

**HAYER & BOECKER**



## **Information**



**Test Sieve Shakers,  
Test Sieves and  
Laboratory Equipment**

# HAYER Test Sieves

HAYER Test Sieves are fabricated according to the valid standards: **ISO 565, DIN ISO 3310, ASTM E 11, BS 410, AFNOR, NEN 2560, ISO 5223** etc. Our "International Test Sieve Comparison Table 2007" (see pages 15 and 16) gives a general idea. HAYER Test Sieves are characterised by accuracy and stability. The meticulous fabrication and optimum tension of the sieve bottoms guarantee a good service life with perfect operation.

HAYER Test Sieves are supplied with woven wire cloth, perforated metal plates or electroformed sheets.

## ... with Woven Wire Cloth

Test Sieves with woven wire cloth are supplied with square aperture widths from 20  $\mu\text{m}$  to 125 mm.

HAYER Test Sieves are characterised by

- a smooth frame surface avoiding cross-contamination
- a long service life
- a perfect tension even after intensive use



## ... with Perforated Metal Plates

Square hole plates can be supplied in hole widths from 4 mm to 125 mm. They have proved exceedingly efficient in the range from 16 mm hole width upwards.

Test Sieves with square hole plates are mainly used for sieving concrete aggregate materials, road construction stones, natural sand, gravel, brush and others.

Test Sieves for cereals are supplied with slot hole perforated metal plates according to ISO 5223.



## ... with Electroformed Sheets

Test Sieves with electroformed sheets are mainly used with hole widths from 5  $\mu\text{m}$  to 100  $\mu\text{m}$ . They are standardized up to 500  $\mu\text{m}$  hole width.

They are extraordinarily precise, though mechanically very sensitive.

Electroformed nickel-foils have round or square holes with wide bridges.



# Certification and Re-Certification of Test Sieves

DIN EN ISO 9000 ff

Measuring instruments, including test sieves, have to be serviced, tested and labelled at regular intervals.

HAYER & BOECKER offers the opportunity to check test sieves by a video-analysis-system at our works laboratory. As a special service we can check your test sieves on-site.

There are two types of tests that lead to a) a certification or b) a calibration. Certification and calibration differ in the achieved reliability levels of test results.

The number of measured aperture sizes for a calibration is three times higher than for a certification.

Test results are statistically evaluated and documented in a certificate of compliance according to DIN EN 10 204 standards.

Meßprotokoll Nummer TTL-2002/03623 vom 2002-11-25 Analysensieb-Messung  
Abnahmeprüfzeugnis B nach DIN EN 10 204

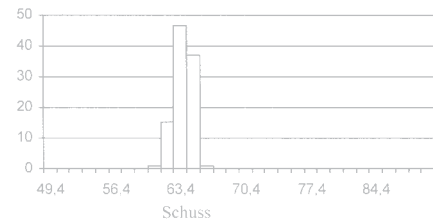
Auftrag: 10-007007 PO-No: 4711-0815  
Kunde: 0528627 HAYER BELGIUM S.A.

Auftragsdatum: 2002-11-20

Analysensieb-Nummer: 4702001 Rahmen-Durchmesser: 200 mm Rahmen: Edelstahl Rostfrei  
Kunden-Siebnummer: keine Webart: Leinen Metalldrahtgewebe: Edelstahl Rostfrei  
Nennmaschenweite w: 63 µm Nenndrahtdurchmesser d: 45 µm bisherige Messungen: 1  
Toleranzen der Maschenweite:  $Y = \pm 3,7$   $X = 26,0$   $\sigma_0 = 9,9$  nach ISO 3310-1:2000

Meßergebnisse von 125 gemessenen Maschen in Kettrichtung  
Meßergebnisse von 125 gemessenen Maschen in Schußrichtung Werte in Mikrometer

	Kette		Schuß	
Bereich	Anzahl	Prozent	Anzahl	Prozent
< (w-Y)	0	0,0	0	0,0
(w-Y) - (w+Y)	119	95,2	119	95,2
(w+Y) - (w+X)	0	0,0	0	0,0
> (w+X)	0	0,0	0	0,0
Obere Grenze einer Klasse				
Klasse	Anzahl	Prozent	Anzahl	Prozent
49,4	0	0,0	0	0,0
50,8	0	0,0	0	0,0
52,2	0	0,0	0	0,0
53,6	0	0,0	0	0,0
55,0	1	0,8	0	0,0
56,4	0	0,0	0	0,0
57,8	0	0,0	0	0,0
59,2	0	0,0	0	0,0
60,6	5	4,0	0	0,0
62,0	11	8,8	0	0,0
63,4	28	22,4	0	0,0
64,8	42	33,6	0	0,0
66,2	25	20,0	0	0,0
67,6	10	8,0	0	0,0
69,0	2	1,6	0	0,0
70,4	1	0,8	0	0,0
71,8	0	0,0	0	0,0
73,2	0	0,0	0	0,0
74,6	0	0,0	0	0,0
76,0	0	0,0	0	0,0
77,4	0	0,0	0	0,0
78,8	0	0,0	0	0,0
80,2	0	0,0	0	0,0
81,6	0	0,0	0	0,0
83,0	0	0,0	0	0,0
84,4	0	0,0	0	0,0
85,8	0	0,0	0	0,0
87,2	0	0,0	0	0,0
88,6	0	0,0	0	0,0
90,0	0	0,0	0	0,0



Wir bestätigen, dass die eingesetzten Messmittel kalibriert sind  
Maschenw. ≤ 2,8 mm Messmittel HB-Mikroskope "HB 25", "HB 51"  
Maschenw. > 2,8 mm Messmittel "TESA" HB 2004-2009-2108-2348  
Bezugsnormale 221-DKD-K-12401-99-07, 342-DKD-K-12401-00-10, DKD 86043, DKD 89425, 39 PTB 96, 3517 PTB 99

EDV-erstelltes Zeugnis, daher auch ohne Unterschrift gültig - Der Werksachverständige - DW/TTL/H.-J. Heck

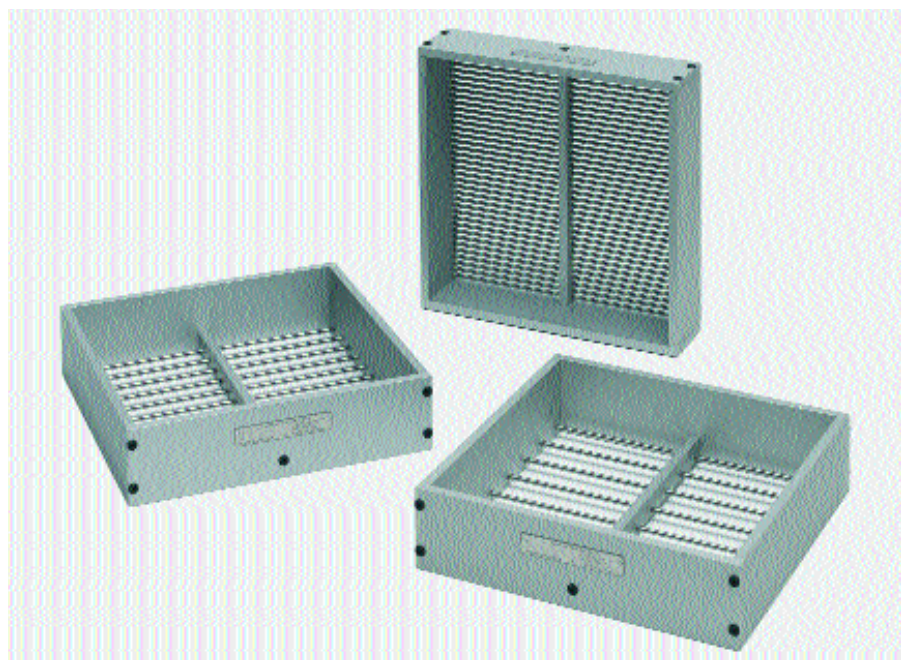
## HAYER Grid Sieves with parallel rods

according to  
DIN EN 933-3 and  
DIN EN 1097-8

Grid sieves are used for the determination of particle shape-flakiness index of aggregate particles.

HAYER Grid Sieves are made from an anodized aluminium frame 300 x 300 mm and stainless steel rods.

Slot widths are offered from 2.5 mm to 40 mm, according to the aforementioned standards.



# Test Sieves - Delivered Formats

HAYER Test Sieves are supplied in all current diameters from 76.2 mm to 400 mm. Test Sieves with square frames made from beech wood are available with 300 mm and 500 mm side length.

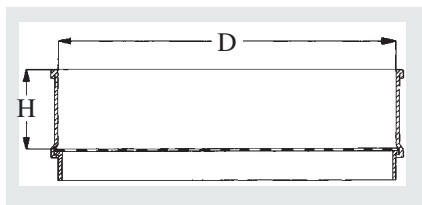
The following pages show some of our standard sizes and frames.

Sieve bottoms (woven wire cloth or screens, perforated metal plates or electroformed sheets) are fixed to the tension ring by soldering or welding. These manufacturing procedures have been developed by our company. The tension ring is pressed into the frame and bonded with it, using a special

adhesive. This two-part construction gives the test sieve its high stability and guarantees a good service life with perfect operation.

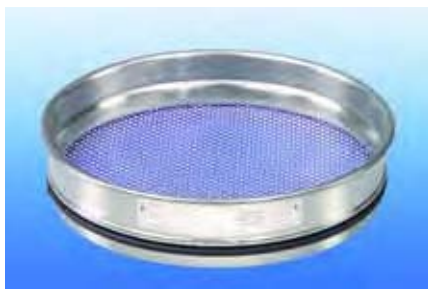
Our fabrication is subject to high quality controls as documented in our certified Quality Management Assurance System according to DIN EN ISO 9001. Each test sieve is delivered with a Certificate of Compliance version 2.1 according to DIN EN 10204.

If requested, an inspection certificate according to EN 10204 3.1 B can also be provided.



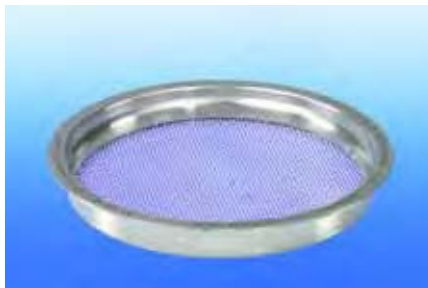
**Test Sieve with beaded frame, standard design with full height.**

Stainless Steel:								
D	100	150	200	203 $\triangle$ 8"	300	350	400	mm
H	45	50	50	50	60	60	65	mm
Brass:								
D	200	203 $\triangle$ 8"	300	305 $\triangle$ 12"	400			mm
H	50	50	60	50/65	65			mm



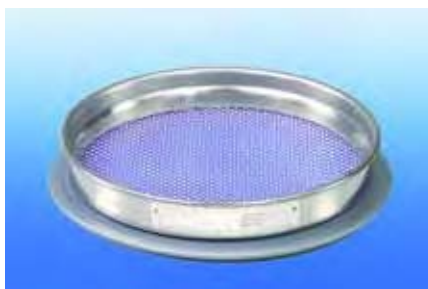
**Test Sieve with beaded frame, half height.**

Stainless Steel:					
Diameter	D	200	203 $\triangle$ 8"	300	mm
Effective height	H	32	32	30	mm
Brass:					
Diameter	D	200	203 $\triangle$ 8"	mm	
Effective height	H	32	32	mm	



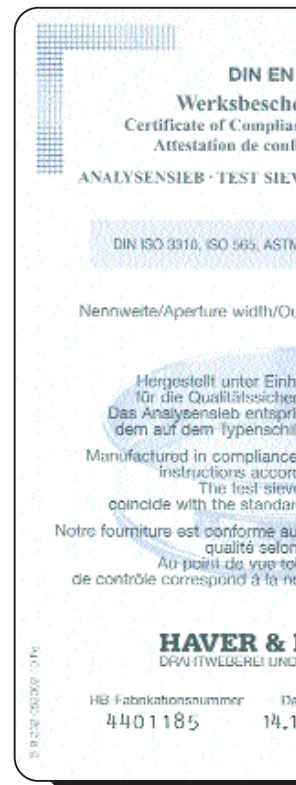
**Test Sieve – Special Execution – NEW GENERATION – for Alpine®-Air Jet Sieve 200 LS-N and 200 LS-AC**

Stainless Steel:			
Diameter	D	203 $\triangle$ 8"	mm
Effective height	H	28	mm



**Test Sieve – Special Execution – OLD GENERATION – for Alpine®-Air Jet Sieve 200 LS**

Stainless Steel or Brass:			
Diameter	D	200	mm
Effective height	H	25	mm



10 204  
**Einigung 2.1**  
 ance with the Standard  
 ormité à la norme  
 E · TAMIS DE CONTROLE

E 11, BS 410, NF X 11-501

verlure w: 0,30 mm

altung der Vorgaben  
 ung nach ISO 9001.  
 cht in seinen Toleranzen  
 d genannten Standard.

with the quality assurance  
 ling to ISO 9001.  
 e tolerances  
 d of the test sieve table.

x prescriptions de l'assurance-  
 ISO 9001.  
 érences, le tamis  
 orme qui figure sur la plaque.

**BOECKER**  
 MASCHINENFABRIK

um Werkachverändiger  
 1,02 H.-L. Heck

## Accessories for Test Sieves

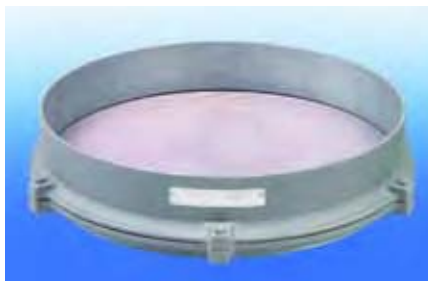


### Test Sieve

with flat frame, especially for ultra-fine particle-separation.

Sieve bottom permanently soldered.

Stainless Steel:			
Diameter D		76 $\pm$ 3"	mm
Effective height H		22	mm



### Test Sieve with cast aluminium frame

with exchangeable screens.

Destined for HAVER Test Sieve Shakers EML 450 and UWL 400.

Diameter D	315	400	mm
Effective height H	62	65	mm

Not suitable for wet sieving.

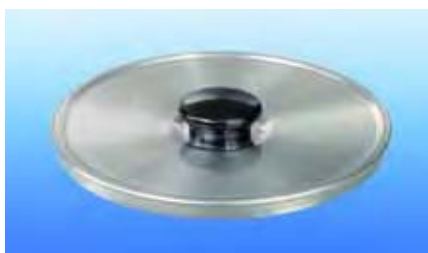


### Test sieve with beechwood frame

made from seasoned beechwood.

Dimensions L x W	300 x 300	500 x 500	mm
Effective height H	80	80	mm

Not suitable for wet sieving.



**Sieve cover**  
 with or without knob.



**Sieve pan**  
 to receive the sieved material.



**Intermediate pan**  
 Sieve frame with solid base.



**Sieve pan with outlet**



**Intermediate ring**  
 Sieve frame without base.

# The correct Test Sieve Shaker for the required application

Technical Data and Characteristics of HAVER & BOECKER and W.S. TYLER Test Sieve Shakers.

Characteristics		Test Sieve Shaker	EML 200 digital plus	EML 300 digital plus	EML 450 digital plus	UWL 400	Ro-Tap 8" RX-29	Ro-Tap 12" RX-30	Ro-Tap II RX-94	Ro-Tap Model E 8"	Ro-Tap Model E 12"	Tyler 12" RX-812	
		Applicable Test Sieves	Diameter in mm	76 (3")	•				•		•	•	
100	•									•			
150	•									•			
200	•			•	•	•	•	•	•	•	•	•	•
203 (8")	•			•	•	•	•	•	•	•	•	•	•
250				•	•							•	
300				•	•	•						•	•
305 (12")				•	•	•						•	•
315					•	•							
350					•	•							
400					•	•							
450 (18")				•									
Dimension in mm	300 x 300					•							
	500 x 500				•								
Three-dimensional sieving action		•	•	•	•	•	•	•	•	•	•	—	
Two-dimensional sieving action		—	—	—	—	—	—	—	—	—	—	•	
Self-readjusting amplitude; G-Control		•	•	•	—	Constant Acceleration/Rotation			•	•	•	Constant acceleration/Rotation	
Max. amplitude approx./mm (with maximum load)		3	2	1,5		—			—	—	—	—	
Intermittent operation		•	•	•	—	—			•	•	•	—	
Control programmable		•	•	•	•	•	•	•	•	•	•	•	
Control with saving function		•	•	•	—	—			•	•	•	—	
Time switch, minutes		0-99	0-99	0-99	0-599	0-99	0-99	0-99	0-99	0-99	0-99	0-99	
Continuous operation		•	•	•	—	—			•	•	•	—	
All electronic control		•	•	•	—	—			•	•	•	—	
Digit display for all functions		•	•	•	•	•	•	•	•	•	•	•	
Max.weight of sieving material in kg (with full load)		3	6	15	20	—			3	6	—	—	
Dry sieving		•	•	•	•	•	•	•	•	•	•	•	
Wet sieving		•	•	•	•	•	•	•	•	•	•	—	
Explosion-proof		—	—	—	•	—			—	—	—	—	
Sound emission, dB <sub>A</sub>		78	75	75	≤70	<70*/86	<70*/86	<70*/86	78	75	≤70	≤70	
Weight, approx. kg (without test sieves)		34	53	100	190	82	82	100	34	53	28	28	

\* If used with a sound absorbing cupboard

## 3-D-Sieving Action

**Three-dimensional sieving action of all HAVER Test Sieve Shakers for optimum reproducible and quick results**

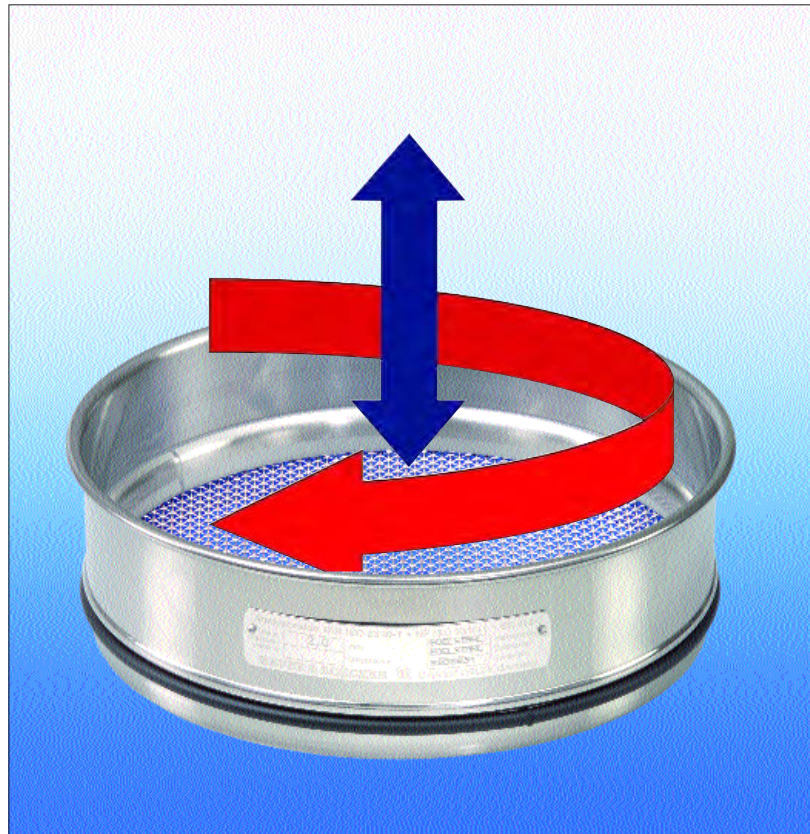


HAVER Test Sieve Shakers produce a three-dimensional sieving action. The material progresses vertically through the meshes, and is distributed in a circular motion over the whole sieving surface.

Due to the circular motion particles pass efficiently through the different meshes, reducing the sieving period.

The sieving time is finished when the result remains constant.

Without a three-dimensional sieving action, for many materials the end of a sieving time can often be difficult to achieve. In this case, a final hand sieving may be necessary.



## Self Readjusting Amplitude

**with permanent acceleration measurement – G-Control**



Our G-Control technology ensures self readjusting amplitude utilizing permanent acceleration measurement of the whole test sieve tower.

It balances the oscillation of the machine and counter-balances also vibrations being transmitted to its stand. This guarantees that amplitudes stay the same irrespective of the feed quantity and the installation position.

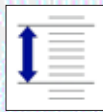
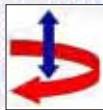
All electromagnetically driven HAVER Test Sieve Shakers use this technology.



# Test Sieve Shaker HAVER EML 200 digital plus T

## with self-readjusting amplitude; G-Control

The Test Sieve Shaker HAVER EML 200 digital plus is constructed for optimum three-dimensional sieving action. The self-readjusting amplitude, utilizing permanent acceleration measurement of the whole test sieve tower, balances the oscillation of the machine and counterbalances also vibrations being transmitted to its stand. This guarantees that amplitudes stay the same irrespective of the feed quantity and the installation position.



### EML 200 digital plus – short description:

- for test sieve diameters 3" (76.2 mm), 100 mm, 150 mm, **200 mm, 8" (203 mm)**
- self-readjusting amplitude
- forced regulated three-dimensional sieving action
- all electronic control with digital indication of all functions
- saving function for 10 sieving programs
- simple push-button key front panel
- electromagnetic drive
- 3,000 impulses per minute (50 Hertz)
- intermittent – or continuous operation
- max. weight of full sieve tower: 8.7 kg (corresponds to approx. 3 kg sample weight)

### Technical Data:

Operating voltage: 230 V, 50-60 Hz or 110 V, 50-60 Hz  
 Amplitude: self-readjusting, approx. 3.0 mm max  
 Time switch: 0-99 minutes or continuous operation  
 Power consumption: 185 Voltampère  
 Weight: approx. 34 kg  
 Sound emission: 78 dB<sub>A</sub>

The intensity of sound can be reduced even more by using a sound absorbing cupboard. See our laboratory equipment accessories.

# HAVER EML 200 digital plus N

## with separate control gear for wet sieving

The EML 200 digital plus design for wet sieving has a separate control gear and water protected special plug types.



# Test Sieve Shaker HAVER EML 300 digital plus T with self-readjusting amplitude; G-Control

The basic construction and function of the Test Sieve Shaker HAVER EML 300 digital plus correspond to the EML 200 digital plus. This test sieve shaker characterises the advantages of the three-dimensional sieving action and self-readjusting amplitude utilizing permanent acceleration measurement for test sieves with diameters up to 305 mm.

## EML 300 digital plus – short description:

- for test sieve diameters 200 mm, 8" (203 mm), 250 mm, **300 mm, 12" (305 mm)**
- self-readjusting amplitude
- forced regulated three-dimensional sieving action
- all electronic control with digital indication of all functions
- saving function for 10 sieving programs
- simple push-button key front panel
- electromagnetic drive
- 3,000 impulses per minute (50 Hertz)
- intermittent – or continuous operation
- max. weight of full sieve tower: 21 kg (corresponds to approx. 6 kg sample weight)

## Technical Data:

Operating voltage: 230 V, 50-60 Hz or 110 V, 50-60 Hz  
Amplitude: self-readjusting, approx. 2.0 mm max  
Time switch: 0-99 minutes or continuous operation  
Power consumption: 185 Voltampère  
Weight: approx. 52 kg  
Sound emission: 75 dB<sub>A</sub>

The intensity of sound can be reduced even more by using a sound absorbing cupboard. See our laboratory equipment accessories.



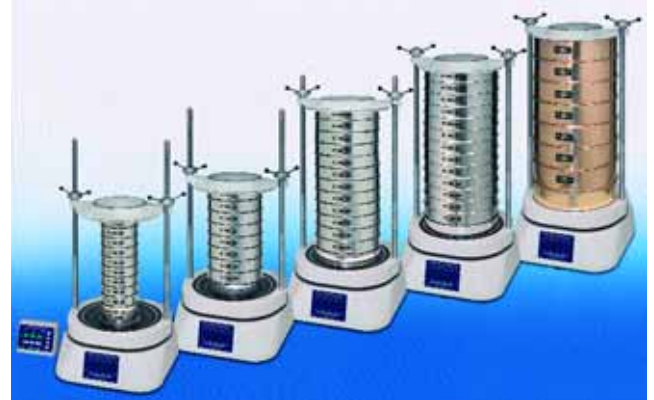
**HAVER EML 300 digital plus N**  
with separate control gear for wet sieving

# Test Sieve Shaker HAVER EML 450 digital plus T with self-readjusting amplitude; G-Control

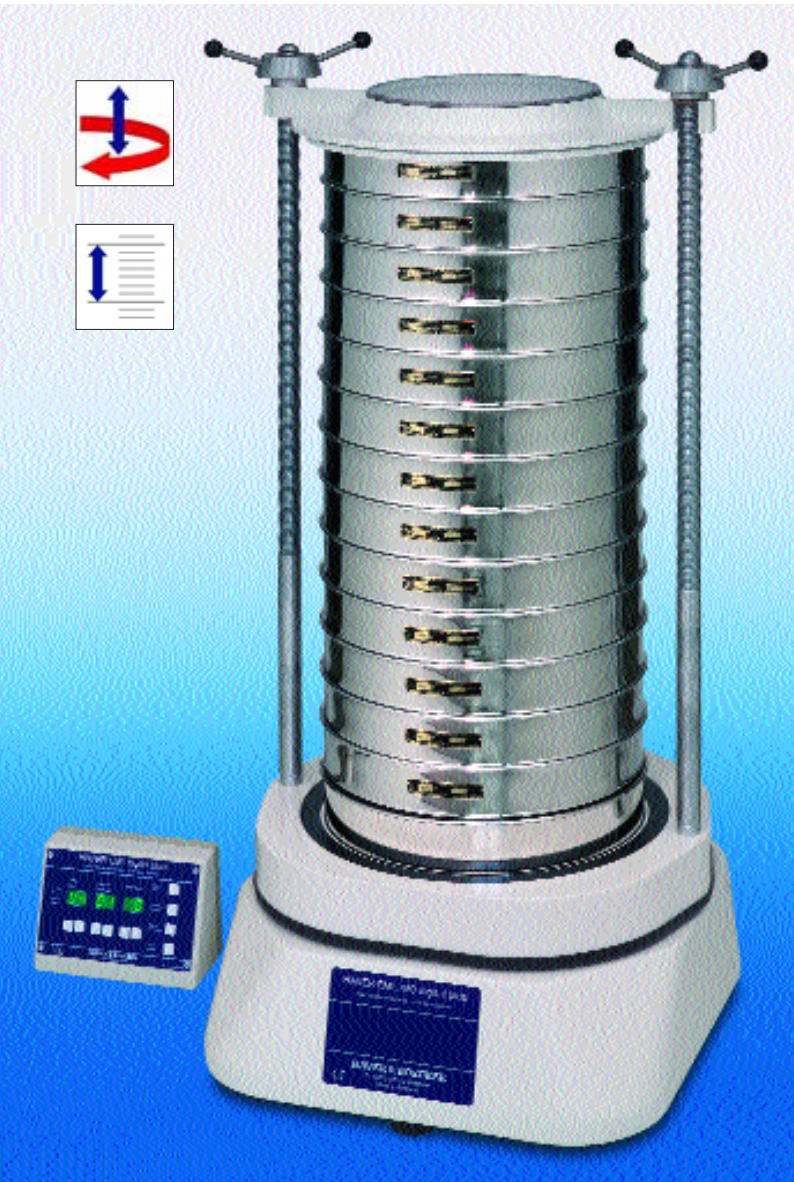
The Test Sieve Shaker HAVER EML 450 digital plus is the first test sieve shaker worldwide utilizing three-dimensional sieving action with a self-readjusting amplitude for diameters from 200 mm up to 450 mm. The basic construction and function correspond to the EML 200 digital plus and the EML 300 digital plus.

## EML 450 digital plus – short description:

- for test sieve diameters 200 mm, 8" (203 mm), 250 mm, 300 mm, 12" (305 mm), 315 mm, 350 mm, 400 mm, 18" (450 mm)



- self-readjusting amplitude
- forced regulated three-dimensional sieving action
- all electronic control with digital indication of all functions
- saving function for 10 sieving programs
- simple push-button key front panel
- electromagnetic drive
- 3,000 impulses per minute (50 Hertz)
- intermittent – or continuous operation
- max. weight of full sieve tower: 42 kg (corresponds to approx. 15 kg sample weight)



### Technical Data:

Operating voltage: 230 V, 50-60 Hz or 110 V, 50-60 Hz  
 Amplitude: self-readjusting, approx. 1.5 mm max  
 Time switch: 0-99 minutes or continuous operation  
 Power consumption: 185 Voltampère  
 Weight: approx. 100 kg  
 Sound emission: 75 dB<sub>A</sub>

The intensity of sound can be reduced even more by using a sound absorbing cupboard. See our laboratory equipment accessories.



## HAVER EML 450 digital plus N for wet sieving

# Test Sieve Shaker HAVER UWL 400 T

## extremely efficient and silent

The Test Sieve Shaker HAVER UWL 400 with its two unbalanced motors is the most efficient of our Test Sieve Shakers and achieves optimum results with large feed quantities. It also creates a three-dimensional sieving action and is specially designed for coarse grained products.

### UWL 400 short description:

- for test sieve diameters 200 mm, 8" (203 mm), 300 mm, 12" (305 mm), 315 mm, 350 mm, **400 mm**
- three-dimensional sieving action
- all electronic control
- driven by two rotary current unbalanced motors
- rotations: 1,500 rpm
- separate control gear, wall fixing possible
- max. weight of full sieve tower: 50 kg (corresponds to approx. 20 kg sample weight)

### Technical Data:

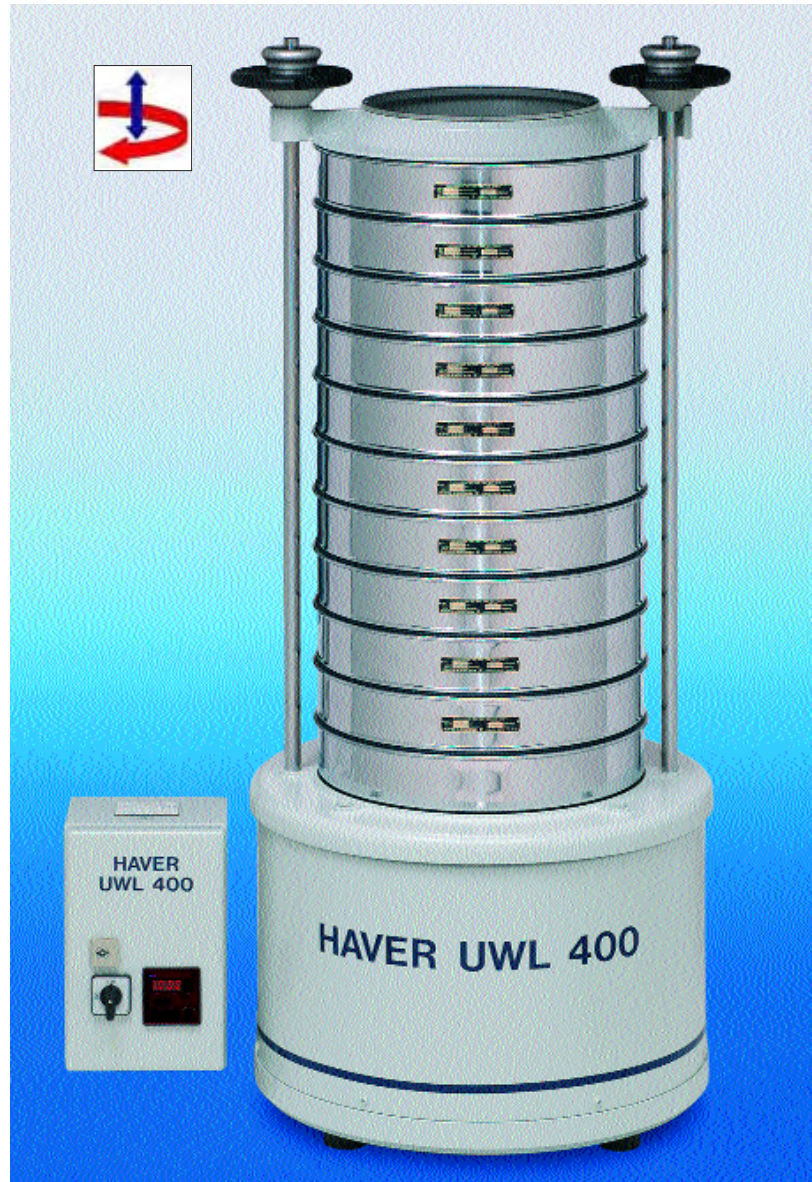
Operating voltage: 230 V, 50 Hz  
Time switch: 0-599 minutes  
Power consumption:  $2 \times 235 = 470$  Voltampère  
Weight: approx. 190 kg  
Sound emission: 70 dB<sub>A</sub>

The intensity of sound can be reduced even more by using a sound absorbing cupboard. See our laboratory equipment accessories.

## HAVER UWL 400 N for wet sieving



## HAVER UWL 400 H for test sieves with beech wood frame 300 x 300 mm or 500 x 500 mm



# Test Sieve Shaker TYLER Ro-Tap® 8" RX-29, Model B

This test sieve shaker reproduces the circular and tapping motion of hand sieving, but with an even mechanical action, assuring constant and comparable analysis. It is operated by a vertically mounted, totally enclosed ¼ hp motor.



## TYLER Ro-Tap® 8" RX-29 Model B - DIN ISO 9284

For 6 standard or 13 half height test sieves with 8" (203 mm) or 200 mm diameter and a sieve pan.

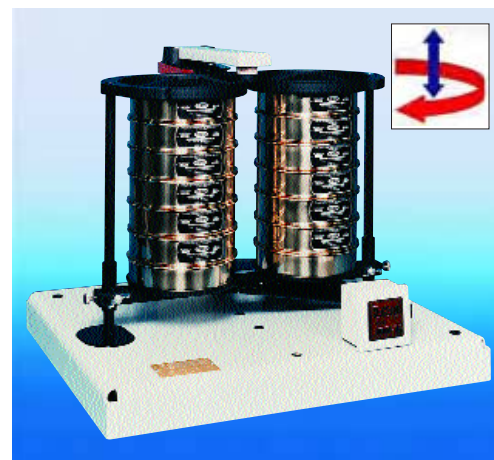
Feed quantity: max. 3 kg (depending on the apparent weight and the max. volume of residue)

### Technical Data:

Operating voltage: 230 Volt, 50 Hertz or 110 Volt, 60 Hz  
 Time switch: 0-99 minutes – digital  
 Revolutions/min.:  $278 \pm 10$   
 Taps per min.:  $150 \pm 5$   
 Sound emission:  $86 \text{ dB}_A$   
 $<70 \text{ dB}_A$  (with sound absorbing cupboard)  
 Weight: approx. 124 kg  
 Dimensions: 710 x 530 x 635 mm (w x d x h)  
 1110 x 610 x 710 mm (with sound absorbing cupboard)

The Tyler RoTap® 12" RX-30 is designed for test sieves with 300 mm or 12" (305 mm) diameter. It can be fitted with 6 test sieves with 50 mm effective height or 10 test sieves with 30 mm effective height and a sieve pan. The other technical data correspond to the model RX-29.

## TYLER Ro-Tap® II-RX-94



For test sieves with 8" (203 mm) or 200 mm diameter. It can be fitted with 2 sieve sets of 6 test sieves with 50 mm effective height or 10 test sieves with 25 mm effective height each.

Technical Data: see model RX-29  
 Dimensions: 780 x 780 x 750 mm (w x d x h)  
 Weight: approx. 100 kg

# Test Sieve Shaker TYLER Ro-Tap® Model E

The TYLER Ro-Tap® Model E is constructed for optimum **three-dimensional sieving action**. The self-readjusting amplitude, utilizing **permanent acceleration measurement** of the whole test sieve tower, balances the oscillation of the machine and counterbalances also vibrations being transmitted to its stand. This guarantees that amplitudes stay the same irrespective of the feed quantity and the installation position.

The newly designed machine combines the advantages of test sieve shakers with electromagnetic drive and the easy operation of TYLER-Test Sieve Shakers. There are two pre-programmed sieving programmes for ease of operation: Only the sieving time has to be entered. Furthermore the machines work extremely silent.

## TYLER-Ro-Tap® Model E 8”



### Ro-Tap® Model E 8” – short description:

- self-readjusting amplitude
- forced regulated three dimensional sieving action
- all electronic control
- simple push-button key front panel
- electromagnetic drive
- 3,000 impulses per minute (50 Hertz)
- intermittent operation
- for test sieves up to 203 mm diameter
- max. weight of full sieve tower 8.7 kg (corresponds to approx. 3 kg sample weight)

#### Technical Data:

Operation voltage:	230 Volt, 50-60 Hertz or 110 Volt 50 – 60 Hertz
Amplitude:	2 constant steps, self-readjusting
Time switch:	0-99 minutes – digital or continuous operation
Power consumption:	185 Voltampère
Sound emission:	78 dB <sub>A</sub>
Weight:	approx. 34 kg
Colour:	RAL 9010, white

## TYLER-Ro-Tap® Model E 12”



### Ro-Tap® Model E 12” – short description:

- self-readjusting amplitude
- forced regulated three dimensional sieving action
- all electronic control
- simple push-button key front panel
- electromagnetic drive
- 3,000 impulses per minute (50 Hertz)
- intermittent operation
- for test sieves up to 305 mm diameter
- max. weight of full sieve tower 21 kg (corresponds to approx. 6 kg sample weight)

#### Technical Data:

Operation voltage:	230 Volt, 50-60 Hertz or 110 Volt 50 – 60 Hertz
Amplitude:	2 constant steps, self-readjusting
Time switch:	0-99 minutes – digital or continuous operation
Power consumption:	185 Voltampère
Sound emission:	75 dB <sub>A</sub>
Weight:	approx. 52 kg
Colour:	RAL 9010, white

## HAVER SGT Dryer for Screening Material for drying of sieving material on HAVER Test Sieve Shakers



HAVER SGT has been designed for the drying of screening material in HAVER Test Sieve Shakers. Once a wet sieving analysis has been finished, a simple change of the test sieve shaker cover to

the HAVER SGT enables the material to be dried within best time.

Depending on material type, quantity and test sieve diameter the HAVER SGT reduces the drying period to approx. 30 minutes. The operation is simple and effective: Warm air is fed at a predetermined pressure through the sieving material and escapes at the outlet of the sieve pan. This forced ventilation effectively dehumidifies the sieving material. Optimum capacity and handling can be achieved by using the HAVER Test Sieve Shaker-Plus series. Since midyear 2003 these machines have an additional function to support the drying process with

regular short vibrations of the sieve tower.

### Technical Data:

Electric Air Heater  
with compressed air supply  
Operation voltage: 230 Volt  
Frequency: 50 Hertz  
Power consumption: 800 W  
Min. air supply: 100 l/min.  
Max. temperature: 105°C

Regulation:  
Digital regulator of temperature with auto-sensing combined with pneumatic switch.

A 230 Volt source of power is required, along with a compressed air supply.

## Test Sieve Cleaners for deep and thorough cleaning of test sieves

The cleaner the test sieves, the more exact the sieving results. The HAVER-USC-apparatus and the HAVER-USC-cleaning fluid have proved most reliable for a deep and thorough cleaning.

### HAVER USC 200 Single Sieve Cleaning



For test sieves up to an outer diameter of 230 mm.

- Time switch up to 15 minutes or continuous operation
- High-frequency-constant maximum output: 2 x 240 VA/period, 35 kHz
- Operation voltage: 230 Volt  
Frequency regulator 50 – 60 Hertz

### HAVER USC 500 Single Sieve Cleaning



For test sieves up to an outer diameter of 500 mm.









- Time switch up to 15 minutes or continuous operation
- High-frequency-constant maximum output: 2 x 600 VA/period, 35 kHz
- Operation voltage: 230 Volt  
Frequency regulator 50 – 60 Hertz

### HAVER USC 200 Multi



For the simultaneous, vertical cleaning of up to 5 test sieves with 200 or 203 mm diameter.

- Time switch up to 15 minutes or continuous operation
- High-frequency-constant maximum output: 2 x 1000 VA/period, 35 kHz
- Operation voltage: 230 Volt  
Frequency regulator 50 - 60 Hertz

International Test Sieve Comparison Table 2007 TEST SIEVES, NOMINAL SIZES OF OPENINGS				125-1 mm TABLE 1		Internationale Analysensieb-Vergleichstabelle 2007 SIEBBÖDEN FÜR ANALYSENSIEBE (Prüfsiebe) Maschen- bzw. Lochweiten				
1	2	3	4	5	6	7	8	9	10	11
ISO 565 · ISO 3310 Table 1, Millimetre sizes			DEU	FRA	GBR	NLD	USA		CAN	TYLER®
Principal sizes Hauptreihe R 20/3	 Supplementary sizes Nebenreihen R 20	R 40/3	 DIN ISO 3310	 AFNOR NF ISO 3310	 BS 410 ISO 3310	 NEN 2560	 ASTM E 11 # ASTM E 323 ●■	 CAN/ CGSB- 8.2-M88 metric	 TYLER Screen Scale	
			2000	2001	2000	2000				1998
ISO 3310-1 Woven Wire Cloth #			125-1	125-1	125-1	125-1	125-1		125-1	26,5-1
ISO 3310-2 Round Holes ●			125-1	125-1	125-1	125-1	125-1			
Square Holes ■			125-4	125-4	125-4	125-4	125-3.35			
w	w	w	w	w	w	w	w	No.	w	Mesh
125	125	125	125	125	125	125	125	5 in.	125	
	112		112	112	112	112	112		112	
		106	106	106	106	106	106	4.24 in.		
	100		100	100	100	100	100 <sup>(b)</sup>	4 in. <sup>(b)</sup>	100	
90	90	90	90	90	90	90	90	3.1/2 in.	90.0	
	80		80	80	80	80	80		80.0	
		75	75	75	75	75	75	3 in.		
	71		71	71	71	71	71		71.0	
63	63	63	63	63	63	63	63	2.1/2 in.	63.0	
	56		56	56	56	56	56		56.0	
		53	53	53	53	53	53	2.12 in.		
	50		50	50	50	50	50 <sup>(b)</sup>	2 in. <sup>(b)</sup>	50.0	
45	45	45	45	45	45	45	45	1.3/4 in.	45.0	
	40		40	40	40	40	40		40.0	
		37,5	37,5	37,5	37,5	37,5	37,5	1.1/2 in.		
	35,5		35,5	35,5	35,5	35,5	35,5		35.5	
31,5	31,5	31,5	31,5	31,5	31,5	31,5	31,5	1.1/4 in.	31.5	
	28		28	28	28	28	28		28.0	
		26,5	26,5	26,5	26,5	26,5	26,5	1.06 in.		1.05 in.
	25		25	25	25	25	25	25.0 <sup>(b)</sup>	1 in. <sup>(b)</sup>	25.0
22,4	22,4	22,4	22,4	22,4	22,4	22,4	22,4	7/8 in.	22.4	.883 in.
	20		20	20	20	20	20		20.0	
		19	19	19	19	19	19	3/4 in.		.742 in.
	18		18	18	18	18	18		18.0	
16	16	16	16	16	16	16	16	5/8 in.	16.0	.624 in.
	14		14	14	14	14	14		14.0	
		13,2	13,2	13,2	13,2	13,2	13,2	0.530 in.		.525 in.
	12,5		12,5	12,5	12,5	12,5	12,5	12.5 <sup>(b)</sup>	1/2 in. <sup>(b)</sup>	12.5
11,2	11,2	11,2	11,2	11,2	11,2	11,2	11,2	7/16 in.	11.2	.441 in.
	10		10	10	10	10	10		10.0	
		9,5	9,5	9,5	9,5	9,5	9,5	3/8 in.		.371 in.
	9		9	9	9	9	9		9.0	
8	8	8	8	8	8	8	8	5/16 in.	8.0	2.1/2
	7,1		7,1	7,1	7,1	7,1	7,1		7.10	
		6,7	6,7	6,7	6,7	6,7	6,7	0.265 in.		3
	6,3		6,3	6,3	6,3	6,3	6,3	6.3 <sup>(b)</sup>	1/4 in. <sup>(b)</sup>	6.30
5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	3.1/2	5.60	3.1/2
	5		5	5	5	5	5		5.00	
		4,75	4,75	4,75	4,75	4,75	4,75	4		4
	4,5		4,5	4,5	4,5	4,5	4,5		4.50	
4	4	4	4	4	4	4	4	4.00	4.00	5
	3,55		3,55	3,55	3,55	3,55	3,55		3.55	
		3,35	3,35	3,35	3,35	3,35	3,35	3.35		6
	3,15		3,15	3,15	3,15	3,15	3,15		3.15	
2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2.80	2.80	7
	2,5		2,5	2,5	2,5	2,5	2,5		2.50	
		2,36	2,36	2,36	2,36	2,36	2,36	2.36		8
	2,24		2,24	2,24	2,24	2,24	2,24		2.24	
2	2	2	2	2	2	2	2	2.00	2.00	9
	1,8		1,8	1,8	1,8	1,8	1,8		1.80	
		1,7	1,7	1,7	1,7	1,7	1,7	1.70		10
	1,6		1,6	1,6	1,6	1,6	1,6		1.60	
1,4	1,4	1,4	1,4	1,4	1,4	1,4	1,4	1.40	1.40	12
	1,25		1,25	1,25	1,25	1,25	1,25		1.25	
		1,18	1,18	1,18	1,18	1,18	1,18	1.18		14
	1,12		1,12	1,12	1,12	1,12	1,12		1.12	
1	1	1	1	1	1	1	1	1.00	1.00	16

Woven Wire Cloth # Drahtgewebe

Round Holes ● Rundlochung

Square Holes ■ Quadratlochung

<sup>(b)</sup> ASTM Supplementary values

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International Test Sieve Comparison Table 2007 TEST SIEVES, NOMINAL SIZES OF OPENINGS				900–5 µm TABLE 2		Internationale Analysensieb-Vergleichstabelle 2007 SIEBBÖDEN FÜR ANALYSENSIEBE (Prüfsiebe) Maschen- bzw. Lochweiten				
1	2	3	4	5	6	7	8	9	10	11
ISO 565 · ISO 3310 Table 2, Micrometre sizes			DEU	FRA	GBR	NLD	USA		CAN	TYLER®
Principal sizes Hauptreihe R 20/3	Supplementary sizes Nebenreihen R 20     R 40/3		DIN ISO 3310	AFNOR NF ISO 3310	BS 410 ISO 3310	NEN 2560	ASTM E 11 # ASTM E 161 ☒		CAN/ CGSB- 8.2-M88 metric	TYLER Screen Scale
	2000		2001	2000	2000	1998	2001	2000	1988	1910
ISO 3310-1 Woven Wire Cloth #			900–20	900–20	900–20	900–20	850–20	850–20	900–32	850–20
ISO 3310-3 Electroformed ☒			500–5	500–5		500–5	500–5			
w	w	w	w	w	w	w	w	No.	w	Mesh
	900		900	900	900	900			900	
		850	850	850	850	850	850	20		20
	800		800	800	800	800			800	
710	710	710	710	710	710	710	710	25	710	24
	630		630	630	630	630			630	
		600	600	600	600	600	600	30		28
	560		560	560	560	560			560	
500	500	500	500	500	500	500	500	35	500	32
	450		450	450	450	450			450	
		425	425	425	425	425	425	40		35
	400		400	400	400	400			400	
355	355	355	355	355	355	355	355	45	355	42
	315		315	315	315	315			315	
		300	300	300	300	300	300	50		48
	280		280	280	280	280			280	
250	250	250	250	250	250	250	250	60	250	60
	224		224	224	224	224			224	
		212	212	212	212	212	212	70		65
	200		200	200	200	200			200	
180	180	180	180	180	180	180	180	80	180	80
	160		160	160	160	160			160	
		150	150	150	150	150	150	100		100
	140		140	140	140	140			140	
125	125	125	125	125	125	125	125	120	125	115
	112		112	112	112	112			112	
		106	106	106	106	106	106	140		150
	100		100	100	100	100			100	
90	90	90	90	90	90	90	90	170	90	170
	80		80	80	80	80			80	
		75	75	75	75	75	75	200		200
	71		71	71	71	71			71	
63	63	63	63	63	63	63	63	230	63	250
	56		56	56	56	56			56	
		53	53	53	53	53	53	270		270
	50		50	50	50	50			50	
45	45	45	45	45	45	45	45	325	45	325
	40		40	40	40	40			40	
		38	38	38	38	38	38	400		400
	36		36	36	36	36			36	
R*10										
32			32	32	32	32	32	450	32	450
25			25	25	25	25	25	500		500
20			20	20	20	20	20	635		635
16 ☒			16 ☒	16 ☒	16 ☒	16 ☒	16 ☒			
10 ☒			10 ☒	10 ☒	10 ☒	10 ☒	10 ☒			
5 ☒			5 ☒	5 ☒	5 ☒	5 ☒	5 ☒			

Woven Wire Cloth # Drahtgewebe

Electroformed ☒ Elektrogeformte Siebfolie

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## Sample Splitters and Sample Reducer

Sample splitters and sample reducers are used for dividing sieve material into representative test sieve samples. HAVER sample splitters divide sieve material into two representative samples by a divider consisting of a number of alternatively arranged partitions. The TYLER® Sample Reducer accomplishes a 16 to 1 reduction by several split-up steps.

### HAVER Sample Splitters RT 6.3 - 12.5



Stand made from lacquered sheet steel, one stainless steel divider, three receivers made from tinned sheet steel. The divider is available with 12 divisions, 6.3 mm = 1/4" 18 divisions, 12.5 mm = 1/2" Special design with dust protection.

### HAVER Sample Splitters RT 25 – 37.5 – 50 – 75



Stand, one divider and three receivers made from galvanized steel. The divider is available with 16 divisions, 25 mm = 1" 12 divisions, 37.5 mm = 1 1/2" 8 divisions, 50 mm = 2" 6 divisions, 75 mm = 3"

### TYLER® Sample Reducer RX-18



The TYLER® Sample reducer minimizes large material samples to workable testing sizes. It accomplishes a 16 to 1 reduction and maintains a representative size distribution in one process. The maximum particle size is 12.7 mm = 1/2".

**The use of the latest technology and equipment for quality control guarantee the highest and constant quality of our woven wire cloth products.**

**Our methodical quality management system is certified to DIN EN ISO 9001:2000**



HAVER CPA 3-2



HAVER CPA Scan Weighing System



HAVER CPA Online application for crusher control in the mineral processing technology



HAVER CPA 4 – Dual Range

Quality Management System



certified by DQS against  
DIN EN ISO 9001:2000

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