LAARMANN®

Innovators in Solids

MULTI PURPOSE SAMPLE DIVIDER

Rotary sample dividers and sampling installations

FOR THE REPRESENTATIVE ROTARY DIVIDING OF 2-60 LITRES AND CUSTOM BULK SAMPLING SOLUTIONS

- 3 Modules in one machine
  - Module 1: Continuous process
  - Module 2: Bucket module
  - Module 3: Bottle module
- Ergonomic operation
- Hydraulic scissors lift
- Electromagnetic vibratory feeder
- CE-certified

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The LAARMANN® Rotary Sample Divider combines 3 modules in one machine.

Working principle:

The sample is deposited by the operator in the infeed funnel. This funnel can be adapted to individual requirements with the limitation of the collector volume. Once the sample is inside the machine, a frequency controlled vibratory feeder creates an evenly spread flow of product resulting in a free falling stream. Free falling stream sampling has been proven the best method used for sampling.

The sample will be collected using any of the rotating modules available. The best module depends on the requirements related to the successive steps in the analytical process. Rotating speed can be adjusted using the control system of the machine.

Module 1:

100% of the sample is collected by buckets forming a 360° circle. Standard bucket sets for this combination are formed out of 2,4,6, 8 or 10 equal buckets. Based on individual requirements a custom bucket set can be manufactured. This specific module will be indicated as RSD (rotary sample divider) More than once it is more beneficial to collect only the amount of sample which is needed for the successive test and get rid of unnecessary sample

Module 2:

A carousel with one or more buckets is placed in the designated area. The size of the bucket as well as the quantity of the buckets will determine the quantity of sample collected. Product not collected by the buckets will be treated as reject and therefore collected in a reject bucket/bag underneath the machine. This specific module will be indicated as RSD-R (rotary sample divider—reject)

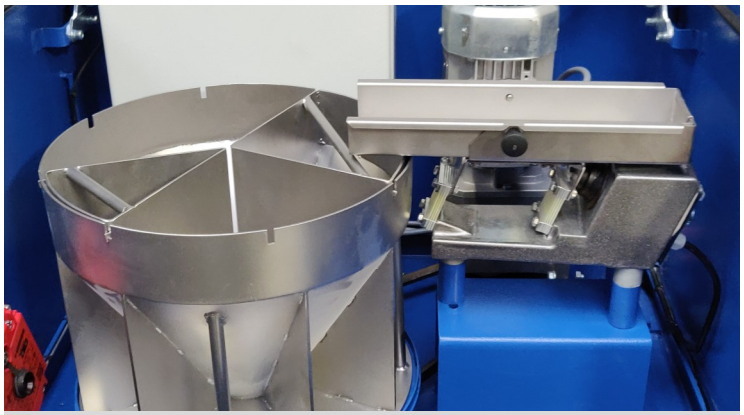
Module 3:

100% of the sample is collected by forming a 360° circle from bottles with specially designed funnels to guide the product towards the bottle opening. Standard sets for this combination are formed out of 2,4,6, 8 or 10 equal funnels. Based on individual requirements a custom funnel set can be manufactured

Indicational options are shown on the next page

Rotary sample divider 30-60L low stand with wheels

Rotary sample divider 30-60L standard



Standard rotary sample divider inside view

rotary sample divider with PU coating

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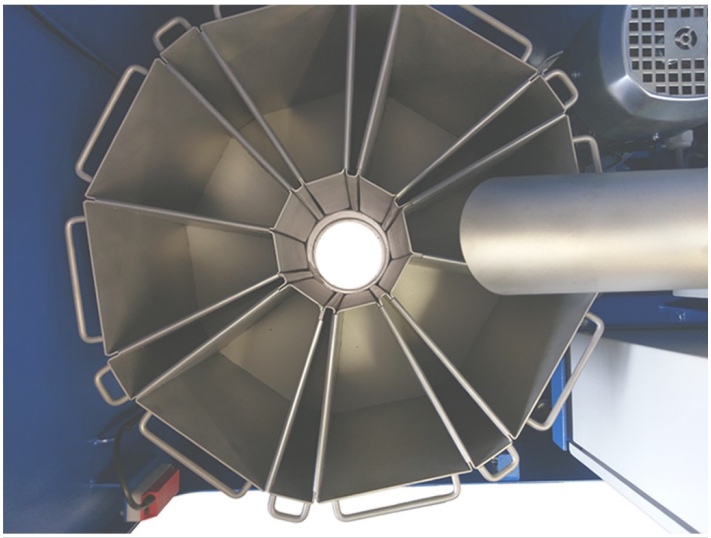
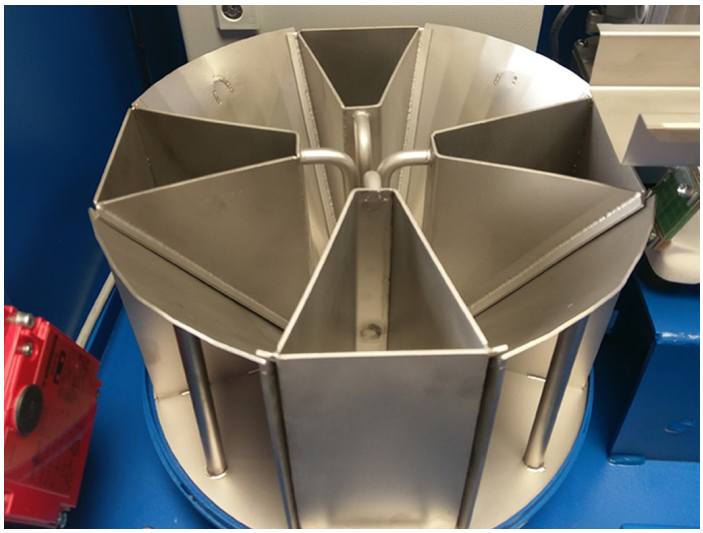
Rotary sample divider bucket set combinations

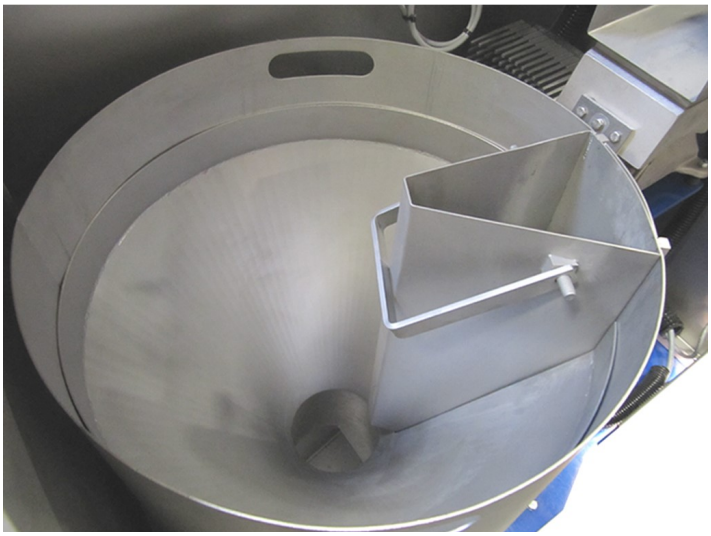
LAARMAN offers a wide set of bucket combinations for each individual application



8 x large buckets and 6 x small buckets



4 x 10% bucket with custom grip point



1 x 10% bucket

8 bottle set up (8x 12,5%)

Custom percentage buckets

2 x 10% bucket with bottles

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Features and benefits

- 3 modules in one machine enables continuous sampling and “batch-processing”
- Due to a range of various bucket sizes the sampling of different volumes is possible (no additional machine necessary)
- The individual sample volumes are variable. This can be achieved due to a wide range of available segment sizes.
- Choice of sample container types and materials:
  - steel buckets
  - bottles
- All parts which are in contact with the sample are made of stainless steel
- Electromagnetic adjustable vibratory feeder
- Ergonomic and flexible handling in variable working heights due to mobile hydraulic pallet truck

The rotary table can be rotated manually in order to move each bucket to the desired position

Technical Data	RSD 2-10	RSD 30-60
Sample volume	2 - 10 Litres	30 - 60 Litres
Number of segments	1-20 depending on version	1-20 depending on version
Modules	**Module 1**: Batch processing segments	**Module 1**: Batch processing segments
	Module 2: Continuous usage	**Module 2:** Continuous usage
	Module 3: Batch processing bottles	**Module 3:** Batch processing bottles
Vibratory feeder	Electrom. adjustable	Electrom. adjustable
Dust extraction	Connection to standard dust extraction system available	
Rotary speed	18-53 rpm	18-53 rpm
Weight	130 kgs	300 kgs
Ambient temperature	5°C - 40°C	5°C - 40°C
Noise emission	70 dB(A)	70 dB(A)
Atmospheric humidity	< 85% RH	< 85% RH
Max. volume of inlet funnel	10 Litres	60 Litres
W x D x H in mm closed	705x670x1062 with funnel	970x722x1737,5 with funnel
Electrical supply data	240 V, 50 Hz	240 V, 50 Hz
Power connection	1-phase	1-phase
Volume of reject collector	10 L	60L
Standards	CE	CE

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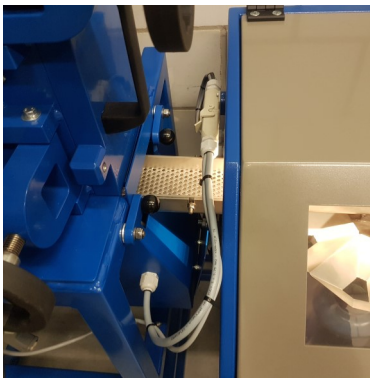
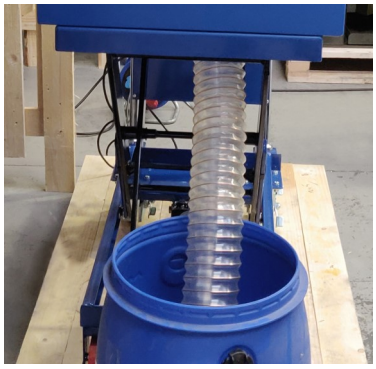
Custom rotary sample dividers solutions

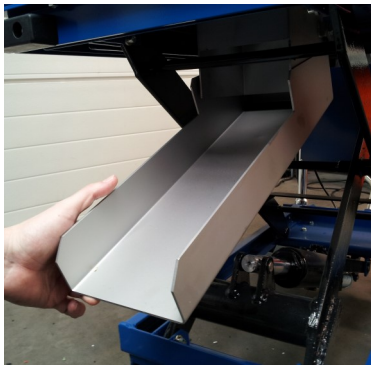
RSD-R 60 liter on a scissor table with collector drum

RSD-R 10Liter with additonal dust poor adaptations for gold sample

LMC100-D jaw crusher with RSD 10Liter combination







Custom solutions for RSD (-R)

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Custom sample installation solutions

We design customized transport, crushing and sampling solutions. We combine our LAARMANN® crushers and sample dividers as well as individual installations for your task.

Combo of sample storage container / Pre-Crusher / Jaw Crusher / Multi Purpose Divider

Combo of Vibratory Feeder / Jaw Crusher/ Multi Purpose Divider

Complete sampling of a Big Bag

LAARMANN® Rotary Sample Dividers (up to 1600 Litres Volume) are an integral part of our big bag sampling solutions.
The representative sampling of bulk materials is always a critical challenge. Especially when the sample has been transported for some distance (big bag) there is definitely segregation in the content and the chance of impurities is high. Experience shows that the bigger particles will be on top and the smaller particles will be at the bottom (brazil nut effect). To get away from hanging 1 ton of material in a crane, using a knife to open the big bag, it's preferable to have a more controllable method. Besides the work, hanging a big bag in a crane is also a dangerous situation; ripping the ropes is a potential risk.

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