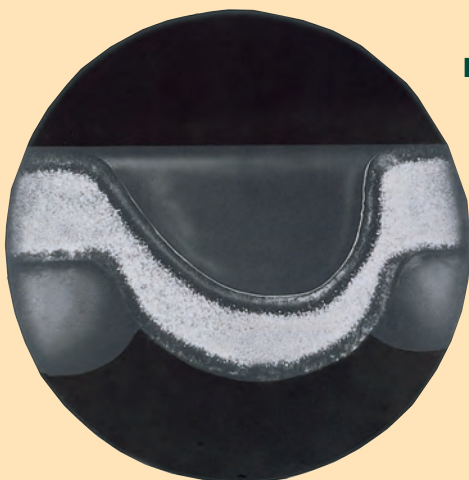
**Round pockets**



**Tear-shaped pockets**

## Pocket shapes

Depending on the product to be sorted and on the grading task we offer round and tear-shaped pockets. This enables us to optimise the grading quality and to minimize the waste.



## Hardened segments

On request, we will supply hardened segments which have a far longer service life and can be used for processing particularly abrasive products.



## Exchange of cylinder segments

In order to keep the cost of product changes and cleaning work as low as possible for the operator of the plant, we have divided the cylinder shell into several segments and provided them with quick-release catches. This allows a simple and fast exchange of the grading segments.

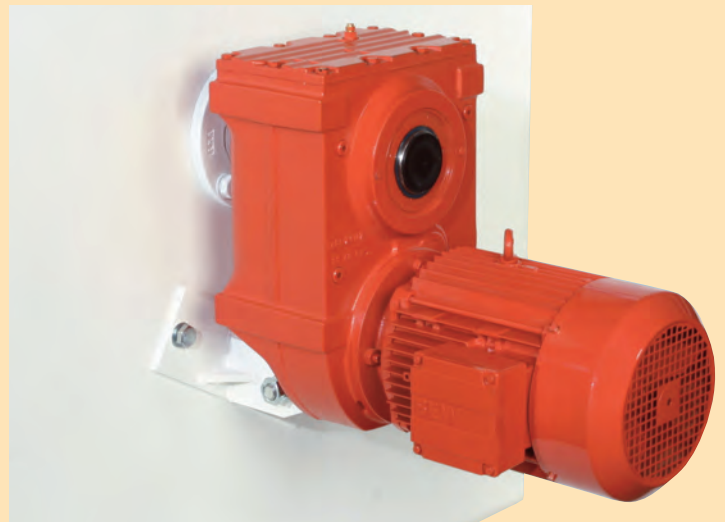


## Other features



### Trough sealing

All separator types are provided with sealing between the trough and the cylinder shell. This prevents unwanted grains from getting into the trough and ensures even more precise grain separation.



### Drives

No chain drives, belt drives or gearwheel drives are used in our grain separators, which guarantees considerably smoother running. It reduces maintenance costs and the risk of equipment failure.

We use geared motors which we purchase from one of the largest gear manufacturers in the world. We are therefore in a position to react very quickly should there be any problem.



### Design

The round, fully-closed housing of our separators is unique in the trade. Its design facilitates easy access to the cylinder segments. When the protective hood is opened the machine is stopped automatically by a safety switch.



### Checking the separation

Our separator is equipped with two particularly large inspection windows on the outlet side. This enables the operator to check the correct setting of the separator during operation, with no risk of accident. From the two openings below the windows samples can be taken at any time without physical hazard to the operator.





**Extras**



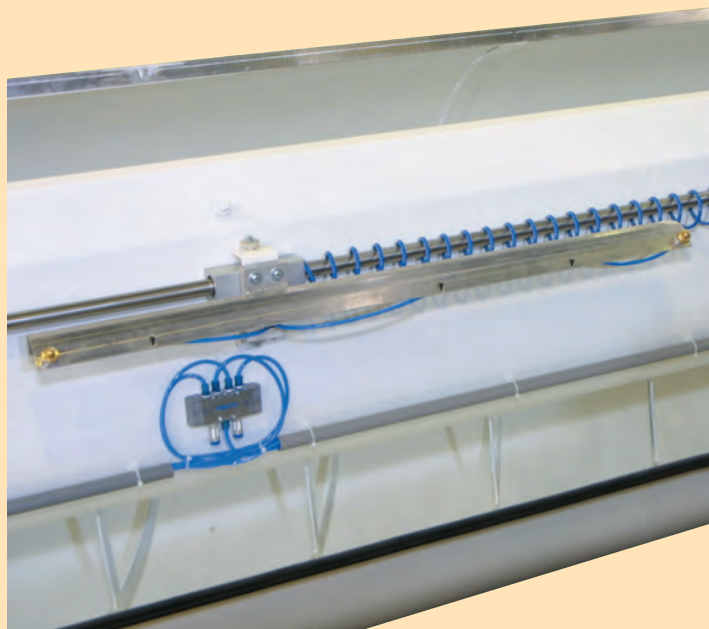
#### **ATEX**

For operation in potentially explosive environments we offer geared motors approved for ATEX zones D21 and D22.



#### **Stirring device**

For heavily flowing, break-resistant products such as grass seeds or rice, we recommend the installation of our stirring device, which will increase the efficiency and output of the separator significantly.



#### **Cleaning of the cylinder pockets**

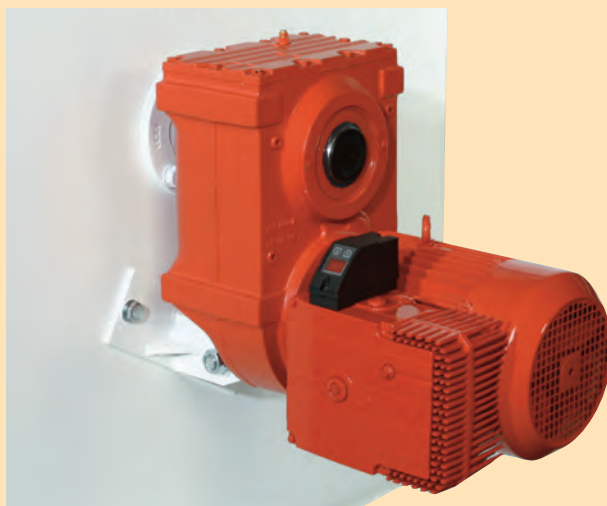
A compressed-air cleaning system which ensures faster emptying of the pockets and thus prevents a decline in the separator's output, is available on request.

#### **Cylinder inclination**

On request we supply adjustable inclination packages (0°-3°) or fixed inclination packages. This optimises the separation results further.

#### **Wear-resistant lining**

For processing particularly abrasive products we can line the machine with an exchangeable wear-resistant covering.



#### **Adjustable speed**

On request we supply geared motors with mechanical or electronic speed control.

#### **Splitting feature**

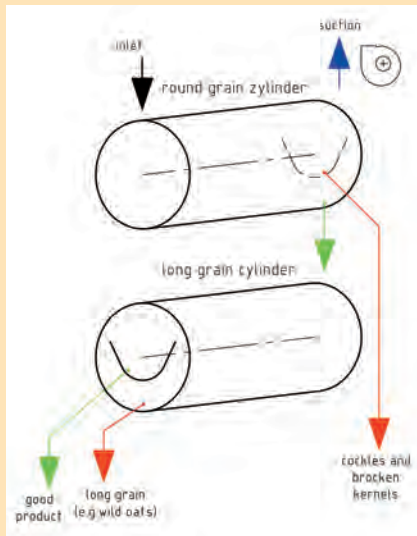
By splitting the grain flow we are able to achieve an outstanding max. output of 45 t/h with our separator type HSR16010.

#### **Automatic trough adjustment**

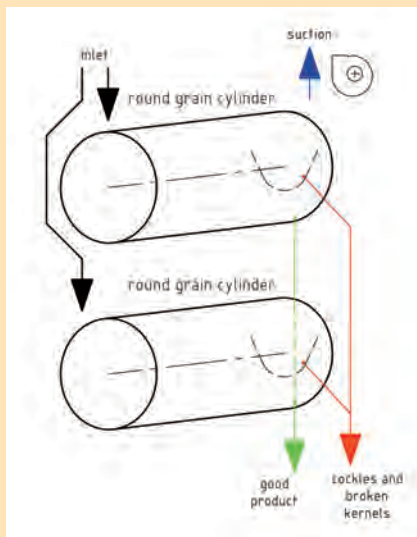
On request the trough regulation system can be provided with adjusting motors.



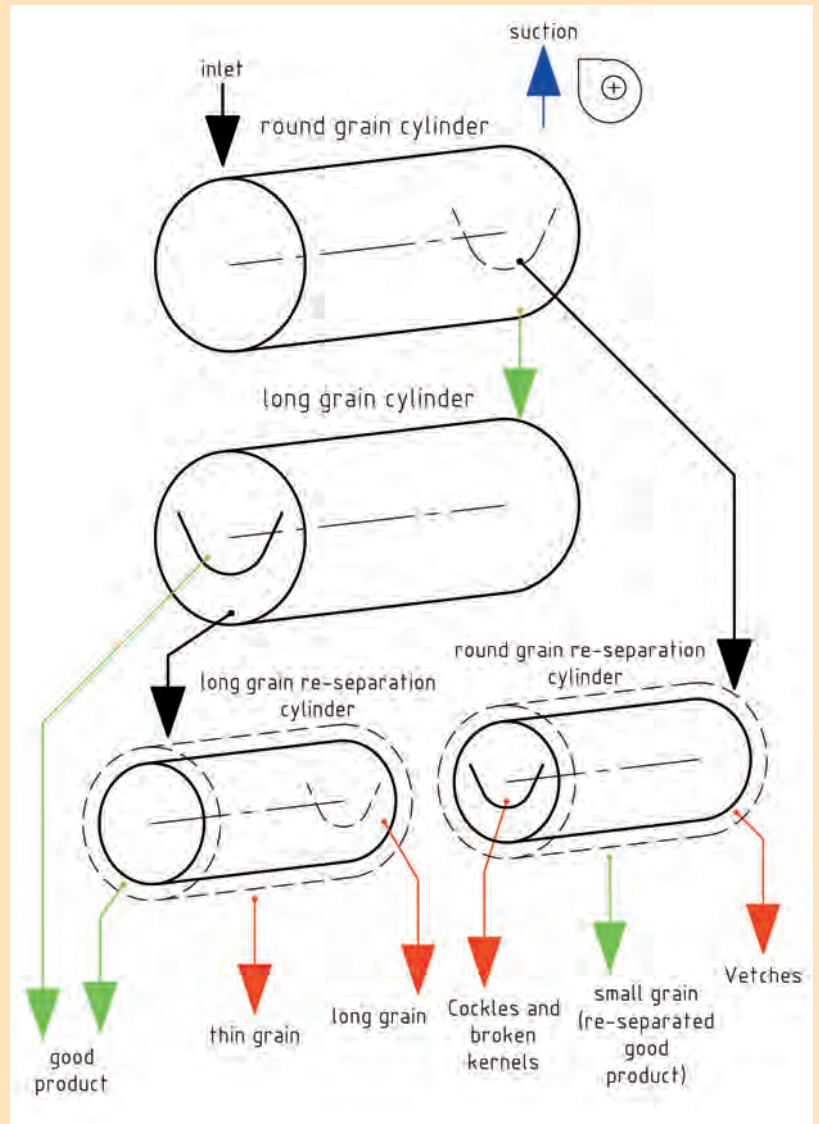
## Flow charts



**Indented cylinders in series arrangement**



**Indented cylinders parallel arrangement**

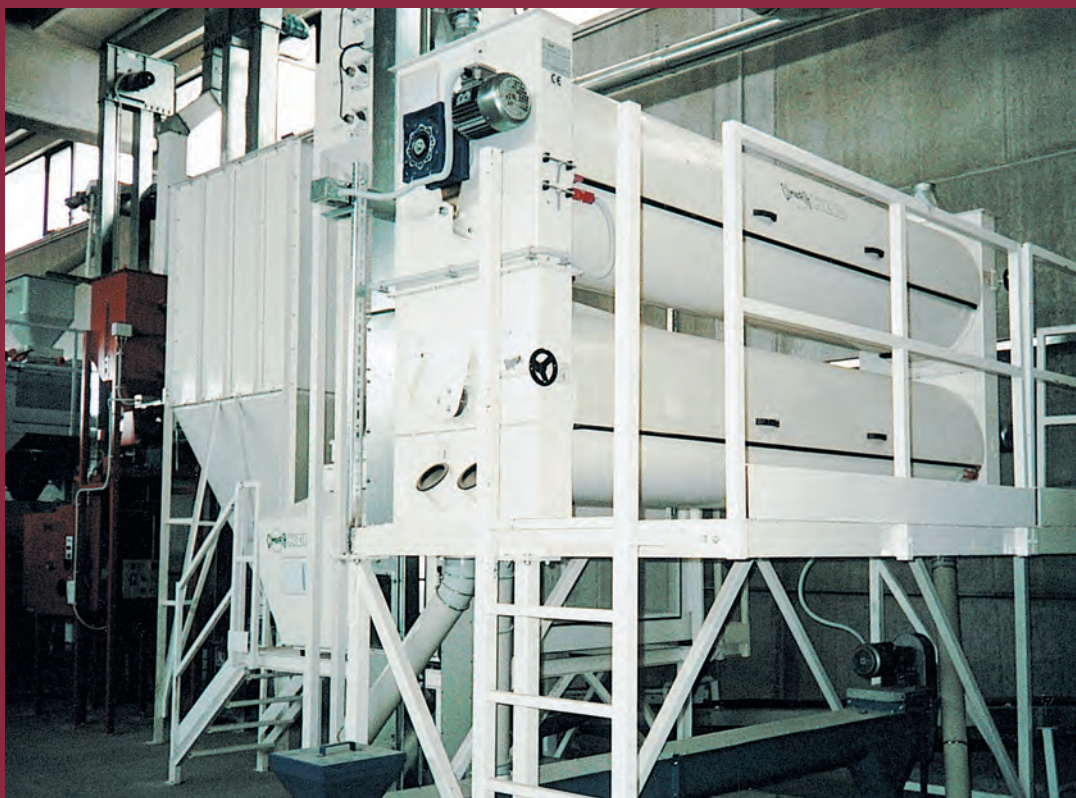


**Indented cylinder battery for flour mills**

## Dimensions and specifications

	Labor	HSR	HSR	HSR	HSR	HSR	HSR	HSR	HSR	HSR	HSR
	HSR	1010	2010	3010	4010	5010	6010	8010	10010	12010	16010
<b>Capacity</b> t/h											
Wheat	0,3	1,0	2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	16,0
Barley	0,25	0,8	1,6	2,4	3,2	4,0	4,8	6,4	8,0	9,6	12,8
Rice (white)	0,2	0,4	0,8	1,2	1,6	2,0	2,4	3,2	4,0	4,8	6,4
Sugar beet seed	0,2	0,3	0,6	1,0	1,3	1,6	1,9	2,6	3,2	3,8	4,4
Sunflowers (unhulled)	0,1	0,3	0,6	1,0	1,3	1,6	1,9	2,6	3,2	3,8	5,0
Alfalfa	0,1	0,2	0,4	0,6	0,8	1,0	1,2	1,6	2,0	2,4	3,2
<b>Motorcapacity</b> kW	0,37	0,37	0,55	1,1	1,1	1,1	1,1	3,0	3,0	3,0	4,0
<b>Air Requirement</b> m <sup>3</sup> /min	-	6	7	9	9	9	9	12	12	12	12
<b>Dimensions</b> mm											
Length	1155	1675	2675	2545	3045	3545	4045	3320	3820	4325	5325
Width	400	705	705	920	920	920	920	1150	1150	1150	1150
Height	745	630	630	870	870	870	870	1240	1240	1240	1240
<b>Net weight</b> kg	128	210	340	490	555	615	735	990	1120	1245	1315

## Our separators are in operation worldwide



A large number of worldwide patents justify high research and development expenditure and indicate the high technological standards of our equipment and machines. All over the world the products of Cimbria Heid are bought and operated successfully: some 98% of our production is exported. As a member of the Cimbria Group, Cimbria Heid has access to a global network of highly-qualified partners offering permanent support to customers and their plants.



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