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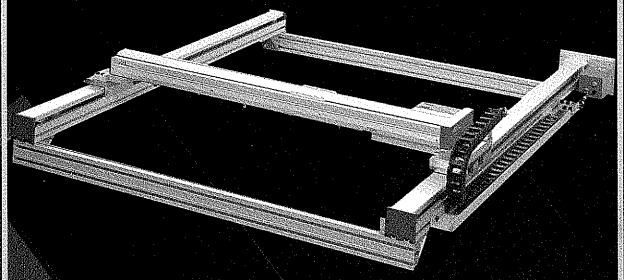
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Find the *IAI 12R2-100-200BL R AC* at our website: *Click HERE*

INTELLIGENT ACTUATOR

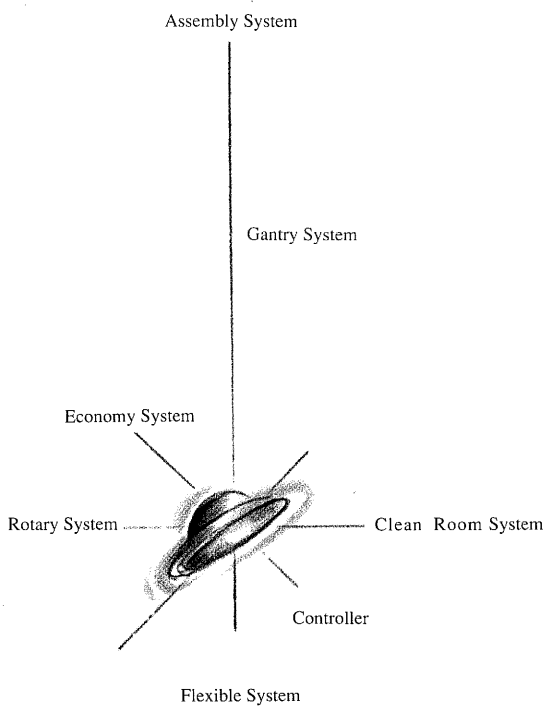
G TYPE

Gantry System Series



Gantry Type Actuator

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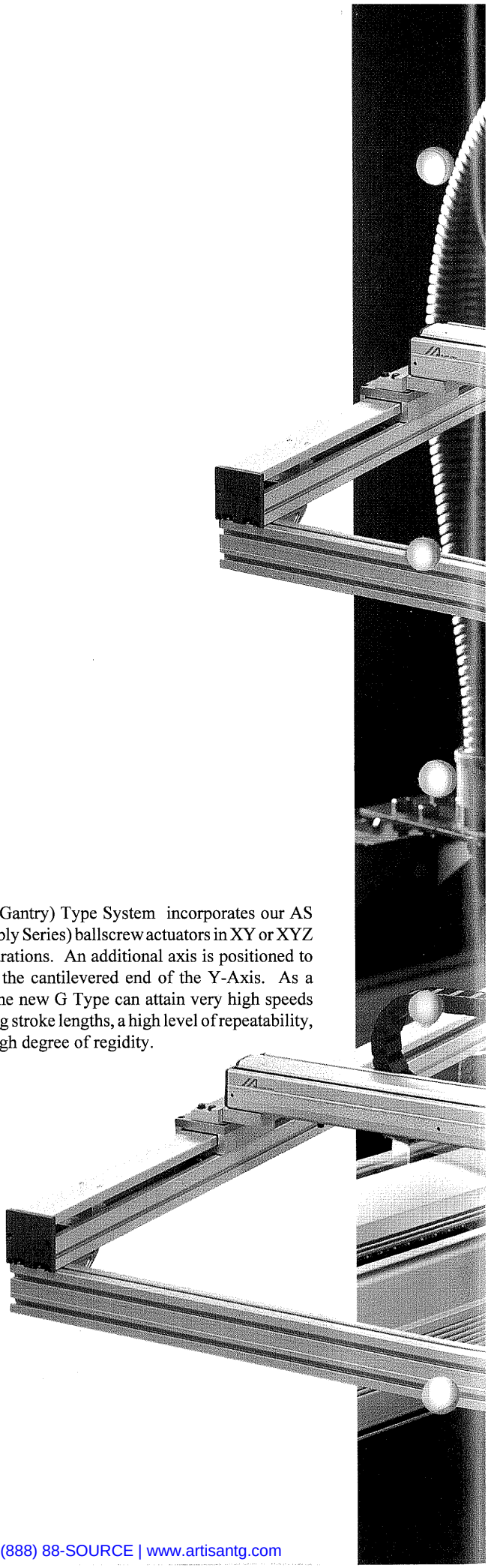


G TYPE

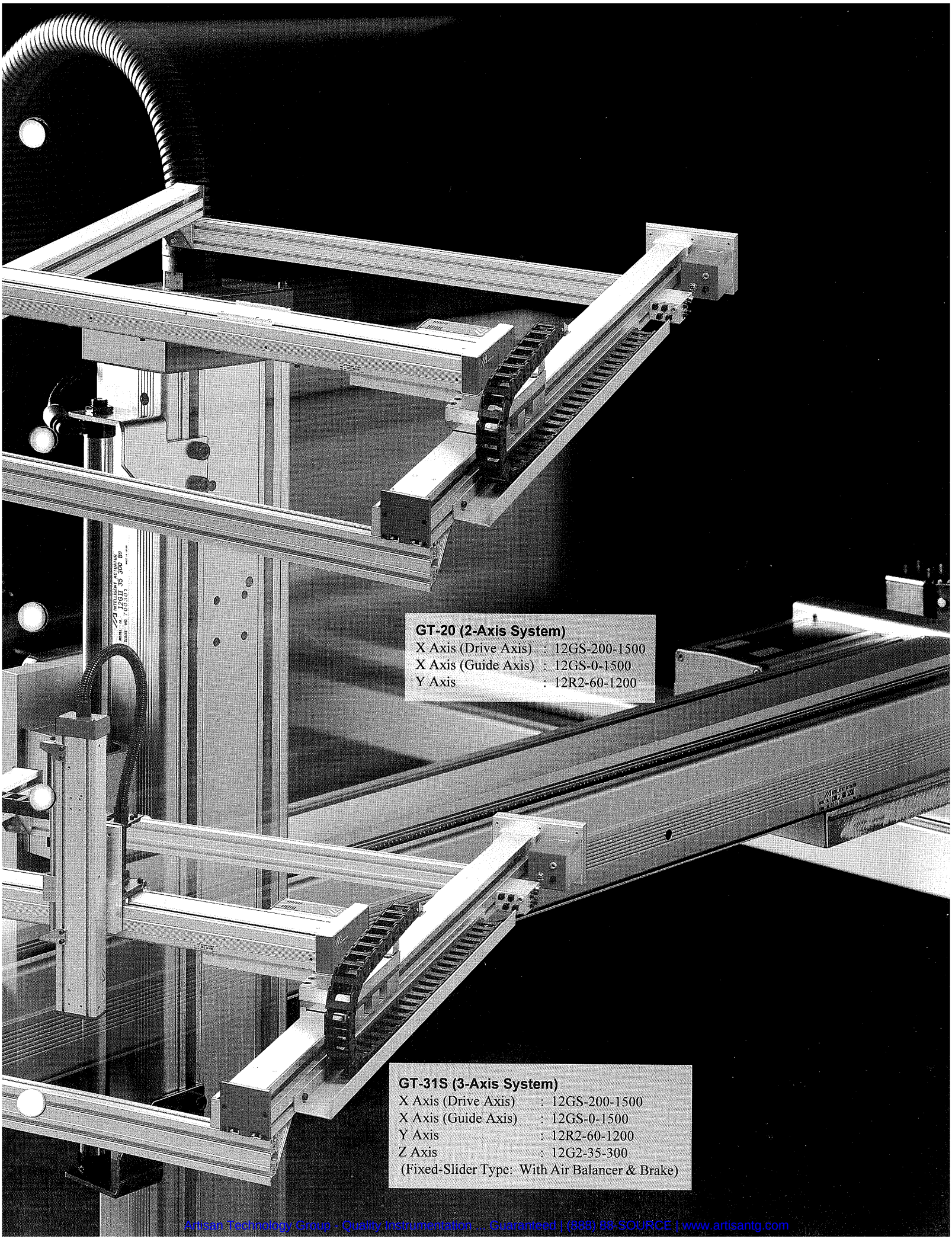
Gantry System Series

- Solution for Long-Stroke Configurations
- Highly Rigid and Accurate Positioning System

The G (Gantry) Type System incorporates our AS (Assembly Series) ballscrew actuators in XY or XYZ Configurations. An additional axis is positioned to support the cantilevered end of the Y-Axis. As a result, the new G Type can attain very high speeds with long stroke lengths, a high level of repeatability, and a high degree of regidity.



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GT-20 (2-Axis System)

X Axis (Drive Axis)	:	12GS-200-1500
X Axis (Guide Axis)	:	12GS-0-1500
Y Axis	:	12R2-60-1200

GT-31S (3-Axis System)

X Axis (Drive Axis)	:	12GS-200-1500
X Axis (Guide Axis)	:	12GS-0-1500
Y Axis	:	12R2-60-1200
Z Axis	:	12G2-35-300

(Fixed-Slider Type: With Air Balancer & Brake)

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Features

- With an additional supporting axis (X-Axis Guide Module), the G (Gantry) Type offers a maximum Y-Axis overhang length of 1,200mm, and a maximum Y-Axis payload of 30kg (66 lbs.)
- Repeatability: +/- 0.02mm (+/- 0.0008")
- Dependable Thrust Load, High Degree of Overall Rigidity, and Stabilized Lead Error.
- For use in applications utilizing PATH/Arc/CIRCULAR Interporation.
- Models available in DC or AC Servo Motor Versions
- AS (Assembly Series) 12G2, 12R2 and 12AR models can be used as the Z-Axis (Vertical) in a 3-Axis Configuration.
- The Z-Axis (Fixed-Slider Type) comes equipped with an air-balancer and a brake. (A brake is recommended when using a Z-Axis.)

Model

AS - DC - GT32 - S - 1500, 1200, 600
1 2 3 4 5

1 Series

AS : Assembly System

2 Motor Type

DC : DC Servo Motor
AC : AC Servo Motor

3 Type

Gantry Type
2-Axis System: GT20
3-Axis System: GT31: Z-Axis AS-DC-12G2-35
AS-AC-12G2-50
GT32: Z-Axis AS-DC-12G2-60
AS-AC-12G-100
GT33: Z-Axis AS-DC-12R2-60
GT34: Z-Axis AS-DC-12R2-100
AS-AC-12R2-100
GT35: Z-Axis AS-DC-12R-60
AS-AC-12AR-100

4 Z-Axis Mounting Method

S: Fixed-Slider Type
(Standard Accessory: Air-Balancer and Brake)
B: Fixed-Base Type

5 Stroke Length

X-Axis: 1500mm Y-Axis: 1200mm
Z-Axis: 600mm

AS Gantry Type Structure

DC Servo Motor Specifications

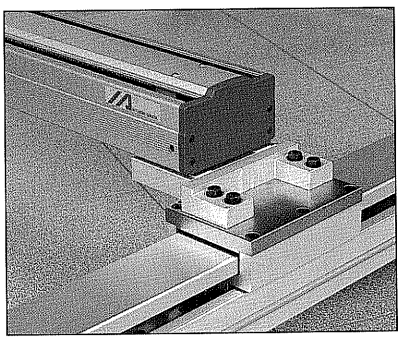
Series	Motor	# of Axis	Type	Maximum Stroke Length	
AS	DC	2-Axis	GT20	1500, 1200	
		3-Axis	GT31S	1500, 1200, 400	Z-Axis Fixed Slider
			GT32S	1500, 1200, 600	
			GT33S	1500, 1200, 600	
			GT34S	1500, 1200, 600	
			GT31B	1500, 1200, 400	Z-Axis Fixed Base
			GT32B	1500, 1200, 600	
			GT33B	1500, 1200, 600	
			GT34B	1500, 1200, 600	
			GT35B	1500, 1200, 200	

*An Air-Balancer and a Brake are standard accessories on the Z-Axis, Fixed-Slider-Type.

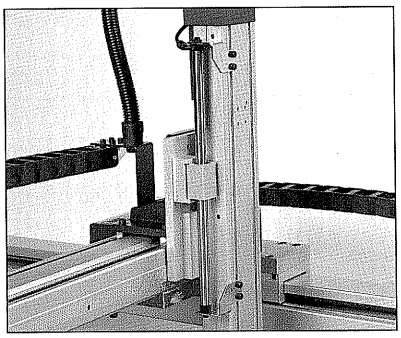
AC Servo Motor Specifications

Series	Motor	# of Axis	Type	Maximum Stroke Length	
AS	AC	2-Axis	GT20	1500, 1200	
		3-Axis	GT31S	1500, 1200, 400	Z-Axis Fixed Slider
			GT32S	1500, 1200, 600	
			GT34S	1500, 1200, 600	
			GT31B	1500, 1200, 400	Z-Axis Fixed Base
			GT32B	1500, 1200, 600	
			GT34B	1500, 1200, 600	
			GT35B	1500, 1200, 200	

*An Air-Balancer and a Brake are standard accessories on the Z-Axis, Fixed-Slider-Type.



Pin Bracket
Pin Bracket between the X-Axis Guide Module and the Y-Axis helps correct installation error and stabilizes operation.



Air-Balancer
(Z-Axis Fixed-Slider Type)
Air-balancing the vertical Z-Axis with a compact rodless-cylinder.

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Y-Axis Payload Guidelines For AS-DC(AC)-GT-20 (2-Axis System)

Y-Axis Stroke Length	800mm or less	900mm	1000mm	1100mm	1200mm
Y-Axis Payload	30kg (66 lbs)	28kg (62 lbs)		26kg (57 lbs)	

Z-Axis (3-Axis System) Load Weight Guidelines

• DC Servo Motor System

(Unit: kg)

Z-Axis Mounting	Y Axis StrokeLength (mm) / Z-Axis Model		600	700	800	900	1000	1100	1200	Unit Name
Fixed-Slider Type (S)	12G2-35-	100 ~ 400*	6							GT31S
	12G2-60-	200	12			10		8		GT32S
		300	10				8		6	
		400	10				8	6		
		500	8					6	4	
		600	8				6		4	
	12R2-60-	200	12			10		8		GT33S
		300	10				8		6	
		400	10				8	6		
		500	8					6	4	
		600	8				6		4	
	12R2-100-	200	12			10		8		GT34S
		300	10				8		6	
		400	10				8	6		
		500	8					6	4	
		600	8				6		4	
Fixed-Base Type (B)	12G2-35-	100 ~ 400*	6							GT31B
	12G2-60-	200 ~ 600*	8							GT32B
	12R2-60-	200 ~ 600*	8							GT33B
	12R2-100-	200	13							GT34B
		300, 400	13					11		
		500, 600	13			11		9		
	12AR-60-	200	5							GT35B

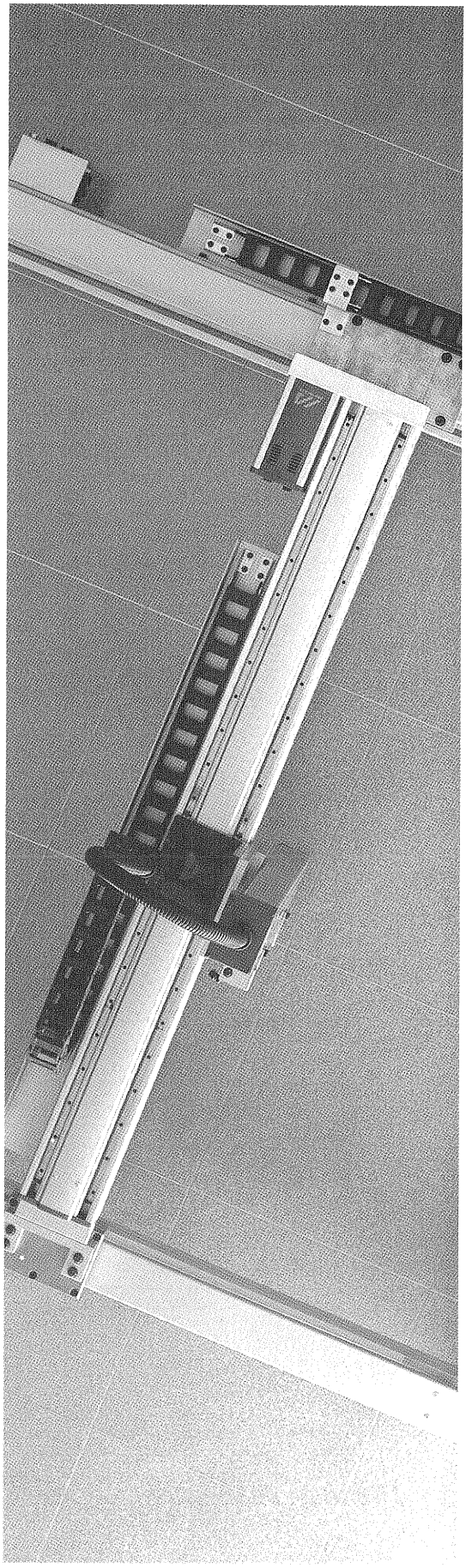
* Stroke Length increment is 100mm. Fixed-Slider-Types comes with standard Air-Balancer and Brake.

• AC Servo Motor System

(Unit: kg)

Z-Axis Mounting	Y-Axis Stroke Length (mm) / Z-Axis Model		600	700	800	900	1000	1100	1200	Unit Name
Fixed-Slider Type (S)	12G2-50-	100 ~ 400*	8.5							GT31S
	12G2-100-	200	12			10		8		GT32S
		300	10				8		6	
		400	10				8	6		
		500	8					6	4	
		600	8				6		4	
	12R2-100-	200	12			10		8		GT34S
		300	10				8		6	
		400	10				8	6		
		500	8					6	4	
		600	8				6		4	
Fixed-Base Type (B)	12G2-50-	100 ~ 400*	8.5							GT31B
	12G2-100-	200	13							GT32B
		300, 400	13					11		
		500, 600	13			11		9		
	12R2-100-	200	13							GT34B
		300, 400	13					11		
		500, 600	13			11		9		
	12AR-100-	200	7							GT35B

* Stroke Length increment is 100mm. Fixed-Slider-Types comes with standard Air-Balancer and Brake.



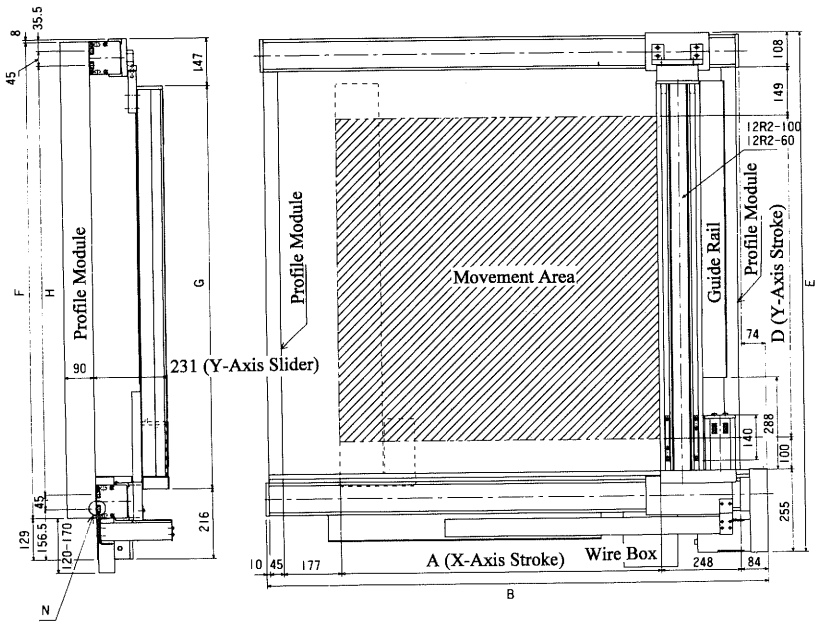
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GT20

2-Axis System

Specifications and Dimensions

Gantry Type X-Y Configuration		X-Axis	Y-Axis	
		12GS-200 (Drive Axis), 12GS-0 (Guide Axis)	AS-DC12R2-60	AS-AC12R2-100
Stroke	mm	600 ~ 1500 (23.6 ~ 59.1")	600 ~ 1200 (23.6 ~ 47.2")	
Rated Output	W	200	60	100
Rated Speed	mm/sec	650 (25.6 in /sec)	400 (15.7 in /sec)	
Rated Thrust	N (kgf)	245 (25)	127 (13)	206 (21)
Repeatability (X, Y)	mm	+/- 0.02 (+/- 0.0008")	+/- 0.02 (+/- 0.0008")	
Motor		DC (AC) Servo Motor 200W	DC Servo Motor 60W	AC Servo Motor 100W
Ballscrew		ϕ20mm,40mm Lead, Rolled Thread C10, Backlash 0.1mm or less	ϕ16mm, 16mm Lead, Rolled Thread C10, Backlash 0.1mm or less	
Guide		LM Guide : SR25W-Y2UU	LM Guide: SR15V-2UU	
Motor-Ballscrew Connection		Timing Belt Speed Reduction Ratio 13/40	Timing Belt Speed Reduction Ratio 1/2	
Base		Extruded Aluminum (A6NO1-T5 equivalent) White Alumite Treatment	Extruded Aluminum (A6063S-T5) White Alumite Treatment	
Slider		A5052 White Alumite Treatment	Extruded Aluminum (A6063S-T5) White Alumite Treatment	
Maximum Speed	mm/sec	800 (31.5 in/s) [700 (27.6 in/s) for 1200mm Stroke Length, 650 (25.6 in/s) for 1300mm, 550 (22.4 in/s) for 1400mm, and 500 (19.7 in/s) for 1500mm]	500 (20 in/s) [400 (15.7 in/s) for 1000mm Stroke Length, 350 (13.8 in/s) for 1100mm, and 300 (11.8 in/s) for 1200mm]	
Maximum Thrust	N(kgf)	490 (50)	245 (25)	402 (41)



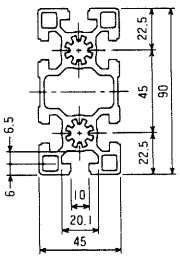
X Axis

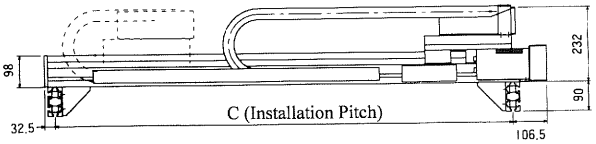
A (X Axis Stroke)	B	C
600	1164	1025
700	1264	1125
800	1364	1225
900	1464	1325
1000	1564	1425
1100	1664	1525
1200	1764	1625
1300	1864	1725
1400	1964	1825
1500	2064	1925

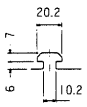
Y Axis

D (Y Axis Stroke)	E	F	G	H
600	1203	1075	849	930
700	1303	1175	949	1030
800	1403	1275	1049	1130
900	1503	1375	1149	1230
1000	1603	1475	1249	1330
1100	1703	1575	1349	1430
1200	1803	1675	1449	1530

Shape of Profile Module

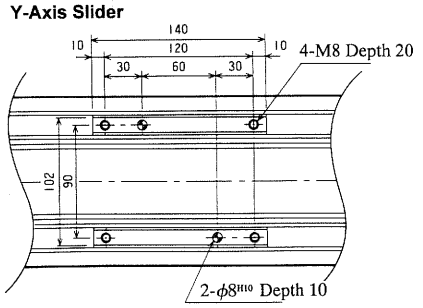






T-Slot Cross Section: N

Y-Axis Slider



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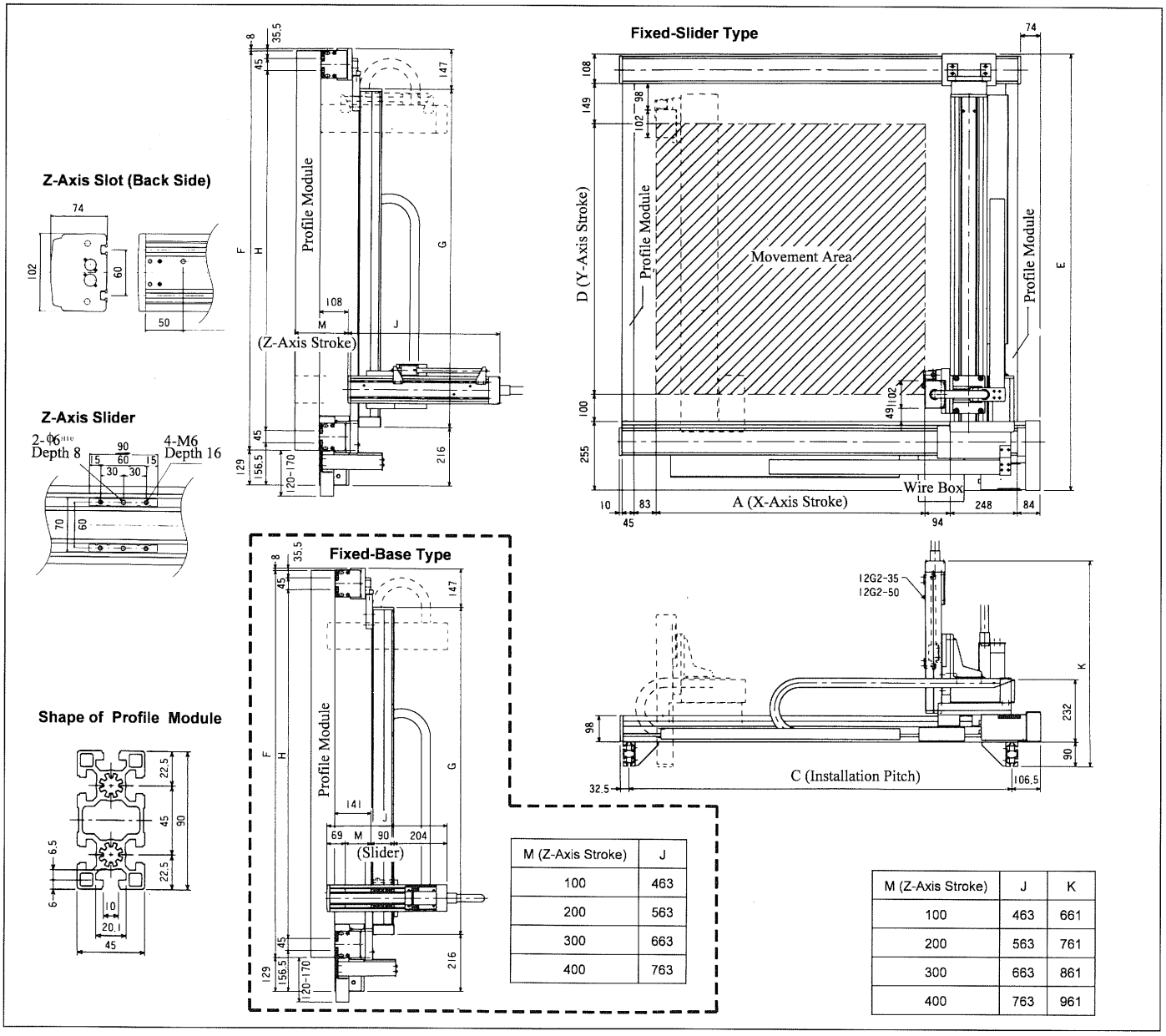
GT31S(B)

3-Axis System

Z-Axis Specifications and Dimensions

Model		AS-DC12G2-35	AS-AC12G2-50
Stroke	mm	100, 200, 300, 400 (3.9" , 7.9" , 11.8" , 15.7")	
Rated Output	W	34	50
Rated Speed	mm/sec	300 (11.8 in.)	
Rated Thrust	N (kgf)	98 (10)	141 (14.4)
Repeatability	mm	+/- 0.02 (+/- 0.0008")	
Motor		DC Servo Motor	AC Servo Motor
Encoder		Attached to Motor	
Ballscrew		ϕmm, 6mm Lead, Rolled Thread C10, Backlash 0.1mm or less	
Guide		LM Guide: 2RSR12UU 2pcs.	
Motor-Ballscrew Connection		Direct Coupling	
Base		Extruded Aluminum (A6063S-T5) White Alumite Treatment	
Maximum Speed	mm/sec	400 (15.7")	
Maximum Thrust *1	N(kgf)	196 (20)	282 (28.8)

*1 At a Speed of 10mm/sec for 10 seconds.



M (Z-Axis Stroke)	J
100	463
200	563
300	663
400	763

M (Z-Axis Stroke)	J	K
100	463	661
200	563	761
300	663	861
400	763	961

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GT32S(B)

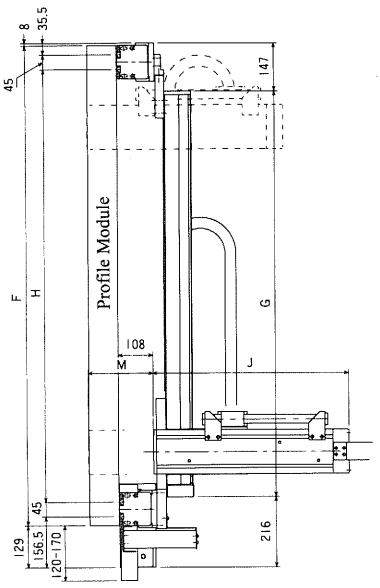
3-Axis System

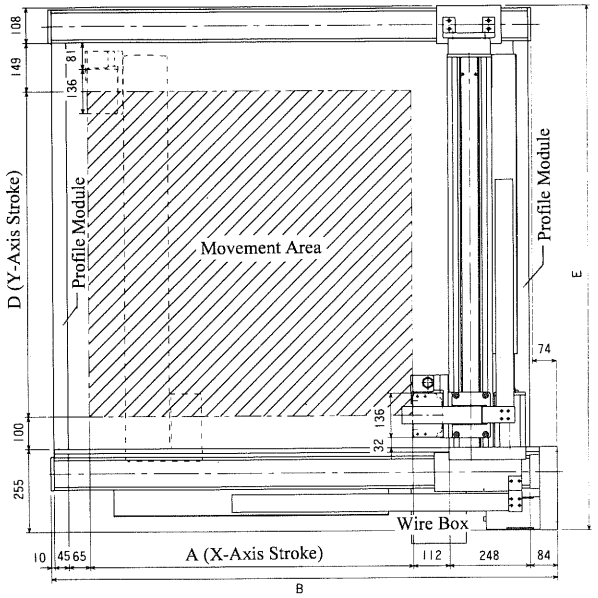
Z-Axis Specifications and Dimensions

Model		AS-DC12G2-60	AS-AC12G2-100
Stroke *1	mm	200, 300, 400, 500, 600 (7.9", 11.8", 15.7", 19.7", 23.6")	
Rated Output	W	60	100
Rated Speed	mm/sec	400 (15.7in/sec)	
Rated Thrust	N (kgf)	127 (13)	206 (21)
Repeatability	mm	+/- 0.02 (+/- 0.0008")	
Motor		DC Servo Motor	AC Servo Motor
Encoder		Attached to Motor	
Ballscrew		ϕ12mm, 8mm Lead, Rolled Thread C10, Backlash 0.1mm or less	
Guide		LM Guide: SR-15V2UU 2pcs.	
Motor-Ballscrew Connection		Direct Coupling	
Base		Extruded Aluminum (A6063S-T5) White Alumite Treatment	
Maximum Speed *2	mm/sec	500 (19.7 in/sec) [400 (15.7 in/sec) for 600mm Stroke Length]	
Maximum Thrust *3	N(kgf)	245 (25)	412 (42)

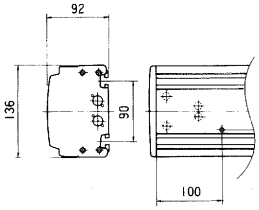
*1 For 600mm Stroke Fixed-SliderType Actuators, operate at or below 0.2G Acceleration. *2 For 600mm Stroke Actuators, operate at or below rated speed within a 100mm distance from the stroke end to avoid ballscrew resonance. *3 At a Speed of 10mm/sec for 10 seconds.

Fixed-Slider Type

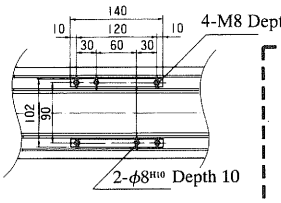




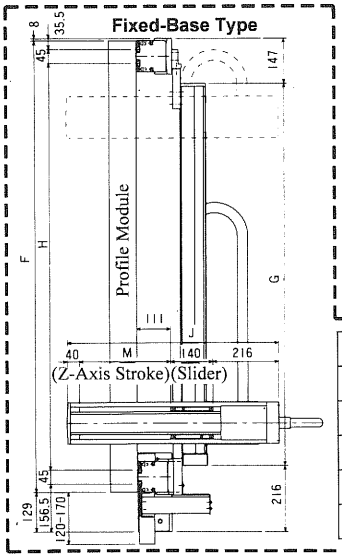
Z-Axis Slot (Back Side)



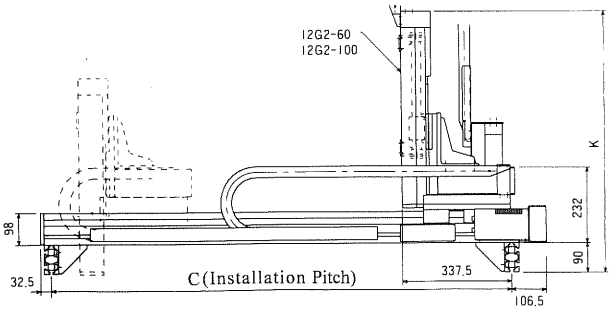
Z-Axis Slider



Fixed-Base Type

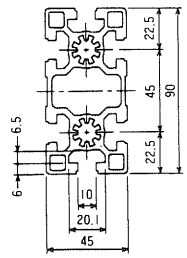


M (Z-Axis Stroke)	J
200	596
300	696
400	796
500	896
600	996



M (Z-Axis Stroke)	J	K
200	605	803
300	705	903
400	805	1003
500	905	1103
600	1005	1203

Shape of Profile Module



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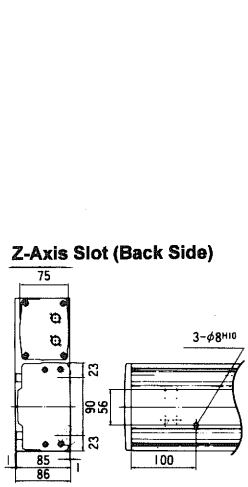
GT33S(B)

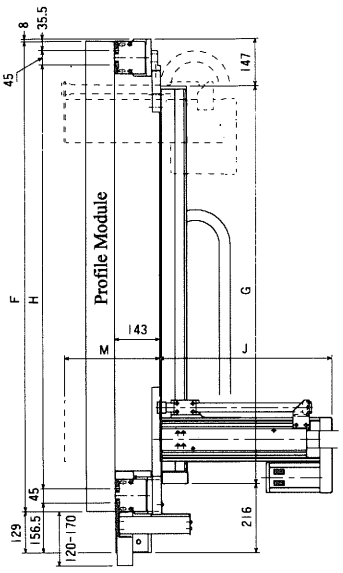
3-Axis System

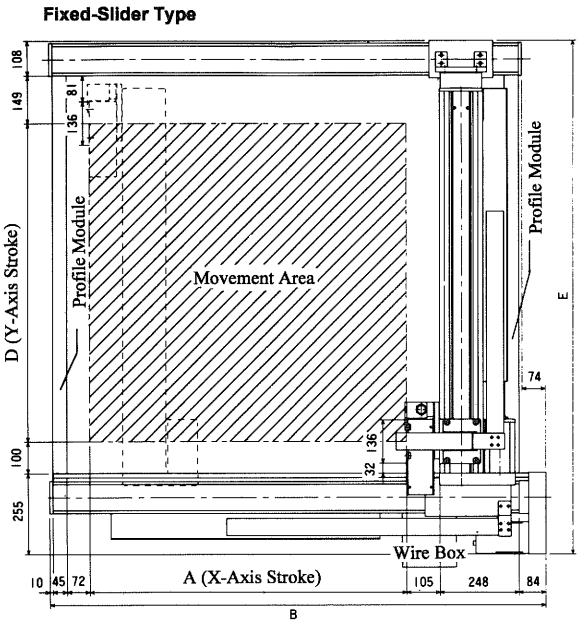
Z-Axis Specifications and Dimensions

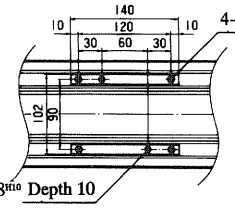
Model		AS-DC12R2-60
Stroke *1	mm	200, 300, 400, 500, 600 (7.9", 11.8", 15.7", 19.7", 23.6")
Rated Output	W	60
Rated Speed	mm/sec	400 (15.7 in /sec)
Rated Thrust	N (kgf)	127 (13)
Repeatability	mm	+/- 0.02 (+/- 0.0008")
Motor		DC Servo Motor
Encoder		Attached to Motor
Ballscrew		ϕ16mm, 16mm Lead, Rolled Thread C10, Backlash 0.1mm or less
Guide		LM Guide: SR-15V2UU 2pcs.
Motor-Ballscrew Connection		Timing belt Speed Reduction Ratio 1/2
Base		Extruded Aluminum (A6063S-T5) White Alumite Treatment
Maximum Speed	mm/sec	500 (19.7 in /sec)
Maximum Thrust *2	N(kgf)	245 (25)

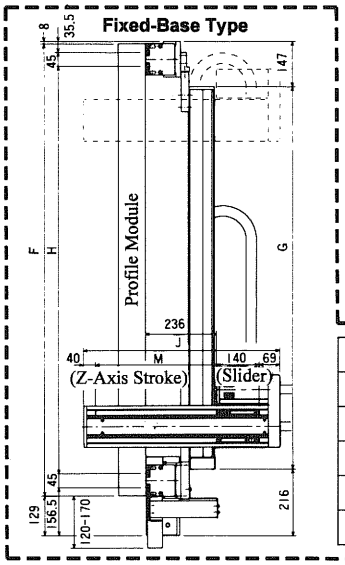
*1 For 600mm Stroke Fixed-Slider Type Actuators, operate at or below 0.2G Acceleration. * 2 At a Speed of 10mm/sec for 10 seconds.

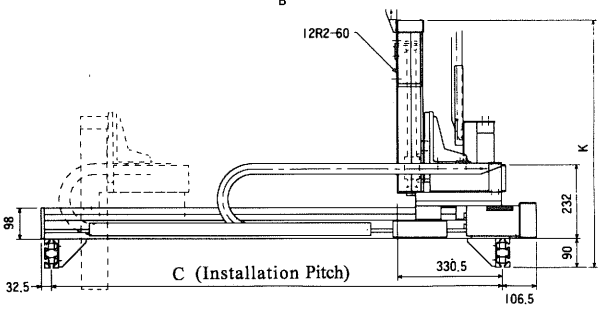


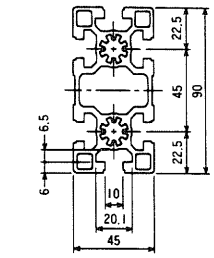












M (Z-Axis Stroke)	J
200	449
300	549
400	649
500	749
600	849

M (Z-Axis Stroke)	J	K
200	444	677
300	544	777
400	644	877
500	744	977
600	844	1077

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GT34S(B)

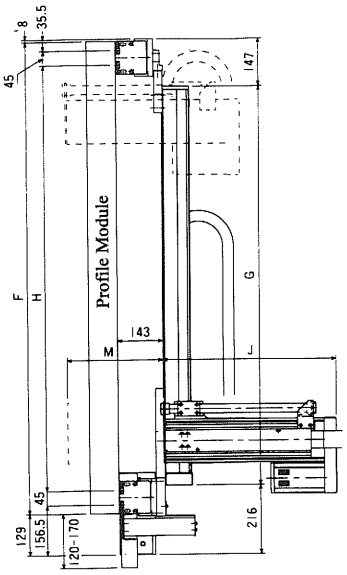
3-Axis System

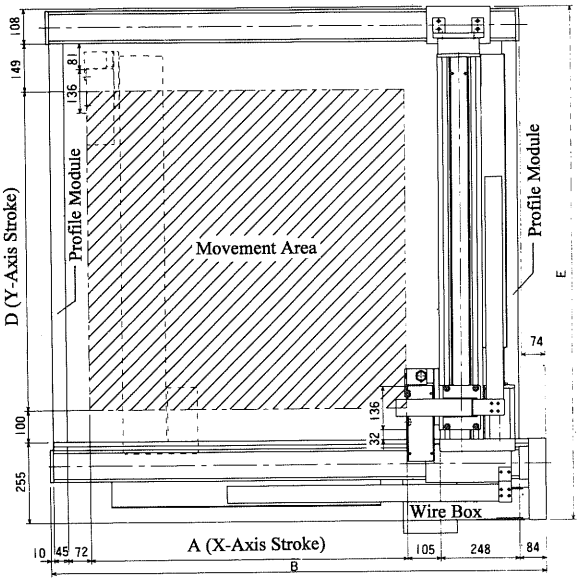
Z-Axis Specifications and Dimensions

Model		AS-DC12R2-100	AS-AC12R2-100
Stroke *1	mm	200, 300, 400, 500, 600 (7.9", 11.8", 15.7", 19.7", 23.6")	
Rated Output	W	100	
Rated Speed	mm/sec	400 (15.7 in /sec)	
Rated Thrust	N (kgf)	206 (21)	
Repeatability	mm	+/- 0.02 (+/- 0.0008")	
Motor		DC Servo Motor	AC Servo Motor
Encoder		Attached to Motor	
Ballscrew		ϕ16mm, 16mm Lead, Rolled Thread C10, Backlash 0.1mm or less	
Guide		LM Guide: SR-15V2UU 2pcs.	
Motor-Ballscrew Connection		Timing Belt Speed Reduction Ratio 1/2	
Base		Extruded Aluminum (A6063S-T5) White Alumite Treatment	
Maximum Speed	mm/sec	500 (19.7 in /sec)	
Maximum Thrust *2	N(kgf)	402 (41)	

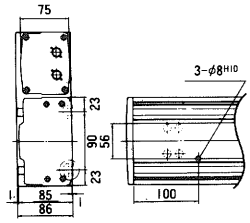
*1 For 600mm Stroke Fixed-Slider Type Actuators, operate at or below 0.2G Acceleration. * 2 At a Speed of 10mm/sec for 10 seconds.

Fixed-Slider Type

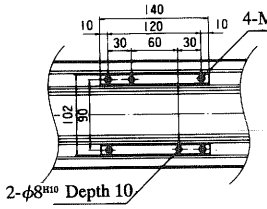




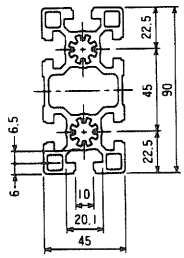
Z-Axis Slot (Back Side)



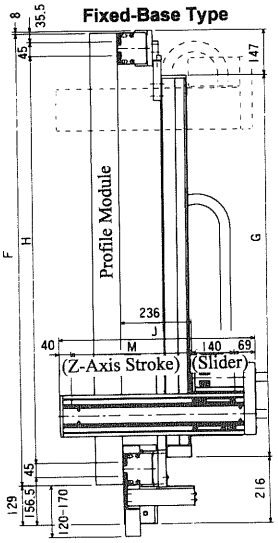
Z-Axis Slider



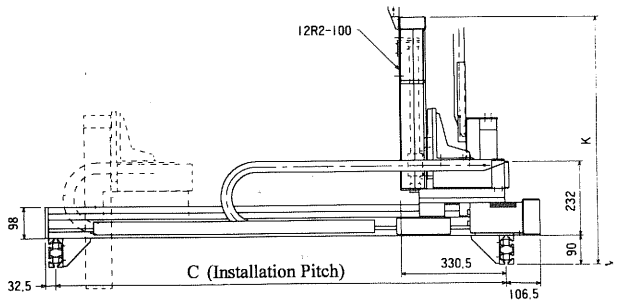
Shape of Profile Module



Fixed-Base Type



M (Z-Axis Stroke)	J
200	449
300	549
400	649
500	749
600	849



M (Z-Axis Stroke)	J	K
200	444	677
300	544	777
400	644	877
500	744	977
600	844	1077

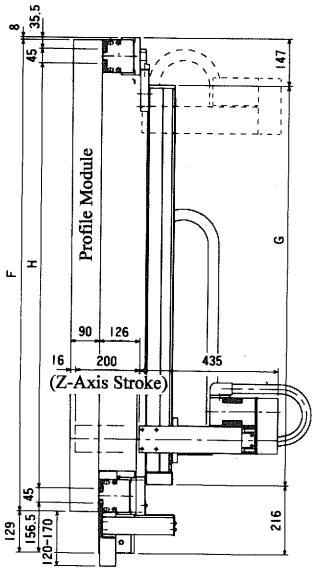
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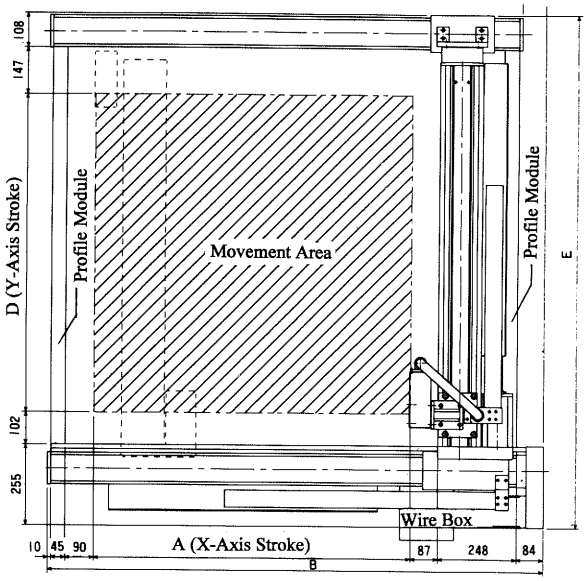
3-Axis System

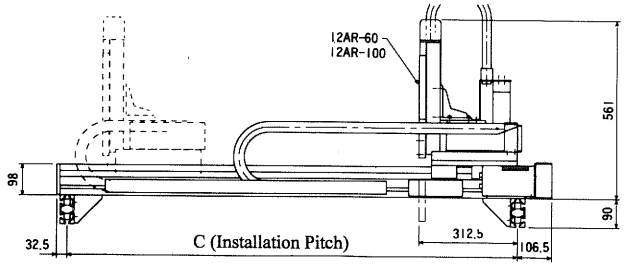
Z-Axis Specifications and Dimensions

Model		AS-DC12AR-60	AS-AC12AR-100
Stroke *1	mm	200 (7.9")	
Rated Output	W	60	100
Rated Speed	mm/sec	500 (19.7 in/sec)	
Rated Thrust	N (kgf)	74 (7.5)	120 (12.2)
Repeatability	mm	+/- 0.02 (+/- 0.0008")	
Motor		DC Servo Motor	AC Servo Motor
Encoder		Attached to Motor	
Brake	Specification	Single Dry Disc Type Magnetic Brake DC90V	
	Holding Power	18kg (3kg-cm)	
Ballscrew		ϕ15mm, Lead 20mm Rolled Thread C10, Backlash 0.1mm or less	
Guide		LM Guide: HRW21CAIUU	
Motor-Ballscrew Connection		Timing Belt Speed Reduction Ratio 1/2	
Maximum Speed	mm/sec	500 (19.7 in /sec)	
Maximum Thrust *1	N(kgf)	147 (15)	240 (24.4)

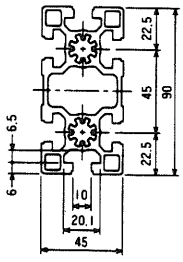
* 1 At a Speed of 10mm/sec for 10 seconds.



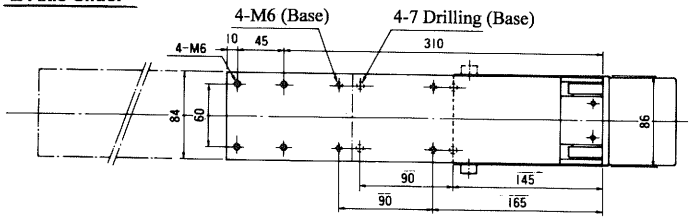




Shape of Profile Module



Z-Axis Slider



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