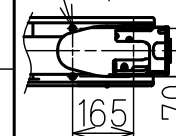


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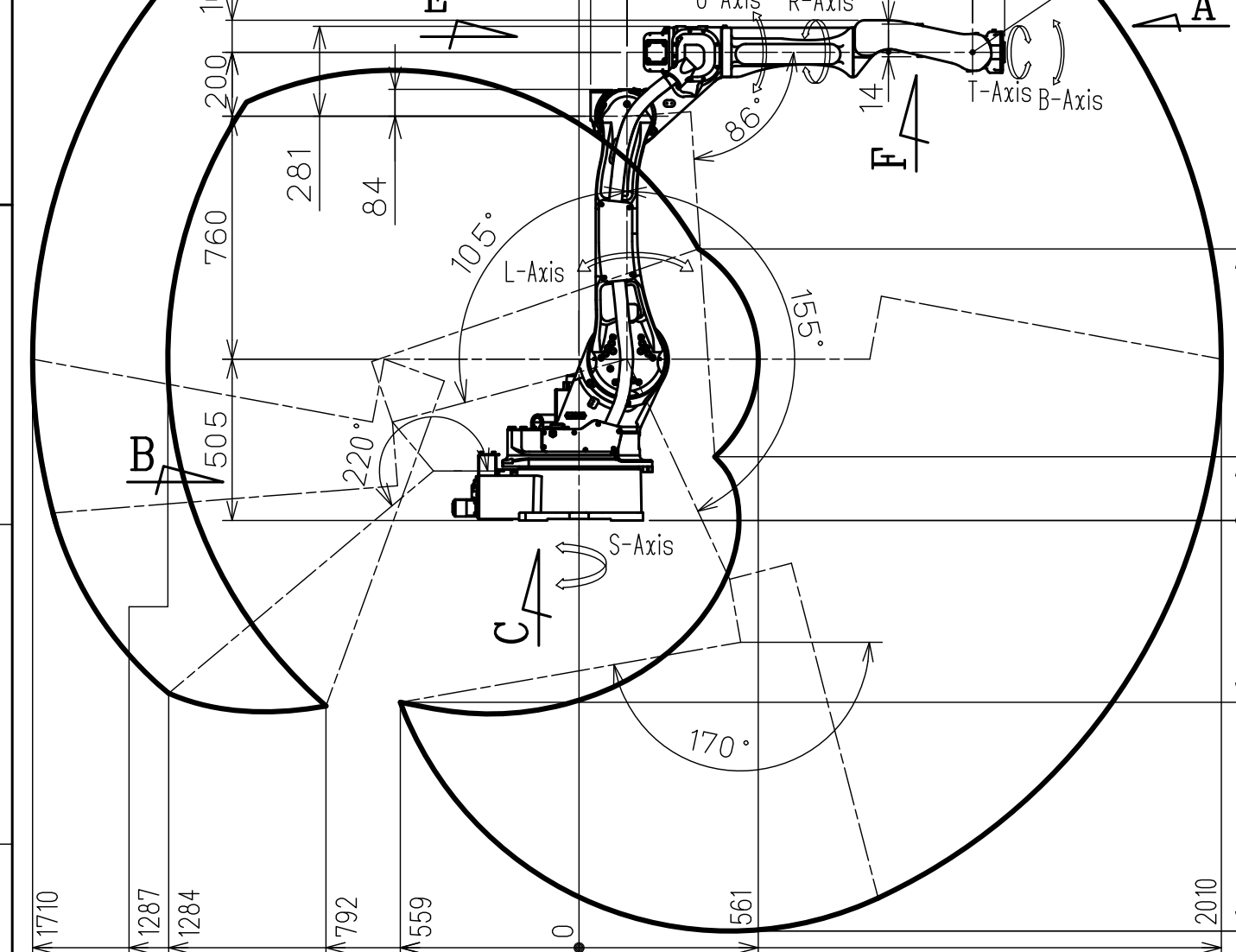
Key Position
Air inlet:A (PT3/8)
with pipe plug
Air inlet:B (PT3/8)
with pipe plug
Power cable terminal block for arc welding
TS200CHM (with a cover)
Recommended crimped terminal ;R100-10
Internal user wiring connector (Base side)
JL05-2A20-29PC (with cap)
Matching connector type is JL05-6A20-29S
(provided by users)

View B

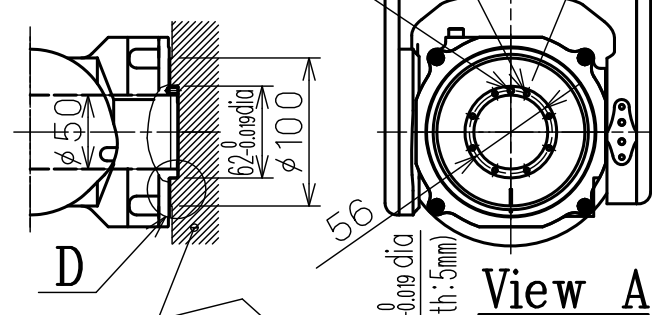
Tapped holes M6 (2holes)
Depth:12mm



View F

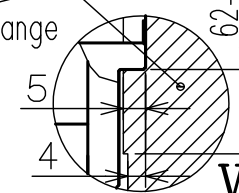


Tapped holes M4 (8holes), Depth:8mm
 $4^{+0.012}_{-0}$ dia (1hole), Depth:6mm



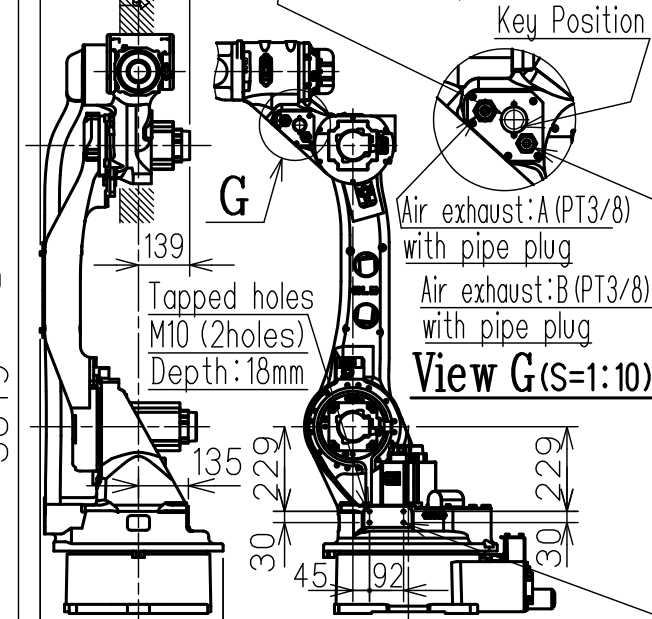
View A
(S=1:5)

Available Range



View D

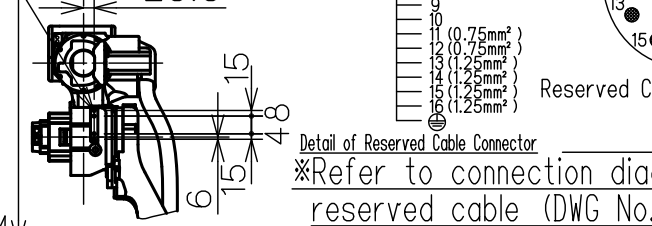
Internal user wiring connector
type is JL05-2A20-29SC (with cap)
Matching connector type is
JL05-6A20-29P (provided users)



View G (S=1:10)

Tapped holes M10 (2holes)
Depth:18mm

Tapped holes M8 (4holes)
Depth:16mm

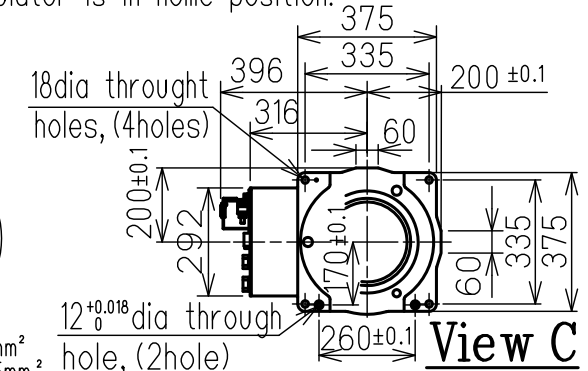


View E

Model		MOTOMAN-MA2010
Item	Configuration	Articulated Robot
	Degree of Freedom	6
	Payload	10kg
	Repeatability	±0.08mm
Range of Motion	S-Axis (Turning)	-180° ~ +180°
	L-Axis (Lower Arm)	-105° ~ +155°
	U-Axis (Upper Arm)	-170° ~ +220°
	R-Axis (Roll)	-150° ~ +150°
	B-Axis (Pitch/Yaw)	-135° ~ +90°
	T-Axis (Twist)	-210° ~ +210°
Max Speed	S-Axis	3.44rad/s, 197° /s
	L-Axis	3.32rad/s, 190° /s
	U-Axis	3.67rad/s, 210° /s
	R-Axis	7.16rad/s, 410° /s
	B-Axis	7.16rad/s, 410° /s
	T-Axis	10.6rad/s, 610° /s
Allowable Moment	R-Axis	22N·m (2.2kgf·m)
	B-Axis	22N·m (2.2kgf·m)
	T-Axis	9.8N·m (1.0kgf·m)
Allowable Inertia (GD²/4)	R-Axis	0.65kg·m²
	B-Axis	0.65kg·m²
	T-Axis	0.17kg·m²
Approx. Robot mass		280kg
Ambient Conditions	Temperature	0~45℃
	Humidity	20~80%RH (Non-condensing)
	Vibration	Less than 4.9m/s² (0.5G)
	Others	•Free from explosive or corrosive gas and liquid. •Free from dust,oil, of water. •Free from electrical noise.
	Power Requirements	2.0KVA

SI unit are used in this table.
However,gravitational units are used in ().
Repeatability is conformed to ISO 9283
The manipulator is in home position.

Units:mm

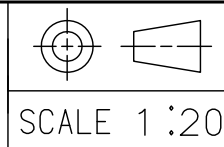


View C

FOR STUDY PURPOSE ONLY

Type	Note
YR-MA02010-A00	STANDARD

Note:
1.All rights reserved.
2.Please note that the data is subject to be deleted without advance notice.
3.No warranty is given in relation to the data including the specification.
4.We are not responsible for any damages or loss caused by the use of the data.



YASKAWA
株式会社 安川電機

Reference Drawing

TITLE MOTOMAN-MA2010
DIMENSION DIAGRAM (Preliminary.)

DWG.NO. HW1383137

SIZE A3