

# TREVI VIBRATORI S.R.L.

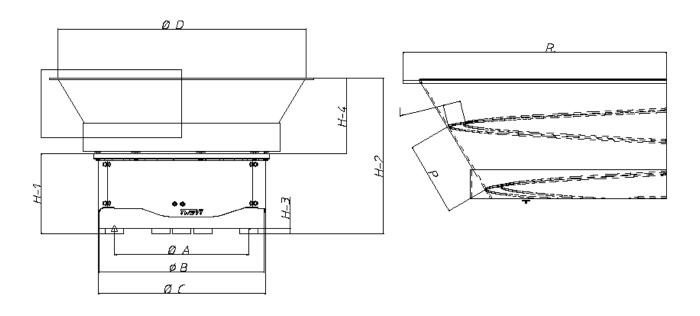
STRADA VIGONE 18/7
10068 VILLAFRANCA PIEMONTE ( TORINO ITALY )
TEL. +39 011 9807301
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WWW.TREVIAUTOMAZIONI.COM

# TRamogge Elevatori Vibratori Industriali



# **BOWL FEEDER**

# **CONIC CONTAINER**



Model	ØA	ØB	ØC	Ø F MAX	RAY	H1	H2	Нз	H4	р	L	WEIG KGS.			CONSUMPTION 220v. (A)
\$3 200	Ø170	Ø200	Ø200	Ø250	125	185 mr		280 mms.	20 mms.	95 mms.	30	10	19,5	Ø30 3a 120° M6	2
\$7 280	Ø230	Ø280	Ø280	Ø430	215	230 mr		360 mms.	10 mms.	145 mms.	60	12	51	Ø30 3a 120 <sup>a</sup> M8	2.5
\$3 350	Ø280	Ø360	Ø371	Ø500	250	24: mr		410 mms.	10 mms.	160 mms.	65	15	122	Ø 40 4 a 90° M8	4
\$3 4002	Ø324	Ø400	Ø415	Ø600	300	24: mr		462 mms.	10 mms.	220 mms.	70	20	118	Ø 40 4 a 90° M18	4
<b>57 500</b>	Ø424	Ø500	Ø515	Ø750	350	30 mr		530 mms.	15 mms.	180 mms.	120	20	186	Ø 60 4 a 90° M10	4
57 630	Ø540	Ø630	Ø640	Ø950	475	30 mr		596 mms.	20 mms.	290 mms.	120	20	280	Ø 70 4 a 90° M10	6

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<b>S7</b>	Ø700	Ø800	Ø815	Ø1100	550	325	775	20	450	120	30	493	Ø70	8
800						mm.	mm.	mm.	mm.				8 a 45° M10	



**-** 3 -

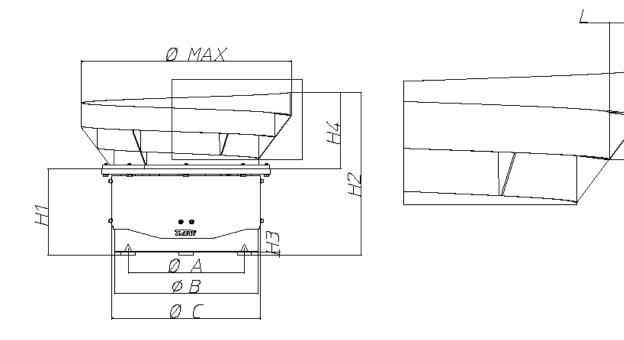
Trevi vibrating systems, S-3/S-7 series, are studied for parts bulk selection, they are used in various technical fields. Here below there are various type of vibrating feeders linked with its dimensions and its characteristics. Every bowl feeder had clockwise or counter clockwise sense and it has its own controller. If requested, container with special dimensions will be provided. They can be in stainless steel material, soundproof, oil-resistant and anti-wear cover.



# **BOWL FEEDER**

# **STEP CONTAINER**

Q



Type	ØA	ØB	ØC	Ø MAX	RAGGI O	H1	H2	Нз	H4	P	L	PESO KG.	PIEDINI N.	CONSUMO 220v. (A)
\$3 200	Ø170	Ø200	Ø200	250	125	185 mm.	275	20 mm.	90	35	20	19,5	Ø30 3a 120° M6	2
57 280	Ø230	Ø280	Ø280	380	190	230 mm.	350	10 mm.	120	45	30	51	Ø30 3a 120° M8	2.5
\$3 350	Ø280	Ø360	Ø371	470	235	242 mm.	397	10 mm.	155	55	35	122	Ø 40 4 a 90° M8	4
\$3 4002	Ø324	Ø400	Ø415	580	290	242 mm.	454	10 mm.	212	65	45	118	Ø 40 4 a 90° M8	4
<b>S7 500</b>	Ø424	Ø500	Ø515	700	380	300 mm.	510	15 mm.	210	80	50	186	Ø 60 4 a 90° M10	4

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57 630	Ø540	Ø630	Ø640	950	475	306 mm.	626	20 mm.	320	100	90	280	Ø 70 4 a 90° M10	6
\$7 800	Ø700	Ø800	Ø815	1200	600	325 mm.	670	20 mm.	345	120	80	493	Ø70 8 a 45° M10	8

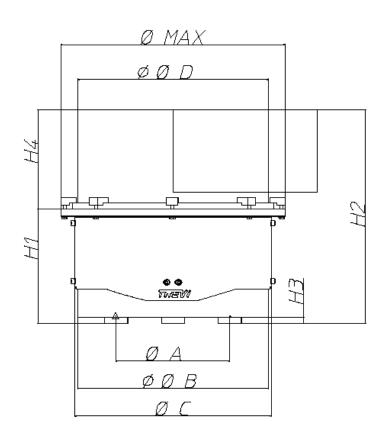


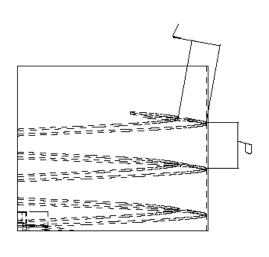
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# **VIBRATORE CIRCOLARE**

# **CONTENTORE CILINDRICO**





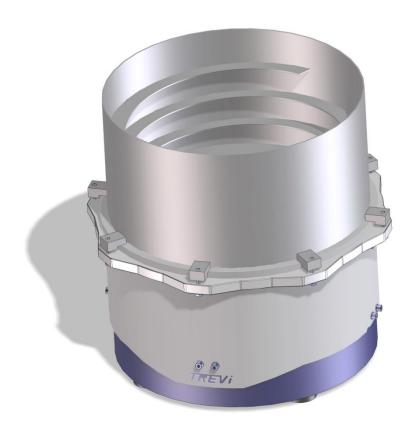
Type	ØA	ØΒ	ØC	Ø MAX	RAGGIO	H1	H2	НЗ	H4	Ь	L	KG.	PIEDINI N.	220v. (A)

\$3 200	Ø170	Ø200	Ø200	250	125	185 mm.	265	20 mm.	80	30	15	19,5	Ø30 3a 120° M6	2
<b>S7</b>	Ø230	Ø280	Ø280	320	160	230 mm	350	10 mm	120	40	20	51	Ø30 3g 120°	2.5

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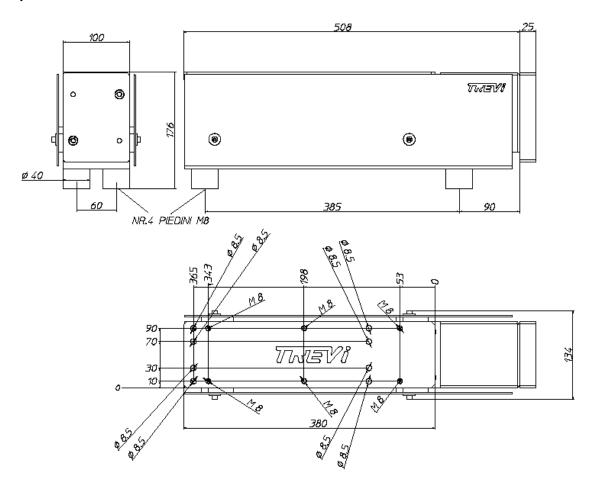
280													M8	
\$3 350	Ø280	Ø360	Ø371	350	175	242 mm.	482	10 mm.	240	60	25	122	Ø 40 4 a 90° M8	4
\$3 4002	Ø324	Ø400	Ø415	400	200	242 mm.	502	10 mm.	260	65	30	118	Ø 40 4 a 90° M8	4
<b>S7 500</b>	Ø424	Ø500	Ø515	500	250	300 mm.	600	15 mm.	300	70	35	186	Ø 60 4 a 90° M10	4
57 630	Ø540	Ø630	Ø640	630	315	306 mm.	626	20 mm.	320	80	50	280	Ø 70 4 a 90° M10	6
<b>S7</b> 800	Ø700	Ø800	Ø815	800	400	325 mm.	775	20 mm.	450	90	70	493	Ø70 8 a 45° M10	8



Trevi vibrating systems, S-3/S-7 series, are studied for parts bulk selection, they are used in various technical fields. Here below there are various type of vibrating feeders linked with its dimensions and its characteristics. Every bowl feeder had clockwise or counter clockwise sense and it has its own controller. If requested, container with special dimensions will be provided. They can be in stainless steel material, soundproof, oil-resistant and anti-wear cover.



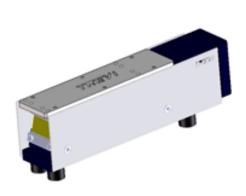
# VH-401/A LINEAR FEEDER MODEL

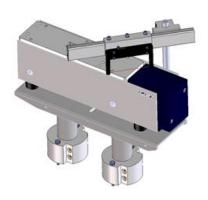


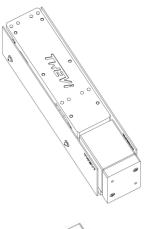
Model	WORKING FREQUENCY	CONSUMP TION 220v. (A)	GENARL WEIGHT KG.	CANAL WEIGHT KG.	CANAL LENGTH
VH 401/A	220 V. 50 Hz.	1,5	30 KG.	15 KG. MAX	1000 1150 MAX

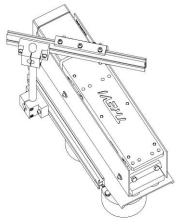


# VH-401/A LINEAR FEEDER MODEL





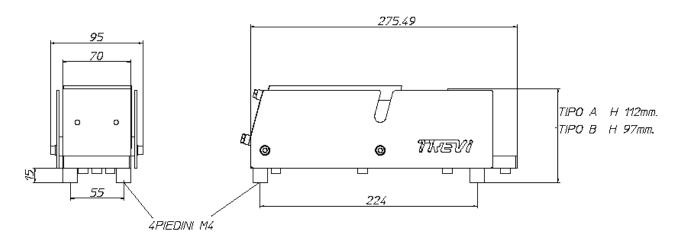


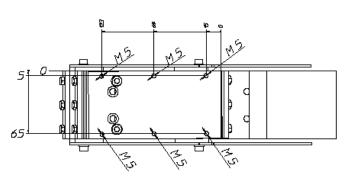


VH series linear feeders are studied for conveying, handling and accumulation of a wide range of products. They have an electromagnetic vibrating base and their own controller. Accumulation canal is studied case by case to guarantee maximum reliability. If requested, empty and full detector will be provided to synchronize linear feeder with the orientator.



# VH-201/A AND VH-201/B LINEAR FEEDER MODEL

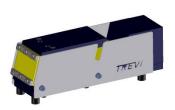


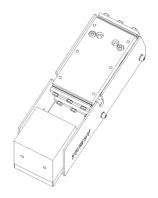


Type	WORKING FREQUENCY	CONSUMP TION 220v. (A)	GENERA L WIGHT KG.	CANL WEIGHT KG.	CANAL LENGTH
VH 201/A	220 V. 50 Hz. 100 Hz.	1,2	6 KG.	7 KG. MAX	500

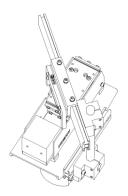


# VH-401/A LINEAR FEEDER MODEL





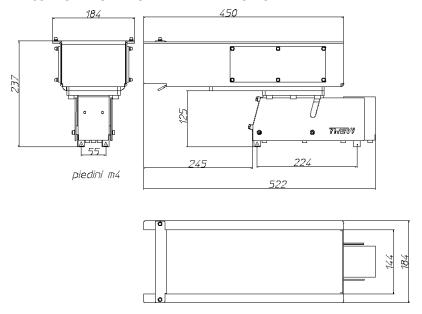




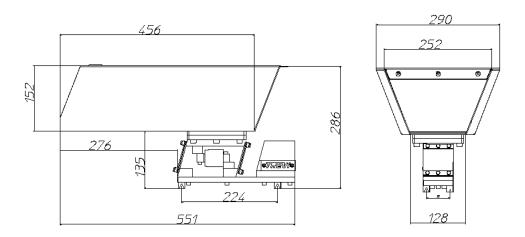
VH series linear feeders are studied for conveying, handling and accumulation of various kinds of products. They have an electromagnetic vibrating base and their own controller. Accumulation canal is studied case by case to guarantee maximum reliability. If requested, empty and full detector will be provided to synchronize linear feeder with the orientator.



# **VK-205 MODEL OPEN CANAL VIBRATING HOPPER**



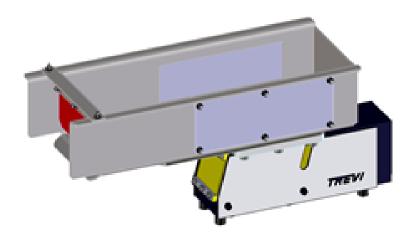
# **VK-210 MODEL OPEN CANAL VIBRATING HOP**



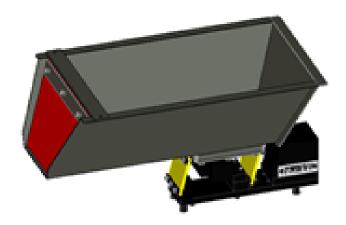
Type	WORKING FREQUENCY	CONSUMP TION 220v. (A)	CAPACITY
VK 205	220 V. 50 Hz.	1,2	5 LTS
VK210	220 V.50 Hz.	1,2	10 LTS



# VK-205 MODEL OPEN CANAL VIBRATING HOPPER



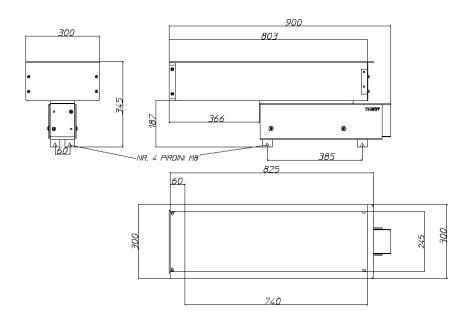
# VK-210 MODEL OPEN CANAL VIBRATING HOPPER



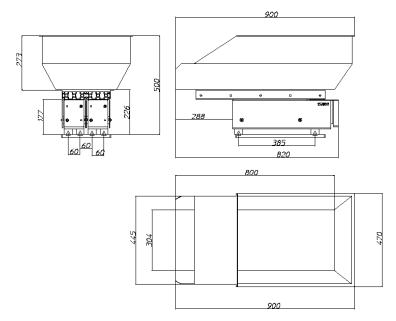
VK hoppers are suitable for feeding and dosing small dimensions parts. They are driven by vibrating linear base which model can vary on the basis of hopper dimension.



# VK-420 MODEL OPEN CANAL VIBRATING HOPPER



#### VK-430 MODEL OPEN CANAL VIBRATING HOPPER

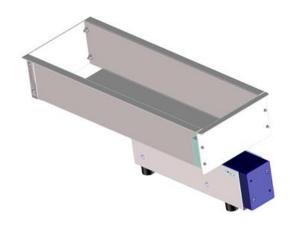


Type	WORKING FREQUENCY	CONSUMP TION 220v. (A)	CAPACITY
VK 420	220 V. 50 Hz.	1,5	20 LTS
VK 430	220 V. 50 Hz.	3	30 LTS

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# VK-420 MODEL OPEN CANAL VIBRATING HOPPER

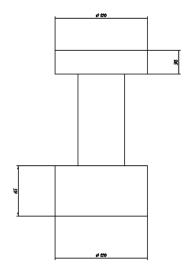


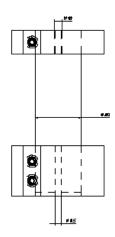
# VK-430 MODEL OPEN CANAL VIBRATING HOPPER

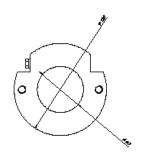


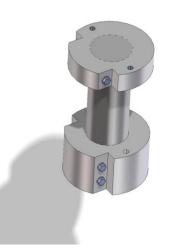
VK hoppers are suitable for feeding and dosing small dimensions parts. They are driven by vibrating linear base which model can vary on the basis of hopper dimension.











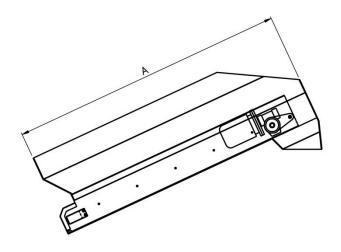
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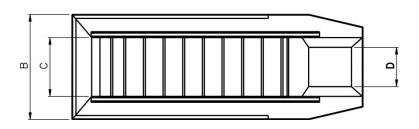
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#### **MOTORIRIZED HOPPERS**





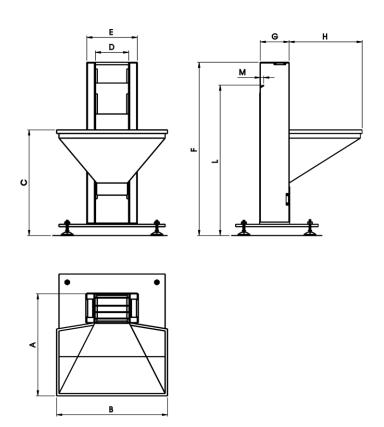
TYPE	Α	В	С	D	Weight	Capacity
TRM 50	1000	500	200	150	50	50 dm <sup>3</sup>
TRM 100	1300	600	300	250	80	100 dm <sup>3</sup>
TRM 150	1700	700	400	350	100	150 dm <sup>3</sup>

For applications which demands very high capacity, conveying motorized hoppers are suitable. These products can feed bulk goods which could become knotted each other.

They are provided with support feet on the ground or on a frame, they have an inclination with an angle from 0 to 25 degrees. Carpet type has dimensions on the basis of fed pieces and inclination, to guarantee payload.



#### **PLATE STEP FEEDER**



MODEL	Α	В	С	D	Е	F	G	Н	L	М	Capacity
EMP 150	420	530	900	150	300	1100	120	300	1050	15	20 dm <sup>3</sup>
EMP 200	865	940	900	280	450	1500	245	600	1280	30	100 dm <sup>3</sup>
EMP 300	1250	1100	930	385	580	1500	360	700	1300	50	140 dm <sup>3</sup>
EMP 400	1500	1300	1050	500	750	1700	485	800	1450	70	200 dm <sup>3</sup>

EMP series mobile plates step feeder has advantages for small applications and dimensions.

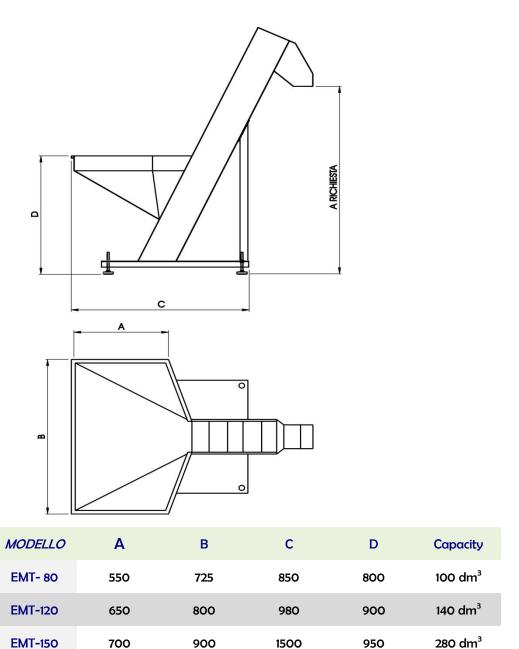
It could be use with a wide range of pieces. Mechanical reliability and anti-wear treatment guarantee a long-term duration of the product.

Step feeder, matched with one or two linear feeders, let selection of pieces and automatic recirculation of pieces on the hopper. This one is provided with dimensions on the table below, but this could be provided with customized measures, if demanded, to guarantee a larger capacity.

If requested, step feeder will be provided with stainless steel hopper and with empty pieces detector.



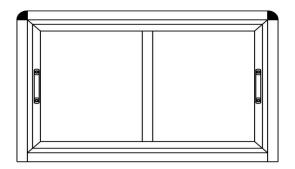
#### **CONVEYOR MOTORISED STEP FEEDER**

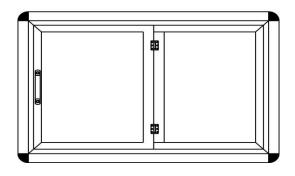


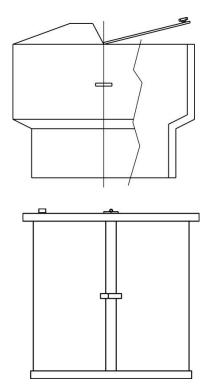
Conveyor step feeders are used for applications which demands high-capacity hopper and lifting height higher than 1500 mms. They can feed bulk material which risks tangling each other. They are provided with feet or on a frame, they have an inclination which can have an angle from 0 to 25 degrees. Carpet type is customized on the basis of fed pieces or on the basis of the inclination, to guarantee demanded capacity. If requested, they are provided in stainless steel and they can have hopper empty pieces detector.



#### **SOUNDPROOF COVER**







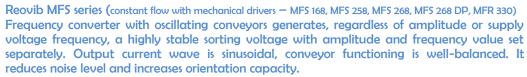
Soundproof covers are used to reduce noise and as protection against injuries. They are projected case by case on the basis of equipment inside it.

They have sliding doors, opening panel or removable panel which let inside parts accessible without injury risks. If it's possible to avoid risks, safety closures and detectors will stop the machine when panels are open. Usually, they are made of aluminium structure and transparent lexan panels. In case of high noise, panels will be covered by soundproof material.

Cylindrical soundproof cover, because of lexan panel and soundproof material, can contain calliper. They still have a good accessibility using an upper opening. This one can be easily assembly or disassembly using ratchet closures.







Capacity reference is set with display and keys, voltage or control current (PLC), external potentiometer. Frequency and other settings are set outside, in option with RS232 interface or PROFIBUS-DP.



PROFIBUS-DP (12 M Baud) gets signal cyclical transfer, in the form of data, amid different units. In normal functioning, PLC provides capacity reference value and it receives service ready status or anomaly presence. In a second functioning way, unit is configured with parameters direct settings. For export market, UL certificate products are available.

Frequency value can coincide exactly, with 0,1 Hz intervals in 5 Hz fields...150 Hz, with desired oscillation mechanical frequency value of the conveyor (resonance frequency+/- desired gap). This electrical alignment replaces the expensive mechanical alignment to mains frequency (construction with leaf springs or standard components).



While standard accelerometer works, resonance frequency automatic research will be turned on (viewed value on display). Capacity keeps constant with extremely variable loads and system works efficiently with this particular frequency (power, taken by power grid, is reduced, controller output to the entire system can be adjusted setting adjuster parameters). Tracking resonance frequency function offsets, during the time, slow changes due to mechanical component deterioration.

Accumulation line control, with inverter function. Starting up delay, stop timing, programmable starts up. Two-speed working. Alarm light control. Air valve control. Powergrid fluctuation compensation with internal circuit of adjustment. Automatic voltage adjustment.



#### 4 Storable Format change menus (production change)

During functioning, display views capacity value or it signals stop source. Flashing segments provide, on the basis of system settings, important informations about necessary parameters adjustment to adopt. Eventual anomalies as accelerometer damage, overload, overvoltage and time-out, are signalled.





Units create a controlled harmonic motion when oscillating frequency has been kept at resonance point and oscillating amplitude has been kept constant.

Protection grade IP20 and IP 54.

- Functions are available on the basis of the product -



Settings Precision, repeatability, protection MTS 440, MTS 441, MTS 442, MTS 445



One-channel and two-channel units with aluminium profile cover. Led diode, program keys, power-grid interruption, externally removable fuse, power cord, detector socket, magnets and signals.

System core is a microprocessor which has all control functions. Capacity reference is set by keys and display. In the same way, all other parameters are set.

Functioning way selection, parameters complete availability, consistency and functioning programmability, electrical standard interface with outside, IP54 strong protection grade, signals availability to have more complex systems make this equipment a valuable substitute to electrical panel in the applications.

Power-grid fluctuations are offset by an adjustment internal circuit and they don't have any influence on the conveyor capacity.

Voltage is self-adjusting and it must not be selected by the operator.

Accumulation line control, with inverting detector. Starting up delay and stop with adjustable times and starts. Two-speed functioning to respond, for example, to a contact, in weighing system, to avoid excessive fillings. Intermittent functioning to avoid pieces jam. Pieces absence detector alarm. Air valve detector with advance starting and delaying switching off.

Input and sorting status for external inter-blocking (internal for two-channel unit) and upper level connection.

During normal working, display shows capacity reference value or it shows stop source (keyboard, detector). A flashing light shows the flow of time.

Two-colours ON/OFF keys on the display stop rapidly and activate the device, without disconnecting from the power grid.

Signal status rests the same and a new starting procedure is not necessary.

Program codes can save starting procedure settings, can restore default settings and they can hide program menu to avoid not authorized or unintentional accesses.

Unit are suitable for vibrating conveyor with swinging mechanical frequency equal to 3000 osc/min (50 Hz) or to 6000 osc/min (100 Hz) or to 3600 osc/min (60 Hz) or to 7200 osc/min (120 Hz) to corresponding mains frequency.













Simple e reliable for open-field using SMART IP 54

#### **REOVIB Smart IP54**

Strong cover in aluminium profile, voltage change, sorting cable. Frequency 3000/6000 osc/min to 50 Hz, 3600/7200 osc./min. to 60 Hz. Potentiometer, control voltage 0-10 V, control current 0-20 mA. Soft starter and enabling input.

Constant capacity with swinging power grid.



R6/439, RS6/439-459, RSL6/439-459, RSLB6/439-459, R6/647

#### **REOVIB R6 series**

Stabilized against voltage change. Sturdy cover in aluminium profile, cable and sorting socket. Accumulation line amplitude control of integrated oscillation (in corresponding versions). IP 54 protection grade. Small dimensions for electrical panel controlled by Plc



#### **REOVIB Smart IP20**

Metal case, in the shape of a book, connection clamps, trimmer and switch in frontal position (voltage change inside). Frequency 3000/6000 oscillations par minute 50 Hz, 3600/7200oscillations par minute 60 Hz. Potentiometer, voltage control 0-10V, control current 0-20 mA. Soft starter and enabling output.



To assembly on DIN guide 513, 514, 509

**SMART IP 20** 

#### **REOVIB System 500**

Stabilized against voltage change. Small cover in plastic material with protected clamps form contacts (IP-20). Assembly on DIN guide. External potentiometer, voltage control 0-10V, control current 0-20 mA. Two enabling input. 6A and 15A versions. Timer for Namurr detectors.





Constant capacity with variable loads

R15/469, R25/499

#### REOVIB series R15/ R25

With the help of an accelerometer (SW-10), they compensate fluctuations amplitude variations due to, for example, load variations or mechanical characteristics of oscillating system (thermal drift). Potentiometer, control voltage O-10 V, current control O(4)-20 mA. Soft starter and enabling input. IPOO AND IP54 versions.

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# Measuring apparatus ,monitoring and protection equipment

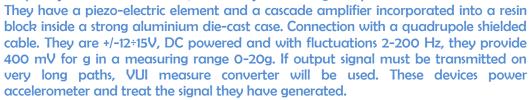
#### Mechanical fluctuation detection

SW 06, SW 07, SW 08, SW 10, SW 11



#### **REOVIB, SW series**

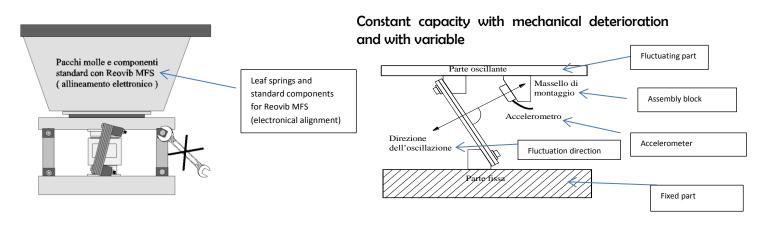
SW-70 accelerometers are acceleration transducer which detect and measure low-frequency mechanical fluctuations. They are used together with REOVIB R15/25, MFS and BK series, to implement functions like conveyor capacity handling, mechanical frequency resonance detection, machinery monitoring and protection.



If it must do a signal adjustment, for example in case of low acceleration values, VUI devices will be used as amplifier elements. If it must convert voltage signal to current signal to minimize, for example, bugs, converters will be set to generate a current signal O(4)...20 mA. If current signal trend must keep unchanged, an artificial zero will be generated around which fluctuation is produced. VUI devices are suitable for open field use. They have an aluminium die-cast case with a protection grade up to IP 64.



#### To avoid mechanical alignment, accelerometer is not necessary.



Measures are not binding for Trevi. Trevi reserves the right to change them without any notice. STRADA VIGONE 18/7 10068 VILLAFRANCA PIEMONTE (TO ITALY)
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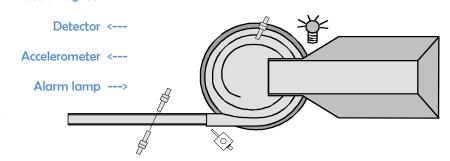


# Complete and strong electrical panel for feeding groups



MFS 268 + MTS 442

Application example: vibrating hopper, bowl feeder, Electromagnets ---> linear feeder.



# Our products characteristics.

- Flexibility of use
- Versatility

<----- 205 mm

- Completeness
- Functionality
- Modularity
- Composability
- Firmness
- Integration
- Strength
- Reliability
- Simplicity of use
- Diagnostics
- Protection
- Industrial standards
- CE Certification
- UL Certification
- Traceability
- Personalization
- Documentation
- Stock and services

# For machinery and plant manufacturer.

- Reduction plant manufacturing time and costs, stock reduction.
- Reduction of delivery time and plant start up, especially in 60 Hz network countries.

#### For end user

- Productivity increase and plant availability.
- Machinery maintenance costs reduction
- Finished product quality increase

