

Thinkstron  
FEEDING SOLUTION EXPERT

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Guangzhou Master technologies Co.,Ltd.

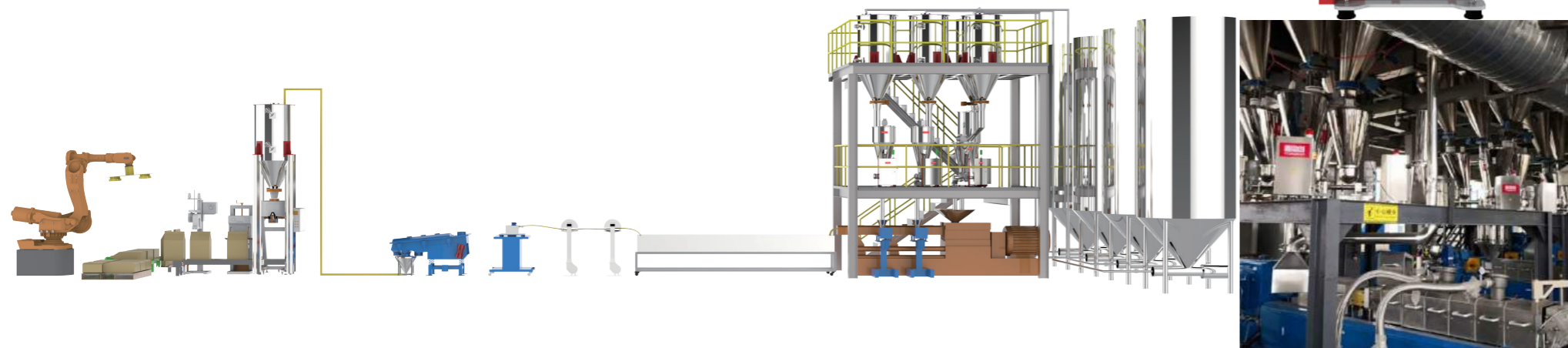
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# THINKSTRON

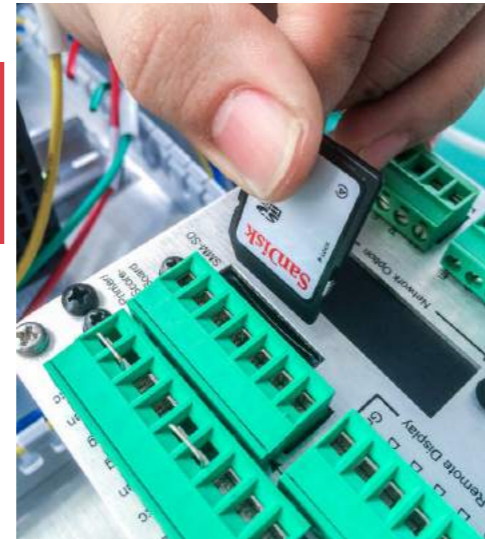
Loss-in-weight single screw feeder | Loss-in-weight  
twin screw feeder | Liquid feeder | Vibration feeder

鑫思创



Over 30 years of experience in weighing and feeding technology, we can provide you a one-stop material process solution.

# HMI



## FEATURES

### Material

All components of the feeder contacts with material are made of SUS304, different materials can also be used according to different needs.

### Function Features

- Electronic Auto-calibration without any tools.
- Easy operation of HMI
- Data quick transfer, backup and recovery within one second
- Profinet, Modbus TCP/IP, DeviceNet and ProfiBus DP networks support

### Dosing system Application

- |                  |                 |            |
|------------------|-----------------|------------|
| • Plastics       | Food            | Cable      |
| • Chemical       | Lithium battery | Automotive |
| • Pharmaceutical | Breathable film | New energy |

### Precision and stability

- Accuracy meet around +/-0.25-0.5% for long-term running
- Vibration Elimination with proprietary technology
- Feeding compensation while refilling

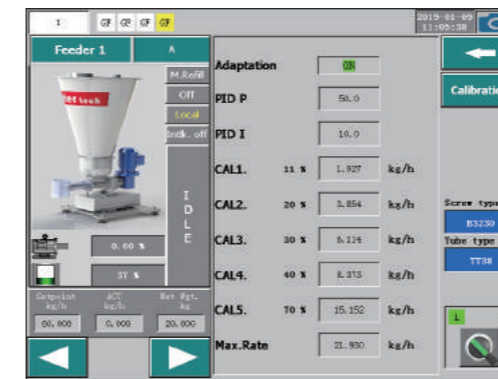
### Mechanical Design

- Modular design, easy disassembly and cleaning
- Effective agitator with less material residue
- Robust design and dust-free sealed no pollution



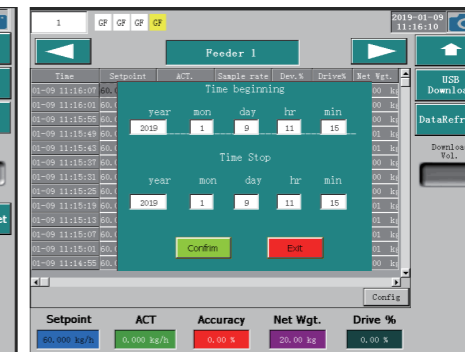
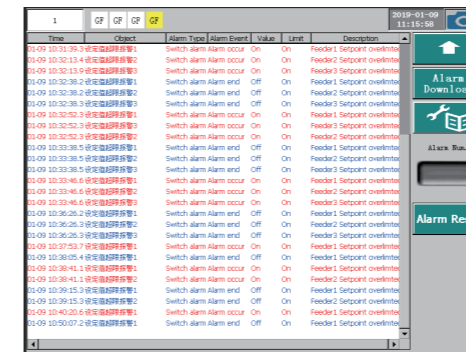
### Electronic calibration(e-Cal)

eCAL Process Toolbox function provides quick and easy electronic calibration of a weighing system without the need for heavy test weights.



### Dynamic calibration (5-point calibration)

Using dynamic calibration can calculate the minimum and maximum throughput of the screw, and also can switch low speed and high speed to change throughput rate.



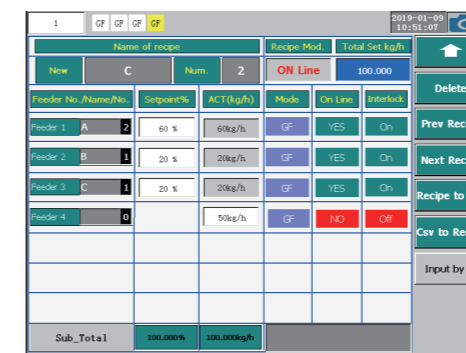
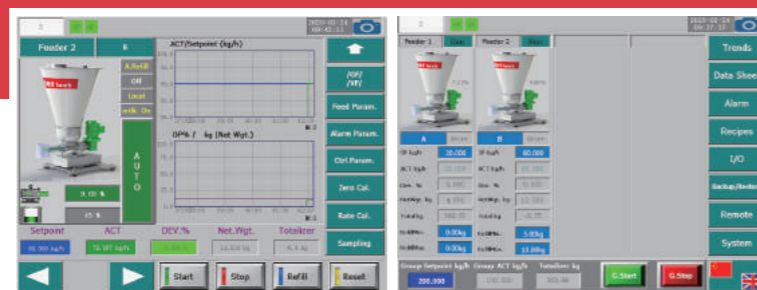
### Trend graph and alarm log

View real-time feeding curves and data and export trend graph and alarm log to USB

## Function

### Stand-alone / Group mode

The setpoint of feeder(s) can be set in stand-alone mode, group mode, and master-slave mode.



### Recipe mode

Under group mode, recipe can be modified online by editing setpoint, operation mode and interlock status.

Material can be loaded or added in Feeder pages.

# MG-FT45

## Loss-in-weight twin-screw feeder



### Application

Loss-in-weight twin-screw feeder specially used for poor flowing material like titanium oxide.

### Features

The Loss-in-weight twin-screw feeder is using twin screws and single point weighing module to reach real-time weighing.

Screws and agitator are controlled by separate motors, they are non-interfering and flexible in use. According to the material attributes and properties of titanium oxide, the concave screws have good self-cleaning ability, that enables the stability of the overall throughput. It can match different sleeves to meet different throughput requirements. Thanks to the agitator design, it helps effectively to clean the hopper from material adhesive to the hopper in order to avoid from bridging. This therefore increases the overall accuracy and make it easier to clean. All components in contact with materials are made of SUS 304 stainless steel. Easy to dismantle and clean

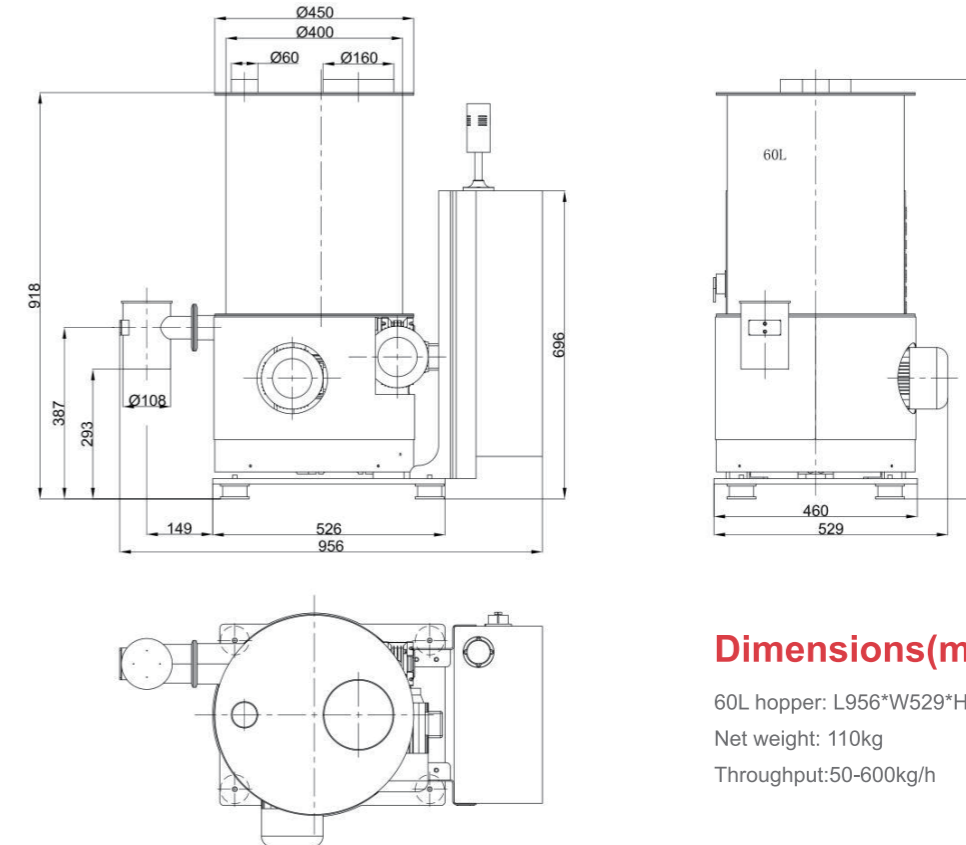
### Screw model

Model selection is based on material attributes and properties

The maximum throughput described in the following table is a theoretical value calculated based on the screw pitch and the motor's speed at 50 Hz, which is actually related to the bulk density and compacting factor of the material. The following data is for reference only.

螺杆类型 (Screw Type)	直径*螺距 (Φmm*Pmm)	套筒名称 (Tube Designation)	套筒直径 (Tube Dia. mm)	转速 (Speed r.p.m)	最大值 (Max. m <sup>3</sup> /hr)	产能范围 (Capacity Range m <sup>3</sup> /hr)	
刀型双螺杆 Twin auger screw	TB4220	42*20	TT45	Φ 45*5	270	140	28-112
	TB4230	42*30	TT45	Φ 45*5	270	222	44-178
	TB4240	42*40	TT45	Φ 45*5	270	304	60-243
	TB4250	42*50	TT45	Φ 45*5	270	387	77-310
	TB4260	42*60	TT45	Φ 45*5	270	469	94-375
	TB4270	42*70	TT45	Φ 45*5	270	552	110-442
波型双螺杆 Twin concave	TC4220	42*20	TT45	Φ 45*5	270	87	17-70
	TC4230	42*30	TT45	Φ 45*5	270	130	26-104
	TC4240	42*40	TT45	Φ 45*5	270	174	35-140
	TC4250	42*50	TT45	Φ 45*5	270	217	43-174
	TC4260	42*60	TT45	Φ 45*5	270	261	52-208
	TC4270	42*70	TT45	Φ 45*5	270	304	60-243

### Product outline drawing



### Dimensions(mm)

60L hopper: L956\*W529\*H948  
Net weight: 110kg  
Throughput:50-600kg/h

Structure Diagram	Item	Specification
	Agitator motor	Optional (0.37kw ip55)
	Hopper	Size (60L/80L/110L)
	Agitator blade	Material SUS304
	Drive motor	Model (0.37kw ip55)
	Frequency converter	MT8400
	Controller	MT4000
	Screws	Type (blade screws/concave screws)
	Weighing module	Model (50kg/100kg/200kg)
Sleeves	TT38	

Thinkstron continuously develops and innovates the products. In case of any change in the parameters in the data, the production model shall prevail, and no further notice is required.



# MG-QS68

## Loss-in-weight single screw feeder

### Application

Loss-in-weight single screw feeder used for free-flowing material like powders, granules, pellets, films etc.

### Features

The Loss-in-weight single screw feeder is using single screw and single point weighing module to reach real-time weighing.

Different screw type and pitch can be customized according to the different material attributes and properties to meet different capacity requirement.

Thanks to the agitator design, it helps effectively to clean the hopper from material adhesive to the hopper in order to avoid from bridging. This therefore increases the overall accuracy.

All components in contact with materials are made of SUS 304 stainless steel.

Easy to dismantle and clean

### Screw model

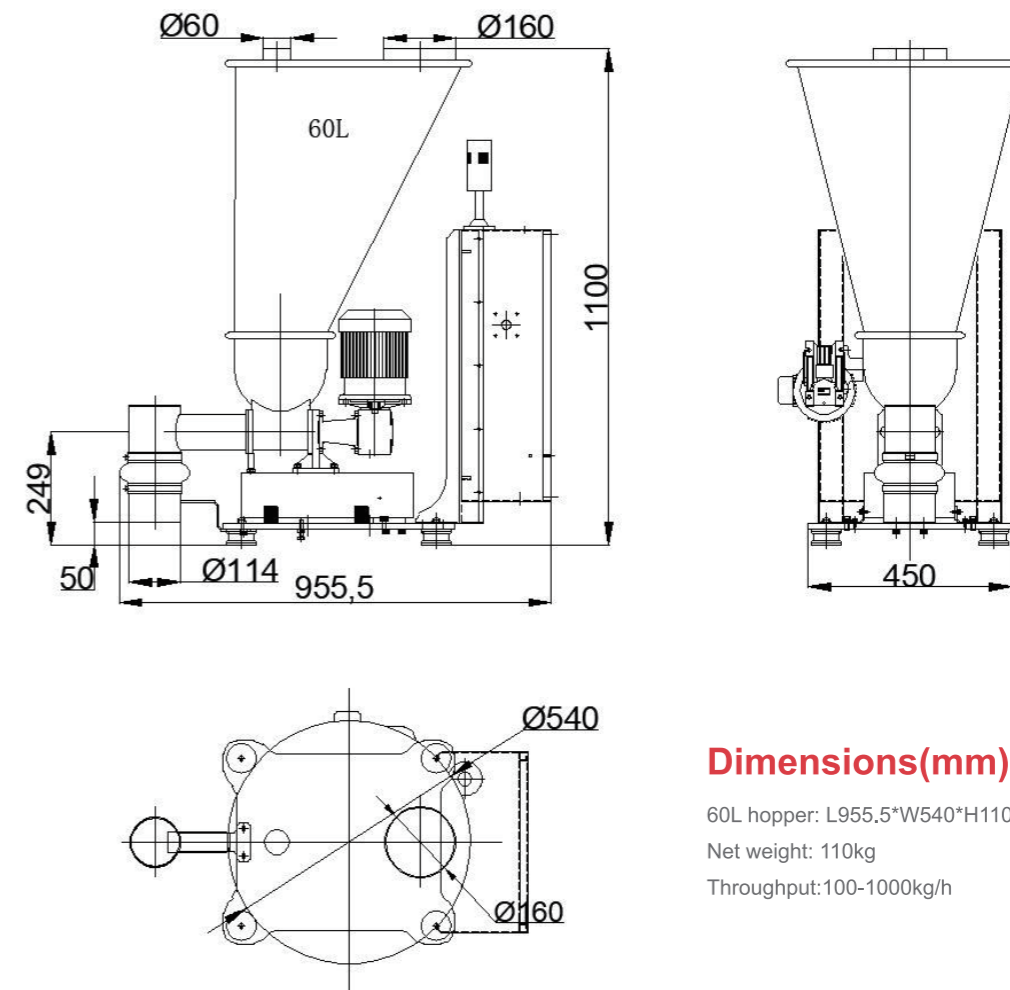
Model selection is based on material attributes and properties

The maximum throughput described in the following table is a theoretical value calculated based on the screw pitch and the motor's speed at 50 Hz, which is actually related to the bulk density and compacting factor of the material. The following data is for reference only.

螺杆类型 (Screw Type)	直径*螺距 (Φmm*Pmm)	套筒名称 (Tube Designation)	套筒直径 (Tube Dia. mm)	转速 (Speed r.p.m)	最大值 (Max. m <sup>3</sup> /hr)	产能范围 (Capacity Range m <sup>3</sup> /hr)
刀型单螺杆 Single auger screw	B5620	56*20	T68	135	220	44-176
	B5630	56*30	T68	135	345	69-276
	B5640	56*40	T68	135	470	94-376
	B5650	56*50	T68	135	595	119-476
	B5660	56*60	T68	135	720	144-575
	B5670	56*70	T68	135	845	169-676
弹簧单螺杆 Spring single screw	S5620	56*20	T68	135	180	36-144
	S5630	56*30	T68	135	330	66-264
	S5640	56*40	T68	135	480	96-384
	S5650	56*50	T68	135	627	125-500
	S5660	56*60	T68	135	775	155-620
	S5670	56*70	T68	135	950	190-760



### Product outline drawing

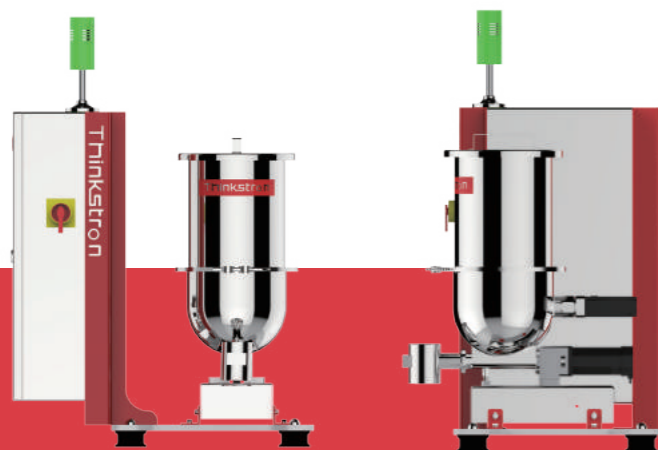


### Dimensions(mm)

60L hopper: L955.5\*W540\*H1100  
 Net weight: 110kg  
 Throughput: 100-1000kg/h

Structure Diagram	Item	Specification
	Agitator motor	Optional (0.37kw ip55)
	Hopper	Size (60L/80L/110L/180L)
	Spherical hopper	4L
	Drive motor	Model (0.37kw ip55)
	Frequency converter	MT8400
	Controller	MT4000
	Screws	Type (blade screws/spiral screws)
	Weighing module	Model (50kg/100kg/200kg)
Sleeves	T68	

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# MG-QT20

Micro loss-in-weight twin-screw feeder

## Application

Micro loss-in-weight twin-screw feeder used for relatively free flowing material like powders, fibers, films etc.

## Features

The Micro loss-in-weight twin-screw feeder is using twin screws and single point weighing module to reach real-time weighing.

Screws and agitator are controlled by separate motors, they are non-interfering and flexible in use.  
 Different screw type and pitch can be customized according to the different material attributes and properties to meet different capacity requirement.  
 Thanks to the agitator design, it helps effectively to clean the hopper from material adhesive to the hopper in order to avoid from bridging. This therefore increases the overall accuracy and make it easier to clean.  
 All components in contact with materials are made of SUS 304 stainless steel.  
 Easy to dismantle and clean

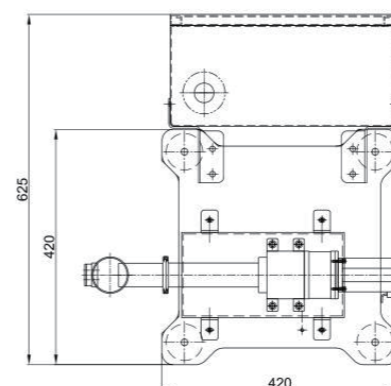
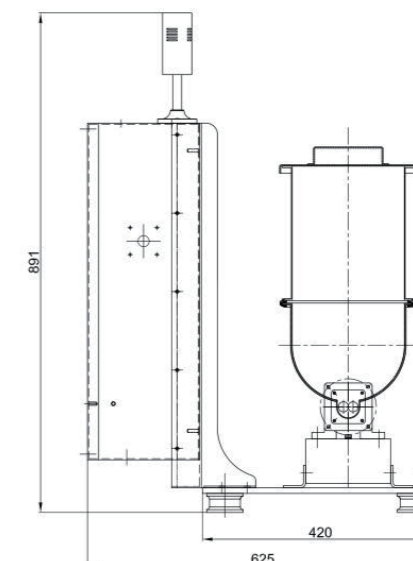
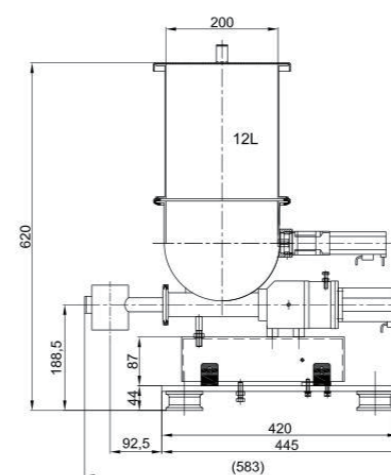
## Screw model

Model selection is based on material attributes and properties

The maximum throughput described in the following table is a theoretical value calculated based on the screw pitch and the motor's speed at 50 Hz, which is actually related to the bulk density and compacting factor of the material. The following data is for reference only.

螺杆类型 (Screw Type)	直径*螺距 (Φmm*Pmm)	套筒名称 (Tube Designation)	套筒直径 (Tube Dia. mm)	转速 (Speed r.p.m)	最大值 (Max. m <sup>3</sup> /hr)	产能范围 (Capacity Range m <sup>3</sup> /hr)	
刀型双螺杆 Twin auger screw	TB1810	18*10	TT20	Φ20*3	10-100rpm	10	0.5--8
	TB1820	18*20	TT20	Φ20*3	10-100rpm	15	1.5--13
	TB1830	18*30	TT20	Φ20*3	10-100rpm	20	2--18
波型双螺杆 Twin concave	TC1811	18*11	TT20	Φ20*3	10-100rpm	8	0.5--5
	TC1822	18*22	TT20	Φ20*3	10-100rpm	13	1--11
	TC1833	18*33	TT20	Φ20*3	10-100rpm	20	2--16

## Product outline drawing



## Dimensions(mm)

12L hopper: L583\*W625\*H891  
 Net weight: 60kg  
 Throughput: 0.5-20kg/h

Structure Diagram	Item	Specification
	Hopper	Optional (12L/20L/30L)
	Frequency converter	MT8400
	Controller	MT4000
	Agitator motor	Model (0.4kw/0.1kw ip55)
	Drive motor	Model (0.4kw ip55)
	Screws	Type (blade screws/concave screws)
	Weighing module	Model (30kg/60kg/80kg)
Sleeves	TT20	

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# ML-Z25-DW

## Loss-in-weight Liquid feeder

### Application

Loss-in-weight Liquid feeder used for water, combustion improver lubricant, antioxidant, antistatic agent, oil etc.

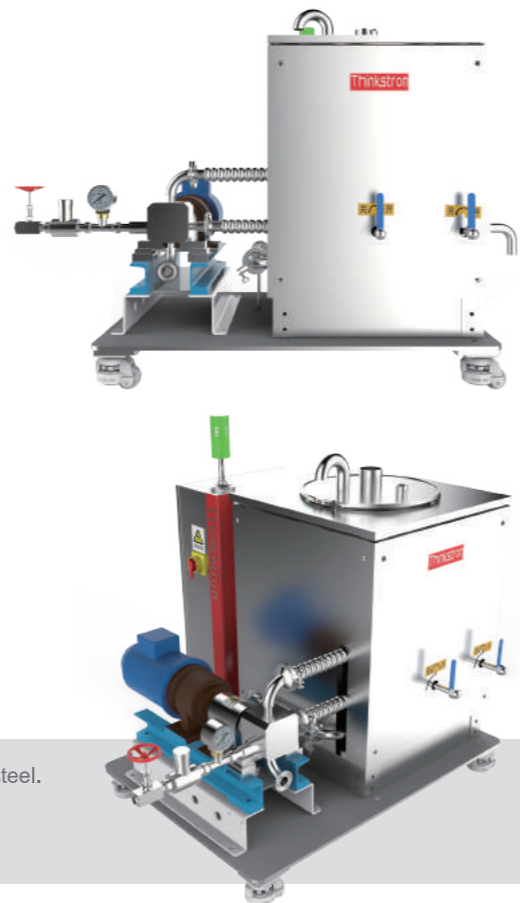
### Features

Pump selection is base on the liquid attributes and properties, especially the viscosity of the liquid.

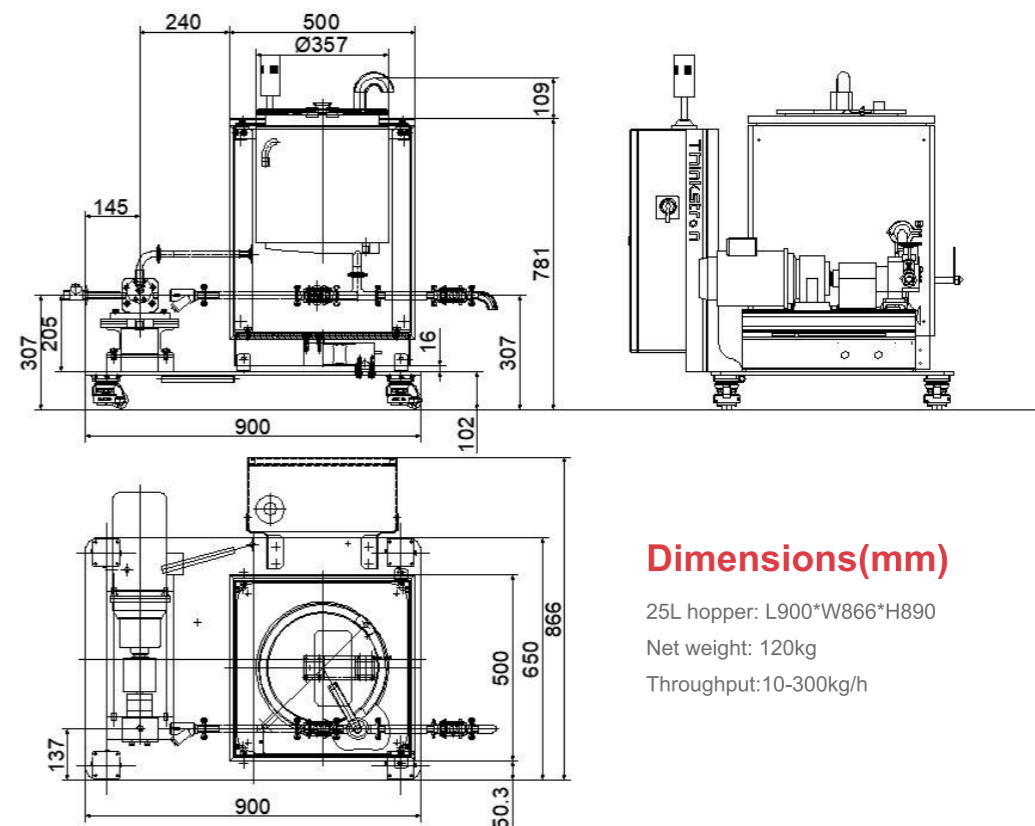
All components in contact with materials are made of SUS 304/316 stainless steel.

Easy to dismantle and clean

Wheels are optional for easy movement.



### Product outline drawing



### Dimensions(mm)

25L hopper: L900\*W866\*H890

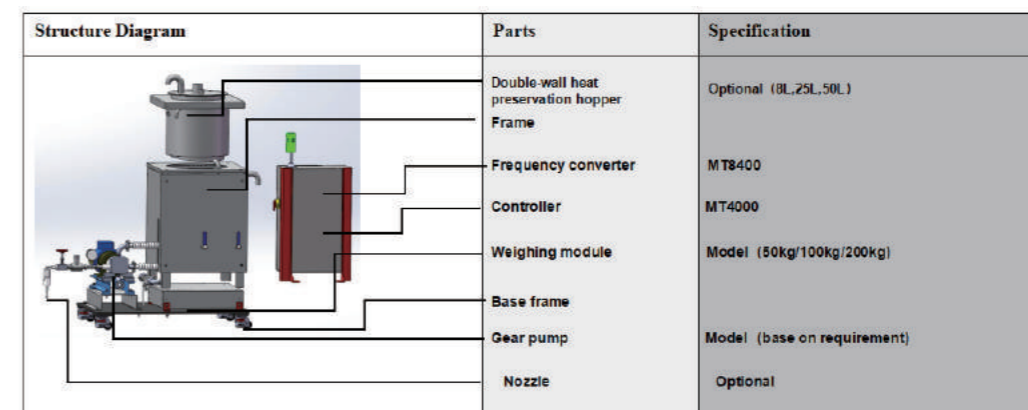
Net weight: 120kg

Throughput:10-300kg/h

### Gear pump model

The selection of gear pump is mainly based on the viscosity and throughput:

MODEL	MOTOR POWER (KW)	SPEED (r/min)	FLOW (L/min)	DISCHARGE PRESSURE (MPa/cm <sup>2</sup> )	ALLOW SUCTION OF VACUUM PUMP (m)	IMPORT AND EXPORT CALIBER
KCB18.3(2CY-1.1/14.5-2)	1.5	1400	18.3	1.45	5	3/4"
KCB33.3(2CY-2/14.5-2)	2.2	1420	33.3	1.45	5	3/4"
KCB55(2CY-3.3/3.3-2)	1.5	1400	55	0.33	5	1"
KCB55(2CY-3.3/3.5-2)	2.2	1420	55	0.5	5	1"
KCB83.3(2CY-5/3-2)	2.2	1420	83.3	0.33	5	1.5"
KCB83.3(2CY-5/5-2)	3	1420	83.3	0.5	5	1.5"
KCB200(2CY-8/3.3-2)	4	1440	200	0.33	5	2"
KCB200(2CY-12/1.3-2)	4	1440	200	0.13	5	2"
KCB200(2CY-12/3.3-2)	5.5	1440	200	0.33	5	2"
KCB200(2CY-12/6-2)	5.5	1440	200	0.60	5	2"
KCB200(2CY-12/10-2)	7.5	1440	200	1.00	5	2"
KCB300(2CY-18/3.6-2)	5.5	960	300	0.36	5	3"
KCB300(2CY-18/6-2)	7.5	1440	300	0.6	5	3"



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