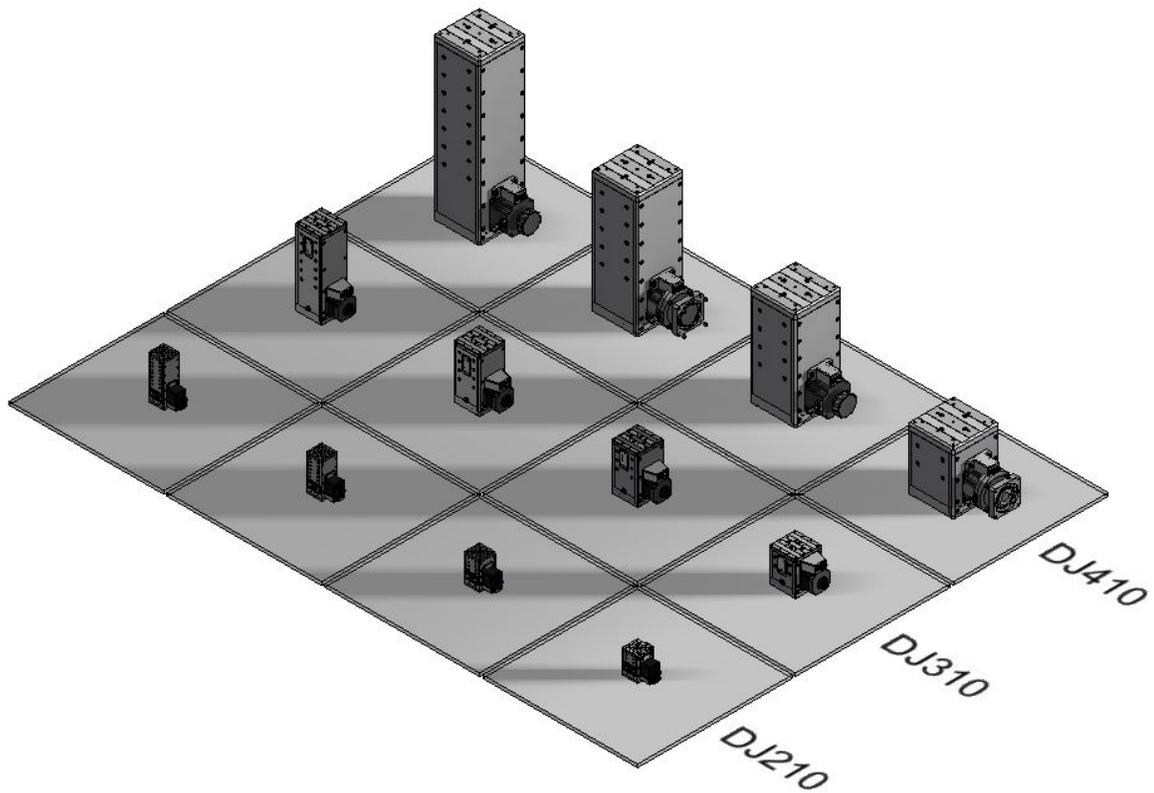




# High Precision Lift Stages

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DJ Series



## SPECIFICATIONS

The lift stages are driven by a high class preloaded ballscrew coupled to a high torque electric motor. Maximum rigidity is assured through the use of preloaded crossed roller linear bearings. Resolution requirements may be met using a gearbox. Each jack also features two fully adjustable, normally closed limit switches to define the extents of travel.

## MECHANICAL

Specification	210 Series	310 Series	410 Series
Travel (mm)	10, 25, 35, 50	25, 50, 75, 100	50, 100, 150, 200
Mass (kg)	1.2, 1.3, 1.5, 1.6	2.5, 3.3, 3.7, 5	13, 21, 25, 33
Lead Accuracy (um/25mm)	2.5	5	5
Trajectory Straightness (um/25mm)	2.5	3	4
Travel Resolution (mm/rev)	0.5	0.5	1
Maximum Speed (mm/sec)	25	12.5	20

## ELECTRICAL

Specification	DS210 Series	DS310 Series	DS410 Series
Motor	2-Phase; 5-Phase Stepper; DC		
Limit Switches	Mechanical, Normally Closed		
Optical Encoder	Not available in the 210 series	Renishaw Incremental or Absolute ( <a href="http://www.renishaw.com">http://www.renishaw.com</a> )	

## LOAD CHARACTERISTICS

Model	F <sub>x</sub> (N)	F <sub>y</sub> (N)	F <sub>z</sub> (N)	M <sub>xz</sub> (Nm)	M <sub>yz</sub> (Nm)	M <sub>xy</sub> (Nm)
DJ210-10	57	28	500	1.5	0.75	14.5
DJ210-25	89	44.5	500	3.5	1.75	29
DJ210-35	112.5	56	500	5.5	2.5	46.5
DJ210-50	119	59.5	500	7.5	3.5	61.5

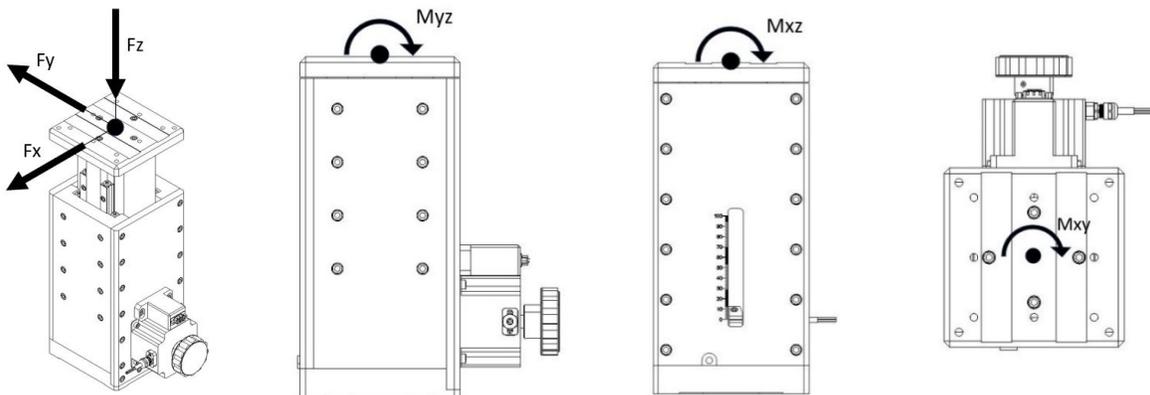
\*Loads are not simultaneous.

Model	F <sub>x</sub> (N)	F <sub>y</sub> (N)	F <sub>z</sub> (N)	M <sub>xz</sub> (Nm)	M <sub>yz</sub> (Nm)	M <sub>xy</sub> (Nm)
DJ310-25	525.5	262.5	5080	25.5	12.5	168
DJ310-50	477	238.5	5080	34.5	17	216
DJ310-75	409	204	5080	38.5	19	240
DJ310-100	633.5	316.5	5080	77.5	38.5	456

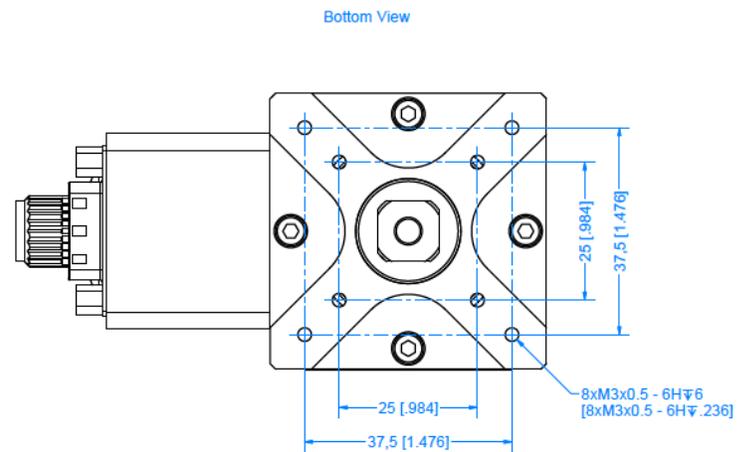
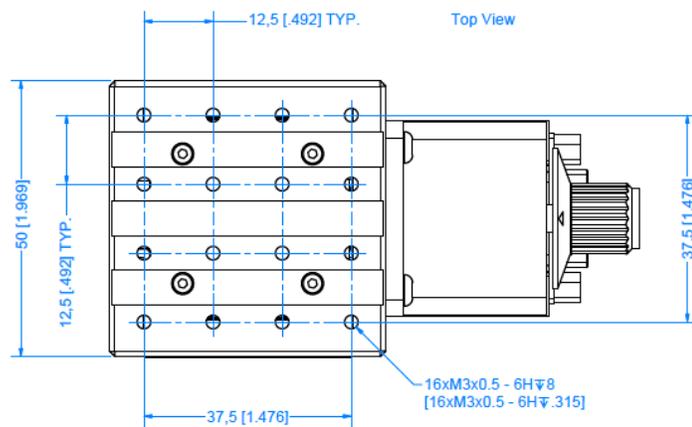
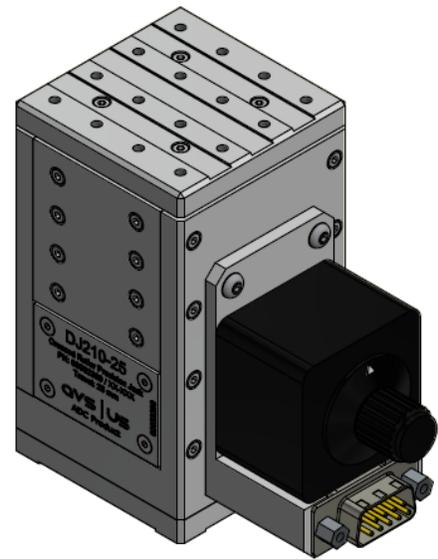
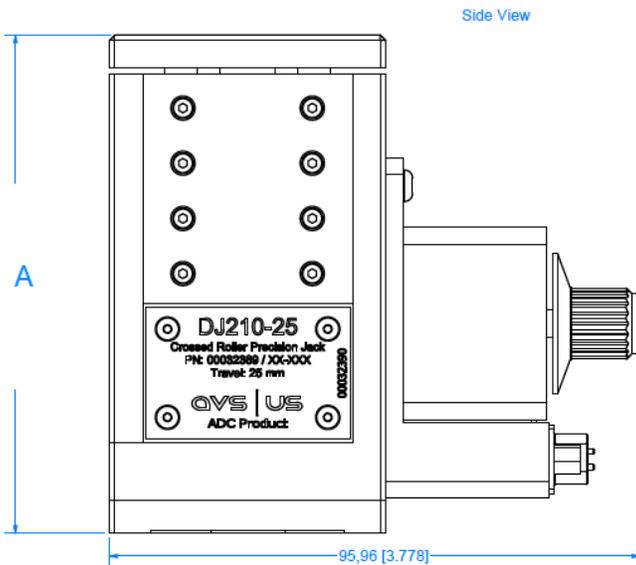
\*Loads are not simultaneous.

Model	F <sub>x</sub> (N)	F <sub>y</sub> (N)	F <sub>z</sub> (N)	M <sub>xz</sub> (Nm)	M <sub>yz</sub> (Nm)	M <sub>xy</sub> (Nm)
DJ410-50	2241.5	1120.5	10170	234.5	117	1650
DJ410-100	3216.5	1608	10170	536	268	3506
DJ410-150	3121	1560.5	10170	636.5	318	4125
DJ410-200	3346.5	1673	10170	905	452.5	5775.5

\*Loads are not simultaneous.

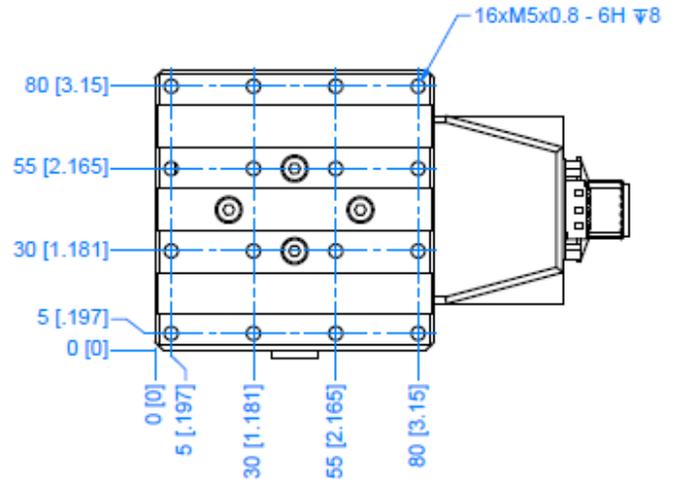
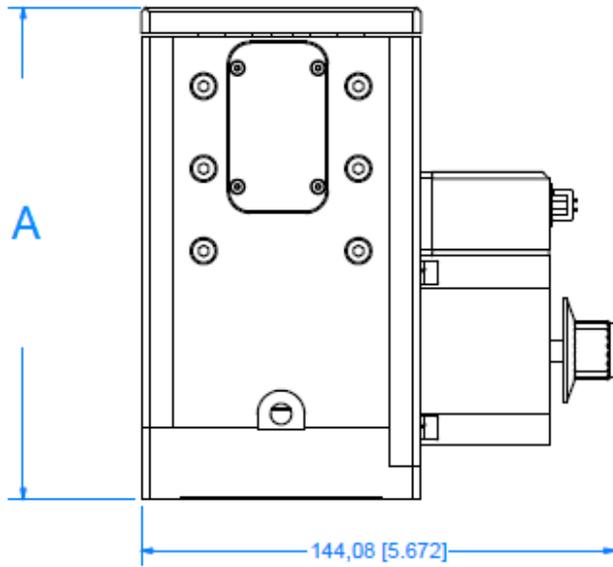
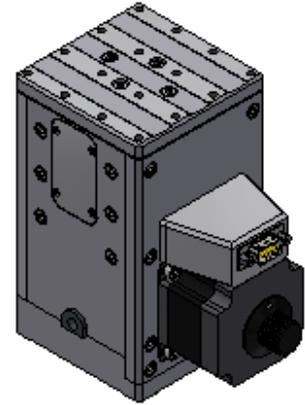
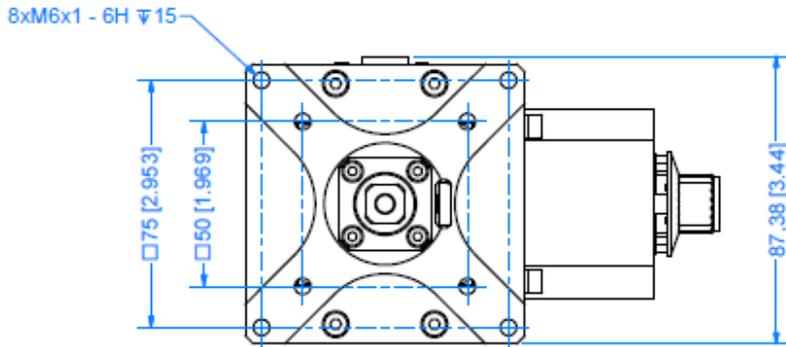


# DJ210



Model	10	25	35	50
A- Closed Height (mm)	75.5	89.4	113.9	137.4

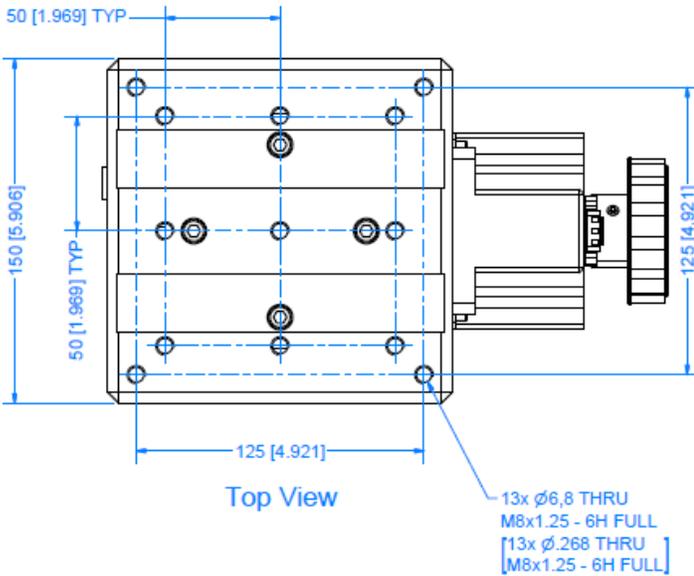
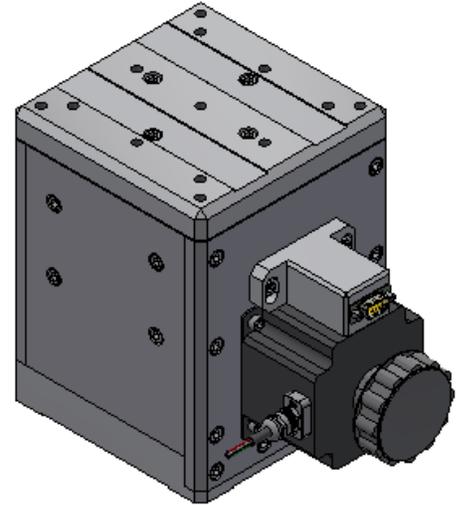
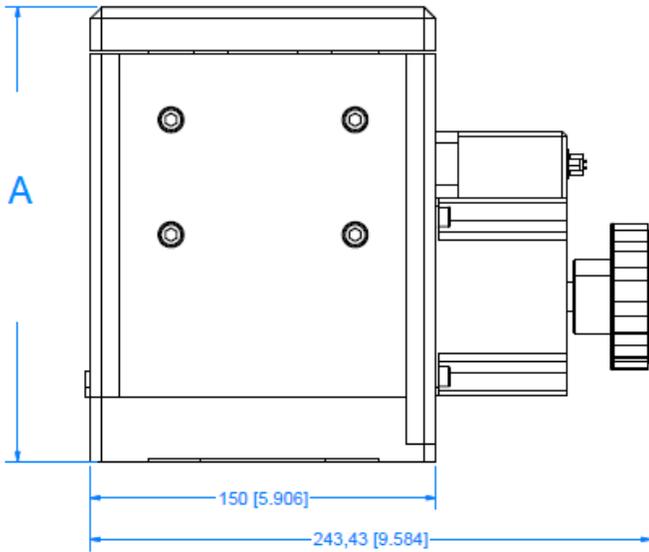
# DJ310



Model	25	50	75	100
A- Closed Height (mm)	107.5	148.5	170	245

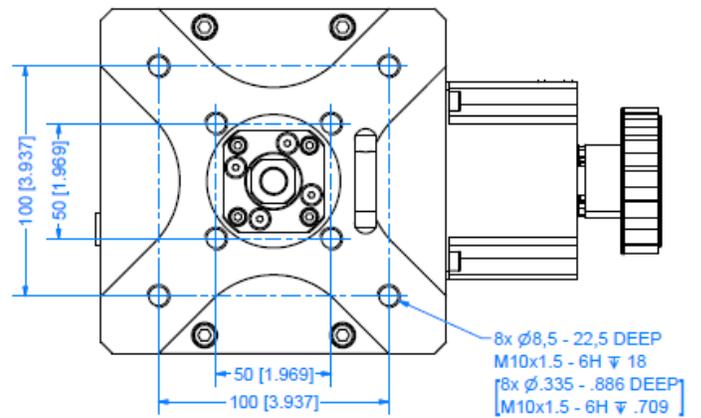
# DJ410

Side View



Top View

Bottom View



Model	50	100	150	200
A- Closed Height (mm)	196.5	319	394	519

## ORDERING INFORMATION

Jacks can be ordered with different configurations. Please use the codes provided below when ordering. Please call or e-mail to ask about any other customization required.

DJ (Lift Jack)	210 Series	310 Series	410 Series
Travel Options (mm)	-10 -25 -35 -50	-25 -50 -75 -100	-50 -100 -150 -200
Air Preparation Options	-A (Standard Air Stage) -V (Vacuum Stage; ask about options when placing order)		
Encoder Options	-R (With Incremental Optical Encoder) -A (With Absolute Optical Encoder) -N (Without Encoder)		
Brake Options	-B (With Brake, 24VDC) -N (Without Brake)		
Motor Options	-2PH (Standard 2 Phase Bi-Polar Stepper Motor) -5PH (5 Phase Stepper Motor) -DC (DC Motor)		
Gearbox Option	-GB (customer to enter desired ratio; 3:1 to 100:1 available)		

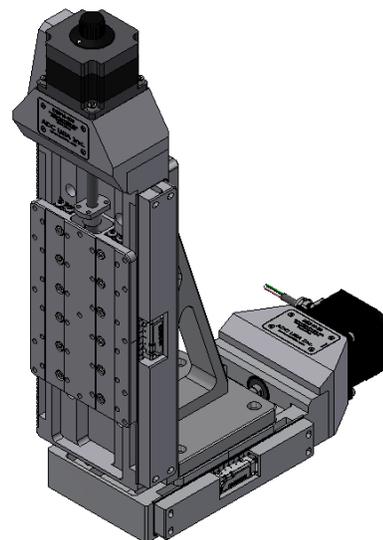
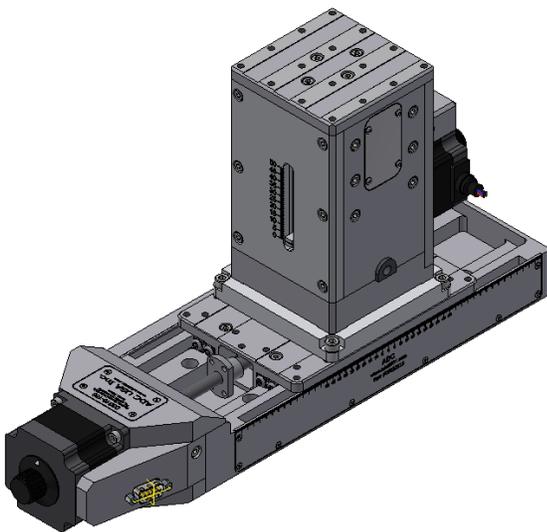
**Example Order:**  
**DJ210-50-A-N-N-2PH**

This is an order for a DJ210 Precision Crossed Roller Jack with 50 mm travel, in air, no encoder, no brake, a 2-phase motor, and no gearbox.

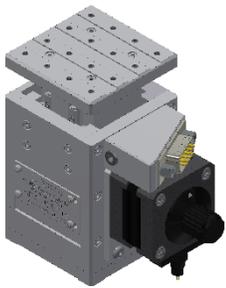
## MOUNTING PLATES AND BRACKETS

The chart below shows the corresponding part number per slide and jack combination.

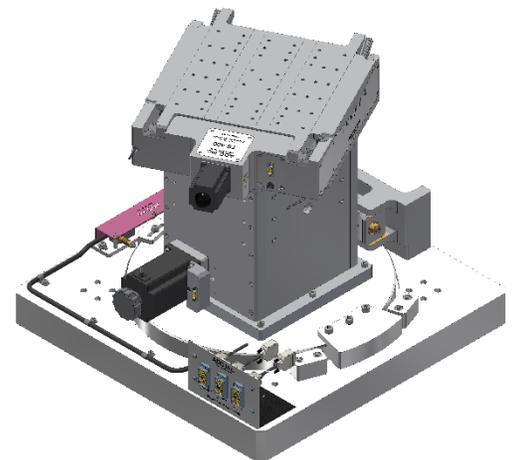
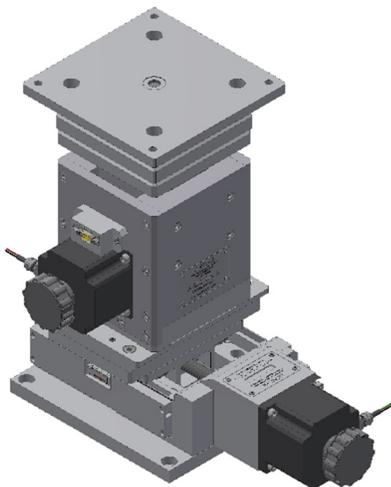
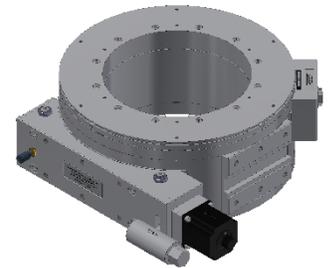
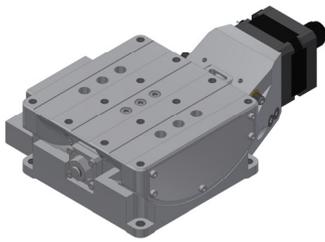
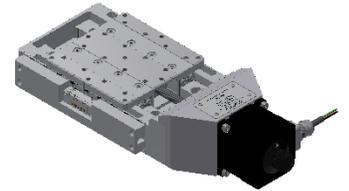
	Mounting Bracket				Mounting Plate
	<b>DS210-30</b>	<b>DS210-50</b>	<b>DS210-75</b>	<b>DS210-100</b>	<b>DJ210-X</b>
<b>DS210-30</b>	MB-200-1	MB-200-2	N/A	N/A	MP-200-6
<b>DS210-50</b>	MB-200-1	MB-200-3	N/A	N/A	MP-200-7
<b>DS210-75</b>	MB-200-1	MB-200-3	MB-200-4	MB-200-5	MP-200-8
<b>DS210-100</b>	MB-200-1	MB-200-3	MB-200-4	MB-200-5	MP-200-7
	<b>DS310-50</b>	<b>DS310-100</b>	<b>DS310-150</b>	<b>DS310-200</b>	<b>DJ310-X</b>
<b>DS310-50</b>	MB-300-1	MB-300-2	N/A	N/A	MP-300-5
<b>DS310-100</b>	MB-300-1	MB-300-2	N/A	N/A	MP-300-5
<b>DS310-150</b>	MB-300-1	MB-300-2	MB-300-3	MB-300-4	MP-300-5
<b>DS310-200</b>	MB-300-1	MB-300-2	MB-300-3	MB-300-4	MP-300-5
	<b>DS410-75</b>	<b>DS410-150</b>	<b>DS410-225</b>	<b>DS410-300</b>	<b>DJ410-X</b>
<b>DS410-75</b>	MB-400-1	MB-400-2	N/A	N/A	MP-400-5
<b>DS410-150</b>	MB-400-1	MB-400-2	N/A	N/A	MP-400-6
<b>DS410-225</b>	MB-400-1	MB-400-2	MB-400-3	MB-400-4	MP-400-7
<b>DS410-300</b>	MB-400-1	MB-400-2	MB-400-3	MB-400-4	MP-400-7



## OTHER STAGES



Linear Stages	Lift Stages
DS210	DJ210
DS310	DJ310
DS410	DJ410
DS510	BJ10
	BJ25
Tilt Stages/ Goniometers	Rotation Stages
TS-50	RS-100
TS-90	RS-200
TS-160	RS-300
TS-300	RS-400
TS-400	RS-500
TS-565	
TS-700	



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