



The SAPORITI PV500 series is supplied with suitable anti-vibration supports to be easily placed on standard good industrial floors without any foundations works. The filters can be placed on floors in position defined with the Customer.

On the CNC Siemens 840 there are some customized masks for the dialog with the operator. These masks help the operator in the ball grinding procedure and in the centring between ball and tool holding wheel. These masks are available in all language supported by the CNC to speed up the operator work.



SAPORITI Company cooperate with our Customer to found the best solution for their work type needs, their ball special features, their particular coating materials and their customization.

We design and manufacture our machines in Italy. Our technicians tests and install the machines in Customer plans and support customer staff by training them.

Our machines can be supplied with an Accuracy Certificate issued by a third party as Stanimuc.

We are very proud to have in our reference list the most important valve manufacturers in Italy and overseas.



SAPORITI
MACHINES

Our Experience Your Success



BALL VALVE GRINDING MACHINES SAPORITI PV500XD

For Outer Diameters up to 595 mm (16")

The grinding machines for valves balls series **SAPORITI PV500** allow the high precision grinding of balls in all kind of steel and/or hard coating as: carbide, CBN, stellite, ceramics, nickel boron alloys...

The innovative design has been studied to make easier for the operator view the ball grinding process and the operations of workpieces and tools load/unload. The great machine rigidity matches perfectly with the requirement to perfectly grind balls with a hole in the middle without vibrations.



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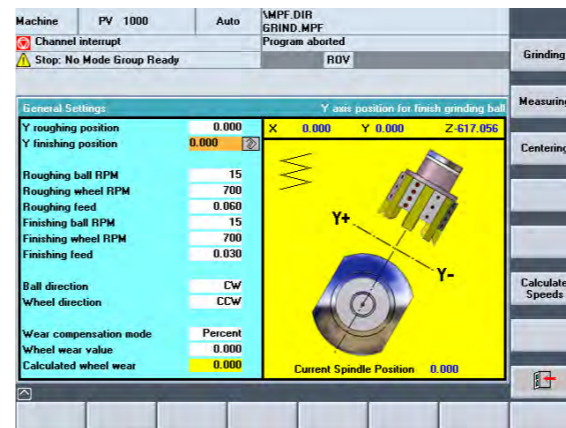
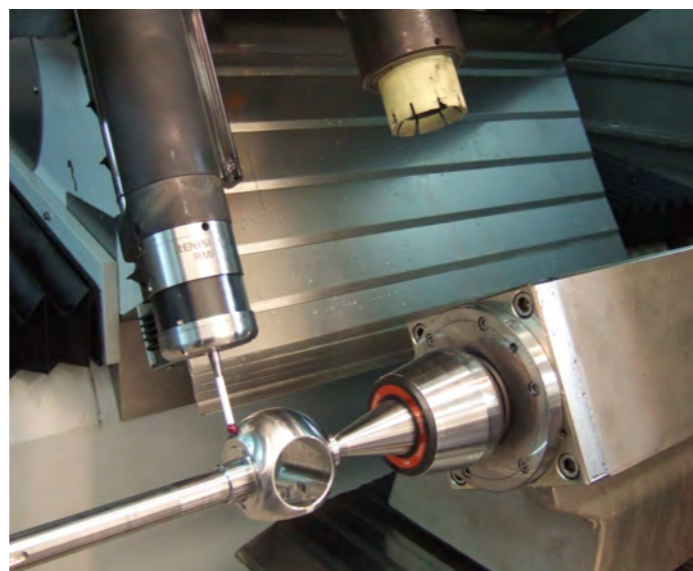


The SAPORITI PV500 can grind balls with an Outer Diameter up to 495 mm. The version PV500XD up to 595 mm. These machines are completely close by stainless steel protections with a door with wide safety glass window. The grinding carriage is 60° inclined to allow the best view of the working area and the flow out of the coolant and grinding powders.

These machines are on high precision roller sliders assuring the longest machine life time and the highest accuracy in order to obtain the workpiece best roundness and roughness.

The spindle motors in use are latest generation water chilled sealed motor for the best efficiency and to reduce noise and breakages due to possible internal dust. Relevant torque motors on the workpiece headstocks.

All the machines have a Renishaw probe which, by moving Z and Y controlled axis, allow to set the perfect centring between the ball and the grinding tool.

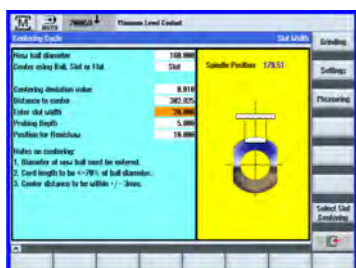


The ball valve grinding machines PV500 have the positioning Y vertical axis of the grinding head. This axis allow to make micro movements CNC controlled, with a maximum stroke of ± 1 mm for the perfect alignment between the grinding wheel and the ball centre. This extremely important feature allow to obtain the best accuracy during the working process. In fact roundness accuracy better than 0.01 mm and roughness better than Ra 0.2 μ can be easily reach.

ZEISS Calypso					
Measurement Plan 151313	Date April 11, 2008	Order " order "	ZEISS		
Drawing No. " drawingno "	Time 11:18:10 am	Operator Master	Incremental Part Number 2		
	Actual	Nominal	Upper Tol.	Lower Tol.	Deviation
Diameter_Sphere1 123.6275	123.6275	123.6000	0.2000	-0.2000	0.0275
Roundness1 0.0068	0.0068	0.0000	0.0000		0.0068
Concentricity1 0.3614	0.3614	0.0000	0.0000		0.3614



The bed of PV500 machines is a monolithic electro-welded steel structure with some stainless steel coating to avoid the rust problem typical of grinding machines. There are a 3000 litres filter for the coolant and a separate filter for working vapours.



Important feature of the grinder PV500 are the tool holders wheels as these parts can be realize in two types, they can be with fixed dimension or with adjustable jaws to cover a wide range of diameters without remove the holder from the machine. On these holders can be mounted either grinding pads for steel balls either diamond disc to work



The tool holders wheels have hydraulic nose HSK A 100 or 125 (optional) for rapid tool changing. They are supplied with a suitable arm to hold them in an inclined position for the easy interchanging on the machine grinding spindle where there is an hydraulic tool clamping. Grinding wheel changing is fast and easy.