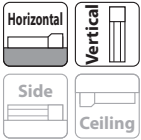


# RCS3-RA15R Ultra-high Thrust Rod Type (Servo Press Model with Load Cell)

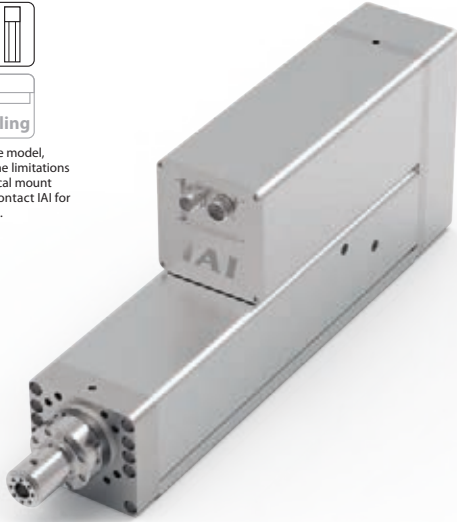
Battery-less Absolute
Motor Unit Type
Side-mounted Motor
Body Width 150\* mm
230v AC Servo Motor

Model Specification Items	<b>RCS3</b>	<b>RA15R</b>	<b>WA</b>	<b>3300</b>	<b>3.6</b>		<b>T3</b>		
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Applicable Controllers	Cable Length	Options
			WA: Battery-less Absolute	3300: Servo motor 3300W	3.6: Lead 3.6mm	100: 100mm 500: 500mm (Every 100mm)	T3: SCON-CGB (For servo press only)	N : None P : 1m S : 3m M : 5m X□□ : Specified length	Refer to Options table below. * Make sure to specify MT (Side-mounted motor on top).

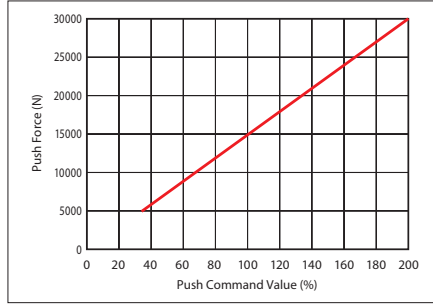
\* Does not include a controller.  
 \* Please contact IAI for more information about the model specification items.  
 \* Body width does not include the width of the side-mounted motor.



\* Depending on the model, there may be some limitations to using the vertical mount position. Please contact IAI for more information.



## Correlation Diagram of Push Force and Current Limit Value



### Caution:

- The correlation between push force and push command value are strictly for reference purposes. Actual numbers may vary slightly.
- The push command value should be 34% or more because the push force will be unstable when the push command value is low.

**POINT Selection Notes**

- (1) For push-motion operation, check the allowable time period of continuous push-motion set with a different thrust force. Also, please check that the allowable continuous operational thrust force for the actual push cycle is less than the allowable continuous operational thrust force. (Even if there is no push motion) Please refer to P.28 for more information.
- (2) Customer's tooling is to be mounted on the load cell itself. In case any radial or moment load is applied to the load cell, please consider adding the external guides, etc. to offset those side loads.
- (3) Please install a support block when front mounting a horizontally mounted actuator. (Refer to page 34 "Notes When Installing")
- (4) Servo Press with load cell should not be used for pulling motion. It will damage the load cell.
- (5) The maximum payload for vertical mounting is 220kg when using the M5 tapped mounting hole at the tip of the load cell. When using the M8 tapped mounting hole on the side of the load cell tip and fixing with a setscrew, the payload should be 15 kg or less. Use either the M8 or M5 tapped mounting hole but not both.

## Actuator Specifications

### Lead and Payload

Model Number	Motor wattage (W)	Lead (mm)	Max. speed (mm/s)	Max. acceleration (G)	Max. payload		Rated thrust (N)	Max. push force (N)
					Horizontal (kg)	Vertical (kg)		
RCS3-RA15R-WA-3300-3.6-①-T3-②-③	3300	3.6	240	0.1	15	220	15577	30000

Legend: ① Stroke ② Cable Length ③ Option \* Max. horizontal payload means max. weight on the customer's external guide. \*\* Max. push force can be achieved only within 1~10mm/s speed range.

### Stroke and Max Speed

Lead (mm)	Stroke (mm)	100~500

(Unit: mm/s)

## Cable Length

Type	Cable Code
Standard (Robot cable)	P(1m)
	S(3m)
	M(5m)
Specified length (Robot cable)	X06(6m) ~X10(10m)
	X11(11m)~X15(15m)
	X16(16m)~X20(20m)

\* Please refer to the backside for maintenance cables.  
\* Robot cable specification is standard.

## Actuator Specifications

Item	Description
Drive system	Ball screw ø36mm ground
Positioning repeatability	±0.01mm
Lost motion	0.1mm or less
Load cell rated capacity	50000N
Loading repeatability (*1)	±0.5% F.S (*2)
Ambient operating temp. & humidity	0°C~40°C, 85% RH or less (non-condensing)

(\*1) Ratio (in percentage) of the load variations caused by the repeated operations to the load cell rated capacity  
(\*2) F.S.: Full Scale, the maximum measurable value.

## Options

Name	Option Code	Reference Page
Brake	B	See P.35
Cable exit direction (Top)	CJT	See P.35
Cable exit direction (Right)	CJR	See P.35
Cable exit direction (Left)	CJL	See P.35
Equipped with load cell (Standard equipment) (*1)	LCT	See P.37
Side-mounted motor direction (Top)	MT	See P.37

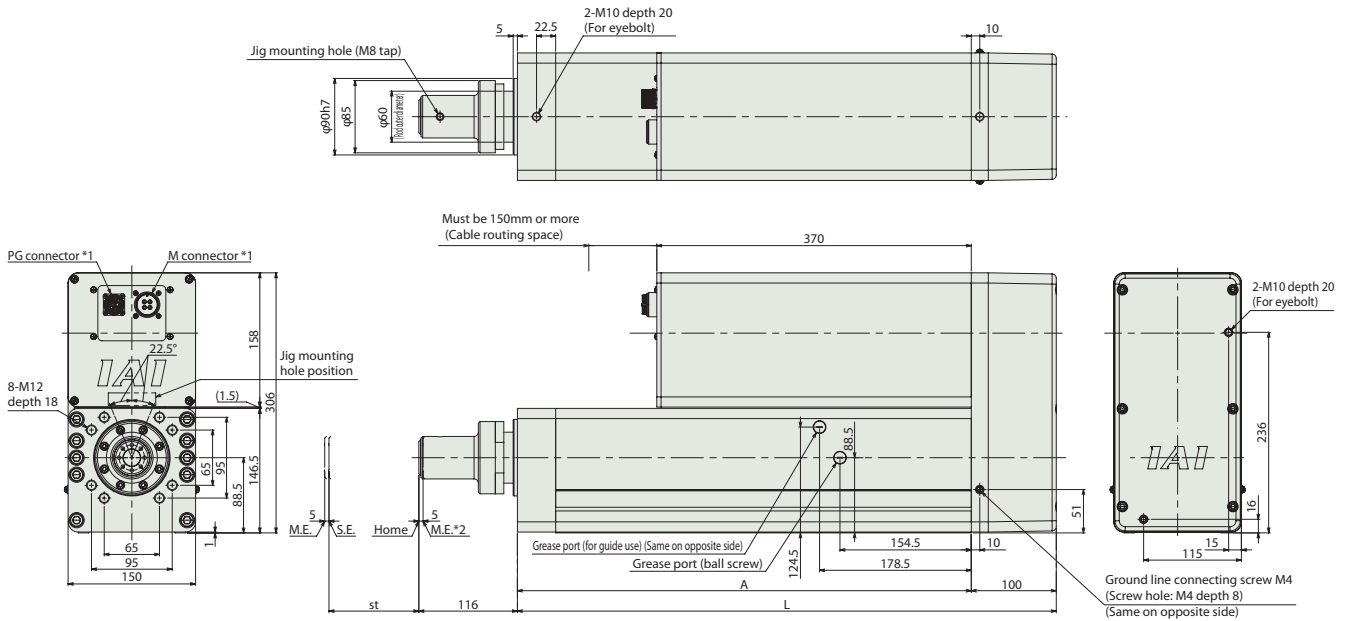
(\*1) Please make sure to enter "LCT" in the box of Model Specification Items to select the actuator with load cell option.

## Dimensions

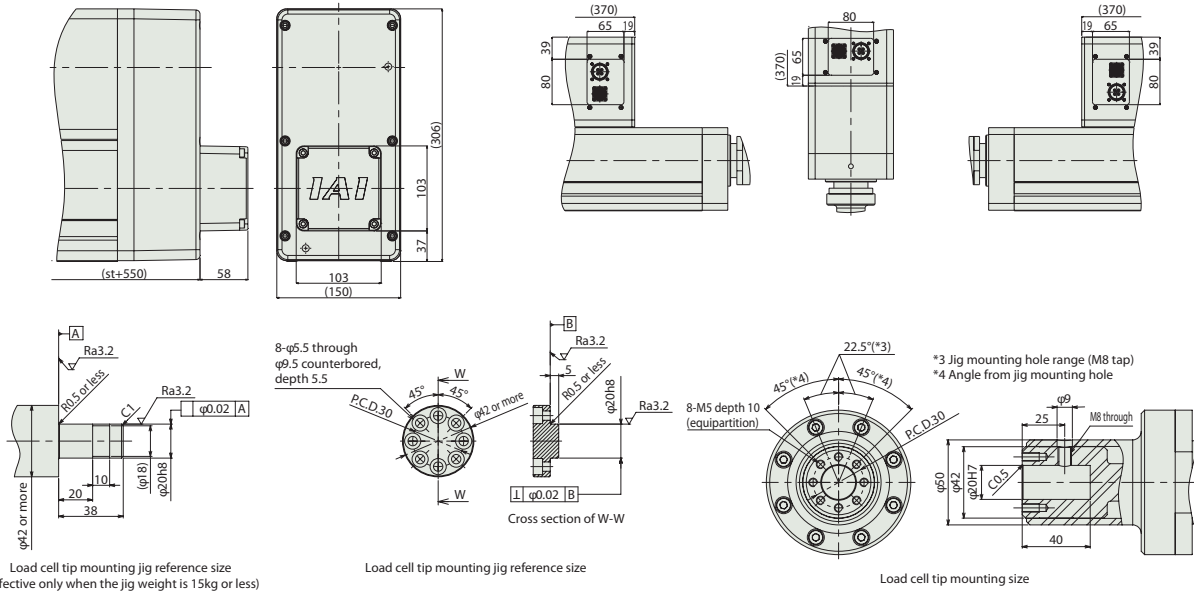
CAD drawings can be downloaded from our website.  
[www.robocylinder.de](http://www.robocylinder.de)



- \*1 Connect the motor-encoder cables. Please contact IAI for more details on the cable.
- \*2 While the rod is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the mechanical end.  
 M.E: Mechanical end  
 S.E: Stroke end



### ■ Dimensions with Brake



### ■ Dimensions and Mass by Stroke

Stroke	100	200	300	400	500	
L	534	634	734	834	934	
A	434	534	634	734	834	
Mass (kg)	Without brake	61	64.9	68.7	72.6	76.5
	With brake	63	66.9	70.7	74.6	78.5

### Applicable Controllers

The RCS3 series actuators can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method				Network * Option	Maximum number of positioning points	Reference page
				Positioner	Pulse train	Program	Press program			
SCON-CGB (For servo press only)		1	Three-phase 230VAC	-	-	-	●	DeviceNet CC-Link EtherCAT EtherNet/IP CompoNet	-	Refer to the SCON-CB/CGB-F servo press function manual.