



VIBROTECHNIK

Russian avant-garde equipment for milling



LABORATORY SIEVES AND
PRODUCTS FOR LABORATORY
ANALYSIS



LABORATORY SIEVES

Options for sieve surfaces: screen or perforated sheet

Screen material: brass, bronze, stainless steel or polyamide

Shape of stainless steel sheet apertures: round, square or slotted

ADVANTAGES:

- Accurate and reproducible sieving results;
- Sieves are manufactured in conformity with technical specification ISO 3310.1, ISO 3310.2;
- Sieve frame are made of food-grade stainless steel grade AISI 321, 0.55 or 0.8 mm thick;
- Beads and raised edges increase frame rigidity;
- Sieves are supplied with increased height and intermediate rings;
- Sieves **S 20/50, S 20/100, S 30/50, S 30/100, S 40/70, S 40/140** и **S 50/70** are equipped with shock-absorbing sealing rings.

CHARACTERISTICS

	S 12/38	S 12R	S 20/38	S 20/50	S 20/100	S 20R	S 30/50	S 30/100	S 40/70	S 40/140	S 50/70
Inner frame diameter (mm)	120	100	200	200	200	200	300	300	400	400	500
Mesh size (mm)	0,02-4,0	0,02-2,5	0,020-4,0		1,0-4,0	0,02-2,5	0,04-4,0	1,0-4,0	0,2-4	1,0-4,0	0,2-4,0
Size of apertures in perforated plate (mm)	0,8-50,0	*	*	0,8-100,0		*	0,8-150,0		0,8-200,0	0,8-300,0	0,8-200,0
Weight (kg)	0,12	0,98	0,27	0,47	0,5	1,9	0,9	1,3	2,5	3,5	3,5
Maximum sample weight (kg)	0,1		0,15		0,3	0,15	0,3	0,5	0,6	1,0	1,0
Maximum load on sieve with perforated plate (kg)	0,3	*	*	0,5	0,5	*	1,0	1,0	2,0	2,0	3,0

* The design of the sieves does not require the use of a perforated plate sieve element.

APPLICATIONS

Diamonds, ferroalloys, ore, metal powders, coal, slag, glass, ceramic, polymers, peat, cereals, herbs, coffee.



Laboratory Sieves



Sieve **S 12/38** with brass mesh



Sieve **S 20/38** with bronze mesh



Test Sieve **S 20/50** with stainless steel mesh



Sieve **S 30/50** with slotted holes



Sieve **S 40/140** with square perforation



Sieve **S 50/70** with round perforation



Sieve **S 20R** with polyamide mesh on Ø200 mm tray



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Mesh size of metal fabric screens

Cell size, (mm)	0,02	0,032	0,04	0,045	0,05	0,056	0,063	0,064	0,071	0,074	0,08	0,09	0,094
Material	s.steel	s.steel	bronze, s.steel	bronze	bronze	bronze, s.steel	bronze, s.steel	s.steel	brass, s.steel	s.steel	brass, s.steel	brass	s.steel
Cell size, (mm)	0,1		0,112		0,125	0,14	0,16	0,18	0,20	0,25	0,28	0,315	0,355
Material	brass, s.steel		brass		brass, s.steel	brass, s.steel	brass, s.steel	brass	brass, s.steel				
Cell size, (mm)	0,40		0,45		0,50	0,56	0,63	0,70	0,80	0,90	1,00	1,10	1,20
Material	brass, s.steel		brass, s.steel		brass, s.steel	brass	brass, s.steel					s.steel	s.steel
Cell size, (mm)	1,25		1,40		1,60	1,80	2,00	2,20	2,50	2,80	3,20	3,50	4,00
Material	brass, s.steel		s.steel.		brass, s.steel	s.steel.	brass, s.steel	s.steel.	brass, s.steel	s.steel.			

Size and shape of apertures in perforated plate

Diameter (mm)	0,8	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	5,6
	6,0	6,5	7,0	7,5	8,0	9,0	10,0	11,0	12,0	12,5	13,0	14,0
	15,0	16,0	17,0	18,75	20,0	22,5	25,0	30,0	31,5	35,0	40,0	45,0
	50,0	55,0	60,0	63,0	70,0	80,0	87,5	100,0	125,0	150,0	200,0	300,0
Side of square (mm)	3,15	3,5	4,0	4,5	5,0	5,6	6,0	6,3	7,0	8,0	9,5	10,0
	11,2	12,0	12,5	13,0	15,0	16,0	18,0	19,0	20,0	22,4	25,0	31,5
	31,5	32,0	34,0	37,5	40,0	45,0	50,0	60,0	63,0	80,0	120,0	130,0

Size of slotted holes

Slotted hole, mm	1,0x20	1,5x15	1,5x20	1,7x20	1,8x20	2,0x20	2,2x20	2,4x20	2,5x20
	2,6x20	2,7x20	2,8x20	3,0x20	3,2x20	3,5x20	4,0x20	5,0x20	7 x 20
	7,5x20	8 x 20	8 x 30	8 x 32	10x20	10x40	12x20	12x40	18x30

Polyamide mesh cell sizes

Cell size, (µm)	29	35	46	56	57	62	67	74	82	87
	93	99	100	106	112	114	118	122	125	130
	132	134	140	142	144	150	157	160	163	180
	195	200	206	212	224	250	265	300	315	335
	355	363	390	425	450	475	500	512	560	600
	670	710	800	850	950	1000	1180	1680		



SIEVE SHAKERS

The Sieve Shakers are designed for intermittent dry sieving of bulk materials according to particle size.

The Sieve Shaker consists of a vibration drive with a set of sieves installed, a tray, a cover and a device for fastening the sieves. The type of vibration drive, the number of sieves, and the intermediate rings and trays are selected depending on the order and according to the size of the mesh or the apertures in the perforated plate.

ADVANTAGES:

- High quality, confirmed by 100 Best Products in Russia and Made in St. Petersburg awards;
- Accurate, reproducible sieving results;
- Vibration drives equipped with shock absorbers to cancel out the vibration which occurs during operation;
- Made of materials permitted to come into contact with food products;
- Sieve Shakers on base Vibration drive **VP 30**, Vibration drive **VP 30T** and Vibration drive **VPS** are equipped with **T 80** support stands; Sieve Shakers on base Vibration drive **VP 50** are equipped with **T 40** support stand and control panels;
- Small size and low weight;
- Low noise.

Technical characteristics of Sieve Shakers

CHARACTERISTICS		A 12	A 12P	A 20	A 20P	A 20x4	A 30	A 40	A 50	
Sieve diameter (mm)		120	120	200			300	300	400	500
Maximum number of sieves		10	1	10	1	4x10	6	12	10	8
Type of vibration drive		VP 30, VP 30T, VPS				VP 50	VP 30, VP 30T, VPS	VP 50		
Vibration frequency (vibrations/minute)	VP 30, VP 30T	1500				-	1500		-	-
	VPS	1200-1800				-	1200-1800	-	-	-
	VP 50	-				1500	-	1500		
Maximum overall dimensions (mm):	Length	390	390	390	390	560	390	565	576	560
	Width	350	350	350	350	550	350	550	576	550
	Height	684	306	760	335	1000	650	1155	1236	1100
Maximum weight (kg)	VP 30, VP 30T	23	22	26	23	-	28	-	-	-
	VPS	43	42	46	43	-	48	-	-	-
	VP 50	-	-	-	-	100	-	82	136	101



Sieve Shaker **A 12**
on base **VPS**



Sieve Shaker **A 20**
on base **VP 30T**



Sieve Shaker **A 30**
on base **VP 30T**



Sieve Shaker **A 20x4**
on base **VP 50**



Sieve Shaker **A 30**
on base **VP 50**



Sieve Shaker **A 50**
on base **VP 50**



CIRCULAR VIBRATORY SCREENERS AND CIRCULAR VIBRATORY SCREENER UNITS ON BASE PG

The Circular Vibratory Screeners are designed for sieving bulk materials according to particle size classes.

The operating principle of the Circular Vibratory Screeners is similar to the operating principle of the analyzer, except that supply of the material to be sieved and discharge of the separate classes from the surface of the sieve and tray are continuous.

ADVANTAGES OF CIRCULAR VIBRATORY SCREENERS UNITS:

- The distance traveled by the material particles during screening exceeds the diameter of the sieves installed, which improves sieving efficiency;
- Dust discharge is eliminated;
- The Circular Vibratory Screeners is equipped with corrugated discharge hoses and plastic receiving containers;
- Efficient screening using reciprocating helical vibrations of platform;
- Supply of elastic discharge hoses that do not distort the vibrations, for connecting pipes to receiving containers.

ADVANTAGES OF GR UNITS WITH PG:

- Uniform feed of material to upper sieve of Screener;
- The material feed rate is adjusted by:
 - moving the slide gate in the feed hopper;
 - changing the amplitude of the feed tray vibrations making it possible to change the thickness of the material layer in the tray.
- Sealed connection of feeder, sieving elements and receiving containers;
- Increased output of Circular Vibratory Screeners **GR 40** and **GR 50** through simultaneous loading of material into several identical sieves on one sieving column.

CHARACTERISTICS	GR 30	GR 40	GR 50	GR 30 with PG 1	GR 40 with PG 1 GR 50 with PG 1	GR 50 with PG 2		
Sieve diameter (mm)	300	300	400	500	300	400, 500	500	
Maximum number of sieves	5	12	10	8	5	8	8	
Vibration frequency (vibrations/minute)	1500							
PG feeder hopper volume (dm ³)	-			9		66		
Type of vibration drive	VP 30	VP 50		VP 30	VP 50			
Overall dimensions, mm	Length	390	565	576	690	810	610	1170
	Width	350	550	576	550	400	1065	700
	Height	550	1155	1305	1100	1000	1425	1600

SIEVING EQUIPMENT

Circular Vibratory Screeners and Circular Vibratory Screener units on base PG



Circular Vibratory Screener **GR 30**



Circular Vibratory Screener **GR 40**



Circular Vibratory Screener unit with feeder **PG 1**



Pipe and skirt of sieve **GR 50**



Circular Vibratory Screener **GR 50** with double output and simultaneous loading into 2 sieves



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TRAYS, COVERS, SIEVE FASTENERS

TRAYS

Material particles that have passed through all sieves of the sieving column are discharged to the analyzer trays.

Intermediate trays are designed for the installation of several identical sets of sieves in one sieving column.

The sieve shaker trays are designed for continuous discharge into the receiving container of the material that has passed through the lower sieve.



Trays with diameter of 120, 200, 300 and 500 mm



Trays for sieve shakers **GR 30** and **GR 50**

COVERS

The Sieve shaker and Circular Vibratory Screeners covers are designed to reduce the dust level; in addition, the Circular Vibratory Screeners covers are designed for loading material into the top sieve. There are four designs for the **GR 30**, **GR 40** and **GR 50** covers:

- with a funnel for portioned loading of material;
- with a pipe for sealed connection of an elastic hose;
- with a membrane for loading material through a rigid hose;
- with a water supply for wet sieving.



Covers with diameter of 120, 200, 300 and 500 mm



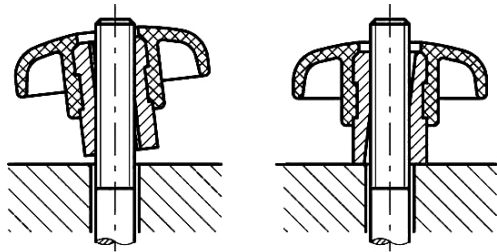
GR 30 cover with pipe and membrane,
GR 50 cover with funnel

SIEVE FASTENERS

The sieve fastener **UKS** is designed to secure a sieve column of arbitrary height on a vibration drive platform. In addition to the sieve fastener **UKS**.

ADVANTAGES OF UKS:

- Use of industrial fittings that ensure convenient use and durability of the sieve fasteners;
- The main element of the sieve fastener, the cross piece, has two guide bushes that reduce the likelihood of it skewing;
- The cross piece has a square cross section to prevent deformation;
- The **UKS** knobs do not have continuous threads, but rather beveled threads, which eliminate the need to twist the knobs on the threaded pegs and reduce the time required to secure the sieve column when its height is changed;



UKS knob

Sieve fastener **UKS****SIEVE HOLDERS**

The **S 50** cassette is designed to store five **A 50** or **GR 50** sieves.

ADVANTAGES:

- Compact storage of **A 50** and **GR 50** sieves, trays, covers and intermediate rings;
- Wooden inserts prevent the sieves from coming into contact with metal parts of the cassette;
- A handle and rollers are provided to move the cassette.

Cassette **S 50**



VIBROTECHNIK

Maliy pr. V.O., 62/2, liter A,
St. Petersburg, Russian Federation, 199178
Tel./Fax: +7 (812) 468-72-12
+7 (812) 643-98-26
E-mail: sales@vt-spb.ru

www.vibrotechnik.com