Reserve the right to change the parameters of product selection. version: 23/1

FOCUS ON QUALITY FOR INTELLIGENT MANUFACTURING

Provide reliable solutions & services for automation assembly

in X F Q Danikor

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Screw Feeding & Tightening System





Suitable Screw Size



ABOUT US

Provide more Reliable Solutions & Services

For Automated Assembly

INFLUENCE

100,000⁺ Accumulated sales

years experience in automation technology application

96% coverage of automobiles and parts

Covering Whole China • **300**⁺employees A branch in Frankfurt, Germany

Focus on **QUALITY** for Intelligent Manufacturing

INNOVATION



items independent intellectual property rights

> Proportion of annual R & D investment to sales

Founded in 2012, Danikor focuses on the R&D, manufacturing and sales of automatic feeding and intelligent tightening solutions. Over the past 11 years, Danikor has always insisted on independent innovation, and so far has 98 independent intellectual property rights, including 17 invention patents. We strive for excellence and create high-quality and public praise products. The whole series

SERVICE

Full-cycle Service System

(1) Pre-sales

Professional sales and technical support team

(2)In-sales

Efficient information management system

(3) After-sales

service network covers the whole world Respond quickly and efficiently to customer needs

Danikor makes your production more efficient

of products are widely used in many industries such as automobiles, electronics, home appliances, etc. We have set up a branch in Germany with a global business scope.

Focuse on quality for intelligent manufacturing. In the future, Danikor will continue to provide more reliable solutions and services for automated assembly, and help customers with sustainable productivity.

PRODUCTIVITY

High Quality Production Control

Material Quality Strictly control the quality of raw materials

(2) **Production process** Independent and controllable core process (4) **Delivery inspection** 100% test

(3) Assembly Quality

Process control

PRODUCTS products series \longrightarrow



Know more about screws

Select a stable and suitable Screw Feeding & Tightening System



Know more about Operating conditions Make sure that automatic screw feeding and tightening are more efficient





Vacuum

Swivel Mouthpiece



Blow Screw



Vacuum

Normal	Swivel Tube	Swivel Mouthpiece
1.6 <ldr<4< th=""><th>1.2<l d≤1.6<="" th=""><th>Compatible length wide</th></l></th></ldr<4<>	1.2 <l d≤1.6<="" th=""><th>Compatible length wide</th></l>	Compatible length wide
1.8 <l d<3.5<="" td=""><td>1.4<l d≤1.8<="" td=""><td>Compatible length wide</td></l></td></l>	1.4 <l d≤1.8<="" td=""><td>Compatible length wide</td></l>	Compatible length wide
-	-	-

* Only tightening module executing time, screwdriver tightening time is not included.

Assembly Automation Solution Composition

Tightening control

Automatic station application

Integrated Module Torque range:

006:0.6~6Nm

015:1~15Nm

030:15~30Nm

Electric Module

020:0.3~20Nm 035:20~35Nm

Traditional Module

020:0.3~20Nm 035:20~35Nm 050:35~50Nm 200:75~200Nm

Quick-change Module

Torque range: 020:0.3~20Nm

Manual station application

Handheld Module 006:0.6~6Nm 012:1~12Nm

> Handheld quick-change module Torque range: 015:0.3~15Nm

Custom module

Oversize bolt tightening

General Controller



Step Feeder

Vibratory Bowl Feeder



M0.5-M2

Screw feeding control

Integrated AUTOMATIC **STATION** Tightening Module Series - 9

Compared to Traditional Module:



Product advantages

Structural integration

- ▶ The structure is compact,the gas-electricity layout is simple, and the field space is saved;
- ► Applicable to complex working conditions;
- More lightweight (reduced by 20-30%), applicable to 5Kg robot;

Collaborative high quality

- With patented design and special structure, the screw suction tube can stop at the screw pick position for screw suction;
- The clamping block opens actively and has no impact abrasion with the screw suction pipe, so the service life is prolonged;

More convenient to use

- ▶ the replacement of the bit is convenient, the bit can be quickly replaced when the cylinder stretched out;
- Through the pressure regulating valve on the air circuit, the pressure can be flexibly adjusted when tightening;

Safer handling

Product safety, suitable for man-machine cooperation;

Applicable working conditions

	Module type	Torque range	Type of working condi t ion	Stroke of vacuum tube
Blow :	~)	1~15Nm	YY	120/E0mm
Screw		0.6~6Nm		L30/301111
Vaci		1~15Nm		H60/H100mm
mur		0.6~6Nm		
Pick Vacuum		1~15Nm		H60/H100/H150/H200(Hexagon head)mm



Product model description

Product category	Module type BS:Blow Screw	Propulsion series P1:Blow Screw	
TMI: Integrated module	NV:Vacuum PV:Pick Vacuum	Handheld blow screw optional P2:Vacuum and handheld screw blowing(optional when	
	Screw type	sleeve)	
	H:Hexagon head	Nozzle type NM:Normal ST:Swivel Tube 00:No nozzle	Strol K00: H60/ strok (option

Integrated module selection reference table (automatic station)

	Type	Nozzle type Prop		Propulsio	Propulsion series		Stroke of vacuum tube		Cap diameter range		Torque range/Nm				
	Type	NM	ST	P1	P2	K00	H60	H100	H150	D7	D11	D15	006	012	015
	Blow Screw	0	\bigcirc	\bigcirc	-	\bigcirc	-	-	-	\bigcirc	\bigcirc	\bigcirc	\bigcirc	-	0
Fixec	Vacuum	\bigcirc	\bigcirc	-	\bigcirc	-	\bigcirc	\bigcirc	-	\bigcirc	\bigcirc	\bigcirc	\bigcirc	-	\bigcirc
	Pick Vacuum	-	-	\bigcirc	-	-	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	-	-	0
Hand	Blow Screw	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	-	-	-	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	-
dheld	Vacuum	\bigcirc	\bigcirc	-	\bigcirc	-	\bigcirc	\bigcirc	-	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	-

* If you have any questions during the selection, you can communicate with our technical support and select the appropriate module according to the actual working conditions. Screw driver of various brands shall be provided with corresponding detailed installation methods, 2D dimensional drawings and 3D digital models to facilitate the evaluation of their applicability. Common screw driver can be connected by making adapters.

L30 ····· B15 - 006 ·-·D7····



ke of vacuum tube Blow Screw /H100/H150: ke of vacuum tube nal for H150 pickup)

Cap diameter
range
D7
D11
D15

Stroke of bit B15

Torque 006:0.6~6Nm Fixed and handheld module options 012:1~12Nm handheld module option 015:1~15Nm Fixed module option



Applicable Conditions and Products



Below M4 Aluminum-copper mechanical tooth

Sheet metal products have no support structure

at the bottom

Self-tapping screw



Compatible with various heights, saving electric cylinder and Z-direction

moving mechanism





Product advantages

Whole process monitoring

- PLC is used for information interaction to realize all-factor interactive control and real-time monitoring (speed, displacement, torque, pressure and time);
- Combined with intelligent screw driver, real-time monitoring of abnormal tightening conditions such as floating screws, sliding teeth, missing and so on can avoid the outflow of defective products.

High precision control

Product

size

- Accurate control of downforce: no impact during tightening to avoid screw thread damage;
- Flexible control of avoidance height: the travel range, with a wide range of compatibility.



Product model description





High efficiency tightening

- the screw suction tube can stop at any position within

- Green and energy saving
- Servo electric drive control, compared with the traditional module, the screw feeding speed is increased by 20%.
- The pneumatic components are reduced, the air consumption is reduced by24%, and the Vacuum module only needs the vacuum air and brake air provided by the customer, which contributes to the energy saving and emission reduction of the factory.

 * For detailed specifications, please contact us. The attached drawings are for reference only.



Traditional **Module Series**

Product advantages:

LDR L/D wide range of application







stable performance

Traditional blow screw module





Applicable scope of screw

Cap diameter range	Nozzle type	Screw type	Screw range	LDR	Max
D7	Normal		M2~M4	1.6 <l d≤4<="" th=""><th>4</th></l>	4
D11	Normal		M3~M6	1.6 <l d≤4<="" th=""><th>7</th></l>	7
D15	Normal	Standard/	M4~M8	1.6 <l d≤4<="" th=""><th>11</th></l>	11
D7	Swivel Arm	Combina- tion screw	M2~M4	1.2 <l d≤1.6<="" th=""><th>4</th></l>	4
D11	Swivel Arm		M3~M6	1.2 <l d≤1.6<="" th=""><th>7</th></l>	7
D15	Swivel Arm		M4~M8	1.2 <l d≤1.6<="" th=""><th>11</th></l>	11
D7	Normal		-	1.6 <l (special)<="" d≪4="" th=""><th>4</th></l>	4
D11	Normal		-	1.6 <l (special)<="" d≪4="" th=""><th>7</th></l>	7
D15	Normal	Hexagon bead	-	1.6 <l (special)<="" d≪4="" th=""><th>11</th></l>	11
D7	Swivel Arm	neuu	-	1.2 <l (special)<="" d≤1.6="" th=""><th>4</th></l>	4
D11	Swivel Arm		-	1.2 <l (special)<="" d≤1.6="" th=""><th>7</th></l>	7
D15	Swivel Arm		-	1.2 <l (special)<="" d≤1.6="" th=""><th>11</th></l>	11

Description of special rules for L/D of hexagon head screws:

For the hexagon head screw without flange or with small flange ($F \le K$), ▶ For hexagon head screws with flange (in case of F > K), the the maximum cap diameter D is the diameter K of the hexagon sleeve maximum head diameter D shall be calculated by taking the matched with the value of the opposite side dimension S as the value of maximum dimension F of the flange as the reference value D, and the length-diameter ratio and type selection are calculated by of the maximum head diameter D, and the lengthdiameter reference. For example, if the opposite side of the hexagon is S = 7, the ratio and type selection shall be made. corresponding diameter of the hexagon sleeve is K = 13, and D is calculated as 13.



Product system
parameters

Screw type	Nozzle type	Weight (excluding screw drivers and cables)/kg	Maximum cap diameter/mm	Torque range /Nm
Chan dand (Canabination and	Normal	3.5~3.9		0.3~20
tandard/Combination screw	Swivel Arm	3~3.3	4~15	
	Normal	3.7~4.5	+ 15	
Hexagon head	Swivel Arm	3~4.5		

size



K00-----L30 ···· **B15 D7**

Stroke of vacuum tube K00:None

Nose piece length L30/L50

Stroke of bit B15



* The above is the reference value, and the actual test shall prevail.

Traditional Module Series

Vacuum module



Product size





* For detailed specifications, please contact us. The attached drawings are for reference only.

Applicable scope of screw

Cap diameter range	Nozzle type	Screw type	Screw range	LDR	Max
D7	Normal		M2~M4	1.8 <l d<3.5<="" th=""><th>4</th></l>	4
D11	Normal		M3~M6	1.8 <l d<3.5<="" th=""><th>7</th></l>	7
D15	Normal	Standard/	M4~M8	1.8 <l d<3.5<="" th=""><th>11</th></l>	11
D7	Swivel Arm	Combina- tion screw	M2~M4	1.4 <l d≤1.8<="" th=""><th>4</th></l>	4
D11	Swivel Arm	tion serew	M3~M6	1.4 <l d≤1.8<="" th=""><th>7</th></l>	7
D15	Swivel Arm		M4~M8	1.4 <l d≤1.8<="" th=""><th>11</th></l>	11
D15	Normal	Hexagon	M3~M8	1.8 <l (special)<="" d<3.5="" th=""><th>11</th></l>	11
D15	Swivel Arm	head	M3~M8	1.4 <l (special)<="" d≤1.8="" th=""><th>11</th></l>	11

Description of special rules for L/D of hexagon head:

For the hexagon head screw without flange or with small flange ($F \le K$), the maximum cap diameter D is the diameter K of the hexagon sleeve matched maximum cap diameter D shall be calculated by taking the with the value of the opposite side dimension S as the value of D, and the length-diameter ratio and type selection are calculated by reference. For example, if the opposite side of the hexagon is S = 7, the corresponding diameter of the hexagon sleeve is K = 12, and D is calculated as 12.

Proo dese	duct model cription				
TMI	d	ŞI	<u></u>	<u>NM</u>	P2 ····
	Product configuration H:High match		Module type NV:Vacuum	Nozzle type NM:Normal ST:Swivel Tube	Propulsio series P2:Level t propulsion
Prod TM:T Mod	luct category Tightening ule	S S H	crew type :Screw I:Hexagon head		

Product system parameters

Screw type	Nozzle type	Nozzle type Weight (excluding screw drivers and cables)/kg		Torque range /Nm	
Standard/Cambination agrou	Normal	5.8~6.7	4 15		
Standard/Combination screw	Swivel Arm	6~6.9	4~15	0.3~20	
Llovegen head	Normal	6.9~7.1	11~15	0.5 20	
Hexagon nead	Swivel Arm	6.8~7.2	11*15		



maximum dimension F of the flange as the reference value of the maximum cap diameter D, and the length-diameter ratio and type selection shall be made.



* The above is the reference value, and the actual test shall prevail.

Conventional pick-up module



Product size





* For detailed specifications, please contact us. The attached drawings are for reference only.

Applicable scope of screw

Cap diameter range	Nozzle type	Screw type	Screw range	LDR	Maximum cap diameter /mm
D7	None		M2~M4	4≪D≪7	-
D11	None		M3~M6	7 <d≤11< th=""><th>-</th></d≤11<>	-
D15	None	Standard/ Combination screw	M4~M8	11 <d≤15< th=""><th>-</th></d≤15<>	-
D11	Clamp nozzle		M4~M8	11 <d≤15< th=""><th>-</th></d≤15<>	-
D15	Clamp nozzle		M5~M10	15 <d≤20< th=""><th>-</th></d≤20<>	-
D11	None		M3~M6	7 <d≤11< th=""><th>5≪S≪10</th></d≤11<>	5≪S≪10
D15	None	Hexagon	M4~M8	11 <d≤15< th=""><th>5≪S≪10</th></d≤15<>	5≪S≪10
D20	None	head	M5~M10	15 <d≤20< th=""><th>10≤S≤13</th></d≤20<>	10≤S≤13

* The hexagon head pick-up type selects the module according to the opposite side S,wherein the D11/15 gear and the D20 have overlapping opposite side 10 gears, which can be distinguished according to the torque. The torque range of D11/D15 (0-15Nm) and the torque range of 20 gears (0-30Nm).

Product model description

IM	d	- S	<u>PV</u>	00	P1
	Product configuratio H:High matcl	n 1	Module type PV:pick-up module	Nozzle type 00:None CM:Clamp nozzle	Propuls series P1:Level propulsi
Prod TM:T Mod	uct category ightening ule	:	Screw type S:Screw H:Hexagon head		P2:Level propulsi

Product system parameters

Screw type	Nozzle type	Weight (excluding screw drivers and cables)/kg	Maximum cap diameter/mm	Torque range /Nm	
Chan dand/Cambination	None	3.9~4.3	4~15		
Standard/Combination	Clamp nozzle	6.4~7.4	11~15	0.3~20	
	None	4.4~6.6	11~15		
Hexagon head	None	4.4~6.6	15~20	20~35	

Traditional Module Series





* The above is the reference value, and the actual test shall prevail.

Floating Tightening Technique

Application scenarios:

Car body-in-white; New energy battery, motor, copper bar; Engine; Shell

This allows the socket to have a floating amount within a certain range, which can compensate to some extent when there are differences in product precision or consistency during tightening.

Floating scheme

adaptive adjustment, cost reduction and efficiency increase.

Traditional solution

2D camera for plane positioning recognition, the space angle will be biased, the cycle time is long, and the cost is high.



The deviation range shall be within 0.5-2.5mm to improve the success rate of hole entry and tightening; if the deviation exceeds, it shall be evaluated in combination with the actual situation.

The product is applicable to:

Different screws can be tightened by matching with different tightening female heads, which is suitable for the application of multiple types of screws on the product or the collinear production requiring type change.

Module

Efficient cost reduction

▶ The cost of the Screw Driver part is

Quick change of type;

▶ Wearing parts can be

replaced independently

reduced;

It can be combined with Intelligent Screw Driver, integrated in robots, three-axis and other mobile mechanisms, and used in conjunction with the receiving table.

Avoidance stroke:

H60、H100、H150

Product advantages

AUTOMATIC STATION

Strong compatibility

- Co-production of products;
- One machine for multiple purposes;
- Common screws are compatible with hexagon head;
- > And that expandability is strong



Quick-change



High reliability

- Detect the negative pressure of the suction screw to prevent the screw from falling;
- The replacement structure is stable

Quality control

- ▶ The process is controllable;
- The automatic application is controlled by PLC to change the type, which is efficient and error-proof.

B15 C3 H150 -**L00 D15** Stroke of Nose piece Сар Compatible Stroke of bit length diameter screws vacuum B15 L00 tube range C Number: compatible H60 D7 H100 D11 Number of D15 H150 screws





Applicable working conditions

	Module type	Torque range	Type of working condition	Stroke of vacuum tube	
Blow Screw		0.6~6Nm	Semi-automatic or manual station;	L30/50mm	
Vacuum		1~12Nm	Can meet different product working condition.	H60/H100mm	

Product advantages

Structural integration

▶ The structure is compact,the gas-electricity layout is simple, and the structure is convenient to be installed and fixed with the force arm;

Collaborative high quality More convenient to use

- ▶ The replacement of the nozzle is more convenient, and the nozzle sleeve part can be replaced after being disassembled;
- Automatic screw blowing, no need for manual screw removal;

Safer handling

- Comfortable grip feeling;
- ▶ the tightening pressure is adjusted in the form of air pressure, and the reaction force is small;

Combined with Intelligent Screw Driver and force arm, it can realize the control of tightening quantity, tightening sequence and tightening quality in the production process.

> The suction screw is stable and can

be tightened to avoid interference;

Product size



Product model description	

Product category TMI: Integrated module	Module type CH:Blow Screw -Handheld BH:Vacuum- Handheld	Propulsion series P1:Blow Screw Handheld blow screw optional P2:Vacuum and handheld screw blowing (optional when there is no tooling guide sleeve)	
	S:Screw H:Hexagon head	Nozzle type NM:Normal ST:Swivel Tube 00:No nozzle	strok vacu K00:E H60/I

Integrated module selection reference table (automatic station)

	Туре	Nozzle	type	Propulsion series		Stroke of vacuum tube			Cap diameter range			Torque range/Nm			
	.) 0	NM	ST	P1	P2	K00	H60	H100	H150	D7	D11	D15	006	012	015
Han	Blow Screw	0	\bigcirc	0	0	0	-	-	-	-	0	0	-	0	-
dheld	Vacuum	\bigcirc	\bigcirc	-	\bigcirc	-	\bigcirc	\bigcirc	-	\bigcirc	\bigcirc	\bigcirc	-	\bigcirc	-

* If you have any questions during the selection, you can communicate with our technical support and select the appropriate module according to the actual working conditions. Screw driver of various brands shall be provided with corresponding detailed installation methods, 2D dimensional drawings and 3D digital models to facilitate the evaluation of their applicability. Common screw driver can be connected by making adapters.





The product is applicable to:





Quick change of type;

Wearing parts can be replaced

is reduced;

independently.

There are many kinds of screws suitable for products

Product advantages

purposes;

Stroke of vacuum tube:

H60, H100, H150

Strong compatibility

▶ Common screws are compatible

▶ And that expandability is strong.

with hexagon head screws;

Co-production of products;

▶ One machine for multiple



High reliability Efficient cost reduction

- > Detect the negative pressure of the suction screw to prevent the screw from falling; The cost of the Screw Driver part
 - ▶ The replacement structure is stable



The process is controllable;

▶ The automatic application is controlled by PLC to change the type, which is efficient and error-proof.

Low Screw jamming 5 **Reduce noise** Stuck screw rate < 0.005% Clean Error-proofing No vibration source is not easy to generate debris: Cleaning module dedusting again other extended function modules

Step Feeder

Application: Automotive 🦪 💭 🛞 📢



Product model description

TMF		<u>SVH</u>	00 · · · · ·	P2	<u>H15</u> 0	- <u>L00</u>	• <u>B15</u> · · · · ·	D15	3
	Product configuration H:High match	Module type VH:Hand-held suction screw	Nozzle type 00:None	Propulsion series P1:Level one propulsion	Stroke of vacuum tube H60	Nose piece length L00	Stroke of bit B15	Cap diameter range D7	Compatible screws Number: compatible
Produ TM:Ti Modu	uct category ightening Ile	Screw type S:Screw			H100 H150			D11 D15	Number of screws





Capacity /L	Channel type	Weight /kg	Rated air pressure /Mpa	Power source	Rated power	Air consumption m3/min	Inlet pipe diameter /mm	Noise value* (1m外) dB	I/O line /m	Power cord /m	Blow screw tube /m
	Single channel C1	38~60			120W	0.25~0.3	10				5/10
1.25	Dual channel C2	38~42				0.4~0.45		75dB (excluding blowing sound of solenoid valve)	5	2	3/10
	Single channel pickup P1	30 12				0.15~0.2					-
	Single channel C1			Equipment voltage DC24V (guest	80W	0.25~0.3					5/10
1.5	Dual channel C2		0.6			0.4~0.45					5/10
	Single channel pickup P1			supply voltage 220V/50Hz)		0.15~0.2					-
	Single channel C1	170~175		- / /		0.4~1		80dB			5/10
4	Dual channel C2	175			240W	0.55~0.75	12	(excluding blowing sound of solenoid valve)			3/10
	Single channel pickup P1	170				0.3`0.45					-

* The above is the reference value, and the actual test shall prevail.

1.5L Step Feeder

Product advantages

50PPM--More reliable

The system is fully optimized, far ahead of the industry level

Screw jamming rate: Screw jamming rate of spring flat washer screw200PPM

Better control system

Expansion of communication mode, breakthrough of space limitation, one network management and control, intuitive positioning of unusual problem

High accuracy of screw length detection

Error-proof technical innovation, built-in long and short screw detection accuracy ± 1 mm

Feeder-scope Of Application For Screws

Adapt to more Screw specifications

Adapt to more specifications of screws M3-M10, the same compact body



More Clean

Material pushing, feeding and other multi-dimensional structures to achieve non-destructive screw cleaning

More extensive

Configure various expansion function modules, and upgrade to a more perfect screw feeding scheme



1.25/4L Step Feeder

Product advantages

Low Screw jamming (2/10000)

▶ The mechanical structure of the pushing track, the feeding track and the distributor has been upgraded;



which greatly reduces the screw rate, ensures stable feeding and improves production efficiency.

Screw jamming rate of spring flat washer screw < 0.05

Error-proofing

- Scan the code and open the cover;
- ▶ Long and short screw detection and other extended function modules.



Feede Appli	er-scope Of cation For Screws				
	Screw type	Screw range	length of screw /mm	Maximum Cap Diameter /mm	LDR
1.251	Ctondord corour	M3~M5			1.3≪L/D≪7.5
	Standard Screw	M6~M8	M3~M5:≪45	5.5≤D≤15	1.2≤L/D≤7.5
1.23L		M3~M4	M6~M8:≪40		1.7≤L/D≤7.5
	Combination screw	M5~M8			1.6≪L/D≪7.5
41	Standard screw	M4~M14	M4~M8:≤100	12 <d<27< th=""><th>1.25≪L/D≪10</th></d<27<>	1.25≪L/D≪10
4L	Combination screw	1014 - 101 14	M10~M14≤65	12<0<21	1.6≤L/D≤10
Huge	Standard screw	M14~M24	1 < 250	27 <d<43< th=""><th>_</th></d<43<>	_
	Combination screw	WI14 WI24	L≪2J0	21 < D < 45	-

Screw type	Screw range	length of screw /mm	Maximum Cap Diameter /mm	LDR	
Ctondard corrow	M3~M5			1.3≤L/D≤7.5	
Standard Screw	M6~M10	M3~M5:≪45	5.5≤D≤26	1.2≤L/D≤7.5	
Combination	M3~M4	M6~M10:≪60		1.7≤L/D≤7.5	
Combination screw	M5~M10			1.6≤L/D≤7.5	

	Clean
	• No vibration source is not easy to generate debris, and the cleaning module dedusts again.
5%	
	Reduce noise
	Special structure to reduce

Special structure to reduce impact noise.



Product advantages

Low Screw jamming

The clamping rate of standard screws is less than 2/10000, and the factory has been strictly tested to ensure the stability of the equipment and ensure continuous and stable production.

Efficient

▹ Feeding time up to 40pcs/min, improve production efficiency

Feeder-scope Of

Application For Screws

min /min

TTTTTTTTT

Screw jamming rate:

Screw jamming rate of spring

flat washer screw < 0.05%

Low noise

Integrally molded special polymer tray, strong wear resistance, reduce the friction between the screw and the tray, reduce the noise, less than 72 db, improve the workshop production environment.



₋72٦

Uninterrupted

Standard material shortage sensor, warning in advance when material shortage occurs, reminding feeding, ensuring the continuity of feeding process and uninterrupted production.

length of screw Maximum Cap Diameter LDR Screw type Screw range /mm /mm M2~M2.5 1.5≤L/D≤7.5 Standard screw M2~M4:≤25 M3~M6 1.3≤L/D≤7.5 4≤D≤12 M5~M6:≤20 M2~M2.5 2≤L/D≤7.5 Combination screw M3~M6 1.6≤L/D≤7.5



Product system parameters

Capacity /L	Channel type	Weight /kg	Rated air pressure /Mpa	Power source V/Hz	Rated power /W	Air consumption m3/min	Inlet pipe diameter /mm	Noise value* (>1m)dB	I/O line /m	Power cord /m	Blow screw tube /m
1 25	Single channel C1	22~26	0.6	Equipment voltage DC24V (guest supply voltage 220V/50Hz)	100	0.25~0.3	10	75dB (excluding blowing sound of solenoid valve)	5	2	5/10
1.25	Dual channeC2	24~28	0.6		120	0.4~0.45					



* The above is the reference value, and the actual test shall prevail.





Feeder-scope Of Application For Screws

	Screw feeder model	Thread diameter M	Screw length L	Cap diameter D	Cap thickness T	LDR
-	FDH-SDC-70ML	1~2mm	Max. 7.5mm	Max. 7.5mm	0.15~2mm	LDR: (L+T)/D≤1
[FDH-SDC-120ML	0.5~1.6mm	Max. 5.5mm	Max. 5.5mm	0.15~2mm	LDR: (L+T)/D>1

Product advantages

Disc

No Screw Jamming

Patented products, stable material supply, improve production efficiency.





Disc Feeder

Wearing Parts;

long service life;

Conventional screw feeder

Disc Feeder	
Patented product; There is no jam on the structure.	
Conventional screw feeder	
Screw jamming rate: 3/1000; The screw with large cap diameter is easy to be clamped on the track; It is difficult to eliminate and affects the production schedule.	

Lack Of Material Detection

Standard material shortage sensor, early warning in case of material shortage, to ensure the continuity of the feeding process and uninterrupted production.

Disc Feeder

Shortage sensor.

Conventional screw feeder

The Precision Is More Accurate

Higher positioning accuracy, more durable.



Disc Feeder Repeated positioning accuracy \pm 0.05 mm; Easier and more

accurate screw removal.

Conventional screw feeder easy to be worn; Positioning

Low Failure Rate

Intelligent fault alarm, easy



Structural Design of Adaptive

Low maintenance frequency and

Reduce customer cost input.

the turntable structure are easy to wear and need to be replaced frequently; And is inconvenient to replace and

Wide Application Range Of LDR

Screws with LDR ≤ 1 can also be driven stably and efficiently.



Disc Feeder

120ml rotary screw feeder can be selected for screws with length-diameter ratio ≥ 1 ; 70 ml rotary screw feeder is optional for screws with a length-diameter ratio ≤ 1 ; Stable and efficient feeding without jam.

Conventional screw feeder

Clean Feeding

Meet the high requirements of 3C electronics industry for cleanliness,dust-free feeding, and ensure the reliability of the feeding process.



Prevent mixing and improve product qualification rate.



Disc Feeder

Vacuum adsorption + vacuum filter double cleaning, reduce the pollution of debris to the product itself.

Conventional screw feeder



Disc Feeder

Detect mix screws with different length; Detection accuracy up to \pm 0.2mm; Reduce product scrap due to screw error.

Conventional screw feeder

► 70ML 142 0 ۲ 0 4-M3 Hexagon socket head cap screw 56 • 🕥 ۲ 33.2 44.6 . 120° ୍ଚିତ 120 Screw noval height ຄ 133.3 184 108 95 **000**0 175



(Straight cable is configured by default) Straight connector connection reference diagram



(If space is limited, place a separate order to purchase the elbow cable.) Refer to the schematic diagram for the connection of the elbow connector



▶ 120ML







ViewA

35.5

82

16.2

68.5

38.7







Product Model Description



Product system parameters

型号	FDH-SDC-70ML-BC- G6-00D0000000-T00	FDH-SDC-70ML-BC- G6-00D0000L00-T00	FDH-SDC-120ML-C1- G6-00D0000000-T00	FDH-SDC-120ML-C1- G6-00D0000L00-T00								
Channel type		Single	channel									
L * W * H/mm	175x90x133		159x82x110									
Weight/Kg	1.9		1.2	1.3								
Capacity/ml	70		12	20								
Rated air pressure/Mpa	0.5~0.6											
Power source V/Hz	Equipment voltage DC24V (IO or 485 access device provides power supply)											
Rated power/W		2	4									
Air consumption m3/min		0.	09									
Inlet pipe diameter/mm			8									
I/O m		:	2									
Shortage function	0	0	0	0								
Screw Length Detection	-	0	-	\bigcirc								
Detection accuracy/mm	-	±0.2	- ±0.2									
FlexPendant		Opti	ional									
Vacuum Module		Optional Muffler	type Or quick plug									

Туре	Model	L * W * H mm	Category	Cable	Vacuum Module
Vacuum Module	OFD-SVM-00-V1-M	102x80x40	OFD-SVM-00-V1-M	Including 2m three-core communication line	1
Vacuum Module	OFD-SVM-00-V1-Q	102x80x40	OFD-SVM-00-V1-Q	Including 2m three-core communication line	1
FlexPendant	OFD-SFP-00-V3	102x86x40	OFD-SFP-00-V3	Including 2m RS485 four-core wire	-

Vacuum module installation diagram 70/120ml universal





FlexPendant

Product Algebra G6

T00

D:Material shortage detection(standard configuration) L:Screw Length Detection (optional)

Blow screw tube length 00:None

* The above data is the measured value in the laboratory.



There are two M4 threaded through holes on the mounting base plate of the module, and the length of the fixing screw extending into the box shall not exceed 15 mm.

Vibrating Hopper



Product advantages

High cost performance

Large capacity and good quality stability.

Safe and energy-saving

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> 24V/36V electronic control Excellent control algorithm ensures lower energy consumption.

Product Size

► HPS-LVF-5L





► HPS-LVF-10L



 Independent R&D of straight vibration system, more stable vibration, more stable feeding.



High applicability

 Used with a variety of screw feeder Optional: lack of screw detection,Scan code to open cover, Adaptive function, Connecting bracket.



HPS-LVF-20L







Product system parameter

Model	Adapted screw feeder	Length*width height /mm	₩eight /Kg	Capacity /L	y Power V/Hz	Rated power /W	Length of power cable m	Length of I/O cable	Scan code to open cover	I/O Signal	Optional functions	
HPS-LVF-5L-G4-0					Fauipmontvoltago				-			
HPH-LVF-5L-G4-0	1.25L Bowl feeder /Step feeder	535X164X323	22	5	DC24V(Customer supply voltage 220V/50Hz)	120			0	Input: Requisition	Lack of screw detection;	
HPS-LVF-10L-G4-0		772V200V214	EQ	10			2	3	-	Signal	Adaptivo	
HPH-LVF-10L-G4-0		112/200/214	30	10	Equipment voltage DC36V(Customer	180			\bigcirc	Output: fault signal	amplitude.	
HPS-LVF-20L-G4-0	4L	760Y209Y414	60	20	supply voltage	100			-			
HPH-LVF-20L-G4-0	step feeder	100//200/414	00	20	2200/30112)				0			

* The above data are the actual values measured in the laboratory, and the specific values and parameters are subject to the countersigned data.

Vibrating Hopper



Value-added Module (Optional)

It can effectively prevent the problems of screw mixing, missing and falling, realize the cleanliness of the whole process of screw feeding and tightening, and be compatible with various screw lengths. Provide a more efficient and flexible solution for automatic screw feeding and tightening.

Open the lid

Open the door lock

Scan Code Module

Effectively prevent screw mixing

Functional process



Scan the material barcode



Identification

System identification OK



The scanner needs to be prepared by the customer.

Screw Length Detection Module

It is suitable for applications with close screw specifications or strict screw tolerance requirements.

Accuracy of screw length detection: **±1.5mm**

* Except for the elastic flat washer, the combined screw has the problem of washer shaking (the detection accuracy is about \pm 2 mm), which is subject to the actual measurement.



Feed

Lid closing signal feedback

Screw Cleaning Module

Dust is sucked by vacuum to meet the requirements of clean automatic feeding process.

Independent module type Easy to integrate and control









Pick & Place Module





Screw Separator Module

Provide a multi-modular multi-channel material distribution structure to improve the utilization rate of equipment.





* Achieve low-cost applications on the premise that the beat meets the requirements.





Multiple screw feeders (multiple sizes of screws)

* The beat shall meet the requirements and the screw specifications shall be similar.



General controller, as the central brain of automatic screw feeding and tightening system, can complete the whole process of automatic screw feeding, tightening and data feedback through logic closed-loop control and simple human-computer interaction.



Product advantages

Convenient installation

Ease of use:

reduce the installation wiring and control trouble of the client.

cumbersome wiring.

Simplification of electrical layout: highly integrated hardware layout to simplify

Stable production capacity



Intelligent fault diagnosis and troubleshooting: careful logic control, all-round consideration to ensure operational stability.



Convenient interaction:

Simplify the exchange of information through TCP communication.

Human-computer interaction:

The control screen has a user-friendly UI interface, which can intuitively see the operation status and simple parameter settings of the equipment.

Data statistics





feeding and tightening. Product yield analysis;

Early warning for replacement of wearing parts

		Commissioning time	Shutdown troubleshooting	Replacement time
save time and improve	General Controller	2~3 days	Quickly locate the problem and improve the efficiency of troubleshooting	Replacement cycle can be set and prompted
efficiency	Individual modular systems	1~2 weeks	The fault is not clear, and it is not easy to check	Prompt for no replacement cycle

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