myRobotKits
Flexible Feeder

myRobotKits

Kits for your Robot

www.myrobotkits.com

info@myrobotkits.com

MRK Flexible Feeder FF 100

Applicable Parts Size: 0.1-8 mm OR ≤15mm (long & thin parts)

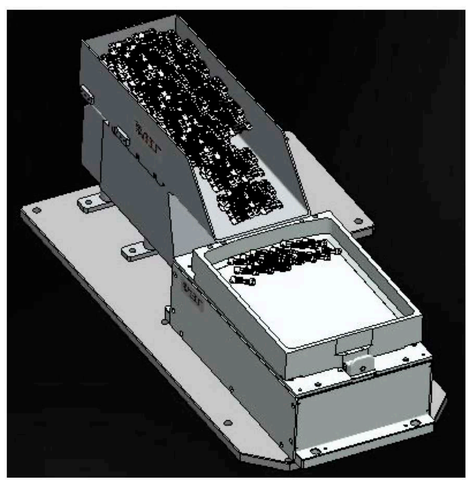
Hopper Integration, Material Tray Designed for Quick Change

FF Feeder Advantages：

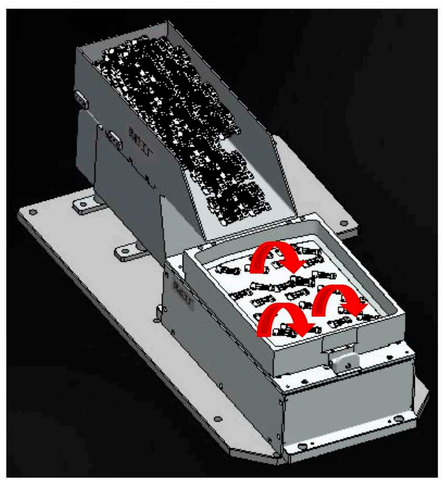
- **Compatible with All Part Geometries:**
  99% of parts in industrial automation production can be fed on our feede rs, including complex geometries parts and delicate parts that are easy to l
- **Flexible Production and Quick Switching of Part Varieties:**
  No need to change the hardware structure for the feeding system but only ONE KEY when the program switches the production varieties, meeting the current flexible production needs of small batches and multiple varieties of intelligent manufacturing.
- **Fast Vibration Response and Efficient Part Orientation:**
  Based on the fitting technology of frequency vibration, the vibration response time is only a few MS. The vibration dispersion can be completed as short as 100-1000 ms. Based on the personalized material tray (hole, groove, tooth, wire drawing), the parts can be quickly and accurately positioned, identified and grabbed.
- **Precise Part Detection:**
  Equipped with FF sight industrial vision orientating technology and integrated backlight structure (optional), parts can be accurately orientated and grabbed on the surface of the vibrating plate, and the material plate can be disassembled and washed.
- **Feeding Part with Mild Vibration:**
  Based on the multi-directional vibration fitting technology, the scattered parts are controlled to move in any direction on the surface of the pick-up window. The vibration amplitude and vibration mode are adjustable, and the parts are fed gently. The parts do not need to be transported in a circular manner, the surface damage is minimized, and there is no hidden danger of jamming.

  High Reliability and Long Lifetime:
  Frequency resonance fitting technology, no other mechanical power source and transmission mechanism, ensuring high reliability and long lifetime.
- **Easy Integration and Configuration:**
  With the software, parameter configuration is easy, the interface is graphical, easy to configure, easy to integrate, and can be easily integrated into various mainstream PLC and robot vision system production systems in industrial automation equipment.

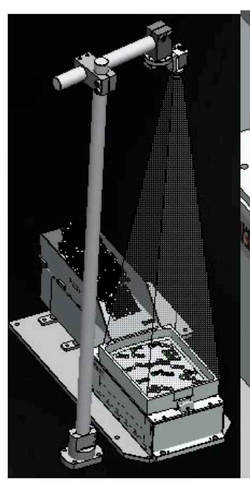
Workflow:



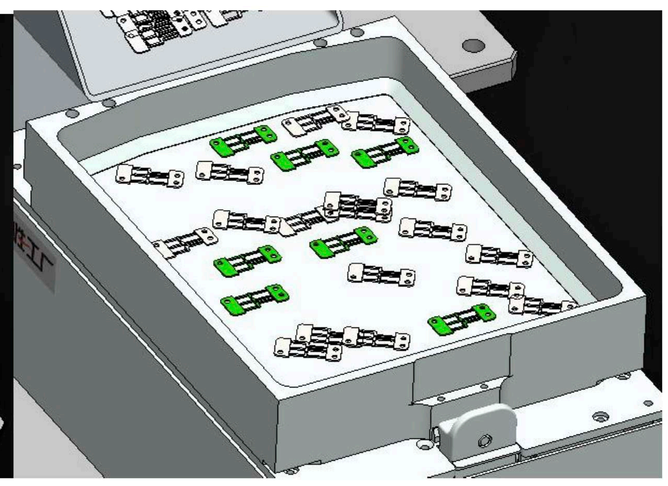
1，Feeding hopper manually, and hopper vibrating to feed the tray;

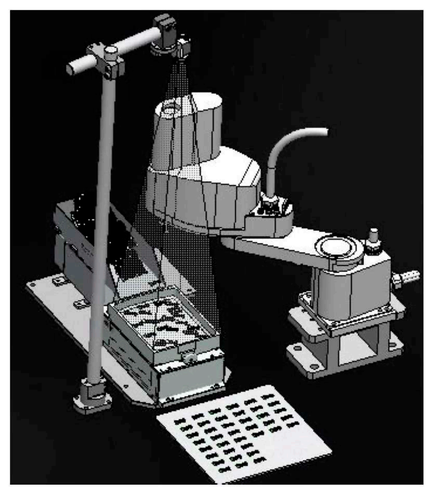


2，Feeder can make parts to move in any direction, and quickly vibrate and disperse parts;



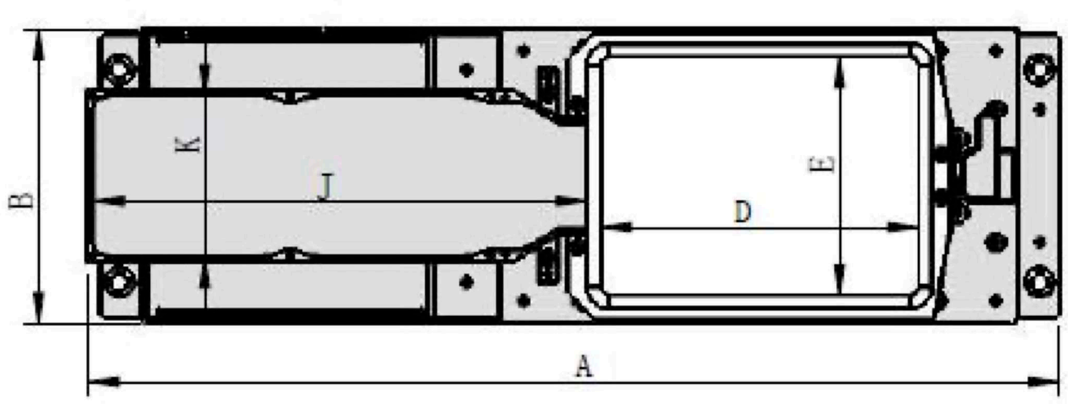
3，Visual system captures the part position and sends the coordinate data to robot;





4,Based on coordinate data sent by the visual system, robot grabs parts from tray for arraying or assembly.

Physical Parameter

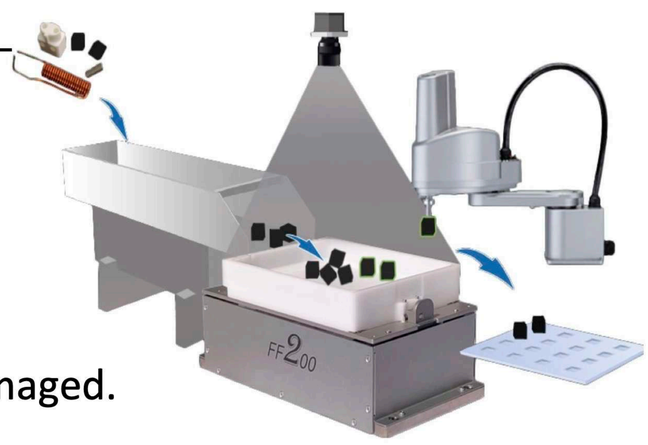


Product Parameter	FF 100
Size: L*W*H (A*B*F)	366*111*205.5 mm
pick window L*W*H*inner H(D*E*G*I)	120*90*167.3*15 mm
hopper: L*W*inner H	186*61*18 mm
Vibrating Plate Design	Groove / hole / tooth / wire drawing / customized
Vibration Surface Amplitude	G±2 mm
Pick Window Loading	500 g
Max. Height of Vibration Suspension Part	15 mm
Electrical Parameters (Feeder)	24 V/ 7A
Electrical Parameters (Backlight)	24V/3A
Color of Backlight	White/Red/Green/Blue
Debugging Software Communication Mode	Standard 232 Serial Port
External Trigger Mode	Passive I/O Port Trigger
Visual Orientating System	FF SIGHT(Optional)

MRK Flexible Feeder FF 200

Applicable Parts Size: 3-35mm OR ≤50mm (long & thin parts)

Material Tray—Fast Changing Design, Easily Clean and Quickly Parts Changing



FF Feeder Advantages:

- **Compatible with All Part Geometries:**

  99% of parts in industrial automation production can be fed on our feeders, including complex geometries parts and delicate parts that are easy to be damaged.

- **Flexible Production and Quick Switching of Part Varieties:**

  No need to change the hardware structure for the feeding system but only ONE KEY when the program switches the production varieties, meeting the current flexible production needs of small batches and multiple varieties of intelligent manufacturing.

- **Fast Vibration Response and Efficient Part Orientation:**

  Based on the fitting technology of frequency vibration, the vibration response time is only a few MS. The vibration dispersion can be completed as short as 100-1000 ms. Based on the personalized material tray (hole, groove, tooth, wire drawing), the parts can be quickly and accurately positioned, identified and grabbed.

- **Precise Part Detection:**

  Equipped with FF sight industrial vision orientating technology and integrated backlight structure (optional), parts can be accurately orientated and grabbed on the surface of the vibrating plate, and the material plate can be disassembled and washed.

- **Feeding Part with Mild Vibration:**

  Based on the multi-directional vibration fitting technology, the scattered parts are controlled to move in any direction on the surface of the pick-up window. The vibration amplitude and vibration mode are adjustable, and the parts are fed gently. The parts do not need to be transported in a circular manner, the surface damage is minimized, and there is no hidden danger of jamming.

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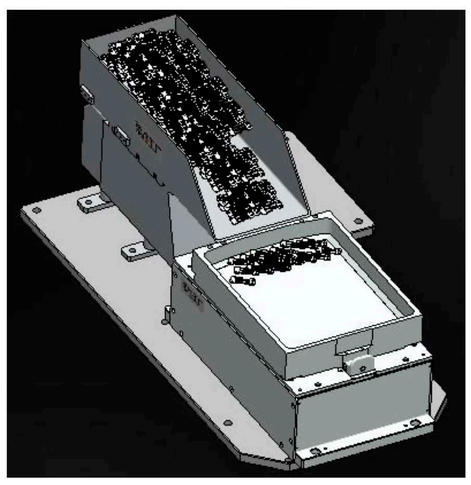
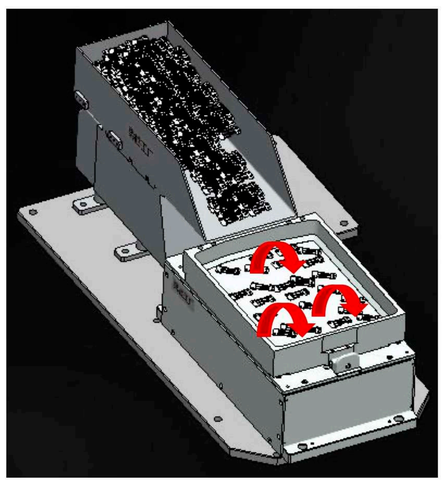
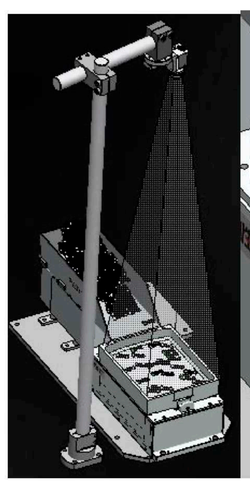
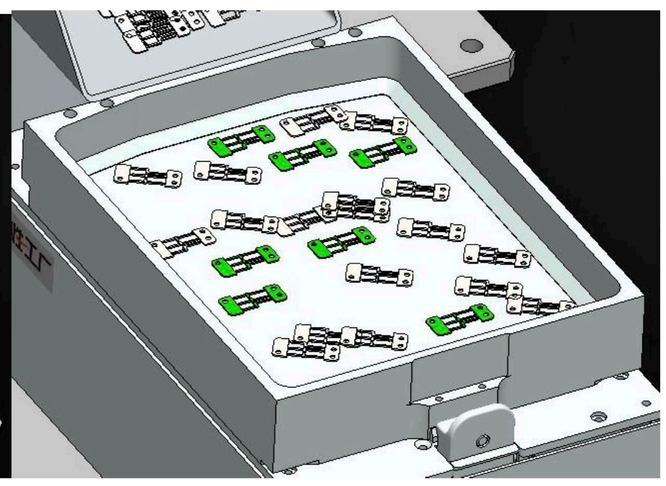
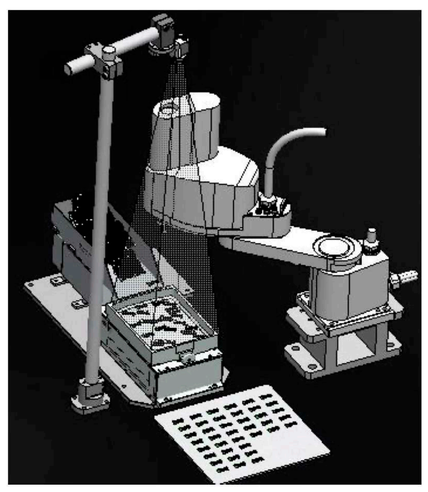
- **Easy Integration and Configuration:**

  With the software, parameter configuration is easy, the interface is graphical, easy to configure, easy to integrate, and can be easily integrated into various mainstream PLC and robot vision system production systems in industrial automation equipment.

Workflow:

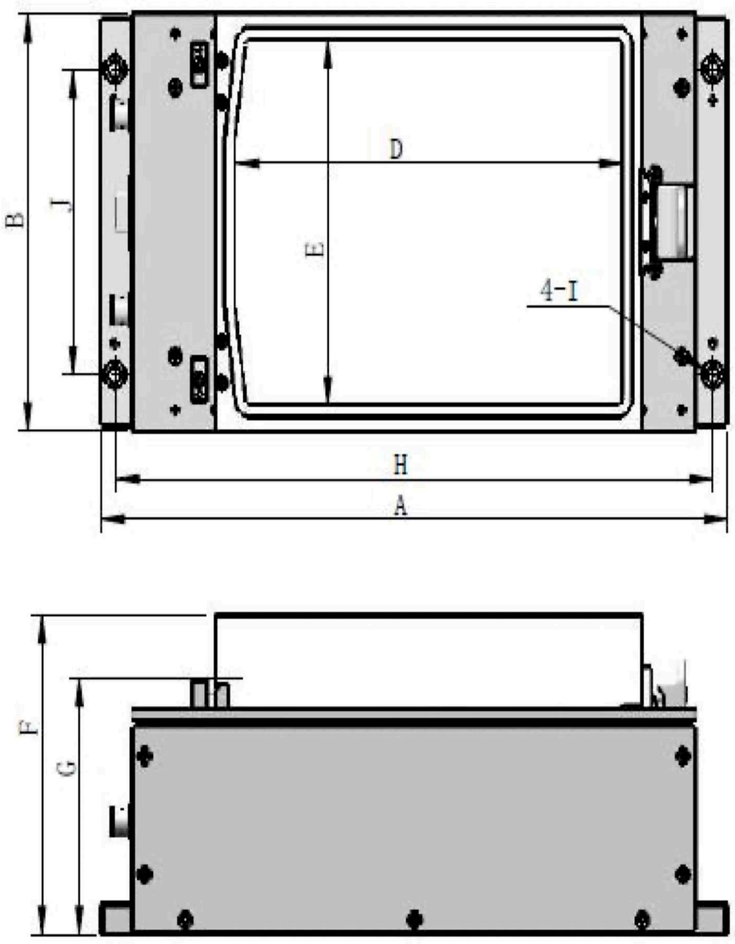
1，Feeding hopper manually, and hopper vibrating to feed the tray;

2，Feeder can make parts to move in any direction, and quickly vibrate and disperse parts;

3，Visual system captures the part position and sends the coordinate data to robot;

4，Based on coordinate data sent by the visual system, robot grabs parts from tray for arraying or assembly.

PhysicalParameter

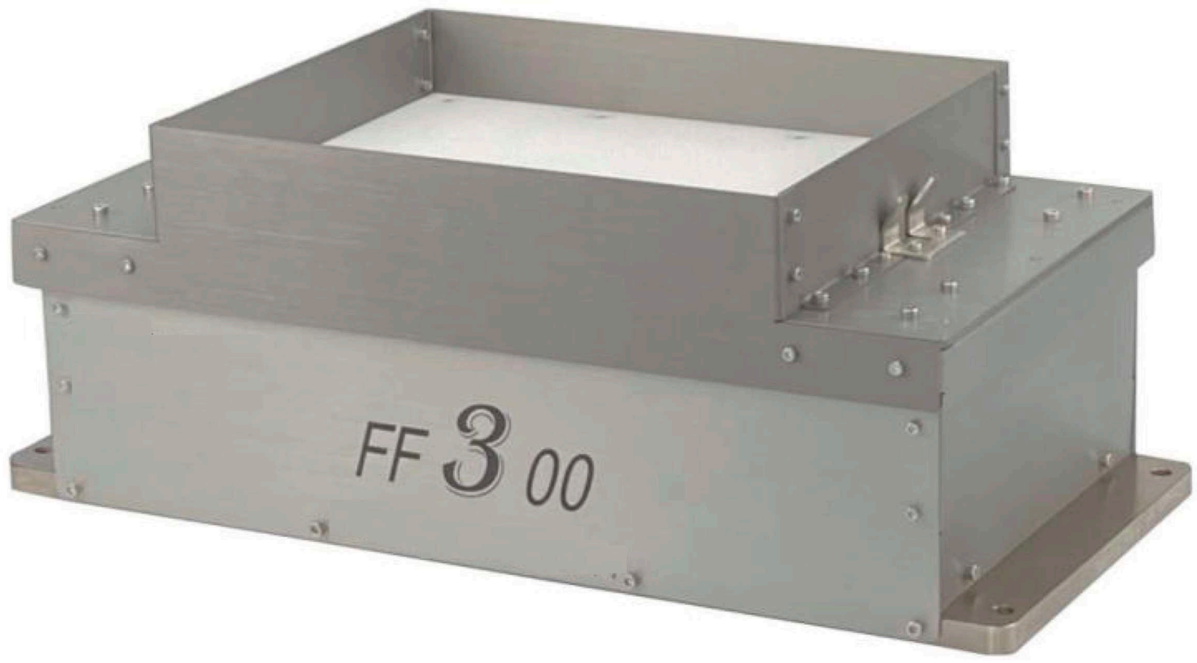


Product Parameter	FF 200
Size: L*W*H (A*B*F)	316*171*131 mm
Window Size: L*W*H (D*E*G)	195*150*105 mm
Install the fixing holes	301*125* Φ 6.6
Vibrating Plate Design	Groove / hole / tooth / wire drawing / customized
Vibration Surface Amplitude	G±3 mm
Maximum Displacement of Vibrating Plate	L-W-H-2-3-2
Pick Window Loading	0.5 KG
Max. Height of Vibration Suspension Part	50 mm
Electrical Parameters (Feeder)	24 V/ 6A
Electrical Parameters (Backlight)	24V/3A（output）
Color of Backlight	White/Red/Green/Blue
Debugging Software Communication Mode	Standard 232 Serial Port
External Trigger Mode	Passive I/O Port Trigger
Visual Orientating System	FF SIGHT(Optional)

MRK Flexible Feeder FF 300

Applicable Parts Size: 5-45mm OR ≤70mm (long & thin parts)

Vibrating Plate -- Structurally Designed, Easily Disassembled, and Quick Parts Replacement



FF Feeder Advantages:

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- **Flexible Production and Quick Switching of Part Varieties:**
  No need to change the hardware structure for the feeding system but only ONE KEY when the program switches the production varieties, meeting the small batches and multiple varieties of intelligent manufacturing.
- **Fast Vibration Response and Efficient Part Orientation:**
  Based on the fitting technology of frequency vibration, the vibration response time is only a few MS. The vibration dispersion can be completed as short as 100-1000 ms. Based on the personalized material tray (hole, groove, tooth, wire drawing), the parts can be quickly and accurately positioned, identified and grabbed.
- **Precise Part Detection:**
  Equipped with FF sight industrial vision orientating technology and integrated backlight structure (optional), parts can be accurately orientated and grabbed on the surface of the vibrating plate, and the material plate can be disassembled and washed.
- **Feeding Part with Mild Vibration:**
  Based on the multi-directional vibration fitting technology, the scattered parts are controlled to move in any direction on the surface of the pick-up window. The vibration amplitude and vibration mode are adjustable, and the parts are fed gently. The parts do not need to be transported in a circular manner, the surface damage is minimized, and there is no hidden danger of jamming.

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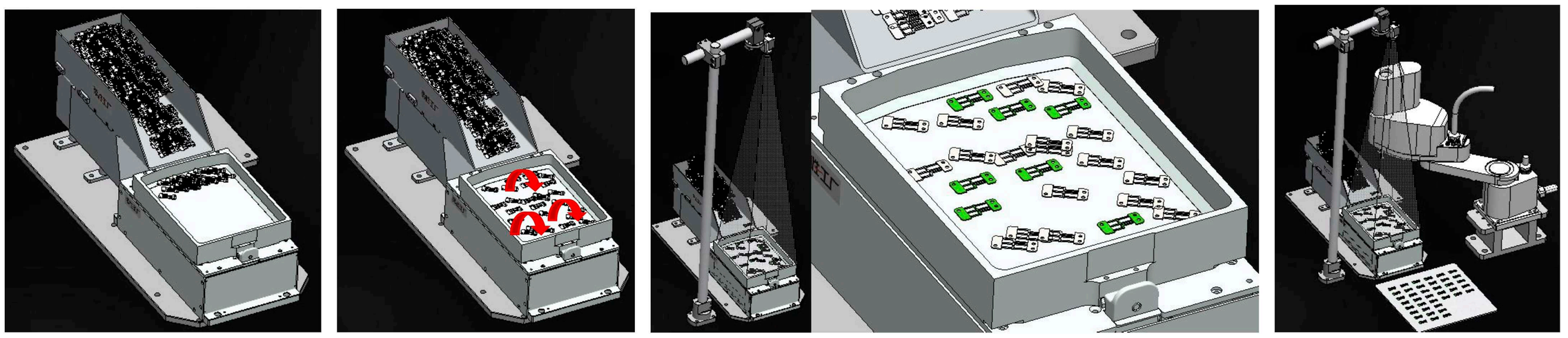

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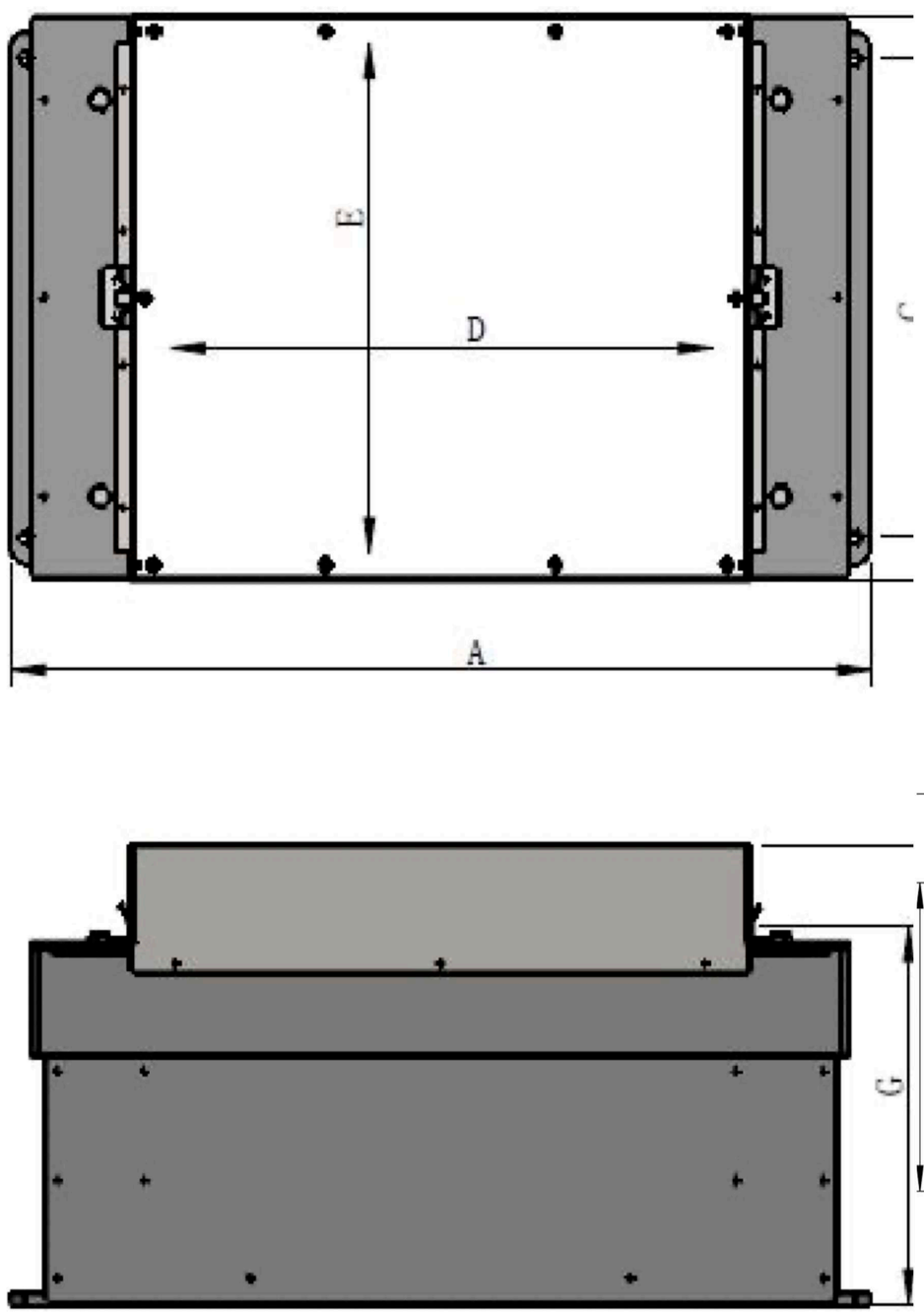

Product Parameter	FF 300
Size: L*W*H (A*B*F)	480*230*179 mm
Window Size: L*W*H (D*E*G)	263.5*200*139 mm
Install the fixing holes	460*174* Φ8.5
Vibrating Plate Design	Groove / hole / tooth / wire drawing / customized
Vibration Surface Amplitude	G±6 mm
Maximum Displacement of Vibrating Plate	L-W-H-8-10-6
Pick Window Loading	1KG
Max. Height of Vibration Suspension Part	50 mm
Vibrating Plate + Disc Frame (Max. Weight)	3 KG(standard plate1 KG)
Electrical Parameters (Feeder)	24 V/ 6A
Electrical Parameters (Backlight)	220V(input)/24V/5A（output）
Color of Backlight	White/Red/Green/Blue
Debugging Software Communication Mode	Standard 232 Serial Port
External Trigger Mode	Passive I/O Port Trigger
Visual Orientating System	FF SIGHT(Optional)

MRK Flexible Feeder
FF 400 / FF 500

Applicable Parts Size: 15-80mm OR ≤110mm (long & thin parts)
Applicable Parts Size: 20-120mm OR ≤150mm (long & thin parts)

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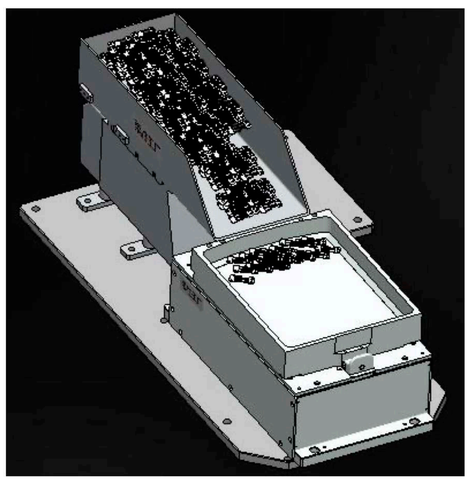

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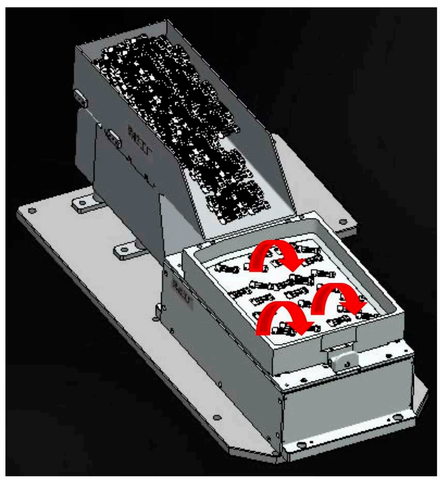

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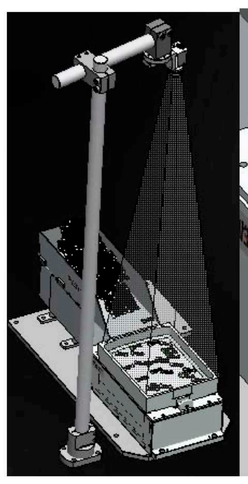

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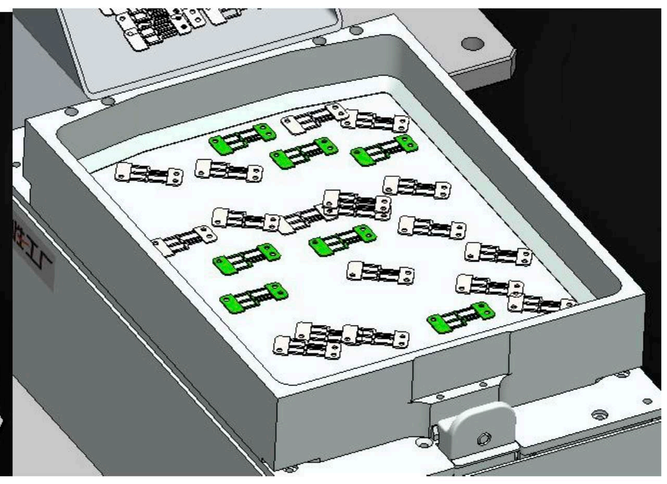

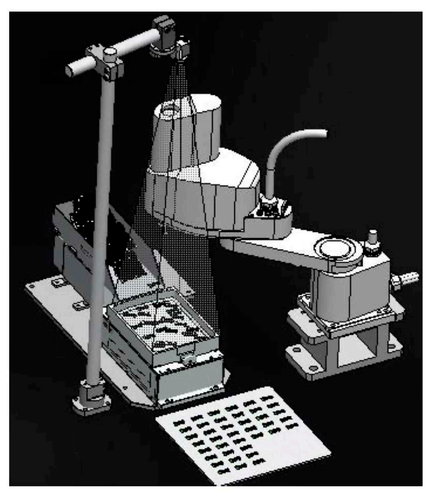

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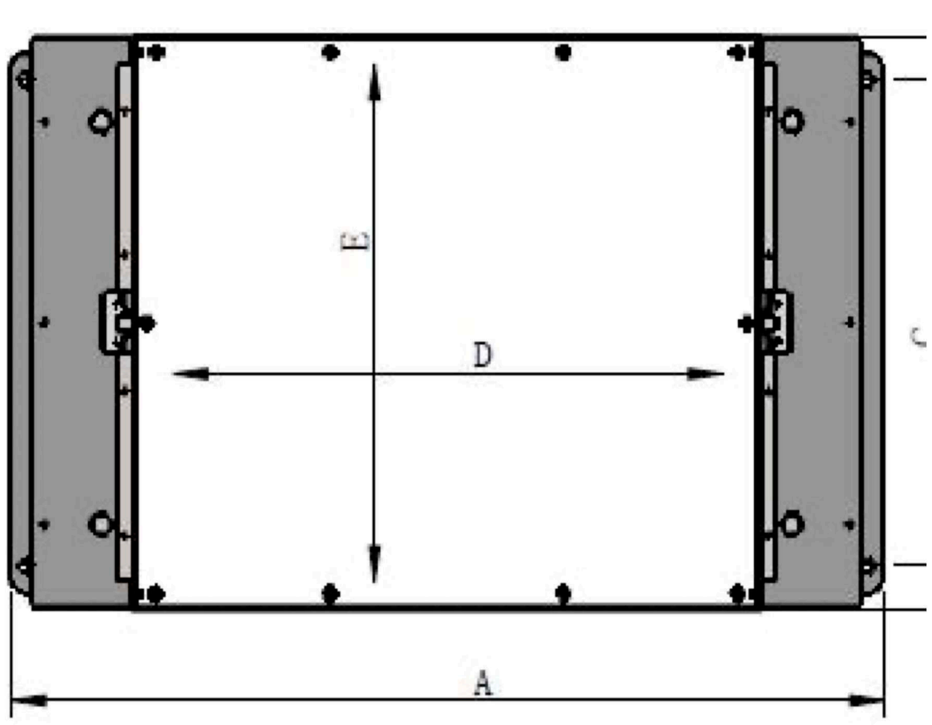
Physical Parameter



Product Parameter	FF 400	FF 500
Size: L*W*H (A*B*F)	527*285*240 mm	600*377*240 mm
Window Size: L*W*H (D*E*G)	330*255*185 mm	403*347*185 mm
Vibrating Plate Design	Groove / hole / tooth / wire drawing / customized	Groove / hole / tooth / wire drawing / customized
Vibration Surface Amplitude	G±6 mm	G±8 mm
Maximum Displacement of Vibrating Plate	L-W-H-8-10-6	L-W-H-8-10-8
Pick Window Loading	1.5 KG	2 KG
Vibrating Plate + Disc Frame (Max. Weight)	4 KG(standard plate1.3 KG)	5 KG(standard plate1.8 KG)
Max. External Force on the Platform	X-Y-Z-10-10-30N	X-Y-Z-10-10-30N
Max. Height of Vibration Suspension Part	130 mm	130 mm
Electrical Parameters (Feeder)	24 V/ 6A	24 V/ 6A
Electrical Parameters (Backlight)	220V(input)/24V/5A （output）	220V(input)/24V/5A （output）
Color of Backlight	White/Red/Green/Blue	White/Red/Green/Blue
Debugging Software Communication Mode	Standard 232 Serial Port	Standard 232 Serial Port
External Trigger Mode	Passive I/O Port Trigger	Passive I/O Port Trigger
Visual Orientating System	FF SIGHT(Optional)	FF SIGHT(Optional)