DANAHER

SAS™ Recirculating Way Table

Features

- Ideal for scanning and step and repeat applications
- High speed linear motor
- Space-saving shuttle design

Linear Motor Shuttle Stage

The SAS Series single-axis shuttle stages provide high speed in a very compact design. The stage design uses recirculating bearings to minimize the overall moving envelope. Its brushless linear servo motor allows high speeds with smooth positioning, making it ideal for use in high throughput scanning applications.

A linear encoder is standard and available in several resolutions. The bearings and lubricants have been optimized for low and uniform moving friction. Standard units include flexible bellows. This unit's cabling terminates on a static base plate, simplifying external wiring for convenient integration.

Vacuum and signal lines can also be made available on the stationary base plate, and routed to the top plate. These units can be conveniently stacked into an X-Y configuration with 15 arc-second orthogonality.

SAS-IC TABLE SPECIFICATIONS

SPECIFICATIONS		SAS-IC-800	SAS-IC-1200	SAS-IC-1800	SAS-IC-2400	SAS-IC-3600
Travel (inches)		8	12	18	24	36
Overall Height (inches)		3	3	3	3	3
Positional Accuracy (microns)[1]		6	9	11	13	21
Resolution (for all, micron)				5, 1, 0.5, 0.1		
Bi-directional Repeatability		±1 count	±1 count	±1 count	±1 count	±1 count
Load Capacity (for all, g)[2]				70		
Maximum Acceleration (m/s^2)[2]		50	50	50	50	50
Maximum Velocity (m/s)		5	5	5	5	5
Mass (kg)	Moving (for all)			6.6		
	Total	20	23	27	32	38
Motor Force Constant (for all, N/A)				44.6		
Fundamental Motor Constant (for all, 130°C)				20.5N / $\sqrt{\text{Watt}}$		
Bank-emf Constant (for all, V/m/s)				42.0		
Coil Resistance (for all, 25°C, Ohm)				3.0		
Coil Inductance (for all, mH)				9.7		
Continuous Current (for all, 130°C, Amps)				3.3		
Peak Current (for all, Amps)				13.7		
Continuous Force (for all, 130°C, N)				171		
Peak Force (for all, N)				560		
Continuous Power Rating (for all, Watts)				69		
Pitch & Yaw (arc-seconds)		15	20	25	30	50
Flatness & Straightness (micron)		3	5	9	13	30

1 With 2 point slope correction.
2 Please contact our Applications Engineers for loads exceeding 75kg.
3 The maximum speed is encoder and load dependent.

Danaher Precision Systems

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SAS™ Recirculating Way Table

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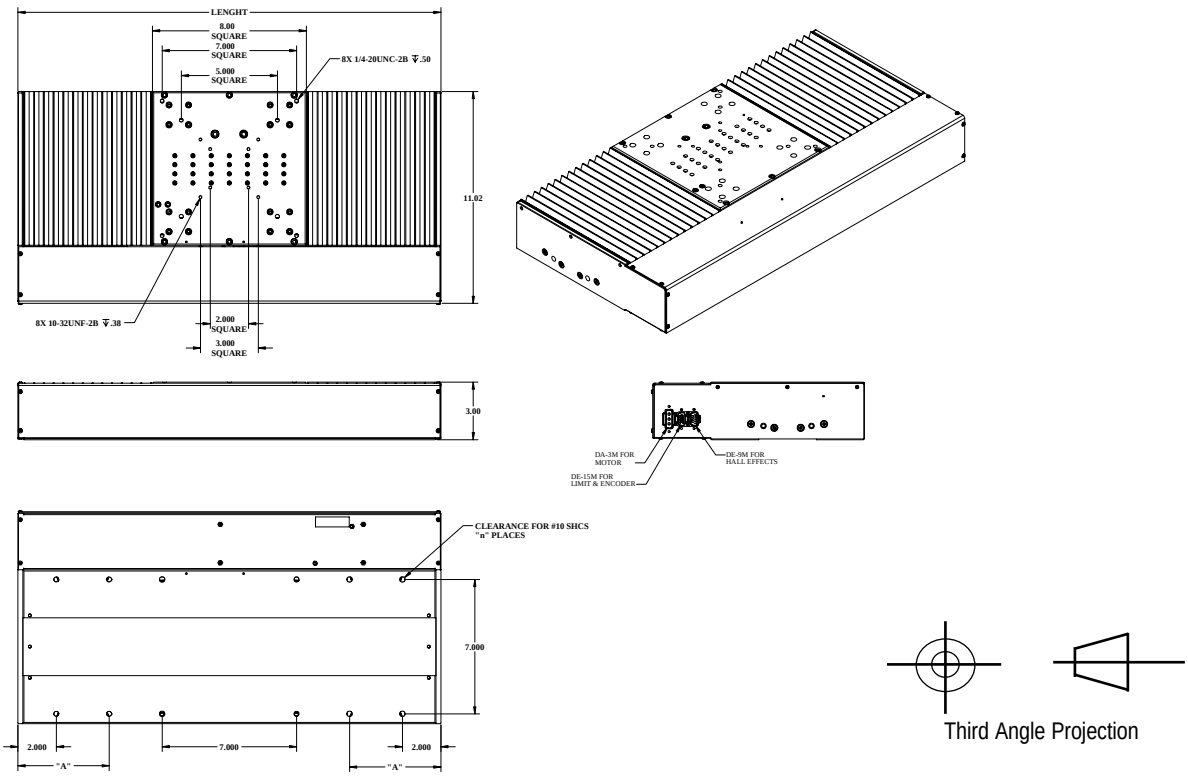
SAS Table Specifications



Third Angle Projection

SAS-IL Table Specifications

Specifications		SAS-IL-800	SAS-IL-1200	SAS-IL-1800	SAS-IL-2400	SAS-IL-3600
Travel (inches)		8	12	18	24	36
Overall Height (inches)		3	3	3	3	3
Positional Accuracy (microns)[1]		6	9	11	13	21
Resolution (for all, micron)				5, 1, 0.5, 0.1		
Bi-directional Repeatability		±1 count	±1 count	±1 count	±1 count	±1 count
Load Capacity (for all, Kg)[2]				70		
Maximum Acceleration (m/s^2)		40	40	40	40	40
Maximum Velocity (m/s)[3]		5	5	5	5	5
Mass (kg)	Moving (for all)			5.2		
	Total	18	21	25	30	36
Motor Force Constant (for all, N/A)				16.9		
Fundamental Motor Constant (for all, 130°C)				6.6N / $\sqrt{\text{Watt}}$		
Bank-emf Constant (for all, V/m/s)				13.8		
Coil Resistance (for all, 25°C, Ohm)				3.1		
Coil Inductance (for all, mH)				0.65		
Continuous Current (for all, 130°C, Amps)				4.5		
Peak Current (for all, Amps)				14.2		
Continuous Force (for all, 130°C, N)				76		
Peak Force (for all, N)				240		
Continuous Power Rating (for all, Watts)				131		
Pitch & Yaw (arc-seconds)		15	20	25	30	50
Flatness & Straightness (micron)		3	5	9	13	30

Model	Travel	Length	n	A
SAS-800 Stage	8.00"	22	8	—
SAS-1200 Stage	12.00"	26	8	—
SAS-1800 Stage	18.00"	32.5	12	7.375
SAS-2400 Stage	24.00"	39.5	12	9.125
SAS-3600 Stage	36.00"	53	12	12.5

Moving The World, One Nanometer At A Time.™

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