

Servo feeder for stamping press

Variax opus 2 Series



Servo feeder provides basic performance at low cost



The Variax OPUS2 series are servo feeders for presses that are optimized to produce the electric motor cores used in EV motors and other industrial-use motors.

Compared to our OPUS 1 series high-end Variax model, this series is lighter and more compact.

Due to the use of dual roller drives, it offers stable material feeding of various materials (wide, thin, or soft materials) with a low gripping force.

Since the models in this series have a large opening and a detachable lower cover, the rollers can be cleaned easily.

Features

- Easy-start operation
- Excellent safety features and security system
- Global support for many languages and services
- Make it possible to transport a variety of plate materials, including wide, thin, and soft materials, as well as plates up to 5 mm thick.

Major Features:









Applicable Material Shapes:











Servo feeder for stamping press

Variax opus 2 Series

OPUS 2R-200H

OPUS 2R-300H

OPUS 2R-450H

OPUS 2R-650H

OPUS 2R-200T

OPUS 2R-300T

OPUS 2R-450T

OPUS 2R-650T



Peripheral equipment

An indexing/skewing drive system for rotating the motor cores used for electric motors in home electrical appliances.

Servo-dex EVR2 Series

EVR2-75

EVR2-150

EVR2-300

The Servo-dex EVR2 series is the optimum indexing / skewing drive system in press lines to produce the electric motor cores used in EV motors and other industrial-use motors. It is optimal for electric motor core production press lines that make motors for home appliances, such as air conditioners and general-purpose motors.

It reduces mold maintenance by suppressing vibration when stopping a workpiece with high-precision positioning.

This series can easily be controlled using a timing signal, and various control patterns are now also available.

Features

- Outstanding reliability due to our original vibration damping design
- Supports optional stacking angle settings and various types of control patterns
- Stacking operation triggered by the timing signal
- Built in preventive maintenance and diagnostic functions to support IoT compatibility
- The combination of a servo driven feeder and a servo-dex device results in maximum motor core line optimization.

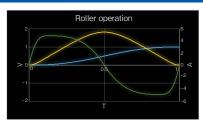
Servo tuning automatically adjusts the gain according to the mold's load.





Specifications: optimum for use on EV motor core and industrial-use motor core press lines

- By feeding materials appropriately using a servomotor, high-precision (±0.03mm or better) material feeding is achieved at high speed (80m/min. or faster)
- Contributes to productivity and improving yield



Action well suited for feeding material

Easy-start operation

- After the power is turned on, it can be interlocked with a press by using a remote pendant
- Feed settings are switched easily by entering a parameter on the automatic operation setting screen (user level 1 or higher)







Automatic operation setting screen

Safety system with excellent operability

Control 3 levels of user privileges using passwords

Level 0: Group setting switching prohibited Level 1: Group setting switching permitted Level 2: Group setting editing permitted







Password authentication

Exceptional quality and reliability

- Guaranteed reliable and stable operation due to our 40 years of experience with feeder development and the use of our proprietary technology
- Actual feed accuracy ± 0.03 mm
- Patented design to protect against press vibration
- Patented damping construction to protect the feed device

Safety function

- When an emergency stop signal is input, this function instantly cuts off power to the motor and stops all operation
- Supports a hold-to-run function
- Roll release function when jamming occurs (option)
- End-of-material detection signal output (optional)



Abnormal status display



Abnormality occurred history display

Various display functions

- Display the load factor of the feed motor and the release motor
- Displays the feed range and release range of the feeder
- Display the current angle of the press



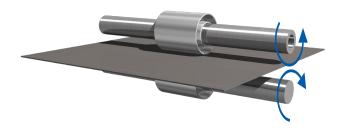




Setting screen for manual operation

Can feed wide, thin, and soft materials

•Due to the use of dual roll drives, it can reliably feed materials with a lower gripping force



Global support for many language and services

- •Languages: Japanese, English, and Chinese
- •We have service people living in Japan, the USA, China, Korea, Thailand, and India



Easy to install in a press

Standardized side mounting and bracket mounting on presses





Mounting face Side mounting plate (option)

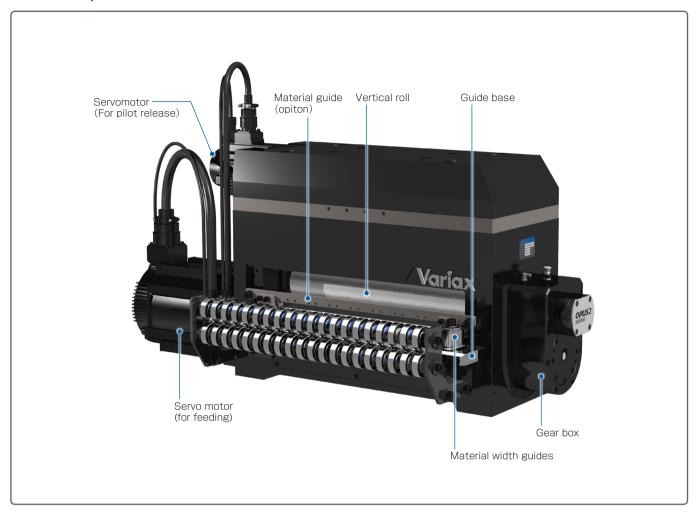
Greatly improved roll cleaning ability

Easy access to the rolls through the large opening



Feeder specification

Feed components



Specification table

	General specifications (OPUS2R-H)			Thick plate specification (OPUS2R-T)					
Model name	Unit	0PUS2R -200H	0PUS2R -300H	0PUS2R -450H	0PUS2R -650H	OPUS2R -200T	0PUS2R -300T	0PUS2R -450T	OPUS2R -650T
Material width	mm	Max 200	Max 300	Max 450	Max 650	Max 200	Max 300	Max 450	Max 650
Feed length	mm				1-99	99*1			
Material thickness	mm		Ma	x 2			Max 5	(4.7)*4	
Clamping force	N	1,500	~3,000	-3,000 3,000~5,000 1,500~3,000			3,000~5,000		
Pilot release length	mm		0.1 0.5(1.0)*2						
Roll opening dimension	mm		max 5.7						
Maximum press speed	min ⁻¹	1,000 500 600(300)*3 500			500(3	300)*3			
Pilot release angle	deg	90~	180	50~	180	90~180			
Maximum feed speed	m/min	60)*1	80)*1	60*1 80*1)*1	
Repeat accuracy	mm		±0.03						
Operating air pressure	MPa	0.5~0.6							
Paint color		N1.5(Black)							
Product weight	kg	170	190	260	310	170	190	260	310

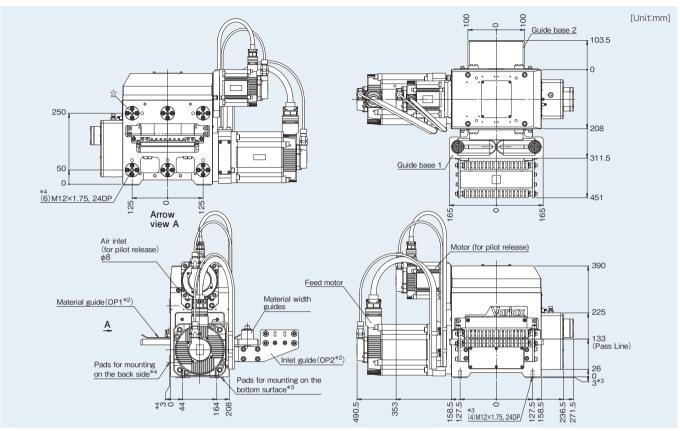
^{*1} Please check the separate feed capacity diagram. *2 A pilot release amount of 1.0 mm is available as an option.

^{*3} When the pilot release amount is 1.0 mm, the maximum press speed will be 300 min⁻¹.

^{*4} If the pilot release amount is 1.0, the upper limit for the material thickness will be 4.7 mm.

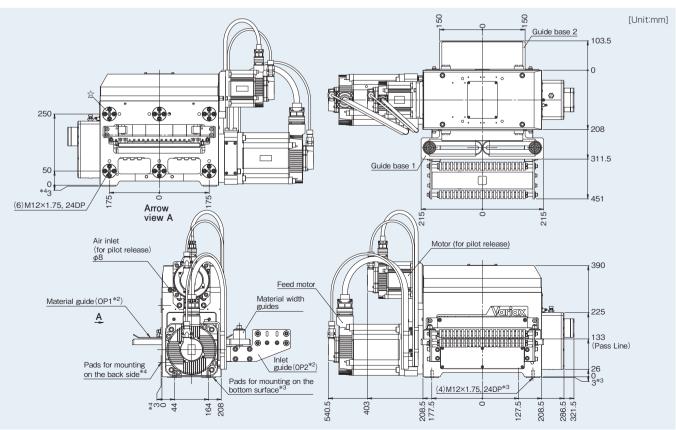
Dimensional drawing OPUS2R-200H(T)/300H(T)

OPUS2R-200H(T)



*1 This drawing shows the L type specification motor mounting direction. *2 "OP1" and "OP2" indicate that the option is installed. *3 Mounting surface L: Shows the bottom mounting specifications. Install the bottom mounting pads. Positions marked with a \dot{x} have covers. *4 Mounting surface B: Shows the back-side mounting specifications. Install the back-mounting pads.

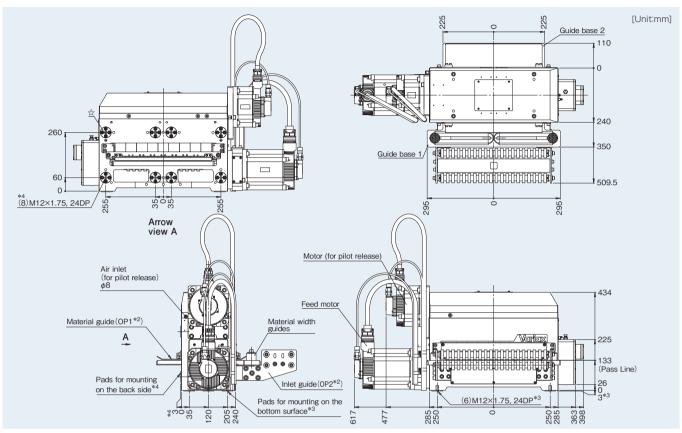
OPUS2R-300H(T)



*1 This drawing shows the Litype specification motor mounting direction. *2 "0P1" and "0P2" indicate that the option is installed. *3 Mounting surface L: Shows the bottom mounting specifications.

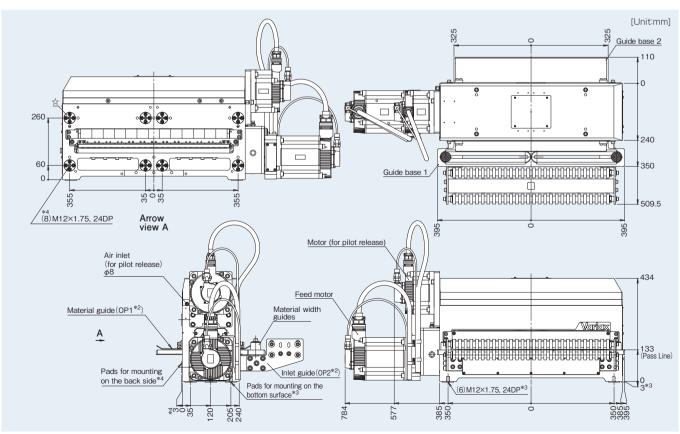
Dimensional drawing OPUS2R-450H(T)/650H(T)

OPUS2R-450H(T)



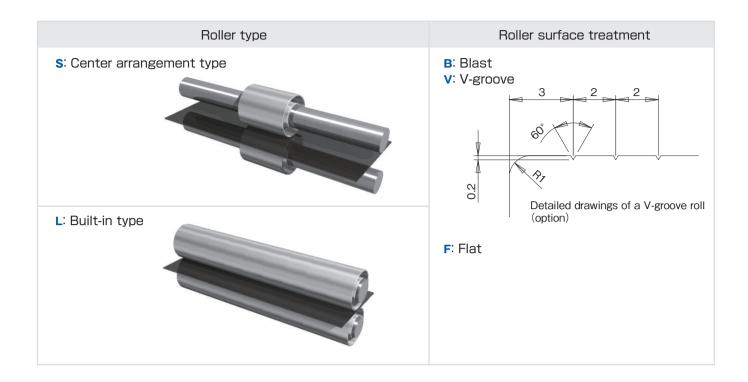
*1 This drawing shows the L type specification motor mounting direction. *2 "OP1" and "OP2" indicate that the option is installed. *3 Mounting surface L: Shows the bottom mounting specifications. Install the bottom mounting pads. Positions marked with a \$\frac{1}{2}\$ have covers. *4 Mounting surface B: Shows the back-side mounting specifications. Install the back-mounting pads.

OPUS2R-650H(T)

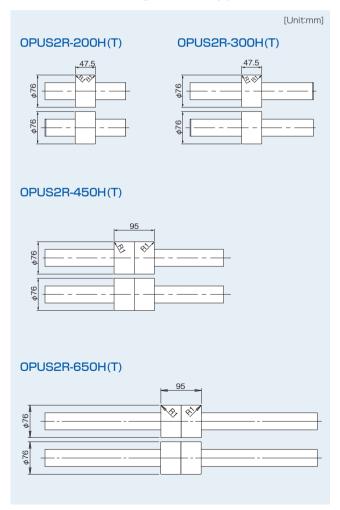


*1 This drawing shows the L type specification motor mounting direction. *2 "OP1" and "OP2" indicate that the option is installed. *3 Mounting surface L: Shows the bottom mounting specifications. Install the bottom mounting pads. Positions marked with a \$\frac{1}{2}\$ have covers. *4 Mounting surface B: Shows the back-side mounting specifications. Install the back-mounting pads.

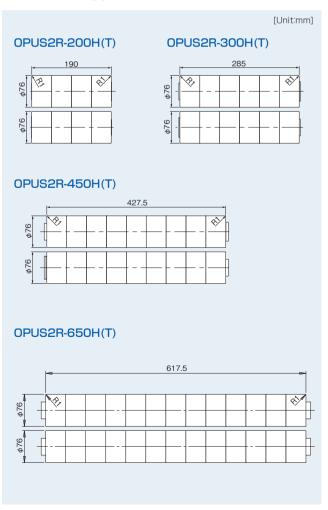
Feed roll dimensional drawings



S: Center arrangement type

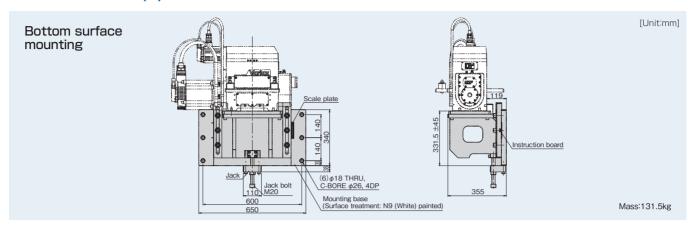


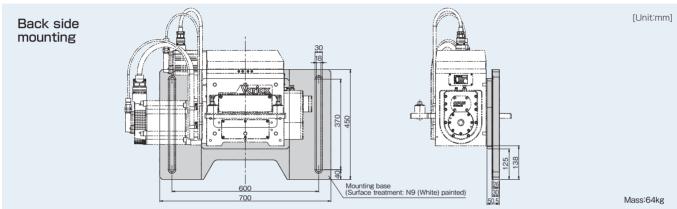
L: Built-in type



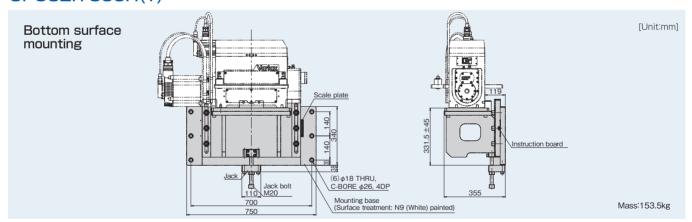
Dimensions, mounting components (optional)

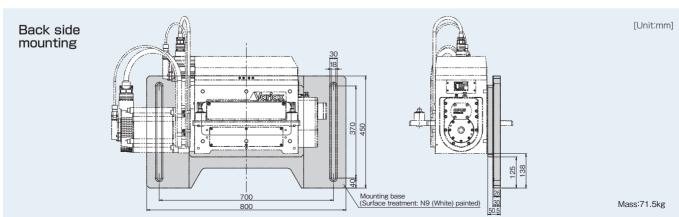
OPUS2R-200H(T)





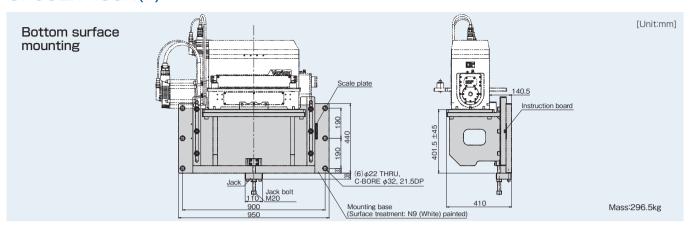
OPUS2R-300H(T)

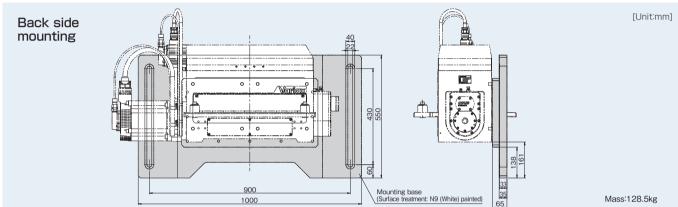




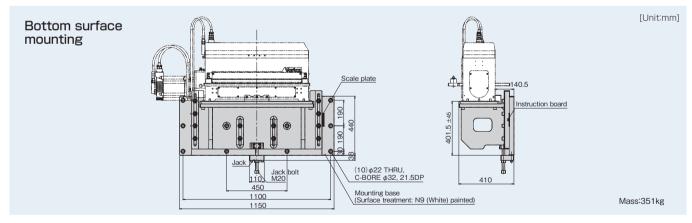
^{*}Please prepare your own jack parts

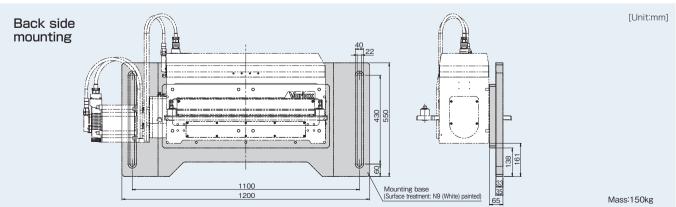
OPUS2R-450H(T)





OPUS2R-650H(T)

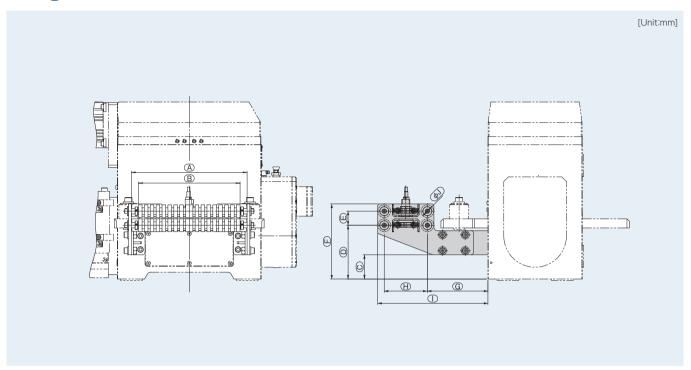




^{*}Please prepare your own jack parts

Dimensional drawings, inlet guide (optional)

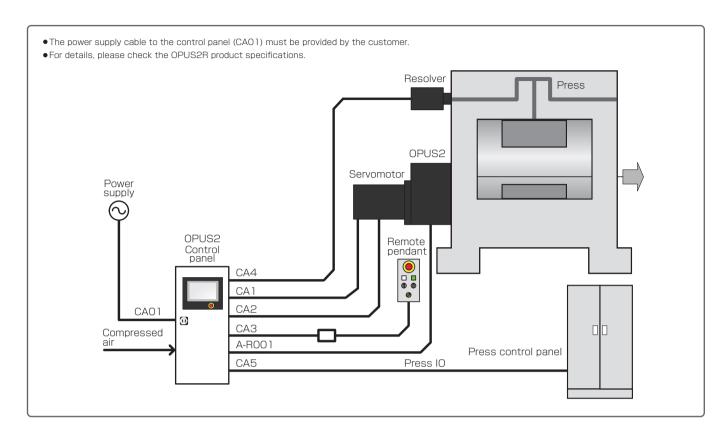
Inlet guide dimensions: double row



Dimension table

Size	Α	В	С	D	Е	F	G	Н	I	J
OPUS2R-200H(T)	255	224	53.5	118.5	31	165.5	133.5	95	243	28
OPUS2R-300H(T)	355	302	53.5	118.5	31	165.5	133.5	95	243	28
OPUS2R-450H(T)	500	468	44	111.5	45	179	137	110	269.5	42
OPUS2R-650H(T)	700	660	44	111.5	45	179	137	110	269.5	42

Control part specifications



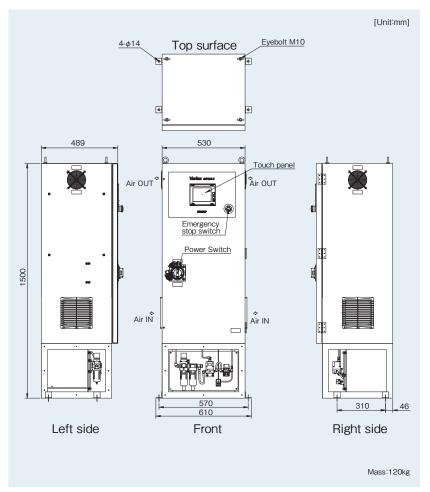
Control specification table

Electrical specifications (for one version)					
Power supply		Three-phase three-wire system, AC200V ±10% 50/60Hz	Three-phase three-wire system, AC400V ±10% 50/60Hz		
Power	Applicable models: OPUS2R-200H(T)/300H(T)	Fan cooling specifications Panel cooler specifications	19.8kVA 57.2A 21.7kVA 62.5A	20.0kVA 28.9A 19.8kVA 28.6A	
capacity	Applicable models: OPUS2R-450H(T)/650H(T)	Fan cooling specifications Panel cooler specifications	23.3kVA 67.3A 25.2kVA 72.6A	22.6kVA 32.6A 22.4kVA 32.3A	
Sarvamat	or capacity	Applicable models: OPUS2R- 200H(T)/300H(T)	Feed 7.5kW / Release 1.8kW		
Servornot	ог сарастту	Applicable models: OPUS2R- 450H(T)/650H(T)	Feed 7.5kW / Release 2.9kW		

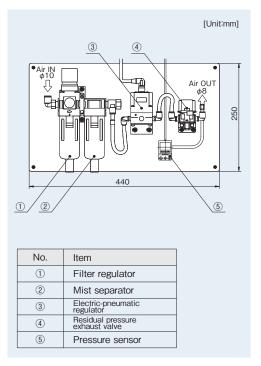
Main functions				
User interf	ace	Touch panel (5.7 inch), Remote pendant, Press IO		
Touch pane	l language	Japanese / English / Chinese		
Number of	saved job	200		
	Automatic operation	You can start automatic operation by entering a job number.		
Operation mode	Manual operation	You can JOG and process feed at set speeds, as well as open or close the rolls.		
	Parameters	Various parameters can be set.		
Safety fund	ction	STO (Shuts off the power to the motor and stops the shaft using a mechanical brake)		
Security functions		3 user levels (password management)		
Crankshaft	Resolver	1:1 installation (with vibration isolation mounting kit)		

Control panel dimensional drawings

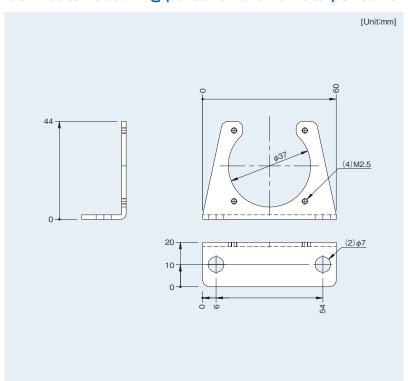
Control panel dimensional drawings



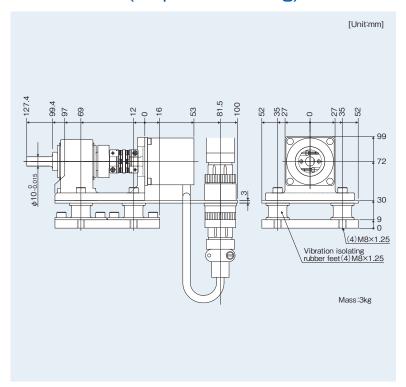
Compressed air equipment



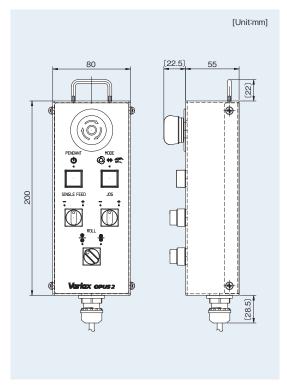
Connector securing parts for the remote pendant



Resolver unit (for press mounting)

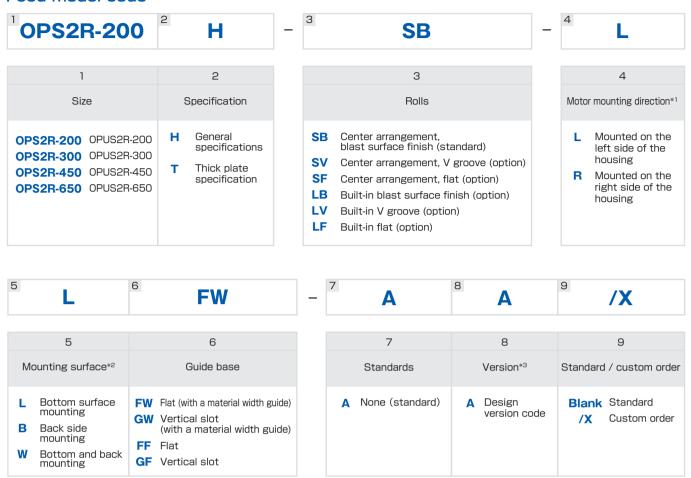


Remote pendant



Model code for feed

Feed model code



- *1: The motor mounting directions mentioned above are when viewing the feeder housing from its front side.
- *2: Install mounting pads on the surface mounting side.
- *3: The final number in the version code increases with each design change and may change without prior notice.

Optional codes for Feed (Material guide)

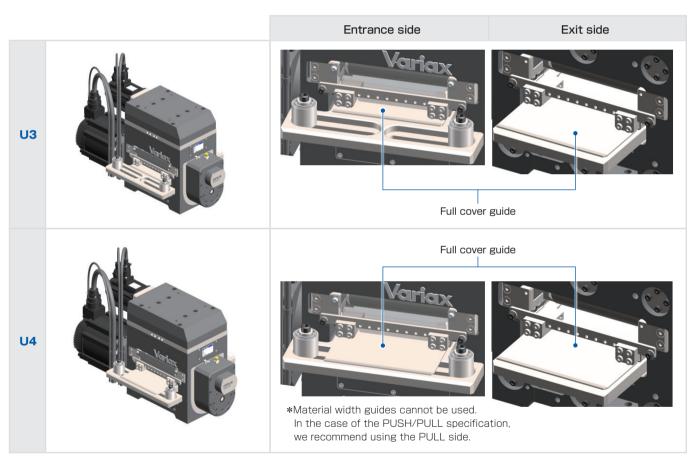
OPS2R-200 - 2 U3

1
Model

OPS2R-200 OPUS2R-200H(T)
OPS2R-300 OPUS2R-300H(T)
OPS2R-450 OPUS2R-450H(T)
OPS2R-650 OPUS2R-650H(T)

Material guide

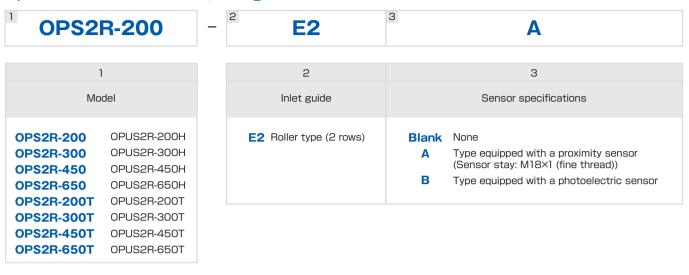
U3 Full cover type
U4 Full cover type
(to the end of the guide base)



 $\ensuremath{ *1} \xspace$ This guide cannot be used if a gap of more than 3 mm is required.

Model code for feed

Optional codes for Feed(inlet guide)

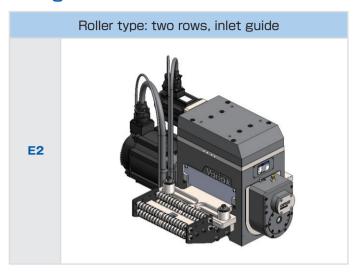


-	A	/X
	4	5

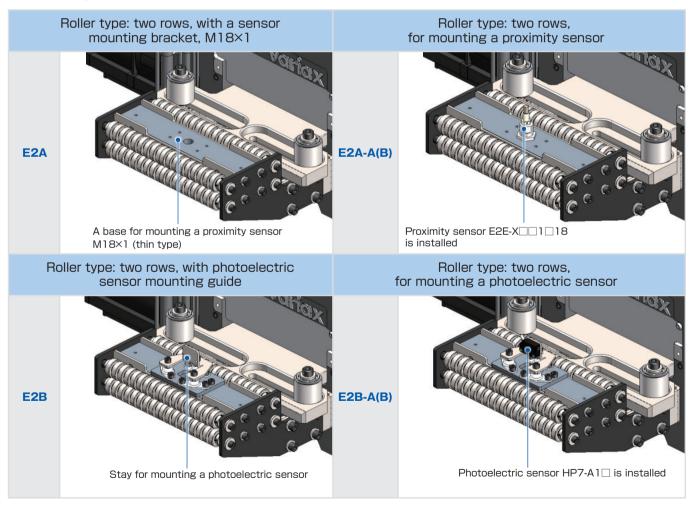
	5	
Senso	Standard / custom order	
Sensor specifications: A (proximity sensor)	Sensor specifications: B (photoelectric sensor)	
A OMRON sensor / PNP B OMRON sensor / NPN **Sensor Type	A azbil sensor / PNP B azbil sensor / NPN **Sensor Type	Blank Standard /X Custom order
General specifications (H) A:E2E-X5B1D18(PNP) B:E2E-X5C118(NPN) Thick plate specification (T) A:E2E-X12B1D18(PNP) B:E2E-X12C118(NPN)	General specifications (H), Thick plate specification (T) common A:HP7-A14(PNP) B:HP7-A13(NPN)	

^{*1:} To use sensors on other models, please tell us the name of the sensor model you want to use when ordering a Variax.

Inlet guide



Sensor specifications



Model code for controller

Control code

OPS2R2020HE



Model and voltage specifications OPS2R2020HE OPUS2R-200H AC200V OPS2R2030HE OPUS2R-300H AC200V OPS2R2045HE OPUS2R-450H AC200V **OPS2R2065HE** OPUS2R-650H AC200V **OPS2R4020HE** OPUS2R-200H AC400V OPS2R4030HE OPUS2R-300H AC400V OPS2R4045HE OPUS2R-450H AC400V OPS2R4065HE OPUS2R-650H AC400V OPS2R2020TE OPUS2R-200T AC200V OPS2R2030TE OPUS2R-300T AC200V OPS2R2045TE OPUS2R-450T AC200V OPS2R2065TE OPUS2R-650T AC200V OPS2R4020TE OPUS2R-200T AC400V OPS2R4030TE OPUS2R-300T AC400V OPS2R4045TE OPUS2R-450T AC400V OPS2R4065TE OPUS2R-650T AC400V

2	3
Operation panel position	Control panel cooling method*2
A Control panel (standard) B Panel stand (option) C Wall hung panel (option)	A Fan cooledB Panel cooler (optional)

⁴ RCA	5	A	6	C	7	/X

4	5	6	7
The cable outlet position, when looking at the front of the control panel.*4	Standards	Version*5	Custom specification
RCA Right exit, without a protective tube RCB Right exit, with a protective tube (option) LCA Left exit, without a protective tube LCB Left exit, with a protective tube (option) RCA Rear exit, without a protective tube RCB Rear exit, with a protective tube (option) UCA Bottom side exit, without a protective tube UCB Bottom side exit, with a protective tube (option)	A IEC specification(standard)	C Design version code	Blank Standard /X Custom order

^{*1:} The control panel paint color is N9 (white), the electrical panels are plated.

^{*2:} The control panel will weigh 120 kg with the fan cooling specifications and 160 kg with the panel cooler specifications.

^{*3:} If you want to install control panels side by side, please leave a gap of at least 100mm between the control panels. (For securing the control panel air supply and exhaust area)

^{*4:} The position of the cable outlets when viewing the control panel door.

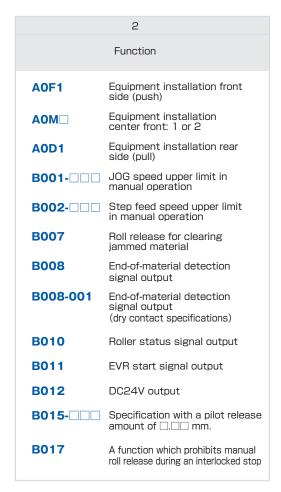
^{*5}: The final number in the version code increases with each design change and may change without prior notice.

Control option code

OPS2R2020HE

Model and voltage specifications OPS2R2020HE OPUS2R-200H AC200V OPS2R2030HE OPUS2R-300H AC200V OPS2R2045HE OPUS2R-450H AC200V OPS2R2065HE OPUS2R-650H AC200V OPS2R4020HE OPUS2R-200H AC400V OPS2R4030HE OPUS2R-300H AC400V OPS2R4045HE OPUS2R-450H AC400V OPS2R4065HE OPUS2R-650H AC400V OPS2R2020TE OPUS2R-200T AC200V OPS2R2030TE OPUS2R-300T AC200V **OPS2R2045TE** OPUS2R-450T AC200V **OPS2R2065TE** OPUS2R-650T AC200V **OPS2R4020TE** OPUS2R-200T AC400V







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OPS2R4030TE

OPS2R4045TE

OPS2R4065TE

OPUS2R-300T AC400V

OPUS2R-450T AC400V

OPUS2R-650T AC400V

^{*1:} Please choose function AOF1, AOM □, or AOD1.

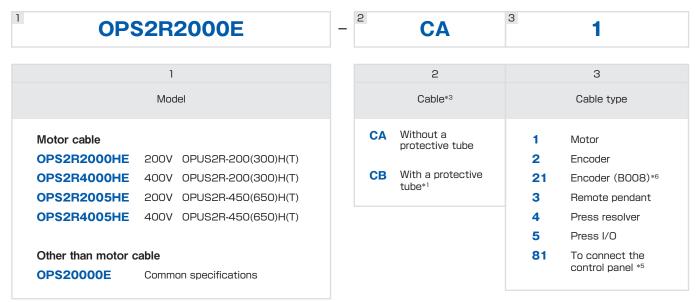
^{*2:} Starting at BOO1, please select the functions you need. (You can select as many as you like)

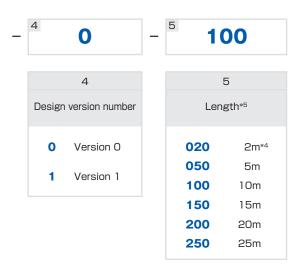
^{*3}: For control option details, refer to the product specifications.

^{*4:} The final number in the version code increases with each design change and may change without prior notice.

Model code for controller

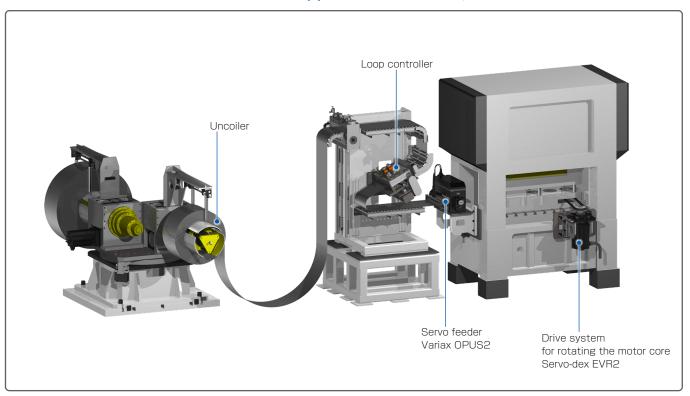
Control cable cord



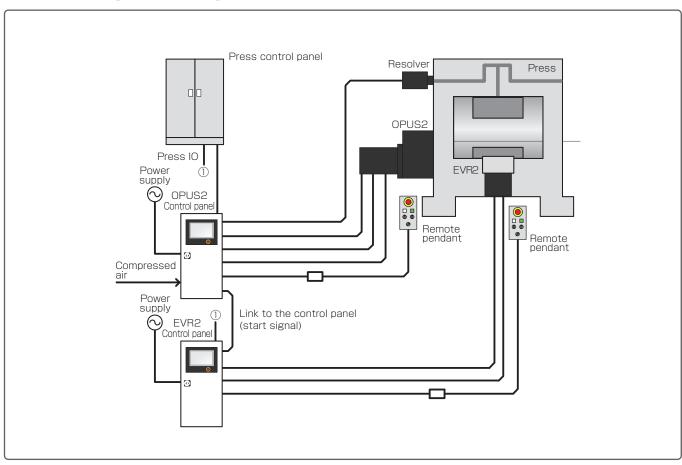


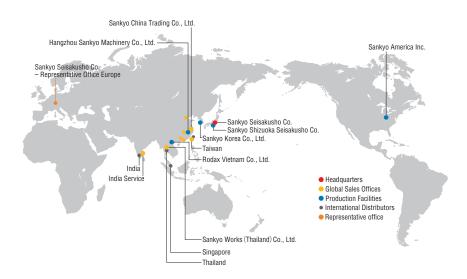
- *1: Optional
- *2: The power supply cable to the control panel (CAO1) must be provided by the customer.
- *3: The standard CA cable is not inserted into a flexible metal tube.
 Only the optional cable CB is inserted into a flexible metal tube (KLV series / Nihon-Cim).
- *4: A cable length of 2 m can only be selected for connecting the control panel.
- *5: Only 2 m, 5 m, and 10 m cables can be selected to make connections to the control panel.
- *6: Functional options: A type 21 cable will be supplied when the material end detection signal output (B008/B008-001) is required.

Motor core line for home electrical appliances (OPUS2, EVR2)



Control configuration diagram (OPUS2, EVR2)





Group Companies

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