

Standard specifications

MG10HLFE28001

October 21, 2015

KAWASAKI HEAVY INDUSTRIES, LTD.

ROBOT DIVISION

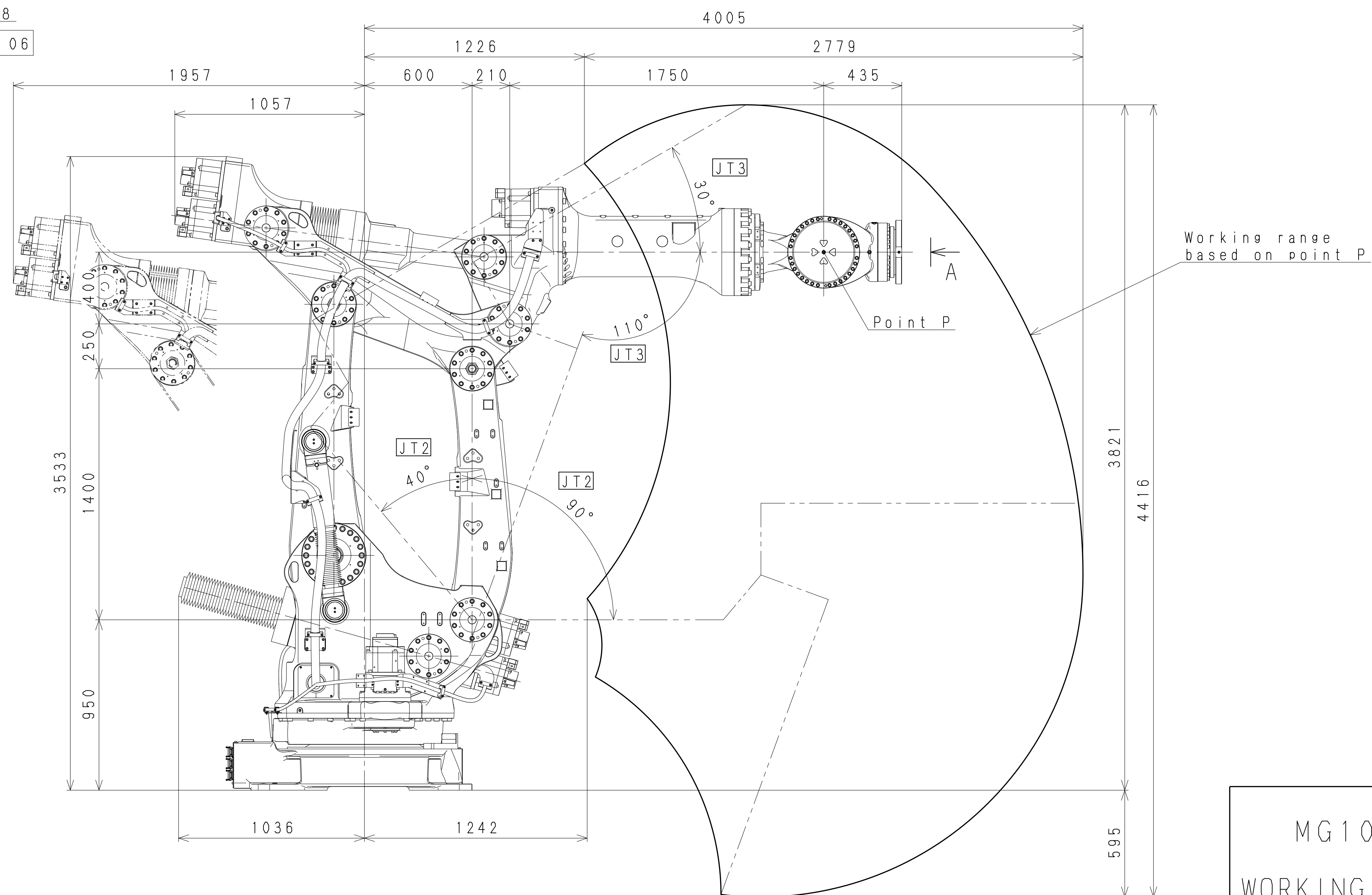
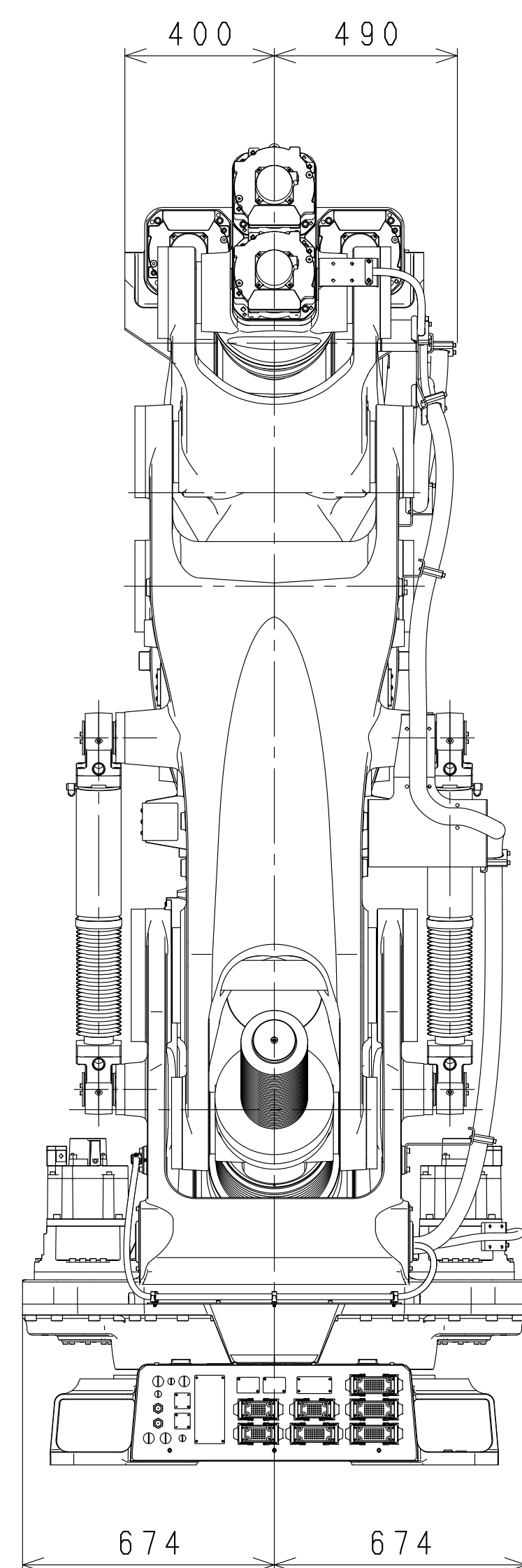
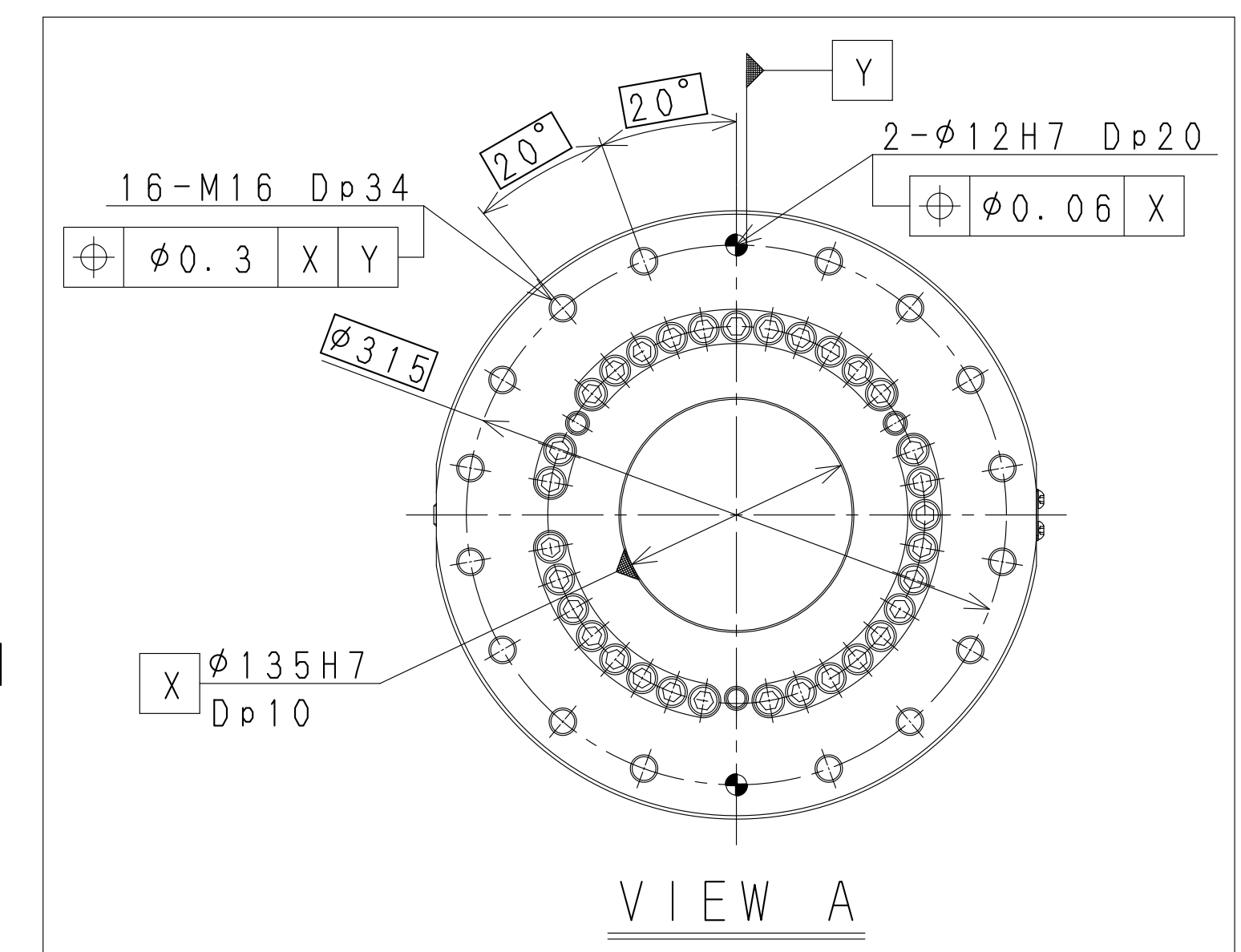
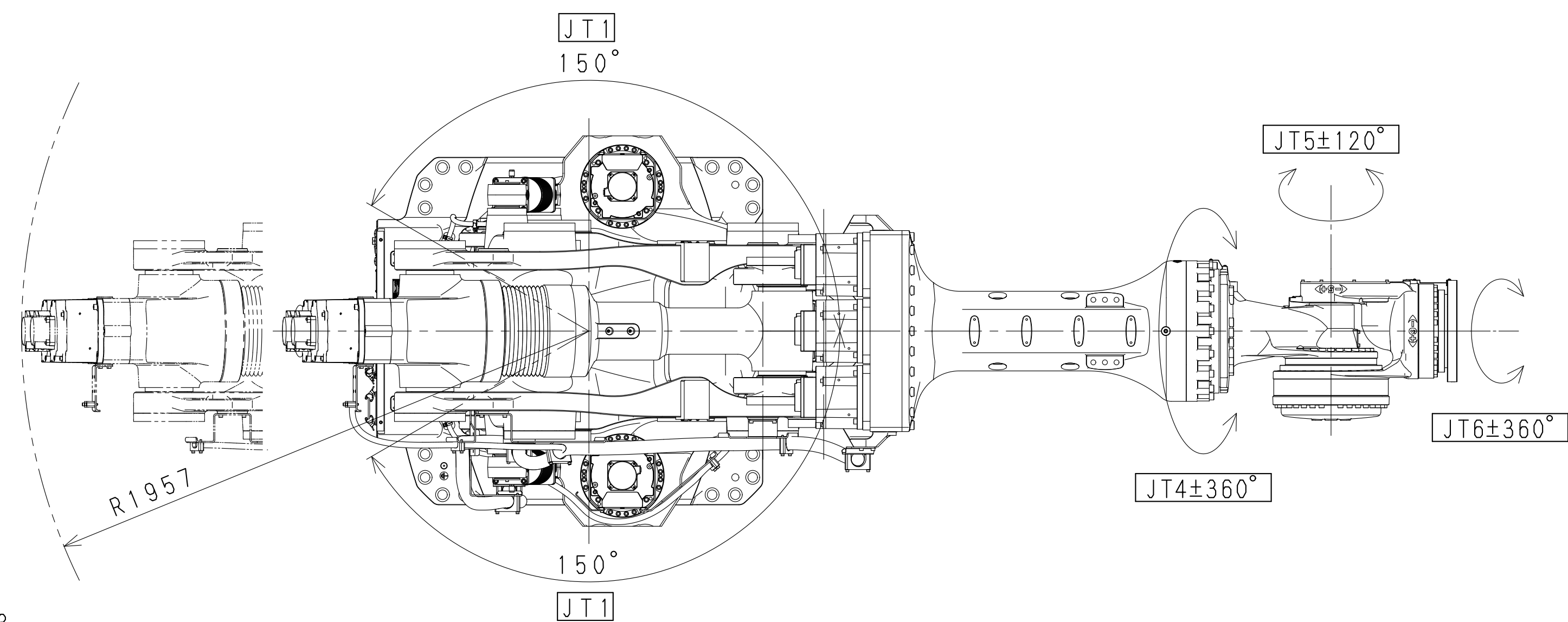
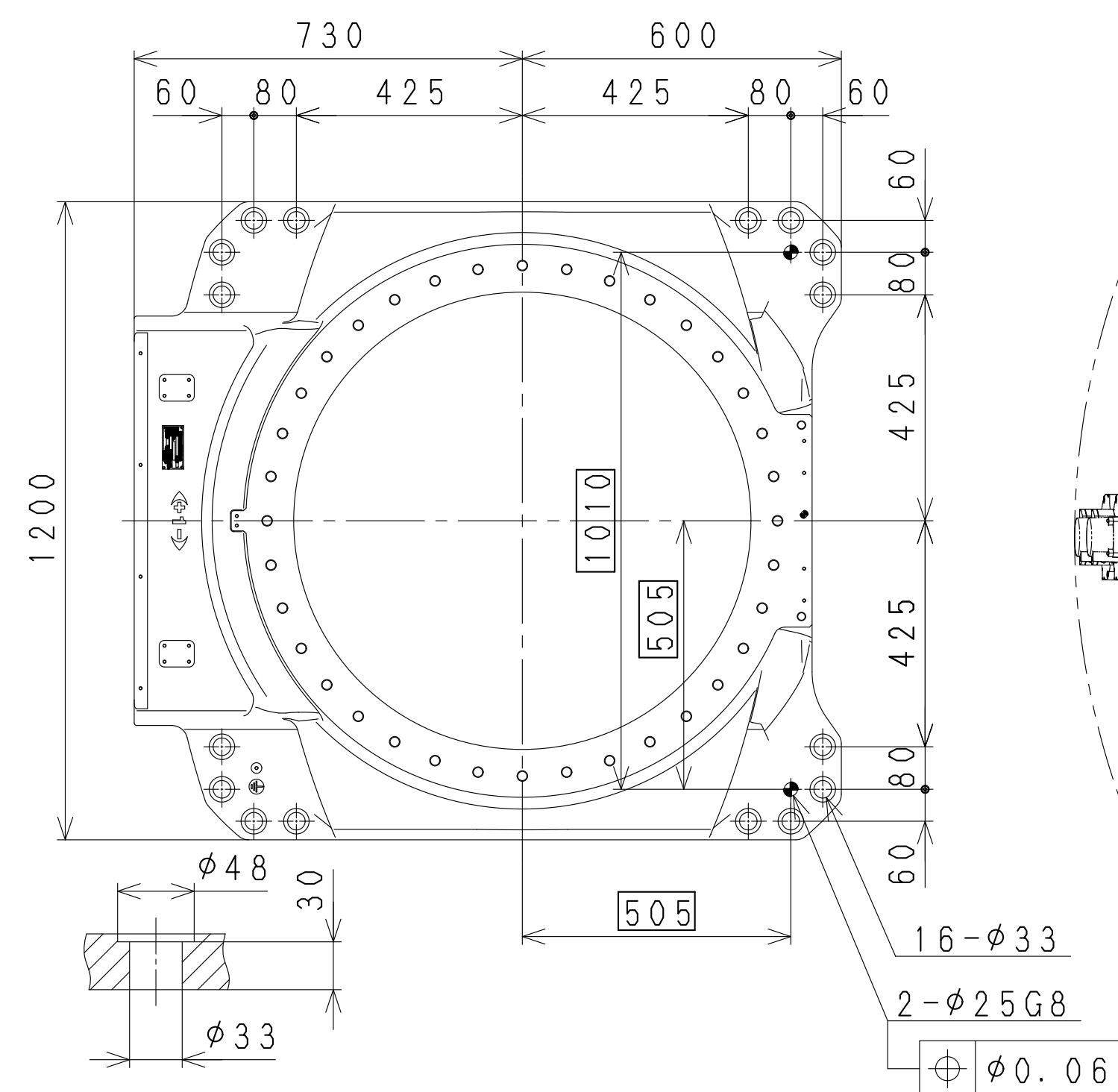
Specification :	90101-2375DEA
(Arm) :	90151-0079DEA
(Controller) :	90152-0020DEA

1. Specification of Robot

[1] Robot Arm

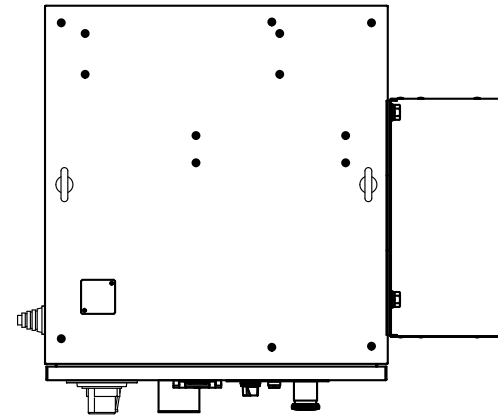
1. Model	MG10HL-A														
2. Type	Articulated robot														
3. Degree of freedom	6 axes														
4. Axis specification	Operating axis	Max. operating range	Max. speed												
	Arm rotation (JT1)	+150 ° ~ -150 °	65 ° /s												
	Arm out-in (JT2)	+90 ° ~ -40 °	33.5 ° /s												
	Arm up-down (JT3)	+30 ° ~ -110 °	37.5 ° /s												
	Wrist swivel (JT4)	±360 °	65 ° /s												
	Wrist bend (JT5)	±120 °	65 ° /s												
	Wrist twist (JT6)	±360 °	80 ° /s												
5. Repeatability	±0.10 mm (at the tool mounting surface)														
6. Max. payload	1000 kg														
7. Max. applying force	15000 N The value depends on usage conditions. If detailed data is required for your application, please contact Kawasaki.														
8. Max. linear interpolation speed	5000 mm/s (at the tool mounting surface)														
9. Load capacity of wrist	<table><tr><td></td><td>Max. torque</td><td>Moment of inertia*</td></tr><tr><td>JT4</td><td>8800 N・m</td><td>1800 kg・m²</td></tr><tr><td>JT5</td><td>8800 N・m</td><td>1800 kg・m²</td></tr><tr><td>JT6</td><td>4410 N・m</td><td>1200 kg・m²</td></tr></table>				Max. torque	Moment of inertia*	JT4	8800 N・m	1800 kg・m ²	JT5	8800 N・m	1800 kg・m ²	JT6	4410 N・m	1200 kg・m ²
		Max. torque	Moment of inertia*												
	JT4	8800 N・m	1800 kg・m ²												
	JT5	8800 N・m	1800 kg・m ²												
	JT6	4410 N・m	1200 kg・m ²												
Note* Value in this table shows allowable moment of inertia of JT4/JT5/JT6 when max. allowed torque is applied to the axis. If more detailed data is required for your application, please contact Kawasaki.															
10. Driving motor	Brushless AC Servomotor														
11. Position detector	Absolute encoder														
12. Working range	See attached drawing														
13. Mass	6500 kg (without options)														
14. Color	Munsell 10GY9/1 equivalent														
15. Installation	Floor mounting														
16. Environment cond.	(Temperature) 0 ~ 45 °C, (Humidity) 35 ~ 85 %, no dew, nor frost allowed														
17. Options	Adjustable mechanical stopper JT1														
	Limit switches JT1/JT2/JT3														
18. Others	Consult Kawasaki about maintenance parts and spare parts.														

[2] Controller		
1. Model	E28	
2. Enclosure	Enclosed structure / Indirect cooling system	
3. Dimensions	See attached drawing	
4. Number of controlled axes	9 axes Max.16 axes(external additional amplifier, option)	
5. Servo control and drive system	Full Digital Servo System	
6. Type of control	Teach mode	Joint, Base, Tool, Fixed Tool (option) operation mode
	Repeat mode	PTP, CP control mode
		Joint, Linear, Circular (option) interpolation
7. Teaching method	Teaching or AS language programming	
8. Memory capacity	8 MB	
9. External operation signals	External Motor Power Off, External Hold, etc.	
10. General purpose signals	Input signals	32 channels (Includes dedicated signals)
	Output signals	32 channels (Includes dedicated signals)
11. Operation panel	Teach/Repeat SW, Emergency Stop SW, Control power lamp	
12. Cable length	Power/Signal cable	5 m
	Teach Pendant cable	5 m
13. Mass	See attached drawing	
14. Power requirement	AC 200 V - AC 220 V $\pm$ 10%, 50/60 Hz, 3 phases□ (AC 380 V - 415 V $\pm$ 10%, 50/60 Hz, 3 phases, AC 440V - 480 V $\pm$ 10%, 60 Hz, 3 phases (option)) Max 14.6 kVA	
15. Ground	Less than 100 Ω (robot dedicated ground) Leakage current: max. 100 mA	
16. Ambient temperature	0 - 45 °C	
17. Relative humidity	35 - 85 % (non-condensation)	
18. Color	Munsell: 10GY9/1 equivalent	
19. Teach Pendant	TFT color display (5.7 inch LCD) with touch panel Emergency Stop SW, Teach Lock SW and Enable SW	
20. Options		
General purpose signals	Input signals	64/96/128 channels
	Output signals	64/96/128 channels
I/O connector	D-SUB 37pin(male,female) with cover	
Operation panel	Motor Power ON, Cycle start, RUN/HOLD, Error reset, Error lamp	
Power/Signal cable	10m, 15m	
Teach Pendant cable	10m, 15m	
Auxiliary storage	USB memory	
PC cable	1.5 m, 3 m	
Motor brake release	Manual brake release switch	
AC Outlet	AC100V Outlet	
Teach Pendant option	Teach Pendant Stand, Cable hook, connector for TP less	
Others	Cooler, LED Light, Field BUS, Software PLC, Analog input/output, Conveyor Synchronization, Vision and so on	
21. Others	Consult Kawasaki about maintenance parts and spare parts.	

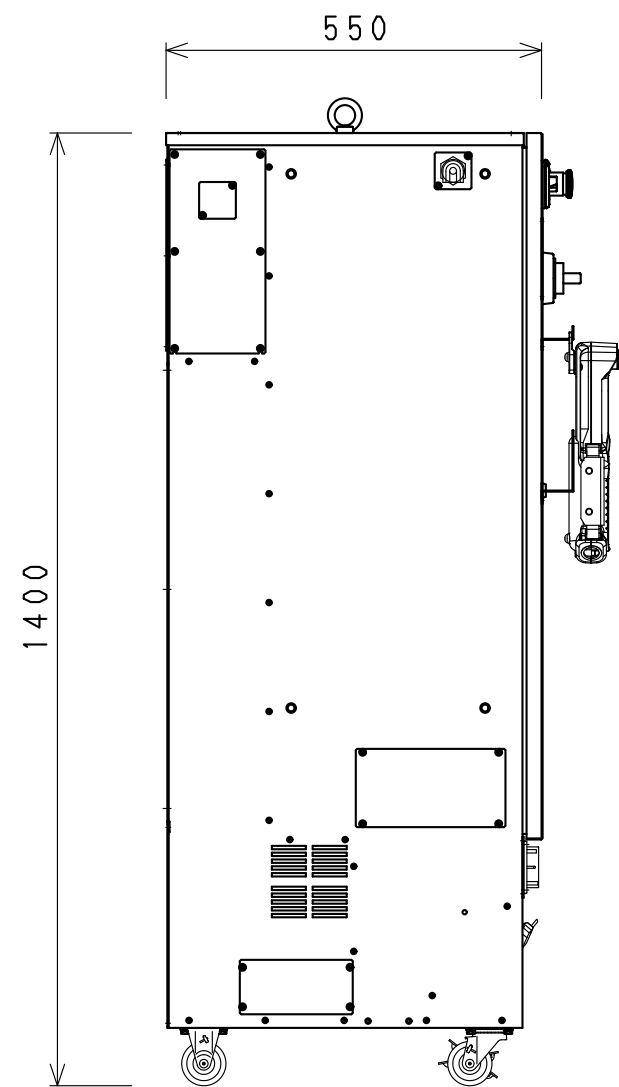


E28 CONTROLLER

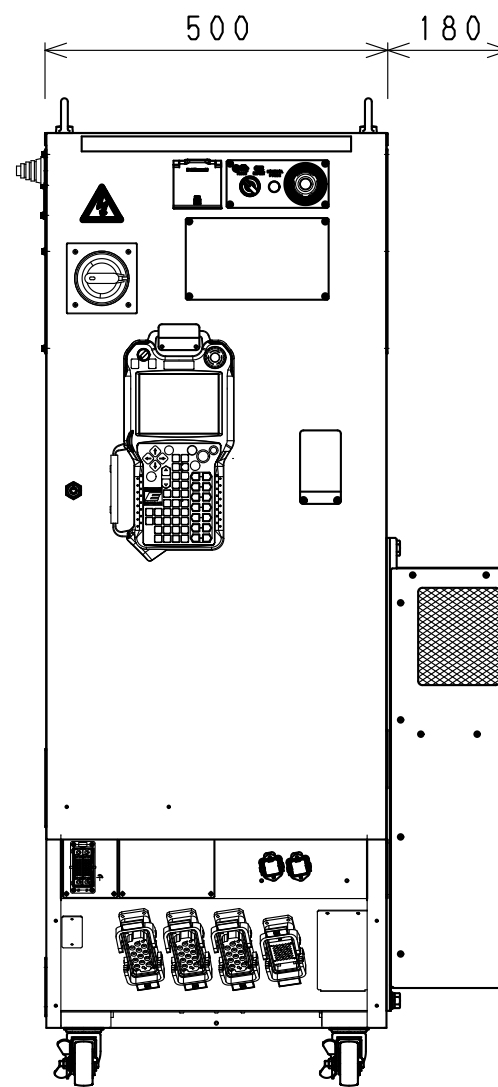
MASS : 265Kg



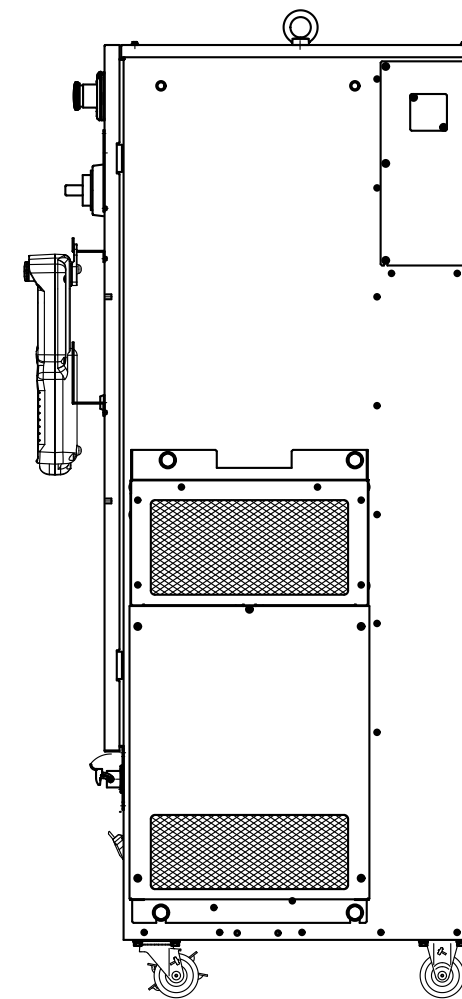
TOP VIEW



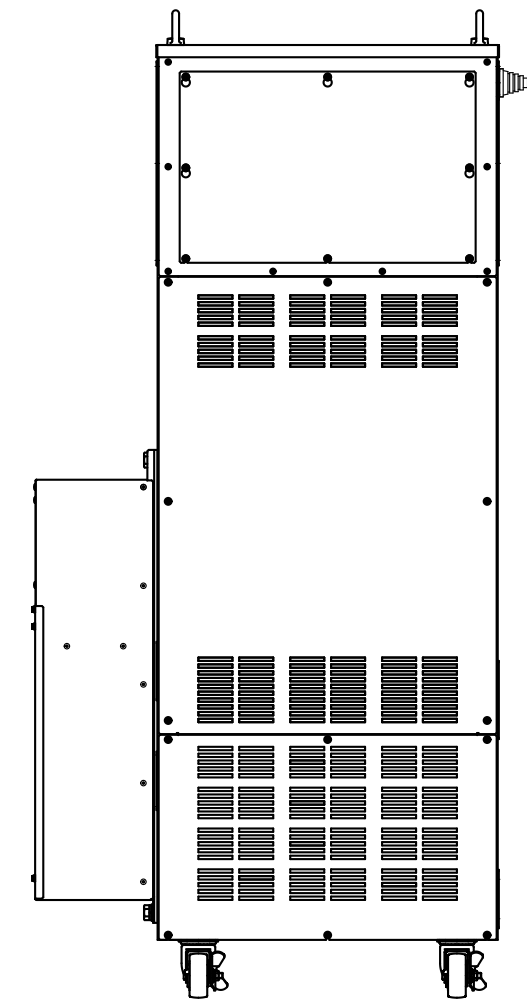
SIDE VIEW



FRONT VIEW



SIDE VIEW



REAR VIEW