

VRG-II SERIES

- ▶ A versatile gantry stage that generates propulsion in line with the bridge's COG
- ▶ Use ironless AUM motor
- ▶ Low velocity ripple

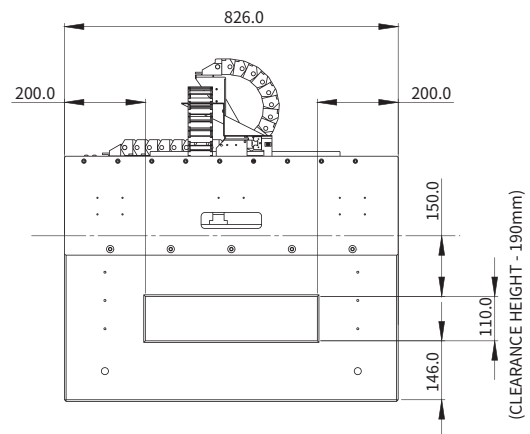
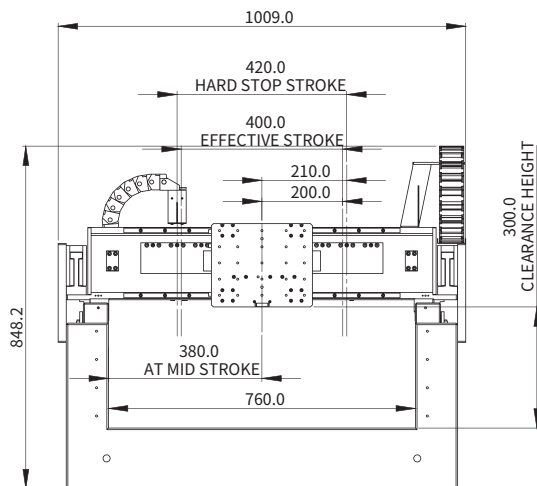
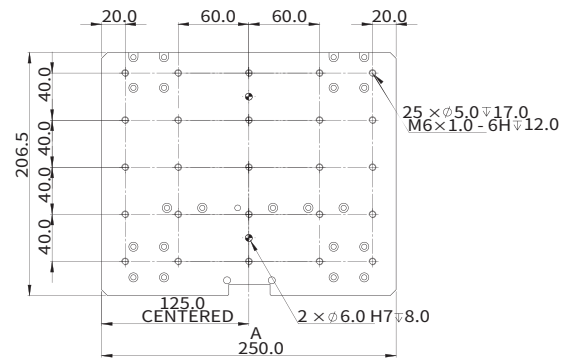
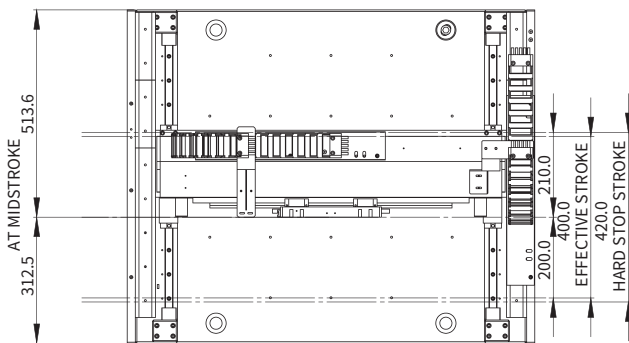
VRG-II

	Unit	L	U
Effective Stroke	mm	400	400
Rated Payload	kg	20	
No-load Moving Mass	kg	40	4
Max Acceleration	m/s ²	20	20
Max Velocity	m/s	2	2
Motor Model	-	2 × AUM5-S4	AUM5-S2
Continuous Force	N	2 × 393	197
Peak Force	N	2 × 2830	1415
Encoder Resolution	μm	0.05/0.5/SINCOS	0.05/0.5/SINCOS
Minimal Step Size	μm	0.5	0.5
Bidirectional Repeatability	μm	±1.5	±1.0
Accuracy	μm	±10.0	±10.0
Straightness	μm	±10.0	±10.0
Flatness	μm	±10.0	±10.0
Yaw	arc-sec	±10.0	±10.0
Pitch	arc-sec	±10.0	±10.0
Orthogonality	arc-sec	10.0	
No-load Stage Weight	kg	570	

Note:

- The table above presents the highest capability of this stage layout.
- Contact us for more options and details.

Dimension Drawing



Ordering Part Number (OPN)

G2 H 02 02 U46 U17 E73 1 A2

Model:

G2: VRG-II

Termination:

2: DSUB
3: M23

Gantry Config:¹

H: H-Gantry
J: J-Gantry
T: T-Gantry

Cable Length:

A: 0.5m
B: 3.0m

Lower Axis Stroke:²

02: 200mm
03: 300mm
04: 400mm
05: 500mm
06: 600mm
07: 700mm
08: 800mm

Scale Type:

1: Steel tape, 11ppm/K

Upper Axis Stroke:²

02: 200mm
03: 300mm
04: 400mm
05: 500mm
06: 600mm
07: 700mm
08: 800mm

Encoder Type:

E73: ABA50E EnDat2.2 (0.05μm)
E71: ABA50M Mitsubishi (0.05μm)
EBF: Quantic (0.5μm)
EBH: Quantic (0.1μm)
E9F: ABI51D (0.5μm)
E9H: ABI51D (0.1μm)
EA0: ABI52 (SINCOS)

Lower Axis Motor:

U46: AUM4-S-S3-J (Peak Force: 936.0N)
U47: AUM4-S-S3-K (Peak Force: 936.0N)
U48: AUM4-P-S3-J (Peak Force: 936.0N)
U49: AUM4-P-S3-K (Peak Force: 936.0N)
U50: AUM4-S-S4-J (Peak Force: 1248.0N)
U51: AUM4-S-S4-K (Peak Force: 1248.0N)
U52: AUM4-P-S4-J (Peak Force: 1248.0N)
U53: AUM4-P-S4-K (Peak Force: 1248.0N)
U76: AUM5-S-S3-J (Peak Force: 2122.0N)
U77: AUM5-S-S3-K (Peak Force: 2122.0N)
U78: AUM5-P-S3-J (Peak Force: 2122.0N)
U79: AUM5-P-S3-K (Peak Force: 2122.0N)
U80: AUM5-S-S4-J (Peak Force: 2830.0N)
U81: AUM5-S-S4-K (Peak Force: 2830.0N)
U82: AUM5-P-S4-J (Peak Force: 2830.0N)
U83: AUM5-P-S4-K (Peak Force: 2830.0N)

Upper Axis Motor:

U17: AUM3-S-S2-J (Peak Force: 289.0N)
U18: AUM3-S-S2-K (Peak Force: 289.0N)
U19: AUM3-P-S2-J (Peak Force: 289.0N)
U20: AUM3-P-S2-K (Peak Force: 289.0N)
U21: AUM3-S-S3-J (Peak Force: 433.0N)
U22: AUM3-S-S3-K (Peak Force: 433.0N)
U23: AUM3-P-S3-J (Peak Force: 433.0N)
U24: AUM3-P-S3-K (Peak Force: 433.0N)
U25: AUM3-S-S4-J (Peak Force: 578.0N)
U26: AUM3-S-S4-K (Peak Force: 578.0N)
U27: AUM3-P-S4-J (Peak Force: 578.0N)
U28: AUM3-P-S4-K (Peak Force: 578.0N)
U46: AUM4-S-S3-J (Peak Force: 936.0N)
U47: AUM4-S-S3-K (Peak Force: 936.0N)
U48: AUM4-P-S3-J (Peak Force: 936.0N)
U49: AUM4-P-S3-K (Peak Force: 936.0N)
U50: AUM4-S-S4-J (Peak Force: 1248.0N)
U51: AUM4-S-S4-K (Peak Force: 1248.0N)
U52: AUM4-P-S4-J (Peak Force: 1248.0N)
U53: AUM4-P-S4-K (Peak Force: 1248.0N)

Note:

- ¹ All gantry stages are black anodized. Gantry Configuration: H= Dual motor dual encoder, J= Dual motor single encoder, T= Single motor single encoder.
- ² Standard stroke in intervals of 100mm only, for more options, please contact Akribis sales engineers.

