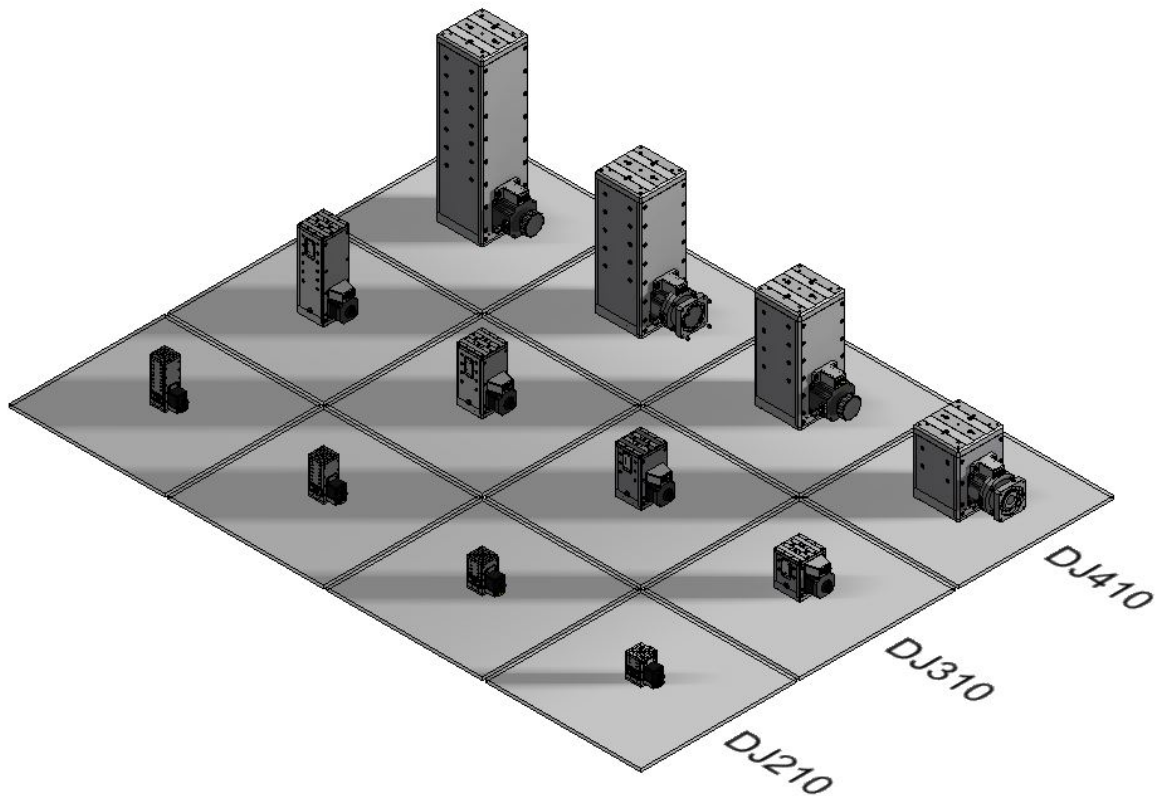




# High Precision Lift Stages

---

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
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> )	

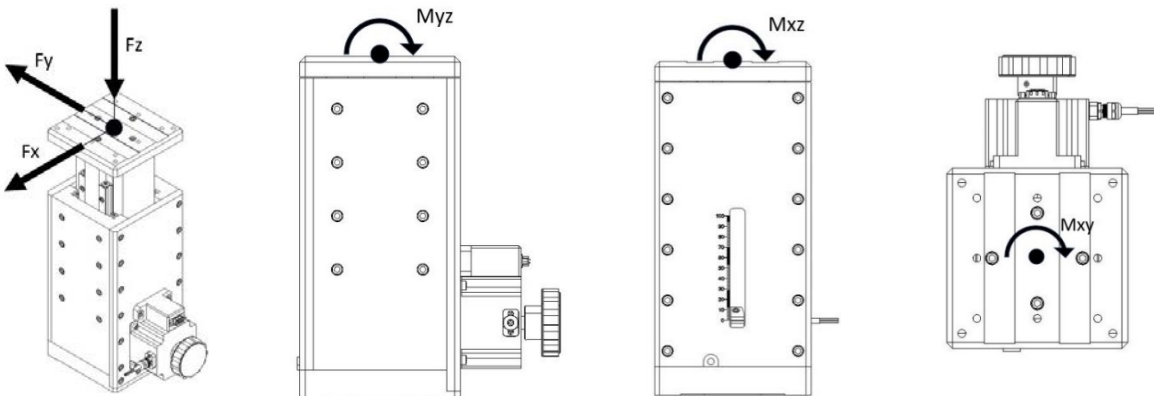
## LOAD CHARACTERISTICS

Model	Fx (N)	Fy (N)	Fz (N)	Mxz (Nm)	Myz (Nm)	Mxy (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

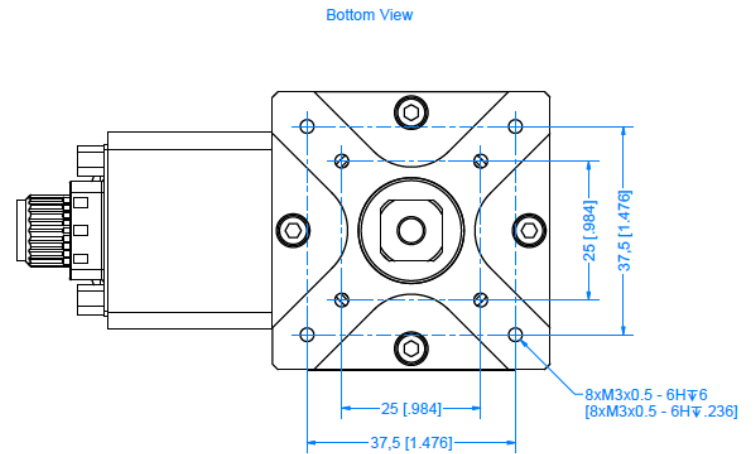
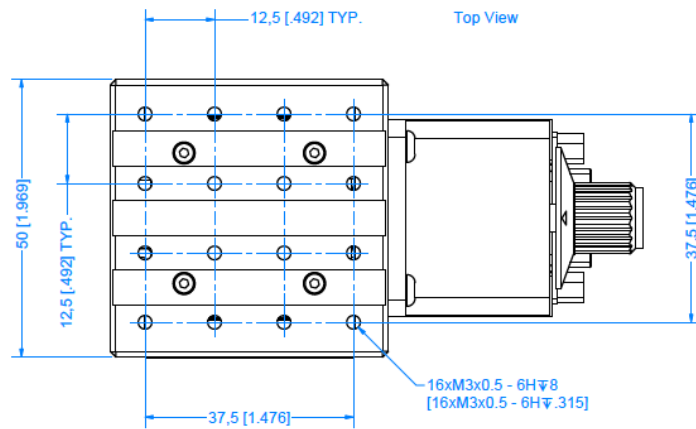
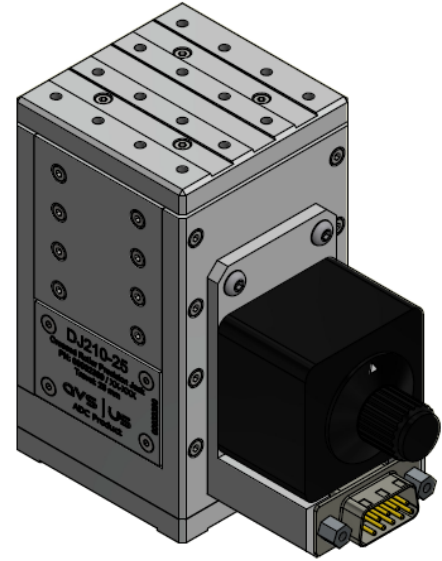
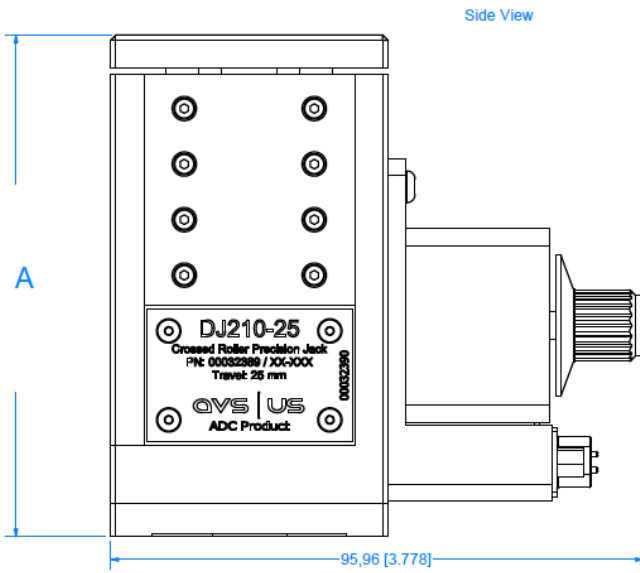
Model	Fx (N)	Fy (N)	Fz (N)	Mxz (Nm)	Myz (Nm)	Mxy (Nm)
DJ310-25	525.5	262.5	5080	25.5	12.5	168
DJ310-50	477	238.5	5080	34.5	17	216
DJ310-75	409	204	5080	38.5	19	240
DJ310-100	633.5	316.5	5080	77.5	38.5	456

Model	Fx (N)	Fy (N)	Fz (N)	Mxz (Nm)	Myz (Nm)	Mxy (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

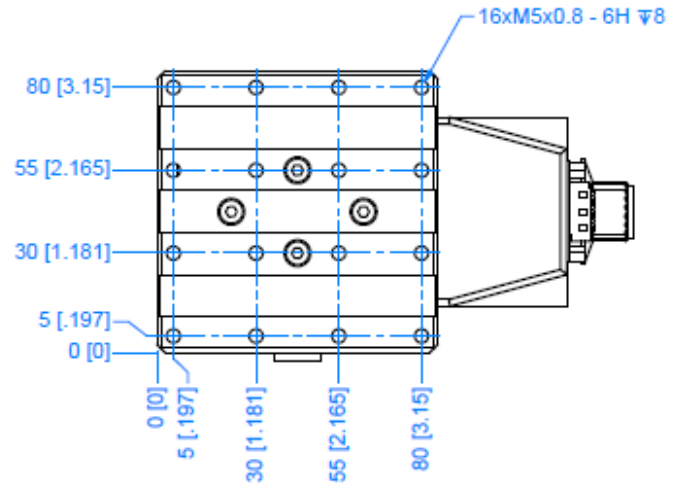
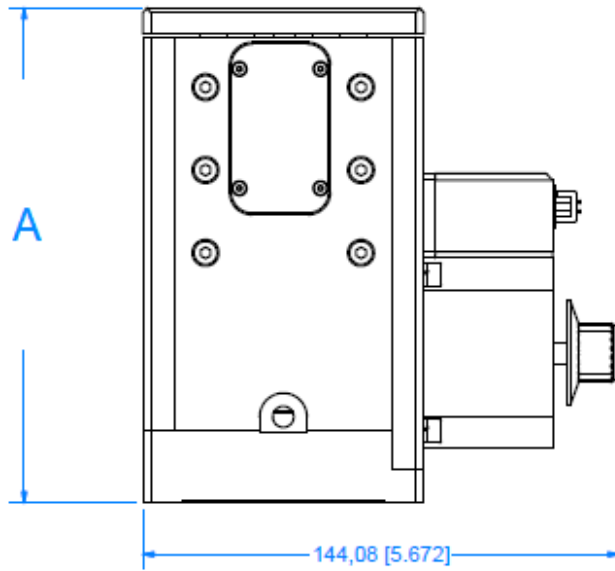
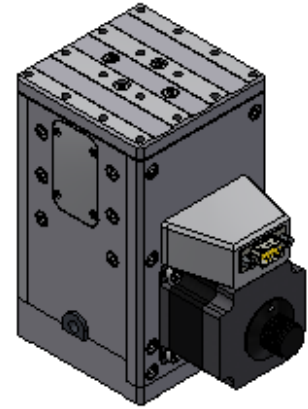
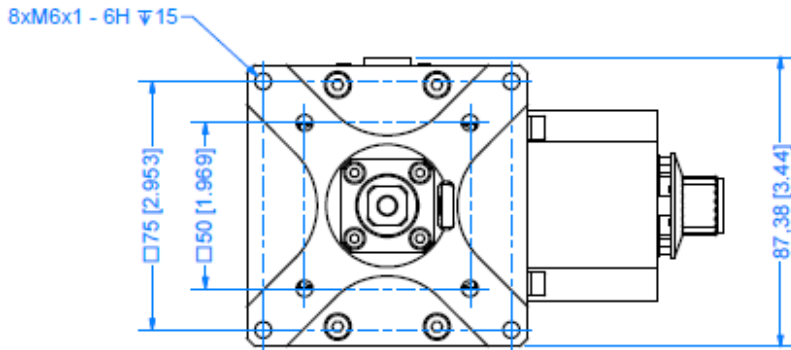


# DJ210



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

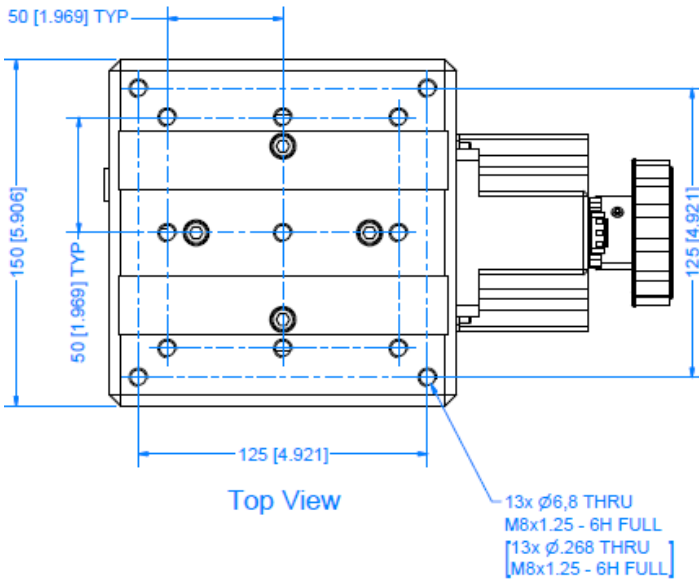
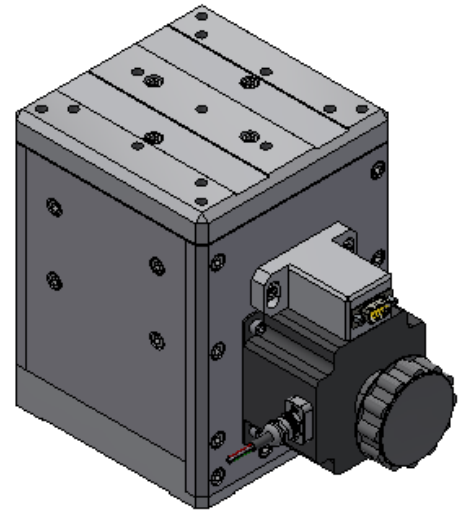
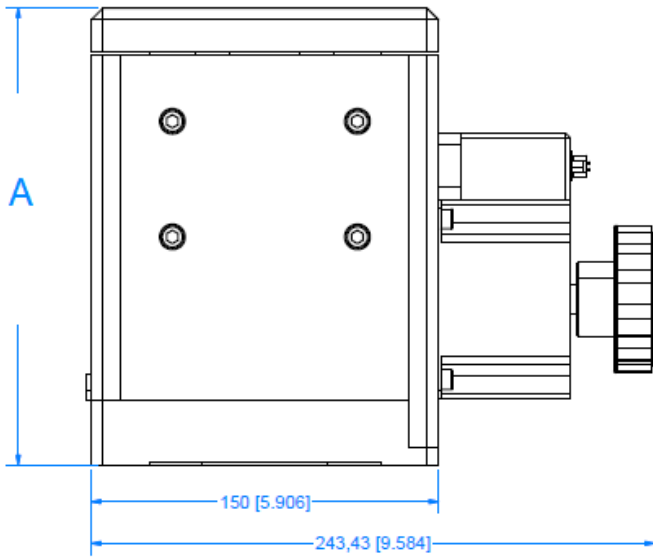
# DJ310



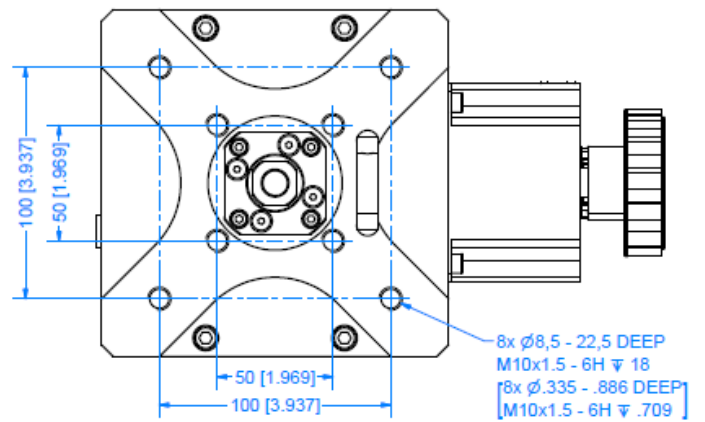
Model	25	50	75	100
A- Closed Height (mm)	107.5	148.5	170	245

# DJ410

Side View



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)		

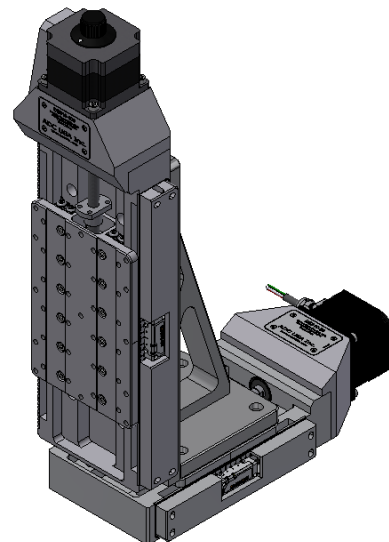
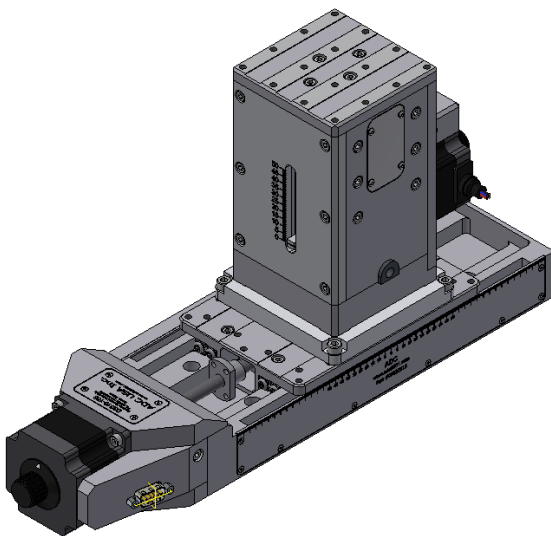
**Example Order:**  
DJ210-50-A-N-N-2PH

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

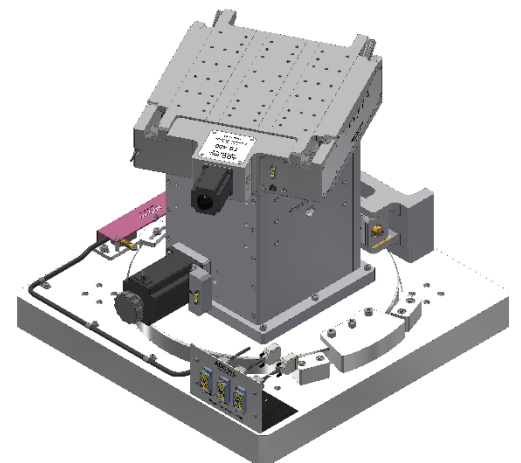
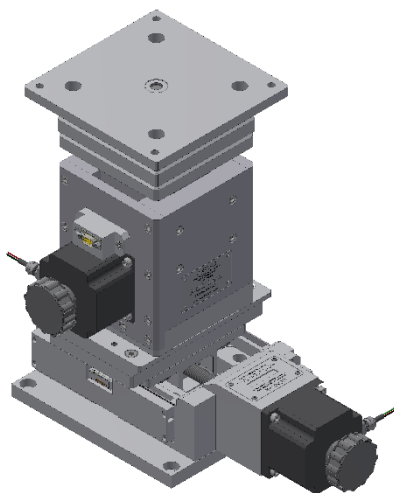
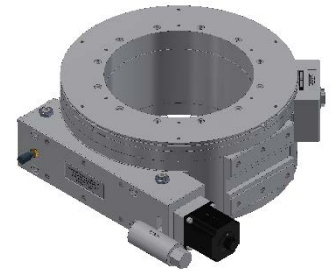
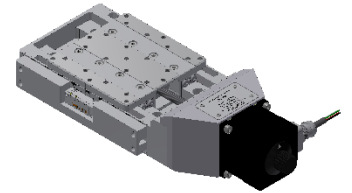




## OTHER STAGES



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	



# CONTACT US



---

## QVS

Pol. Ind. Sigma, Xixilion kalea 2, Bajo,  
Pabellón 10  
20870 Elgoibar, Gipuzkoa, SPAIN  
T +34 943 821 841  
F +34 943 821 842  
[avs@a-v-s.es](mailto:avs@a-v-s.es)

---

## QVS | UK

Rutherford Appleton Laboratory  
Harwell Campus  
OX11 0QX Didcot, Oxfordshire, UK  
T +44 (0) 1235 567095  
[avs@a-v-s.uk](mailto:avs@a-v-s.uk)

---

## QVS | US

126 Ridge Rd  
Lansing, NY 14882, USA  
T +1 607 533 3531  
F +1 607 533 3618  
[avsus@a-v-s.us](mailto:avsus@a-v-s.us)

---

## UFG

Westcott Venture Park  
Aylesbury HP18 0XB  
Buckinghamshire, UK  
T +44 (0) 1235 567095  
[agarbayo@a-v-s.uk](mailto:agarbayo@a-v-s.uk)



Parque Empresarial Tactica  
Calle Velluters 17  
46988 Paterna, Valencia, SPAIN  
T +34 961 344 831  
F +34 961 344 830  
[comercial@vacuum-projects.net](mailto:comercial@vacuum-projects.net)

---

## SCIENTIFICA

Pol. Ind. Sigma, Xixilion kalea 2, Bajo,  
Pabellón 10  
20870 Elgoibar, Gipuzkoa, SPAIN  
T +34 943 127 285  
[scientifica@scientifica.es](mailto:scientifica@scientifica.es)

---

126 Ridge Rd, Lansing NY, 14882

1-607-533-3531

[www.a-v-s.us](http://www.a-v-s.us) / [www.adc9001.com](http://www.adc9001.com)

[avsus@a-v-s.us](mailto:avsus@a-v-s.us)

---