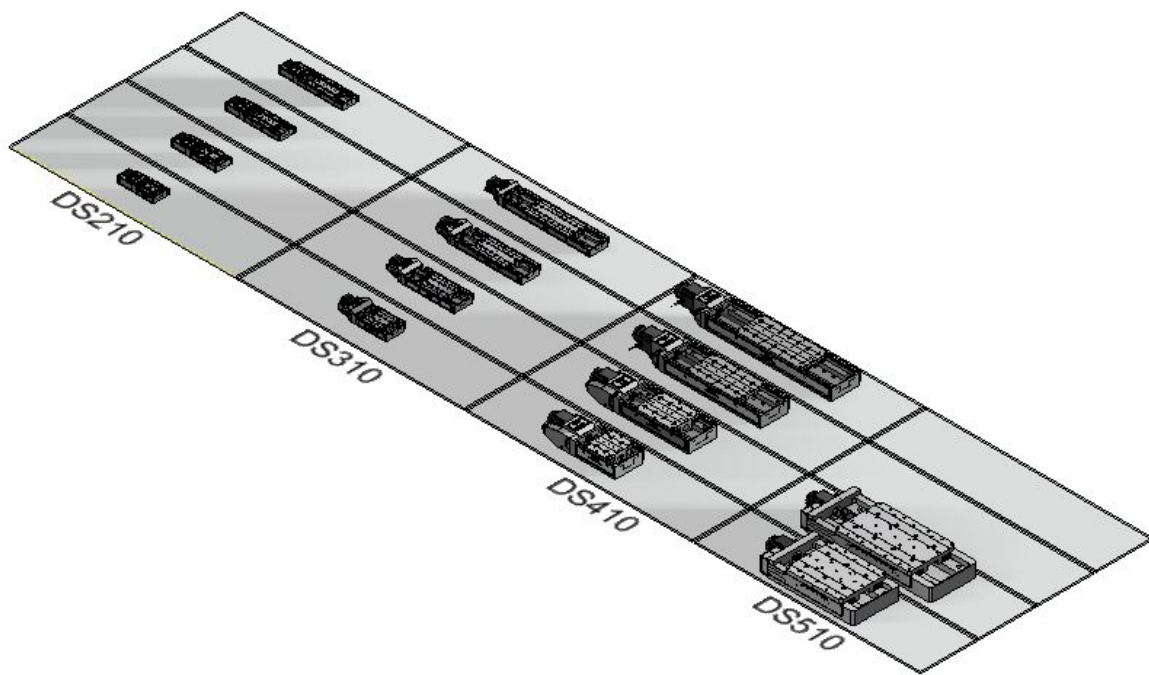




# High Precision Linear Stages

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DS Series



## SPECIFICATIONS

ADC's linear slides are driven by a high quality preloaded ballscrew coupled to a high torque electric motor. Resolution requirements may be met using a gearbox. Maximum rigidity is assured using high quality crossed roller linear bearings. Each slide also features two fully adjustable, normally closed mechanical limit switches to define the extents of travel.

### MECHANICAL

Specification	210 Series	310 Series	410 Series	510 Series
Travel (mm)	30, 50, 75, 100	50, 100, 150, 200	75, 150, 225, 300	100, 200
Lead Accuracy (um/25mm)	2.5	5	6	6
Trajectory Straightness (um/25mm)	2.5	4	5	5
Travel Resolution (mm/rev)	1	1	2	5
Maximum Speed (mm/sec)	50	25	40	100
Load Capacity (kg)	10.5	46	280	575

### ELECTRICAL

Specification	DS210 Series	DS310 Series	DS410 Series	DS510 Series
Motor	2-Phase; 5-Phase Stepper; DC			
Limit Switches	Mechanical, Normally Closed			
Optical Encoder	Renishaw Tonic Series			

## LOAD CHARACTERISTICS

Model	Fx (N)	Fy (N)	Fz (N)	Mxz (Nm)	Myz (Nm)	Mxy (Nm)
DS210-30	512	297	1029.5	39.5	2	1
DS210-50	827	495	1663	64	3.5	1.5
DS210-75	945	569	1900	73	4.5	2
DS210-100	1260	767	2534	97.5	6	3

\*Loads are not simultaneous.

Model	Fx (N)	Fy (N)	Fz (N)	Mxz (Nm)	Myz (Nm)	Mxy (Nm)
DS310-50	3005.5	2441.5	6048	314	28	14
DS310-100	4508.5	2827	9072	471.5	43	21.5
DS310-150	5152.5	2827	10368	539	49.5	24.5
DS310-200	6440.5	2827	12960	673.5	62	31

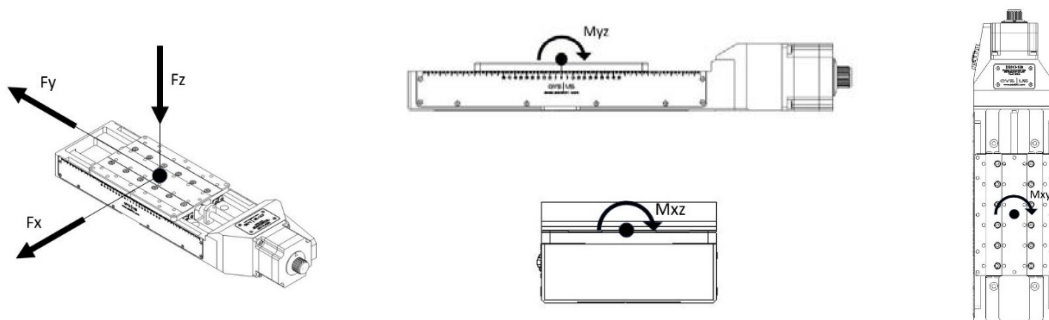
\*Loads are not simultaneous.

Model	Fx (N)	Fy (N)	Fz (N)	Mxz (Nm)	Myz (Nm)	Mxy (Nm)
DS410-75	6860	5157	13804	1218.5	100.5	50
DS410-150	12740.5	5654.5	25636	2263.5	210	100.5
DS410-225	15680.5	5654.5	31552	2786	251	125.5
DS410-300	22541	5654.5	45356	4004.5	368.5	184

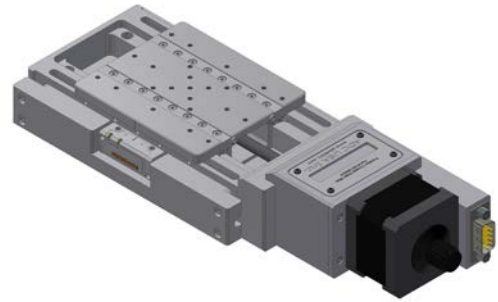
\*Loads are not simultaneous.

Model	Fx (N)	Fy (N)	Fz (N)	Mxz (Nm)	Myz (Nm)	Mxy (Nm)
DS510-100	39878.5	2261.5	80240	11474	1057	528.5
DS510-200	46916	2261.5	94400	13499	1255.5	627.5

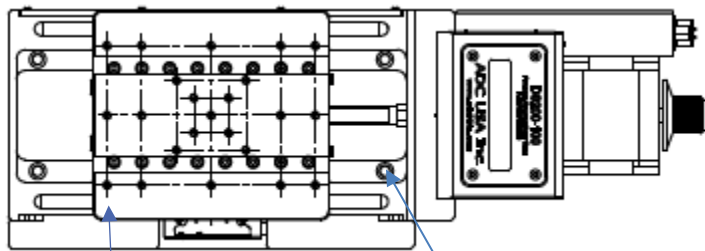
\*Loads are not simultaneous.



# DS210



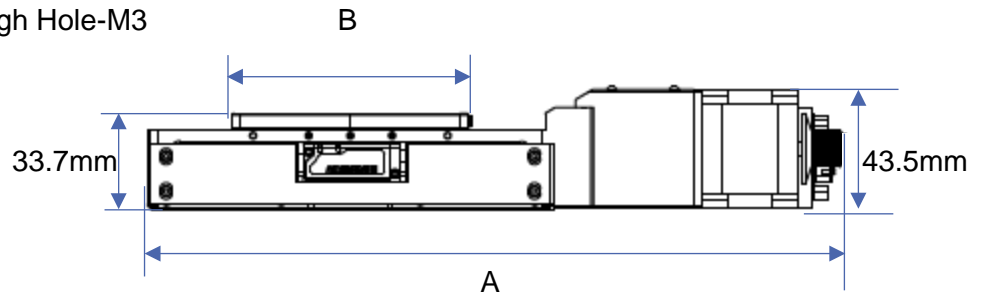
Top View



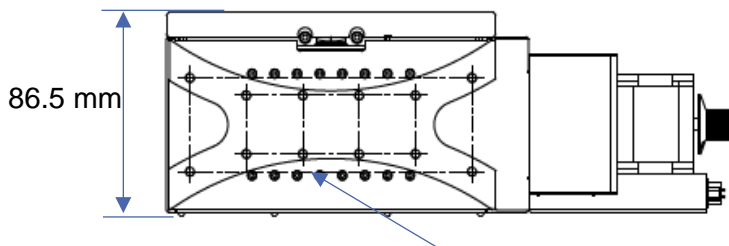
Mounting Through Hole-M3

Tapped Hole-M3x0.5

Side View



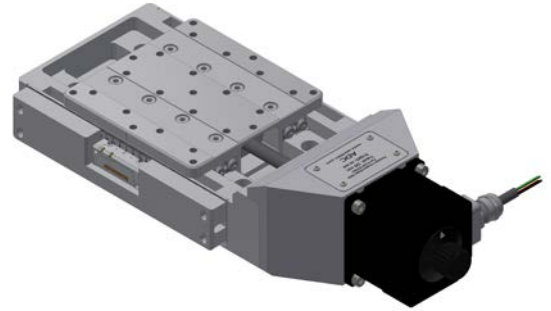
Bottom View



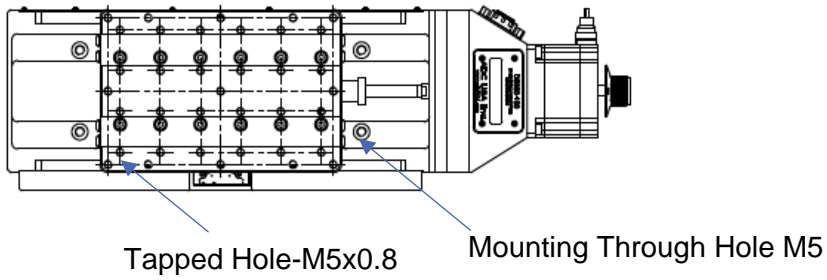
Tapped Hole-M4x0.7

Model	30	50	75	100
A- Total Length (mm)	202	252	302	352
B- Stage Length (mm)	55	85	105	135

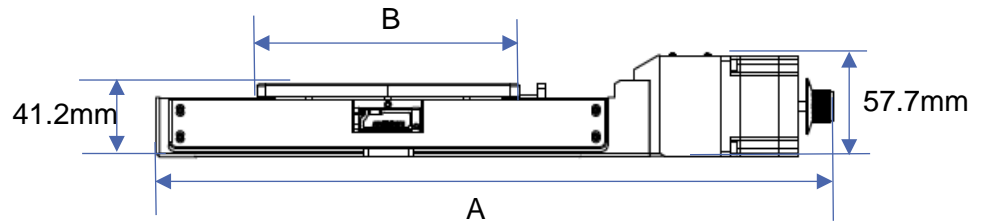
# DS310



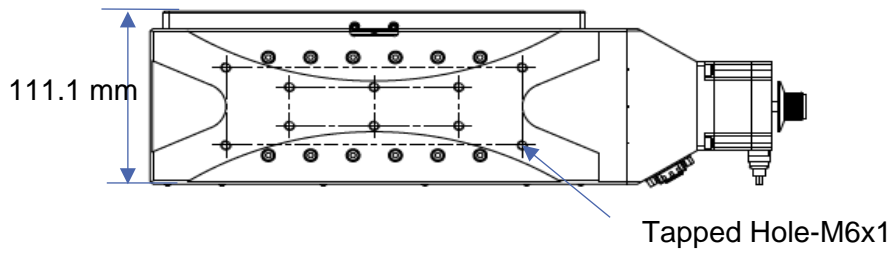
Top View



Side View



Bottom View

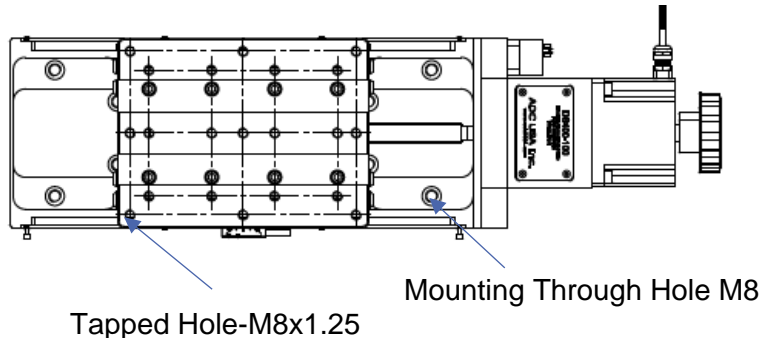


Model	50	100	150	200
A- Total Length (mm)	283	387	483	587
B- Stage Length (mm)	100	150	200	250

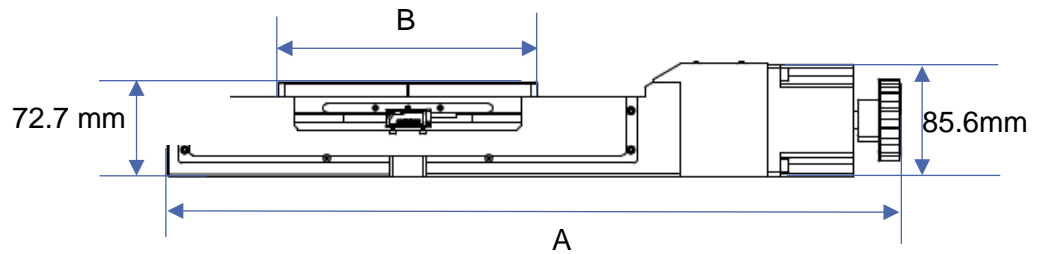
# DS410



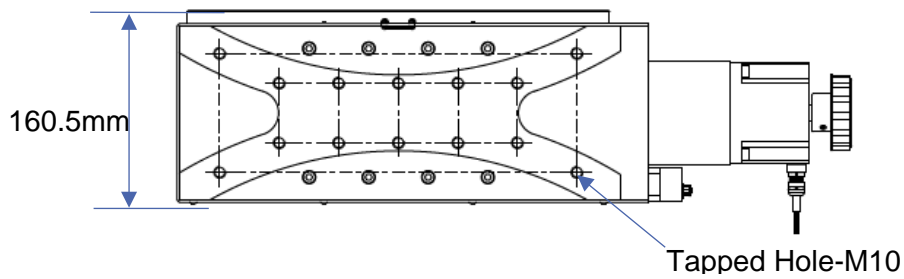
Top View



Side View



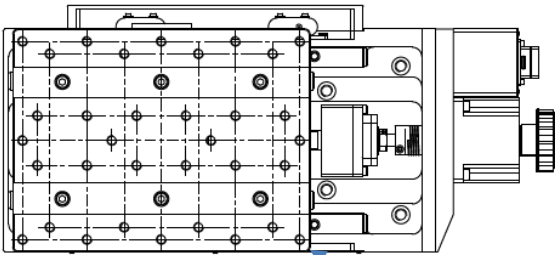
Bottom View



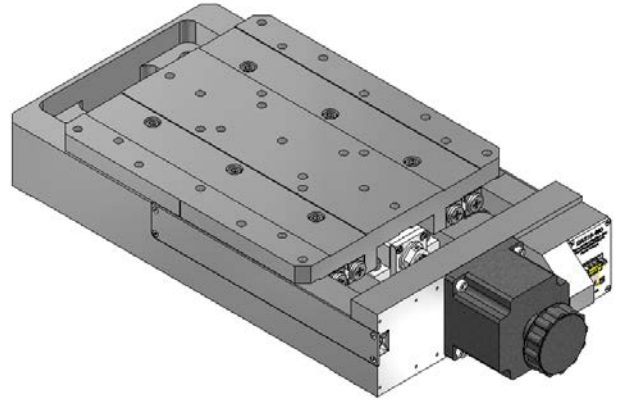
Model	75	150	225	300
A- Total Length (mm)	411	567	724	875
B- Stage Length (mm)	125	200	275	350

# DS510

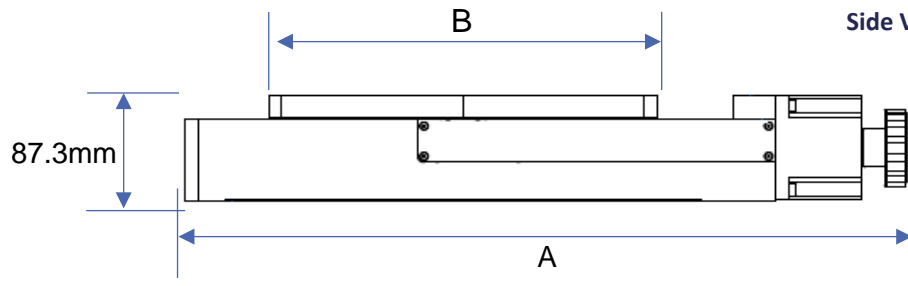
Top View



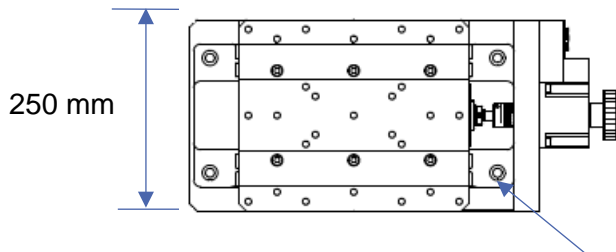
M10 Mounting Tapped Hole x27



Side View



Bottom View



Tapped Hole M14  
Or Pass Through M12

Model	100	200
A- Total Length (mm)	557	758
B- Stage Length (mm)	300	400

## ORDERING INFORMATION

Slides 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.

DS (Linear Slide)	210 Series	310 Series	410 Series	510 Series
Travel Options (mm)	-30 -50 -75 -100	-50 -100 -150 -200	-75 -150 -225 -300	-100 -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	-G (customer to enter desired ratio; 3:1 to 100:1 available)			

**Example Order:**  
**DS210-30-A-N-N-2PH**

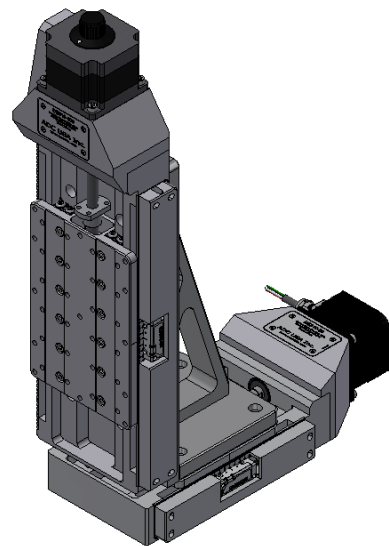
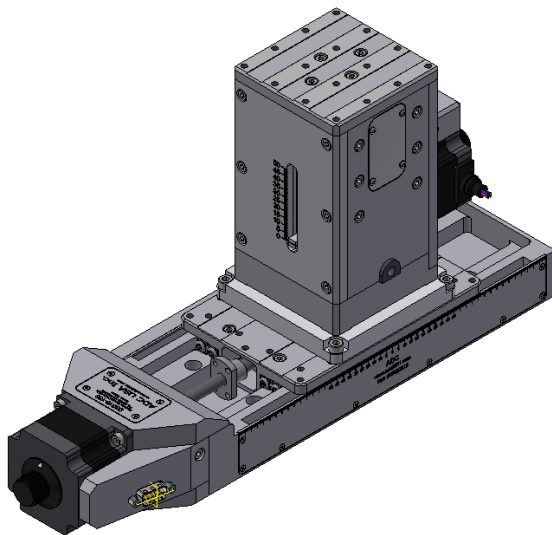
This is an order for a DS210 Precision Crossed Roller Slide with 30 mm travel, in air, no encoder, no brake, a 2-phase motor, and no gearbox.



## MOUNTING PLATES AND BRACKETS

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

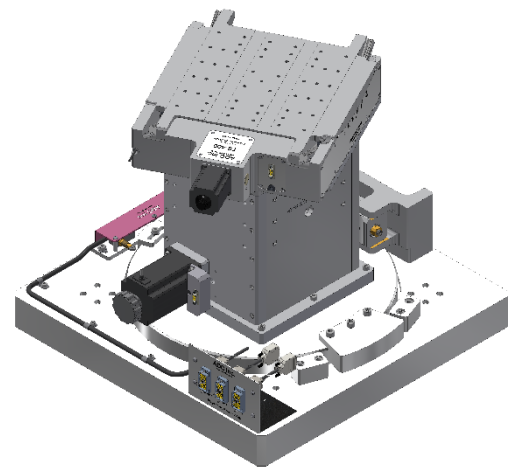
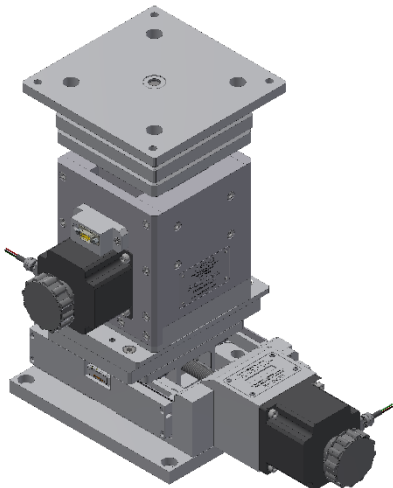
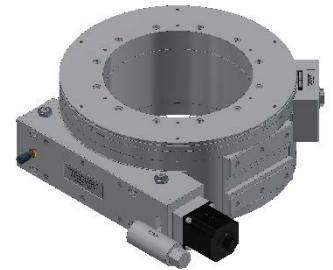
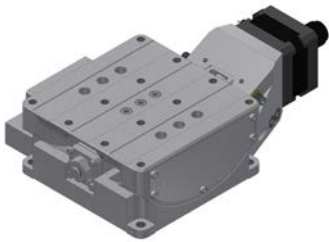
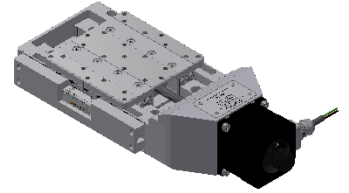
	Mounting Bracket				Mounting Plate
	<b>DS210-30</b>	<b>DS210-50</b>	<b>DS210-75</b>	<b>DS210-100</b>	<b>DJ210-X</b>
<b>DS210-30</b>	MB-200-1	MB-200-2	N/A	N/A	MP-200-6
<b>DS210-50</b>	MB-200-1	MB-200-3	N/A	N/A	MP-200-7
<b>DS210-75</b>	MB-200-1	MB-200-3	MB-200-4	MB-200-5	MP-200-8
<b>DS210-100</b>	MB-200-1	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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