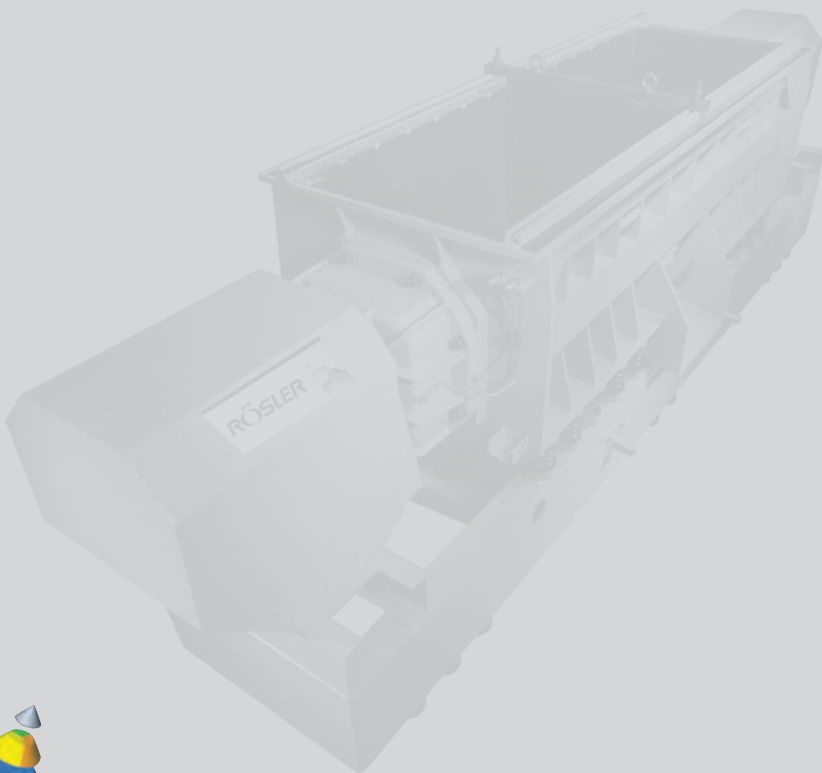
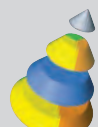


www.rosler.com



Trough Vibrators



Trough Vibrators

Trough vibrators are versatile vibratory finishing systems for processing of delicate, heavy, long and/or bulky components. Even parts that are longer than 6,000 mm or wider than 1,000 mm can be processed in our powerful trough vibrators.



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Media and Compounds

The Rösler product range of media and compounds is by far the most comprehensive in the world due to our 50+ years of constant product development and improvement.

There are over 8,000 different types of ceramic media, plastic media, and compounds available for use in both grinding and polishing applications. This wealth of problem solving products is available to our customers on a worldwide basis.



Applications

Trough vibrators are optimally suited for all kinds of vibratory finishing processes such as deburring, grinding, edge radiusing, deflashing, and ball burnishing of stamped, cast, forged, or machined components. All our units are designed to treat single parts or several parts separated by compartment dividers, or several parts mounted onto special fixtures which prevent the parts from touching each other.

Functional description

Rösler trough vibrators are fitted with different vibratory drive systems depending on their size and machine type. The drive system ensures that the parts and media move in the processing bowl in a linear-rotary motion. Part-on-part processing, i.e. without media, is also possible. Of course, the process water can be re-circulated by utilizing a Rösler centrifugal filter system. This reduces the consumption of water and compound.



Trough Vibrators made by Rösler®

Our equipment engineers work closely with our process lab to ensure that our trough vibrators incorporate technical features which allow virtually unlimited application possibilities in our wide range of trough vibrators. Rösler® offers state-of-the-art equipment technology combined with exceptional quality!

1 Processing bowl

- ▶ U-shaped processing bowl, optionally with curved wall
- ▶ Robust stress relieved and shot peened welding construction with special ribbing
- ▶ Easy to use "T-nut" fastening system to install divider plates for creating multiple processing chambers in the work bowl
- ▶ Process water distribution pipe made of stainless steel and installed across the entire length of the processing bowl
- ▶ To reduce vibration transfer to the floor, our trough vibrators are mounted on special shock absorbers
- ▶ Large diameter media unload plug
- ▶ Easy to exchange bottom drains made from polyurethane or stainless steel

2 Versatile vibratory drive systems

Our comprehensive range of trough vibrators can be equipped with different, powerful vibratory drive systems which are matched to the finishing application at hand.

▶ TE series:

A single direct drive vibratory motor mounted to the bottom of the processing bowl

▶ TS series:

Two imbalance units mounted to the side walls of the processing bowl. Drive motor and imbalance unit connected with special, vibration absorbing coupling



TE



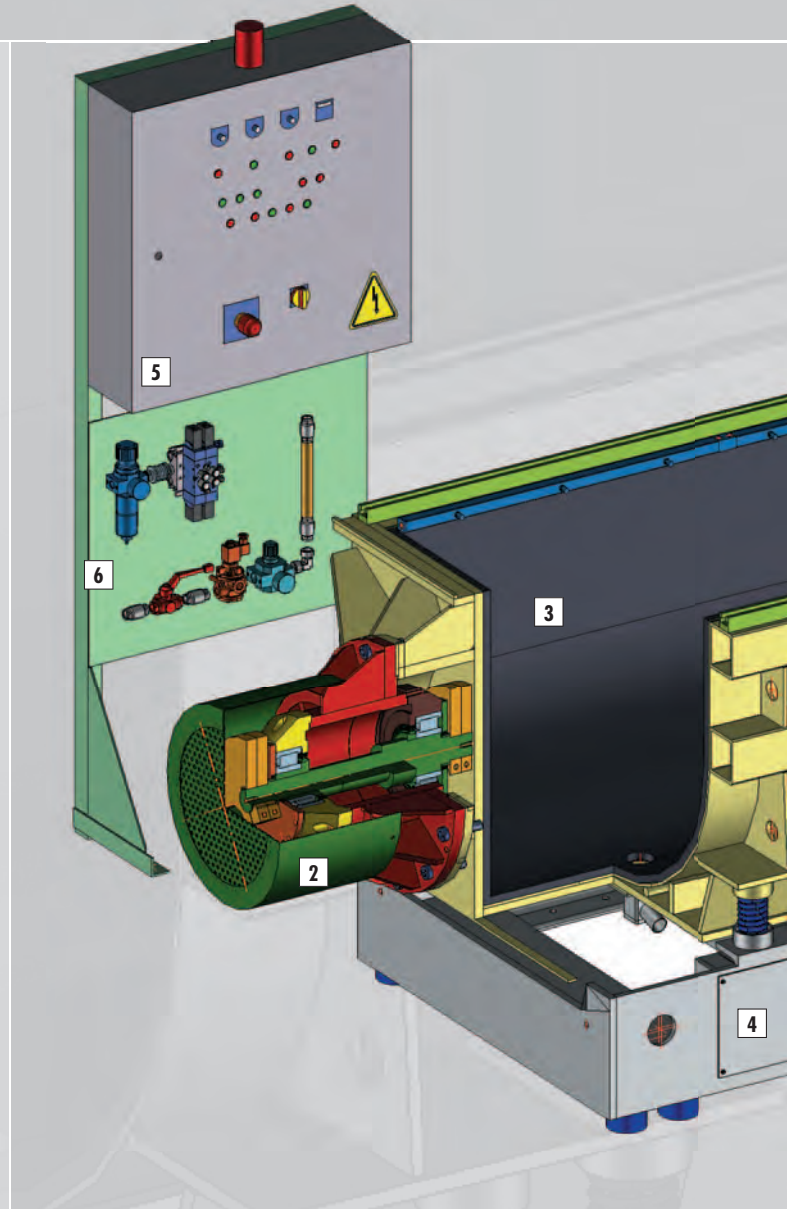
TS



TS-D



TU



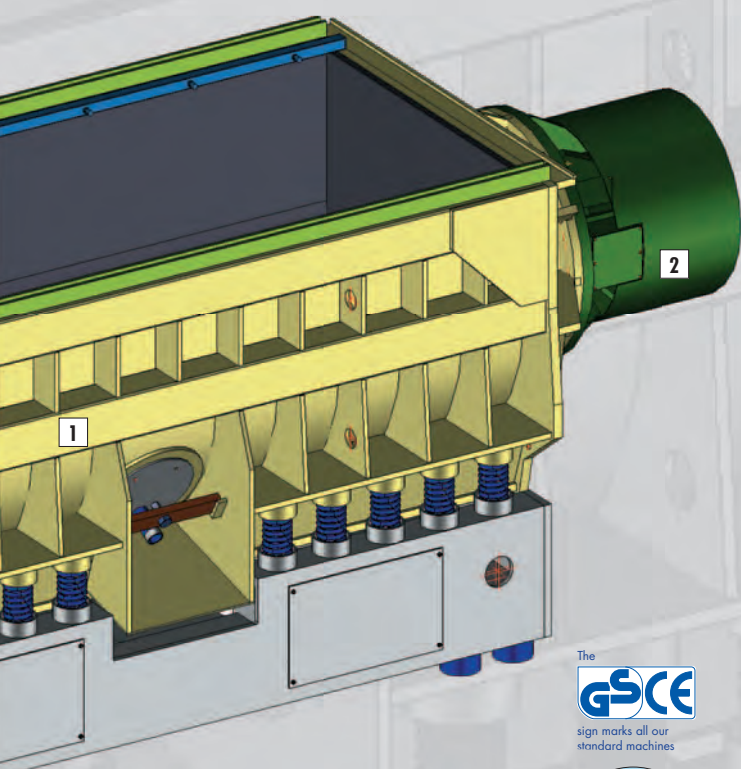
▶ TS-D series:

Two direct drive vibratory motors mounted to the side walls of the processing bowl

▶ TU series:

A series of imbalance units coupled together and mounted to the bottom of the processing bowl, driven by a single motor

All our drives are adjustable allowing for different vibration intensities. Standard applications are run with a motor speed of 1500 rpm, while special applications such as ball burnishing and pressure deburring with steel media are usually running at a motor speed of 3000 rpm. All Rösler trough vibrators can be equipped with a frequency converter for infinitely adjustable speed of the drive motor.



ISO 9001: 2000

3 *Highly wear-resistant wear lining*

Rösler® manufactures its own protective wear-resistant linings. Prior to lining we shot blast the bowl weldment to roughen the surface for better bonding of the lining to the steel surface. Rösler® offers the following lining options:

- ▶ Hot poured polyurethane
- ▶ Sprayed polyurethane
- ▶ Rubber – glued in sheets
- ▶ Polyurethane – glued in sheets

4 *Machine frame*

All our machine frames are designed and manufactured as rigid and highly load bearing welded constructions. The special helical spring mounting design allows the vibrating process bowl to be completely detached from the base frame. Large, easily accessible hatches facilitate equipment adjustment and maintenance. Special shockabsorbing feet minimize the transmission of vibrations onto the floor.

5 *Control panel*

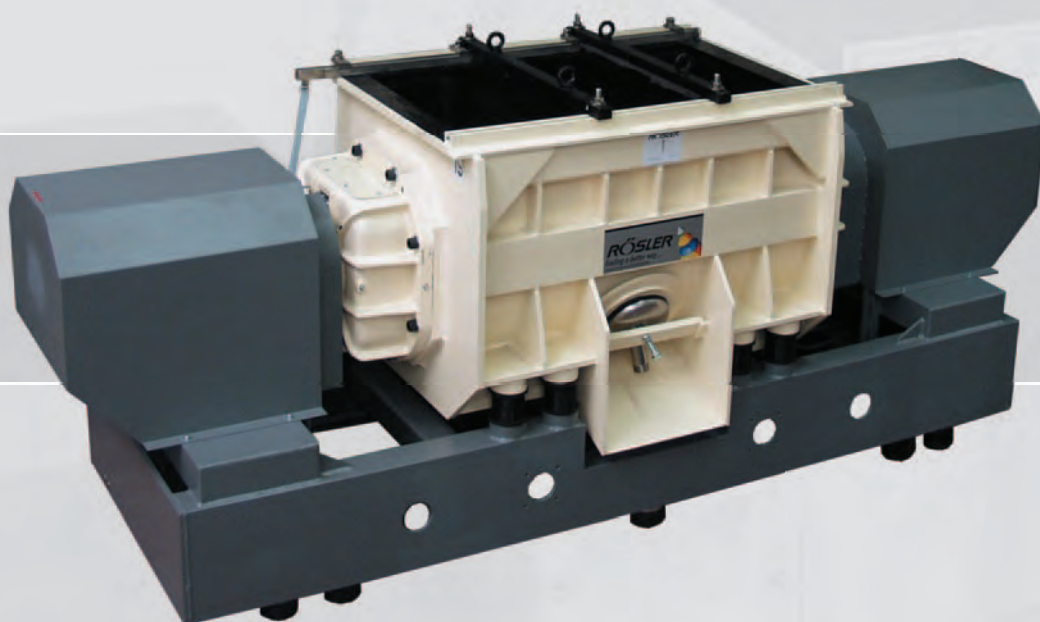
- ▶ Contactor or PLC design
- ▶ Optional continuously adjustable speed control of the drive motor(s)
- ▶ Control and monitoring of the process water dosing unit

6 *Precise dosing technology*

- ▶ Process water control valves
- ▶ Water flow meters
- ▶ Compound dosing via precisely controlled dosing pumps

TS – Trough Vibrators

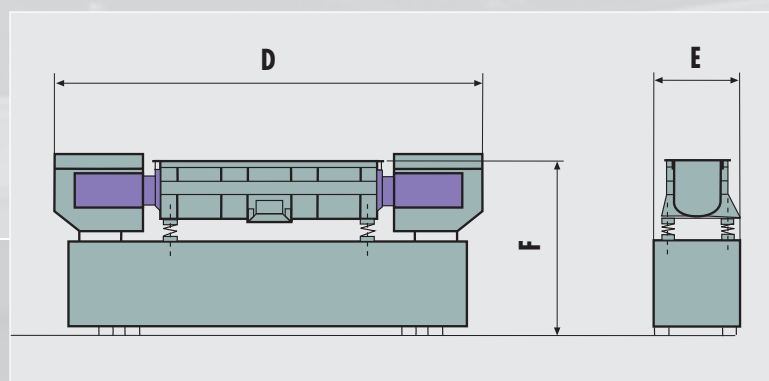
TS series vibrators are driven by two imbalance units mounted to the side walls of the processing bowl. Drive motor and imbalance unit are connected with a special, vibration absorbing coupling. This design creates an optimal and homogeneous rotation in the entire processing bowl.



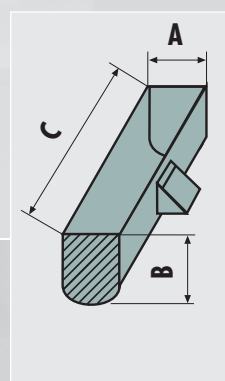
Trough Vibrators Type TS

	Type A	Type B	Speed		Dimensions in mm							Volume	Drive power
			1,500 rpm	3,000 rpm	Processing bowl after lining				Machine			processing bowl (l)	(kW)
			Standard	Super speed	A width	A ₁ width	B depth	C length	D length	E width	F height		
120/1200 TS-30 PU	•			• ¹	120		240	1,200	2,400	450	800	30	2 x 1.5
250/1000 TS-30 PU	•			• ¹	250		330	1,000	2,300	450	860	80	2 x 3
250/1000 TS-30 PU		•		• ¹	250	170	330	1,000	2,300	450	860	50	2 x 3
250/1150 TS-30 PU	•			• ¹	250		400	1,150	2,300	600	1,050	105	2 x 3
250/1500 TS-30 PU	•			• ¹	250		330	1,500	3,000	450	860	115	2 x 3
250/1500 TS-30 PU		•		• ¹	250	170	330	1,500	3,000	450	860	75	2 x 3
250/1650 TS-30 PU	•			• ¹	250		330	1,650	3,150	450	850	125	2 x 3
300/1000 TS-30 PU	•			• ¹	300		390	1,000	2,300	500	1,000	110	2 x 3
300/1500 TS-30 PU	•			• ¹	300		390	1,500	3,100	600	1,330	165	2 x 3
300/1950 TS-30 PU	•			• ¹	300		415	1,950	3,600	500	1,000	225	2 x 3
350/1000 TS-30 PU	•			• ¹	350		450	1,000	2,300	600	1,000	145	2 x 3
400/1200 TS-30 PU	•			• ¹	400		480	1,200	3,000	600	1,100	215	2 x 4
420/1000 TS-15 PU	•		•		420		530	1,000	2,800	700	1,150	200	2 x 4
425/2700 TS-15 PU	•		•		425		540	2,700	4,700	700	1,100	570	2 x 7.5
430/1200 TS-30 PU	•			• ¹	430		510	1,200	3,180	700	1,100	240	2 x 4
450/1500 TS-15 PU	•		•		450		550	1,500	3,500	700	970	320	2 x 5.5

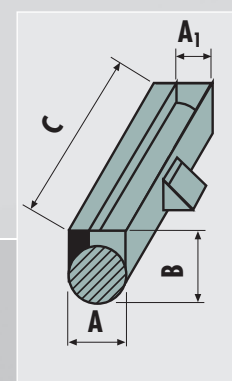
¹ Suitable for ball burnishing and pressure deburring



TS-drive system



Type A standard design



Type B curved wall design

Dimensions A, A₁, B and C are after lining.

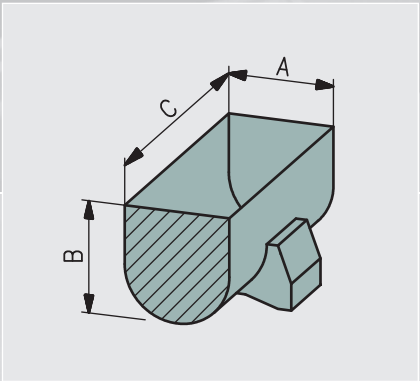
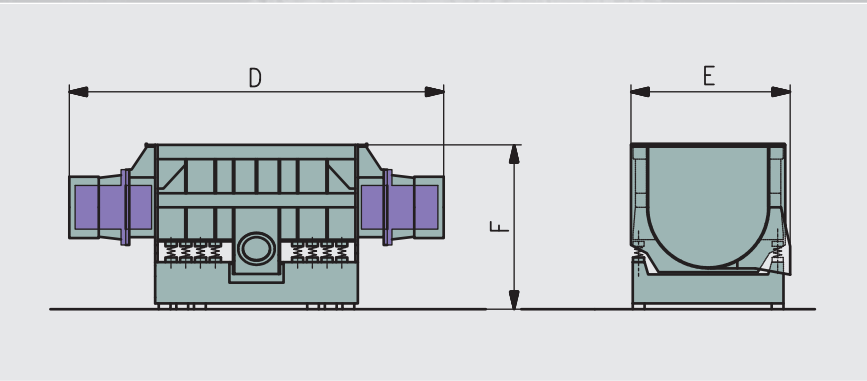
Trough Vibrators Type TS

	Type A	Type B	Speed		Dimensions in mm							Volume	Drive power
			1,500 rpm	3,000 rpm	Processing bowl after lining				Machine			processing bowl (l)	(kW)
			Standard	Super speed	A width	A ₁ width	B depth	C length	D length	E width	F height		
500/ 800 TS-30 PU	•			• ¹	500		580	800	2,400	700	1,150	215	2 x 4
500/ 950 TS-30 PU	•			• ¹	500		630	950	2,300	750	1,150	280	2 x 4
500/1000 TS-30 PU	•			• ¹	500		580	1,000	3,000	700	1,150	270	2 x 4
500/1350 TS-15 PU	•		•		500		620	1,350	3,300	870	1,100	380	2 x 4
500/1750 TS-15 PU	•		•		500		620	1,750	3,600	870	1,100	495	2 x 5.5
500/2000 TS-15 PU	•		•		500		620	1,950	3,300	870	1,250	580	2 x 5.5
550/2000 TS-15 PU	•		•		550		670	2,000	4,000	900	1,150	670	2 x 7.5
550/2200 TS-15 PU	•		•		550		670	2,200	4,200	900	1,150	730	2 x 7.5
600/1000 TS-15 PU	•		•		600		680	1,000	3,000	900	1,150	370	2 x 5.5
600/1300 TS-15 PU	•		•		600		680	1,300	3,300	900	1,150	480	2 x 7.5
600/1500 TS-15 PU	•		•		600		680	1,500	3,500	900	1,150	555	2 x 7.5
600/2000 TS-15 PU	•		•		600		680	2,000	4,000	900	1,150	740	2 x 7.5
600/3000 TS-15 PU	•		•		600		680	3,000	5,000	1,000	1,220	1,110	2 x 7.5
650/1500 TS-15 PU	•		•		650		730	1,500	3,500	1,000	1,200	640	2 x 7.5
750/1200 TS-15 PU	•		•		750		800	1,200	3,200	1,100	1,250	650	2 x 7.5
750/1600 TS-15 PU	•		•		750		800	1,600	3,650	1,100	1,250	865	2 x 7.5
750/3000 TS-15 PU	•		•		750		750	3,000	5,000	1,100	1,380	1,520	2 x 7.5
800/1500 TS-15 PU	•		•		800		850	1,500	3,700	1,200	1,270	915	2 x 7.5
800/1600 TS-15 PU	•		•		800		800	1,600	3,560	1,200	1,270	915	2 x 7.5
800/2000 TS-15 PU	•		•		800		850	2,000	4,000	1,200	1,250	1,190	2 x 7.5

¹ Suitable for ball burnishing and pressure deburring

TS-D – Trough Vibrators

The TS-D series vibrators are equipped with two direct drive vibratory motors, specially built by Rösler, mounted to the side walls of the processing bowl. This design is particularly powerful, space saving and very flexible.



TS-D-drive system

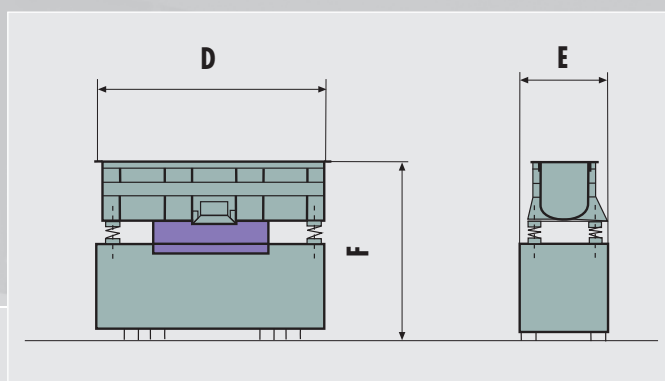
Trough Vibrators Type TS-D

Type TS-D	Speed 1.500 rpm	Dimensions in mm						Volume processing bowl (l)	Drive power (kW)
		Processing bowl after lining			Machine				
		A width	B depth	C length	D length	E width	F height		
600/2000 TS-D-15 PU	•	600	650	2,000	3,550	950	1,100	565	2 x 5.5
700/1600 TS-D-15 PU	•	700	680	1,600	3,150	1,100	1,075	620	2 x 7.5
800/1000 TS-D-15 PU	•	800	800	1,000	2,550	1,200	1,230	500	2 x 7.5
800/2000 TS-D-15 PU	•	800	800	2,000	3,550	1,200	1,230	1,000	2 x 7.5
800/3000 TS-D-15 PU	•	800	800	3,000	4,550	1,200	1,230	1,500	2 x 15
910/1900 TS-D-15 PU	•	910	970	1,900	3,400	1,300	1,350	1,535	2 x 7.5
950/1600 TS-D-15 PU	•	950	1,000	1,600	3,100	1,300	1,450	1,360	2 x 7.5
1000/1500 TS-D-15 PU	•	1,000	1,050	1,500	3,000	1,350	1,500	1,435	2 x 15
1200/2300 TS-D-15 PU	•	1,200	1,300	2,300	3,850	1,600	1,700	2,600	2 x 15

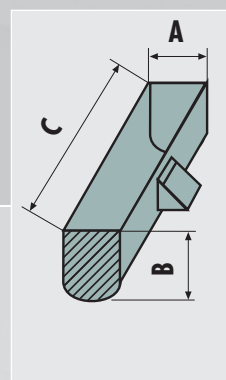
Effective: 11/06 – Special dimensions on request

TE – The economical Trough Vibrator line

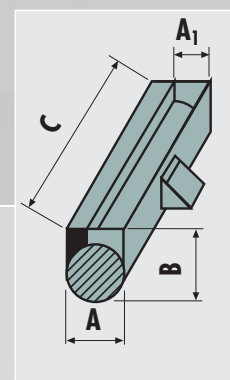
E-type trough vibrators are driven by a vibratory motor mounted directly to the bottom of the processing bowl. This drive concept allows for a compact, space saving design.



TE-drive system



Type A standard design



Type B curved wall design

Dimensions A, A₁, B and C are after lining.

Trough Vibrators Type TE

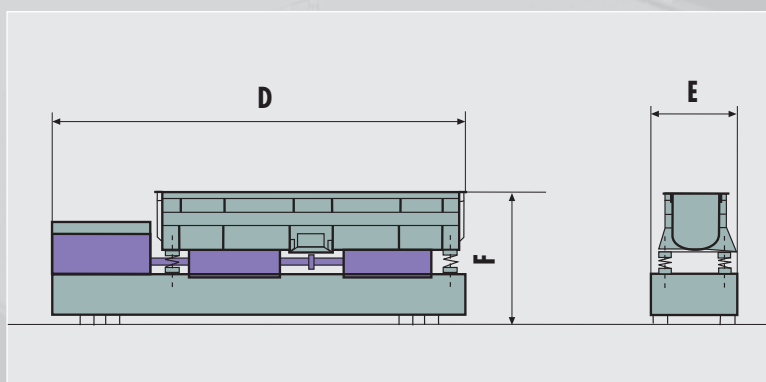
Through vibrators Type TE	Type A	Type B	Speed		Dimensions in mm							Volume	Drive power
			1,500 rpm	3,000 rpm	Processing bowl after lining				Machine			processing bowl (l)	(kW)
			Standard	Super speed	A width	A ₁ width	B depth	C length	D length	E width	F height		
180/530 TE-30 PU		•		• ¹	180	130	230	530	650	370	580	15	0.65
180/600 TE-30 PU		•		• ¹	180	130	230	600	720	370	580	15	0.65
210/530 TE-30 PU		•		• ¹	210	150	260	530	650	400	680	20	0.65
300/600 TE-15 (30) PU	•		•	•	300		420	600	750	450	950	65	1.3
360/810 TE-15 PU	•		•		360		440	810	930	500	1,000	115	1.6
360/870 TE-15 PU	•		•		360		440	870	1,150	500	1,000	125	1.6
430/1100 TE-15 PU	•		•		430		540	1,100	1,300	650	1,250	230	1.6
500/1500 TE-15 PU	•		•		500		580	1,500	1,680	800	1,050	300	2.2
580/1100 TE-15 PU		• ²	•		580	400	480	1,100	1,300	900	1,050	260	1.6
700/1200 TE-15 PU	•		•		700		750	1,200	1,500	1,050	1,500	565	7.5
910/1200 TE-15 PU	•		•		910		950	1,200	1,450	1,300	1,650	935	7.5
1500/750 TE-15 PU	•		•		1,500		1,350	750	2,800	1,950	2,370	1,280	7.5

¹ Suitable for ball burnishing and pressure deburring

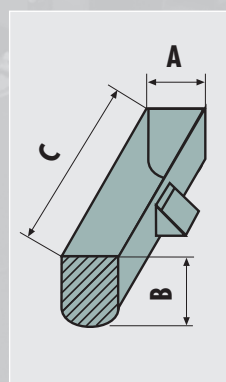
² Processing bowl curved

TU – Long-Trough Vibrators

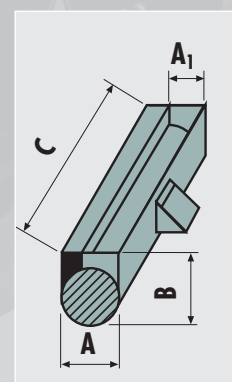
The TU drive is designed to ensure optimum smooth operation throughout the length of the work bowl. A single vibration isolated drive motor transmits its rotary movement to a series of imbalance units which are evenly spaced along the entire processing bowl length.



TU-drive system



Type A standard design



Type B curved wall design

Dimensions A, A₁, B and C are after lining.

Trough Vibrators Type TU

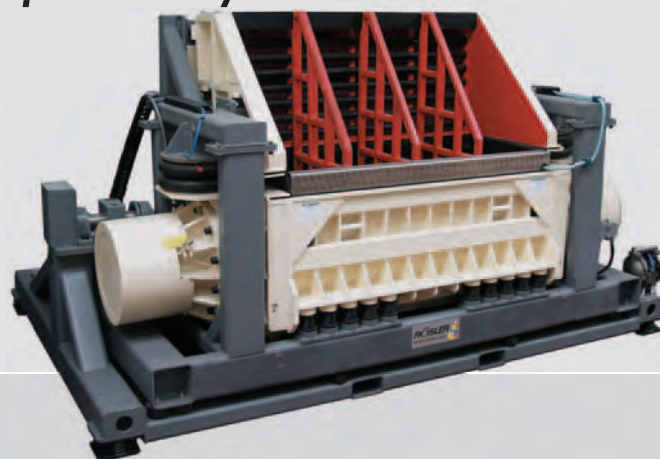
Through Vibrators Type TU	Type A	Type B	Speed		Dimensions in mm							Volume	Drive power
			1,500 rpm	3,000 rpm	Processing bowl after lining				Machine			processing bowl (l)	(kW)
			Standard	Super speed	A width	A ₁ width	B depth	C length	D length	E width	F height		
300/4000 TU-30 GU		•		• ¹	300	240	410	4,000	4,200	1,050	1,200	280	15
350/3000 TU-30 GU		•		• ¹	350	295	440	3,000	3,200	1,100	1,200	290	15
350/4000 TU-30 GU		•		• ¹	350	295	440	4,000	4,200	1,100	1,200	385	18.5
425/4000 TU-15 GU		•	•		425	340	480	4,000	4,600	1,400	1,200	575	15
425/6000 TU-15 GU		•	•		425	340	480	6,000	6,600	1,400	1,200	850	22
450/4000 TU-30 GU		• ²	•		450	300	500	4,000	4,600	1,400	1,370	635	18.5
450/6000 TU-15 GU		•	•		450	300	500	6,000	6,600	1,400	1,550	955	22
550/4000 TU-15 GU		•	•		550	430	630	4,000	4,600	1,400	1,570	950	22
550/6000 TU-15 GU		•	•		550	430	630	6,000	6,600	1,400	1,570	1,425	28
650/4000 TU-15 GU		•	•		650	500	720	4,000	4,600	1,400	1,650	1,330	28
650/6000 TU-15 GU		•	•		650	500	720	6,000	6,600	1,400	1,650	1,990	32
850/4500 TU-15 GU	•		•		850		900	4,500	6,500	1,270	1,700	2,570	18.5
920/3300 TU-15 GU	•		•		920		950	3,300	5,400	1,370	1,750	2,615	22
920/4000 TU-15 GU	•		•		920		950	4,000	6,100	1,370	1,750	3,170	28
1000/4000 TU-15 GU	•		•		1,000		1,180	4,000	5,500	1,500	1,870	4,370	32
1500/4000 TU-15 GU	•		•		1,500		1,300	4,000	6,370	2,150	2,350	6,650	37

¹ Suitable for ball burnishing and pressure deburring

² Processing bowl curved

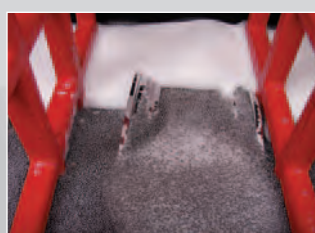
PA – Trough Vibrators with built-in separation system

Automated processing of parts and easy parts handling are also very important for trough vibrators. Especially the total separation of parts and media after processing is often a key issue. Rösler PA trough vibrators feature an integrated separation system. They can be used for ball burnishing as well as standard deburring applications using stainless steel, ceramic or plastic media.



Machine technology

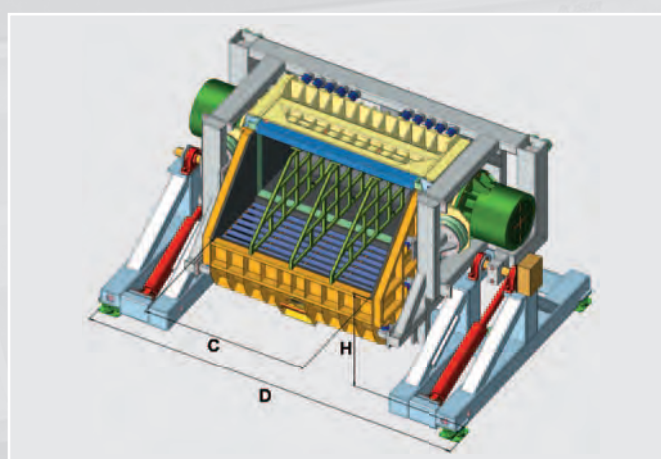
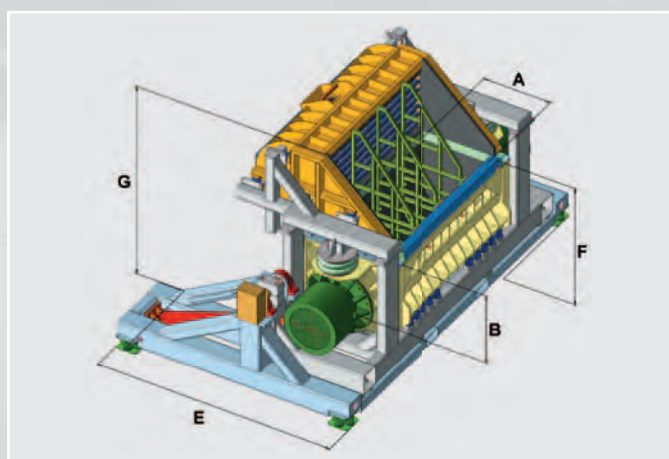
The sophisticated tilting system allows for easy separation and removal of the components after they have been processed. The processing bowl is mounted on a tilting frame with a large area separation unit attached to it, stretching across the entire work bowl length. By tilting the frame by 90 degrees, the components and processing media slide from the work bowl onto the separation area. The separation process is supported by a vibratory motor attached to the separation unit. After the separation process is completed, the media is returned to the processing bowl by tilting the complete mechanism back into operating position.



During processing: Components are separated from each other by compartment dividers.



In the separating position: Processed components can be removed easily and new components can be added.



Trough Vibrators Type PA

Through vibrators Type PA	Speed		Dimensions in mm								Volume	Drive power
			Processing bowl after lining			Machine						
	1,500 rpm Standard	3,000 rpm Super speed	A width	B depth	C length	D length	E width	F height	G complete height	H separating position height	processing bowl (l)	(kW)
650/1600 PA-15 (30) GU	•	• ¹	650	700	1,560	3,590	2,280	1,215	1,970	1,040	655	2 x 7.5
350/1000 PA-30 GU		•	350	400	1,000	2,200	1,500	1,000	1,720	900	130	2 x 4.0

¹ Continuously adjustable speed control

Trough Vibrators – versatile and robust

Trough vibrators can be utilized for a wide variety of finishing applications.

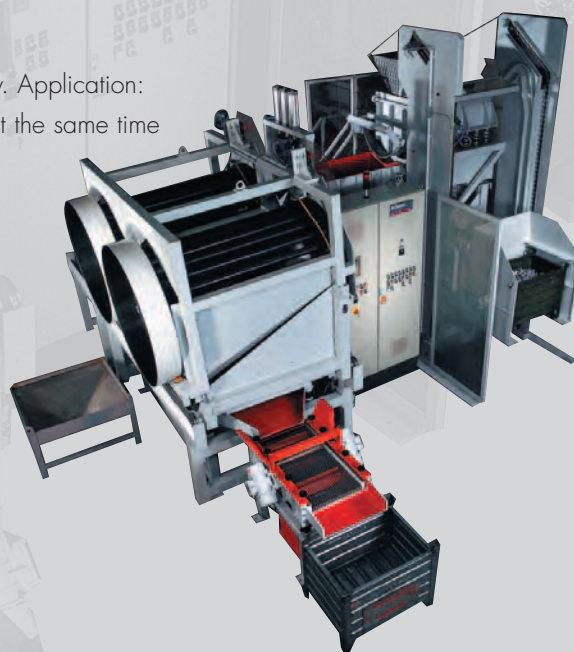
Special solutions with Trough Vibrators

Vibratory finishing and wash-cleaning of aircraft components.



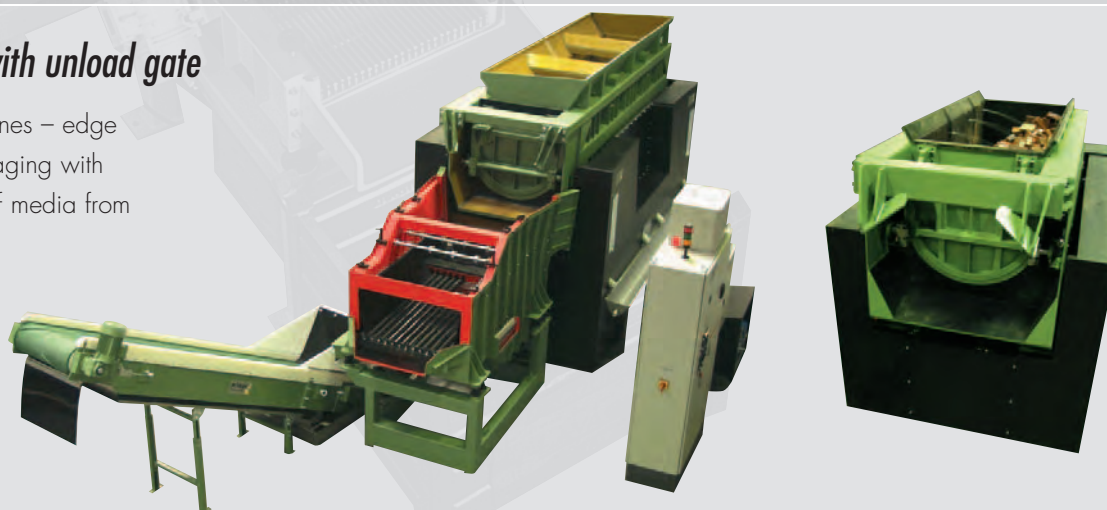
Automated Trough Vibrators

Systems with automatic parts unloading and separation technology. Application: Breaking-off and discharge of gates and risers from die-castings; at the same time deburring and general surface improvement of the die-cast parts.



Trough Vibrators with unload gate

Antiquing of natural stones – edge radiusing and surface aging with automatic separation of media from finished parts.



Noise protection

Noise reducing acoustic lids or sound absorbing cabins reduce the noise level from the finishing process. Complete sound absorbing cabins are especially effective. All sound enclosing components are designed in a manner that they do not interfere with the functionality of the finishing process.



Compartment dividers

The processing bowl can be divided into individual compartments. This is especially important for delicate parts which cannot touch during the finishing process. Our "T-nut" locking system allows easy and quick adjustment of the chamber widths.



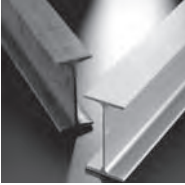
Delicate parts are mounted onto a fixture. This allows the processing of multiple parts without any danger of nicking.



Trough Vibrators with handling technology

Feeding and discharging of high-value components via specially designed handling systems.





finding a better way ...

When it comes to dealing with surface finishing and surface preparation problems, Rösler offers **the total process solution!** Our customers can choose between two processing technologies, **Vibratory finishing or Shot blasting**, which offer virtually unlimited possibilities. Through extensive processing trials, we always find the right finishing solution for our customer's needs.

This includes not only the development of a specific finishing process, but also the selection of the right equipment and consumables.

We deliver the total solution to satisfy your surface finishing requirements. Our success in the market proves that we are right. It is not by chance that our innovative developments and our high quality standards have established Rösler as the world technology and market leader in surface finishing and surface preparation.

In more than 60 countries we support our customers with a closely-knit network of Rösler subsidiaries and sales representatives.

We are the only company in our field operating **test and demonstration centres** throughout the world's. This allows us to run test trials under real production conditions close to our customers.

This offers several advantages: Our customers save time and money, and at the same time – through our professional processing trials and advice – they are assured of receiving the best process solutions and products available on the market!



Worldwide Demonstration and Test Centres

Vibratory finishing and shot-blasting test centre located at the Rösler headquarters in Untermerzbach:

- more than 95 vibratory finishing and shotblasting systems
- working space: approx. 2,700 square meters

Similar test centres are located in the United States, Great Britain, France, the Netherlands, Switzerland, Spain, Italy, Austria, South Africa and Brazil.

The Total Process Solution

Consumables, machines and process safety in perfect combination:

- A perfect interaction between consumables, equipment, process and safety
- Cost-saving automation linking multiple process steps
- Qualified field service teams guarantee smooth installation and commissioning of your equipment
- Comprehensive training of your operators and maintenance staff
- After-sales service guarantees high uptimes for your equipment

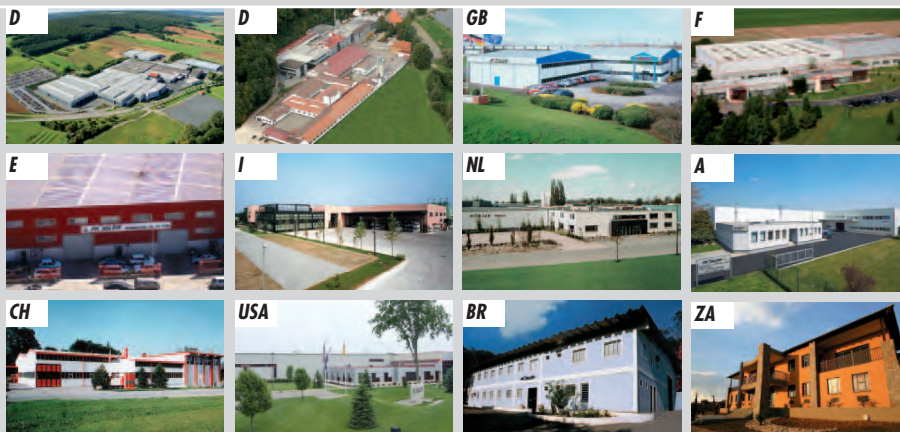
Environmental - Quality

The consideration of environmental issues guarantees a high level of product quality and environmental protection. For example, recycling the process water is a key feature of our mass finishing technology. In this case, the positive effect on the environment is reflected in savings of compound and water of up to 95%. At the same time, a high level of process reproducibility and finishing quality is guaranteed.

Team Spirit

Rösler is a dynamic organization where the initiative and commitment of each employee plays a key role. Systematic training and a cooperative management with lean structures are essential elements of our corporate philosophy. This allows us to create a workplace environment which attracts talented young people.





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and more than 60 representations worldwide

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