

# Manual Grinder/Polisher

F-M1/FR-M1

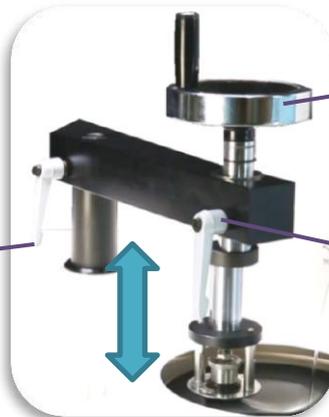




### Instruction



Operation video



**Assistant handle**  
Rotate to grinding and polishing

**Handle lock**  
Handle height can be adjusted

**Handle lock**  
Both left and right position can be used

**Patent grinding plate**  
Fix silicon carbide paper easy and quickly

**Dual plate design**  
Head easy to swing both sides. Separate polish/grinding to enhance preparation efficiency.



**Rotational direction**  
Plate can rotate in both Clockwise/anti-clockwise

**Aluminum polishing platen**  
Fix polishing cloth easy and quickly



**Variable rotational speed**  
Adjust the speed according to different sample material

**High efficiency motor**  
Low rotational speed with high torque ensure precision

**Digital rotational speed display**  
Specific speed can be read



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Features

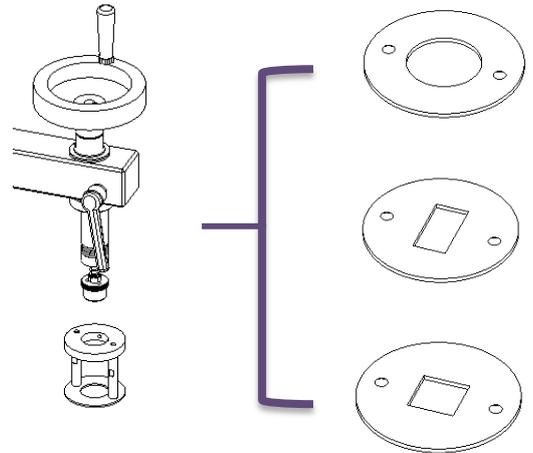
P20F0027  
Dispenser  
one bottle type



P20F0028  
Dispenser  
four bottle type



Option



Please consult  
Appendix 1 and Appendix 2

Spec.	Order no.
Ø203.2	D321.001
Ø254	D322.001
Ø304	D323.001



Patent grinding plate

or



Polishing platen

Spec.	Order no.
Ø203.2	P20D00020101
Ø254	P25A00010201
Ø304	P30E010503



Patent magnetic  
platen set

Option



Anti-splash cover  
Light and beauty



Quick connector  
Main power switch  
Built-in fuse wire devices

Spec.	Order no.
Ø203.2	CP0501
Ø254	CP0502
Ø304	CP0503



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## Worthy Options - Working Table



### Working Table

Multifunctional working table, it supplies you a place to put your machine and store your accessories. It can be moved easily.

Model No.	TF01	TF02
Size	1000*800*700 mm	1200*1000*700 mm
Sample		



## Specifications

Model No.	F-M1			FR-M1		
Platen dia. (mm)	Ø203.2mm(8")	Ø254mm(10")	Ø304.8mm(12")	Ø203.2mm(8")	Ø254mm(10")	Ø304.8mm(12")
Platen qty.	1			2		
Operation method	Manual			Automatic		
Sample size	Ø20/Ø25/Ø30 mm (Appendix 1)			Ø20/Ø25/Ø30 mm (Appendix 1)		
	Ø40/Ø50 mm (Appendix 2)			Ø40/Ø50 mm (Appendix 2)		
Noise Level (idling)	47~53dB	49~55dB	52~57dB	50~55dB	52~58dB	54~59dB
Motor power	250W			250W		
Rotational speed	50~600rpm (Special speed can customized)			50~600rpm (Special speed can customized)		
Coolant system	1 set			2 set		
Machine type	Table-top			Table-top		
Machine weight	41Kg			58Kg		
Dimension (WxDxH)	45x65x60cm			75x69x64cm		
Water inlet pipe	10mm pipes (inner dia.Ø10mm – Outer dia.Ø15mm)					
Water outlet pipe	26mm pipes (inner dia.Ø26mm – Outer dia.Ø30mm)			32mm pipes (inner dia.Ø32mm – Outer dia.Ø36mm)		
Power supply	AC110V/220V-1 Ø			AC110V/220V-1Ø		
Standard accessories	Grinding plate 1pc	O-ring 1pc		Grinding plate 1pc	O-ring 1pc	
	Anti-splash cover 1pc	Silicon carbide papers 8pc		Polishing 1pc	Anti-splash cover 2pc	
	Abrasive polishing clothe 2pc	Aluminum oxide powder 100g		Silicon carbide papers 8pc	Abrasive polishing clothe 2pc	
	500g dispenser 1pc	-		Aluminum oxide powder 100g	500g dispenser 1pc	

We reserve the right of changing design without notice



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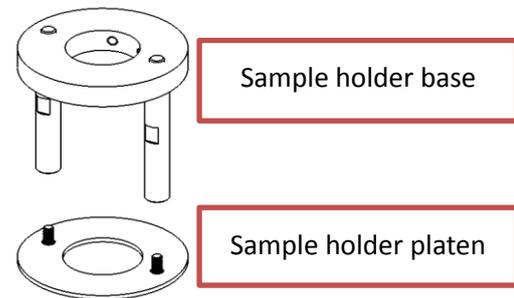
Option

Appendix 1 、 Sample holder set

<p>P20K0021A Sample holder (20x20mm)</p>	<p>P20K0021B Sample holder (30x30mm)</p>	<p>P20K0021C Sample holder (30x15mm)</p>
<p>P20K0021D Sample holder (25mm)</p>	<p>P20K0021E Sample holder (31.75mm)</p>	<p>P20K0021 Sample holder (32mm)</p>

Appendix 2 、 Sample holder set

<p>P20K0022 Sample holder (40mm)</p>	<p>P20K0023 Sample holder (50mm)</p>



Remark: (Appendix 1) and (Appendix 1).

Specific sample holder platen can only use with Specific sample holder base.



## Consumables

	Model	Spec.	Materials
Grinding	Platinum diamond discs	No.1 、 No.2 No.3 、 No.4	The discs are suitable to grind a wide range of ferrous metal as well as copper and other metals.
	Silicon carbide papers (PSA backed)	#60~#2000	Made in Taiwan (Good values for money) Made in USA (Perfect quality)
	Silicon carbide papers (Plain backed)	#180~#2000	Made in Taiwan (Good values for money) Made in USA (Perfect quality)
Polishing (Diamond)	Poly-crystalline suspension	1 $\mu$ m 、 3 $\mu$ m 、 6 $\mu$ m 、 9 $\mu$ m 、 15 $\mu$ m	Diamond is the best way for the grinding to obtain a perfect surface in the short time.
	Bio Diamante Poly-crystalline suspension	1 $\mu$ m 、 3 $\mu$ m 6 $\mu$ m 、 9 $\mu$ m	Bio Diamante series, which is with higher viscosity and useless consumption during grinding. The liquid to stay a long time on the surface of sample, it is suitable for low usage.
	Mono-crystalline suspension	0.5 $\mu$ m 、 1 $\mu$ m 、 3 $\mu$ m 6 $\mu$ m 、 9 $\mu$ m 、 15 $\mu$ m	Diamond is the best way for the grinding to obtain a perfect surface in the short time.
	Bio Diamante Poly-crystalline suspension	1 $\mu$ m 、 3 $\mu$ m 6 $\mu$ m 、 9 $\mu$ m	Bio Diamante series, which is with higher viscosity and useless consumption during grinding. The liquid to stay a long time on the surface of sample, it is suitable for low usage.
	Diamond paste	1 $\mu$ m 、 3 $\mu$ m 6 $\mu$ m 、 9 $\mu$ m	Use before diamond suspension It content higher percentage of diamond and offer better abrasive ability than suspension
Polishing (Oxide)	Aluminum oxide powder	0.05 $\mu$ m 、 0.3 $\mu$ m 1 $\mu$ m 、 3 $\mu$ m 、 5 $\mu$ m	The soft, toughness specimens like aluminum, copper or PCB board are requested to do the final polishing by oxide particles to get perfect results.
	Final polishing suspension	0.05 $\mu$ m 、 colloidal solution	Aluminum oxide is suitable for the application of low alloy steel, high alloy steel and plastic material.
Polishing	Polishing cloth	Rough polishing 、 fine polishing	The initial polishing is usually conducted with short hair polishing cloth, and the long-hair polishing cloth is used at the step of final polishing.

**Remark: Welcome to get the more detail information of consumables in the follow link**

<http://toptech.synology.me/Consumables/PolisherEN.pdf>





*Perfect Surface.  
Always*

**Cutting / Mounting / Grinding & Polishing / Spin Coater**

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Agent



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