

Semi Automatic Powder Auger Filling Machine



High quality packing machines manufacturer

welcome to visit us!

One. General description

This type can do dosing and filling work. Due to the special professional design, so it is suitable to the fluidic or low-fluidity materials, like coffee powder, wheat flour, condiment, solid drink, veterinary drugs, dextrose, pharmaceuticals, powder additive, talcum powder, agriculture pesticide, dyestuff, and so on.

Video: <https://youtu.be/GvY6hUT8Fac>

Two. features

- Lathing auger screw to guarantee the precise filling accuracy
- PLC control and touch screen display
- Servo motor drives screw to guarantee stable performance
- Quick disconnecting hopper could be washed easily without tools
- Can be setting to semi-auto filling by pedal switch or auto filling
- Full stainless steel 304 material
- weight feedback and proportion track to materials, which overcomes difficulties of filling weight changes due to materials' density change.
- Save 20 sets of formula inside the machine for later use
- Replacing the auger parts, different products ranging from fine powder to granule and different weight can be packed
- Multi language interface

Three. specification

| Model | TP-PF-A10 | TP-PF-A11 | TP-PF-A11S | TP-PF-A14 | TP-PF-A14S |
|------------------|--------------------------------|--------------------------------|------------------------|---|------------------------|
| Control system | PLC & Touch Screen | PLC & Touch Screen | | PLC & Touch Screen | |
| Hopper | 11L | 25L | | 50L | |
| Packing Weight | 1-50g | 1 - 500g | | 10 - 5000g | |
| Weight dosing | By auger | By auger | By load cell | By auger | By load cell |
| Weight Feedback | By off-line scale (in picture) | By off-line scale (in picture) | Online weight feedback | By off-line scale (in picture) | Online weight feedback |
| Packing Accuracy | ≤ 100g, ≤±2% | ≤ 100g, ≤±2%; 100 – 500g, ≤±1% | | ≤ 100g, ≤±2%; 100 – 500g, ≤±1%; ≥500g, ≤±0.5% | |
| Filling Speed | 40 – 120 times per min | 40 – 120 times per min | | 40 – 120 times per min | |
| Power Supply | 3P AC208-415V 50/60Hz | 3P AC208-415V 50/60Hz | | 3P AC208-415V 50/60Hz | |
| Total Power | 0.84 KW | 0.93 KW | | 1.4 KW | |
| Total Weight | 90kg | 160kg | | 260kg | |

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| | | | |
|--------------------|----------------|----------------|-----------------|
| Overall Dimensions | 590×560×1070mm | 800×790×1900mm | 1140×970×2200mm |
|--------------------|----------------|----------------|-----------------|

Four. Configuration list



| No. | Name | Pro. | Brand |
|-----|-------------------------|--------|-----------|
| 1 | PLC | Taiwan | DELTA |
| 2 | Touch Screen | Taiwan | DELTA |
| 3 | Servo motor | Taiwan | DELTA |
| 4 | Servo driver | Taiwan | DELTA |
| 5 | Switching powder supply | | Schneider |
| 6 | Emergency switch | | Schneider |
| 7 | Contactors | | Schneider |
| 8 | Relay | | omron |
| 9 | Proximity switch | Korea | Autonics |
| 10 | Level sensor | Korea | Autonics |

Five. Detailed Photos

1, hopper



Level split hopper

It is very easy to open hopper and do cleaning.



Disconnect hopper

it is not easy to take hopper apart and do cleaning.

2, the way to fix auger screw



Screw type

It will not make material stock, and easy for cleaning.



hang type

it will make material stock, and become rust, not easy for cleaning.



Stainless steel type

It is easy for cleaning and beautiful.



cloth type

it has to change termly for cleaning.

4, level sensor (Autonics)



it gives signal to loader when material lever is low, it does feeding automatically.

5, hand wheel

It is suitable for filling into bottles/bags with different height.



6, Leakproof acentric device

It is suitable for filling products with very good fluidity, such as, salt, white sugar etc.



7, auger screw and tube

In order to make sure filling accuracy, one size screw is suitable for one weight range, for example, dia. 38mm screw is suitable for filling 100g-250g.



Production and processing:



Six. Semi automatic packing line

1, screw feeder + auger filler



2, ribbon mixer + screw feeder + auger filler



3, ribbon mixer + screw conveyor + storage hopper + screw conveyor + auger filler



4, screw feeder + ribbon mixer + screw feeder + auger filler



Seven: Factory Show



Eight: Customer site service

Our two engineers went to client's factory in Spain for after-sales service in 2017



Nine: Qualifications



ADVANTAGE OF NEW DESIGN AUGER FILLER



| No. | Item | Current type | New type |
|-----|--------------------------|--|---|
| 1 | Level sensor | Easily disturbed | tuning fork type level sensor, P+F brand, it is more suitable for all kinds of materials, especially dusty materials. |
| 2 | hopper | It is easy for organic glass to become aged and deformed after lone time | Stainless steel 304, strong and durable, arc design, no material stock, easy to clean |
| 3 | Feed inlet & air outlet | Screw type | Quick connection type, more convenient installation and dis-assembly. |
| 4 | Feed inlet | Vertical, easy to impact the hopper when feeding | With Radian, reduce impact for hopper |
| 5 | Hopper opening & closing | | Accurate slot to guarantee the hopper close properly |

Detailed pictures to explain the new auger filler head's improvements:







New level sensor PEPPERL + FUCHS brand, originally made in Germany

Current design type's pictures



level sensor



Hopper opening & closing



support plate