
2020

RELIABLE COMPANY WITH UNIQUE EXPERIENCE

Avalon has been founded in year 1990 and since then we have dealt with designing and manufacturing machines for surface finishing. Our devices do such processes as: deburring, grinding smoothing or polishing of workpieces that are casted, turned, milled, erforated or injected in mass production in various branches of industry. We have mastered the process of polishing jewellery what can be confirmed by many of our regular customers. We have always cared about the highest quality therefore our machines are reliable, accurate and effective. Throughout the years we have remained very open towards the needs of our Clients, that ensured us development and versatility.

KNOW HOW - WE SHARE IT WITH YOU

As we provide solutions that are complementary, we offer you complete technological lines fully adjusted to your needs. Apart from equipping our customers with the devices we offer the necessary abrasive media – chips, compounds, and powders and last but not least knowledge allowing to use the machines mosteffectively. Our laboratory develops and optimizes finishing processes and conduct polishing trials of customer samples. We organise trainings for our customers.

FOR YOU WE CREATE, DEVELOP AND IMPROVE. THANK YOU FOR BEING WITH US.

THE HIGHEST STANDARDS IN CUSTOMER CARE

The mission of our company is constant growth and the satisfaction of our clients. We pay special attention to post sale support which includes instructions or trainings, necessary service or adjusting the technology for an individual.

THANK YOU FOR TRUSTING US

The quality of our machines has been appreciated not only by the Polish jewellery producers. Avalon devices reach to clients in many countries in Europe, America or Asia. We regularly take part in international fairs held all over the world and continue searching for new inspirations and challenges to take on.

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www.avalon-machines.pl/


WET
EC6
AVALON

DRY FINISHING
WALNUT SHELL TECHNOLOGY

Fast and equally effective processing can be gained in a 2 stage process of polishing with the use of walnut shell granulate. The whole process takes place in a disc finishing machine and together with grinding takes about 6 hours.
The result is perfect surfaces with mirror shine. What is more this technology is highly dependable for processing long and flat workpieces which have tendency to packeting that is sticking together while being processed in round vibratory machines.
Thanks to curved shape of working bowl the risk of impingement is eliminated and the process efficiency is increased. Walnut shell process provides excellent results in short time!

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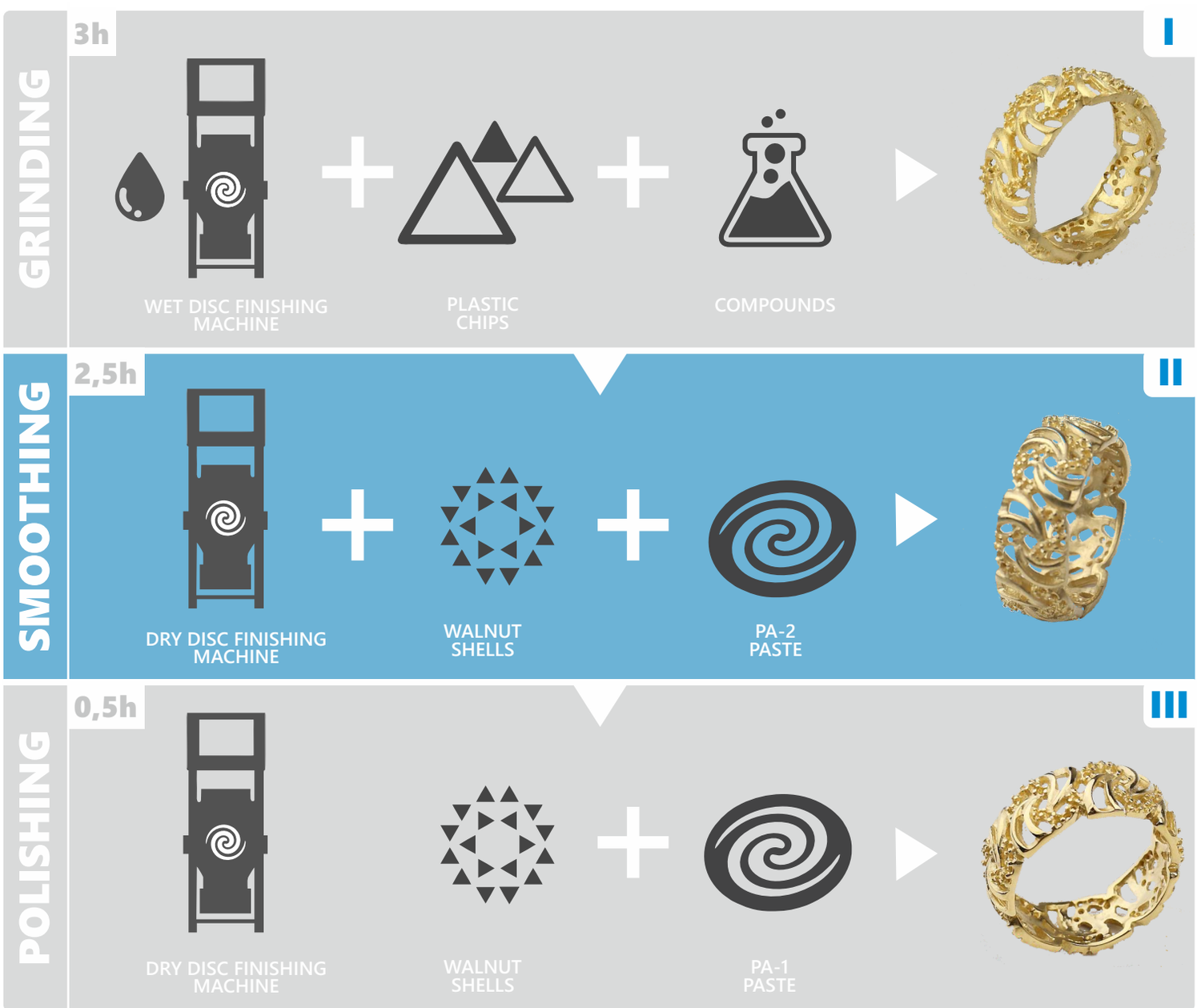
www.avalon-machines.pl/



DISC FINISHING MACHINES

Round vibratory machines have a wide spectrum of applications, what distinguishes them from rotary tumblers and disc finishing machines. By choosing correct media type, compound and appriopriate proces parameters it is possible to obtain desired results – cleaning, grinding, smoothing and polishing. Interactions between media-workpiece and workpiece-workpiece are much less aggressive than in case of disc polishing machines. This results in efficient grinding or smoothing of fine and fragile jewelry workpieces. Processing in round vibratory machines is up to 5 times faster than in rotary tumblers. During this process, the workpieces and the grinding material are added loosely into a container which is open at the top. The items are oscillated through an imbalance in weight, which forces them into a screwing movement.

EC series (TABLE-TOP)

EC6

- available for wet (EC6 W,EC10 W, EC18 W) or dry processing (EC6 D, EC10 D, EC 18 D)
- designed for mass finishing of small workpieces (from 0,5 up to 4 kg at one time)
- suitable for deburring, radiusing, degreasing, cleaning, smoothing, brightening, polishing

EC10

- processing with ceramic, plastic and porcelain chips as well as stainless steel shot
- compact desktop unit
- optimized media movement and excellent processing results due to curved flow-optimized design of the working bowl

EC18

- processing of very thin pieces and trouble-free maintenance through use of a very precise gap system (0,05 mm upwards)
- tilted working bowl for easy unloading
- toroidal movement prevents pieces from sticking to each other and results in targeted material erosion
- processing time is several times shorter comparing to Vibratory Machines

MACHINE	WORKING BOWL CAPACITY	WORKING BOWL INSIDE DIAMETER	DIMENSIONS	WEIGHT	POWER	SUPPLY
EC6	6 l	210 mm	525x486x702 mm	33 kg	0,3 kW	230 V
EC10	10 l	265 mm	420x520x895 mm	51 kg	0,4 kW	230 V
EC18	18 l	320 mm	493x606x1024 mm	66 kg	0,65 kW	230 V

TE series (STAND-ALONE)

TE18

TE10x2

TE18x3

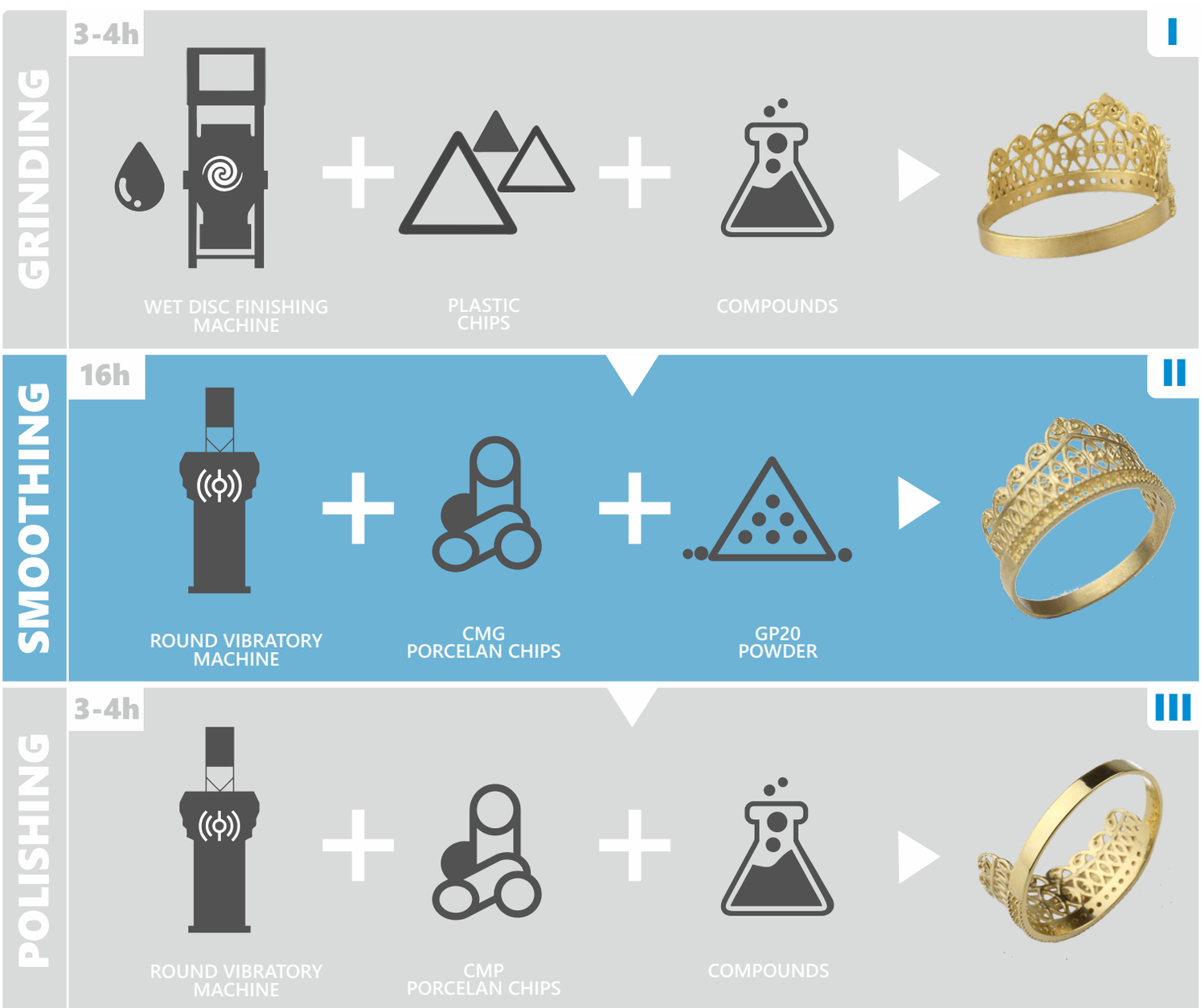
MACHINE	WORKING BOWL CAPACITY	WORKING BOWL INSIDE DIAMETER	DIMENSIONS	WEIGHT	POWER	SUPPLY
TE10	10 l	265 mm	460x910x1800 mm	101 kg	0,6 kW	230 V
TE10x2	2x10 l	2x265 mm	920x910x1800 mm	184 kg	1,2 kW	230 V
TE10x3	3x10 l	3x265 mm	1350x910x1800 mm	274 kg	1,8 kW	230 V
TE18	18 l	320 mm	460x910x1800 mm	124 kg	0,8 kW	230 V
TE18x2	2x18 l	2x320 mm	890x910x1800 mm	235 kg	1,2 kW	230 V
TE18x3	3x18 l	3x320 mm	1350x910x1800 mm	340 kg	1,8 kW	230 V
TE30	30 l	400 mm	500x1040x1800 mm	168 kg	1,5 kW	230 V
TE60	60 l	525 mm	1270x1160x1690 mm	365 kg	4,0 kW	3x400 V

CEROFIN
TECHNOLOGY FOR **MIRROR-LIKE** FINISHING

CEROFIN is AVALON's flagship technology that has been valued in the jewellery sector for years.
The processed surfaces gain mirror shine without visible technological scratches, characteristic of conventional manual processing . Precisely chosen parameters together with using AVALON machines guarantee repeatable cycles and the final effect is always on the highest level.

HOW DOES IT WORK?

Workpieces after grinding are followed by smoothing in a round vibratory machine. This stage is an integral part of the whole process. For the smoothing process porcelain chips CMG and GP20 powder are used. Special formula of the powder has 2 functions- in the initial stage it smoothens the surface and in the final stage it acts as polishing medium giving the workpieces initial polish. The second stage because of 16 hour working time is adjusted to working at night. The process takes place with closed lid what guarantees stable work. Such prepared surface is next brought under a process of final polishing in porcelain chips dedicated to this process. The workpieces have mirror shine not only on the outside but also on the inside.



ROUND VIBRATORY MACHINES
W and **WE** SERIES

Round vibratory machines have a wide spectrum of applications, what distinguishes them from rotary tumblers and disc finishing machines. By choosing correct media type, compound and appriopriate proces parameters it is possible to obtain desired results – cleaning, grinding, smoothing and polishing. Interactions between media-workpiece and workpiece-workpiece are much less aggressive than in case of disc polishing machines. This results in efficient grinding or smoothing of fine and fragile jewelry workpieces.

Processing in round vibratory machines is up to 5 times faster than in rotary tumblers. During this process, the workpieces and the grinding material are added loosely into a container which is open at the top. The items are oscillated through an imbalance in weight, which forces them into a screwing movement.

Round vibratory machines are especially suitable for CEROFIN process, which helps to obtain a mirror-like finishing. It might be also applied for various materials made from silver, gold, amber, glass, precious stones or stainless steel. Material loss during this process is relatively small.

w50

w100

w15

we6

we10

MACHINE	WORKING BOWL CAPACITY	WORKING BOWL INSIDE DIAMETER	DIMENSIONS	WEIGHT	POWER	SUPPLY
w15	15 l	360 mm	500x590x890 mm	128 kg	0,49 kW	230 V
w50	50 l	560 mm	770x660x1150 mm	202 kg	0,61 kW	230 V
w100	100 l	772 mm	960x900x1180 mm	263 kg	0,7 kW	230 V
we6	6 l	280 mm	340x350x420 mm	22 kg	0,14 kW	230 V
we10	10 l	310 mm	440x380x440 mm	30 kg	0,14 kW	230 V

DRYERS **CD** series & **SU**

Centrifugal Dryer CD-10 is used for drying workpieces after mass finishing. The water evaporates from Surface of the workpieces thanks to centrifugal force created by rotating drum. Additionally the machine incorporates hot air blower for faster removal of moisture and an easily removable basket, which facilitates loading/unloading of workpieces. The machine is adapted for drying fine workpieces by use of special protective material lining inside the rotating drum. Additional protection against damage of the workpieces is provided by gentle start and smooth engine braking after the process. CD-10 dryer incorporates a direct drive system fixed to the housing by polyurethane sleeves of large diameter, which provides good damping and promotes uniform distribution of parts in a rotating drum. Air channels are designed to absorb heat from the main engine, which results in long and trouble-free processing. Efficient drying of metal parts occurs during 3-5 minutes with loading weight of 4-5 kg. CD-10 dryer is designed for continuous work. Design of working chamber and draining system ensures process stability. For safety reasons the electric door strike prevents the lid from opening during processing.

SU-02 dries wet-finished pieces quick and efficiently without spots. Hot air blasts absorbent media over the product tray. Drying time is up to 15 minutes and the product tray can be loaded with up to 0,5 kg of workpieces.

The temperature is programmable in range of 30°C to 80°C

SU02

CD5

CD10

CD25

MACHINE	TIMER RANGE	WEIGHT	WORKING CHAMBER DIMENSIONS	DIMENSIONS	POWER	SUPPLY	ADJUSTABLE TEMP. RANGE
CD5	1-60 min	42 kg	ø 180x120 mm	470x400x580 mm	1 kW	230 V	35-80 °C
CD10	1-60 min	90 kg	ø 280x160 mm	580x430x900 mm	2,75 kW	230 V	35-80 °C
CD25	1-60 min	190 kg	ø 380x250 mm	710x680x1050 mm	5,3 kW	3x400 V	20-80 °C
SU02	1-15 min	30 kg	260x260x80 mm	500x280x460 mm	1,65 kW	230 V	30-80 °C

ROTARY TUMBLER **PB** series

Polishing in rotary tumblers with abrasive media is a very traditional way of surface treatment. Rotary tumblers are very universal in use, however the processing time is relatively long. Rotary tumblers may be used for deburring, grinding or polishing (wet or dry). There is a wide spectrum of possible abrasive materials – ceramic, plastic, porcelain or stainless steel media. Wet processing is conducted with addition of chemical compound, which is selected according to treated material. Working containers for wet processing are wear resistant and very durable. Dry processing is suitable for smoothing, pre-polishing and mirror-like finishing. Dry media (wooden cubes or walnut shell) must be impregnated prior to processing.

Processing time in rotary tumblers is much longer than in disc polishing machines or vibratory tumblers. Safe and gentle processing in rotary tumblers is very time-consuming. In order to eliminate impingement it is recommended to use working containers with high capacity.

Rotary tumblers are very intuitive in use and the working containers can be changed easily. Depending on the type, it may be possible to work simultaneously with one or two working containers. The machine PBD2pwf incorporates ventilating system and speed control.

PB1

PB2

PBD2pw

MACHINE	SPEEDS	WEIGHT	AVAILABLE WORK CONTAINERS	DIMENSIONS	POWER	SUPPLY
PB1	40/60 rpm	26 kg	wet containers	480x350x670 mm	0,09 kW	230 V
PB2	40/60 rpm	54 kg	wet and dry containers	760x760x790 mm	0,25 kW	230 V
PBD2pw	variable 12-32 rpm	106 kg	wet and dry containers	1200x760x1370 mm	0,46 kW	230 V

For more information go to www.avalon-machines.pl

PS1N

PS2

PS1MINI

POLISHING BENCHES **PS** series

Polishing benches can be used for manual grinding or polishing of small items, semi-finished goods or other jewelry workpieces. Buffing machines are essential for every jewelry workshop and are very useful for workpieces, which cannot be mass finished.

Our polishing benches are equipped with integrated exhausting system for processing dust. There is no need to connect it to external exhausting or ventilation system. Technological waste is collected in special filters and heavier particles are stored in the bottom part of the machine. This makes it possible to recycle the precious metal. Filters are removable and can be cleaned at any time. Mandrel used for mounting grinding wheels is secured by ergonomic shield with lighting, which protects worker from dust and spalls.

Particular advantage of our machine is the sound dampening housing made from carefully selected materials. This results in quiet work and high performance of this unit. It is possible to equip the machine with closed shield, which is especially suitable for gold processing. In this case 100% of waste material can be recovered. Working motor is integrated with special mounting tool, which provides quick changing of grinding wheels. Very precise manufacturing of the mounting tool eliminates any imbalance of the grinding wheel.

Polishing benches can be equipped with speed regulation. It is especially important for polishing of different materials.

MACHINE	RPM	LIGHTS	FILTERS	DIMENSIONS	WEIGHT	POWER	SUPPLY	NOISE
PS1MINI	2800	12V/20W	4 pcs	700x780x1150 mm	77 kg	0,62 kW	230 V	60-65 dB
PS1FMINI	1000-3000	12V/20W	4 pcs	700x780x1150 mm	77 kg	0,62 kW	230 V	60-65 dB
PS1	2800	12V/20W	6 pcs	820x780x1150 mm	108 kg	0,74 kW	230 V	60-65 dB
PS1A	2800	12V/20W	6 pcs	820x780x1150 mm	108 kg	0,74 kW	3x400 V	60-65 dB
PS1F	1000-3000	12V/20W	6 pcs	820x780x1150 mm	108 kg	0,74 kW	230 V	60-65 dB
PS1N	2800	12V/20W	1 pcs	590x700x760 mm	56 kg	0,62 kW	230 V	60-65 dB
PS2	2800	12V/20W	6 pcs	1100x780x1550 mm	116 kg	0,74 kW	230 V	60-65 dB
PS2A	2800	2x12V/20W	6 pcs	1100x780x1550 mm	116 kg	0,74 kW	3x400 V	60-65 dB
PS2F	1000-3000	2x12V/20W	6 pcs	1100x780x1550 mm	116 kg	0,74 kW	230 V	60-65 dB

MAGNETIC FINISHERS
PM series

Access to grooves and small corners on the workpiece is often very limited. Preliminary cleaning and polishing of hard accessible corners can be done with magnetic polisher. Magnetic polishers are suitable for processing of silver and gold workpieces. Oxidation from previous processes can be easily removed.

The motor contained in the base of magnetic finisher spins a disc and this creates a magnetic field which in turn makes the magnetic steel pins jump randomly around the plastic pot. Speed regulation and automatic rotation inversion are optional. Included magnetic bar is used for separating magnetic pins from workpieces.

PM200

- designed for mass finishing of small non-magnetic workpieces (up to 200 grams)
- suitable for quick and precise cleaning in small corners access to smallest corners on the workpiece by use of small stainless steel pins with diameter 0,3 and 0,5 mm
- patented powerful magnets system for efficient pin movement
- highest precision of manufacturing for trouble-free work solid housing made from fiberglass resin composite

PM200S

Accesories:

- work bowl for magnetic polisher
- magnet separating bar SM
- stainless steel pins 0,3x5 i 0,5x5 mm

PM500

- designed for mass finishing of small non-magnetic workpieces (up to 500 g)
- suitable for quick and precise cleaning in small corners
- variable speed regulation and automatic rpm direction change
- robust housing made from stainless steel
- access to smallest corners on the workpiece by use of small stainless steel pins with diameter 0,3 and 0,5 mm
- patented powerful magnets system for efficient pin movement

MACHINE	DIMENSIONS	WEIGHT	POWER	SUPPLY	MEDIA
PM200	300x300x320 mm	14 kg	0,25 kW	230 V	STAINLESS STEEL PINS 60 g
PM200S	300x300x320 mm	14 kg	0,29 kW	230 V	STAINLESS STEEL PINS 60 g
PM500	270x330x360 mm	23 kg	0,37 kW	230 V	STAINLESS STEEL PINS 100 g

CASCADE SYSTEM

Mass finishing processes are connected with constant producing of technological waste, that needs treatment and utilization due to the presence of harmful substances or metal filings. The Cascade System is a perfect solution for companies and factories that share the problem of wastewater treatment. Our system allows to reuse the processing water for further work.

The wastewater treatment system consists of two modules: of highly effective container for rough water treatment and of vertical cascade system. The role of rough treatment is capturing bigger particles and slime from the wastewater. After the initial filtration process the water is pumped to the cascade, in which water stage by stage slowly falls down to another container. The principle of operation is based on keeping the wastewater in slowed down flow, thanks to which we get a division into two phases: one is water, the other one is suspended particles. The processed water can be used for further production. The durability of the water depends on processing time, chemical composition or the compounds used for processing.

MACHINE	CAPACITY	DIMENSIONS	WEIGHT	POWER	SUPPLY
K6/250	250 l	1170x990x1540 mm	114 kg	0,4 kW	230 V

YOU CAN RECOVER UP TO 98% OF GOLD AND SILVER

INTRODUCING THE TECHNOLOGY OF RECYCLING WATER IS BENEFICIAL FOR ECOLOGICAL, ECONOMIC AND LEGAL REASONS

AT WORK

AFTER PARTIAL DRAINING

AFTER DRYING

MACHINES FOR Amber

Set of machines for amber processing is an efficient solution for stone processing factories. Creating of multiple shapes or drilling become easier by use of our equipment. The circular sawing machine P2 cuts precisely by means of water-cooled diamond blades. SZK, SK2 or SKU facilitate shaping of different materials (e.g. synthetic and precious stones, glass, ceramics). Processing is performed by use of template and diamond discs. Mostly used shapes are: oval, balls, polygons, however it is also possible to obtain more sophisticated geometries by use of high speed spindle.

PMB

P2

WK1

SK2

SKU

SZK

MACHINE	RPM	DIMENSIONS	WEIGHT	POWER	SUPPLY
PBM	-	520x610x720 mm	23 kg	0,07 kW	230 V;50Hz
P2	4700	470x330x390 mm	32 kg	0,55 kW	230 V;50Hz
WK1	18000	570x320x270 mm	31 kg	0,25 kW	230 V;50Hz
SKU	4000	570x510x610 mm	73 kg	0,65 kW	230 V;50Hz
SK2	4000	530x570x460 mm	75 kg	0,55 kW	230 V;50Hz
SZK	4000	530x570x460 mm	74 kg	0,55 kW	230 V;50Hz

MEDIA

In the mass finishing processes it is critical to choose appriopriate media according to the material and processing purpose. Both factors impact the processing time and desirable results. Synthetic, ceramic, porcelain and stainless steel media with compounds are used for wet processing, on the other hand walnut shell with polishing paste is used for dry processing.There is a wide variety of grinding and polishing media in regard to shape, size and abrasiveness.

Supporting compounds are added to abrasive media in wet process. Additives in the compound help to clean, brighten and passivate workpieces.

PLASTIC chips (WET PROCESS)

▲ **01PS10**

▲ **02PS10**

▲ **03PS14**

▲ **05PS10**

▲ **06PS10**

▲ **07PS12**

▲ **01PP10**

▲ **02PP10**

▲ **03PP18**

▲ **05PP10**

▲ **06PP10**

PORCELAIN chips (WET PROCESS)

▲ **CMG/CMP ø1**

▲ **CMG/CMP ø1,5**

▲ **CMG/CMP ø3**

▲ **CMP/CMG ø4**

▲ **CMG/CMP ø5**

▲ **CMG/CMPø6**

▲ **CMG/CMP 2x5**

▲ **CMG/CMP 3x10**

▲ **CMG MIX**

▲ **CMP MIX**

WALNUT shells, **PASTES** (DRY PROCESS)

H-1/050
2,4-4,0 mm

H-1/100
1,7-2,4 mm

H-1/400
0,4-0,8 mm

H-1/500
0,2-0,4 mm

PA-2
grinding

PA-1
polishing

STAINLESS steel shots (WET PROCESS)

BALL **ø1**

BALL **ø2**

BALL **ø2,4**

BALL **ø2,7**

BALL **ø3,2**

STEEL **MIX**

SATELLITE **2x3**

SATELLITE **3x4**

SATELLITE **6x4**

COMPOUNDS and **POWDERS** (WET PROCESS)

N10E	polishing silver with stainless steel balls	**SK6**	all-purpose grinding compound
U11	polishing gold	**U32**	polishing silver (CEROFIN)
SZ4	finishing non-ferrous metal (copper, brass, bronze,alpacca)	**B3**	grinding
A5	polishing gold in magnetic and vibratory polishing machines	**V6**	finishing of stainless steel (polishing)
A3	polishing silver in magnetic and vibratory polishing machines	**V9**	finishing steel
A7	polishing non-ferrous metal (e.g. copper and its alloys)	**V10**	all-purpose grinding compound
V27	anticorrosive compund for carbon steel	**N51**	degreasing, washing off polishing pastes
VILUX	polishing gold in magnetic and vibratory polishing machines	POWDER **GP20**	smoothing silver in CEROFIN
A1	pickling silver (CEROFIN)	POWDER **GP10**	smoothing gold in CEROFIN

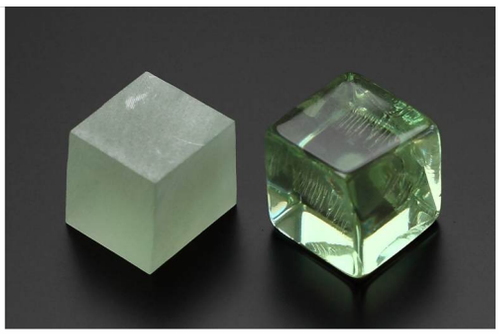
SEND US samples

We encourage you to send us samples of raw workpieces of your production. We offer to prepare a full technological process dedicated to your products without any charge.
We will elaborate on an optiumum process adjusted to your products. This includes selecting appropriate machines, abrasive media and the liquids. We will inform you about the paramters to set the machine right. Our knowledge will allow you to overcome potentiall problems with surface finishing, cleaning or drying your workpieces.

PLEASE SEND THE SAMPLES TO:
ZMM Avalon Wojciech Gibuła
ul. Grunwaldzka 38
84-351 Nowa Wieś Lęborska, Poland
adding the note: **"SAMPLES"**

Please fill in the form
that you can find on our website at:
www.avalon-machines.pl/customer-area/samples-processing/
and attach it to the shipment.

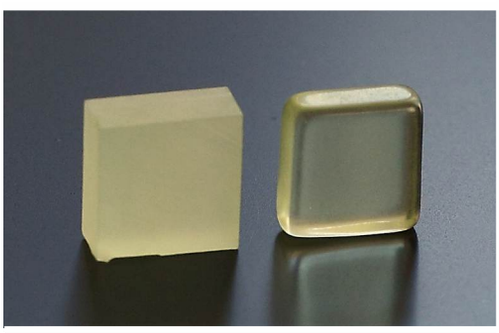




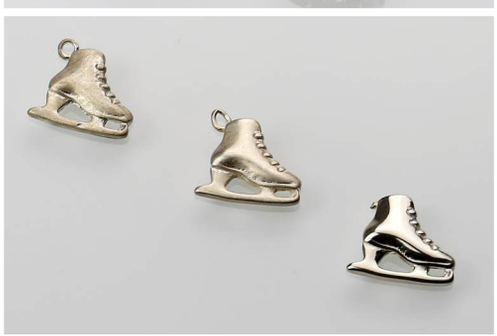










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