

INDENT CYLINDER SEPARATOR

SEED PROCESSING 





OPTIMAL LENGTH GRADING OF ALL GRANULAR MATERIALS



SEPARATING UNWANTED PRODUCT IMPURITIES

All over the world, the Cimbria indented cylinder separators have been delivered and are operating successfully. A large number of worldwide patents justify high research and development expenditure and indicate the high technological standards of our equipment and machines.

Cimbria manufactures machines in series production which enables us to guarantee short delivery times.

Before each machine is delivered, it must pass several specific quality controls to ensure the highest quality standards and a long service life.

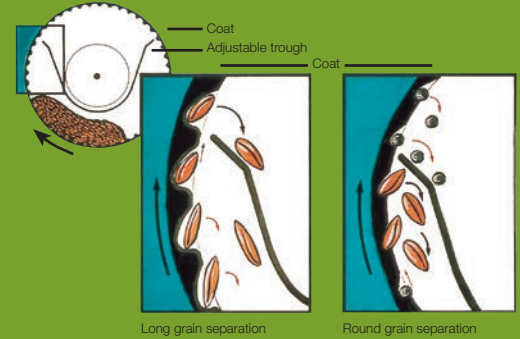
As a member of the Cimbria Group of Companies, we have access to a global network of highly qualified partners offering permanent support to customers and their plants.

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APPLICATION

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.

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



MACHINE RANGE



HSR 1010-16010 R/L

Round grain/long grain cylinder



HSR 1020-16020 R-L

Round grain and long grain cylinder battery



HSR 1010-16010 R-RN/L-LN

Round grain/long grain cylinder with regreaser



HSR 1020-160 20 R-L-RN-LN

Flour mill separator with round grain and long grain regreaser

SERIES PRODUCTION

Cimbria Heid produces machines in series production. During production each machine must pass several specific quality controls to meet customer requirements at the highest level.

INDENT CYLINDER SEPARATOR CONSTRUCTION AND FUNCTION

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 are carried, and after a certain distance, fall out of the pockets into the trough (yellow arrows) and are discharged by a screw conveyor.

All grains which are larger than the indents remain inside the shell and are carried to the outlet where the shell empties into the outlet casing (green arrows). Depending on the required grading, the incoming product is sorted according to roundness or length.

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. On request, the segments can also be equipped with cleaning doors.



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.



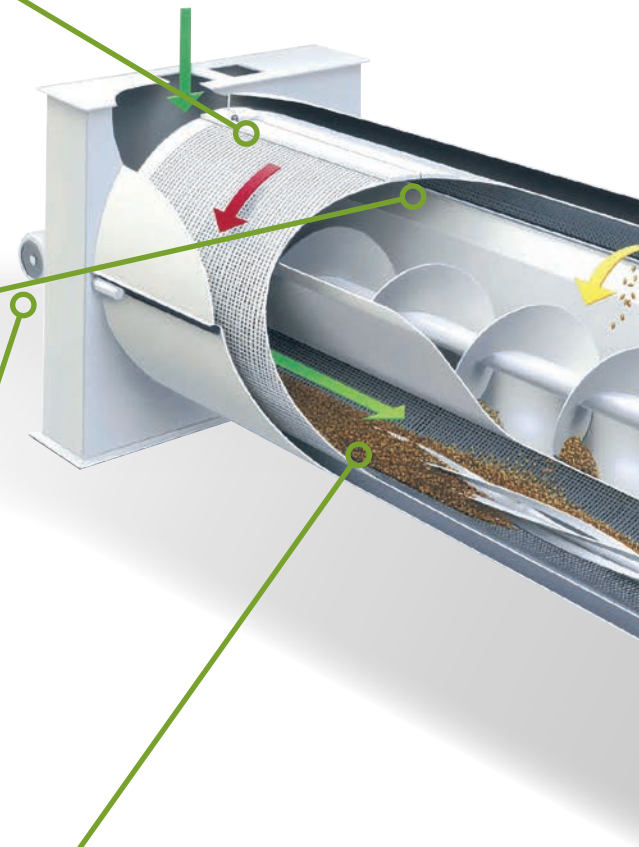
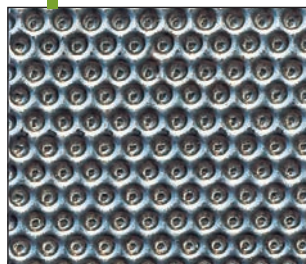
DRIVES

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 provide very quick and accurate service.

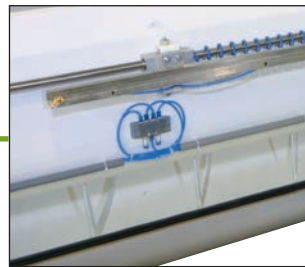
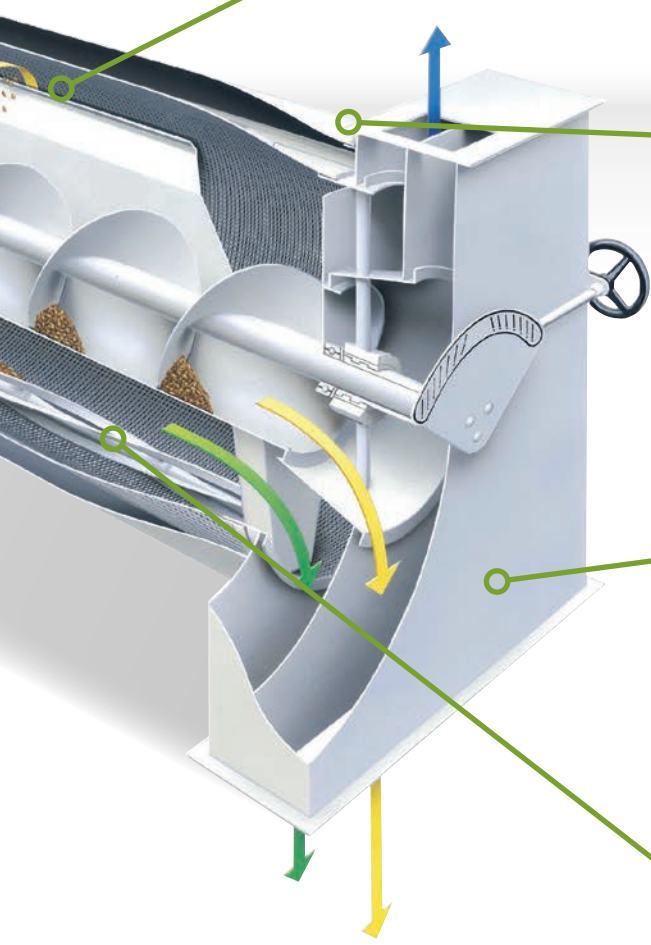


CYLINDER SHELL

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.



SPECIFIC QUALITY CONTROLS ENSURE HIGH QUALITY STANDARDS AND LONG SERVICE LIFE



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.



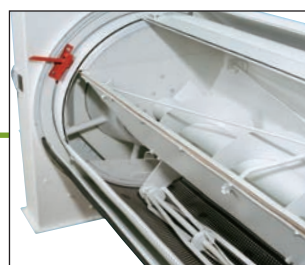
DESIGN

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. Samples can be taken at any time without physical hazard to the operator from the two openings below the windows.



STIRRING DEVICE

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

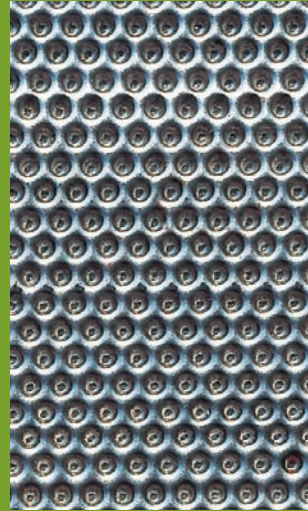
CYLINDER SHELLS & FEATURES

CYLINDER SHELL

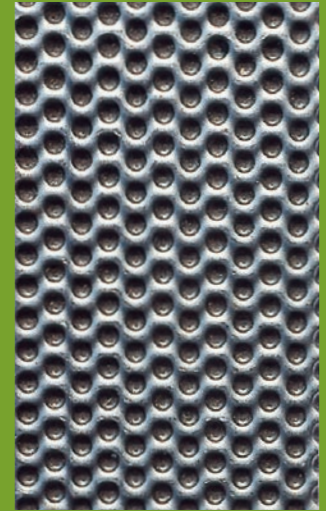
Cimbria Heid is one of the few manufacturers of grain separation cylinders which fabricates its own cylinder segments. This makes us independent of suppliers and enables us to fulfil special customer requirements.

We have minimised the distance between the individual pockets in order to achieve the highest possible number of grading pockets per cm². We can therefore provide a higher sorting output and better separation quality than our competitors.

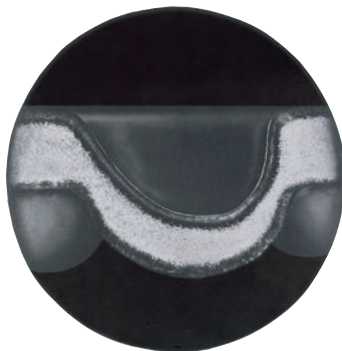
The staggered arrangement of our pockets increases the service life of the segments.



Cimbria

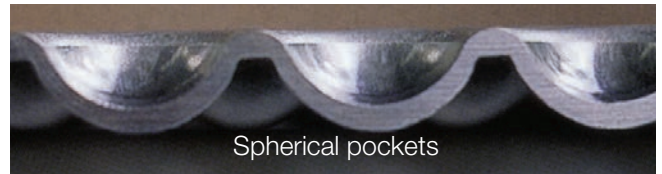


Others

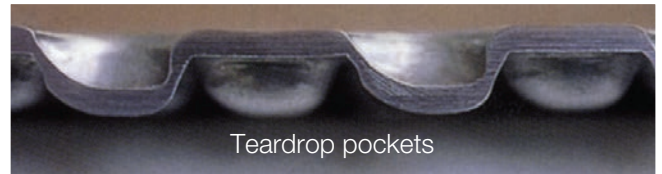


HARDENED SEGMENTS

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



Spherical pockets



Teardrop pockets

POCKET SHAPES

We offer spherical and teardrop pockets depending on the product to be sorted and on the grading task. This enables us to optimise the grading quality and to minimise waste.

ADDITIONAL FEATURES

CYLINDER INCLINATION

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

WEAR-RESISTANT LINING

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

ADJUSTABLE SPEED

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

AUTOMATIC TROUGH ADJUSTMENT

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

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.

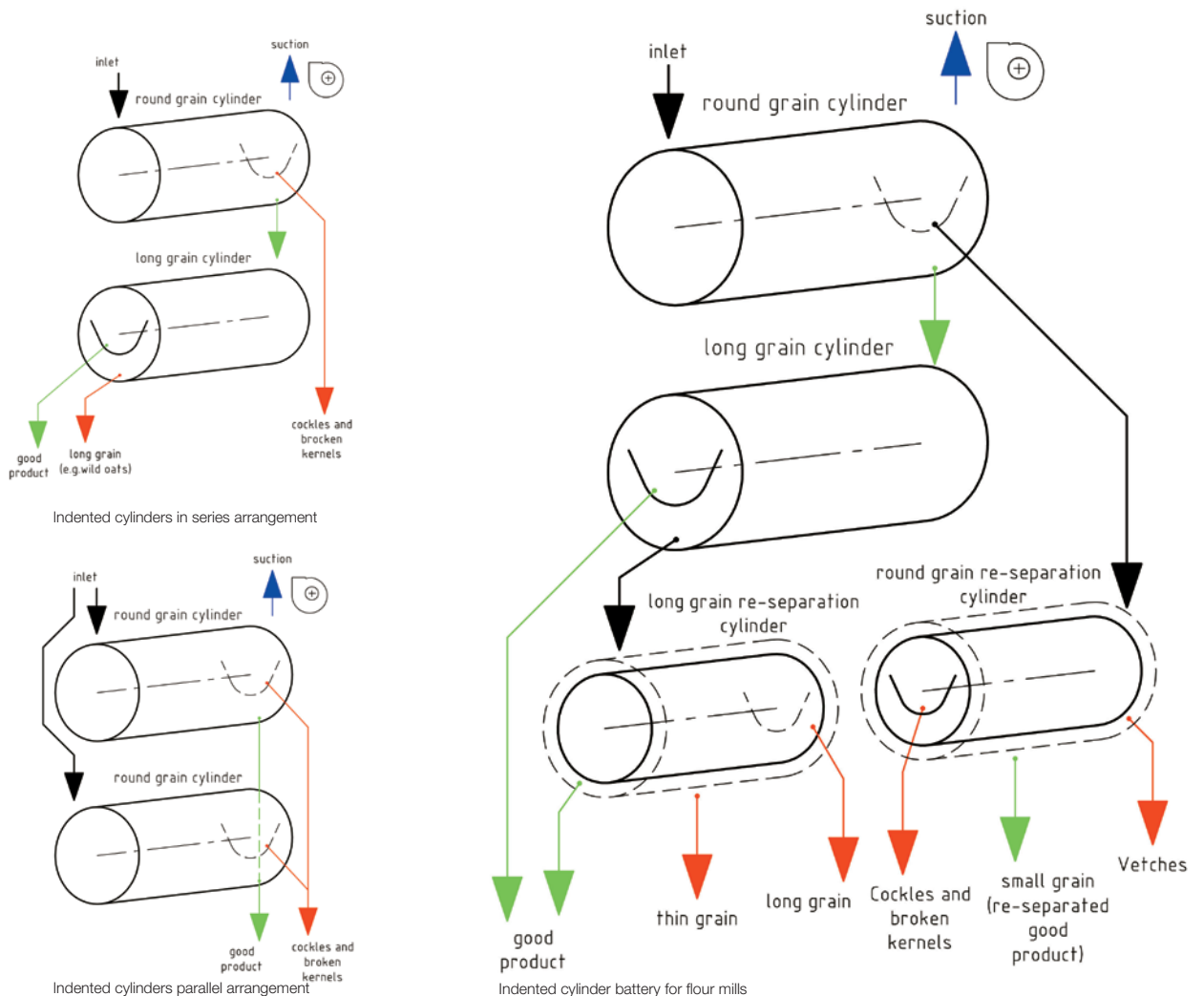
ATEX

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

DIMENSIONS AND SPECIFICATIONS

	HSR	HSR	HSR	HSR	HSR	HSR	HSR	HSR	HSR	HSR	HSR
	LABOR	1010	2010	3010	4010	5010	6010	8010	10010	12010	16010
CAPACITY 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
MOTOR CAPACITY KW	0.37	0.37	0.55	1.1	1.1	1.1	1.1	3.0	3,0	3,0	4,0
AIR REQUIREMENT M3/ MIN		6	7	9	9	9	9	12	12	12	12
DIMENSIONS MM:											
LENGTH	1,155	1,675	2,675	2,545	3,045	3,545	4,045	3,320	3820	4325	5325
WIDTH	400	705	705	920	920	920	920	1,150	1150	1150	1150
HEIGHT	745	630	630	870	870	870	870	1,240	1240	1240	1240
NET WEIGHT KG	128	210	340	490	555	615	735	990	1120	1245	1315

TYPICAL FLOW CHARTS





A/S CIMBRIA

Faartoftvej 22
P.O. Box 40, 7700 Thisted
DENMARK
Phone: +45 96 17 90 00
holding@cimbria.com
www.cimbria.com

CIMBRIA HEID GMBH

Heid-Werkstrasse 4
A-2000 Stockerau
AUSTRIA
Phone: +43 2266 699-0
heid@cimbria.com

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