SPECIFICATION OF ROBOT

KJ314JWE25
KJ314JTE25
KJ314JVE25
KJ264JFE25
KJ264JGE25
KJ264JTE25
KJ264JVE25

3rd Edition : Jun.23.2014

KAWASAKI HEAVY INDUSTRIES LTD.
ROBOT DIV.

Doc,No:90101-2139DEC

1. Specification of Robot

[1-1] Robot Arm (KJ314J)

1. Model	KJ314J-D0 , KJ314J-D1
2. Type	Articulated robot + Swing unit
3. Degree of freedom	7 axes (6 axes + 1axis)
4. Axis specification	

Operating axis		Max. operating range
Arm rotation	(JT1)	+120 ° ～－120 °
Arm out-in	(JT2)	+130 ° ～－ 80 °
Arm up-down	(JT3)	+ 90 ° ～－ 65 °
Wrist roll	(JT4)	+720 ° ～－720 °
Wrist roll	(JT5)	+720 ° ～－720 °
Wrist roll	(JT6)	+410 ° ～－410 °
Swing	(JT7)	+ 90 ° ～－ 90 °

5. Repeatability	±0.5 mm (at the tool mounting surface)
6. Playback Accuracy	±1.0 mm (at the tool mounting surface)
7. Max. payload	Wrist : 15 kg Upper arm : 25 kg (on the Upper Arm :Include painting equipments in pressurized compartment)
8. Max. painting speed	1500 mm/s (at the center of tool mounting surface)
9. Load capacity of wrist	

	Max. torque	Moment of inertia*
JT4	56.2 N･m	2.19 kg･m^2
JT5	43.4 N･m	1.31 kg･m^2
JT6	22.0 N･m	0.33 kg･m^2

Note* Each value in this table shows allowable payload moment of inertia of JT4/JT5/JT6 when max. allowed torque is applied to each axis. If more detailed data is required for your application, please contact Kawasaki.

10. Driving motor	Brushless AC Servomotor
11. Working range	See attached drawing
12. Mass	720 kg (without options)
13. Color	Munsell 10GY9/1 equivalent
14. Installation	Wall mounting
15. Environment cond.	(Temperature) 0 ～ 40 ℃, (Humidity) 35 ～ 85 %, no dew, nor frost allowed
16. Explosion proof	Pressurized and intrinsically safe
17. Air supply to the manipulator	Clean & dry air : 0.5 Nm^3/min, 0.4～0.7 MPa Dew point : －17 ℃ or less at atmospheric pressure. Solid material : 0.01 μm or less Oil content : Mist separation 99.9999% or more
18. Options	Adjustable Mechanical Stopper : JT1/JT2/JT3
	Painting equipment
	FGP motor (1 unit can be equipped with)
	Solenoid valve for painting (up to 3 units can be equipped with)
	Electro pneumatic converter for painting (up to 3 units can be equipped with)
	Upper Arm cover
	Application hose protection unit
19. Others	Consult Kawasaki about maintenance parts and spare parts.

[1-2] Robot Arm (KJ264J)

1. Model	KJ264J-B0 , KJ264J-B1 (Floor) KJ264J-D0 , KJ264J-D1 (Mounting wall is left side) KJ264J-F0 , KJ264J-F1 (Mounting wall is right side) KJ264J-H0 , KJ264J-H1 (Shelf)
2. Type	Articulated robot
3. Degree of freedom	6 axes
4. Axis specification	See table below
5. Repeatability	±0.5 mm (at the tool mounting surface)
6. Playback Accuracy	±1.0 mm (at the tool mounting surface)
7. Max. payload	Wrist : 15 kg Upper arm : 25 kg (on the Upper Arm :Include painting equipments in pressurized compartment)
8. Max. painting speed	1500 mm/s (at the center of tool mounting surface)
9. Load capacity of wrist	See table below
10. Driving motor	Brushless AC Servomotor
11. Working range	See attached drawing
12. Mass	KJ264J-B□ 540 kg (without options) KJ264J-D□ , -F□ , -H□ 530 kg (without options)
13. Color	Munsell 10GY9/1 equivalent
14. Installation	KJ264J-B□(Floor) KJ264J-D□(Mounting wall is left side) KJ264J-F□(Mounting wall is right side) KJ264J-H□(Shelf)
15. Environment cond.	(Temperature) 0 ～ 40 ℃, (Humidity) 35 ～ 85 %, no dew, nor frost allowed
16. Explosion proof	Pressurized and intrinsically safe
17. Air supply to the manipulator	Clean & dry air : 0.5 Nm^3/min, 0.4～0.7 MPa Dew point : －17 ℃ or less at atmospheric pressure. Solid material : 0.01 μm or less Oil content : Mist separation 99.9999% or more
18. Options	Adjustable Mechanical Stopper : JT1/JT2/JT3 Painting equipment FGP motor (1 unit can be equipped with) Solenoid valve for painting (up to 3 units can be equipped with) Electro pneumatic converter for painting (up to 3 units can be equipped with) Upper Arm cover Application hose protection unit
19. Others	Consult Kawasaki about maintenance parts and spare parts.

4. Axis specification

Operating axis		Max. operating range	
Arm rotation	(JT1)	KJ264J-B□	+120 ° ～－120 °
		KJ264J-D□	+120 ° ～－ 30 °
		KJ264J-F□	+ 30 ° ～－120 °
		KJ264J-H□	+120 ° ～－120 °
Arm out-in	(JT2)	+130 ° ～－ 80 °	
Arm up-down	(JT3)	+ 90 ° ～－ 65 °	
Wrist roll	(JT4)	+720 ° ～－720 °	
Wrist roll	(JT5)	+720 ° ～－720 °	
Wrist roll	(JT6)	+410 ° ～－410 °	

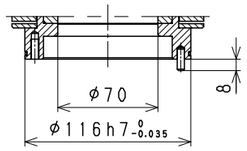
9. Load capacity of wrist

	Max. torque	Moment of inertia*
JT4	56.2 N･m	2.19 kg･m^2
JT5	43.4 N･m	1.31 kg･m^2
JT6	22.0 N･m	0.33 kg･m^2

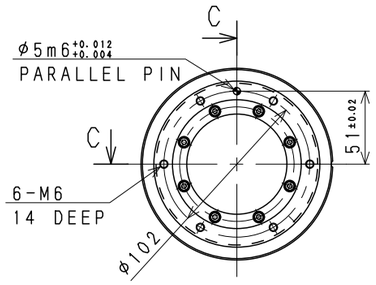
Note* Each value in this table shows allowable payload moment of inertia of JT4/JT5/JT6 when max. allowed torque is applied to each axis. If more detailed data is required for your application, please contact Kawasaki.

[2] Controller

1. Model	E25/E27		
2. Enclosure	Enclosed structure / Indirect cooling system		
3. Dimensions	See attached drawing		
4. Number of controlled axes	6 axes 7/8/9 axes(built-in addition, 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	Basic Operation Switches (Teach/Repeat SW, Emergency Stop SW, Control power lamp)		
12. Cable length	Power/Signal cable in non hazardous area		3 m
	Power/Signal cable in hazardous area		3 m
	Teach Pendant cable		10 m
13. Mass	See attached drawing		
14. Power requirement	AC200 V - AC220 V±10%, 50/60 Hz, 3 phases, Max 5.6 kVA(E27), Max 10 kVA(E25)		
15. Ground	Less than 10Ω(for Explosion proof) ,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	Intrinsically safe construction, Color display (7.2 inch LCD) with touch panel Emergency Stop,Teach Lock and Deadman Switches		
20. Options			
General purpose signals	Input signals	64/96/128 channels (Includes dedicated signals)	
	Output signals	64/96/128 channels (Includes dedicated signals)	
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	in non hazardous area 5,7,10,15,20,25,30m in hazardous area 1,5,7,10,15m		Total length: max. 40 m
Teach Pendant cable	5m, 15m, 20m, 25m		
Teach pendant Connector Box	in non hazardous area 3,5,7,10,15,20,25,30m in hazardous area 1,3,5,7,10,15,20,25,30m		Total length: max. 50 m
Auxiliary storage	USB memory		
Brake release	Brake release switch		
AC Outlet	AC100V Outlet		
PC cable	1.5 m, 3 m		
Teach Pendant option	Cable hook, connector for TP less		
Others	Cooler, LED Light, Field BUS, Software PLC, Analog input/output, Conveyor Synchronization, Paint Equipment Control and so on		
21. Others	Consult Kawasaki about maintenance parts and spare parts.		



SECTION C-C



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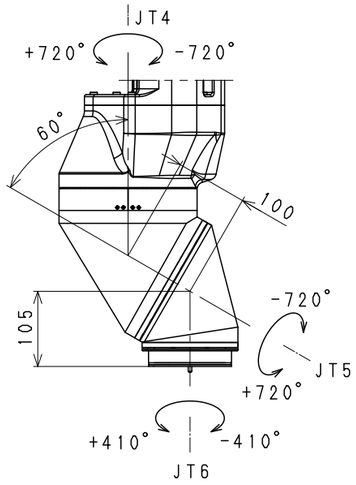
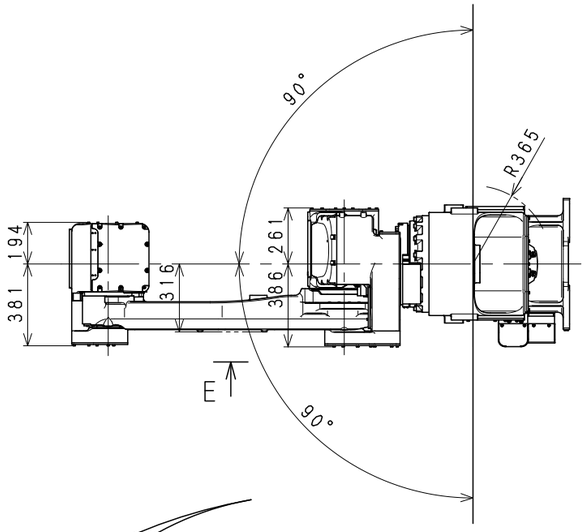
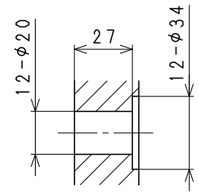


DETAIL A





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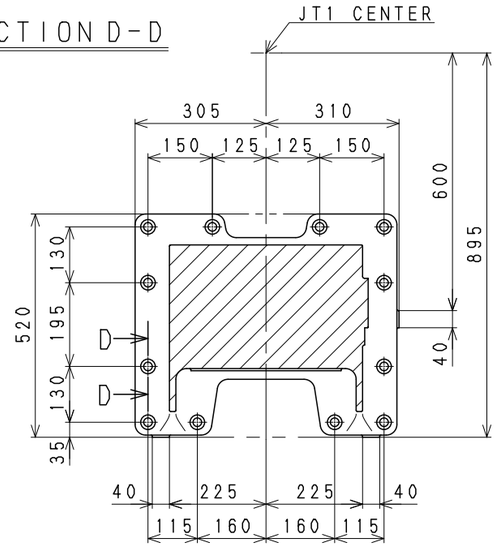

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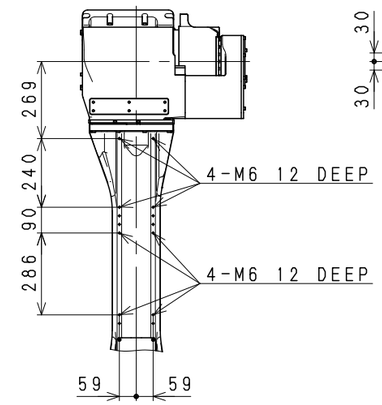

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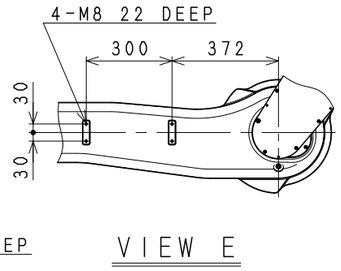

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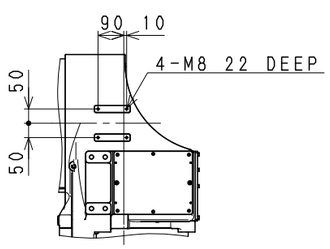

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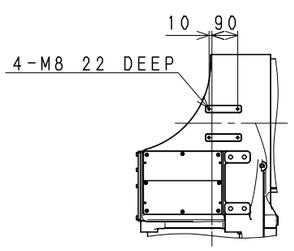

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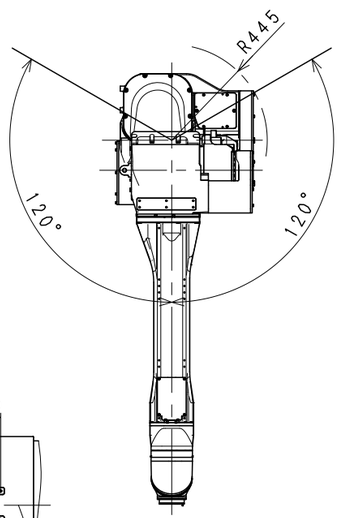
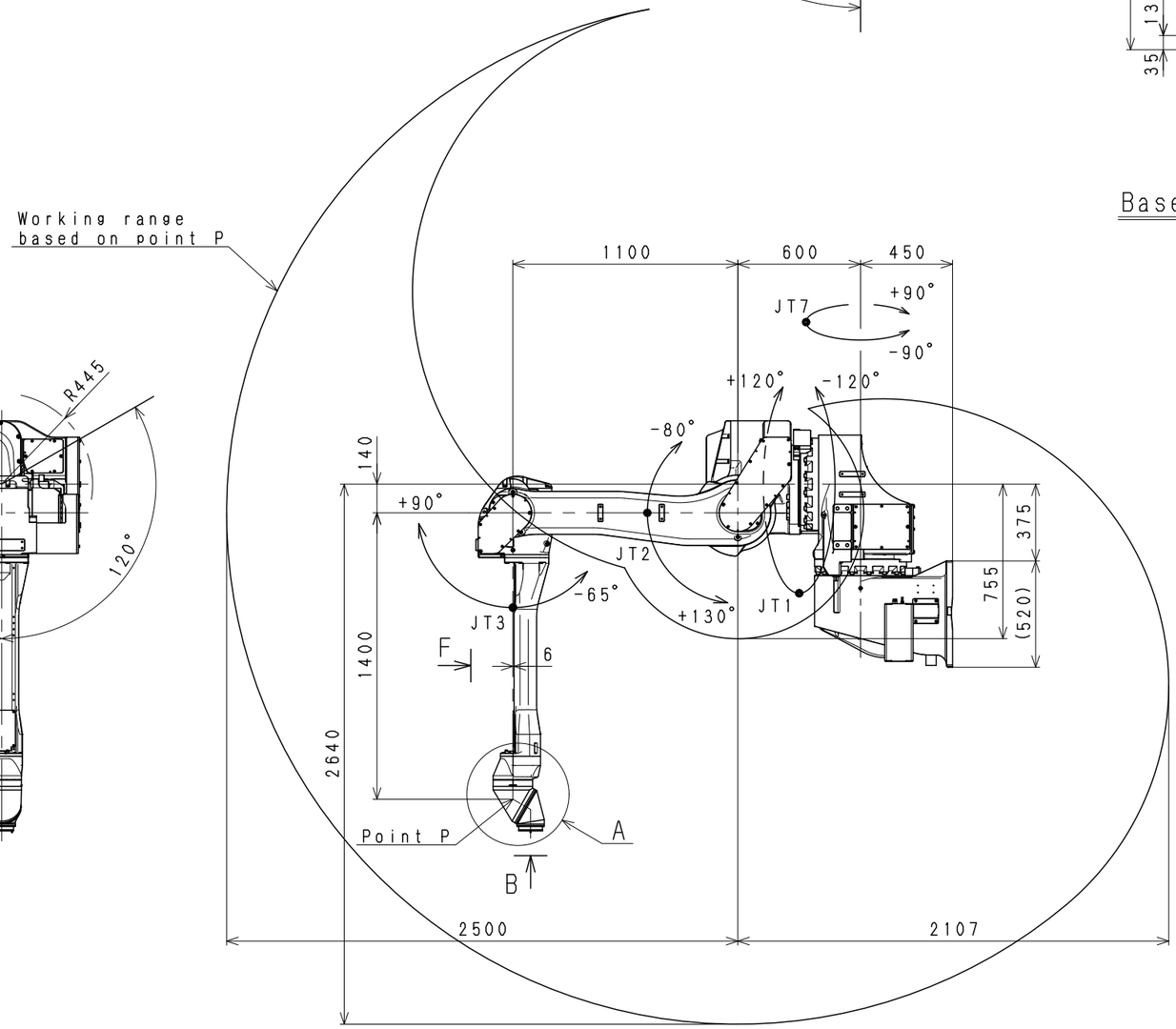
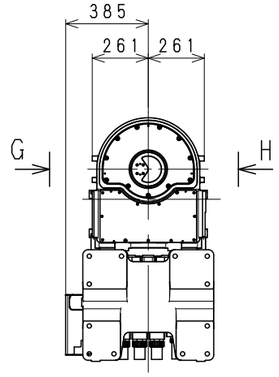
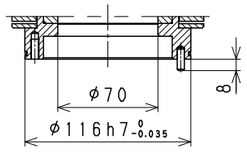


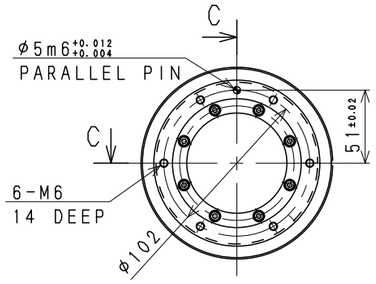




KJ314J-D0
WORKING RANGE



SECTION C-C



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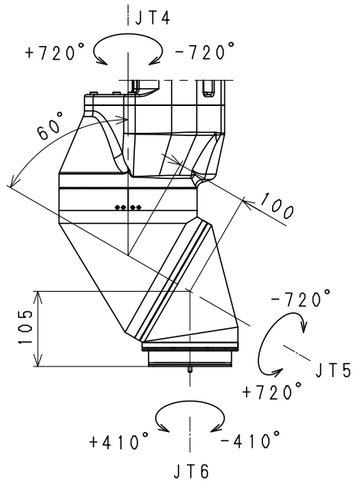
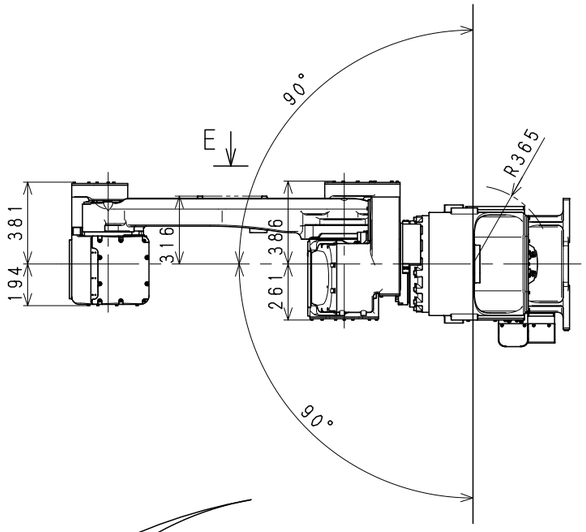
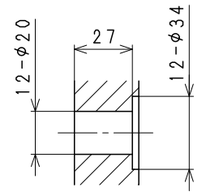


DETAIL A





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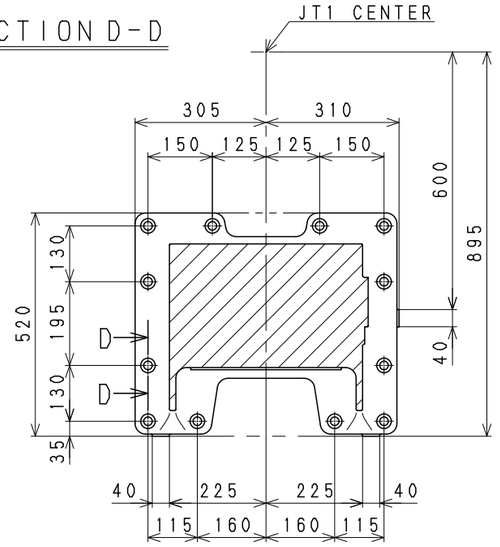
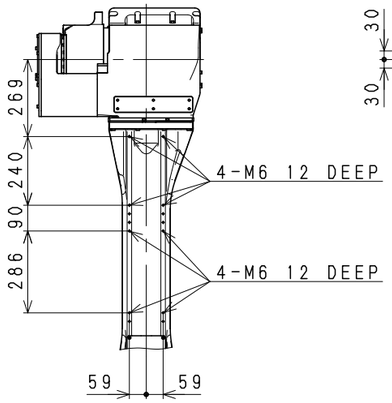


Base Installation Dimensions



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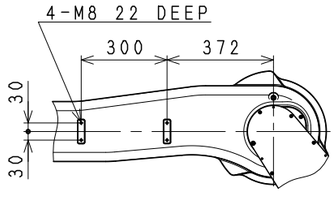

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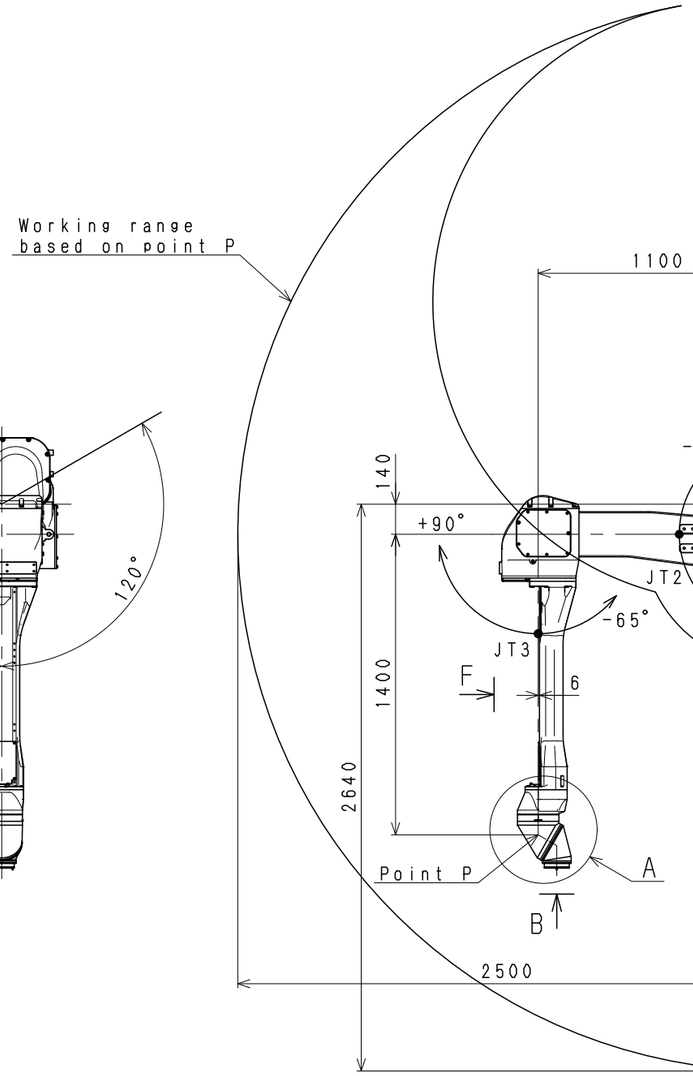

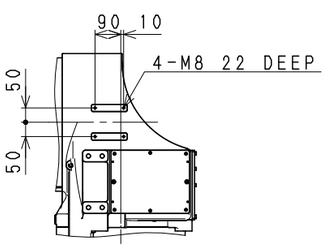

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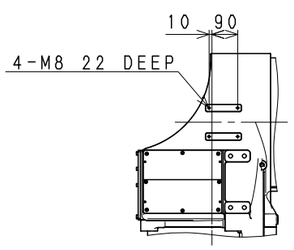

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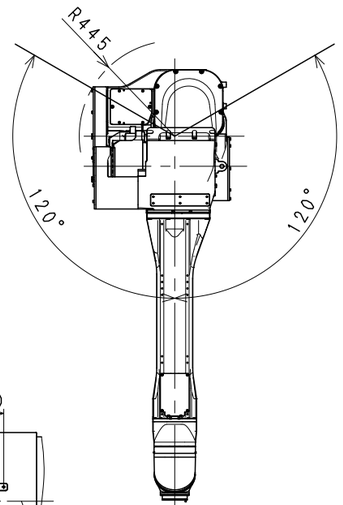
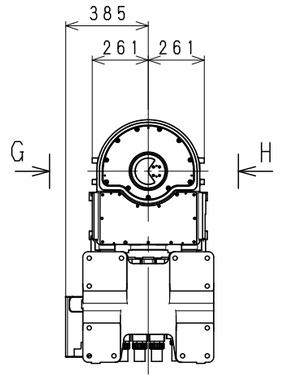
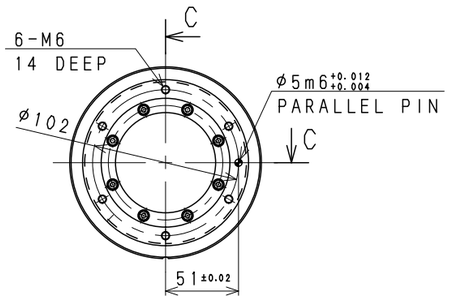




KJ314J-D1
WORKING RANGE



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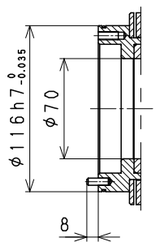

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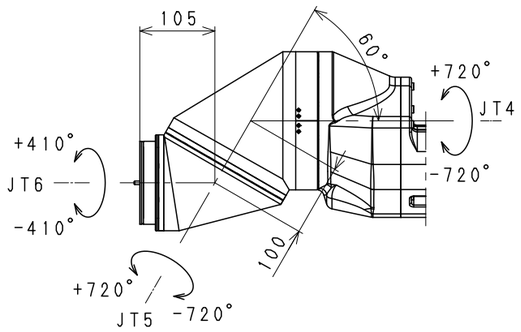
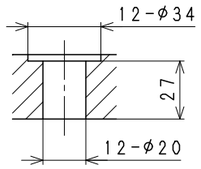


DETAIL A



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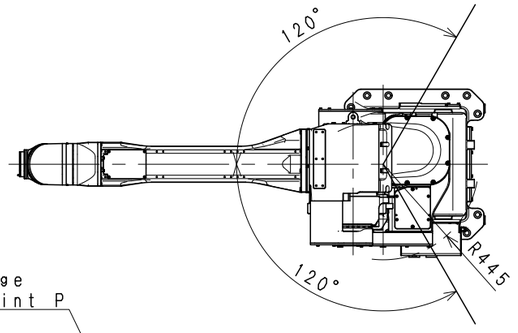
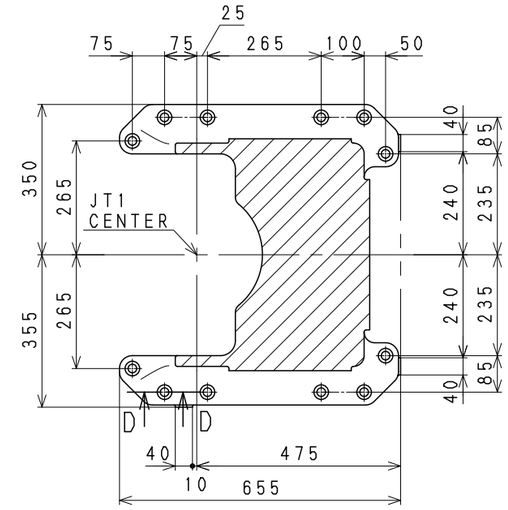
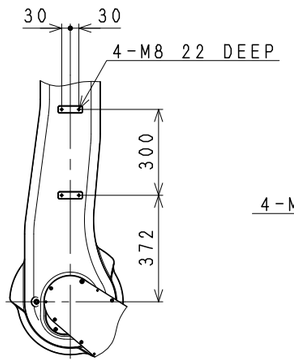




Base Installation Dimensions



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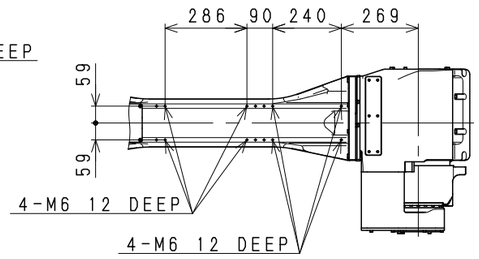
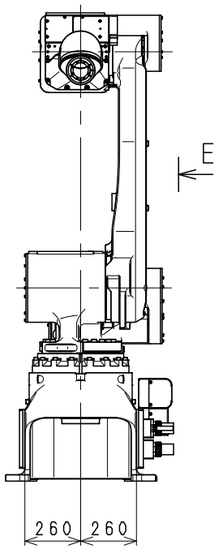
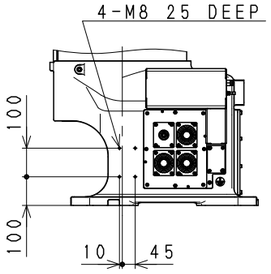
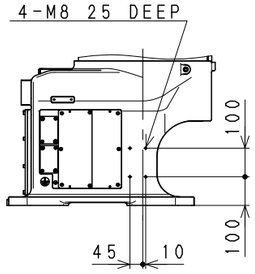


VIEW F

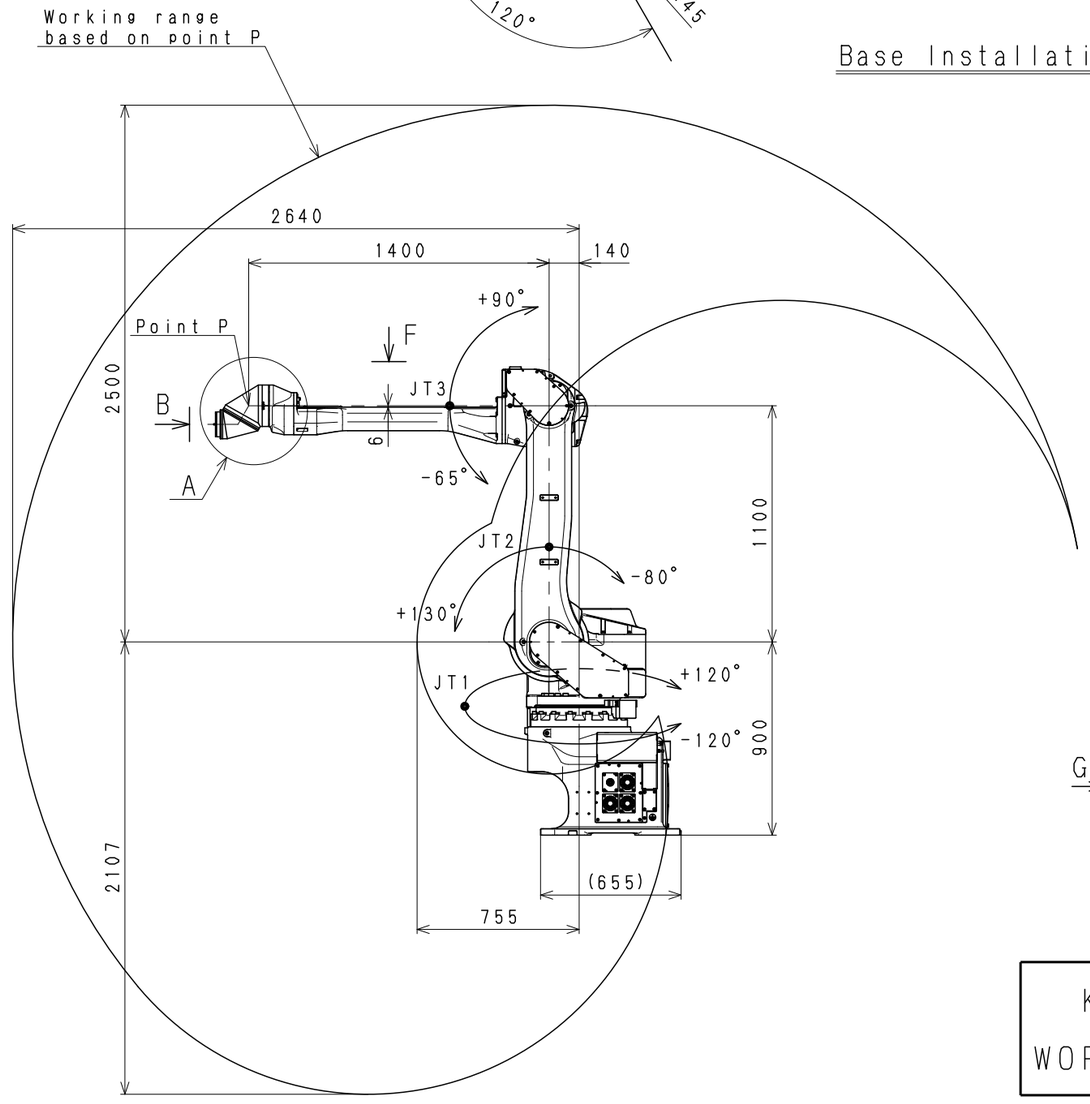


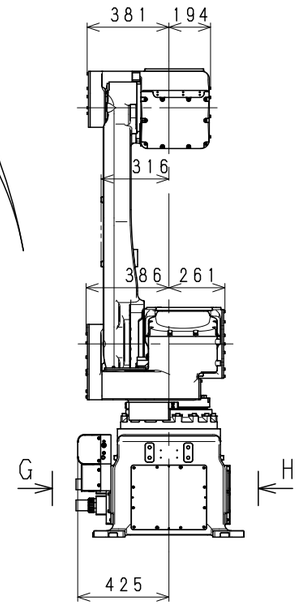


VIEW G

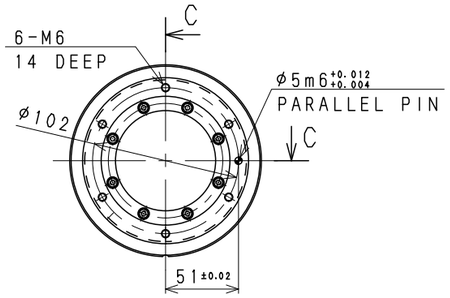


VIEW H

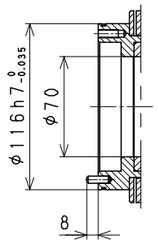




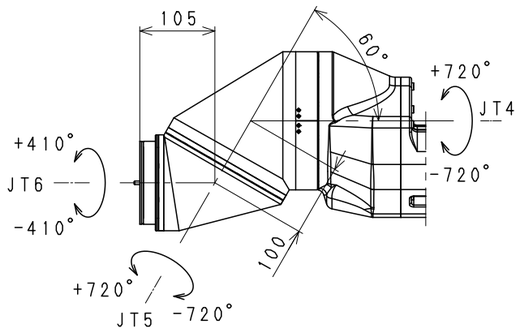
KJ264J-B0
WORKING RANGE



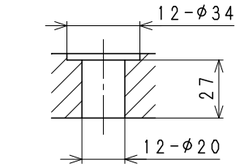
VIEW B



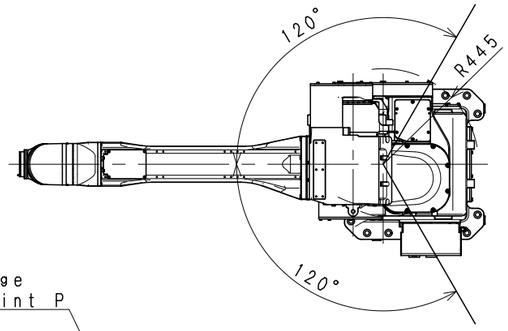
SECTION C-C

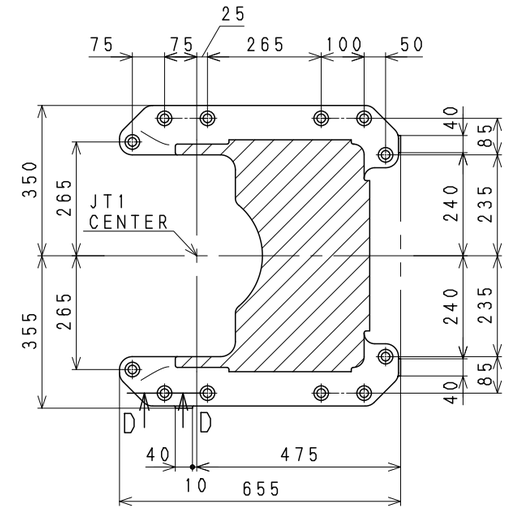


DETAIL A

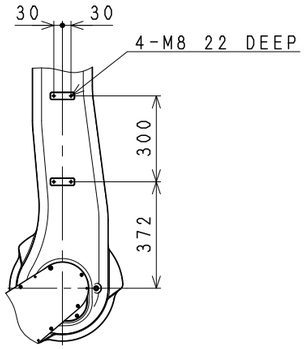


SECTION D-D

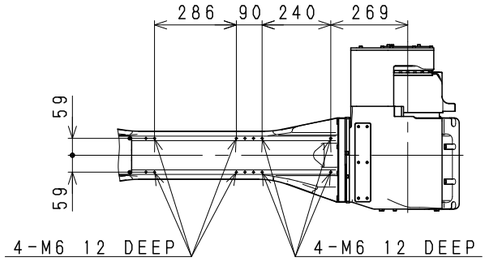




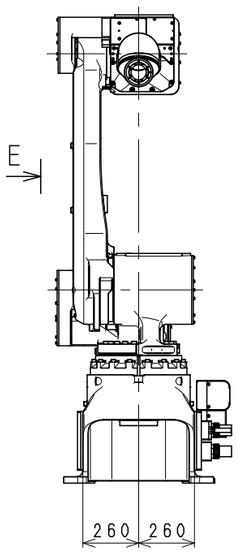
Base Installation Dimensions

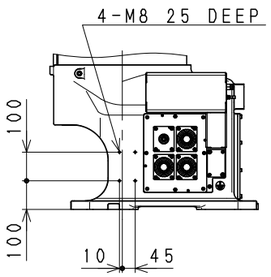


VIEW E

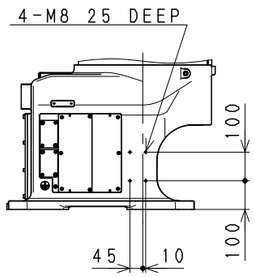


VIEW F

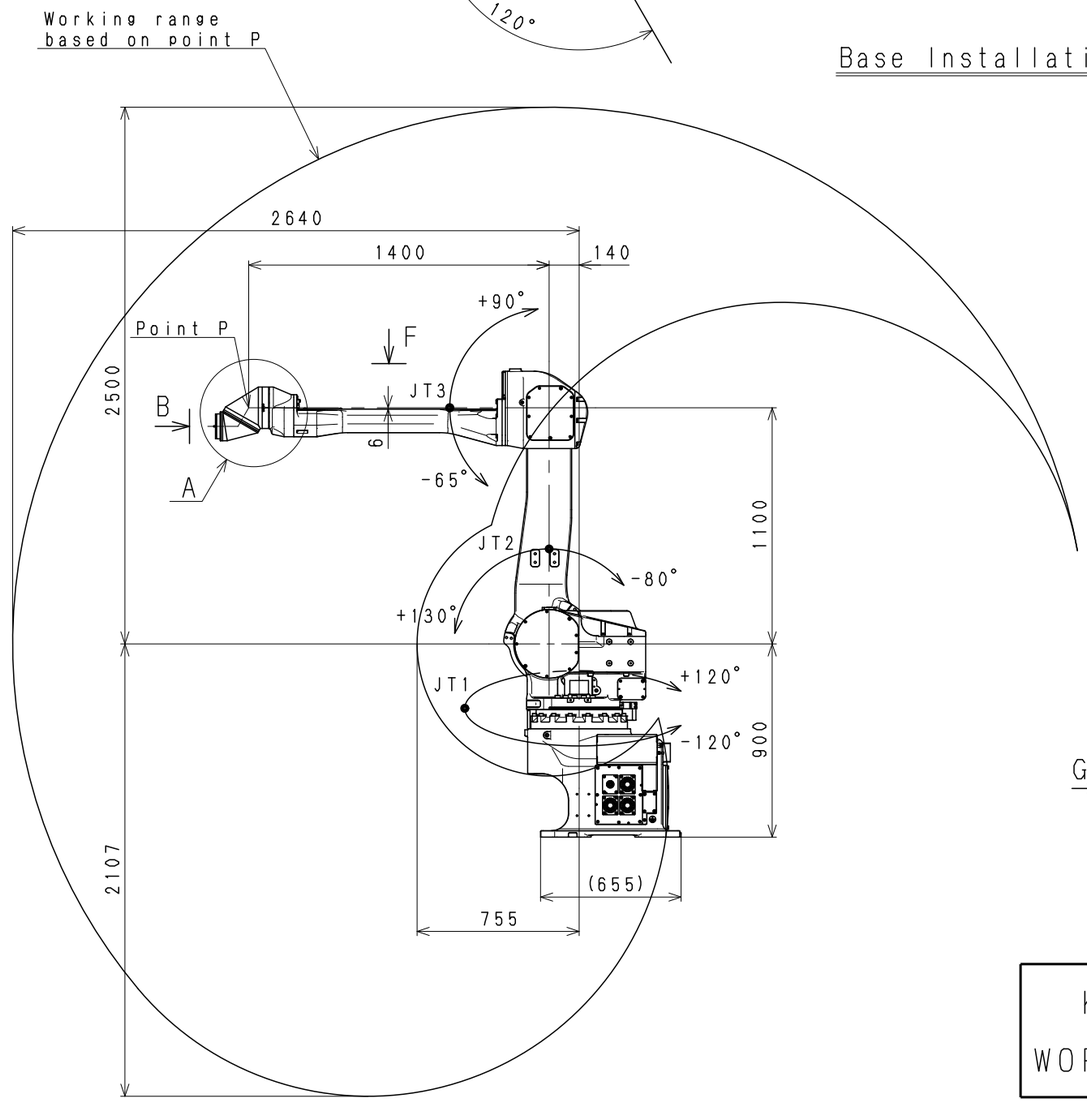


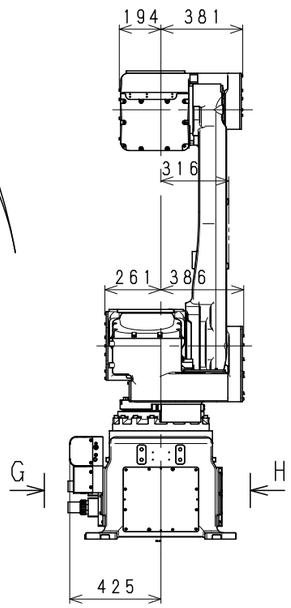


VIEW G

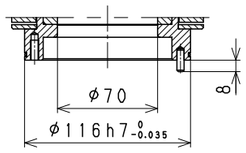


VIEW H

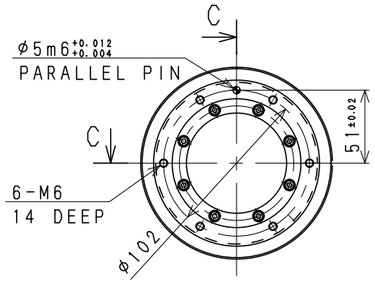




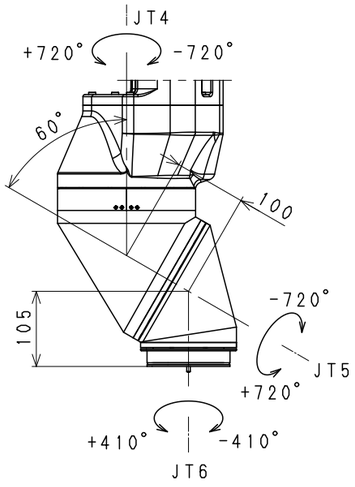
KJ264J-B1
WORKING RANGE



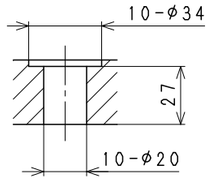
SECTION C-C



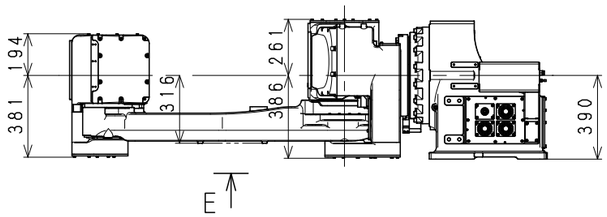
VIEW B

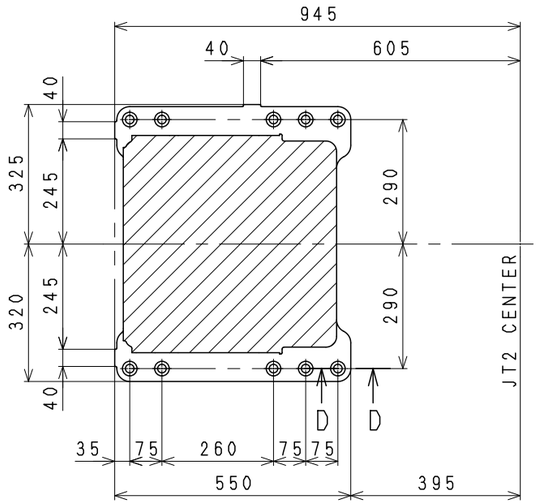


DETAIL A

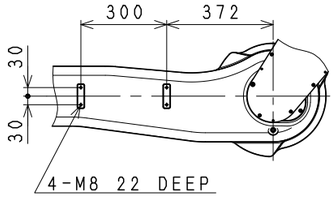


SECTION D-D

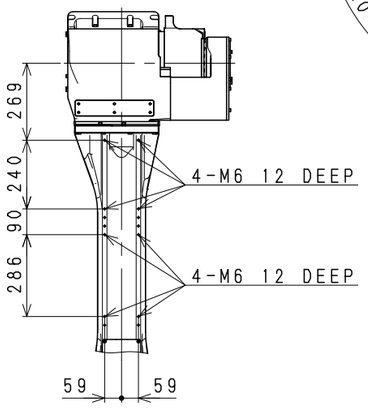




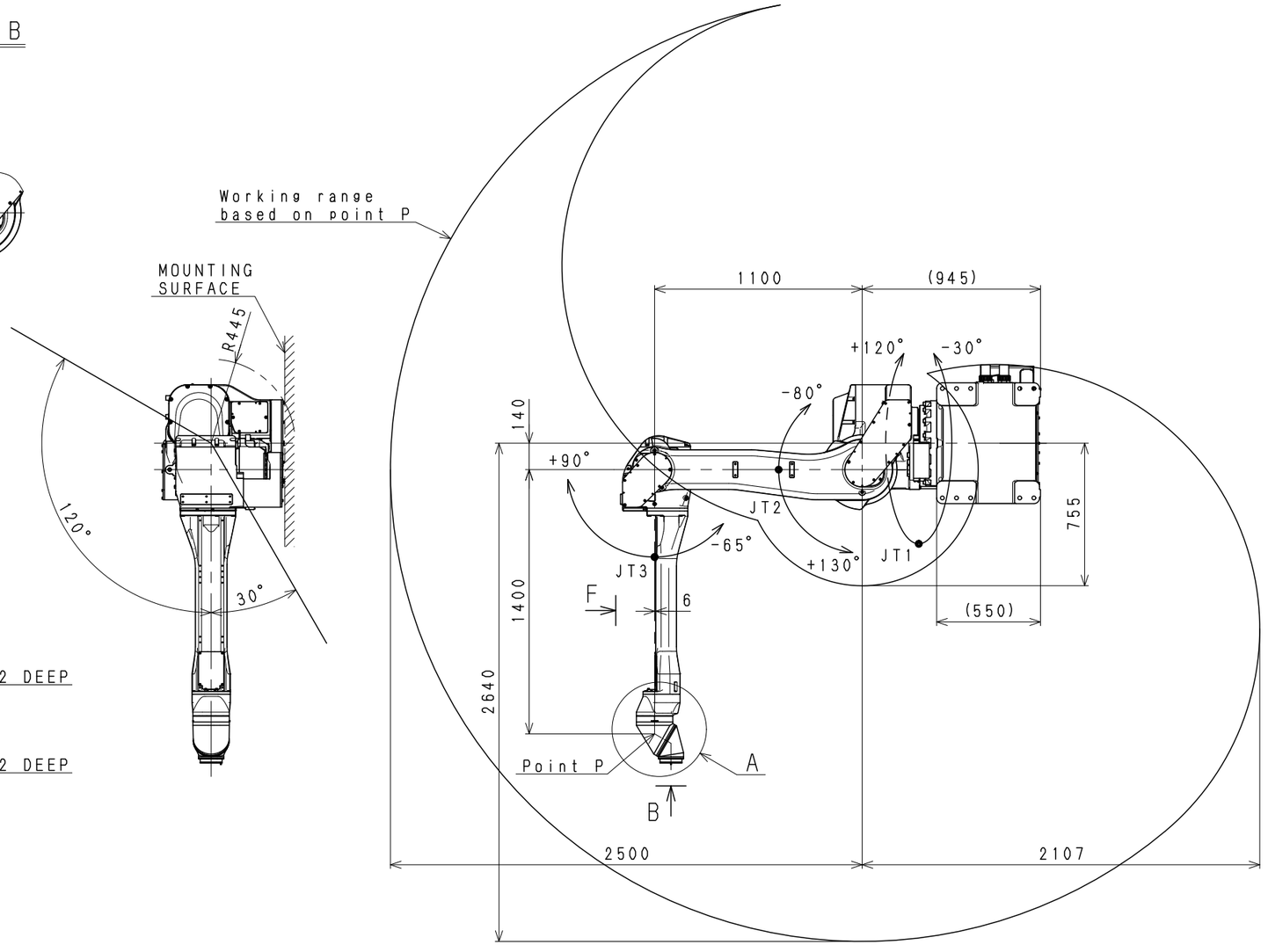
Base Installation Dimensions

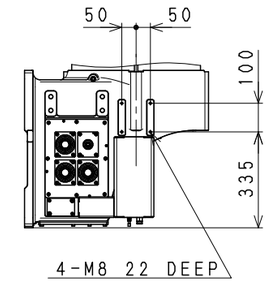


VIEW E

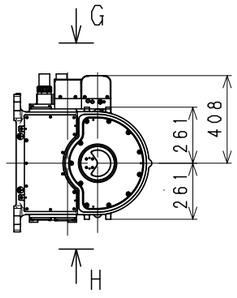


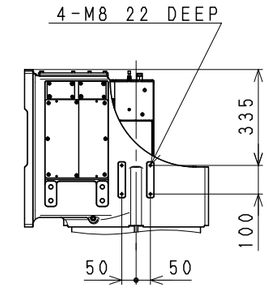
VIEW F





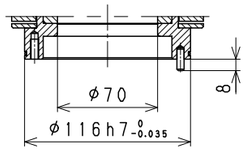
VIEW G



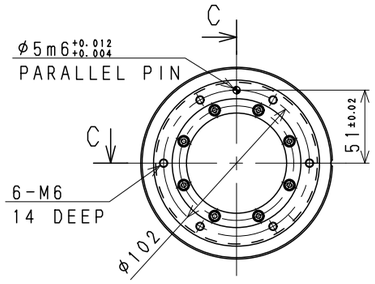


VIEW H

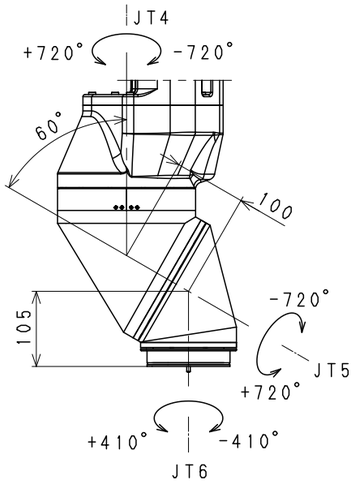
KJ264J-D0
WORKING RANGE



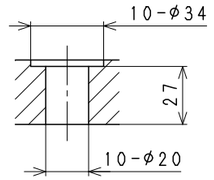
SECTION C-C



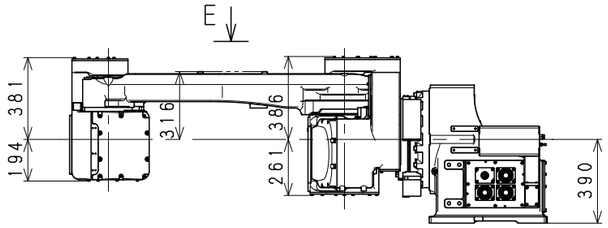
VIEW B

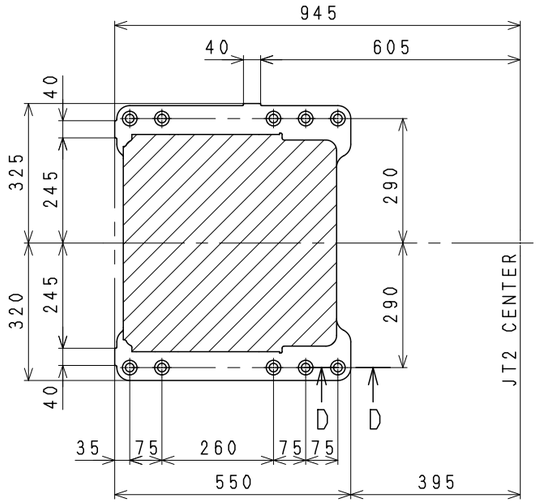


DETAIL A

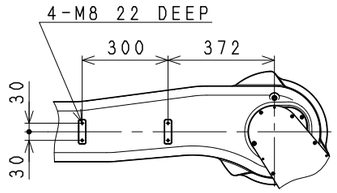


SECTION D-D



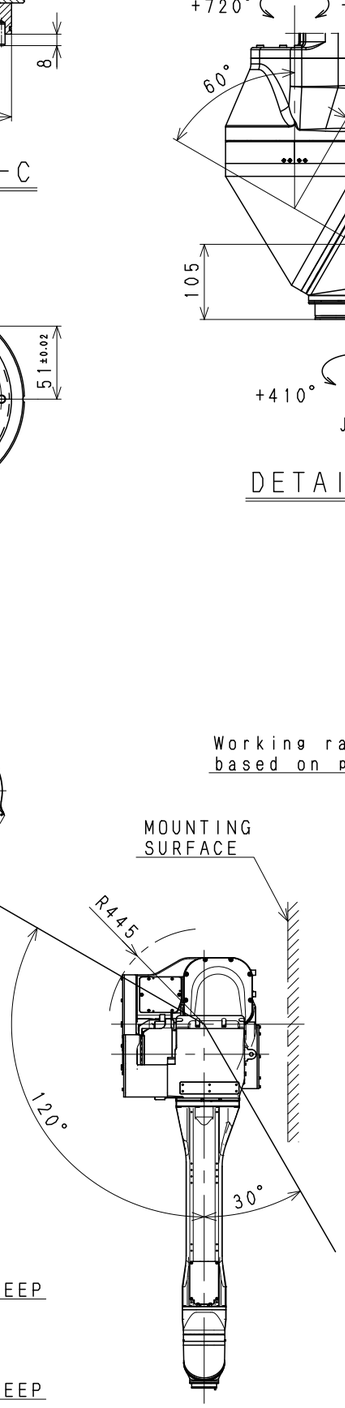


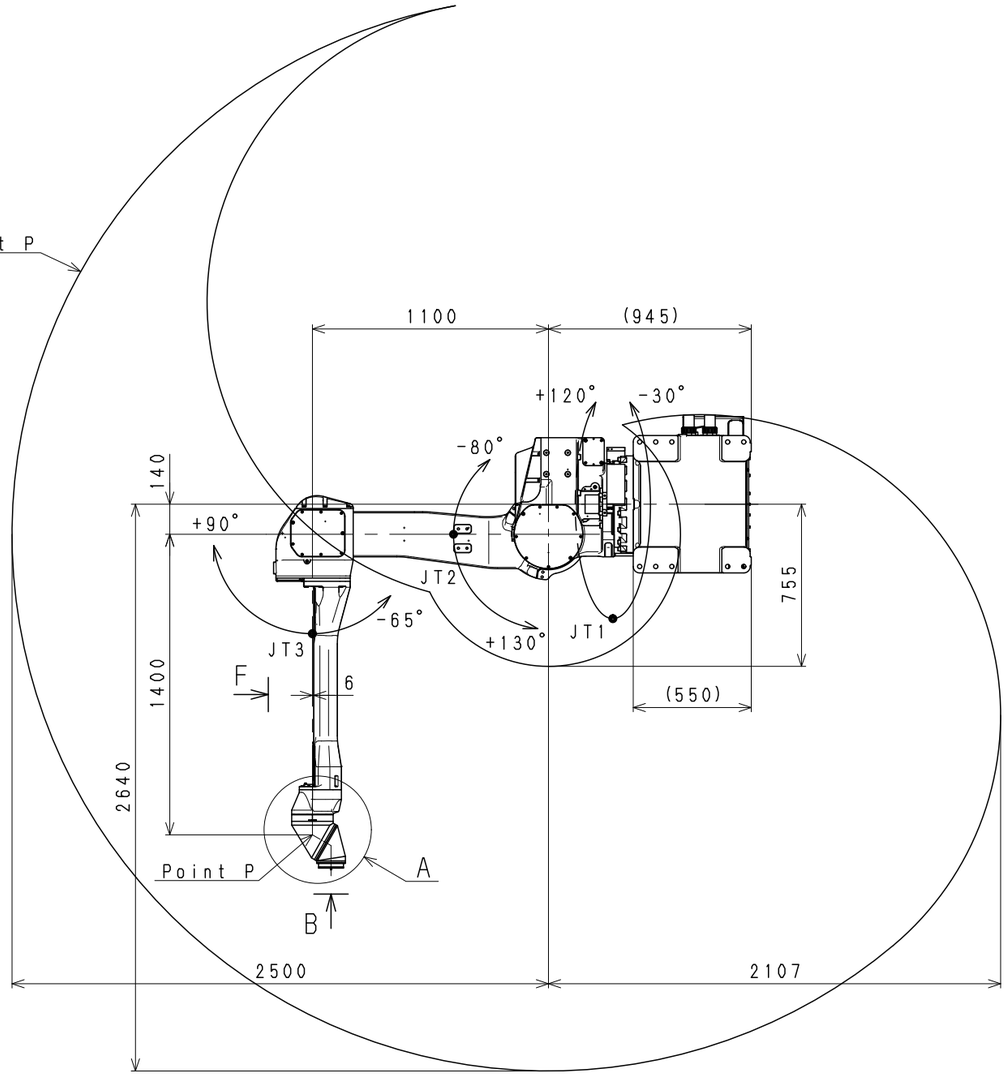
Base Installation Dimensions

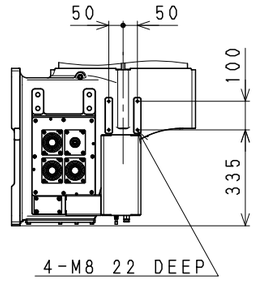


VIEW E

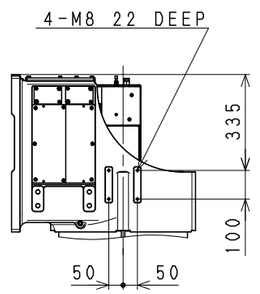
VIEW F





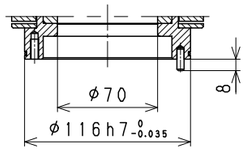


VIEW G

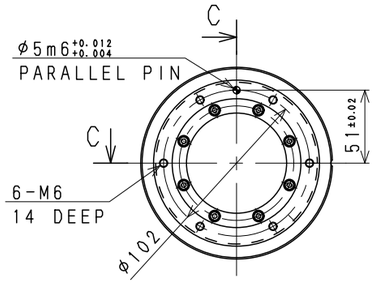


VIEW H

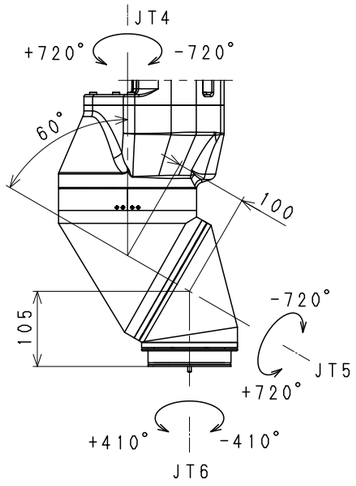
KJ264J-D1
WORKING RANGE



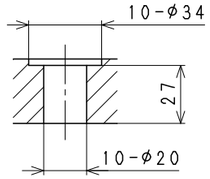
SECTION C-C



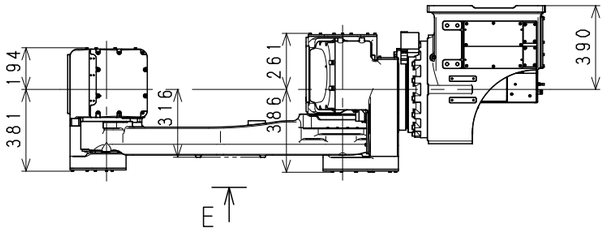
VIEW B

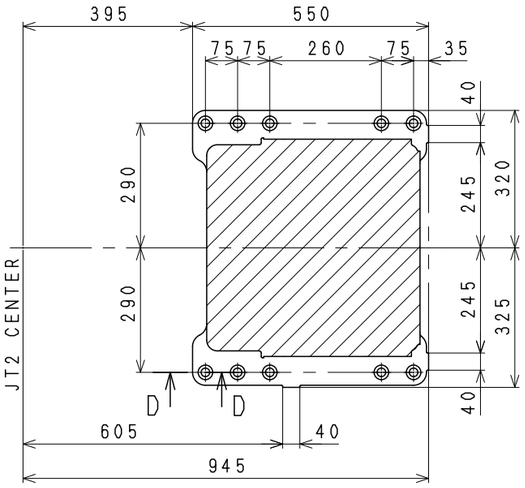


DETAIL A

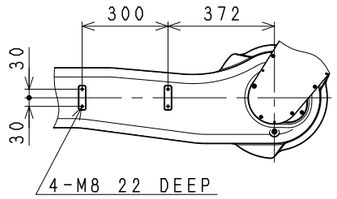


SECTION D-D

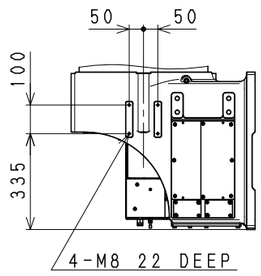




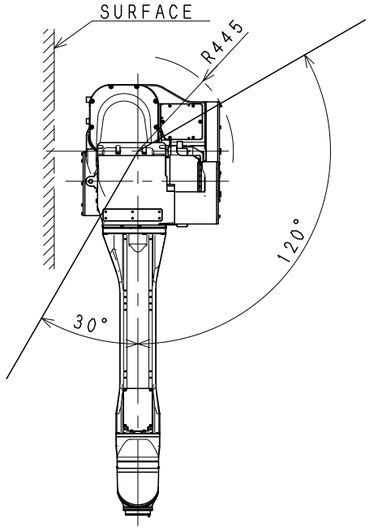
Base Installation Dimensions

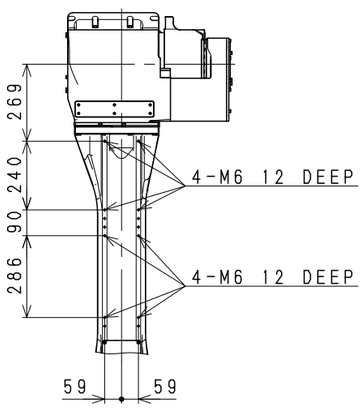


VIEW E

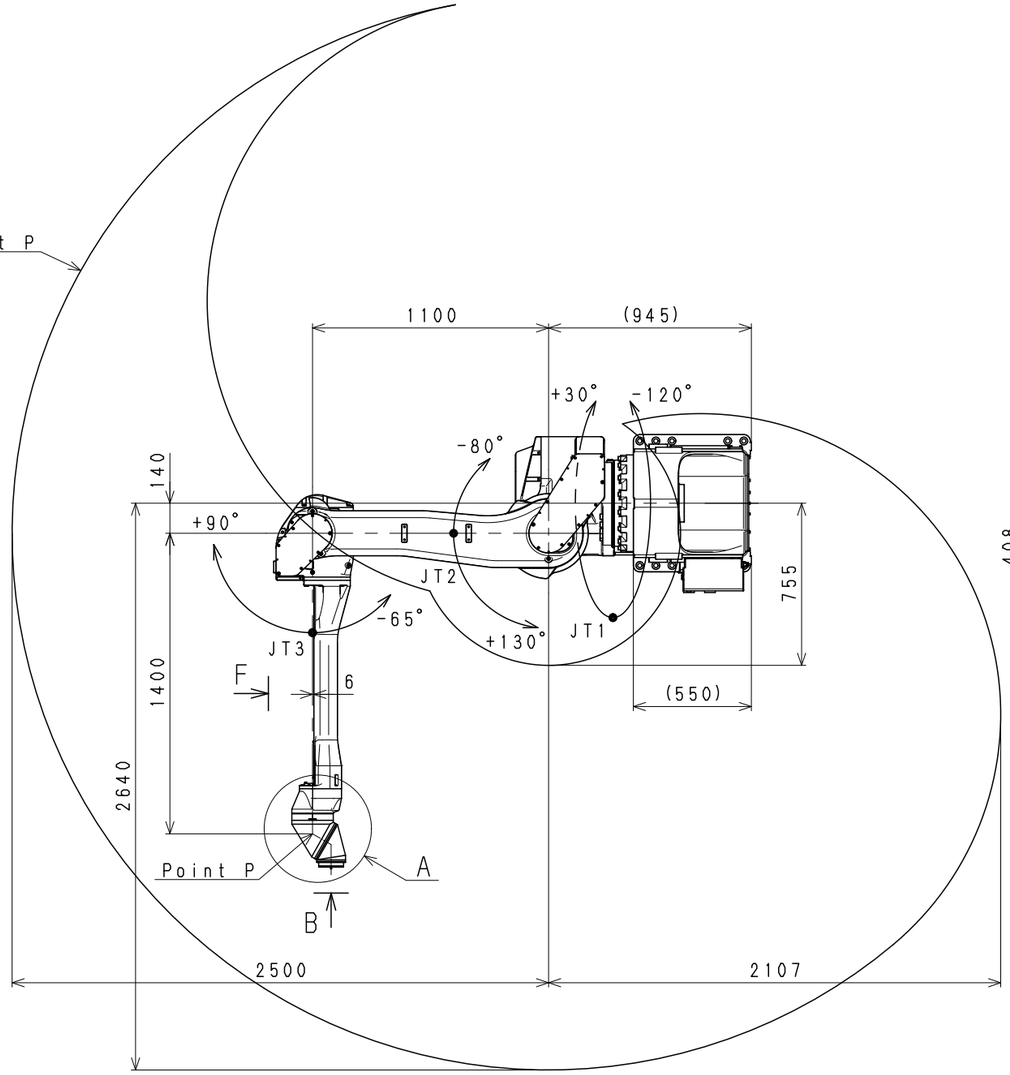


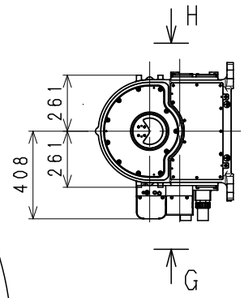
VIEW H

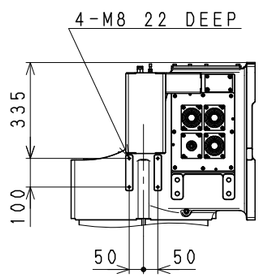




VIEW F

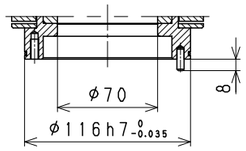




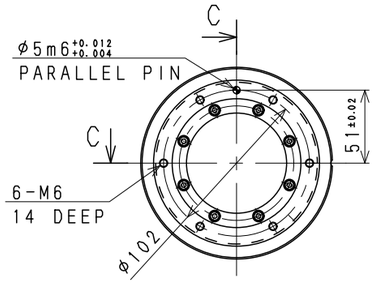


VIEW G

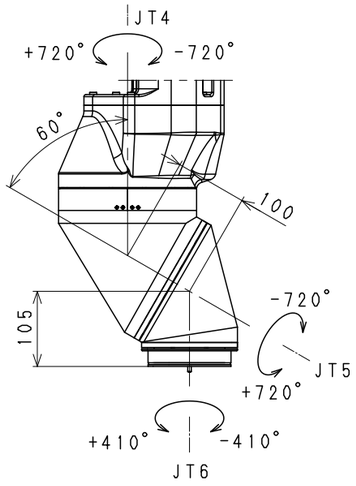
KJ264J-F0
WORKING RANGE



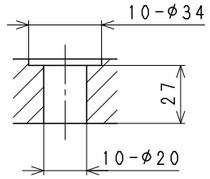
SECTION C-C



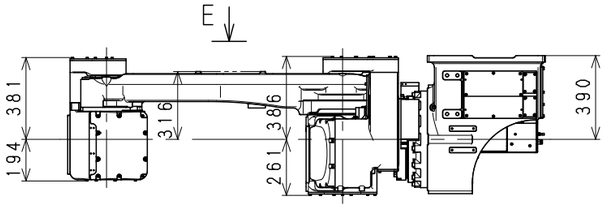
VIEW B

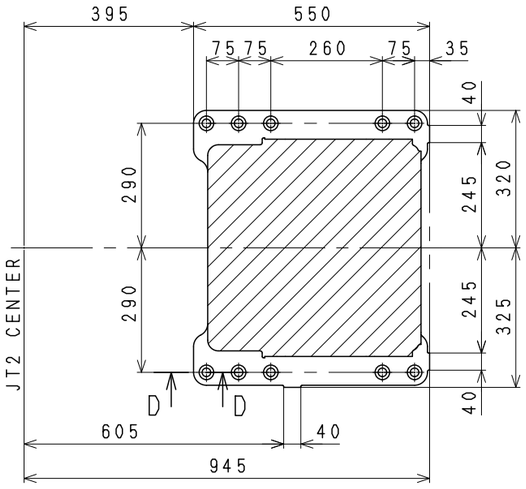


DETAIL A

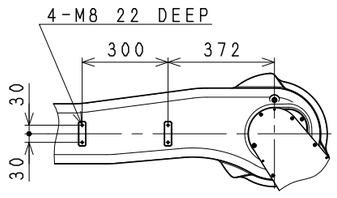


SECTION D-D

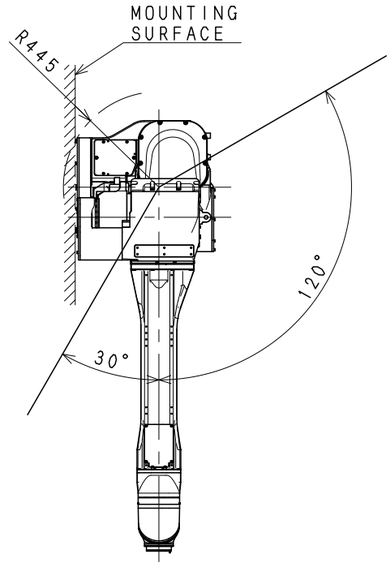




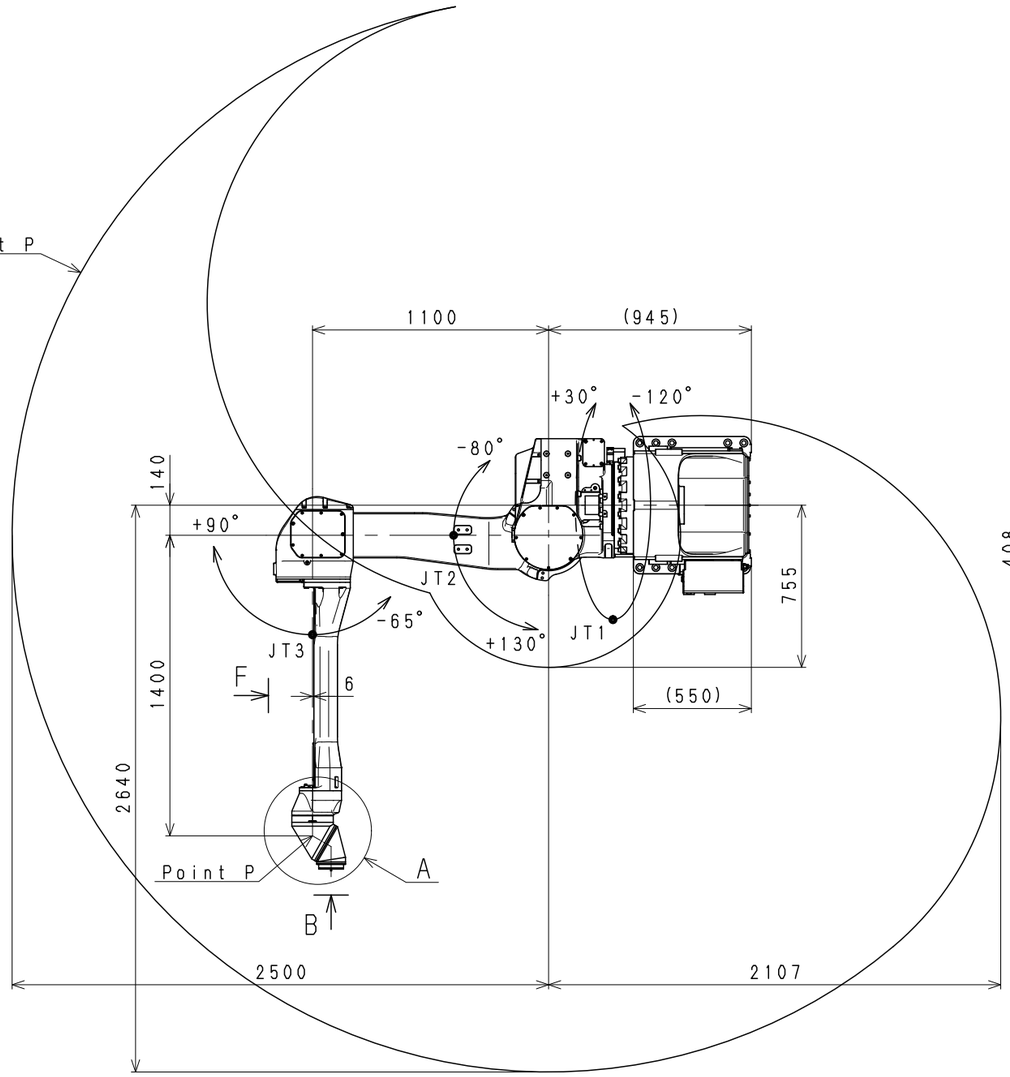
Base Installation Dimensions

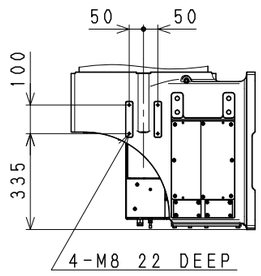


VIEW E

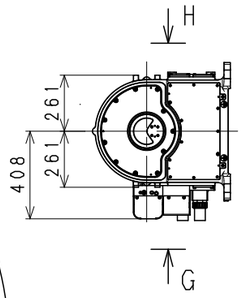


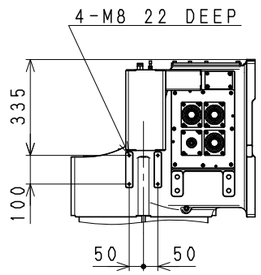
VIEW F





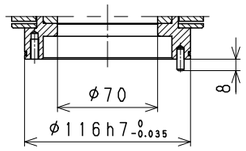
VIEW H



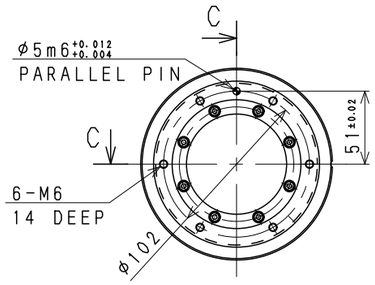


VIEW G

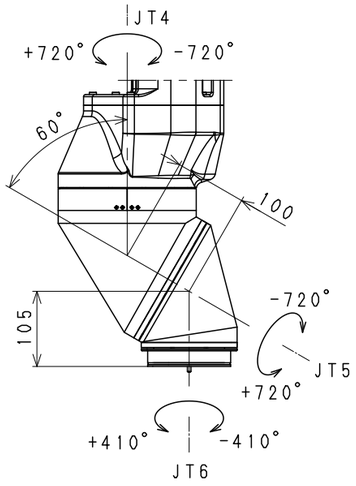
KJ264J-F1
WORKING RANGE



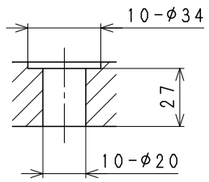
SECTION C-C



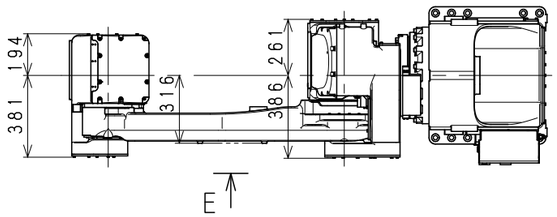
VIEW B

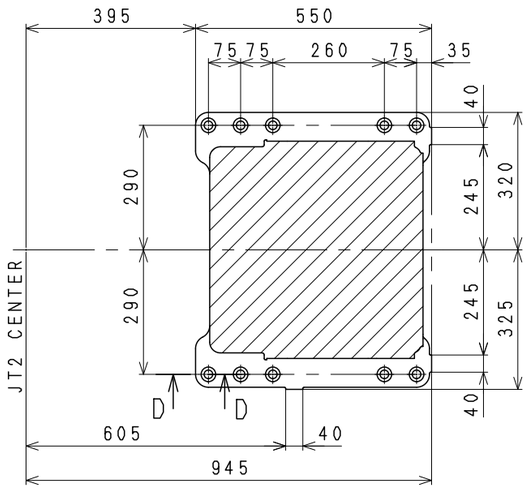


DETAIL A

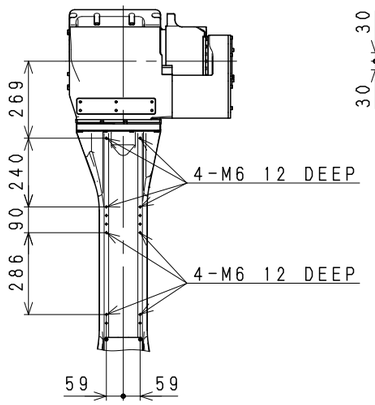


SECTION D-D

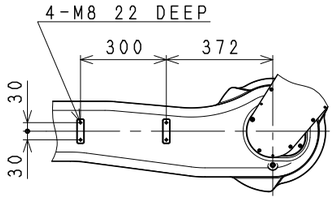




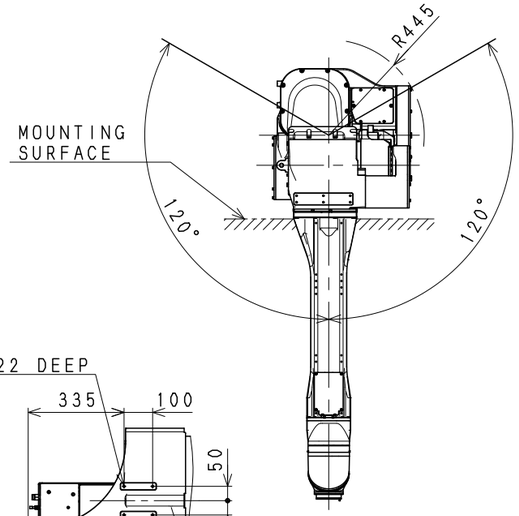
Base Installation Dimensions

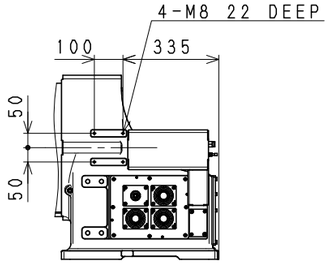


VIEW F

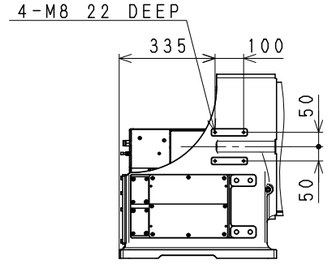


VIEW E

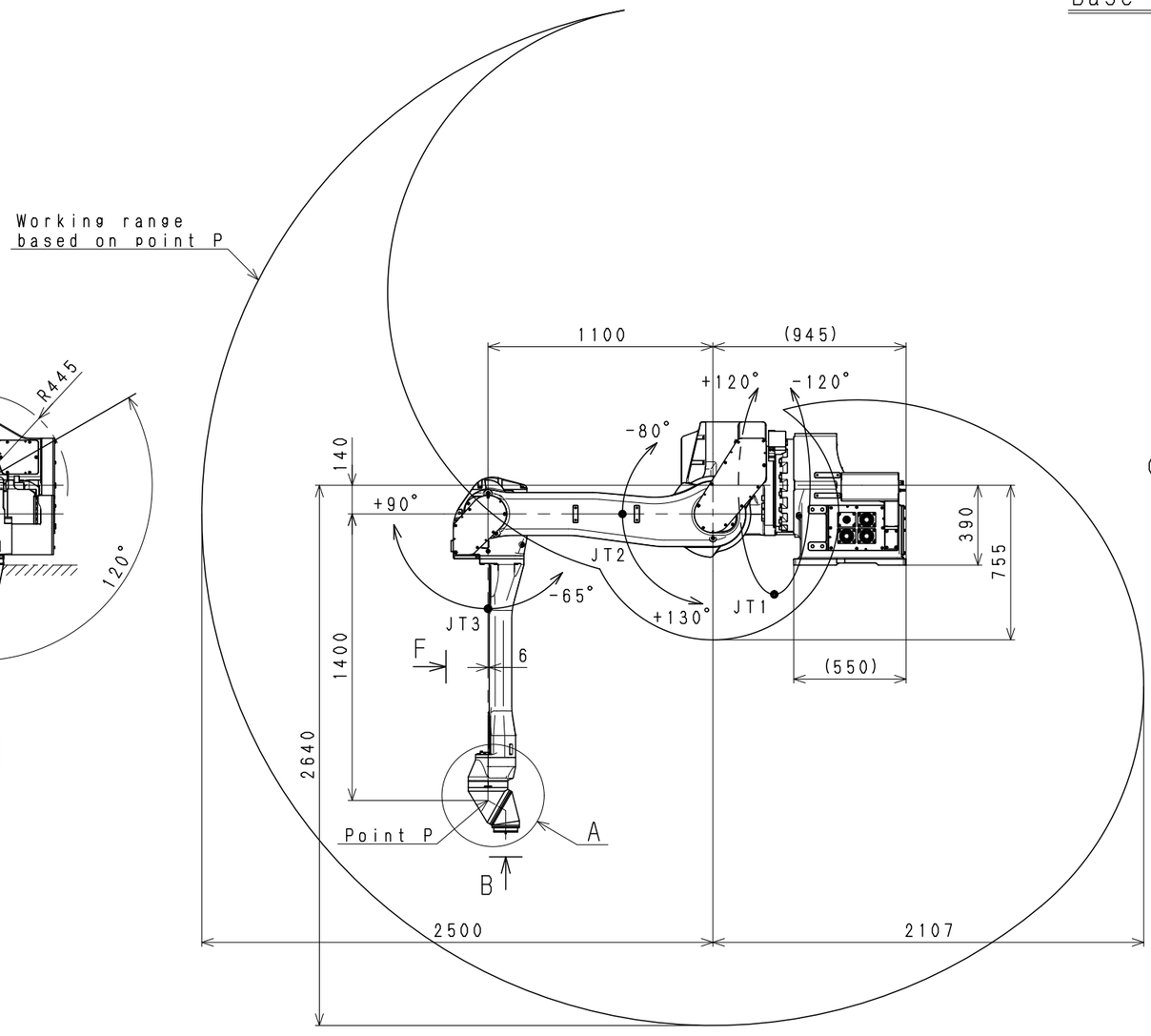


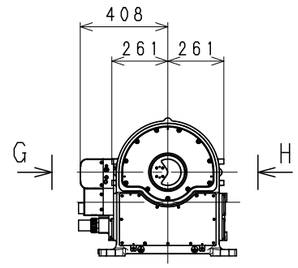


VIEW G

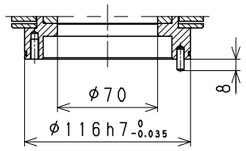


VIEW H

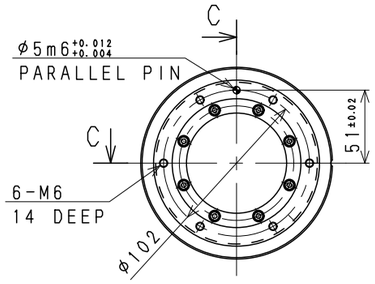




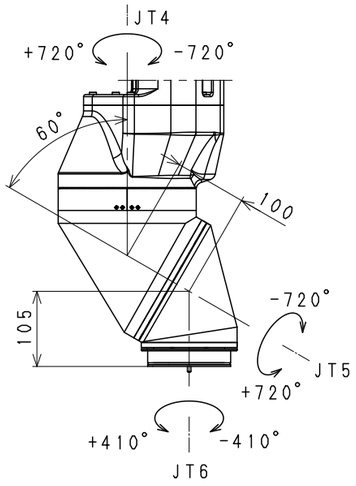
KJ264J-H0
WORKING RANGE



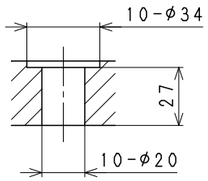
SECTION C-C



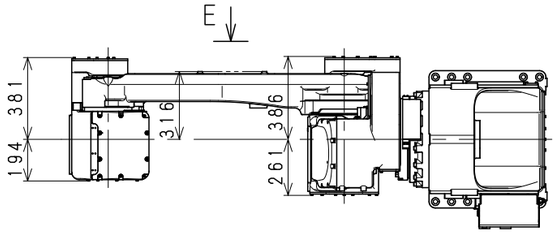
VIEW B

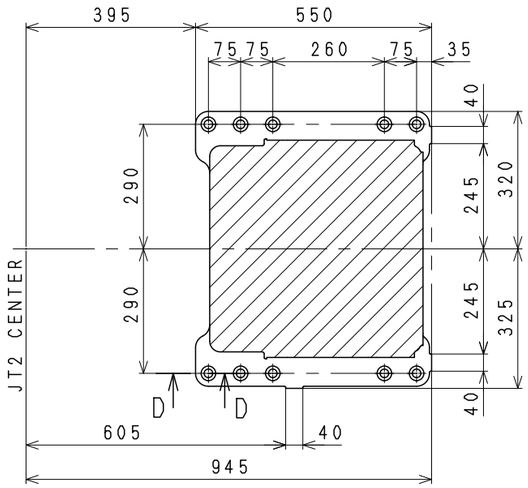


DETAIL A

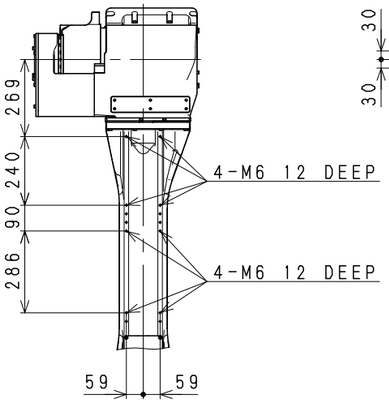


SECTION D-D

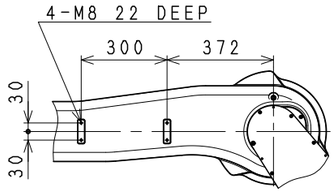




Base Installation Dimensions



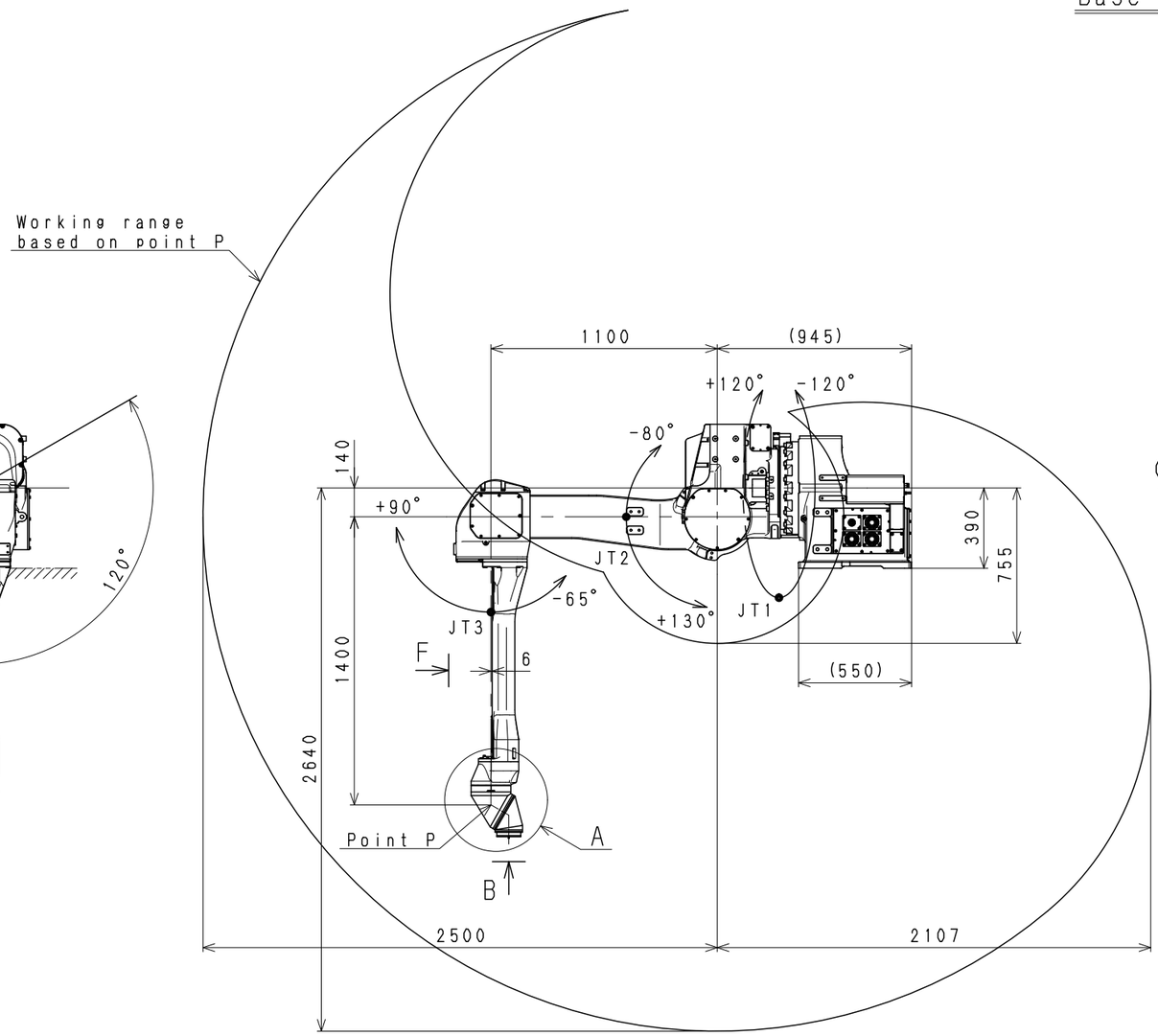
VIEW F

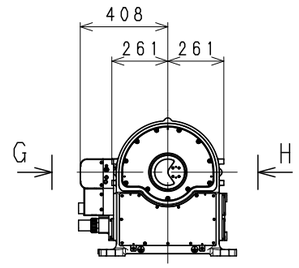


VIEW E

VIEW G

VIEW H

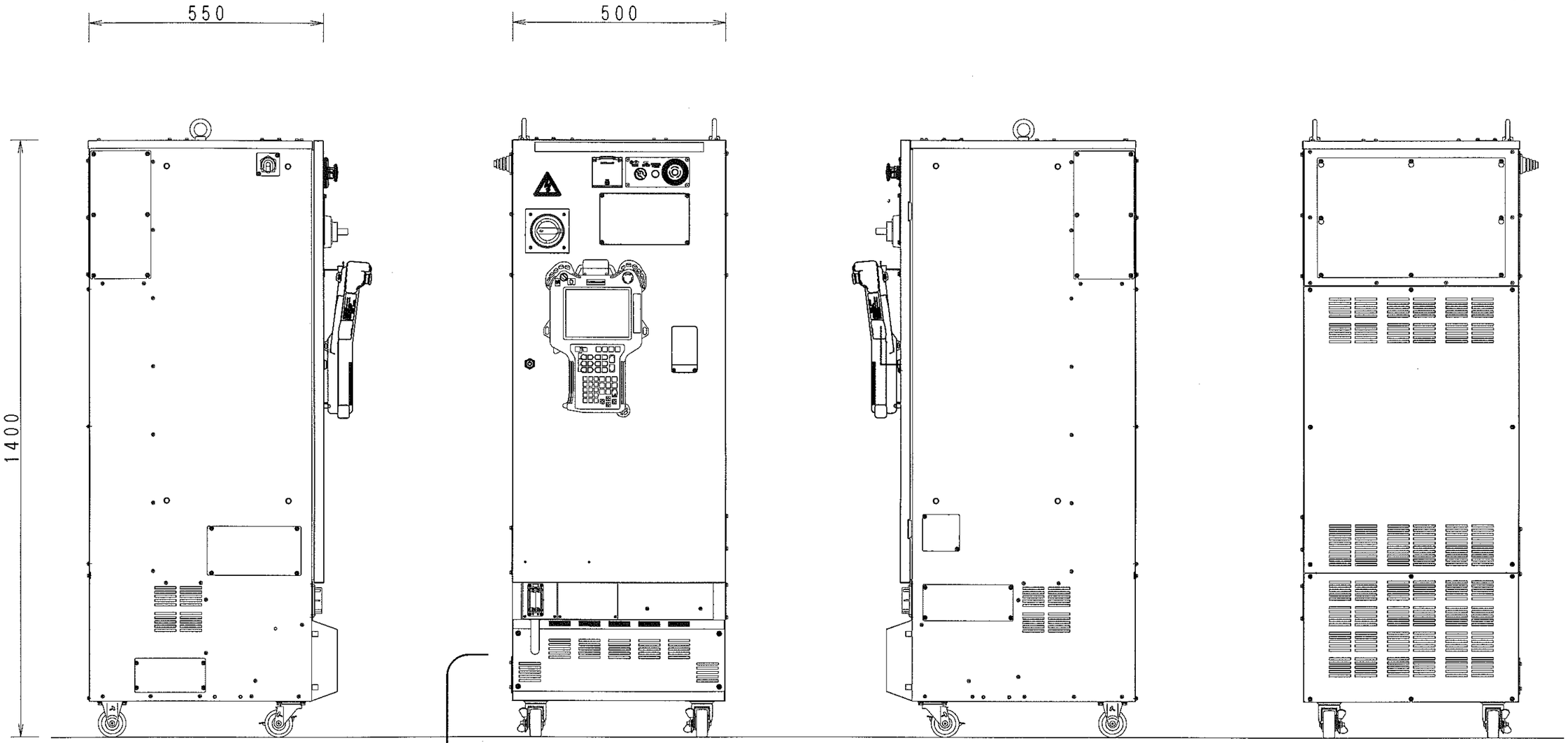




KJ264J-H1
WORKING RANGE

E25 CONTROLLER

MASS: 120Kg

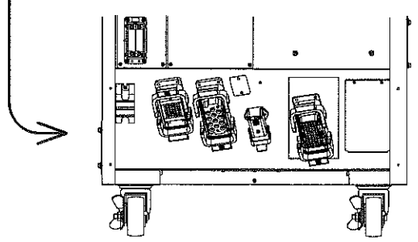


SIDE VIEW

FRONT VIEW

SIDE VIEW

REAR VIEW



WITHOUT CONNECTOR COVER