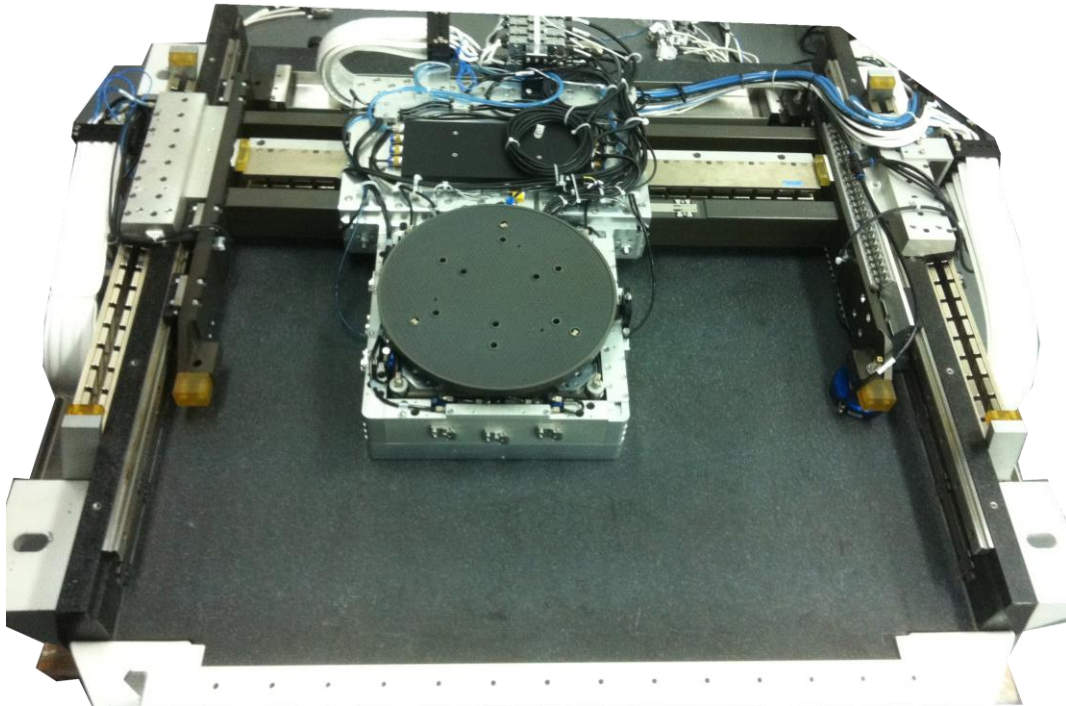


AGTD Series

H-Drive Gantry

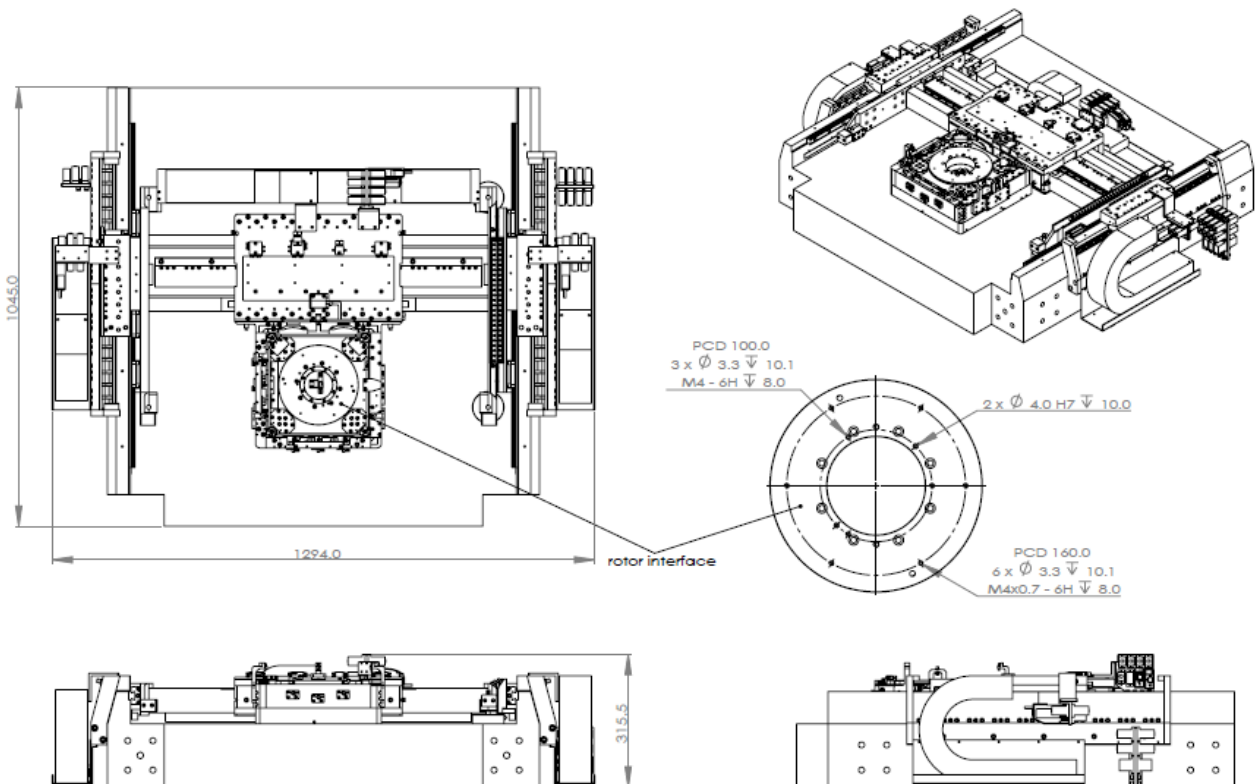


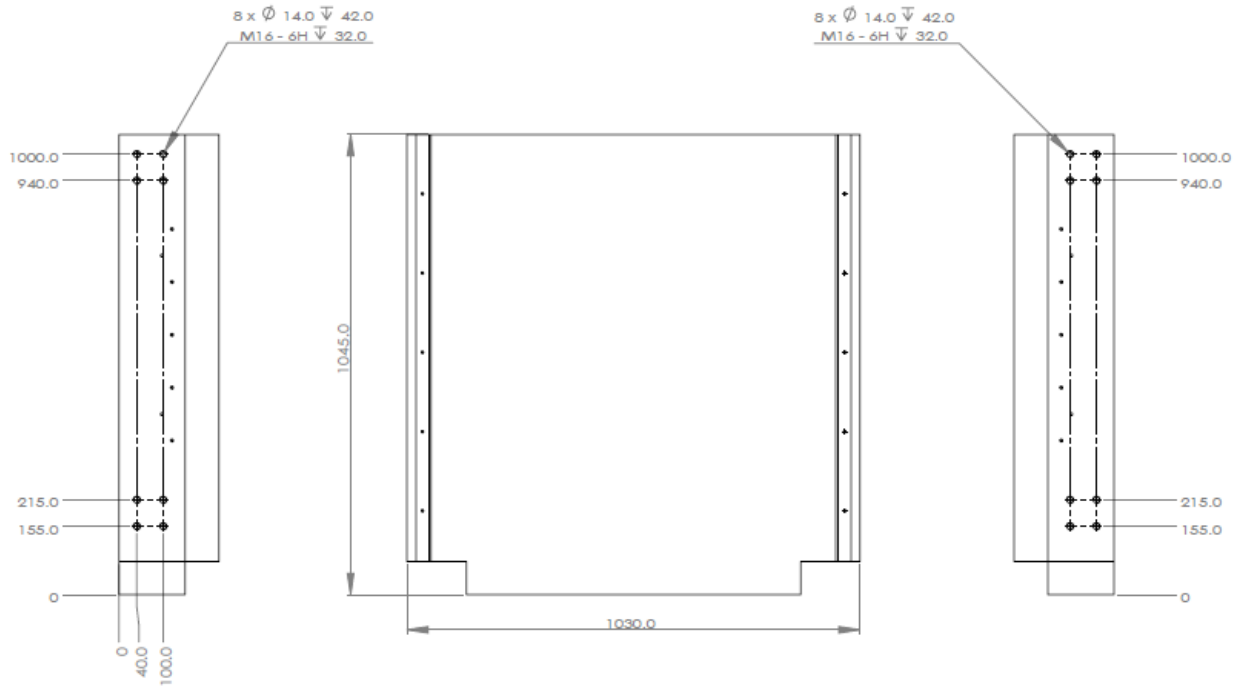
- Direct drive, no cogging, zero backlash linear motor
- Linear encoder options of 0.1 μ m
- High accelerations (up to 10m/s²) and speeds (up to 5m/s)
- Smooth motion at low speeds (low velocity ripple)
- Precise homing through encoder index pulse
- Decoupled between X & Y allows excellent system flatness

Motor Parameter

	Model	GTD				
	Drive Type	H- Drive		Z	Rotary	
	Axis	Bottom	Top	Z		T
	Motor	AUM4-S-S4	AUM3-S-S6	AVM40-20		ACW 240
Performance Parameter	Unit				Unit	
Continuous Force, coil @100°C / Torgue	N	224	216	9.93	Nm	0.95
Peak Force / Torgue	N	1248	864	58.1	Nm	2.84
Motor Constant / Torgue Constant	N/SqRt (W)	22.38	17.74	-	Nm/SqRt (W)	0.14
Continuous Power	W	100.2	148.3	7.17	-	-
Peak Power	W	3109.6	2372.3	245	-	-
Electrical Cycle	mm	60	60	-	-	-
Max. Coil Temperature	°C	125	125	155	-	-
Continuous Current @100°C	Arms	2.3	4.6	0.77	Arms	1.8
Peak Current	Arms	13	18.4	4.5	Arms	5.4
Force Constant	Arms	96	94.2	12.9	Nm/Arms	0.53
Back EMF Constant	Vpeak/(m/s)	78.4	76.9	12.9	Vpeak/(m/s)	0.045
Inductance	mH	14	18.78	5.12	-	-
Terminal Resistance @ 25°C	Ohms	18.4	28.2	12.1	Ohms	13.67
Coil Mass	Kg	1.19	1.37	65.8	Kg	3.7
Coil Length	mm	241	361	-	-	-

Dimension Drawing





Note: additional mounting holes are possible upon request

Effective Stroke

Model	Drive type	Axis	Effective Stroke	Sensor Position	Hard Stopper Position
			(mm)	(mm)	(mm)
AGTD	H-Drive	Top	380	284	390
		Bottom	320	324	330
	Linear	Z	10	11	12
	Rotary	T	360 degree	-	-

Specification

	AXIS	UNIT	VALUE
Flatness	X	μm	1.8
	Y		1.6
Straightness	X	μm	3.5
	Y		2.6
Pitch	X	arc sec	2.1
	Y		2.1
Yaw	X	arc sec	4.2
	Y		2.4
Orthogonality		arc sec	5
Accuracy	X	μm	1.4
	Y		1.5
	Z		0.37
Repeatability	X	μm	0.9
	Y		0.7
	Z		0.28
Resolution	X	μm	0.1
	Y		0.1
	Z		0.005

Part Numbering (Rapid Delivery Series)

AGTD	Stroke	Drive	Top Axis Motor Model	Bottom Axis Motor Model	Sensor Type	¹ Motor Cable (m)	Encoder Option (type)	Encoder Resolution (micron, μ)
	X380Y320	H	AUM5-S/P-S4	AUM3-S/P-S6	J K	1.0-5.0	RE, MII	0.1

1 Motor cable is the length of cable measured after the bottom axis cable chain

Example: AGTDX380Y320-H-AUM5-S-S4-AUM3-S-S6-J-3.0-RE-0.1