JANOME

Electro Press

JP Series 5

EN

New Model JP Series 5 Higher Speed• Greater Precision•Enhanced Interfacing

Faster, more precise with multiple interface capabilities

Great for new facilities | Better for your work environment than an oil or air press

Quality control functions | Improved productivity

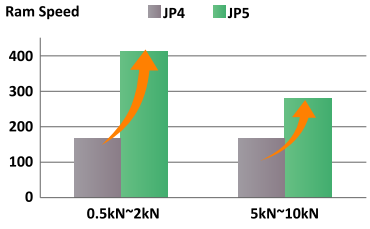
Installation | **Operation** | **Maintenance**

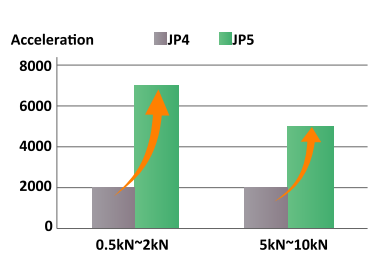
Easy Installation

- Ethernet port included as standard equipment
- Choose from 6 different Fieldbus types
- Low noise and clean work environment
- Much lower running cost than oil or air presses
- Easy program teaching

Faster ram movement for higher productivity

Max. ram speed up 2.5x; ram acceleration up 3.5x over our previous model.
Best speed in the industry for lightweight presses; greatly reduces cycle time.





A rich variety of both pressing and sensor functions

Choose from among these pressing modes and stopping parameters:

Pressing Modes	Constant Speed Pressing
	Constant Load Pressing

Stopping Parameters	Position Stop
	Distance Stop
	Load Stop
	Time Stop
	Event Stop
	Differential Stop
	Increased Load Stop
	Reduced Load Stop

Sensor functions are introduced on pp. 3 and 4.

Improved product quality

Internal processing speed up 4.0x over our previous model.

Load Precision: ±0.8% (FS)*1

*Value range from 5% or more of the maximum load.

Repeatability: ±0.005mm

*When the press unit is at a constant temperature.

Global Diagnostic Functionality

Comprehensive hardware diagnostics including PC boards
Its easy to switch among display languages; helpful in multinational workplaces where engineers and operators use different languages!

PC Software Languages

English, German, Japanese, Korean, Chinese (Simplified & Traditional)

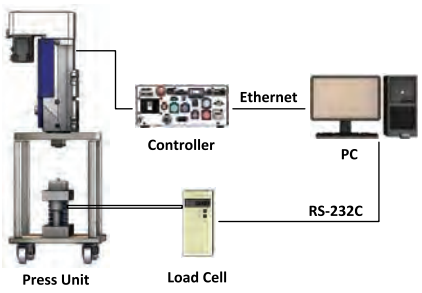
Teaching Pendant Languages

English, Japanese, French, Spanish, Italian, German, Chinese (Simplified & Traditional), Korean, Czech, Vietnamese & Hungarian

Auto Amp Adjustment• Auto Load Calibration

Now you can perform complicated load calibrations automatically.*2

Sample Setup



*1: This is the level of precision when measured in identical working conditions.
*2: Please consult with us about compatible load cells.

Ideal for the "IoT Era" visualized workplace...

Smoothly incorporate into your facility, for easy quality control

System Configuration

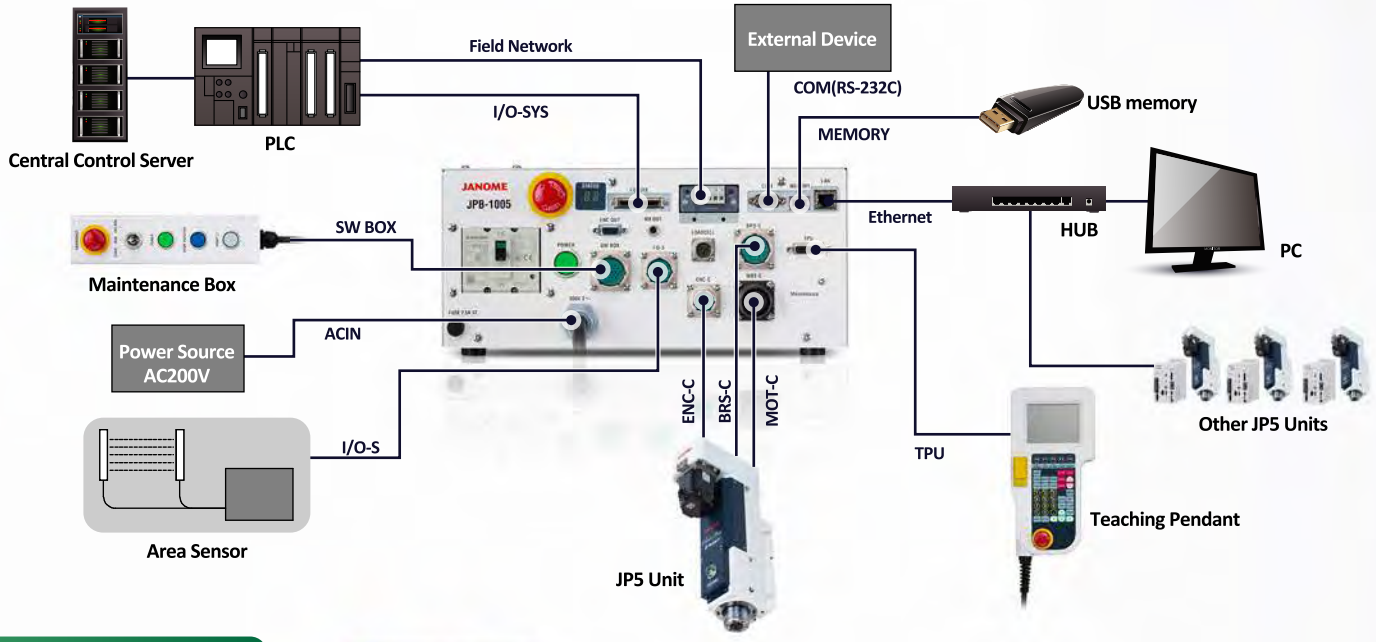
Field Network Compatible

CC-Link, PROFIBUS, PROFINET, DeviceNet, CANopen, EtherNet/IP

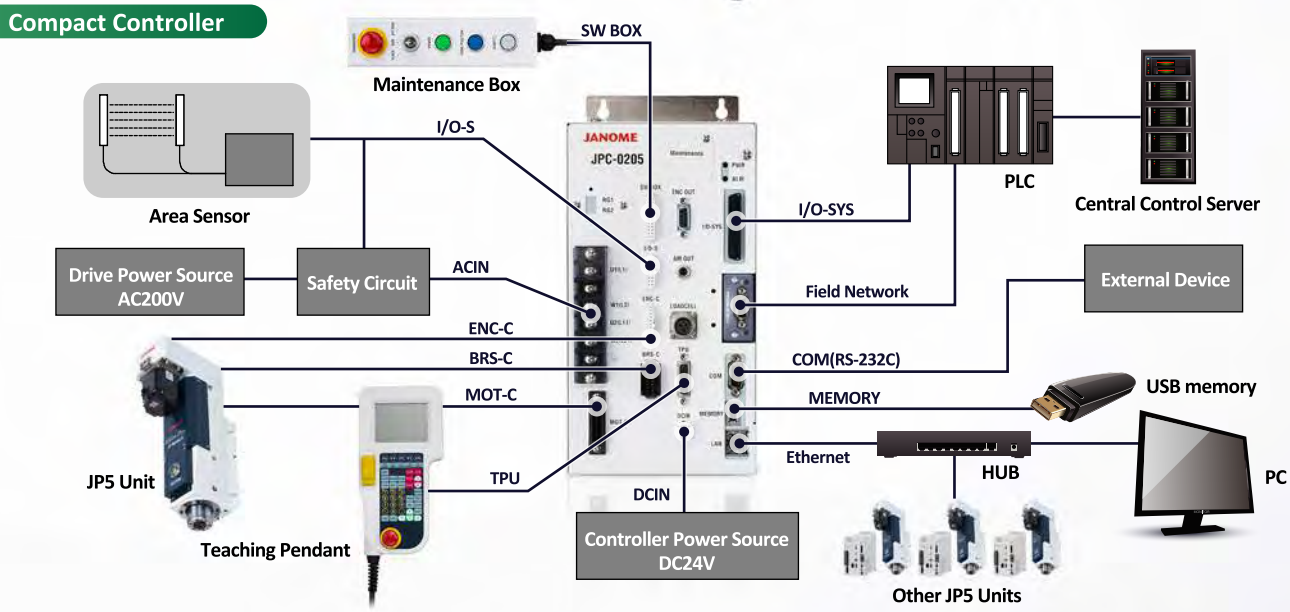
USB memory port as standard equipment

- Save result data (csv format)
- Back up and restore data
- Upgrade system software

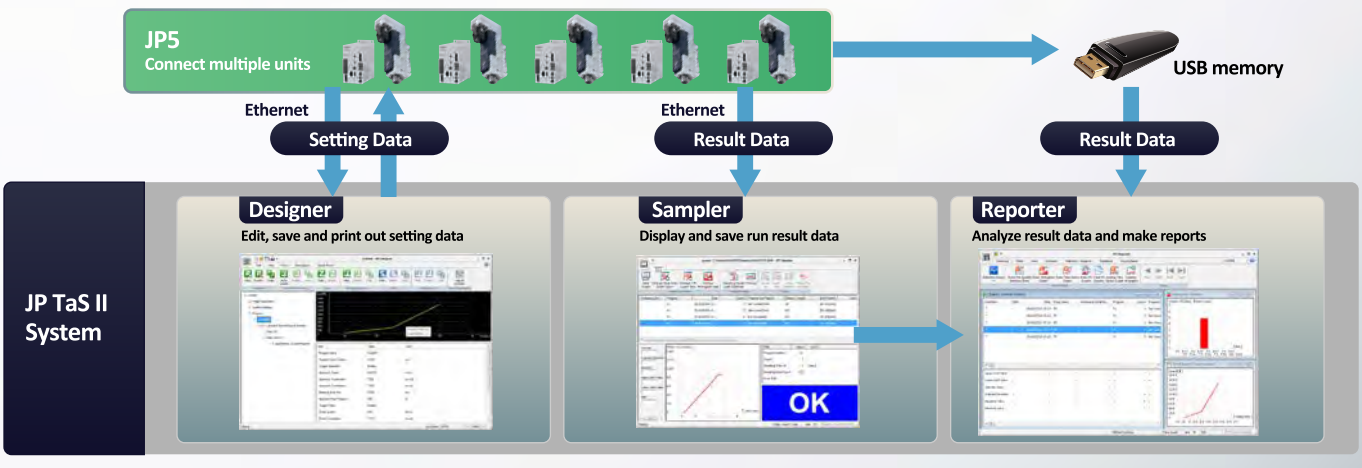
Standard Controller



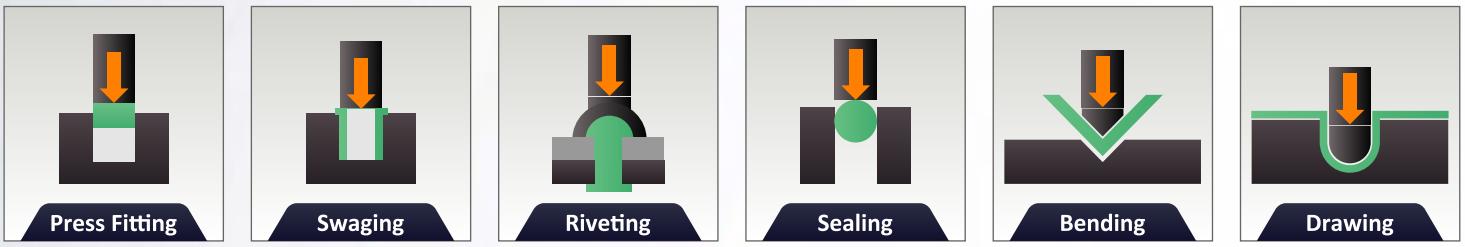
Compact Controller



PC Software

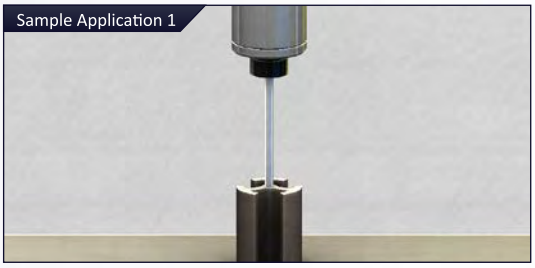


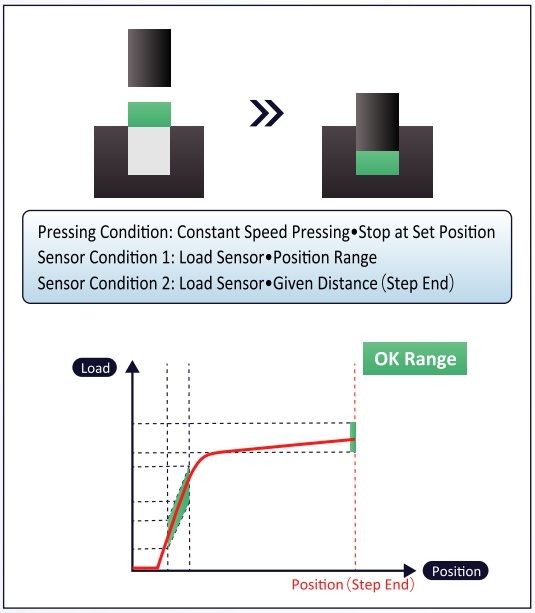
From press fitting to testing, the Janome Servo Press



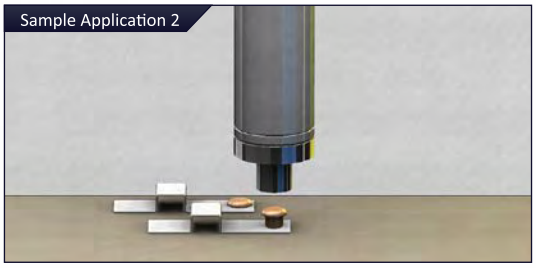
If using our servo press for metalworking, obey local laws for safety, add a safety device and obtain regulatory approval(s) for such device when required. For more information, please contact us.

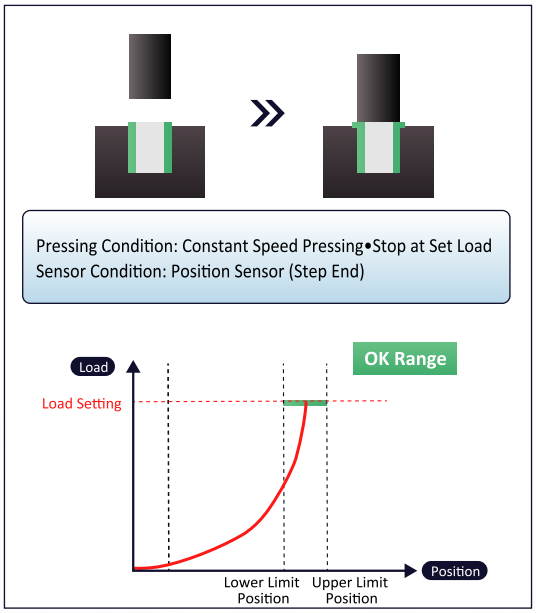
Press Fitting





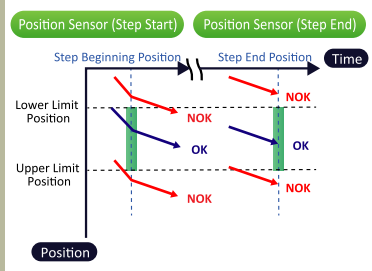
Swaging





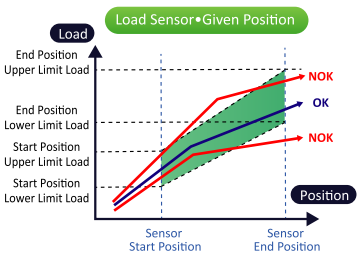
Step Sensors

Ram Position Sensors



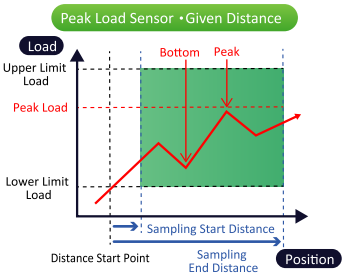
- Position Sensor (Step Start)
- Position Sensor (Step End)
- Distance Sensor (Step End)

Load Sensors



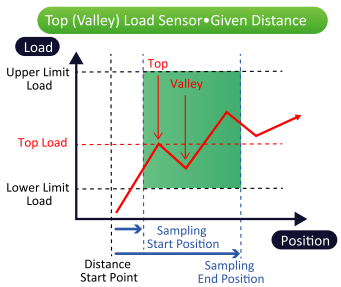
- Load Sensor•Given Position
- Load Sensor•Given Distance (Step Start)
- Load Sensor•Given Distance (Step End)
- Load Sensor (Step End)

Peak Load•Bottom Load Sensors



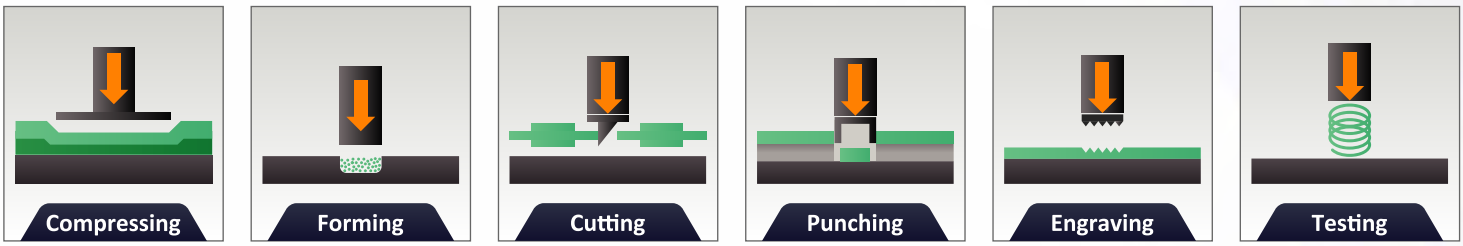
- Peak Load Sensor•Given Position
- Peak Load Sensor•Given Distance
- Bottom Load Sensor•Given Position
- Bottom Load Sensor•Given Distance

Top Load•Valley Load Sensors



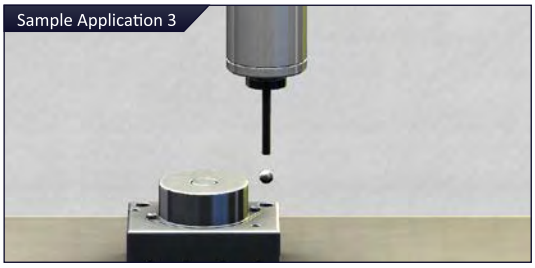
- Top Load Sensor•Given Position
- Top Load Sensor•Given Distance
- Valley Load Sensor•Given Position
- Valley Load Sensor•Given Distance

has an important role in many different processes.

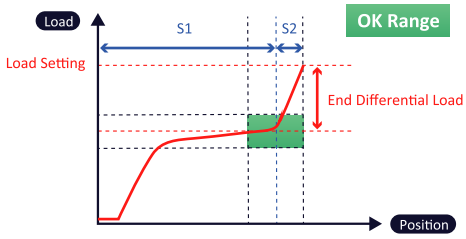


Sealing

Sample Application 3

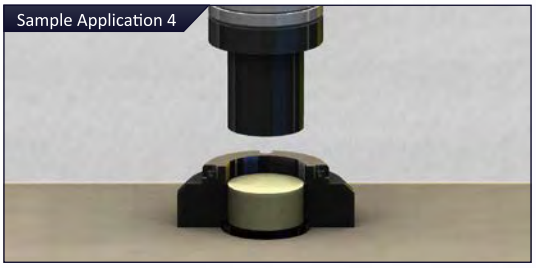


Pressing Condition S1: Constant Speed Pressing•Differential Load Stop
Pressing Condition S2: Constant Speed Pressing•Incremental Load Stop
Sensor Function: Differential Load Sensor•Given Position

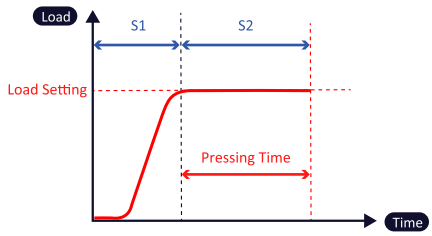


Powder Forming

Sample Application 4

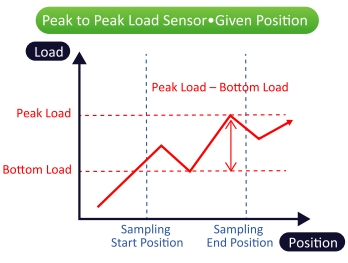


Pressing Condition S1: Constant Speed Pressing•Load Stop
Pressing Condition S2: Constant Load Pressing•Time Stop



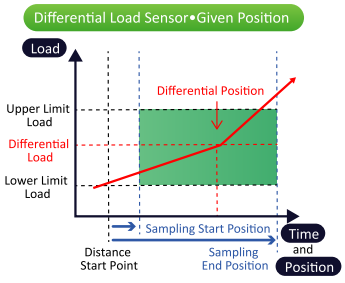
Load Path Sensors

Peak to Peak Load Sensors



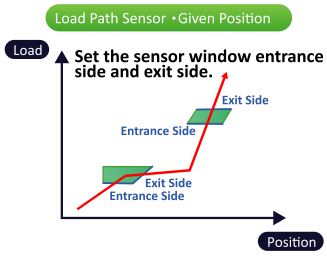
- Peak to Peak Load Sensor•Given Position
- Peak to Peak Load Sensor•Given Distance

Inflection Point Load•Position Sensors



- Differential Load Sensor•Given Position
- Differential Load Sensor•Given Distance
- Differential Position Sensor•Given Position
- Differential Distance Sensor•Given Distance

Path Based Load Tracking

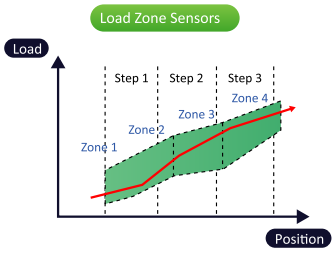


- Load Path Sensor•Given Position
- Load Path Sensor•Given Position

Freely set the senor window to meet a variety of configuration needs.

Load Zone Sensors

Load Sensors at Position Zones



This load sensor judgment applies to all or part of the program and is not influenced by divisions between pressing steps.

Model Code

Ex.) JPU-1005L-BCNI150

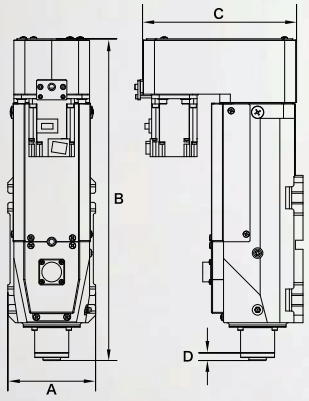
JPU- [ ] [ ] - [ ] C [ ] [ ] [ ]

Type	Maximum Load	Specs	Controller	Rating	Pulley Box Direction	Model Type	Stroke
JPU	0.5kN:0055 1kN:0105 2kN:0205 5kN:0505 10kN:1005 15kN:15R5 20kN:2005 30kN:3005 50kN:5005 80kN:8005 120kN:12T5	Standard: N Long: L* Clean: C*	Standard: B Compact: C	CE: C	Standard: N Facing Right: R Facing Left: L Facing the Rear: B	Incremental: I Absolute: A* Fully Closed: F*	0.5~2kN 80mm: 080 5~15kN 100mm: 100 150mm: 150 20~80kN 200mm: 200 400mm: 400 120kN 200mm: 200

*Please contact us for compatible models, external dimension diagrams and specifications.

External Dimensions

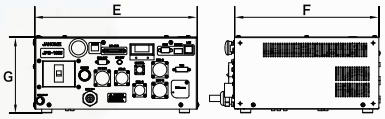
Press Unit



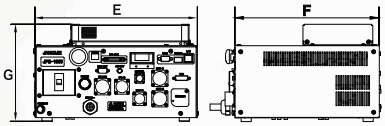
*D represents the ram retraction amount when returning to the home position.

Standard Controller

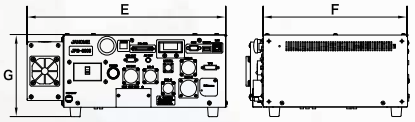
JPU-0055
JPU-0105
JPU-0205



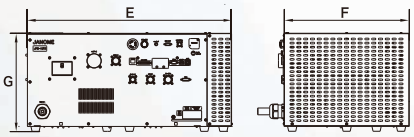
JPU-0505
JPU-1005
JPU-15R5



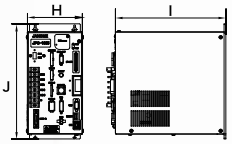
JPU-2005
JPU-3005
JPU-5005
JPU-8005



JPU-12T5

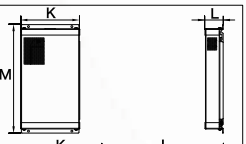


Compact Controller

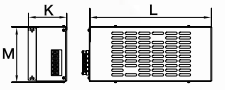


External Regenerative Resistance

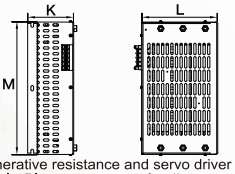
JPU-0505
JPU-1005
JPU-15R5



JPU-2005
JPU-3005



JPU-5005
JPU-8005



JPU-12T5: regenerative resistance and servo driver installed separately. Please contact us for diagrams.

	Press Unit					Standard Controller				Compact Controller				External Regenerative Resistance			
	Dimensions (mm)				Weight	Dimensions (mm)			Weight	Dimensions (mm)			Weight	Dimensions (mm)			Weight
	A	B	C	D	(kg)	E	F	G	(kg)	H	I	J	(kg)	K	L	M	(kg)
JPU-0055/0055C JPU-0105/0105C JPU-0205/0205C	116	425	218	5	17	350	310	163	11	140	280	292	5.8	-	-	-	-
JPU-0505 JPU-1005	146	502	258	5	34	350	310	209	12	140	280	292	6.4	150	46	275	1.1
JPU-0505C JPU-1005C	146	503	258	5	34												
JPU-0505L JPU-1005L	146	570	258	5	39												
JPU-15R5	175	502	270	5	41												
JPU-15R5L	175	570	270	5	47												
JPU-2005/2005C	171	706	384	5	80	428	338	175	13	140	280	292	7.5	100	318	142	2.9
JPU-2005L	171	986	384	5	106												
JPU-3005/3005C	230	775	474	5	161												
JPU-3005L	230	1065	474	5	220												
JPU-5005/5005C	230	775	474	5	167	514	365	283	21	160	280	287	9	120	199	345	5.6
JPU-5005L	230	1065	474	5	226												
JPU-8005	260	797	477	5	170												
JPU-8005L	260	1087	477	5	230												
JPU-12T5	290	935	580	5	296	750	460	360	56	200	255	292	8.5	90	342	492	8.9

*With the Compact Controller, regenerative resistance is an external add-on.
*Regenerative resistance is standard for JPU-0505 and above.

For more details about dimenisions, etc., please contact your Janome sales representative, or download external dimensional diagrams from our website.

www.janomeie.com

Specifications

Item		JPU-0055	JPU-0105	JPU-0205	JPU-0505	JPU-1005	JPU-15R5
Pressing Capacity	Maximum	0.5kN	1kN	2kN	5kN	10kN	15kN
	Setting Unit	1N					
Ram Stroke	Maximum	80mm			100mm (L:150mm)		
	Position Setting Unit	0.001mm					
Ram Speed	Pressing Time	0.01～35mm/sec					
	Approach•Return Time	0.01～414mm/sec			0.01～280mm/sec		0.01～120mm/sec
	Setting Unit	0.01mm/sec					
Maximum Holding Time*1		999.9sec	360sec	20sec	999.9sec	25sec	100sec
Load Display Precision*2		25N or more±4N	50N or more±8N	100N or more±16N	250N or more±40N	500N or more±80N	750N or more±120N
Position Repeatability*3		±0.005mm					
Maximum Jig Weight Suspended from the Ram Tip		up to 1kg	up to 2kg	up to 4kg	up to 10kg	up to 20kg	up to 30kg
Clean Room Model Clean Class*4		ISO4 (Class 10)					
Power Consumption	Standard Controller	400W			950W		
	Compact Controller	200W			750W		
Power Source		Single Phase / Three Phase 200～240V ±10% (50/60Hz)					

Item		JPU-2005	JPU-3005	JPU-5005	JPU-8005	JPU-12T5
Pressing Capacity	Maximum	20kN	30kN	50kN	80kN	120kN
	Setting Unit	1N	10N			
Ram Stroke	Maximum	200mm (L:400mm)				200mm
	Position Setting Unit	0.001mm				
Ram Speed	Pressing Time	0.01～35mm/sec				
	Approach•Return Time	0.01～320mm/sec			0.01～250mm/sec	0.01～200mm/sec
	Setting Unit	0.01mm/sec				
Maximum Holding Time*1		80sec	30sec	20sec	8sec	25sec
Load Display Precision*2		1kN or more±160N	1.5kN or more±240N	2.5kN or more±400N	4kN or more±640N	6kN or more±960N
Position Repeatability*3		±0.005mm				
Maximum Jig Weight Suspended from the Ram Tip		up to 40kg	up to 90kg	up to 100kg	up to 150kg	up to 150kg
Clean Room Model Clean Class*4		ISO4 (Class 10)			-	-
Power Consumption	Standard Controller	3.7kW		5.2kW		11.2kW
	Compact Controller	3.5kW		5.0kW		11.0kW
Power Source		Three Phase 200～240V ±10% (50/60Hz)				

*1 Value when making a cold start.

*2 Load display precision is ±0.8% (FS) of the maximum load when pressing in the range of 5% or more of the maximum load.
This is an indicator of sensor measuring unit and accuracy and is not an indicator of load tolerance after pressing or margin of error.
Precision also dependent upon there being no influence from increases in temperature.

*3 Position repeatability is dependent upon the press bearing a constant load at constant press unit and surrounding environmental temperatures.
Repeatibility is not a guarantee of absolute position precision.

*4 The clean class indicated above is based upon ISO-14644-1 and upon United States Federal Standard 209D (FED-STD-209D).
The Compact Controller is Standard Type only; it is usable with a Clean Room Model press, provided the Compact Controller is installed outside of the clean room.

Common Specifications

Basic Pressing Modes		While pressing at at constant speed: Position Stop / Distance Stop / Load Stop / Incremental Load Stop / Differential Load Stop / Event Stop / Reduced Load Stop While pressing at a constant load: Time Stop / Position Stop / Distance Stop / Event Stop Use these combinations to create multistep pressing settings in a single program.
Sensor Functions		Step Sensor / Program Sensor / Load Zone Sensor
No. of Programs*1		Up to 512
No. of Pressing Steps*1		Up to 512 (in one program)
No. of Step Sensors*1		Up to 16 (in one step) Up to 512 (in one program)
External Input/ Output	COM	RS-232C 1ch
	I/O-SYS*2	17 Inputs / 16 Outputs (standard equipment) *Specify NPN/PNP at time of order.
	Ethernet	10/100BASE-T
	MEMORY	For USB Memory Connection (Save results data, backup and restore data, update system software.) (up to 32GB)
	Field Networks	CC-Link, PROFIBUS, PROFINET, DeviceNet, CANopen, EtherNet/IP (all are optional)
	I/O-S	For Safety Device Connection
	Other	Teaching Pendant Connector, SWBOX Connector (standard) Load Cell Output, Encoder Output, Analog Monitor Output (optional)
Encoder*3		Incremental (standard) or absolute types (optional)
Display Units		Load unit: N, kgf, Lb Length unit: mm, inch
Display Languages	PC Software	English, Japanese, Chinese (Simplified & Traditional), Korean & German
	Teaching Pendant	English, Japanese, Chinese (Simplified & Traditional), Korean, German, French, Spanish, Italian, Romanian, Czech & Hungarian
Drive and Control Method		AC servomotor drive 32 bit CPU (dual core)
Work Environment	Surrounding Temperature	0~40℃
	Relative Humidity	20~90% (Without condensation)

*1 The number of programs, pressing steps and step judgments is limited in relation to the total memory size.
When multiple steps are included in one program, this in turn limits the number of new programs which can be added to the memory.
*2 Optional internal I/O power supply available for the Standard Controller.
*3 Please contact us for operating specifications and compatible models.

<Accessories>

- PC Software JP5 Designer (Windows® 7, Windows® 8.1, Windows® 10, Windows® Embedded Standard 7 WS7P compatible)
- Operation Manual (CD-ROM)
- Press Unit Connector Cables (3m) (Optional Lengths: 5m, 10m, 15m, 20m)
- SWBOX Short Connector
- TPU Short Connector
- I/O-S Short Connector
- I/O-SYS Connector

<Optional>

- Teaching Pendant (with Emergency Stop Switch/ Sub-Switch) (Cable Length: 3m, 5m)
- Touch Panel Interface (Windows® 10 IoT Enterprise compatible)
- Maintenance Box (Cable Length: 3m, 5m)
- PC Software JP TaS II System (Windows® 7, Windows® 8.1, Windows® 10 compatible, Windows® Embedded Standard 7 WS7P compatible)
- I/O-SYS Cable (2m, 3m, 5m)

Touch Panel Interface

Janome Servo Presses are used in a wide range of industries, including automotive, consumer electronics, aerospace, cosmetics and pharmaceuticals.

• Specifications may be modified without prior notice to improve product quality.

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JANOME Corporation
Industrial Equipment Sales Division
1463 Hazama-machi, Hachioji-shi, Tokyo 193-0941, Japan
Tel: +81-42-661-6301 FAX: +81-42-661-6302
E-mail : j-industry@gm.janome.co.jp
URL: www.janome.co.jp/industrial.html