# **Punch Former**

## **Grinding Accessories**



# A01-A62

## INDEX

### **Precision Punch Formers (Stainless)**



50010 A01



50020 A02



50030 A03



50030-00 A05



50030-01 A06



50030-02 A07



50030-03/04/05 A08



50030-07 A09



50030-08 A09



50030-09 A10



50030-10 A10



50050 A11



50050-00 A13



50050-01 A14



50050-02 A15



50050-03/04/05 A16



50060 A17



50070 A18



50080 A19



50085 A20



50090 A21



50095 A22

#### A23~35

#### **Precision Punch Formers**



50300 A23



50350 A24



50500 A25



50550 A26



50600 A27



50700 A29



50750 A30



50800 A31



50850 A32

















#### A36~46

### **Precision Punch Formers**



51100 A36



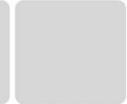
51150 A37

51160 A38













51250 A41



































## **Radius Wheel Dressers**







52200 A48



























## **INDEX**

### A55~61

### >>> Flanges



52554 A55



52556 A55



52558 A55



52560 A56



52562 A56



52564 A56



52566 A57



52568 A57



52570 A57



52572 A58



52574 A58



52576 A58



52578 A59



52580 A59



52582 A59



52584 A60



52586 A60



52588 A60



52590 A61



52592 A61



52594 A61





#### A62

### **Wheel Balancing Stand**



52596 A62



52598 A62























#### PFH350

#### **Precision Punch Former**





Note: V-block is made of SKD11 in order to enhance hardness



- V block is adjustable for calibration even when small workpiece is clamped.
- Two clamp plates on both side of V block helps the consistent movement.
- Release the screw when make adjustable and lock with slight force.

Precisely ground screw rod for fine-tuning of V-block vertical movement.



#### Punch forming applications

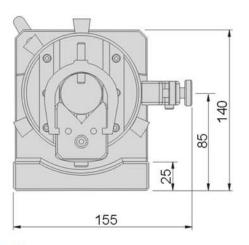


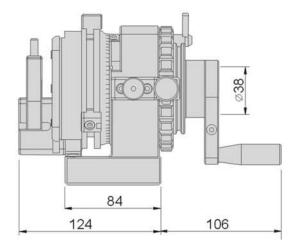


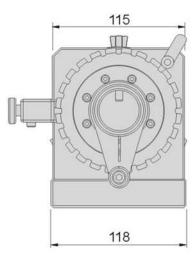


- Suitable for grinding and EDM machines.
- Compact and durable structure with through hole design which makes it capable of forming various shapes of punches as well as electrode.
- Stopper design for fast positioning polygonal punchese.
- Fine-tuning for vertical movement of V-block, easy for clamping workpiece and center calibration.
- Adopting high precision double bearings to achieve higher stability and accuracy, it also makes longer lifecycle.
- Made of stainless steel, rustless & maintenance easy.

Center height ······	$85\pm0.5\text{mm}$
Clamping dia. range of V-block ·······	·· Ø 3~38mm
Travel of V-block ·····	30mm
Indexer tooth q'ty & accuracy ······	· 24,15°±5"
Clamping accuracy (50mm) ······	···· 0.005mm
Through hole diameters	ø36mm



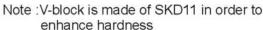




#### PFH450

#### **Precision Punch Former**







- V block is adjustable for calibration even when small workpiece is clamped.
- Two clamp plates on both side of V block helps the consistent movement.
- Release the screw when make adjustable and lock with slight force.

#### Features:



- Suitable for grinding and EDM machines.
- Compact and durable structure which makes it capable of forming various shapes of punches as well as electrode.
- With slide plate horizontal movement, it can make eccentric radius punches.

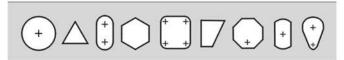
Stopper design for fast positioning polygonal punchese.

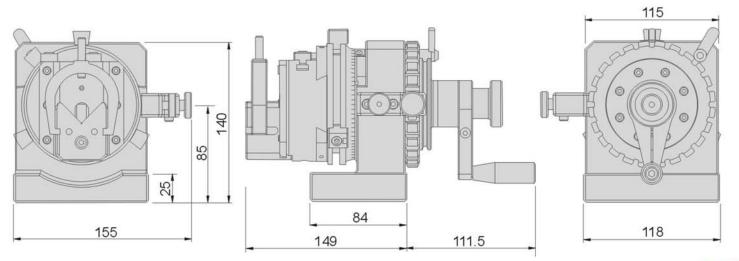
- Fine-tuning for vertical movement of V-block, easy for clamping workpiece and center calibration.
- Adopting high precision double bearings to achieve higher stability and accuracy, it also makes longer lifecycle.
- Made of stainless steel, rustless & maintenance easy.

#### Main parameters:

Center height ·····	$85 \pm 0.5$ mm
Clamping dia. range of V-block ······	Ø 3~38mm
Travel of V-block ·····	38mm
Indexer tooth q'ty & accuracy	24,15°±5"
Clamping accuracy (50mm) ·····	·· 0.005mm
Slide plate horiztonal movement	±18mm

#### **Punch forming applications**

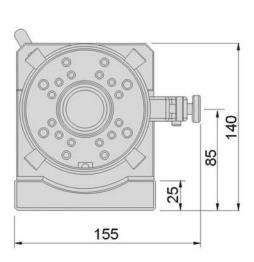


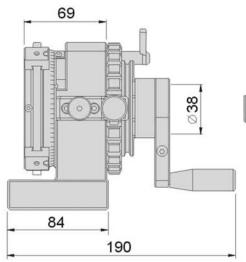


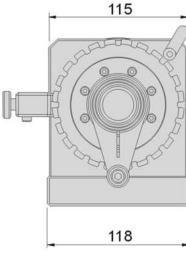




- Suitable for grinding and EDM machines.
- Compact and durable structure with through hole design which makes it capable of forming various shapes of punches.
- Adopting high precision double bearings to achieve higher stability and accuracy, it also makes longer lifecycle.
- Modulisation with various components (See page A04) to achieve cost effect effectiveness.
- Made of stainless steel, rustless & maintenance easy.







Order No.	Model	N.W.
50030	PFH**	7.8kg
50035-00	SC40	2.2kg
50035-01	SC04	1.0kg
50035-02	SC05	7.0kg
50035-03	SER20*	0.48kg
50035-04	SER32*	0.51kg
50035-05	SER50*	0.55kg
50035-07	3R24	0.6kg
50035-08	3R28	1.0kg
50035-09	EQC50	0.6kg
50035-10	EQC100	2.0kg

#### \*\*Body only

### Features:





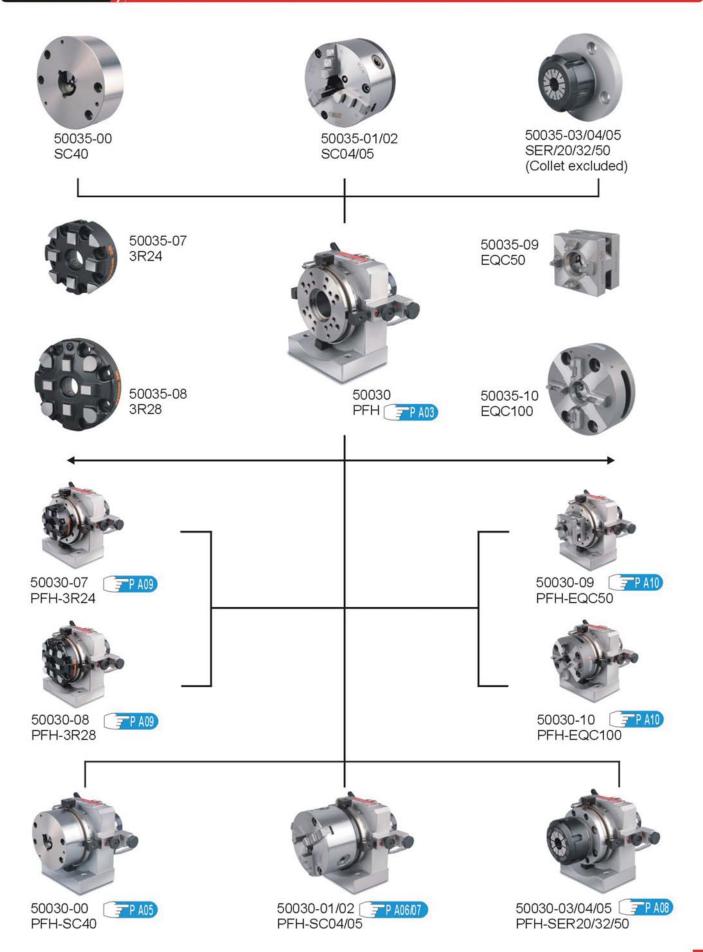
- Strong clamping force
- Various clamping size
- Flexible, fast and convenient
- Unique design with special surface treatment, longer lifecycle

Modularise components (see next page for more info.)

<sup>\*</sup>Collet excluded

## 50035

### **Modularise Components for PFH & EPF**



#### **Super Precision 3-Jaws Punch Former**





Note: Apply Torque Wrench at all time, due to SC40 3-Jaw Chuck has high precision structure design, avoiding any possible damage.

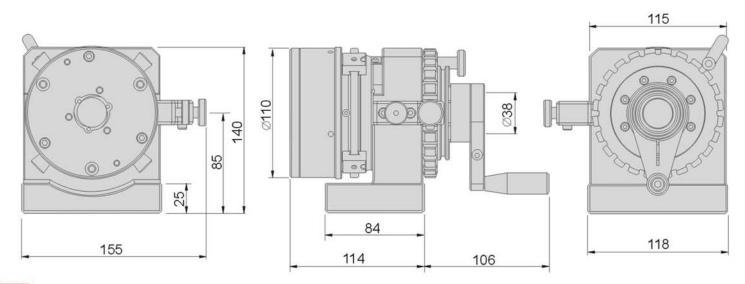
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#### Features:



- ► PFH-SC40 is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- Special designed SC40 3-Jaw Chuck provide rapid clamping and it suitable for mass production,, workpiece with round shaped can precisely & rapidly clamped.
- Torgue wrench included for precision performance
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.

Center height · · · · · 85 ± 0.5mm
Indexer tooth q'ty & accuracy 24,15°±5"
Through hole diameters Ø 25mm
Hole dia. of 3-Jaw Chuck · · · · · Ø 25mm
Min. clamping range Ø1mm
Max. clamping range · · · · · Ø 25mm
Rotational accuracy ····· 0.003mm
Repeat accuracy ····· within 0.003mm



## 50030-01 PFH-SC04 Precision 3-Jaws Punch Former





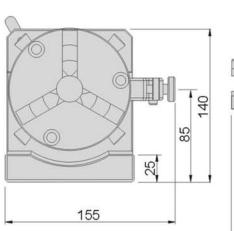
Note: SC04 is made of FCD45 material.

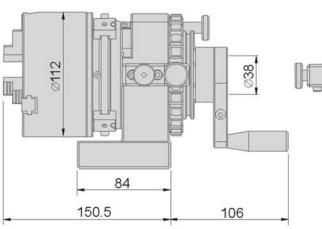


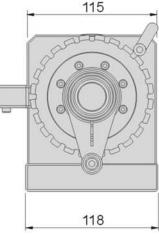
#### Features:

- PFH-SC04 is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- SC043-Jaw Chuck provide rapid clamping and it suitable for mass production, workpiece with round shaped can precisely & rapidly clamped.
- Let use to accumulated tolerance when clamping different sizes of workpieces, special design in adjustment for user own application.
- Jaw attachment can clamp workpeice with larger diameters.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.

Center height	85 ± 0.5mm
Indexer tooth q'ty & ac	curacy 24,15°±5"
	rs Ø 32mm
Hole dia. of 3-Jaw Chu	ıck
Min. clamping range	O.D.Ø3mm, I.D.Ø32mm
Max. clamping range	O.D. Ø90mm, I.D. Ø84mm
Rotational accuracy	0.003mm
Repeat accuracy ······	0.015mm







#### PFH-SC05

#### **Precision 3-Jaws Punch Former**





N.W. 14.8kg

Note: SC04 is made of FCD45 material.

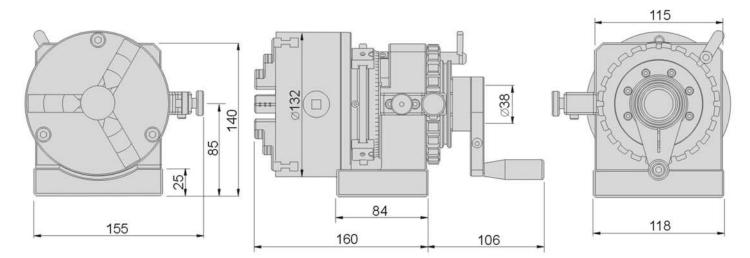
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#### Features:



- PFH-SC05 is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- SC05 3-Jaw Chuck provide rapid clamping and it suitable for mass production, workpiece with round shaped can precisely & rapidly clamped.
- Due to accumulated tolerance when clamping different sizes of workpieces, special design in adjustment for user own application.
- Jaw attachment can clamp workpeice with larger diameters.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.

#### Main parameters:

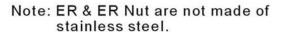


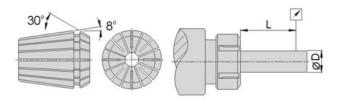
### 50030-03/04/05

### PFH-SER

### **Precision ER Collet Punch Former**







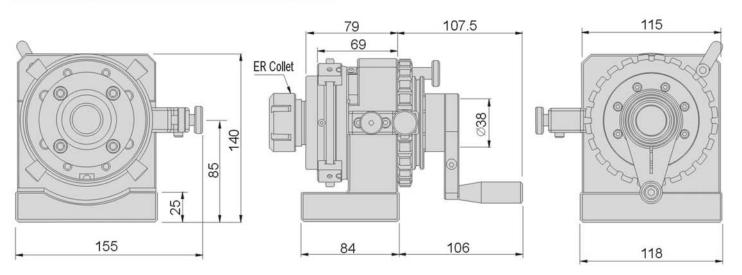
L	D	Accuracy
6	1.0-1.6	0.01
10	1.6-3.0	0.01
16	3.0-7.0	0.01
25	7.0-10.0	0.01
40	10.0-18.0	0.01
50	18.0-24.0	0.01
60	24.0-34.0	0.01

#### Features:



- PFH-SER is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- With ER collets, the flexible range of collet is 1mm.
- Capable collet clamping range: Min. Ø2mm, Max. Ø34mm
- PFH-SER can rapidly clamp the workpiece and achieving higher stability during processing, no need to adjust the center accuracy.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.
- ► This model is compatible with various ER collets such as ER20, ER32, ER50 etc...

Center height 85 ± 0.5mm
Indexer tooth q'ty & accuracy 24,15°±5"
Through hole diameters · · · · · Ø 36mm
Rotational accuracy 0.003mm



Order No.	Model	ER Collet spec.	N.W.
50030-03	PFH-SER20	3, 4, 6, 8, 10	8.3kg
50030-04	PFH-SER32	4, 8, 12, 16, 20	8.3kg
50030-05	PFH-SER50	12, 18, 20, 30, 34	8.4kg

#### PFH-3R

### **Precision 3R Punch Former**





PAT:M421169 ZL 2010 2 0190858.6



#### Features:

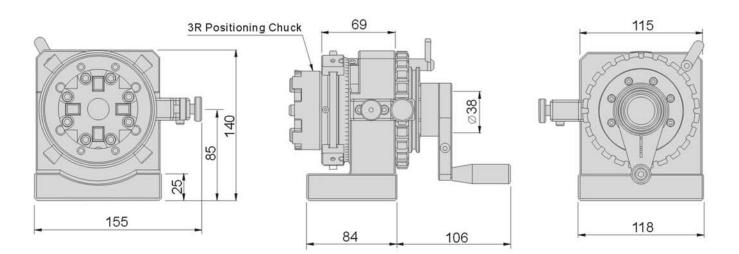
- ► PFH-3R is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- With interchangeable design, components can be chosen according to users' demand.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.
- This model also works with EROWA Positioning Chuck to achieve modulisation.

#### Main parameters:

Center height · · · · · 8	$5 \pm 0.5$ mm
Indexer tooth q'ty & accuracy	24 <b>、</b> 15°±5"
Rotational accuracy ······	0.003mm
Repeat accuracy ······	0.003mm



PFH-3R28



Order No.	Model	Positioning Chuck spec	N.W.
50030-07	PFH-3R24	3R24	8.4kg
50030-08	PFH-3R28	3R28	8.8kg



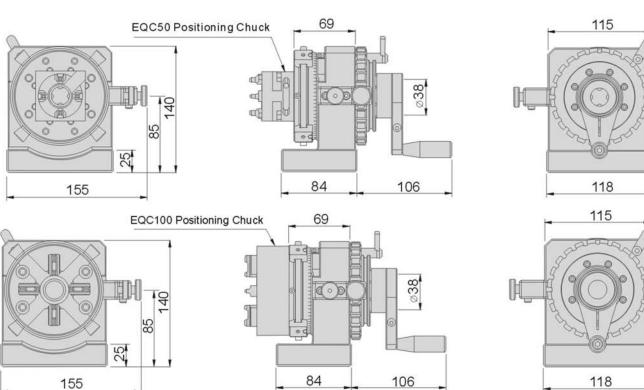




- PFH-EQC is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- With interchangeable design, components can be chosen according to users' demand.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.
- This model also works with System 3R Positioning Chuck to achieve modulisation.

Center height ·····	85 ± 0.5mm
Indexer tooth q'ty & accuracy	24,15°±5"
Rotational accuracy ······	0.003mm
Repeat accuracy	0.003mm





Order No.	Model	Positioning Chuck spec	N.W.
50030-09	PFH-EQC50	EQC50	8.4kg
50030-10	PFH-EQC100	EQC100	9.8kg





N.W. 24kg

#### Features:

- PFHM is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- Motorised function prevent human fatigue when processing.
- With interchangeable design, components can be chosen according to users' demand such as SC40, SC04, SC05 3-Jaw Chuck, ER20, ER32, ER50 collets.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.
- Depending on any demands in processing, optional accessories in 50035 page A12 are available to achieve cost effective.



116.3 270 81.3 80.9 81.3 81.3 81.3 80.9 

Order No.	Model	Voltage	N.W.
50050-110	DELIM	110V	0.41
50050-220	PFHM	220V	24kg
50050-00-110	DELIN 0040	110V	
50050-00-220	PFHM-SC40	220V	31kg
50050-01-110	DELIM COOA	110V	051
50050-01-220	PFHM-SC04	220V	25kg
50050-02-110	DELIM COOF	110V	0.4 51
50050-02-220	PFHM-SC05	220V	31.5kg
50050-03-110	DELIM CEDOO	110V	0.4.01
50050-03-220	PFHM-SER20	220V	24.9kg
50050-04-110	DELIM CEDAO	110V	0.4.01
50050-04-220	PFHM-SER32	220V	24.8kg
50050-05-110	DELIM CEDEO	110V	05.71
50050-05-220	PFHM-SER50	220V	25.7kg



#### Features:

- Modulisation
- High rigidity, accuracy and stability
- Strong clamping force
- Various clamping size
- Flexible, fast and convenient
- Unique design with special surface treatment, longer lifecycle

Interchangeable components (see next page for more information)

### PFHM >

## Motorised Multi-Flex Punch Former - Body only









50035-01/02 SC04/05



50035-03/04/05 SER20/32/50 (Collet excluded)





50050-00 PFHM-SC40

F P A13



P 14/15 50050-01/02 PFHM-SC04/05



50050-03/04/05 PA16 PFHM-SER20/32/50









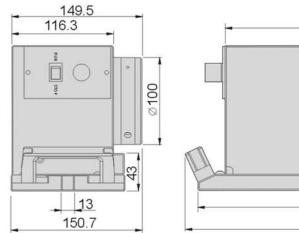
Note: Apply Torque Wrench at all time, due to SC40 3-Jaw Chuck has high precision structure design, avoiding any possible damage.

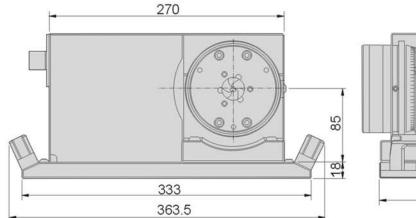
#### Features:

- ▶ PFHM-SC40 is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- Special designed SC40 Precision 3-Jaw Chuck provide rapid clamping and it suitable for mass production, workpiece with round shaped can precisely & rapidly clamped.
- Motorised function prevent human fatigue when processing.
- Torgue wrench is included for precision performance
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.

#### Main parameters:

Center height · · · · · 85 ±	0.5mm
Through hole diameters · · · · · · · · · · · · · · · · · · ·	36mm
Hole dia. of 3-Jaw Chuck · · · · · · Ø	25mm
Motor: 110V/60Hz 50~55	50RPM
Motor: 220V/50Hz 50~55	50RPM
Min. clamping range ······	ø1mm
Max. clamping range ···················	25mm
Rotational accuracy 0.0	003mm
Repeat accuracy 0.0	003mm





	166.8
131	

81.3

Order No.	Model	Chuck Spec.	Voltage	N.W.
50050-00-110	PFHM-SC40	SC40	110V	31kg
50050-00-220		3040	220V	31kg

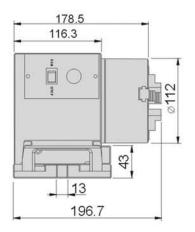


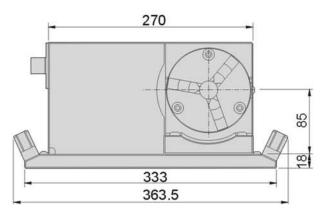
Note: Apply Torque Wrench at all time, due to SC04 3-Jaw Chuck has high precision structure design, avoiding any possible damage.

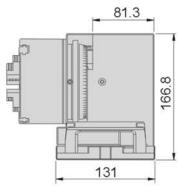
#### Features:

- ► PFHM-SC04 is adopting quality stainless steel with waterpro of and stronger structure leading lasting durability.
- Special designed SC04 Precision 3-Jaw Chuck provide rapid clamping and it suitable for mass production, workpiece with round shaped can precisely & rapidly clamped.
- Motorised function prevent human fatigue when processing.
- Further attachment Jaw provides capability of clamping larger workpeice.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.

Center height $\cdots 85 \pm 0.5$ mm
Through hole diameters Ø 36mm
Hole dia. of 3-Jaw Chuck · · · · · Ø 32mm
Min. clamping range O.D. Ø3mm, I.D. Ø32mm
Max. clamping range O.D. Ø 3mm, I.D. Ø 4mm
Motor: 110V/60Hz 50~550RPM
Motor: 220V/50Hz 50~550RPM
Rotational accuracy 0.003mm
Repeat accuracy 0.015mm







Order No.	Model	Chuck Spec.	Voltage	N.W.
50050-01-110	PFHM-SC04	SC04	110V	25kg
50050-01-220			220V	25kg





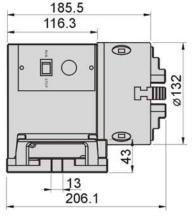


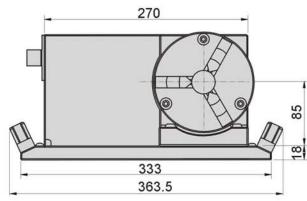
Note: Apply Torque Wrench at all time, due to SC05 3-Jaw Chuck has high precision structure design, avoiding any possible damage.

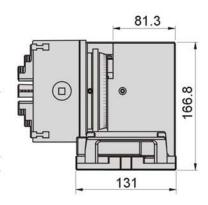
#### Features:

- PFHM-SC05 is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- Special designed SC05 Precision 3-Jaw Chuck provide rapid clamping and it suitable for mass production, workpiece with round shaped can precisely & rapidly clamped.
- Motorised function prevent human fatigue when processing.
- Further attachment Jaw provides capability of clamping larger workpeice.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.

Center height	····· 85 ± 0.5mm
Through hole diameters	∅ 36mm
Hole dia. of 3-Jaw Chuc	k····· ∅ 32mm
Min. clamping range	O.D.Ø3mm,I.D.Ø32mm
Max. clamping range	O.D.Ø3mm,I.D.Ø84mm
Motor: 110V/60Hz	50~550RPM
Motor: 220V/50Hz	50~550RPM
Rotational accuracy	0.003mm
Repeat accuracy	0.015mm





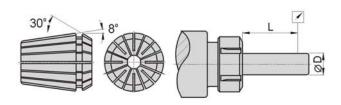


Order No.	Model	Chuck Spec.	Voltage	N.W.
50050-02-110	PFHM-SC05	M-SC05 SC05	110V	31.5kg
50050-02-220		3003	220V	31.5kg





Note: ER & ER Nut are not made of stainless steel.

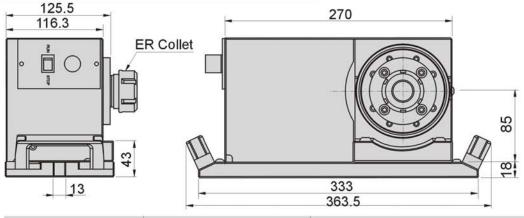


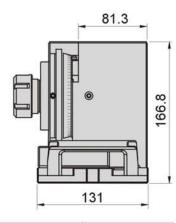
L	D	Accuracy
6	1.0-1.6	0.01
10	1.6-3.0	0.01
16	3.0-7.0	0.01
25	7.0-10.0	0.01
40	10.0-18.0	0.01
50	18.0-24.0	0.01
60	24.0-34.0	0.01



- ► PFHM-SER is adopting quality stainless steel with waterproof and stronger structure leading lasting durability.
- With ER collets, the flexible range of collet is 1mm.
- Capable collet clamping range: Min. Ø2mm, Max. Ø34mm
- PFH-SER can rapidly clamp the workpiece and achieving higher stability during processing, no need to adjust the center accuracy.
- Motorised function prevent human fatigue when operating.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.
- This model is compatible with various ER collets such as ER20, ER32, ER50 etc...

Center height ····· 85 ±	0.5mm
Motor: 110V/60Hz 50~5	50RPM
Motor: 220V/50Hz 50~5	50RPM
Rotational accuracy 0.	.003mm





Order No.	Model	ER Collet specification	Voltage	N.W.
50050-03-110	PFHM-SER20	3, 4, 6, 8, 10	110V	24.9kg
50050-03-220			220V	24.9kg
50050-04-110	PFHM-SER32	4, 8, 12, 16, 20	110V	24.8kg
50050-04-220			220V	24.8kg
50050-05-110	PFHM-SER50	10-00 proper 1500 proper 1500 proper	110V	25.7kg
50050-05-220		12, 18, 20, 30, 34	220V	25.7kg





- Suitable for surface grinder.
- Compact and durable structure with through hole design which makes it capable of forming various shapes of punches as well as electrode.
- Stopper design for fast positioning polygonal punchese.
- Fine-tuning for vertical movement of V-block, easy for clamping workpiece and center calibration.
- Adopting high precision bearings and ball bearing to achieve higher stability and accuracy, it also makes longer lifecycle.
- Improvement in dust-proof and water resistance level.



- Precisely ground screw rod for fine-tuning of V-block movement.
- Two clamp plates on both side of V block helps the consistent movement.

V block is adjustable for calibration even when small workpiece is clamped.

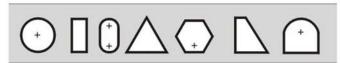
Release the screw when make adjustable and lock with slight force.

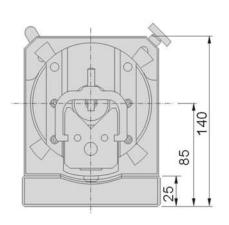


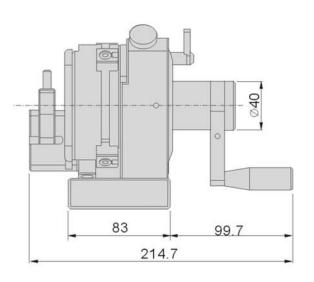
#### Main parameters:

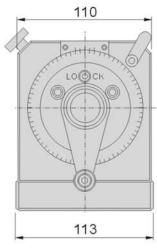
Center height $\cdots $ 85 $\pm$ 0.5mn
Clamping dia. range of V-block · · · · · Ø 3~30mm
Travel of V-block 25mm
Indexer tooth q'ty & accuracy 24,15°±10
Through hole diameters · · · · · Ø 30mm
Clamping accuracy (50mm) 0.005mm

#### **Punch forming applications**









## **50070** PF450 > Fine-tuning Type Punch Former (Dual)





Suitable for surface grinder.

Features:

- Compact and durable structure which makes it capable of forming various shapes of punches.
- With slide plate horizontal movement, it can make eccentric radius punches as well as electrode.
- Stopper design for fast positioning polygonal punchese.
- Fine-tuning for vertical movement of V-block, easy for clamping workpiece and center calibration.
- Adopting high precision bearings and ball bearing to achieve higher stability and accuracy, it also makes longer lifecycle.
- Improvement in dust-proof and water resistance level.



- Stopper block for horizontal movement.
- Screw rod for V block vertical movement..
- Release the screw when make adjustable and lock with slight force.

Precisely ground screw rod • for fine-tuning of V-block movement.

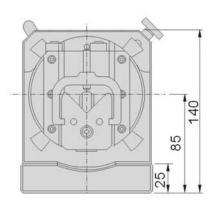


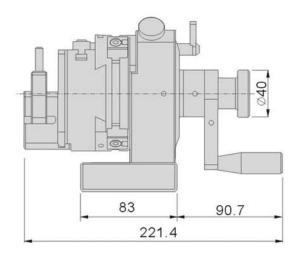
#### Main parameters:

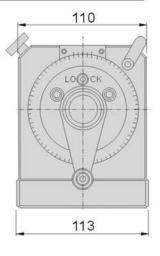
Center height $\cdots 85 \pm 0.5 mm$
Clamping dia. range of V-block · · · · · Ø 3~30mm
Travel of V-block 45mm
Slide plate horiztonal movement $\cdots \pm 18 \text{mm}$
Indexer tooth q'ty & accuracy $\cdots 24,15^{\circ}\pm10''$
Clamping accuracy (50mm) · · · · · 0.005mm

#### **Punch Forming Applications**













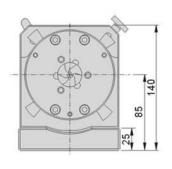


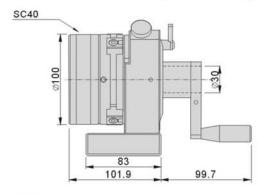


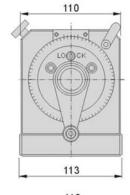


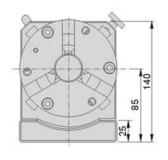
- ▶ Special stainless steel made for SC40 chuck provide rapid clamping accuracy with precision performance.
- Torgue wrench is included for precision performance (Only for SC40)
- Adopting high precision bearings and ball bearing to achieve higher stability and accuracy, it also makes longer lifecycle.
- ► PF550-SC04 Jaw attachment enable larger outer diameter workpiece to be clamped.

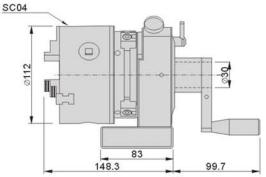
Center height
Indexer tooth q'ty & accuracy 24,15°±10"
SC40 3-Jaw Chuck
Min. clamping range ø1mm
Max. clamping range 25mm
Rotational accuracy 0.003mm
Repeat accuracy 0.003mm
SC043-Jaw Chuck hole dia Ø 32mm
Min. clamping range O.D. Ø 3mm, I.D. Ø 32mm
Max. clamping range O.D. Ø90mm, I.D. Ø84mm
Repeat accuracy 0.015mm
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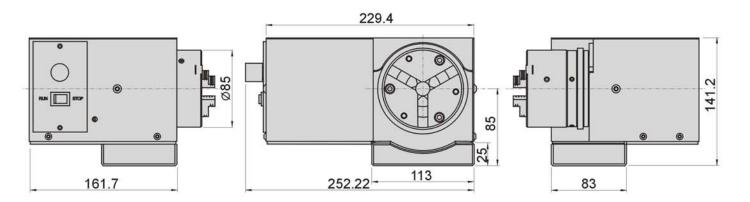


Order No.	Model	Chuck Spec.	N.W.
50080-00	PF550-SC40	SC40	8.5kg
50080-01	PF550-SC04	SC04	7.8kg



- PF550M have stronger structure leading lasting durability.
- ▲ 3-Jaw Chuck provide rapid clamping and it suitable for mass production, workpiece with round shaped can precisely & rapidly clamped.
- ▶ Due to accumulated tolerance when clamping different sizes of workpieces, special design in adjustment of horizontal and roundness for user own application.
- Law attachment can clamp workpeice with larger diameters.
- Motorised function prevent human fatigue when processing.
- Adopting high precision bearings and ball bearing to achieve higher stability and accuracy, it also makes longer lifecycle.

Center height ·····	85 ± 0.5mm
Through hole diameters	s ∅ 16mm
Hole dia. of 3-Jaw Chuc	ck · · · · · Ø 16mm
Min. clamping range	O.D.Ø2mm,I.D.Ø24mm
Max. clamping range	O.D. Ø70mm,I.D.Ø64mm
Motor: 110V/60Hz ····	50~550RPM
Motor: 220V/50Hz	50~550RPM
Rotational accuracy	0.003mm
Repeat accuracy	0.015mm



Order No.	Model	Chuck Spec.	Voltage	N.W.
50085-110	PF550M	SC03	110V	17kg
50085-220		3003	220V	17kg

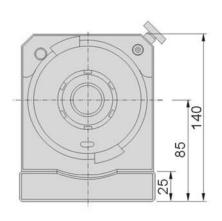


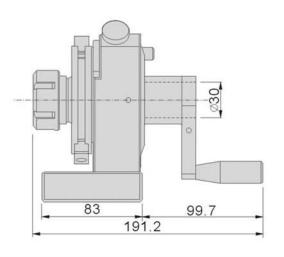


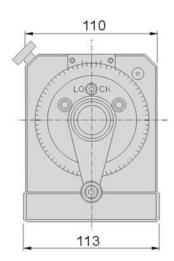
L	D	Accuracy
6	1.0-1.6	0.01
10	1.6-3.0	0.01
16	3.0-7.0	0.01
25	7.0-10.0	0.01
40	10.0-18.0	0.01
50	18.0-24.0	0.01
60	24.0-34.0	0.01

- PF650 has stronger structure leading lasting durability.
- With ER collets, the flexible range of collet is 1mm.
- ► Capable collet clamping range: Min. Ø 2mm, Max. Ø 26mm
- ▶ PF650 can rapidly clamp the workpiece and achieving higher stability during processing, no need to adjust the center accuracy.
- Adopting high precision bearings and ball bearing to achieve higher stability and accuracy, it also makes longer lifecycle.

Center height ······85 ± 0.5mn	n
Indexer tooth q'ty & accuracy 24,15°±10	"
Through hole diameters Ø30mm	
Rotational accuracy 0.003mm	n







Order No.	Model	ER Collet spec.	N.W.
50090-01	PF650-ER20	3, 4, 6, 8, 10	5.5kg
50090-02	PF650-ER32	4, 8, 12, 16, 20	6.5kg
50090-03	PF650-ER40	6, 10, 16, 20, 25,	6.6kg

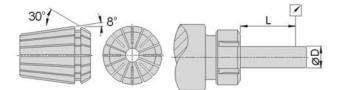
#### **Motorised Precision ER Collet Punch Former**





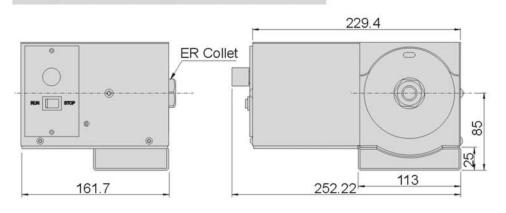


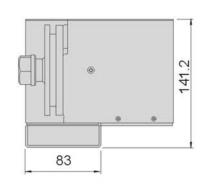
- PF650M has stronger structure leading lasting durability.
- Motorised function prevent human fatigue when processing.
- With ER collets, the flexible range of collet is 1mm.
- Capable collet clamping range: Min. Ø2mm, Max. Ø26mm
- ► PF650 can rapidly clamp the workpiece and achieving higher stability during processing, no need to adjust the center accuracy.
- Adopting high precision bearings and ball bearing to achieve higher stability and accuracy, it also makes longer lifecycle.



L	D	Accuracy
6	1.0-1.6	0.01
10	1.6-3.0	0.01
16	3.0-7.0	0.01
25	7.0-10.0	0.01
40	10.0-18.0	0.01
50	18.0-24.0	0.01
60	24.0-34.0	0.01

Center height ······	$85 \pm 0.5$ mm
Motor: 110V/60Hz	50~550RPM
Motor: 220V/50Hz	50~550RPM
Rotational accuracy ·····	· 0.003mm





Order No.	Model	ER Collet spec.	Voltage	N.W.
50095-01-110	PF650M-ER20		110V	17kg
50095-01-220		3, 4, 6, 8, 10	220V	17kg
50095-02-110	DEOCOM EDOO		110V	18kg
50095-02-220	PF650M-ER32	4, 8, 12, 16, 20	220V	18kg
50095-03-110	DE05014 ED 40		110V	19kg
<b>50095-03-220</b> PF650M-ER40	6, 10, 16, 20, 25	220V	19kg	

#### PFH240

#### **Precision Punch Former (Medium Type)**





N.W. 13.0kg

#### Features:

- ► PFH240 Precision Punch Former have stronger compact structure and long lasting durability.
- Suitable of application on surface grinding machine and capable of forming various shapes of punches as well as electrode.
- PFH240 has through hole design for longer punch & ejector pins to be clamped in processing.
- V-block clamping can accurately stabilize workpieces and vertical fine-tuning function can makes setting center easier.



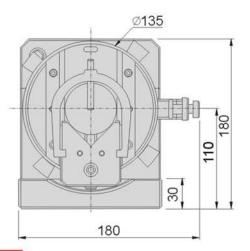
- fine-tuning of V-block vertical movement.
- of V block helps the consistent movement.
- Precisely ground screw rod for Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.
- Two clamp plates on both side Lastopper design in position slot and easier for precisely stabilize polygonal punches.
  - Improvement in dust-proof and water resistance.

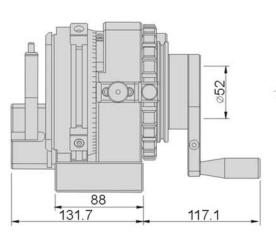
#### **Punch forming applications**

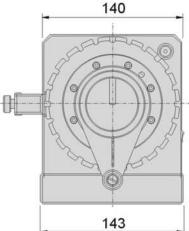


#### Main parameters:

Center height ...... 110 ± 0.5mm Clamping dia. range of V-block ····· ø 5~50mm Travel of V-block · · · · · 34mm Indexer tooth q'ty & accuracy ...... 24,15°±5" Through hole diameters ····· ø 52mm Clamping accuracy (50mm) · · · · · · 0.005mm







### 50350 PFH280 Precision Punch Former (Medium Type)



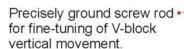


- ► PFH280 Precision Punch Former have stronger compact structure and long lasting durability.
- Suitable of application on surface grinding machine and capable of forming various shapes of punches as well as electrode.
- Let use to its vertical & horizontal adjustment function, it is specially suitable for oval punch grinding.
- V-block clamping can accurately stabilize workpieces and vertical fine-tuning function can makes setting center easier.
- Adopting high precision double bearings in it's structure to achieve higher accuracy, rigidity and stability.
- Stopper design in position slot and easier for precisely stabilize polygonal punches.
- Improvement in dust-proof and water resistance.

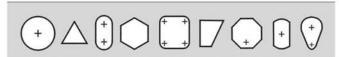
N.W. 14.7kg

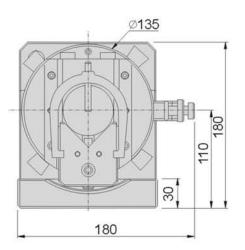


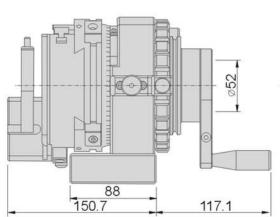
- Stopper block for horizontal movement..
- Two clamp plates on both side of V block helps the consistent

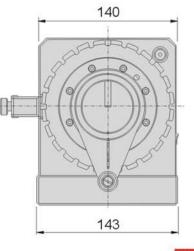


#### **Punch forming applications**









#### PFH300 >

### Precision Punch Former (Big Type)





#### Features:

- ► PFH300 Precision Punch Former have stronger compact structure and long lasting durability.
- Suitable of application on surface grinding machine and capable of forming various shapes of punches as well as electrode.
- PFH300 has through hole design for longer punch & ejector pins to be clamped in processing.
- V-block clamping can accurately stabilize workpieces and vertical fine-tuning function can makes setting center easier.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.
- Stopper design in position slot and easier for precisely stabilize polygonal punches.
- Two clamp plates on both side \_\_ Improvement in dust-proof and water resistance.

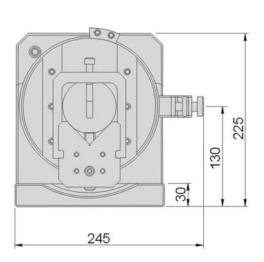


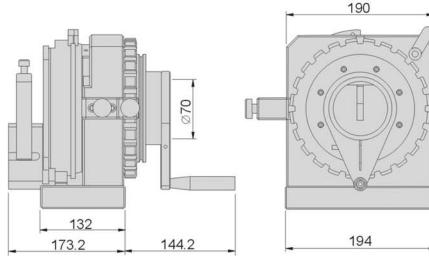
- Precisely ground screw rod for fine-tuning of V-block vertical movement.
- of V block helps the consistent movement.

#### Punch forming applications



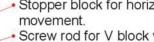
Center height
Clamping dia. range of V-block · · · · · · Ø 3~69.5mm
Travel of V-block · · · · 48mm
Indexer tooth q'ty & accuracy $\cdots 24,15^{\circ}\pm5''$
Through hole diameters · · · · · Ø 70mm
Clamping accuracy (50mm) · · · · · 0.005mm





### PFH500 > Precision Punch Former (Big Type)

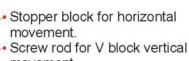




movement.

N.W. 27kg

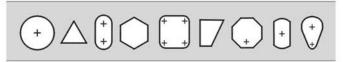
Release the screw when make adjustable and lock with slight force.





Precisely ground screw rod for fine-tuning of V-block movement.

#### Punch forming applications

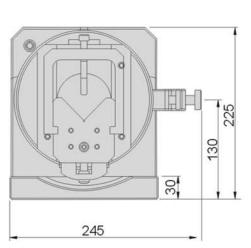


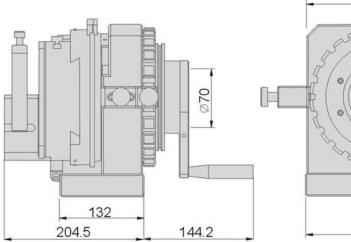
#### Features:

- ▶ PFH500 Precision Punch Former have stronger compact structure and long lasting durability.
- Suitable of application on surface grinding machine and capable of forming various shapes of punches as well as electrode.
- Due to its vertical & horizontal adjustment function, it is specially suitable for oval punch grinding.
- V-block clamping can accurately stabilize workpieces and vertical fine-tuning function can makes setting center easier.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.
- Stopper design in position slot and easier for precisely stabilize polygonal punches.
- Improvement in dust-proof and water resistance.

#### Main parameters:

Clamping dia. range of V-block · · · · · ø 3~69.5mm Travel of V-block · · · · 48mm Indexer tooth q'ty & accuracy ...... 24,15°±5" Through hole diameters ......Ø70mm Clamping accuracy (50mm) · · · · · · 0.005mm Slide plate horizontal movement · · · · · ±30mm







194

### PFH600

### Precision 3-Jaws Punch Former (Big Type)





N.W. 27kg

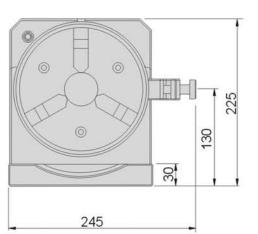
## Features:

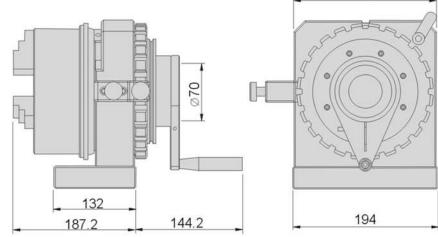
- ► PFH600 have stronger structure leading lasting durability.
- ▶ PFH600 provide rapid clamping and it suitable for mass production, workpiece with round shaped can precisely & rapidly clamped.
- Let use to accumulated tolerance when clamping different sizes of workpieces, special design in adjustment of for user own application.
- Further jaw attachment can clamp workpeice with larger diameters.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.

#### Main parameters:

Indexer tooth q'ty & ac	curacy 24,15°±5"
Through hole diamete	rs Ø 70mm
Hole dia. of 3-Jaw Chu	ıck ø 45mm
Min. clamping range	O.D. Ø4mm,I.D.Ø48mm
Max. clamping range	O.D. Ø 160mm, I.D.Ø150mm
Rotational accuracy	0.003mm
Repeat accuracy	0.015mm

190



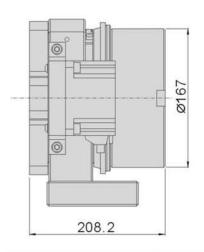


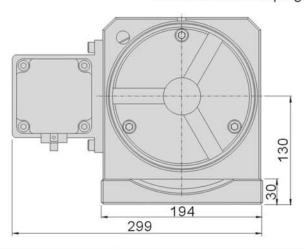


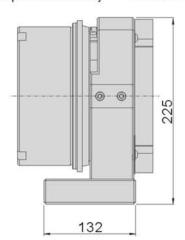
- Motorised function prevent human fatigue when processing.
- PFH600M provide rapid clamping and it suitable for mass production, workpiece with round shaped can precisely & rapidly clamped.
- ▶ Due to accumulated tolerance when clamping different sizes of workpieces, special design in adjustment for user own application.
- Further jaw attachment can clamp workpeice with larger diameters.
- Adopting high precision double bearings in its structure to achieve higher accuracy, rigidity and stability.

#### Main parameters:

Indexer tooth q'ty & accuracy ...... 24,15°±5" Through hole diameters ..... Ø 70mm Hole dia. of 3-Jaw Chuck · · · · · Ø 45mm Min. clamping range O.D. Ø 4mm, I.D. Ø 48mm Max. clamping range O.D. Ø 160mm, I.D Ø 150mm Motor: 110V/60Hz ...... 50~550RPM Motor: 220V/50Hz ...... 50~550RPM Rotational accuracy ...... 0.003mm 3-Jaw chuck clamping repeat accuracy · 0.015mm







Order No.	Model	Chuck Spec.	Voltage	N.W.
50650-110	DEFICOOM	SC06	110V	30kg
50650-220	PFH600M	3000	220V	30kg

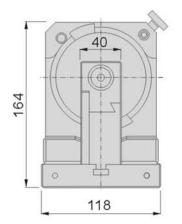


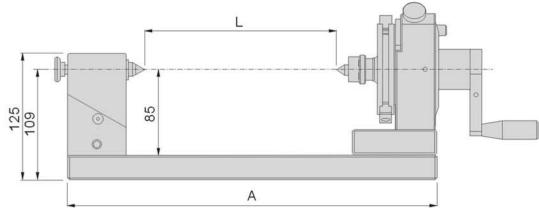


- Center Punch Former apply Live Center at both sides to clamp punch to achieve concentricity.
- Live center stabilize the processing and achieve higher accuracy.
- It is mainly apply on bushes and cylinder which needs precision cylindrical grinding on surface grinding machines.

#### Main parameters:

Center height without base ······ 85mm
Center height with base 109mm
Indexer tooth quantity & accuracy $\cdots$ 24,15° $\pm$ 10"
Live Center clamping range · · · · · · · · · 0~450mm
Material ······ SKS3, HRC60~62°
Roundness ·······0.002mm
Parallelism 0.002mm/100mm
Squareness ······ 0.002mm/100mm





#### Unit:mm

Order No.	Model	Α	L	Rotary Angle	N.W.
50700-15	GPFE150	375	0~150		20kg
50700-25	GPFE250	475	0~250	2000	23kg
50700-35	GPFE350	575	0~350	360°	26kg
50700-45	GPFE450	675	0~450		29.5kg

50750 GPFEM

### **Motorised Center Punch Former**

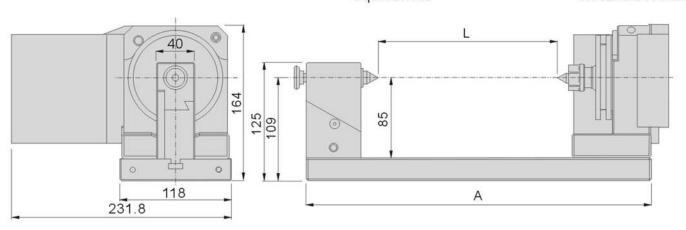


#### Features:

- Center Punch Former apply Live Center at both sides to clamp punch to achieve concentricity.
- Motorised function prevent human fatigue when processing.
- Live center stabilize the processing and achieve higher accuracy.
- Lis mainly apply on bushes and cylinder which needs precision cylindrical grinding on surface grinding machines.

#### Main parameters:

Center height without base ····· 85mm
Center height with base 109mm
Clamping range 0~450mm
Motor output, Voltage 15W, IPH, 110/220V
Motor speed 50/60HZ50~550RPM
Material of Punch Former SKS3, HRC60~62°
Roundness 0.002mm
Parallelism · · · · · 0.002mm/100mm
Squareness 0.002mm/100mm



#### Unit:mm

Order No.	Model	A	L	Rotary Angle	N.W.
50750-15-110	005545014	275	0.450		0014
50750-15-220	GPFE150M	375	0~150		23kg
50750-25-110	GPFE250M	475	0~250	360°	26kg
50750-25-220					
50750-35-110	ODEESEOM	575	0~350		29kg
50750-35-220	GPFE350M				
50750-45-110	ODEE 450M	675	0~450		32.5kg
50750-45-220	GPFE450M	675	0~450		32.5Kg







#### Material:

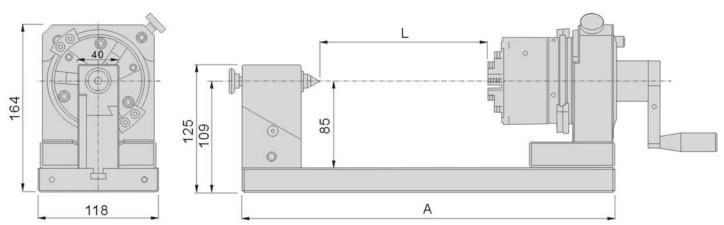
Punch Former: SKS3 HRC60~62° 3-Jaw Chuck: Meehanite cast iron

#### Features:

- 3-Jaw Center Punch Former apply 3-Jaw Chuck to clamping workpieces with rapid and easy loading process.
- It is capable of grinding long punches which cannot be processing by conventional Punch Formers.
- Live center stabilize the processing and achieve higher accuracy.
- It is mainly apply on bushes and cylinder which needs precision cylindrical grinding on surface grinding machines.

#### Main parameters:

Center height without base 85mm
Center height with base 109mm
Indexer tooth quantity & accuracy $24,15^{\circ}\pm10^{\circ}$
Hole dia. of 3-Jaw Chuck · · · · Ø 16mm
Diameter of 3-Jaw Chuck Ø 85mm
Roundness ······ 0.002mm
Parallelism 0.002mm/100mm
Squareness 0.002mm/100mm



Unit:mm

Order No.	Model	O.D. Range	I.D. Range	Α	L	Rotary Angle	N.W.	
50800-15	GPFC150	ø2~70	~70 Ø24~64	375	0~150		20kg	
50800-25	GPFC250			70 004-64	475	0~250	360°	23kg
50800-35	GPFC350			575	0~350	360	26kg	
50800-45	GPFC450			675	0~450		29.5kg	

### **Motorised 3-Jaws Center Punch Former**





### Material:

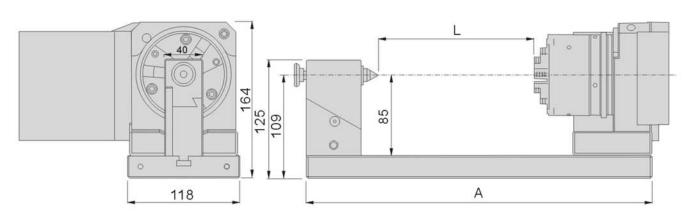
Punch Former: SKS3 HRC60~62° 3-Jaw Chuck: Meehanite cast iron

### Features:

- 3-Jaw Center Punch Former apply 3-Jaw Chuck to clamping workpieces with rapid and easy loading process.
- Motorised function prevent human fatigue when processing.
- Live center stabilize the processing and achieve higher accuracy.
- It is mainly apply on bushes and cylinder which needs precision cylindrical grinding on surface grinding machines.

### Main parameters:

Center height without base 85mm
Center height with base · · · · 109mm
Motor output, Voltage15W 110/220V
Motor speed 50/60HZ 50~550RPM
Hole dia. of 3-Jaw Chuck····· Ø 16mm
Diameter of 3-Jaw Chuck Ø 85mm
Roundness 0.002mm
Parallelism 0.002mm/100mm
Squareness 0.002mm/100mm



Unit:mm

Order No.	Model	O.D. Range	I.D. Range	Α	L	Rotary Angle	N.W.		
50850-15-110	0050450M			275	0~150		23kg		
50850-15-220	GPFC150M			375					
50850-25-110	GPFC250M	Ø2~70 Ø24~64		475 0~2	0-250		26kg		
50850-25-220			Ø24-64		0~250	360°			
50850-35-110	ODEOSEOM		24-04	575	0~350	360	29kg		
50850-35-220	GPFC350M			5/5					
50850-45-110	ODEO 450M					675	0~450		32.5kg
50850-45-220	GPFC450M			6/5	0~450		32.5kg		



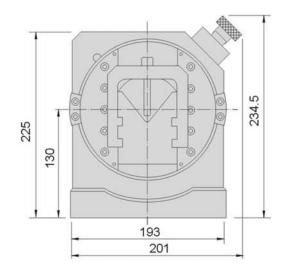


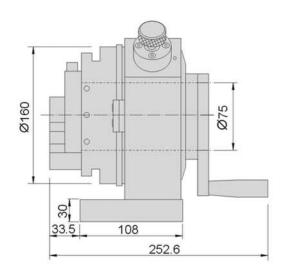
N.W. 21.3kg

### Features:

- ► PF300 Punch Former is special designed for larger punch under Ø70.
- Suitable of forming various shapes of punches as well as electrode.
- ► PF300 has through hole design for longer punch & ejector pins to be clamped in processing.
- V-block clamping can accurately stabilize workpieces and vertical fine-tuning function can makes setting center easier.

Cent	er height ····· 130mm
Clam	ping dia. range of V-block Ø 70mm
Trave	el of V-block 60mm
Index	ker tooth q'ty & accuracy · · · · · · · 24 \ 15° ± 10''
Throu	ugh hole diameters Ø75mm
Clam	ping accuracy (50mm) ······ 0.008mm





### PF500 > Punch Former (big)

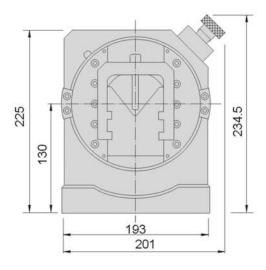


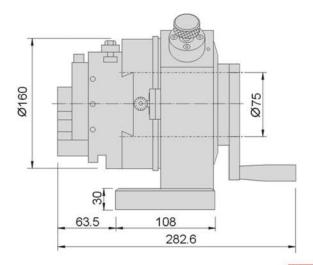


### Features:

- ► PF500 Punch Former is special designed for larger punch.
- ▶ Due to its vertical & horizontal adjustment function, it is especially suitable for oval punch grinding as well as electrode.
- V-block clamping can accurately stabilize workpieces and vertical fine-tuning function can makes setting center easier.

Center height · · · · · 130mm
Clamping dia range of V-block Ø70mm
Travel of V-block 60mm
Slide plate horiztonal movement · · · · · ±25mm
Indexer tooth q'ty & accuracy ······ 24、15°±10"
Clamping accuracy (50mm) · · · · · Ø75mm
Through hole diameters 0.008mm







### PF600

### 3-Jaws Punch Former (big)



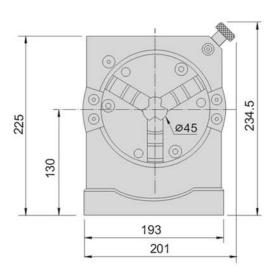


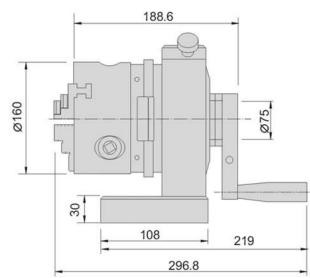
N.W. 24.3kg

### Features:

- PF600 provide rapid clamping and it suitable for mass production, workpiece with round shaped can precisely & rapidly clamped.
- Due to accumulated tolerance when clamping different sizes of workpieces, special design in adjustment of horizontal and roundness for user own application.
- Further jaw attachment can clamp workpeice with larger diameters.

- CA CONTROL   TO
Center height · · · · · 130mm
Indexer tooth q'ty & accuracy 24,15°±10'
Through hole diameters Ø 45mm
Hole dia. of 3-Jaw Chuck ····· Ø 45mm
3-Jaw chuck repeat accuracy · · · · · 0.015mm
Min. clamping range: Outer dia Ø 4mm
Inner dia.····Ø 48mm
Max. clamping range: Outer dia Ø 160mm
Inner dia.···· Ø150mm





### PFA

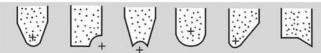
### **Punch Former (Dual)**



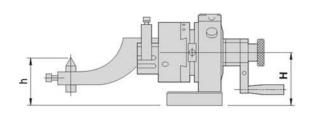


**Punch Forming Applications** 





Wheel Dreesing Applications



### Features:

- Suitable for precision grinding different kinds of punches and electrodes of EDM in a surface grinding machine.
- Thanks to its vertical & horizontal movement allows oval punch forming.
- V-block needs to be adjusted to center depending on different dia. Of the workpieces in order to achieve 0.005mm accuracy.
- Standard accessory; crank for dressing grinding wheel into various cross sections of flat or curved shaoes.

### Main parameters:

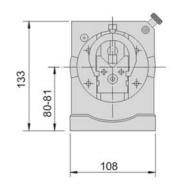
Center height 80 ~ 81mm
Clamping dia. range of V-block Ø 4 ~ 30mm
Travel of V-block 30mm
Slide plate horiztonal movement $\cdots \pm 12.5$ mm
Indexer tooth q'ty & accuracy 24,15°±10"
Clamping accuracy (50mm) 0.005mm
Capable wheel size of dressing · · · · · · Ø 200mm
Max. radius dressing Convex R48mm
Concave ······R100mm

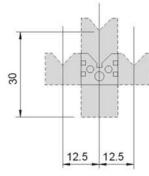
### Calculation Formula:

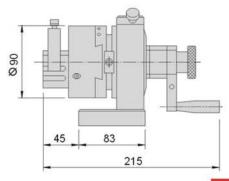
Dressing convex arc ······ h=H-R
Dressing concave arc h=H+R
h: distance from tip of diamond to base of Punch
Former

H: Center height of Punch Former

R: Radius of the arc to be dress









N.W. 7.6kg

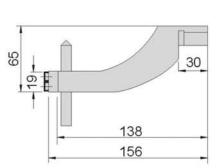
### Features:

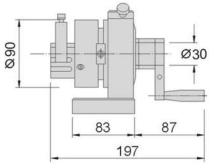
- PFB has same function as PFA except for the eccentric horizontal movement due to its through hole design for longer ejector pins processing capability.
- Standard accessory; crank for dressing grinding wheel into various cross sections of flat or curved shapes
- Optional accessory PFB1 to achieve angular wheel dressing.
- Optional accessory SVB to achieve min. Ø0.5mm clamping capability.

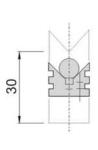
### Main parameters:

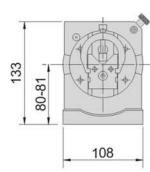
Center height 80 ~ 81mm
Clamping dia. range of V-block Ø 4 ~ 30mm
Travel of V-block 30mm
Indexer tooth q'ty & accuracy 24,15°±10"
Clamping accuracy (50mm) 0.005mm
Through hole dia Ø 30mm
Capable wheel size of dressing Ø 200mm
Max. radius dressing Convex ····· R48mm
Concave ·····R100mm











Punch forming	Radius wheel dressing	Angular wheel dressing	

**Punch forming applications** 

**Grinding wheel dressing application** 



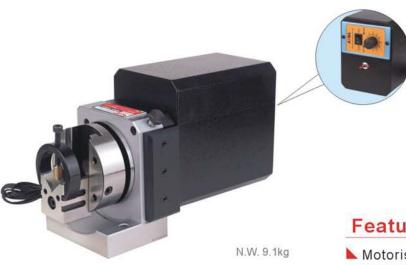














View without dust cover

### Features:

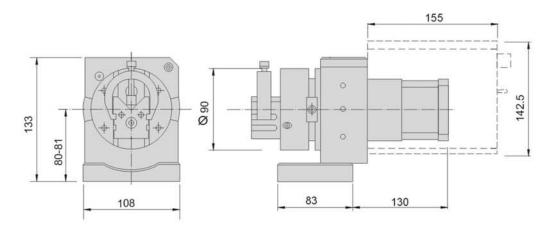
- Motorised function prevent human fatigue when processing.
- Increase efficiency when processing punches.

### Main parameters:

Center height · · · · 80 ~ 81mm
Clamping diameter in V-slot $\cdots $ Ø 4 ~ 30mm
Travel of V-block · · · · 25mm
Clamping accuracy (50mm) ······ 0.005mm
Roller driving motor 110V/60HZ · · · · 50~300rpm
Roller driving motor 220V/50HZ · · · · 50~300rpm

### Note:

Variable speed from 1 to 100 ratio, when 100 is set the top speed is 300rpm, when set on 100 rpm, the panel is set approx. 30 ratio.



Order No.	Model	Volts
51160-110	DEDM	AC110V
51160-220	PFBM	AC220V

### **PFC**

### 3-Jaw Punch Former



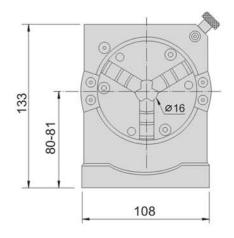


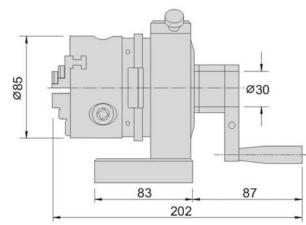
N.W. 7.6kg

### Features:

- Precision 3-Jaw Chuck provide rapid clamping and it suitable for mass production.
- Due to the accumulated tolerance incurred, there is design for adjustment function for users, both horizontal and roundness.
- Further reversed jaw attachment provides capability of clamping larger workpeice.

Center height ······	80 ~ 81mm		
Indexer tooth q'ty & accur	acy 24,15° ±10"		
Through hole diameters	ø30 mm		
Rotational accuracy	0.003mm		
Repeat accuracy 0.015mm			
Hole dia. of 3-Jaw Chuck	ø16mm		
Min. clamping range	O.D. Ø2mm, I.D. Ø24mm		
Max. clamping range	O.D. Ø 70mm, I.D. Ø 64mm		





# 51210 PFCM Motorised 3-Jaw Punch Former





### Features:

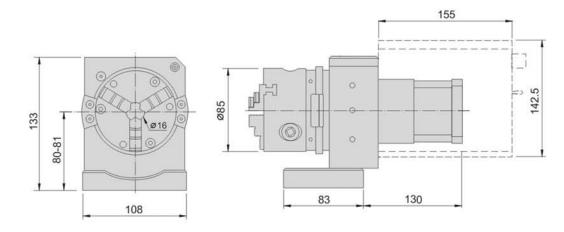
- Motorised function prevent human fatigue when processing.
- Increase efficiency when processing punches.

### Main parameters:

Center height ······	80 ~ 81mm
Rotational accuracy ·····	0.003mm
Repeat accuracy	0.015mm
Hole dia. of 3-Jaw Chuck	Ø 16mm
Min. clamping range	O.D. Ø 2mm, I.D. Ø 24mm
Max. clamping range	O.D. Ø70mm, I.D. Ø64mm
Motor: 110V/60Hz	50 ~ 300 RPM
Motor: 220V/50Hz	50 ~ 300 RPM

### Note:

Variable speed from 1 to 100 ratio, when 100 is set the top speed is 300rpm, when set on 100 rpm, the panel is set approx. 30 ratio.



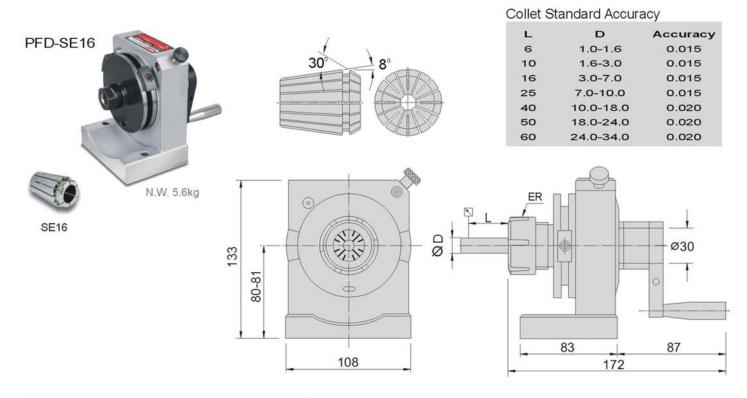
Order No.	Model	Volts
51210-110	DECM	AC110V
51210-220	PFCM	AC220V







- With ER collets, the flexible range of collet is 1mm.
- ► Clamping under 4mm apply ER16 collet.
- ► PFD can rapidly clamp the workpiece and achieving higher stability during processing, no need to adjust the center accuracy.
- ▶ PFD-SE16 come with high precision SE16 collet it has accuracy within 0.005mm and flexible range clamping is 0.5mm



Order No.	Model	Collet Size	Collet Accuracy	N.W.
51250-16	PFD-ER16	2、3、4、6、8	0.010	5.6 <b>k</b> g
51250-32	PFD-ER32	4、8、12、16、20	0.008	6.6 <b>k</b> g
51250-40	PFD-ER40	6、10、16、20、25	0.008	7.6 <b>k</b> g
51250-16A	PFD-SE16	2, 3, 4, 6, 8	0.005	5.6kg

### **Motorised ER Collet Punch Former**







View without dust cover



### Features:

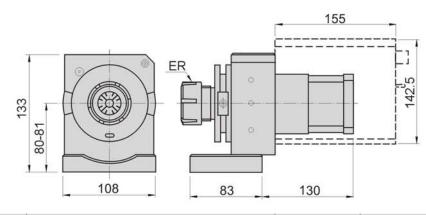
- Motorised function prevent human fatigue when processing.
- With ER collets, the flexible range of collet is 1mm.
- Clamping under 4mm apply ER16 collet.
- PFDM can rapidly clamp the workpiece and achieving higher stability during processing, no need to adjust the center accuracy.
- This model is compatible with various ER collets such as ER16, ER32, ER40 etc...

### Main parameters:

Center height ·····	···· 80 ~ 81mm
Motor: 110V/60Hz	50 ~ 300 RPM
Motor: 220V/50Hz	50 ~ 300 RPM

### Note:

Variable speed from 1 to 100 ratio, when 100 is set the top speed is 300rpm, when set on 100 rpm, the panel is set approx. 30 ratio.



Order No.	Model	Collet Size	Volts	N.W.
51260-16-110	PFDM-ER16	2, 3, 4, 6, 8	AC110V	0.01.0
51260-16-220	FT DIVI-LIX 10	2. 3. 4. 0. 0	AC220V	8.2kg
51260-32-110	PFDM-ER32	4、8、12、16、20	AC110V	0.01
51260-32-220	PFDIVI-ER32	4. 6. 12. 10. 20	AC220V	9.2kg
51260-40-110	DEDM ED 40	6、10、16、20、25	AC110V	
51260-40-220	PFDM-ER40	6. 10. 16. 20. 25	AC220V	10.2kg

### SPF50

### **Sine Plate for Punch Former**



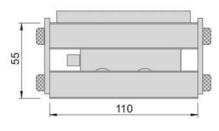


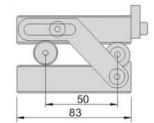
N.W. 3.3kg



### Features:

- SPF50 Sine Plate is designed for applying on PFA, PFB, PFC & PFD to make sine angles for processing workpiece.
- ► Hardness:HRC55°
- Accuracy:within 0.005mm
- ► Max.angle is 55°
- ► Gauge block for angle setting refer to 55070.

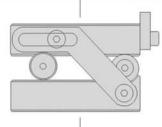












Sine Punch Former



SPFB





51300-02 SPFC

51300-03/04/05 SPFD-ER16/32/40

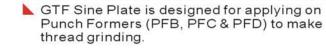
### GTF

Stroke 50mm

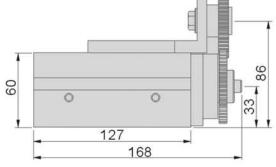
### Replaceable type Thread Grinding Slider

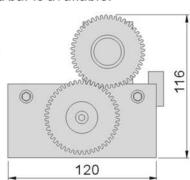
# PUNCH FORMER





- Depending the thread pitch needs, choosing appropriate accessories. (Pitch 0.5/0.7/0.8/1.0/1.25/1.5/1.75/2.0).
- Standard accessory: P1.0, and two extra thread bars from abovementioned spec., Dust proof cover is also included.
- Custom made thread bar is available.







### Application examples:











**GTFB** 



**GTFC** 



51320-03/04/05 GTFD-ER16/32/40

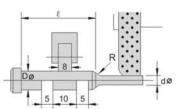


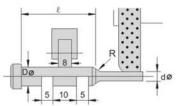
### **PGA**

### **Punch Grinder**





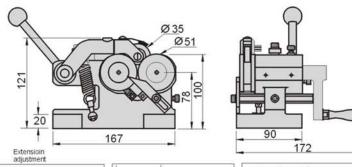


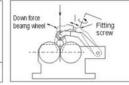




## Features:

- PGA can be applied on surface grinder and automatically find concentricity for cylindrical grinding.
- The rollers can be used to adjust the workpiece before grinding.
- Use screw pressure for firm holding as shown in the picture for heavy grinding.
- Accuracy of roller is within 0.005mm. It can grind punches of outside diameter from 1.5 to 25mm, extended grinding length is within 5-35mm.





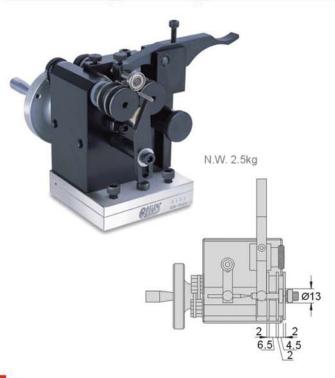




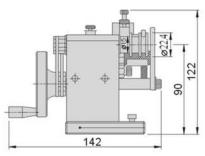
### 51500

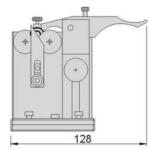
### **PGAS**

### **Punch Grinder**



- PGAS can be applied on surface grinder and automatically find concentricity for cylindrical grinding from Ø0.5 to Ø10mm, for longer workpiece job, refer to 55441 PGCF model.
- For measuring concentricity purpose, PGAS can measure from Ø0.5 to Ø25mm with accuracy 0.003mm.





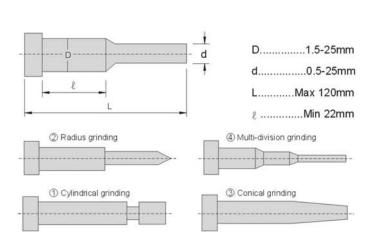
### **Motorised Punch Grinder**

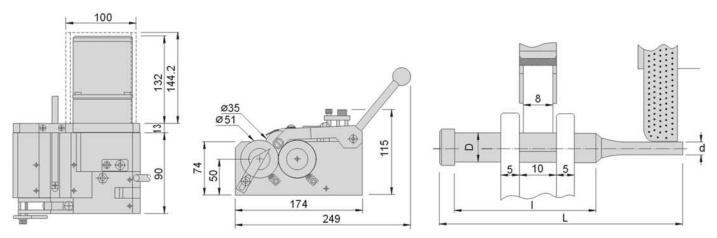


### Features:

- Motor Punch Grinder just by putting on surface grinding machine.
- No center alignment necessary . Just put work on rollers.
- Portable with single hand, thus easily set on grinding.
- With rollers motor-driven attention can be concentrated on table wheel feeds.
- Double roller unit available for long pin or punch grinding.
- It can be used with magnetic sine plate to grind various angle profile punch.

Length of Workpiece · · · · 20-120mm
Outside Grinding Length · · · · · 5-35mm
Grinding Diameter Ø1.5-Ø25mm
Accuracy 0.005mm
Roller driving motor 110V/60HZ · · · · · 129rpm
Roller driving motor 220V/50HZ · · · · · 108rpm





Order No.	Model	Volts
51550-110	PGAM	AC110V 1Phase
51550-220	PGAIVI	AC220V 1Phase

WHEEI DRESSER

### WD165 > Universal Wheel Dresser

PAT: 156082





Order No.	Model	Spec
52100-11	VAID46E	Inch
52100-12	WD165	Metric

### Features:

- Mode WD165 Universal Wheel Dresser Adaptable on surface grinding machine and universal tool grinder for dressing grinding wheels into various cross sections of flat or curved shapes.
- Diamond pin is not included.

### **Calaculation Formulars**

H=L=0R

To dress convex arc surface: H=L+R To dress concave arc surface: H=L R

H: distance between outer generating lines of two locating pins.

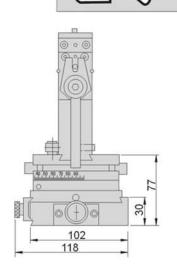
R: Radius of the arc surface to be dressed.

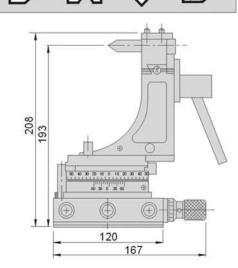
L: distance from tip of diamond cutter to base plate

### Main parameters:

Center height
Measuring guide diameter Ø10mm
Max. swing distance of diamond cutter $\cdots \cdots \pm 14 \text{mm}$
Max. wheel diameter · · · · Ø 205mm
Reading accuracy of turret index 5'
Max. translation of feed ······25mm
Feed per division of handle scale · · · · · 0.01mm
Max.dressing convex arc 50R ,concave arc 0~100

Wheel Dreesing Applications





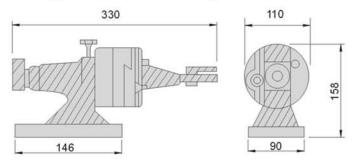
### RDA

### Radius and Angle Dresser



# Features:

- Automatic return to zero, by applying with gauge block and you can get the desire concave and convex angle.
- Max. convex R45mm, Max concave R100mm, Max horizontal movement is 65mm. Max.applicable wheel dressing is Ø350mm



### Wheel Dreesing Applications











52200

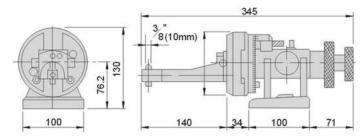
### **RDB**

### Radius and Angle Dresser



### Max.a

RDB Max. convex R45mm, Max concave R100mm, Max horizontal movement is 65mm Max.applicable wheel dressing is Ø325mm







Wheel Dreesing Applications





### 52250

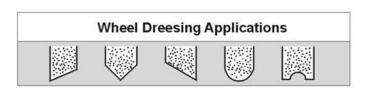
### RDC

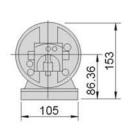
### Radius and Angle Dresser

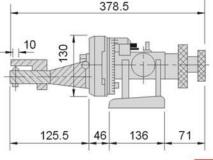


### Features:

- ► RDC Max. convex R60mm, Max concave R150mm, Max horizontal movement is 90mm.
- Max.applicable wheel dressing is Ø279mm











# PAT: 160112 Features :

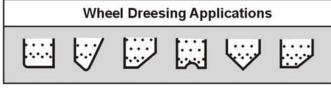
KT50 is mainly applied on surface grinding machine and universal tool grinder.

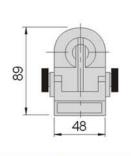
By "sighting" the diamond point through the lens, radius and angles can easily be made into various cross sections of flat or curved shapes.

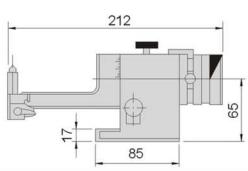
### Main parameters:

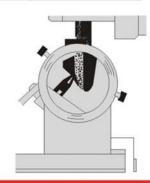
Center height · · · · · 65mm
Max. wheel dia. · · · · · Ø205mm
Max. Convex radius · · · · · 0.2~10mm
Max. Concave radius · · · · · 0.2~25.4mm
Dressing Angle 95°-0° -95°
Tangential travel · · · · · 22.5mm

Order No.	Model	Spec
52300-11	KT50	Inch
52300-12	K150	Metric

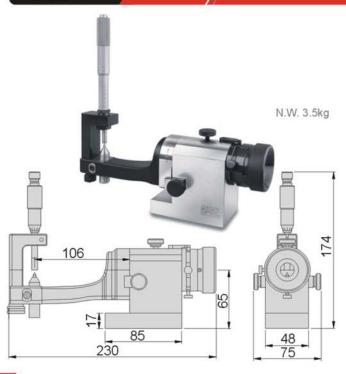








# 52320 KT50S Visual Radius and Angle Dresser



### Features:

- KT50S is mainly applied on surface grinding machine and universal tool grinder.
- By "sighting" the diamond point through the lens, radius and angles can easily be made into various cross sections of flat or curved shapes.

### Main parameters:

Center height · · · · 65mm
Max. wheel dia. · · · · Ø205mm
Max. Convex radius · · · · · 10mm
Max. Concave radius · · · · 25.4mm
Dressing Angle 95°-0° -95°

# Wheel Dreesing Applications



### N.W. 3.2kg

# 8 140 40 60 60

### Features:

Specially designed for simultaneously dressing both sides of grinding wheel, achieving accurate performance and more efficient than conventional dressers.

### Specifications:

Max.thickness	Min.thickness	Max.depth
40mm	0.2mm	40mm

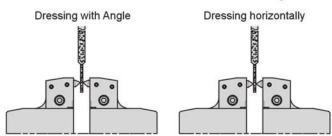
Order No.	Model	Spec	
52350-11	DEGO	Inch	
52350-12	DF60	Metric	

## **52360** DF50 >> Precision Duplex Dresser

PAT: 174305 ZL 00 2 31135.6

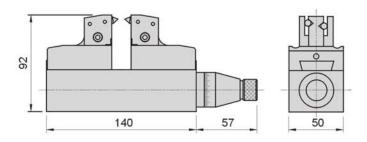


N.W. 3.4kg



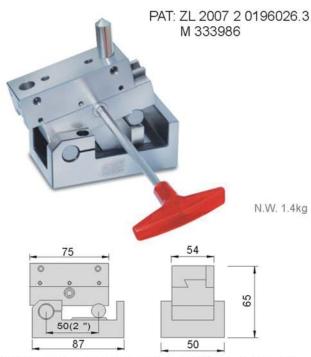
Max.thickness	Min.thickness	Max.depth	
20mm	0.2mm	40mm	

- It adopts sealed construction and keep the dust out, with large surface of the guiderail, it stabilize and ensure accuracy.
- Diamond nibs can be adjusted parallel or with angle, and center aligned, scale reading 0.01mm on each division.
- Made of stainless steel.

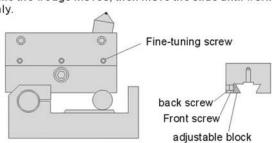


Order No.	Model	Spec	
52360-11	DEFO	Inch	
52360-12	DF50	Metric	





AP50H has three screw holes for fine-tuning purpose, each holes contain two screws, one at the front, the other one at the rear. When adjusting rear screw pushing front screw forward and make the wedge moves, then move the slide until work smoothly.



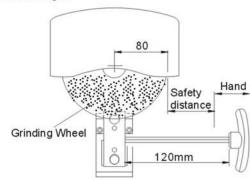
Before applying AP50H, check the slide is tight or loose, if loose, simply light adjust fine-tuning screw until it smooth. This tool is high precision and capable of dressing any angles.

### Features:

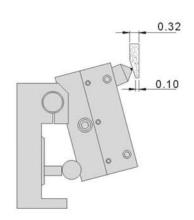
- AP50H provides gear driven and it is designed for better prevention and protection for the beginner.
- ▶ Double axis center accuracy is ±0.002mm
- ▶ It has the same function as model (52400 AP50D).
- It has stroke of 60mm.

Order No.	Model	Spec
52380-11	AP50H	Inch
52380-12	APSUH	Metric

Applying gears driven to make forward/backward movement and installed with diamond pin on the slide. For safety purpose, hexagon wrench is applied with certain safety distance in order to support user to function AP50H and thus precisely dressing the demand angle.



AP50H has its own Patent and it basically the improved version of original type. Below is the comparison



1.Applying gears driven	1.8
2. Safety distance when applying	
3. Three fine-tuning screw at side	
4. Easy to achieve precision dressin	g
for any user	
- Short	
	1

AP50H

- 1.Applying manually
- 2.Close to wheel when applying

AP50

- 3.No fine-tuning function
- 4.Must have specialist to make precision dressing



### AP50

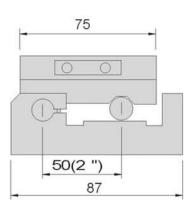
### **Angle Sine Dresser**

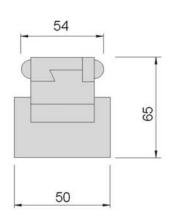
PAT: 191154 ZL 99 2 11094.7

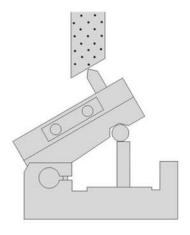


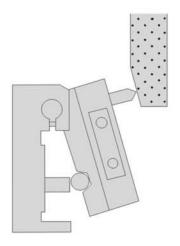
- ▲ AP50 has various Patents, regardless inconvenience of the conventional Angle Sine Dresser, release screws on both side and free to adjust any needed angle.
- Remove the slide block and it can be used as 50mm Sine Plate.
- Suitable for vertical or horizontal angles, sine angle 0-60° (horiontal), 45-90°(vertical) and both are within 0.005mm accuracy.
- ▶ Double axis accuracy is ±0.002mm.
- ▶ It has stroke of 65mm.

N.W. 1.4kg









Order No.	Model	Spec
52400-11	AP50	Inch
52400-12	APSU	Metric

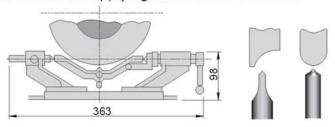




N.W. 2.6kg

### Features:

- RD30 is accurately controlled by handle, suitable for small convex/concave dressing, Convex R0.2~12mm, Concave R0.2~20mm.
- ► Suitable for applying wheel under Ø205mm



52440

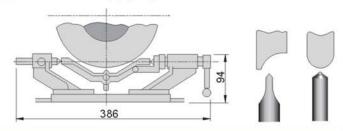
RD30A

**Precision Concave Convex Forming Dresser** 



### Features:

- ► RD30A is accurately controlled by handle, suitable for small convex/concave dressing, Convex R0.2~12mm, Concave R0.2~20mm.
- Suitable for applying wheel under Ø 205mm

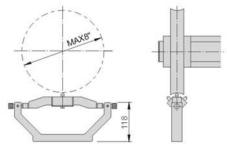


52450

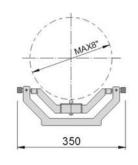
**RD40** 

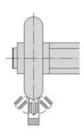
**Concave Convex Forming Dresser** 





- This medium type dresser is applied to surface grinders for convex and concave dressing.
- Suitable for wheels under 8" (Ø205mm).
- ► Work range: Convex R0.5-40mm
- Concave R0.5-90mm
- ► Diamond pin is optional





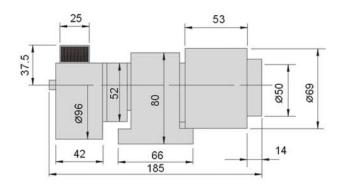
DT100

### **Diamond Wheel Trimmer**



### Features:

- ▶ DT100 is designed for dress peripheral wheels on machines with a vertical or horizontal spindle.
- The diamond wheel can be changed depending on the wheel that is going to be dressed. Especially, CBN or Diamond.



### 52550

DTM100 >

### **Motorised Diamond Wheel Trimmer**



- Motorised resin emery wheel can dress the diamond wheel flatness easily
- The diamond wheel can be changed depending on the wheel that is going to be dressed. Especially, CBN or Diamond.
- ► Roller driving motor 110V/60HZ 129rpm
- ► Roller driving motor 220V/50HZ 108rpm

2	_25_			<del>-</del>	144.2		
37.5		1		10	3	23	
	960	- 52	08			Ø82	080
_	42		65		40	120 -	8
_				265			_

Order No.	Model	Volts		
52550-110	DTM100	AC110V 1Phase		
52550-220	DTM100	AC220V 1Phase		



F250 >

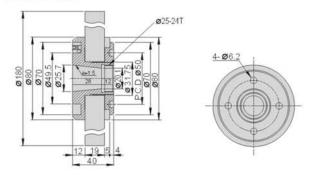
F250 Flange



N.W. 0.7kg

### Features:

► F250 Flange is used in cylinder of KENT grinding machines.



52556

F350

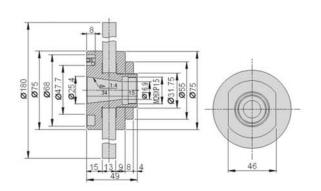
F350 Flange



N.W. 0.9kg

### Features:

► F350 Flange is used in cylinder of TATUNG-OKUMA grinding machines.



52558

F450

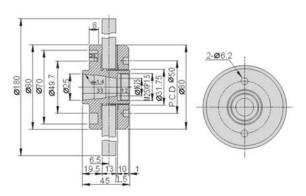
F450 Flange



N.W. 0.9kg

### Features:

► F450 (USA) is used in cylinder of US standard grinding machines.





F300

F300 Flange

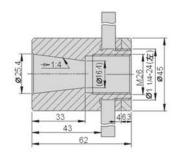
# GRINDING MACHIN

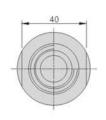


N.W. 0.6kg

### Features:

► F300 is applied to 614, 618 surface grinding machine.





52562

F320

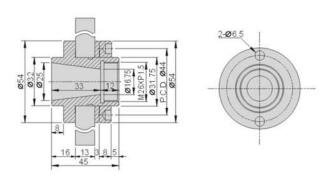
F320 Flange



N.W. 0.4kg

### Features:

F320 is used for cylinder of Tool Grinder.



52564

F520

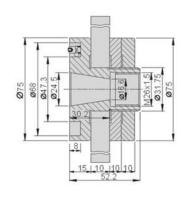
F520 Flange

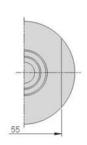


N.W. 1.0kg

### Features:

F520 is used in OKAMOTO 52DX cylinder and control the tolerance within 0.003mm.





# **Grinding Machine Accessories**

52566

W20

W20 Flange

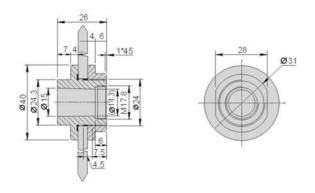




N.W. 0.1kg

### Features:

▶ W20 is used in WAIDA Optical Profile Grinder.



52568

W40

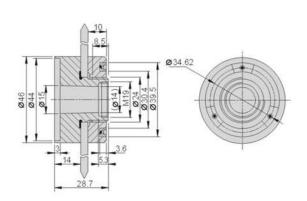
W40 Flange



N.W. 0.2kg

### Features:

▶ W40 is used in WAIDA Optical Profile Grinder.



52570

P60

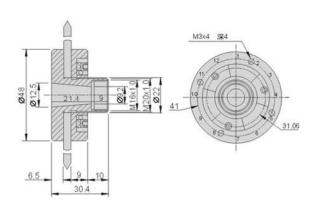
P60 Flange



N.W. 0.2kg

### Features:

P60 is used in Petewe Optical Profile Grinder.





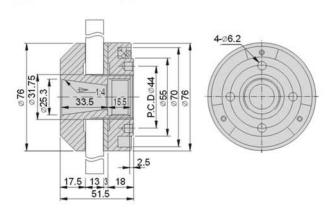
**52572** FC110 FC110 Flange

### Features:

Suitable for applying on WASINO Grinders.



N.W. 1.1kg



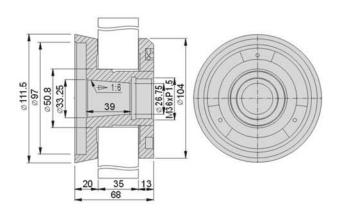
FC520

FC520 Flange



Features:

Suitable for OKAMOTO ACC-52DX Grinders.



N.W. 1.95kg

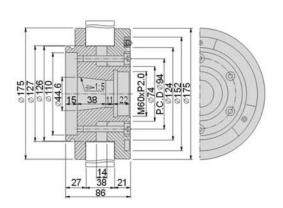
FC630

FC630 Flange



# Features:

► Suitable for OKAMOTO ACC-63DX, TATUNG PSG-64 Grinders.



N.W. 8.0kg

# **Grinding Machine Accessories**

**52578** FEB10 > FEB10 Flange

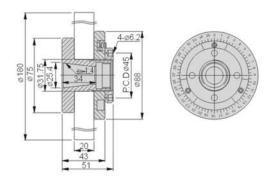




N.W. 1kg

### Features:

- Laser mark graduation reading on plates
- Suitable for TATUNG EN350 Grinders.



FEB15

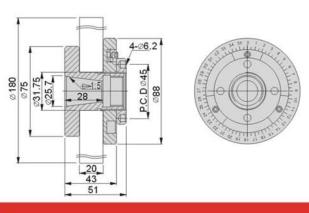
FEB15 Flange



N.W. 1kg

### Features:

- Laser mark graduation reading on plates
- Suitable for KENT EN250 Grinders.

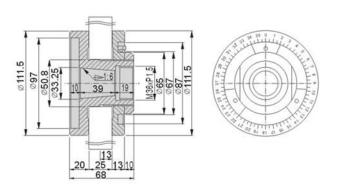


FEB18

FEB18 Flange



- Laser mark graduation reading on plates
- Suitable for OKAMOTO ACC-52DX Grinders.





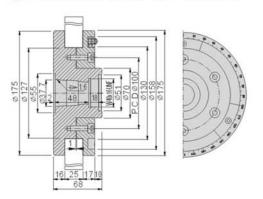
52584 FEB20

### FEB20 Flange



### Features:

- Laser mark graduation reading on plates
- Suitable for KENT 410 Grinders.



N.W. 8kg

### 52586

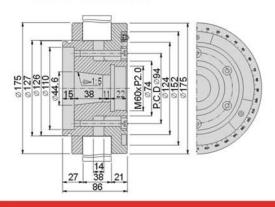
FEB22

### FEB22 Flange



### Features:

- Laser mark graduation reading on plates
- ► Suitable for OKAMOTO ACC-63DX, TATUNG PSG-64 Grinders.



N.W. 8kg

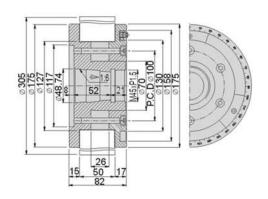
FEB25

### FEB25 Flange



N.W. 2.2kg

- Laser mark graduation reading on plates
- ► Suitable for KENT 515 3<sup>rd</sup> generation Grinders.



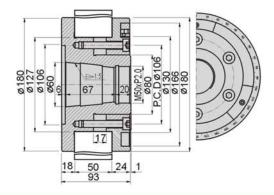
52590 FEB30 FEB30 Flange





### Features:

- Laser mark graduation reading on plates
- Suitable for CHEVALIER 0701 Grinders.

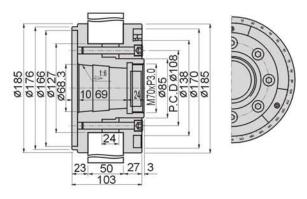


FEB35 >> FEB35 Flange



### Features:

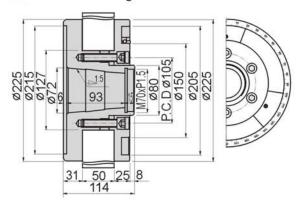
- Laser mark graduation reading on plates
- Suitable for KENT 816 Grinders.



FEB40 >> FEB40 Flange



- Laser mark graduation reading on plates
- Suitable for large OKAMOTO Grinders.



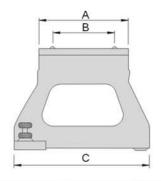


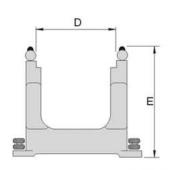
### LBS08/14 > Level Balancing Stand



### Features:

- The machine includes a level which can be adjusted by three screws on the machine.
- Lupper round rod and the slide surface had taken heat treatment, hardness 56°-58°.
- Max. applicable dia. of wheel: LBS08 Ø205mm LBS14 Ø355mm





Unit:mm

GRINDING MACHINE ACCESSORIES

Order No.	Model	Max. Applicable Dia	Α	В	С	D	E	N.W.
52596-08	LBS08	205	155	130	226	115	185	4kg
52596-14	LBS14	355	180	160	260	125	235	4.6kg

52598

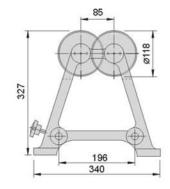
**WBS300** 

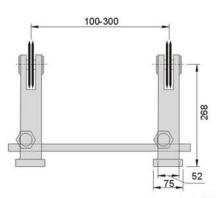
### Wheel Balancing Stand



\*\*Custom made for Max. Ø800mm is available on request

- This machine adopts 4 intersect rollers to move the wheel.
- ► Hardness: HRC 56°-58°.
- Max. range of the two side-rollers is 300mm.
- Max. applicable dia. of wheel:Ø508mm.
- Optional dia.800mm capacity customize is on request.







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廣東省東莞市大朗鎮石厦村金沙崗二路27號

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