

PIONEER

RWP-L

MSF
MASS
SURFACE FINISHING

OUR EXPERIENCE, YOUR RESULTS





PIONEER
FOR VIBRATORY
FINISHING PROCESSES ON
SINGLE COMPARTMENTALIZED
PIECES

A close-up photograph of a large industrial vibratory finishing machine. The machine has a light-colored metal frame and a large, dark, rectangular internal chamber. A white pipe with a brass fitting is visible along the top edge of the chamber. In the bottom right corner, there is a complex assembly of white pipes and a brass valve with a red handle. The background is a plain, light-colored surface.

PIONEER
FOR VIBRATORY
FINISHING PROCESSES ON
LONG COMPONENTS



PIONEER
**FOR VIBRATORY
FINISHING PROCESSES
ON LARGE AND NARROW
COMPONENTS**



PIONNER
MACHINES COMPLETE
WITH HIGT ACOUSTIC
INSULATION SOUNDPROOF
CABINS



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Pioneer is a series of rectangular vibratory machines for mass surface treatments. **Pioneer** stands out for the extreme working simplicity as the tank has been studied for hand operated loading and unloading of the pieces; the design of these vibratory machines foresees the possibility (optional, on request) to divide the tank in more rectangular compartments through suitable bulkheads (fixed or movable) to make the loading and unloading of some particular articles easier. **Pioneer** is a complete machines series, available in different capacities as reported in the following pages. The abrasion resistant linings of the Pioneer series are made of high quality polyurethane, hot poured between the tank and a mould, to assure a ~90÷94Sha uniform thickness. According to our experience, the flexible tank supports are manufactured with suitable springs depending on each single model.

The vibrating motor of the Pioneer machines is an horizontal monobloc with possibility of angular and eccentric adjustments, manufactured according to Rollwasch original design and with suitable power depending on the loading capacity of each model.

The biggest version are equipped with double side motorization (series **RWP-M** – Magnum). Each tank of the Pioneer **RWP-L** series is equipped with side door for the total unloading of the contents.

[1] RWP-L-770/P-CF [US] - Version with “US” tank section of the Pioneer medium size model.

[2] RWP-L-770/P-CF [US] - detail of the stainless steel sprinkler, of the side unloading door and of the springs safety protections;

[3] PIONEER - the Pioneer series has an essential design, but gives particular care to the safety factors such as the lifting points and the motor cable fastening within the frame shape.

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Pioneer is a project in continuous development and improvement. Our technicians work hard to study the best possible solutions according to Rollwasch experience by improving the manufacturing technique and material of the standard machines as well as of the relevant optional accessories.

The sound proofing modular accessories ("Afocop-box" cabin-lids) are available in the PRO (Professional) version or in the most competitive GM (Global Machines) version; optional solutions to separate the pieces through bulkheads are also available.

There are three possible **Pioneer** versions, respectively:

RWP-L – the classic and more requested series, equipped with a monobloc vibrating motor (1500 Rpm) placed in central position under the tank, usually available with "U" section but in some cases (see the table) also with "omega" section.

RWP-M – the "Magnum" series, with big tanks, double side motorization (1500 Rpm), "U" tank section and without unloading doors to increase the sturdiness;

RWP-S – ball-burnishing version, with more powerful motorization at 3000 Rpm (high frequency), special polyurethane suitable for balls and with reinforced elastic system.

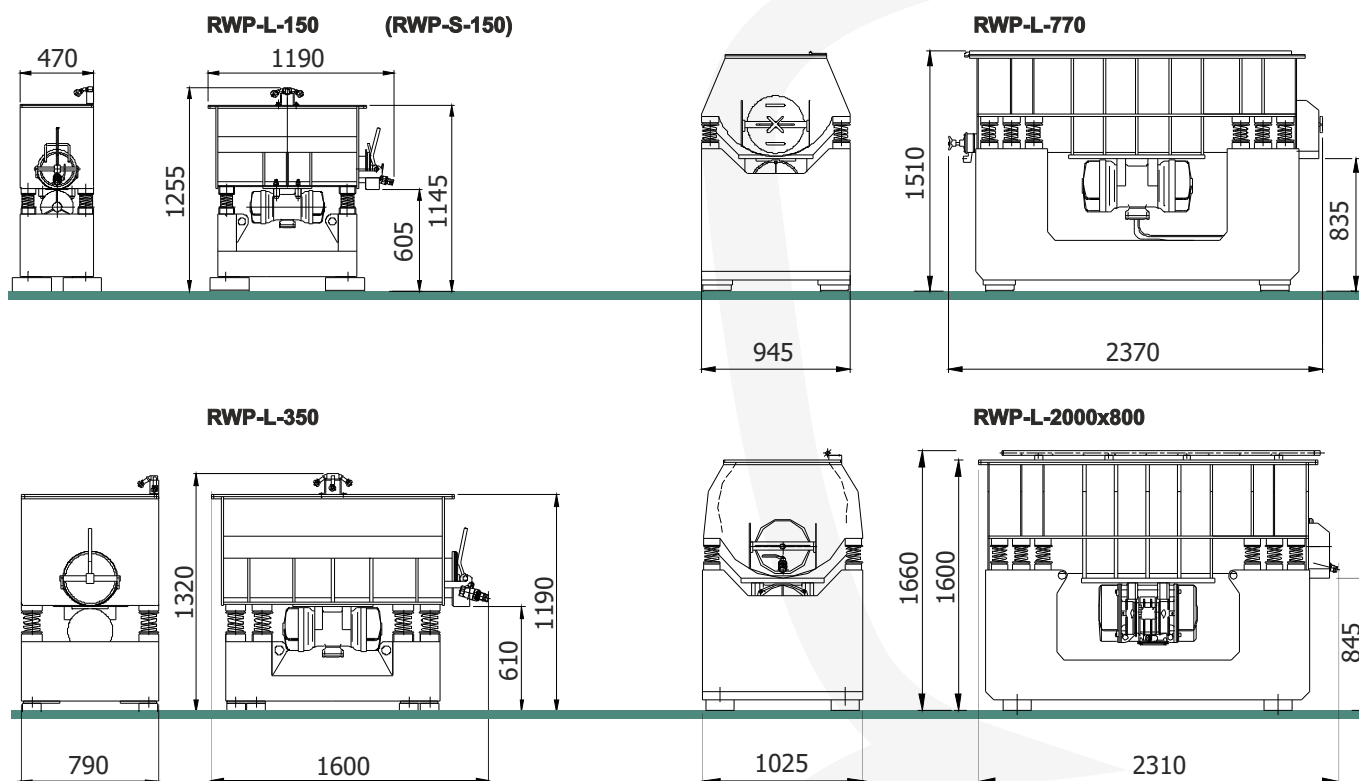
[1] SPLITTERS - fixed or movable bulkheads (or "splitters") to divide the tank – some handy protection "saddles" are also available for very heavy pieces.

[2] AFOCOP-BOX - The sound proofing cabins, besides having an upper cover, are also equipped with an opening near the side unloading door.

[3] AFOCOP-BOX - The internal walls are lined with sound proofing material with aerations particularly suitable for long processes.



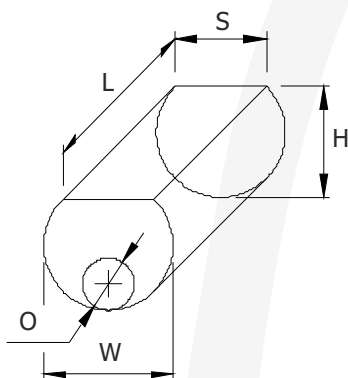
RWP-L PIONEER



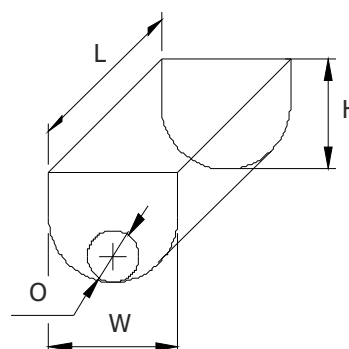
RWP-L (RWP-S)



"OS" (Omega Section)



"US" ("U" Section)



Dimensioni delle vasche nette utili RWP - mm

RWP tank useful net sizes – mm

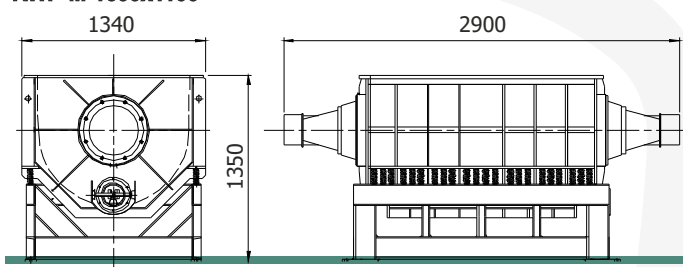
Modello/Model	Design	L	S	W	H	O	Pot. tot. inst Tot. Inst. power	Cap. nom. vasca Tank nom. cap.
RWP-L-150	US	875	-	355	495	150	1,1	150
RWP-S-150	US	875	-	355	495	150	4,0	150 (*)
RWP-L-350	US	1140	-	600	500	210	1,6	350
RWP-L-770	US	1950	-	650	600	300	6,0	770
RWP-L-770	OS	1950	470	650	600	300	6,0	770
RWP-L-2000x800	OS	2010	585	800	705	300	7,0	1100

(*) Capacità in sfere / Stainless steel balls capacity Kg. 350-400

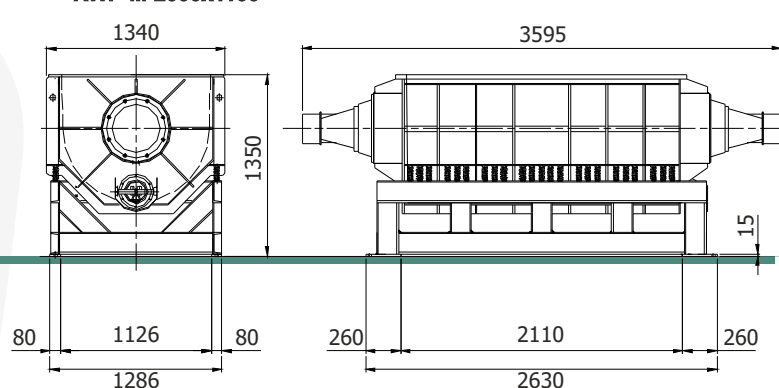
RWP-M PIONEER



RWP-M-1600x1100



RWP-M-2000x1100

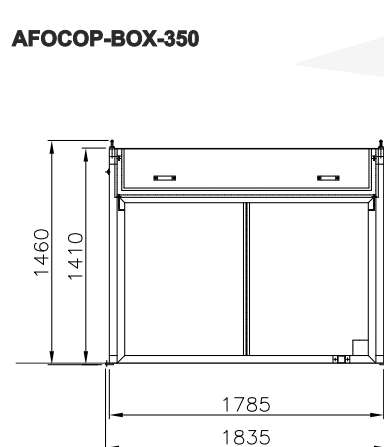


Dimensioni delle vasche nette utili RWP - mm

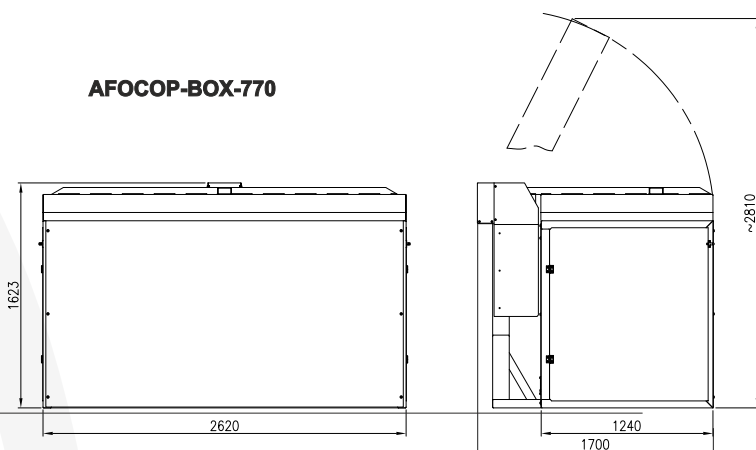
RWP tank useful net sizes – mm

Modello/Model	Design	L	S	W	H	O	Pot. tot. inst Tot. Inst. power	Cap. nom. vasca Tank nom. cap.
RWP-M-1600x1100	US	1600	-	1100	950	-	2x4,0 KW	1600 L
RWP-M-2000x1100	US	2000	-	1100	950	-	2x7,0 KW	1900 L

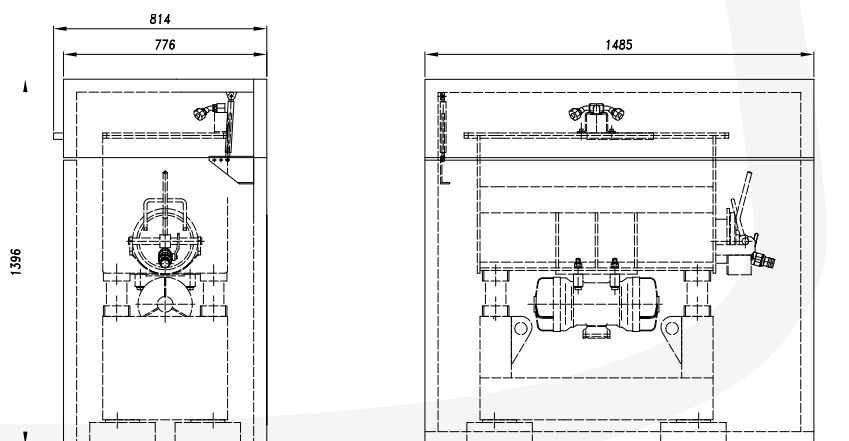
AFOCOP-BOX-350



AFOCOP-BOX-770



AFOCOP-BOX-150



AFOCOP-BOX-150 and AFOCOP-BOX-350 are actioned by 2 gas springs, while AFOCOP-BOX-770 is actioned by PNEUMATIC device.



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Frontal view of the control board of the **MP/MPE** series, 230V - 50Hz or 400V - 50 Hz depending from the type of machine.



Frontal view of the control board of the **TCS** series, 230V - 50Hz or 400V - 50 Hz depending from the type of machine.

The control boards of the Pioneer machines are the result of a project that has the purpose to simplify and unify the most different use possibilities into a single solution. From a statistical macro-analysis of the most frequent combinations between machine and accessories, we have designed the new **MP** (or **MPE** in the expanded version) control board that is equipped with a microprocessor and a control digital panel always combined with a frequency converter. A control board equipped with microprocessor (or **PLC**) offers the advantage to be programmed, within fairly wide limits, according to the process requirements and to the used optional accessories by simply loading the most suitable software. The same control panel, equipped with frequency converter (or **INVERTER**), extends the use possibilities of a vibrating machine, since it allows a more flexible management, so that to adjust to any unforeseen variables with a simple "clic".

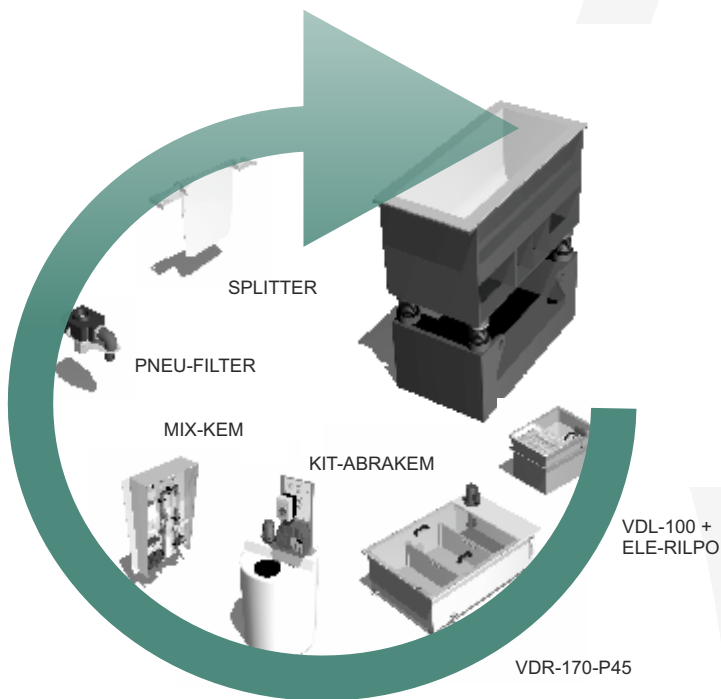
The **TCS** control board has all the same features already present in MP and MPE series control panels, with the following differences and additions: HMI - Man Machine Interface - Through Color Touch Screen Panel Inside the picture is available: A set of cables to connect to the TOUCH panel, microprocessor and inverter in software modification or operating system upgrade mode. These features make it possible, through any PC (not supplied) to the user, to: to. Upload Open Source operating system updates - available free of charge on the Internet; b. Load variations that may be agreed upon with Rollwasch (supply of software with variations could involve participation in costs) for work program.

To increase the safety and the isolation class of the control board, usually the cases are made of plastic material, excellent insulation. The IP55 isolation class is moreover a very good standard for the vibrating machines type of use.

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The control panel on the frontal side is equipped with function keys and a wide display for the best flexibility and working completeness.



The **Pioneer** machines are manufactured in “P/CF” version (with wire – without any electric control) and can be combined with four types of standard solutions, respectively:

!“**E**” – magnetothermic switch with start and stop functions, with thermic protection of the motorvibrator;

!“**MP**” – Control board equipped with microprocessor, inverter, control panel with wide display and function keys, main and emergency (red/yellow) switch, IP55 class protection with high insulation degree thanks to the manufacturing material, specific and customized software for every single supply. Input/output presetting suitable for only one accessory of defined type.

!“**MPE**” – Control board like the “MP” type, but with input/output expansion in order to run max. two/three accessories of defined type.

The supply of the digital control board foresees also the language customization of the support information both of the controls and of the messages, such as the motor rotation speed. The standard software 2.0 release allows by means of a function-key to switch from a low speed to a high speed and vice versa, the speeds are pre-set. The machine working hours (hours counter function), etc. For further details about the possible “Machine/Accessories” combinations that can be run by the MP/MPE control boards, check with our technical/commercial department or ask for a quotation!

!“**MP-GM**” - Control board equipped with microprocessor, inverter, functional keypad, potentiometer for speed control, display and start/stop button, main and emergency (red/yellow) switch, IP55 class protection with high insulation degree, specific software.

! [1] “E” - Magnetothermic switch with start and stop functions, with thermic protection of the motorvibrator

[2] MACHINE ID/...TCS... CT

It has all the same features already present in the TCS series control panels, with the following additions: a. Module “C” controls the speed of the inverter with a simple analog potentiometer carried out outside the panel; b. “T” module - facilitates the operator in the timing change inputs (key + and key -); c. “CT” module - both options mentioned above



1



2



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Caratteristiche standard delle macchine Standard features of the machines			Soluzioni disponibili per il comando elettrico Available solutions for electric control		
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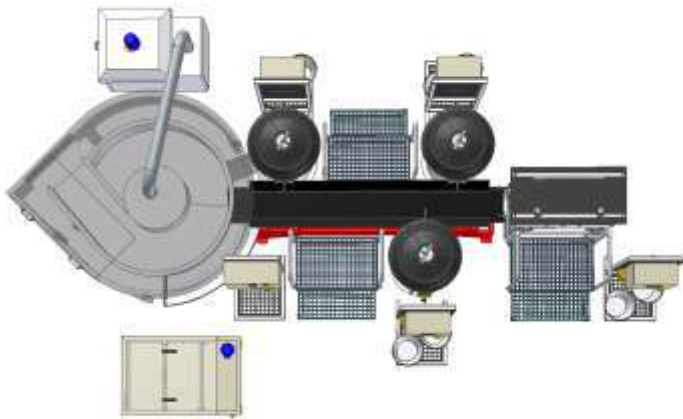
Macchine Standard Tipo	Versione (US se non diversamente indicato)	Qualità rivestimento PU	Codice Comando Interruttore magnetotermico "E"	Codice Quadro Comandi "MP" (PLC+Inverter) max 1 accessorio	Codice Quadro Comandi "MPE" (PLC+Inverter) max 2/3 accessori
Standard Machines Type	Version (US if not otherwise indicated)	PU lining quality	Magnetothermic Switch "E" code	Control Board "MP" code (PLC+Inverter) max 1 accessory	Control Board "MPE" code (PLC+Inverter) max 2/3 accessories
RWP-L-150/P-CF	PRO	Thermo plus royal	E2	MP2	MP2E
RWP-L-150-GM/P-CF	GM	PU-BHP	E2	MP2	MP2E
RWP-S-150/P-CF (1)	PRO	PU_Special	E4	MP4	MP4E
RWP-L-350/P-CF	PRO	Thermo plus royal	E3	MP3	MP3E
RWP-L-350-GM/P-CF	GM	PU-BHP	E3	MP3	MP3E
RWP-L-770/P-CF	PRO	Thermo plus royal	E8	MP8	MP8E
RWP-L-770-GM/P-CF	GM	PU-BHP	E8	MP8	MP8E
RWP-L-770/P-CF	PRO [OS]	Thermo plus royal	E8	MP8	MP8E
RWP-L-770-GM/P-CF	GM [OS]	PU-BHP	E8	MP8	MP8E
RWP-L-2000x800/P-CF	PRO [OS]	Thermo plus royal	E8	MP8	MP8E
RWP-M-1600x1100/P-CF	PRO	Thermo plus royal	E14	MP14	MP14E
RWP-M-2000x1100/P-CF	PRO	Thermo plus royal	E14	MP14	MP14E

(1) Struttura rinforzata speciale - sistema elastico doppio; Special reinforced frame - double elastic system;

Principali accessori specifici per Pioneer Main specific accessories for Pioneer				Altri accessori opzionali comuni Other common optional accessories		
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Macchina Standard Tipo	Codice Copertura opzionale	Codice Splitter opzionale std in PP	Frequenza vibratoria in rpm	Sezione vasca	Codice di stazione dosaggio automatico acqua/composto (esempio)	Codice Vasca di riciclo acqua/composto
Machine Standard Type	Optional cover code	Optional Splitter code standard in PP	Vibratory frequency in rpm	Tank section	Code Automatic Dosing station water/compound (example)	Code Recycling tank water/compound Code
RWP-L-150/P-CF	AFOCOP-BOX-L-150	Split-150-PP	1500	US	MIX-KEM	VDR
RWP-L-150-GM/P-CF	AFOCOP-BOX-L-150	Split-150-PP	1500	US	MIX-KEM	VDR
RWP-S-150/P-CF	AFOCOP-BOX-S-150	Split-150-PP	3000	US	MIX-KEM	VDR
RWP-L-350/P-CF	AFOCOP-BOX-L-350	Split-350-PP	1500	US	MIX-KEM	VDR
RWP-L-350-GM/P-CF	AFOCOP-BOX-L-350	Split-350-PP	1500	US	MIX-KEM	VDR
RWP-L-770/P-CF	AFOCOP-BOX-L-770	Split-770-PP	1500	US	MIX-KEM	VDR
RWP-L-770-GM/P-CF	AFOCOP-BOX-L-770	Split-770-PP	1500	US	MIX-KEM	VDR
RWP-L-770/P-CF	AFOCOP-BOX-L-770	Split-770-PP-OS	1500	OS	MIX-KEM	VDR
RWP-L-770-GM/P-CF	AFOCOP-BOX-L-770	Split-770-PP-OS	1500	OS	MIX-KEM	VDR
RWP-L-2000x800/P-CF	AFOCOP-BOX-L-2000x800	Split-208-PP-OS	1500	OS	MIX-KEM	VDR
RWP-M-1600x1100/P-CF	AFOCOP-BOX-L-1600x1100	Split-1611-PP	1500	US	MIX-KEM	VDR
RWP-M-2000x1100/P-CF	AFOCOP-BOX-L-2000x1100	Split-2011-PP	1500	US	MIX-KEM	VDR

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Some examples of systems with Pioneer series machines.

An example of a plant solution RW-1776 for the vibratory finishing of hardened steel articles, there is a Pioneer RWP-L-150 machine, in special execution with raised frame.

This plant configuration provides for the use of other machines, all prepared to unload on a vibrating conveyor, oriented towards a dryer SICOR series provided with an external canal for dropping out , type OUTRACE.



RWP-I PIONEER



Modultek: modular accessories; Rollnoise: sound proofing solutions

Few examples:

1. & 2. Antisprinkling cover series Elastolid-RWP-...
3. DOS-KEM-QF column, a technological support frame designed to hold the control panel of the machine and equipped with a metering station for automatic processes such QF (Abragrip phase and final rinsing phase with water / compound mix);
4. Automatic metering station mixing water and liquid chemical compound type DOS-KEM-150;
5. Recycling tank with electro-pump, capacity about 170 lts.;
6. example of **VDS-160-MIX** tank for the filtration of the suspended solids contained in the effluents discharged from the machine (suitable for processes type **MICROFLUID** - Patent Pending - I);

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Modultek: modular accessories; Rollnoise: sound proofing solutions

Few examples: the **Pioneer** series (like other series of **Rollwasch**® machines with rectangular tank) provides the possibility to adopt optional bulkheads for the subdivision of the tank into sections. Articles processed in between of these bulkheads in the tanks, will remain in place (eg, an aluminum wheel in vertical position).

Photo 1. a bowl with 2 bulkheads;

Photo 2. with 3 bulkheads;

Photo 3. with 7 bulkheads;

Photo 4: a detail of the bulkheads made in polypropylene;

Photo 5. Combined dosing station, MIX-KEM-80-GM together with KIT-ABRAKEM;

Photo 6. Automatic station for dosing and mixing water and liquid compound, MIX-KEM-80-GM; o e
miscelazione automatica acqua - composto liquido MIX-KEM-80-GM;



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