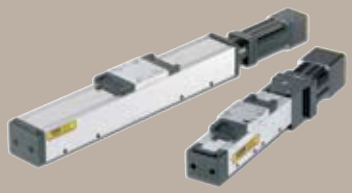
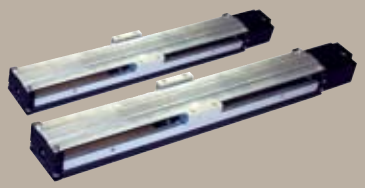
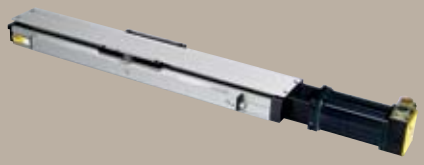
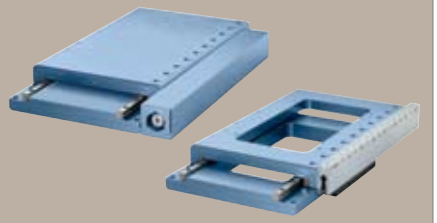
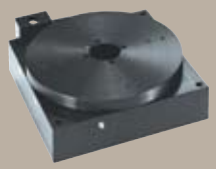








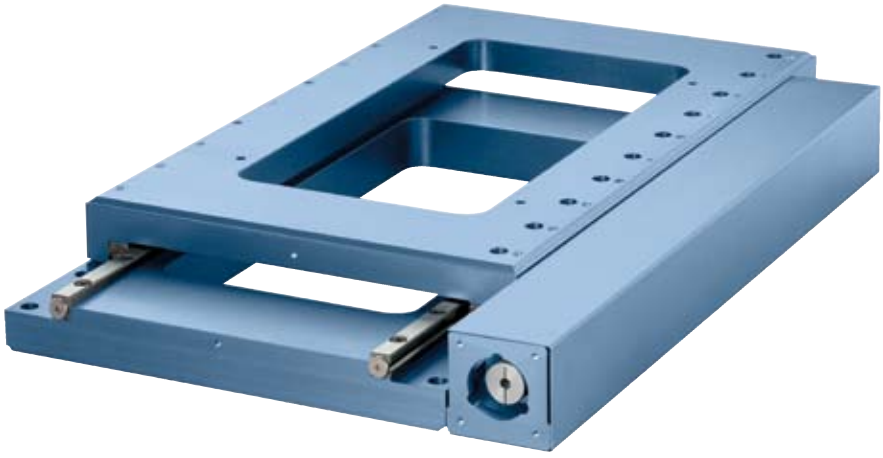


Screw Driven
automation tables

Precise multi-axis positioning systems play an integral part in today's semiconductor, computer peripheral, solar power, flat panel, life sciences, lab automation, biomedical and electronics industries. The demands for tighter specifications, improved throughput and consistent quality have become increasingly stringent. Because of the complexity associated with these systems, many manufacturers insist on a single source supplier to eliminate multiple vendor design incompatibilities and delivery conflicts. With over forty years' experience as a global leader in the development of products and technology, Parker provides the most advanced, easy to integrate high-precision electromechanical systems.

Contents

Ultra Series Precision Stages



When to Use:

- High-precision sub micron
- Precise repeatability
- Open or closed frame
- Thermal compensation
- Smooth motion

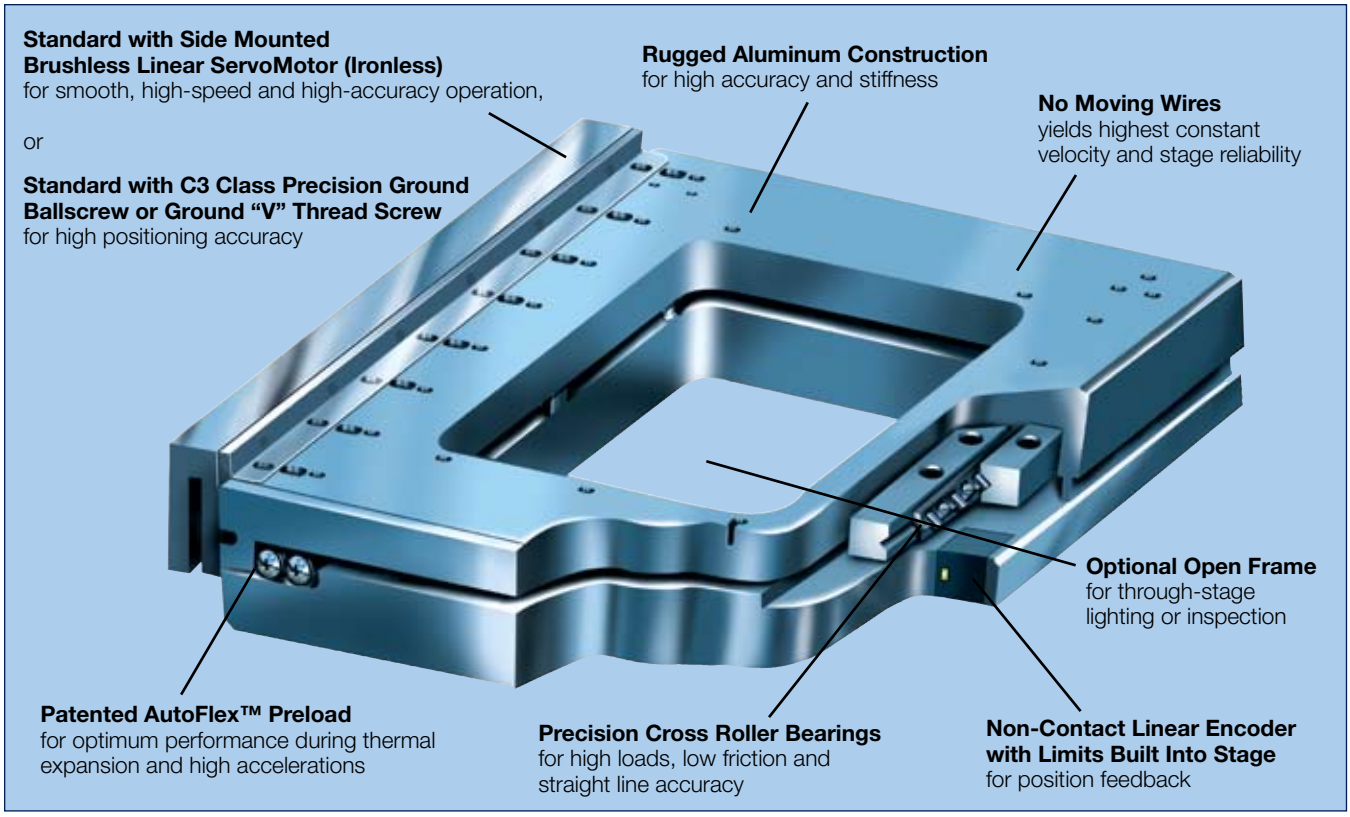
Applications:

- Electronics
- Semiconductor
- Automation
- Medical
- Flat panel

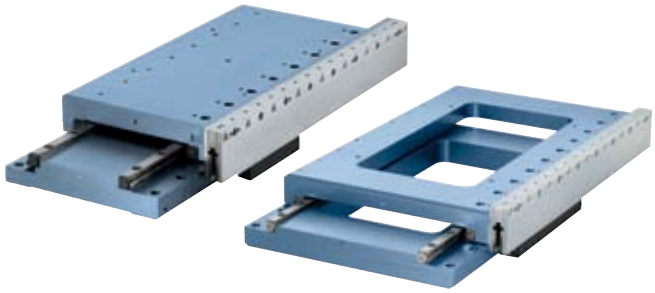
Linear Motor Driven or Screw-Driven Styles

Linear Motor Ultra Stages can achieve sub-micron accuracy with position repeatability of +1 encoder count. Featuring Parker's patented AutoFlex Preload, Linear Motor Ultra Stages provide exceptional smoothness of motion for constant velocity requirements in scanning applications. The AutoFlex preload provides a unique thermal compensation method, eliminating any effects of expansion/ contraction on bearing performance. The brushless linear motor is mounted inverted, with the ironless coil attached to the stationary base, eliminating moving wires.

Traditional Ultra Stages are provided with either a ballscrew or lead screw mounted alongside the stage. This stage configuration allows easy mounting of any step or servo motor with a flexible coupling. The ballscrew version provides high-speed and high force for dynamic move-and-settle applications. The lead screw version provides exceptional smoothness for slow-speed scanning. Both the lead screw and ballscrew models are available with linear encoders, providing high positional accuracy and repeatability.



Linear Motor Driven Ultra Stages



Linear Motor Ultra Stages utilize a non-contact optical linear encoder, integrated directly into the stage footprint. The encoder tape scale is mounted upside-down and referenced directly off the bearing surface, eliminating any Abbe error and protecting it from any debris. The encoder read head is mounted inside the stationary base, eliminating moving wires.

- Sub-micron accuracy
- 0.5 micron repeatability
- Travels from 100 mm to 500 mm
- Patented AutoFlex™ Preload
- Built-in encoder and limits
- Optional open frame construction

U200 Linear Motor Driven

- Closed frame design
- 200 mm wide
- Maximum travel 400 mm
- Maximum load capacity 1,859 kg
- Maximum velocity to 1,500 mm/sec

U300 Linear Motor Driven

- Available in closed-and open-frame design
- 300 mm wide
- Maximum travel 500 mm
- Maximum load capacity 2187 kg
- Maximum velocity to 1,500 mm/sec

U400 Linear Motor Driven

- Available in closed and open frame design
- 400 mm wide
- Maximum travel 500 mm
- Maximum load capacity 2,187 kg
- Maximum velocity to 1,500 mm/sec

U600 Linear Motor Driven

- Available in open frame design
- 600 mm wide
- Maximum travel 500 mm
- Maximum load capacity 2 187 kg
- Maximum velocity to 1,500 mm/sec

Screw-Driven Ultra Stages

Screw-driven Ultra Stages are ideal for easy mounting to any servo or step motor. For increasing positional accuracy, optional linear encoders are offered.

- Variety of ballscrew and lead screw pitches
- Travels from 100 to 500 mm
- 2 micron repeatability
- Optional linear encoder for direct position feedback
- Optional open frame construction
- Available in closed and open frame design

U200 Screw-Driven

- Available in closed frame design
- 200 mm wide
- Maximum travel 400 mm
- Maximum load capacity 1,859 kg
- NEMA 23 or 60 mm BM Servo motor mounting

U300 Screw-Driven

- Available in closed and open frame design
- 300 mm wide
- Maximum travel 500 mm
- Maximum load capacity 2,187 kg
- NEMA 23 or 60 mm BM Servo motor mounting

U400 Screw-Driven

- Available in closed and open frame design
- 400 mm wide
- Maximum travel 500 mm
- Maximum load capacity 2,187 kg
- NEMA 23 or 60 mm BM Servo motor mounting

U600 Screw-Driven

- Available in open frame design
- 600 mm wide
- Maximum travel 500 mm
- Maximum load capacity 2,187 kg
- NEMA 23 or 60 mm BM Servo motor mounting

Ultra Series Linear Motor Driven Specifications

Performance and Accuracy Specifications

Model Number	Travel Range (mm)	Travel Range (in.)	Maximum Velocity [1] (mm/sec.)	Maximum Velocity [1] (in./sec.)	Maximum Acceleration [2] (g)
U200	100 to 400	3.94 to 15.75	1,500	59.1	2
U300	200 to 500	7.87 to 19.69	1,500	59.1	2
U400	300 to 500	11.81 to 19.69	1,500	59.1	2
U600	500	19.69	1,500	59.1	2

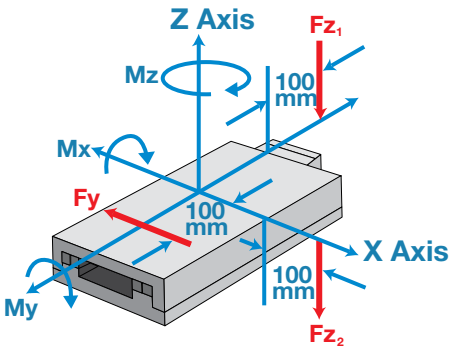
Model Number	Straightness/Flatness (microns/25 mm)	Pitch & Yaw (arc-sec/25 mm)	Accuracy [3] (microns/25 mm)	Repeatability [3]
U200	±1.25	±2.0	±2	± 0.5
U300	±1.25	±2.0	±2	± 0.5
U400	±1.25	±3.0	±2	± 0.5
U600	±1.25	±3.0	±2	± 0.5

Linear Motor Specifications

All Linear Motor Ultra Series come with a brushless, ironless DC linear servomotor. The standard motors provided yield performance based on the moving mass and the customer load. For additional motor sizes to increase stage performance, please contact the factory.

Specification	Symbol	Unit	Motors for U200-100, U200-200, and U200-300	Motors for U200-400, and All U300 Series	Motors for All U400 and All U600
Peak Force	F_p	N lb	120 27.0	240 54.0	400 90
Continuous Force	F_c	N lb	38 9	76 17	122 28
Motor Constant	K_m	N/ $\sqrt{W}$ lb/ $\sqrt{W}$	4.7 1.05	6.6 1.48	9.5 2.14
Max Continuous Dissipation	P_c	W	65	131	167
Peak Current	I_p	amps RMS	7.1	7.1	7.0
Continuous Current	I_c	amps RMS	2.3	2.3	2.1
Resistance	R_{L-L}	ohms	6.1	12.2	17.2
Inductance	L_{L-L}	mH	1.3	2.6	6.0
Back EMF Constant	K_{EL-L}	Vpeak/mm/sec Vpeak/in/sec	13.7 0.35	27.5 0.70	46.5 1.18
Force Constant	K_f	–mps lb/Arms	16.8 3.8	33.7 7.6	57 12.8

[1] Maximum velocity is based on motor size and encoder resolution.
[2] Maximum acceleration is load and motor size dependent. Actual acceleration may vary.
[3] Accuracy is based on a stage mounted to a flat granite surface and measured at 25mm above the center of the stage. Varies based on encoder length. Repeatability is based on encoder resolution selected and above specification is for 0.1µ resolution.



Fz_1 is the load applied in the Z Axis direction, 100 mm off end, causing Mx rotation around the X Axis.

Fz_2 is the load applied in the Z Axis direction, 100 mm off side, causing My rotation around the Y Axis.

Fy is the load applied around the Z Axis at a 100 mm radius from the center, causing Mz rotation around the Z Axis.

Moment Loading (3)

Model Number	F (Mx) (Load applied at 100 mm off end)		F (My) (Load applied at 100 mm of side)		F (Mz) (Load applied at 100 mm off center)	
	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)
U200-100	101	222.67	231	509.27	51	112.44
U200-200	108	238.10	313	690.05	54	119.05
U200-300	112	246.92	394	868.62	56	123.46
U200-400	115	253.53	476	1049.40	58	127.87
U300-200	108	238.10	398	877.44	54	119.05
U300-300	112	246.92	502	1106.72	56	123.46
U300-400	115	253.53	606	1336.00	58	127.87
U300-500	117	257.94	710	1565.28	59	130.07
U400-300	112	246.92	564	1243.41	56	123.46
U400-400	115	253.53	681	1501.35	58	127.87
U400-500	117	257.94	798	1759.29	59	130.07
U600-500	117	257.94	785	1730.63	59	130.07

Linear Encoder Specifications

All Linear Motor Ultra Series are provided with a non-contact, optical linear encoder. Each encoder has two (2) magnetic travel limits and one (1) optical home reference built in. Available resolutions are: 0.1 micron, 0.5 micron, 1 micron, 5 microns.

Encoder Power Supply	5 VDC + 5%
Operating Temperature	0° C to 55° C 32° F to 131° F
Output Signal (4)	Square wave differential line driver
Limit Signal	Magnetic, Normally Closed Sourcing
Home Signal	Optical Reference

(3) Maximum and moment loads are based on bearing capacity. Loading will effect acceleration and velocity capability. Specifications are subject to change without notice. Accuracy can be enhanced with mapping.
(4) Optional analog output head is available for use with external multipliers. Tape scale pitch is 20 microns. Please contact factory.

Ultra Series Screw-Driven Specifications

Travel

Model Number	Maximum Range (in.)	Maximum Range (mm)
U200	100 to 400	3.94 to 15.75
U300	200 to 500	7.87 to 19.69
U400	300 to 500	11.81 to 19.69
U600	500	19.69

Velocity and Thrust

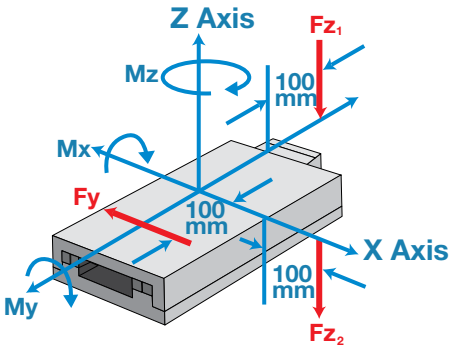
Model Number	Velocity				Maximum Thrust			
	Lead Screw		Ballscrew		Lead Screw		Ballscrew	
	(mm/sec)	(in/sec)	(mm/sec)	(in/sec)	(kgf)	(lbf)	(kgf)	(lbf)
U200	100	3.94	300	11.81	11.3	24.9	90	198.4
U300	100	3.94	300	11.81	11.3	24.9	90	198.4
U400	100	3.94	300	11.81	11.3	24.9	90	198.4
U600	100	3.94	300	11.81	11.3	24.9	90	198.4

Accuracy Specifications

Model Number	Straightness/Flatness (microns/25 mm)	Straightness/Flatness (in/in)	Pitch & Yaw (arc-sec/25 mm)
U200	±1.25	±0.00005	±2.0
U300	±1.25	±0.00005	±2.0
U400	±1.25	±0.00005	±3.0
U600	±1.25	±0.00005	±3.0

Model Number	Accuracy [3] (microns/25 mm)	Accuracy [3] (in)	Repeatability [4] (microns)	Repeatability [4] (in)
U200	±2.5	0.0001	±2.0	0.00008
U300	±2.5	0.0001	±2.0	0.00008
U400	±2.5	0.0001	±2.0	0.00008
U600	±2.5	0.0001	±2.0	0.00008

(1) Based on 0.2 in Ballscrew.
(2) Based on 10 mm Lead Screw.
(3) Accuracy is based on a stage mounted to a flat granite surface and measured at 25 mm above the center of the stage.
(4) Repeatability is based on encoder resolution selected and above specification is for 0.1µ resolution. Lead accuracy of ballscrew (open loop without encoder) is + 6 µm over travel range.
(5) Maximum and moment loads are based on bearing capacity. Loading will affect acceleration and velocity capability.
Specifications are subject to change without notice.



Fz_1 is the load applied in the Z Axis direction, 100 mm off end, causing Mx rotation around the X Axis.

Fz_2 is the load applied in the Z Axis direction, 100 mm off side, causing My rotation around the Y Axis.

Fy is the load applied around the Z Axis at a 100 mm radius from the center, causing Mz rotation around the Z Axis.

Moment Loading [5]

Model No.	F (Mx) (Load applied at 100 mm off end) (kg)	(lb)	F (My) (Load applied at 100 mm off side) (kg)	(lb)	F (Mz) Load applied at 100 mm off center) (kg)	(lb)
U200-100	101	222.67	231	509.27	51	112.44
U200-200	108	238.10	313	690.05	54	119.05
U200-300	112	246.92	394	868.62	56	123.46
U200-400	115	253.53	476	1049.40	58	127.87
U300-200	108	238.10	398	877.44	54	119.05
U300-300	112	246.92	502	1106.72	56	123.46
U300-400	115	253.53	606	1336.00	58	127.87
U300-500	117	257.94	710	1565.28	59	130.07
U400-300	112	246.92	564	1243.41	56	123.46
U400-400	115	253.53	681	1501.35	58	127.87
U400-500	117	257.94	798	1759.29	59	130.07
U600-500	117	257.94	785	1730.63	59	130.07

Screw Inertia

Model No.	Lead Screw (gm cm sec²)	(oz in sec²)	Ballscrew (gm cm sec²)	(oz in sec²)	Coupling Inertia (gm cm sec²)	(oz in sec²)	Moving Slide Weight Closed (kg)	(lb)	Open (kg)	(lb)
U200-100	0.039	0.00054	0.104	0.0015	0.026	0.00035	4.26	9.37	—	—
U200-200	0.060	0.00083	0.157	0.0022	0.026	0.00035	6.16	13.55	—	—
U200-300	0.081	0.00113	0.209	0.0029	0.026	0.00035	8.11	17.84	—	—
U200-400	0.102	0.00142	0.262	0.0036	0.026	0.00035	10.09	22.20	—	—
U300-200	0.060	0.00083	0.157	0.0022	0.026	0.00035	8.4	18.48	4.27	9.39
U300-300	0.081	0.00113	0.209	0.0029	0.026	0.00035	11.11	24.44	5.29	11.63
U300-400	0.102	0.00142	0.261	0.036	0.026	0.00035	13.81	30.38	6.93	15.25
U300-500	0.123	0.00171	0.314	0.0044	0.026	0.00035	16.53	36.36	8.25	18.15
U400-300	0.081	0.0011	0.209	0.0029	0.026	0.00035	14.11	31.04	6.87	15.11
U400-400	0.102	0.0014	0.262	0.0036	0.026	0.00035	17.6	38.72	8.53	18.76
U400-500	0.123	0.0017	0.314	0.0044	0.026	0.00035	21.03	46.27	10.16	22.35
U600-500	0.123	0.0017	0.314	0.0043	0.026	0.00035	—	—	13.99	30.77

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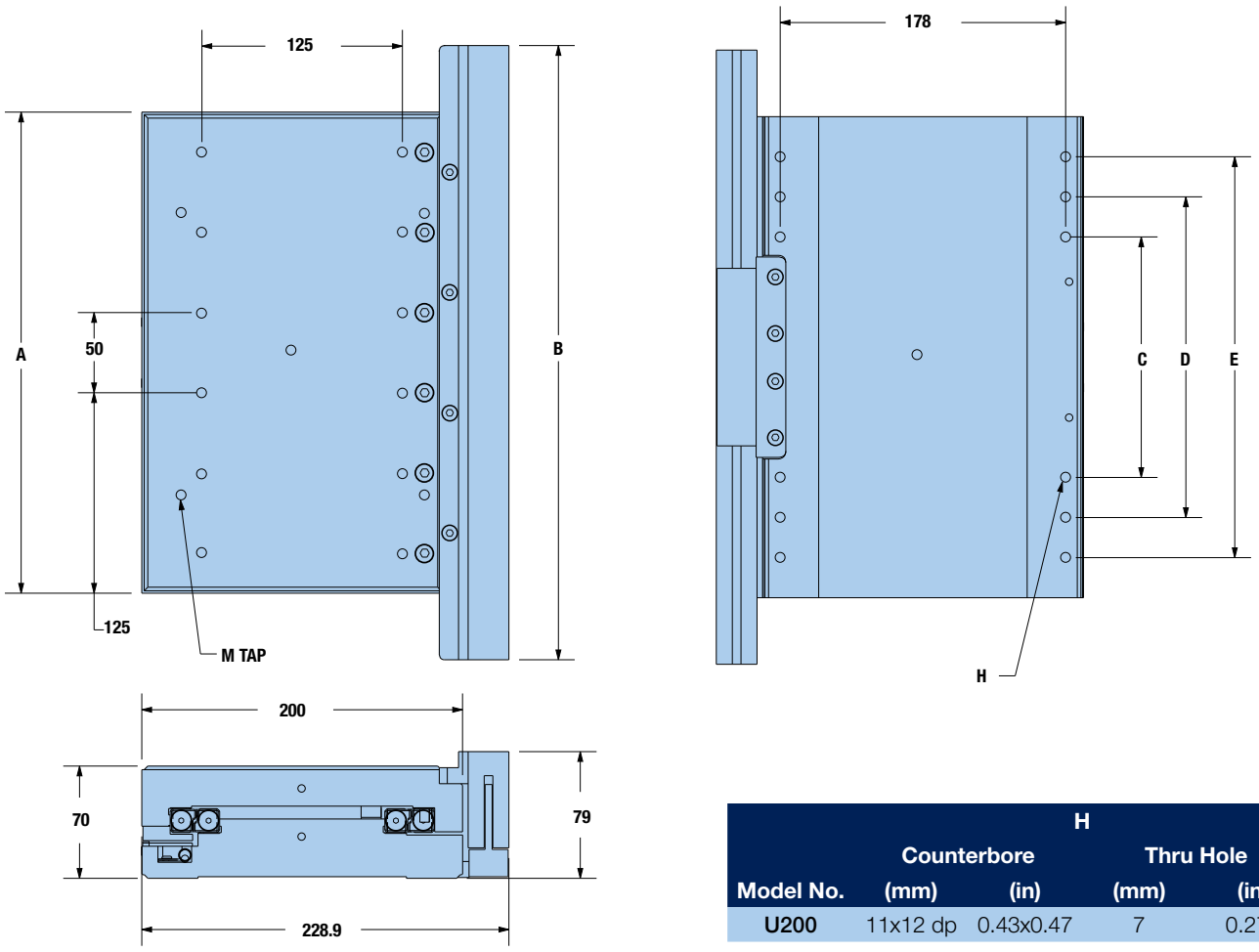
U200 Linear Motor Drive Dimensions

Dimensions (mm)



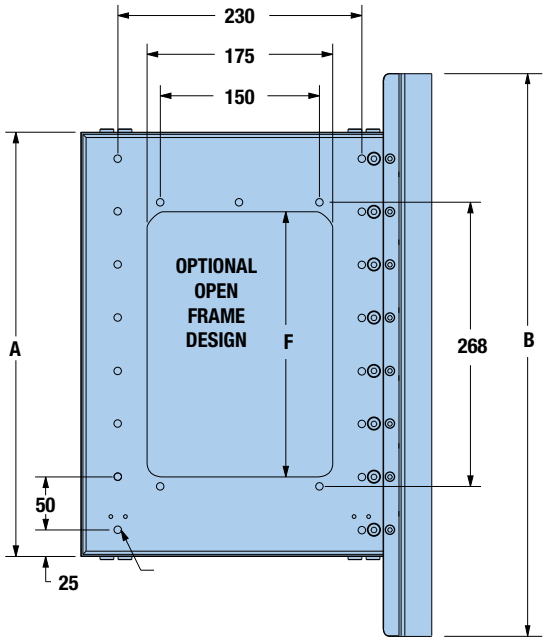
Model No.	H Counterbore (mm)	H Counterbore (in)	H Thru Hole (mm)	H Thru Hole (in)
U200	11x12 dp	0.43x0.47	7	0.275

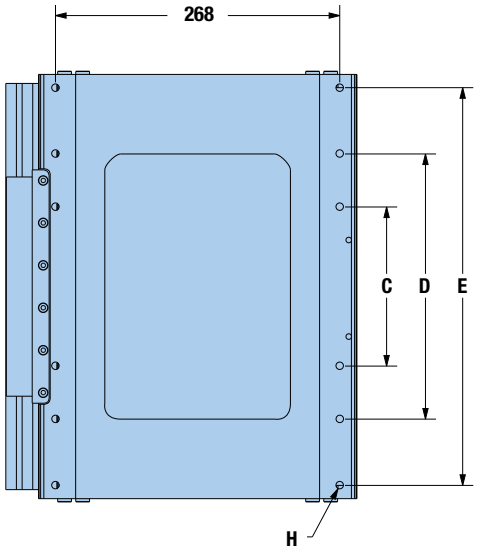
Model No.	Travel (mm)	Travel (in)	A (mm)	A (in)	B (mm)	B (in)	C (mm)	C (in)	D (mm)	D (in)
U200-100	100	3.94	200	7.87	256	10.08	150	5.91	—	—
U200-200	200	7.87	300	11.81	384	15.12	150	5.91	—	—
U200-300	300	11.81	400	15.75	448	17.64	150	5.91	—	—
U200-400	400	15.75	500	19.69	640	25.20	150	5.91	300	11.81

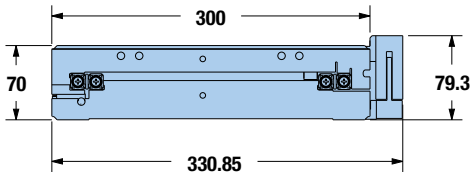
Model No.	E (mm)	E (in)	M Tap	Load Capacity (kg)	Load Capacity (lb)	Stage Weight (kg)	Stage Weight (lb)	Moving Slide Weight (kg)	Moving Slide Weight (lb)
U200-100	—	—	M6 x 1	875	1,929	11.39	25.11	6.8	14.99
U200-200	275	10.83	M6 x 1	1,203	2,652	16.68	36.77	9.9	21.83
U200-300	375	14.76	M6 x 1	1,531	3,375	21.56	47.53	12.58	27.73
U200-400	475	18.70	M6 x 1	1,859	4,098	27.68	61.02	16.35	36.05

U300 Linear Motor Drive Dimensions

Dimensions (mm)







	H			
	Counterbore		Thru Hole	
Model No.	(mm)	(in)	(mm)	(in)
U300	11x12 dp	0.43x0.47	7	0.275

	Travel		A		B		C		D	
Model No.	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
U300-200	200	7.87	300	11.81	448	17.64	150	5.91	—	—
U300-300	300	11.81	400	15.75	576	22.68	150	5.91	200	7.87
U300-400	400	15.75	500	19.69	640	25.20	200	7.87	350	13.78
U300-500	500	19.69	600	23.62	768	30.24	200	7.87	400	15.75

	E		F		M	Load Capacity	
Model No.	(mm)	(in)	(mm)	(in)	Tap	(kg)	(lb)
U300-200	275	10.83	150	5.91	M6 x 1	1,203	2,652
U300-300	375	14.76	250	9.84	M6 x 1	1,531	3,375
U300-400	475	18.70	350	13.78	M6 x 1	1,859	4,098
U300-500	575	22.64	450	17.72	M6 x 1	2,187	4,822

	Moving Slide Weight				Stage Weight			
	Open		Closed		Open		Closed	
Model No.	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)
U300-200	8.62	19.00	12.75	28.11	13.31	29.34	22.93	50.55
U300-300	11.26	24.82	16.78	26.99	17.37	38.29	30.24	66.67
U300-400	13.19	29.58	20.07	44.25	20.74	45.72	36.79	81.11
U300-500	15.84	24.92	24.12	53.18	24.80	54.67	44.11	97.25

U400 Linear Motor Driven Dimensions

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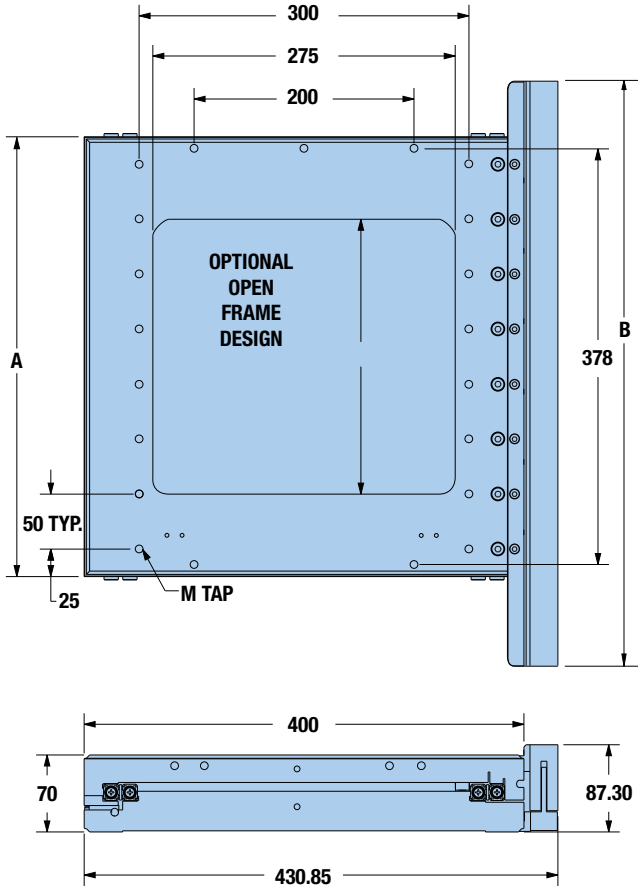
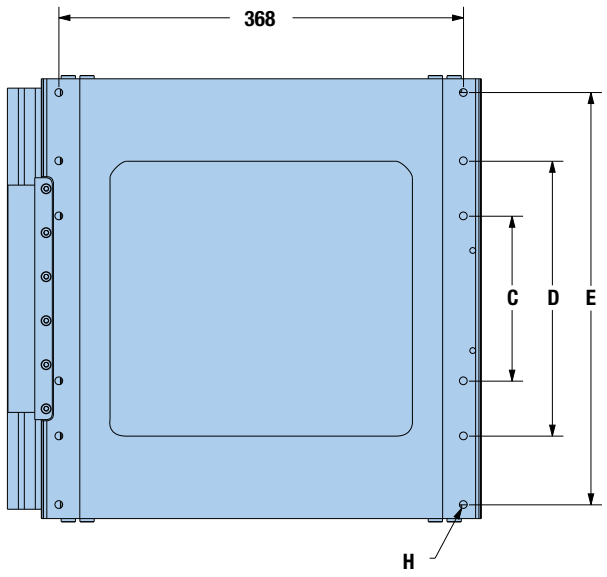
U400 Linear Motor Drive Dimensions

Dimensions (mm)





	H			
	Counterbore		Thru Hole	
Model No.	(mm)	(in)	(mm)	(in)
U400	11x12 dp	0.43x0.47	7	0.275

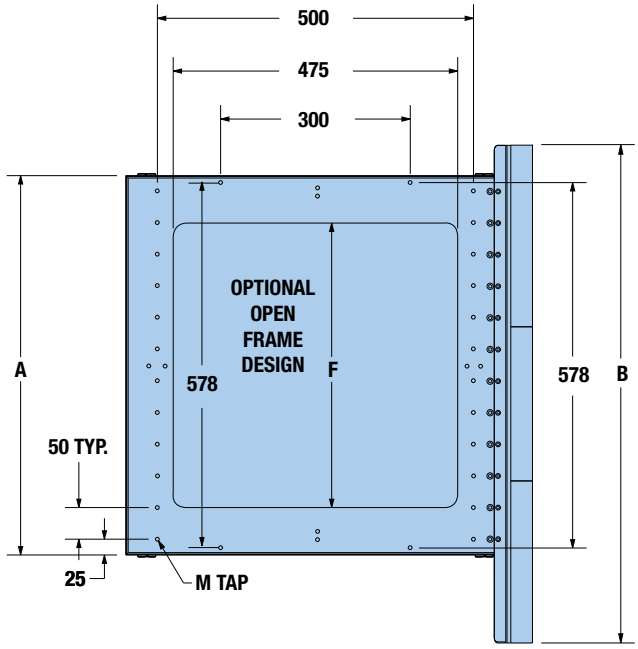
	Travel		A		B		C		D	
Model No.	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
U400-300	300	11.81	400	15.75	576	22.68	200	7.87	—	—
U400-400	400	15.75	500	19.69	640	25.20	200	7.87	350	13.78
U400-500	500	19.69	600	23.62	768	30.24	200	7.87	400	15.75

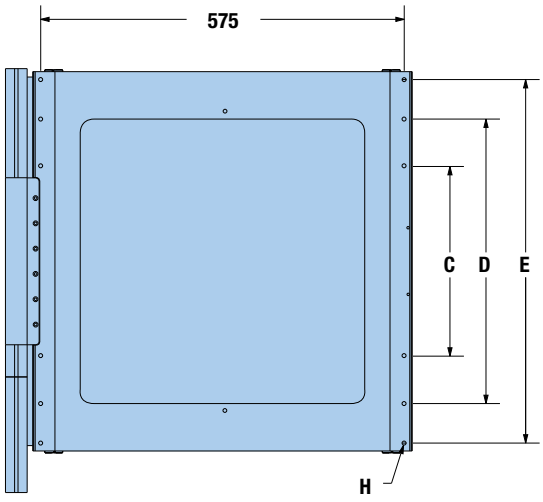
	E		F		M	Load Capacity	
Model No.	(mm)	(in)	(mm)	(in)	Tap	(kg)	(lb)
U400-300	375	14.76	250	9.84	M6 x 1	1,531	3,375
U400-400	475	18.70	350	13.78	M6 x 1	1,859	4,098
U400-500	575	22.64	450	17.72	M6 x 1	2,187	4,821

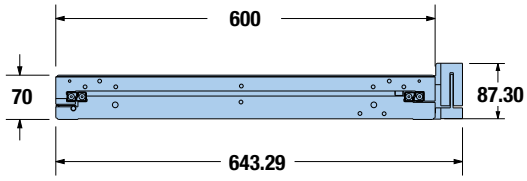
	Moving Slide Weight				Stage Weight			
	Open		Closed		Open		Closed	
Model No.	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)
U400-300	12.88	28.40	20.12	44.36	20.76	45.77	38.00	83.77
U400-400	15.31	33.75	33.75	53.75	25.00	55.12	46.60	102.73
U400-500	18.36	40.48	40.48	64.44	30.05	66.25	56.25	124.01

U600 Linear Motor Drive Dimensions

Dimensions (mm)







	H			
	Counterbore		Thru Hole	
Model No.	(mm)	(in)	(mm)	(in)
U600	11x12 dp	0.43x0.47	7	0.275

	Travel		A		B		C		D	
Model No.	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
U600-500	500	19.69	600	23.62	768	30.24	300	11.81	450	17.72

	E		F		M	Load Capacity	
Model No.	(mm)	(in)	(mm)	(in)	Tap	(kg)	(lb)
U600-500	575	22.64	450	17.72	M6 x 1	2,187	4821

	Moving Slide Weight		Stage Weight	
Model No.	(kg)	(lb)	(kg)	(lb)
U600-500	22.19	48.92	38.63	85.16

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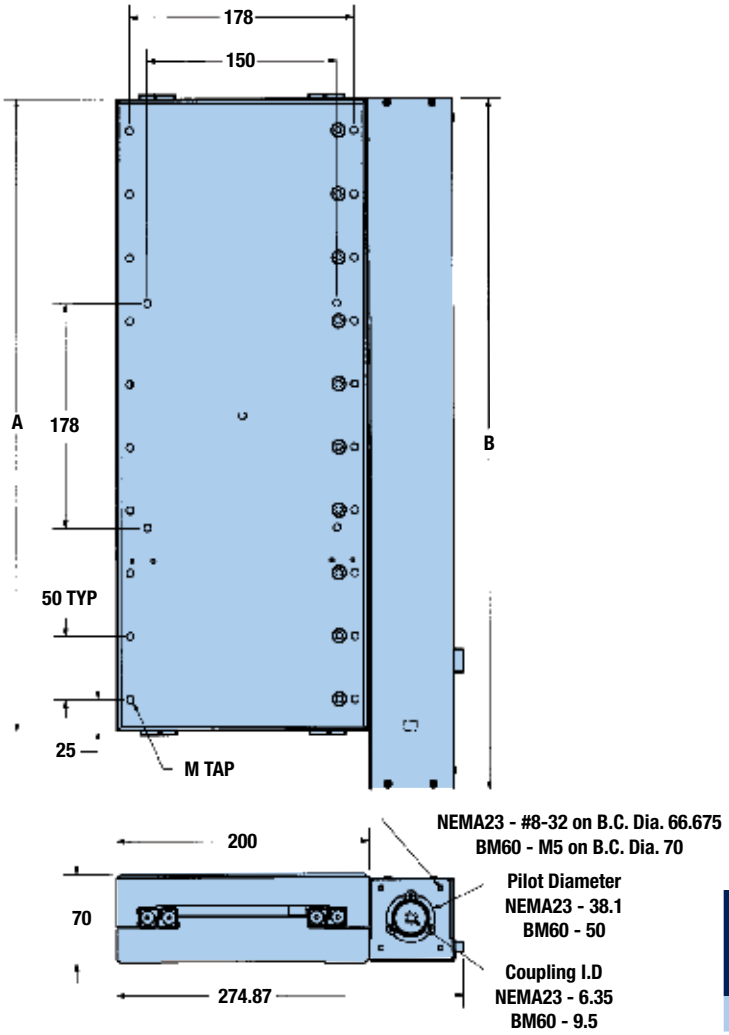
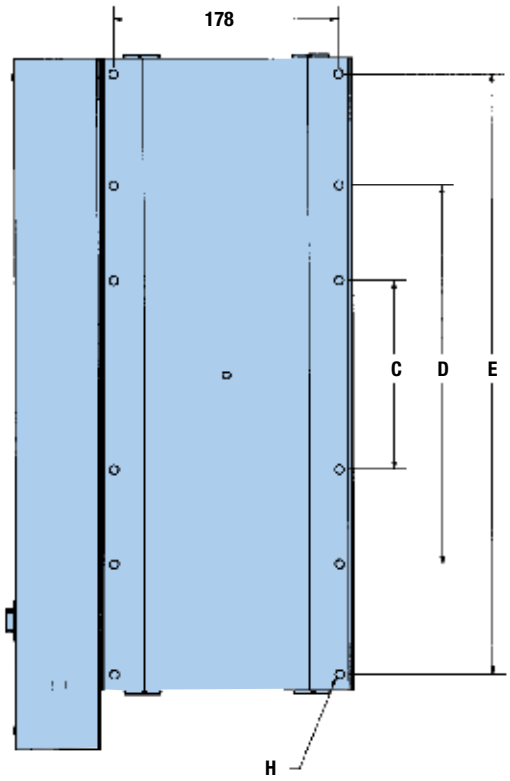
U200 Screw-Driven Drive Dimensions

Dimensions (mm)





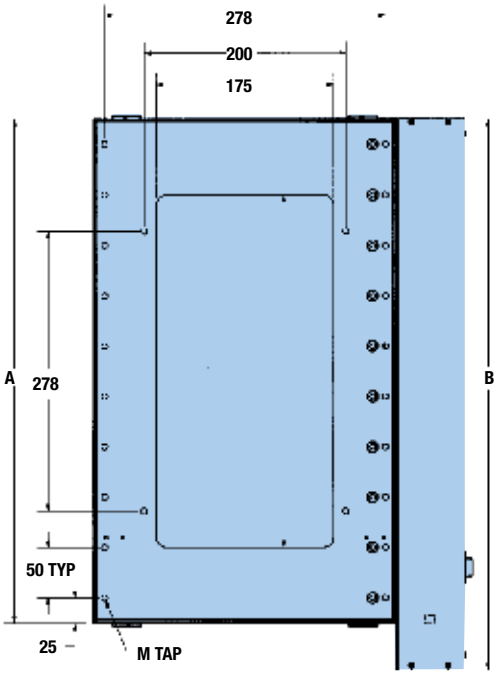
	H			
	Counterbore		Thru Hole	
Model No.	(mm)	(in)	(mm)	(in)
U200	11x12 dp	0.43x0.47	7	0.275

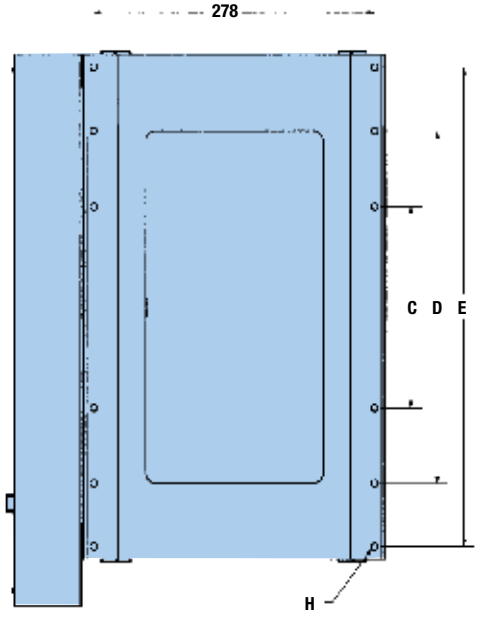
	Travel		A		B		C		D	
Model No.	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
U200-100	100	3.94	200	7.87	246	9.7	150	5.9	—	—
U200-200	200	7.87	300	12.25	346.5	13.64	150	5.9	—	—
U200-300	300	11.81	400	15.75	446.5	17.59	150	5.9	—	—
U200-400	400	15.75	500	19.69	546.5	21.52	150	5.9	300	12.25

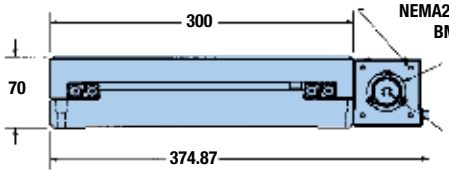
	E		M	Load Capacity		Stage Weight		Moving Slide Weight	
Model No.	(mm)	(in)	Tap	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)
U200-100	—	—	M6 x 1	875	1,929	9.48	20.9	4.26	9.39
U200-200	275	10.83	M6 x 1	1,203	2,652	13.72	30.25	6.16	13.58
U200-300	375	14.76	M6 x 1	1,531	3,375	18.02	39.73	8.11	17.88
U200-400	475	18.7	M6 x 1	1,859	4,098	22.35	49.27	10.09	22.24

U300 Screw-Driven Drive Dimensions

Dimensions (mm)







NEMA23 - #8-32 on B.C. Dia. 66.675
BM60 - M5 on B.C. Dia. 70

Pilot Diameter
NEMA23 - 38.1
BM60 - 50

Coupling I.D
NEMA23 - 6.35
BM60 - 9.5

	H			
	Counterbore		Thru Hole	
Model No.	(mm)	(in)	(mm)	(in)
U300	11x12 dp	0.43x0.47	7	0.275

	Travel		A		B		C		D	
Model No.	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
U300-200	200	7.87	300	12.25	346.5	13.6	150	5.9	—	—
U300-300	300	12.25	400	15.75	446.5	17.6	150	5.9	200	7.87
U300-400	400	15.75	500	19.69	546.5	21.5	200	7.9	350	13.78
U300-500	500	19.69	600	23.62	646.5	25.5	200	7.9	400	15.75

	E		F		M	Load Capacity	
Model No.	(mm)	(in)	(mm)	(in)	Tap	(kg)	(lb)
U300-200	275	10.83	150	5.9	M6 x 1	1,203	2,652
U300-300	375	14.76	250	9.84	M6 x 1	1,531	3,375
U300-400	475	18.7	350	13.78	M6 x 1	1,859	4,095
U300-500	575	22.64	450	17.72	M6 x 1	2,187	4,821

	Stage Weight				Moving Slide Weight			
	Open		Closed		Open		Closed	
Model No.	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)
U300-200	9.59	21.1	19.21	42.35	4.27	9.41	8.4	18.5
U300-300	12.48	27.5	25.35	55.89	5.29	11.66	11.11	24.5
U300-400	15.41	33.9	31.46	69.36	6.93	15.28	13.81	30.4
U300-500	18.29	40.3	37.6	82.89	8.25	18.19	16.53	36.4

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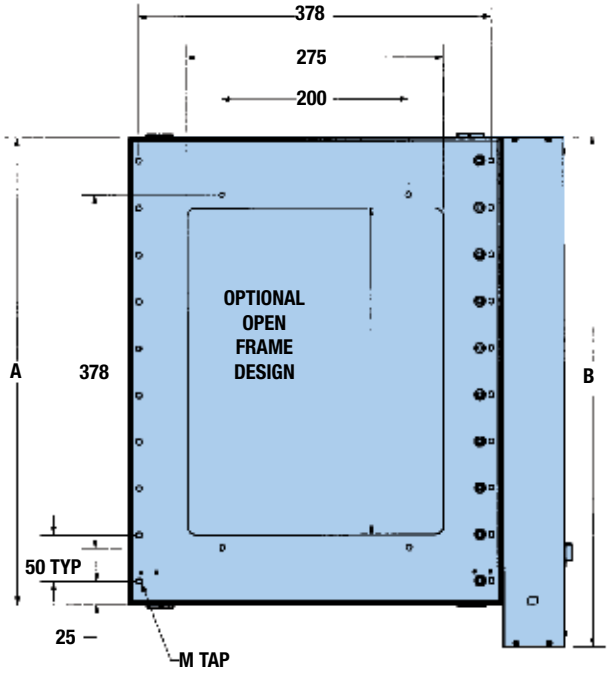
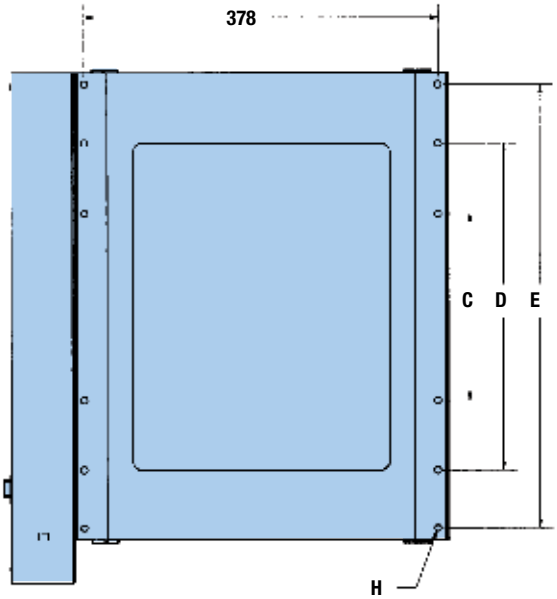
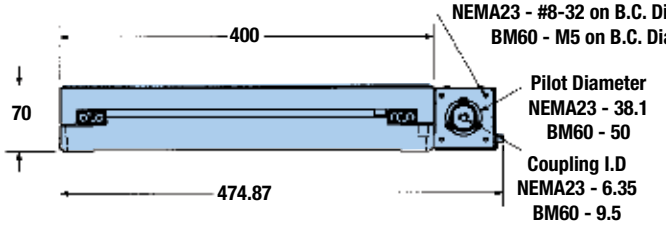
U400 Screw-Driven Drive Dimensions

Dimensions (mm)







	H			
	Counterbore		Thru Hole	
Model No.	(mm)	(in)	(mm)	(in)
U400	11x12 dp	0.43x0.47	7	0.275

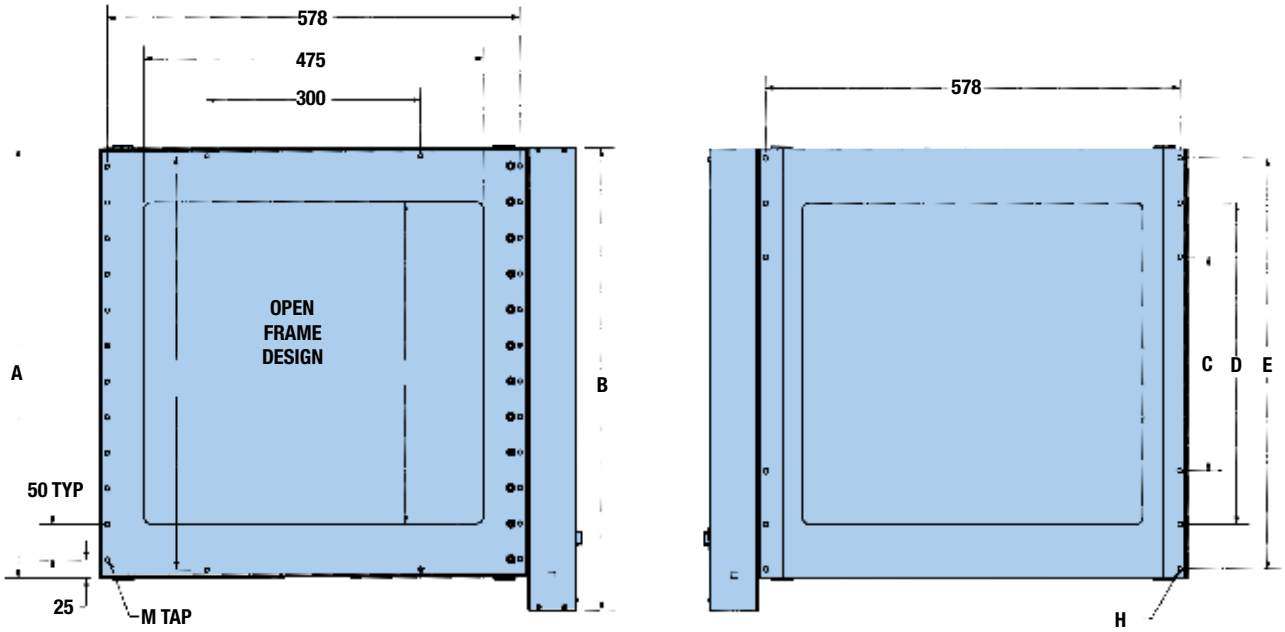
	Travel		A		B		C		D	
Model No.	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
U400-300	300	11.81	400	15.75	446.5	17.58	200	7.87	—	—
U400-400	400	15.75	500	19.69	546.5	21.52	200	7.87	350	13.78
U400-500	500	19.69	600	23.62	646.5	25.45	200	7.87	400	15.75

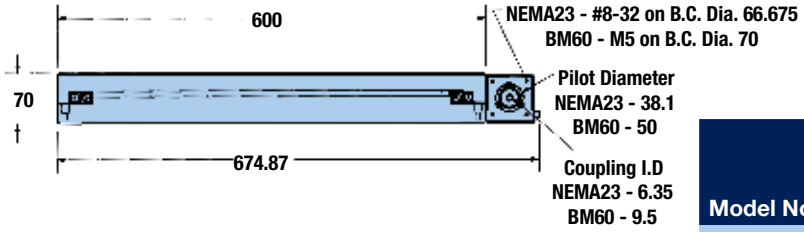
	E		F		M	Load Capacity	
Model No.	(mm)	(in)	(mm)	(in)	(mm)	(kg)	(lb)
U400-300	375	14.76	250	9.84	M6 x 1	1,531	3,375
U400-400	475	18.70	350	13.78	M6 x 1	1,859	4,098
U400-500	575	22.64	450	17.72	M6 x 1	2,187	4,822

	Stage Weight				Moving Slide Weight			
	Open		Closed		Open		Closed	
Model No.	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)
U400-300	15.28	33.69	32.52	71.69	6.87	15.15	14.11	31.11
U400-400	18.90	40.34	40.50	88.29	8.53	18.81	17.60	38.80
U400-500	22.68	50.00	48.88	107.76	10.16	22.40	21.03	46.36

U600 Screw-Driven Drive Dimensions

Dimensions (mm)





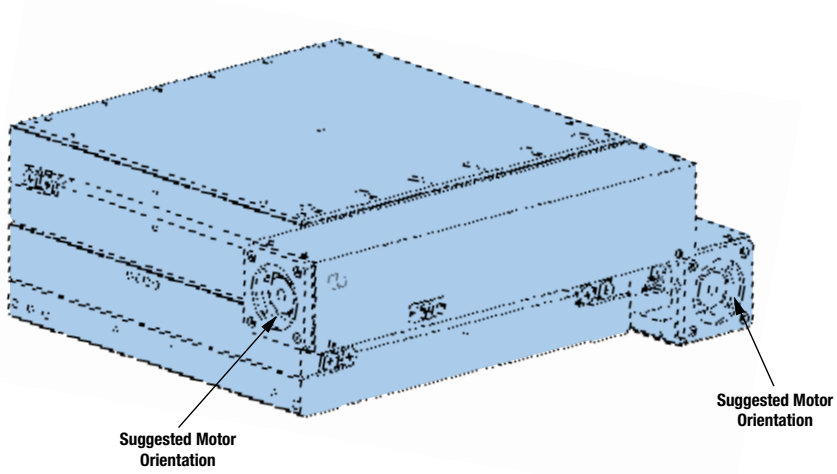
	H			
	Counterbore		Thru Hole	
Model No.	(mm)	(in)	(mm)	(in)
U600	11x12 dp	0.43x0.47	7	0.275

	Travel		A		B		C		D	
Model No.	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
U600-500	500	19.69	600	23.62	646.5	25.45	300	11.81	450	17.72

	E		F		M	Load Capacity	
Model No.	(mm)	(in)	(mm)	(in)	Tap	(kg)	(lb)
U600-500	575	22.64	450	17.72	M6 x 1	2,187	4822

	Moving Slide Weight		Stage Weight	
Model No.	(kg)	(lb)	(kg)	(lb)
U600-500	31.41	69.25	13.99	30.84

Suggested Configuration



Options

Calibration Option

Parker provides laser-calibrated and / or matched roller options to optimize your stage for the most demanding applications.

P.A.C.T.

Prevents cross roller bearing creep in vertical and/or high-speed applications.

Special Environment Option

Parker can prepare your stage for a variety of environments including:

- Vacuum
- Cleanroom
- Radiation
- Food Grade

Special Lubricants

Dry lubricant suitable for environments that need a dry, permanent lubrication (e.g. vacuum rated applications).

Fill in an order code from each of the numbered fields to create a complete model order code.

	①	②	③	④	⑤	⑥	⑦	⑧	⑨
Order Example:	U	300	X	3	2	1	3	1	1

① Series

U	Ultra Series

② Metric Width of Stage

200	200 mm
300	300 mm
400	400 mm
600	600 mm

③ Frame

	U200	U300	U400	U600
X	Closed	Closed	Closed	Closed
H	—	Open	Open	Open

④ Travel

	U200	U300	U400	U600
1	100 mm	—	—	—
2	200 mm	200 mm	—	—
3	300 mm	300 mm	300 mm	—
4	400 mm	400 mm	400 mm	—
5	—	500 mm	500 mm	500 mm

⑤ Drive Screw

Lead Screw

1	0.1 in lead
2	0.2 in lead
3	1 mm lead

Ballscrew

4	3 mm lead
5	5 mm lead
6	10 mm lead

Linear Motor

7	Linear motor drive

⑥ Limits (1)

1	None
2	End of travel
3	End of travel and home

⑦ Linear Encoder (1)

1	None
2	0.1 µm
3	0.5 µm
4	1.0 µm
5	5.0 µm

(1) End-of-Travel and Home Limits integral to linear encoder will be provided, when a linear encoder is selected.

⑧ Motor Mounting

X	Specify motor, make and model for mounting kit

⑨ Roller Configuration/Environment

1	None (standard)
2	PACT
5	Cleanroom (Class 10,000)
6	Cleanroom (Class 10,000) with PACT
9	Vacuum (no finish)