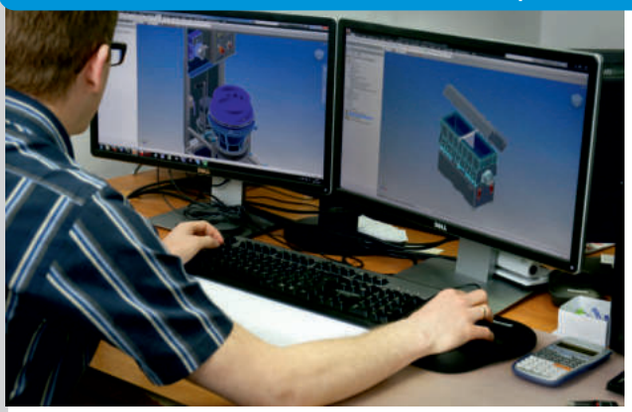
AVALON
machines

made in Poland

electropolishing
disc finishing
vibratory machines
polishing benches
separation units
dryers
media



Avalon Machines- made in Poland. We are a company that produces machines for mass surface finishing. Our machines perform such processes as: deburring, grinding, smoothing, polishing, degreasing, deburring, etc. Our devices are used in many sectors of industry - from jewelry, in which we have become experts, through medical and aviation sectors, automotive, watchmaking, foundry, plastics, 3D printing, gastronomy, and wide application in the production industry for laser-cut, embossed, milled workpieces, etc.

Quality and trust. 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 taken. For you we create, develop and improve. Thank you for being with us.

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 most effectively. Our laboratory develops and optimizes finishing processes and conduct polishing trials of customer samples. We organise trainings for our customers.

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.

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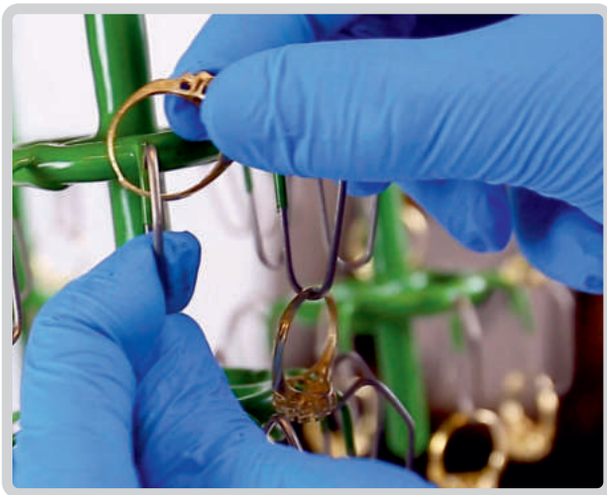
ELECTROPOLISHING MACHINES



Electropolishing is an electrochemical process that removes the outer layer of material on a metal part **without rounding the edges**. It offers a **unique advantage** of treating the areas on the workpiece, which are not approachable by the common mechanical process. Moreover the finishing effect can be achieved in a very short time -from 5 to 35 min.

Avalon Machines with its strong mechanical background launches a new series of electropolishing machines, which **outrank the other machines available on the market with its extraordinary quality and robust construction.**

new!

table top

table top

IQ NANO
electropolishing machine

supply: 230 V; 50 Hz
number of hooks: 8/16
weight: 32 kg
dimensions (WxDxH): 320 x 400 x 690 mm
noise level: 60-65 dB

IQ ECO
electropolishing machine

supply: 230 V; 50 Hz
number of hooks: 32
weight: 88 kg
dimensions (WxDxH): 810x510x970 mm
noise level: 60-65 dB

IQ PRO
electropolishing machine

supply: 230 V; 50 Hz
number of hooks: 80
weight: 170 kg
dimensions (WxDxH): 1050x650x1550 mm
noise level: 60-65 dB

ELECTROFIN

NEW STANDARD OF ELECTROPOLISHING

Watch a video about Electrofin on YouTube

- mechanical grinding process enhanced with electropolishing
- only 2 stages
- no rounding edges (workpiece form stays unchanged)
- polishing in inaccessible places
- excellent results in a very short time
- perfect for 3D printed or filigree jewellery
- up to 100% gold recovery

stage 01

/1-2h/ grinding

\+ DISC FINISHING MACHINE

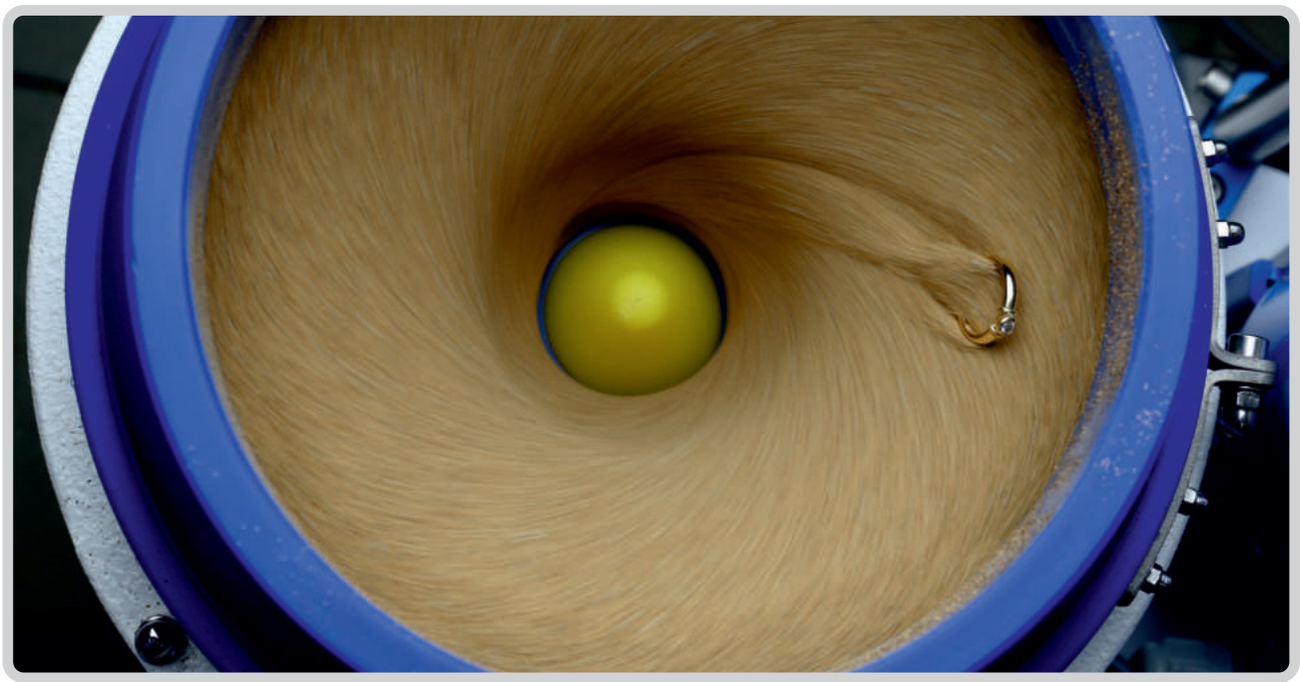
\+

stage 02

/5-25 min/ electropolishing

\+ ELECTROPOLISHING MACHINE

\+



DISC FINISHING
MACHINES

Watch a video about work of disc finishing machines on YouTube

Disc finishing machines are the most modern as well as the fastest machines designed for surface processing. Processing time is determined by the centrifugal force, which is created by rotating movement of the bottom disc. Bottom disc puts the media and workpieces into spiral movement. Curved shape of the working bowl eliminates impingement and provides efficient media flow in the working bowl. It also results in shortening of the process time. Processing times in disc finishing machines are several times shorter than in vibratory machines and up to 20 times shorter than in rotary tumblers.

Machines in this series are to replace the initial manual processing and prepare the worpieces for subsequent finishing processes up to the polishing stage. Disc finishing machines are suitable for **deburring; blunting and rounding edge; grinding; degreasing; cleansing; removal of scale, rust, carbon deposit; smoothoning; polishing.** Applied dosing system and emptying of working bowl facilitate often cycle changes, what significantly increases efficiency of the process.

Our machines are also available as combined versions (e.g. Wet+Wet, Wet+Dry). Disc finishing machines are suitable for wet and dry processing. Wet processing is supported by chemical compounds, which increase slide properties and accelerate grinding process. In dry process the walnut media are pre-impregnated with grinding or polishing paste and the media is cooled down by means of air blower, which is integrated in the machine.

EC6
disc finishing machine

supply: 230 V; 50 Hz
power: 0,3 kW
weight: 33 kg
dimensions: (WxDxH): 525x486x702 mm
working bowl capacity: 6 l.
working bowl inside diameter: 210 mm

EC10
disc finishing machine

supply: 230 V; 50 Hz
power: 0,4 kW
weight: 56 kg
dimensions (WxDxH): 420x520x895 mm
working bowl capacity: 10 l.
working bowl inside diameter: 265 mm

EC18
disc finishing machine

supply: 230 V; 50 Hz
power: 0,65 kW
weight: 66 kg
dimensions (WxDxH): 493x606x1024 mm
working bowl capacity: 18 l.
working bowl inside diameter: 320 mm

TE10
disc finishing machine

supply: 230 V; 50 Hz
power: 0,6 kW
weight: 101 kg
dimensions (WxDxH): 460x910x1800 mm
working bowl capacity: 10 l.
working bowl inside diameter: 265 mm

TE18
disc finishing machine

supply: 230 V; 50 Hz
power: 0,6 kW
weight: 124 kg
dimensions (WxDxH): 460x910x1800 mm
working bowl capacity: 18 l.
working bowl inside diameter: 320 mm

TE30
disc finishing machine

supply: 230 V; 50 Hz
power: 1,5 kW
weight: 168 kg
dimensions (WxDxH): 500x1040x1800 mm
working bowl capacity: 30 l.
working bowl inside diameter: 400 mm

TE60 ECO
disc finishing machine

supply: 400 V; 50 Hz
power: 4,5 kW
weight: 345 kg
dimensions (WxDxH): 900x910x1400 mm
working bowl capacity: 60 l.
working bowl inside diameter: 525 mm

TE60
disc finishing machine

supply: 3x400 V; 50 Hz
power: 4,7 kW
weight: 380 kg
dimensions (WxDxH): 1270x1160x1690 mm
working bowl capacity:60 l.
working bowl inside diameter: 525 mm

TE10 x 2
disc finishing machine

supply: 400 V; 50 Hz
power: 1,2 kW
weight: 184 kg
dimensions (WxDxH): 900x910x1800 mm
working bowl capacity: 2x10 l.
working bowl inside diameter: 2x265 mm

TE10 x 3
disc finishing machine

supply: 400 V; 50 Hz
power: 1,8 kW
weight: 255 kg
dimensions (WxDxH): 1313x830x1750 mm
working bowl capacity: 3x10 l.
working bowl inside diameter: 3x265 mm

TE 18 x 2
disc finishing machine

supply: 230 V; 50 Hz
power: 1,2 kW
weight: 235 kg
dimensions (WxDxH): 920x910x1800 mm
working bowl capacity: 2x18 l.
working bowl inside diameter: 2x320 mm

TE 18 x 3
disc finishing machine

supply: 230 V; 50 Hz
power: 1,8 kW
weight: 330 kg
dimensions (WxDxH): 1350x910x1800 mm
working bowl capacity: 3x18 l.
working bowl inside diameter: 3x320 mm

WALNUT SHELL

DRY FINISHING PROCESS

Watch a video about walnut shell finishing on YouTube

stage 01

/3h/ grinding

+ WET DISC FINISHING
+ MACHINE

stage 02

/2,5h/ smoothing

+ dry DISC FINISHING
+ MACHINE

stage 03

/0,5h/ polishing

+ dry DISC FINISHING
+ MACHINE

ROUND VIBRATORY 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 process 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 workpieces that are prone to mechanical deformation.**

Round vibratory machines are especially suitable for **CEROFIN** process, which helps to obtain a mirror-like finishing. Material loss during this process is relatively small. The machines allow to process workpieces of different shapes, weight or sizes.

WE6
round vibratory machine

supply: 230 V; 50 Hz
power: 0,14 kW
weight: 22 kg
dimensions (WxDxH): 340x350x420 mm
working bowl capacity: 6 l.
working bowl inside diameter: 280 mm

WE10
round vibratory machine

supply: 230 V; 50 Hz
power: 0,14 kW
weight: 30 kg
dimensions (WxDxH): 440x380x440 mm
working bowl capacity: 10 l.
working bowl inside diameter: 310 mm

W8
round vibratory machine

supply: 230 V; 50 Hz
power: 0,37 kW
weight: 70 kg
dimensions (WxDxH): 420x340x690 mm
working bowl capacity: 8 l.
working bowl inside diameter: 280 mm

W15
round vibratory machine

supply: 230 V; 50 Hz
power: 0,49 kW
weight: 121 kg
dimensions (WxDxH): 500x590x890 mm
working bowl capacity: 15 l.
working bowl inside diameter: 360 mm

W50
round vibratory machine

supply: 230 V; 50 Hz
power: 0,61 kW
weight: 195 kg
dimensions (WxDxH): 770x660x1150 mm
working bowl capacity: 50 l.
working bowl inside diameter: 560 mm

W100
round vibratory machine

supply: 230 V; 50 Hz
power: 0,7 kW
weight: 260 kg
dimensions (WxDxH): 960x900x1180 mm
working bowl capacity: 100 l.
working bowl inside diameter: 772 mm

Round Vibratory Machine W100
Watch a video presenting
the work of the machine
on YouTube

CEROFIN

WET PROCESS FOR MIRROR SHINE

Watch a video about CEROFIN on YouTube

stage 01

/3-4h/ grinding

+ 

+ 

DISC FINISHING MACHINE

stage 02

/16h/ smoothing

+ 

+ 

+ 

ROUND VIBRATORY MACHINE

stage 03

/3-4h/ polishing

+ 

+ 

ROUND VIBRATORY MACHINE

CENTRIFUGAL DRYERS

Centrifugal dryers are 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 of the rotating drum**. Additional protection against damage of the workpieces is provided by gentle start and smooth engine braking after the process. Centrifugal dryers incorporate 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 within 3-5 minutes with loading weight of 4-5 kg.**

CD5
centrifugal dryer

supply: 230 V; 50 Hz
power: 1 kW
weight: 42 kg
dimensions (WxDxH): 470x400x580 mm
temperature range: 35-80°C
timer range: 1-60 min
working chamber: fi 180x120 mm

CD10
centrifugal dryer

supply: 230 V; 50 Hz
power: 2,75 kW
weight: 90 kg
dimensions (WxDxH): 580x430x900 mm
temperature range: 35-80°C
timer range: 1-60 min
working chamber: fi 280x160 mm

CD25
centrifugal dryer

supply: 3x400 V; 50 Hz
power: 5,3 kW
weight: 190 kg
dimensions (WxDxH): 710x680x1050 mm
temperature range: 20-80°C
timer range: 1-60 min
working chamber: fi 380x250 mm

POLISHING
BENCHES

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.

PS1NF
polishing bench

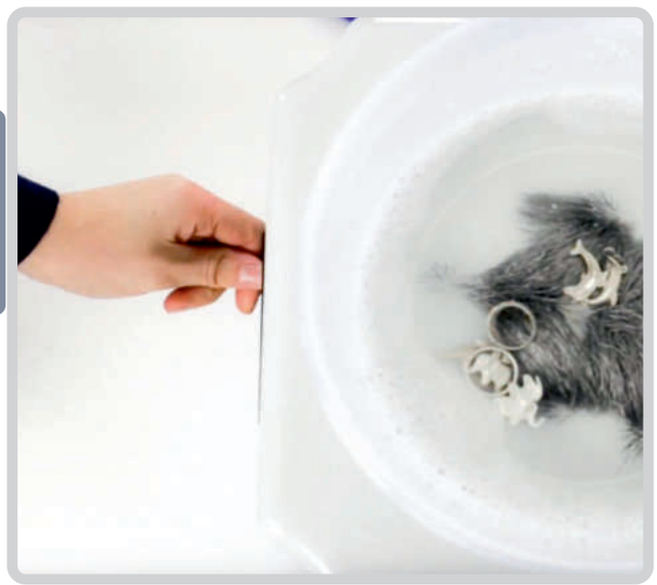
supply: 230 V; 50 Hz
power: 0,62 kW
weight: 56 kg
dimensions (WxDxH): 590x700x760 mm
speed: 1000-3000 rpm
LED lighting: 12 V; 20 W
extractor capacity: 920 m3/h

PS2F
polishing bench

supply: 230 V, 50-60 Hz
power: 0,74 kW
weight: 116 kg
dimensions (WxDxH): 1100x780x1550 mm
speed: 2800 rpm
halogen lighting: 12 V; 20 W
extractor capacity: 1250 m3/h

PS1F
polishing bench

supply: 230 V; 50 Hz
power: 0,74 kW
weight: 108 kg
dimensions (WxDxH): 1400x800x1350 mm
speed: 2800 rpm
LED lighting: 12 V; 20 W
extractor capacity: 1250 m3/h



MAGNETIC
FINISHERS

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 finishers are suitable **for pre-processing of silver and gold workpieces**. Oxidation from previous processes can be easily removed.
Speed regulation and automatic rotation inversion are optional. Included magnetic bar is used for separating magnetic pins from workpieces.

Watch the work of magnetic finisher in CEROFIN process on YouTube

PM 200
magnetic finisher

supply: 230 V; 50 Hz
power: 2,25 kW
weight: 14 kg
dimensions (WxDxH): 300x300x320 mm
media: stainelss steel pins 60g

PM 200S
magnetic finisher

supply: 230 V; 50 Hz
power: 0,29 kW
weight: 14 kg
dimensions (WxDxH): 300x300x320 mm
media: stainelss steel pins 60g

PM 500
magnetic finisher

supply: 230 V; 50 Hz
power: 0,37 kW
weight: 23 kg
dimensions (WxDxH): 270x330x360 mm
media: stainelss steel pins 100g

WASTEWATER
TREATMENT

Watch a presentation about
Cascade System K6/250
on YouTube

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.

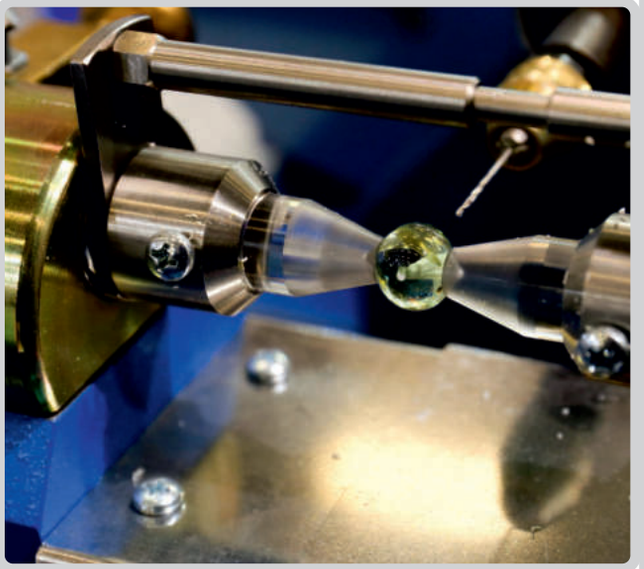
The wastewater treatment system consists of two modules: of highly effective container for rough water treatment and of vertical cascade system. The role of rough treatment is capturing bigger particles and slime from the wastewater. After the initial filtration process the water is pumped to the cascade, 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.

Introducing the technology of recycling water is beneficial for ecological, economic and legal reasons.

K6/250
cascade system

supply: 230 V; 50 Hz
power: 0,4 kW
weight: 84 kg
dimensions (WxDxH): 1170x990x1540 mm
total capacity: 250 l.

MACHINES
FOR AMBER



Set of machines for amber processing is an efficient solution for stone processing factories. **Creating of multiple shapes or drilling** becomes 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.

For more details
chceck our wesite:

BASE WITH PUMP PBM

SAWING MACHINE P2

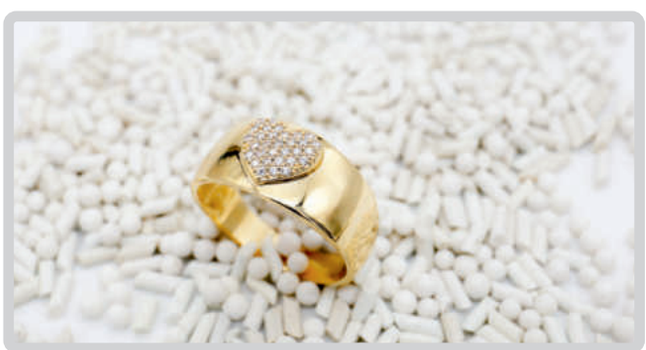
DRILLING MACHINE WK1

CABOUCHON GRINDING MACHINE SK2

BALL SIZING MACHINE SKU

CYLINDRICAL GRINDING MACHINE SZK

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.

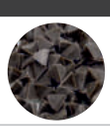
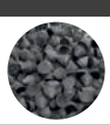
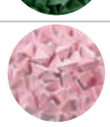
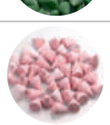
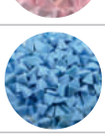
Supporting compounds are added to abrasive media in wet process. Additives in the compound help to clean, brighten and passivate workpieces.

PORCELAIN CHIPS

TYPE		SYMBOL	SIZE in mm
pin		2x5 CMG/CMP*	2x5
		2x8 CMG/CMP	2x8
		3x10 CMG/CMP	3x10
		6x15 CMG/CMP	6x15
ball		fi 1,0 CMG/CMP	fi 1,0
		fi 1,5 CMG/CMP	fi 1,5
		fi 3 CMG/CMP	fi 3
		fi 4 CMG/CMP	fi 4
		fi 5 CMG/CMP	fi 5
mix		CMG/CMP	mix

***CMG** - smoothing process, **CMP** - polishing process*

PLASTIC CHIPS

		PYRAMID (PP)	CONE (PS)	SIZE in mm
01	black			10x10
02	green			10x10 15x15 20x20
03	pink			PS 14x14 PP 18x18
05	blue			10x10
06	white			10x10
A1	brown	X		15x15
A6	pink	X		15x15

COMPOUNDS AND POWDERS

SYMBOL	PURPOSE/ APPLICATION	SYMBOL	PUROPOSE/ APPLICATION
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	GP20 POWDER	smoothing silver in CEROFIN
A1	pickling silver (CEROFIN)	GP10 POWDER	smoothing gold in CEROFIN

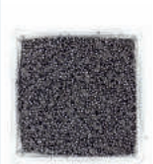
WALNUT SHELLS, PASTES

TYPE		SYMBOL	SIZE in mm
walnut shell		H-1/050	2,4-4,0
		H-1/100	1,7-2,4
		H-1/400	0,4-0,8
		H-1-500	0,2-,04
paste		PA-2 grinding	-
		PA-1 polishing	-

STAINLESS STEEL SHOTS

TYPE		SIZE in mm
statellite		2x3
		3x4
		6x4
ball		fi 1,0
		fi 2
		fi 2,4
		fi 2,7
		fi 3,2
mix		mix

ZIRCON BEADS

TYPE		SIZE in mm
yellow		1,8-2
black		1,8-2

We help you shine.

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