

1 Description

1.1.3 Definition of version designation

Illustration

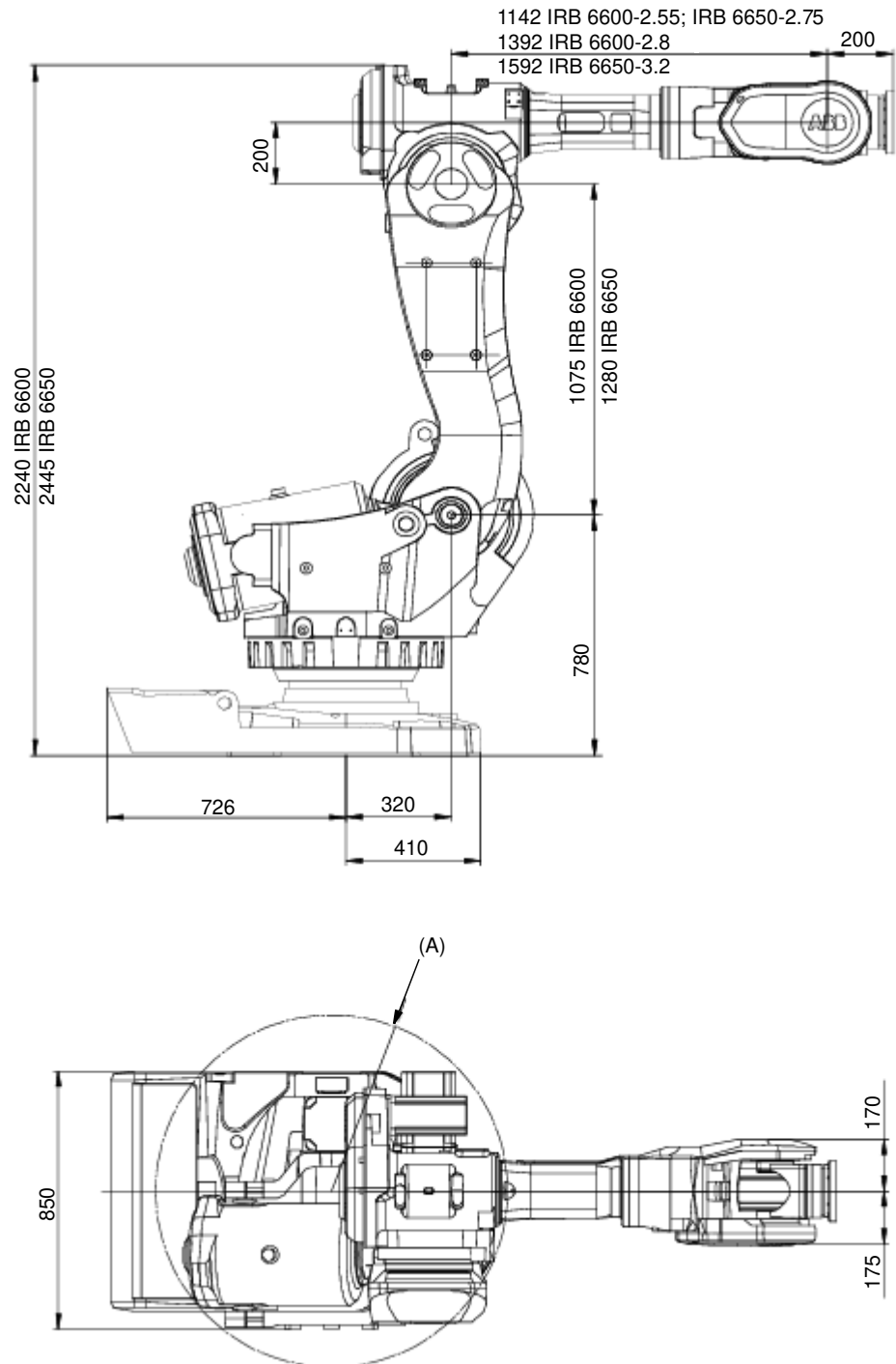


Figure 2 View of the IRB 6600 and IRB 6650 manipulator from the side and above (dimensions in mm). Allow 200 mm behind the manipulator foot for cables.

Pos	Description
A	R 580 for type A. R 595 for type B (front side, motor axis Z). R690 with fork lift.

Illustration

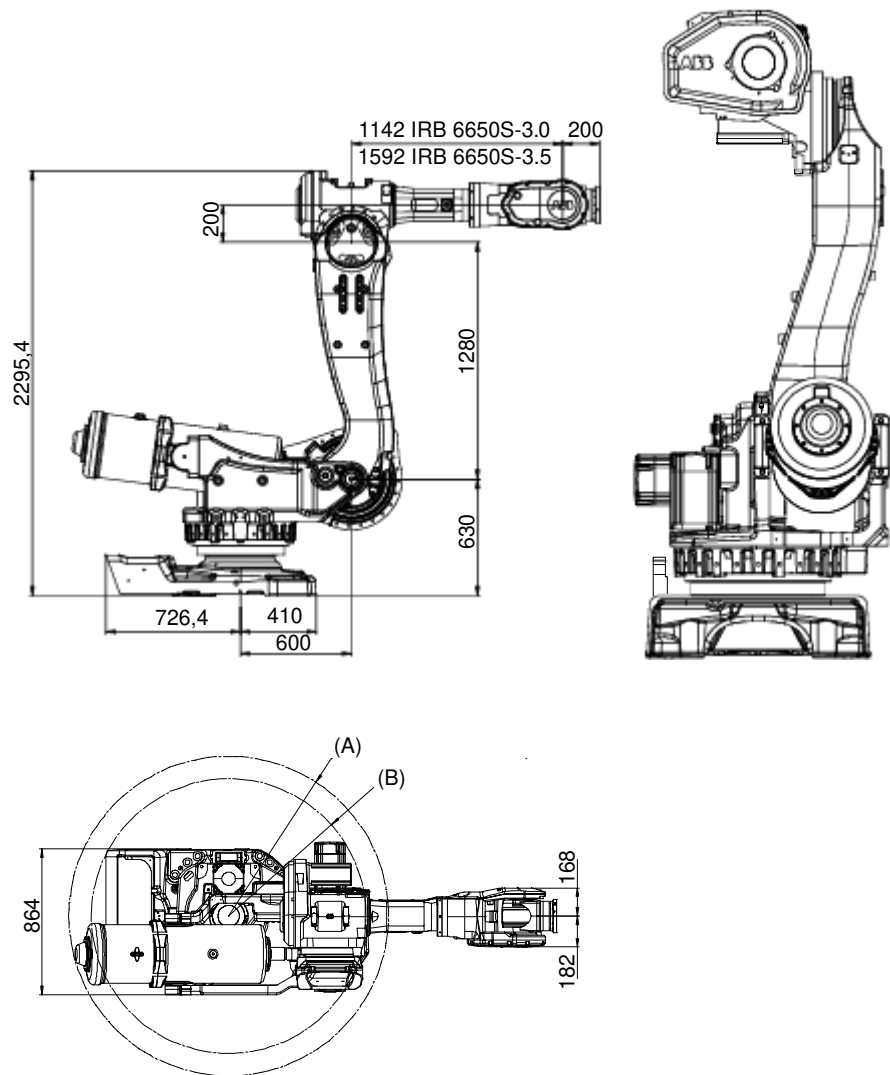


Figure 3 View of the IRB 6650S Manipulator from side and above (dimensions in mm). Allow 200 mm behind the manipulator foot for cables.

Pos	Description
A	R 946 (Rear side, Balancing device).
B	R 813 (Front side, Motor axis 2).

1.7 Robot Motion

1.7.1 Introduction

Type of Motion

Axis	Type of motion	Range of movement	
1	Rotation motion	+180° to -180°	+220° to -220° option
2	Arm motion	+85° to -65°	
3	Arm motion	+70° to -180°	
4	Wrist motion	+300° to -300°	
5	Bend motion	+120° to -120°	
6	Turn motion	+300° to -300°	

Illustration

Robot Type	Handling capacity (kg)	Reach (m)
IRB 6600	175	2.55
	225	2.55

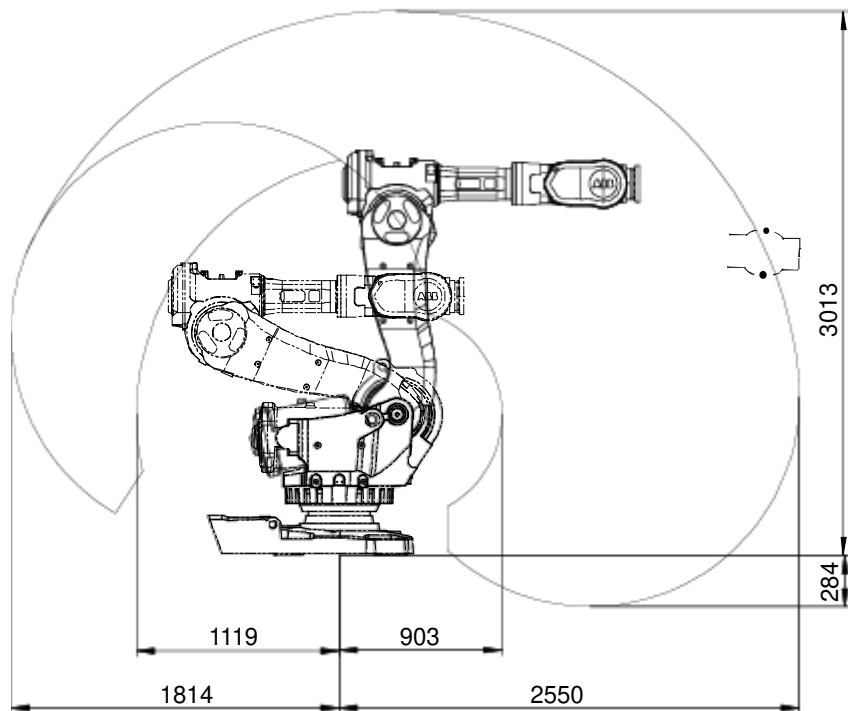


Figure 37 The extreme positions of the robot arm specified at the wrist center (dimensions in mm).

1 Description

1.7.1 Introduction

Illustration

Robot Type	Handling capacity (kg)	Reach (m)
IRB 6600	175	2.8

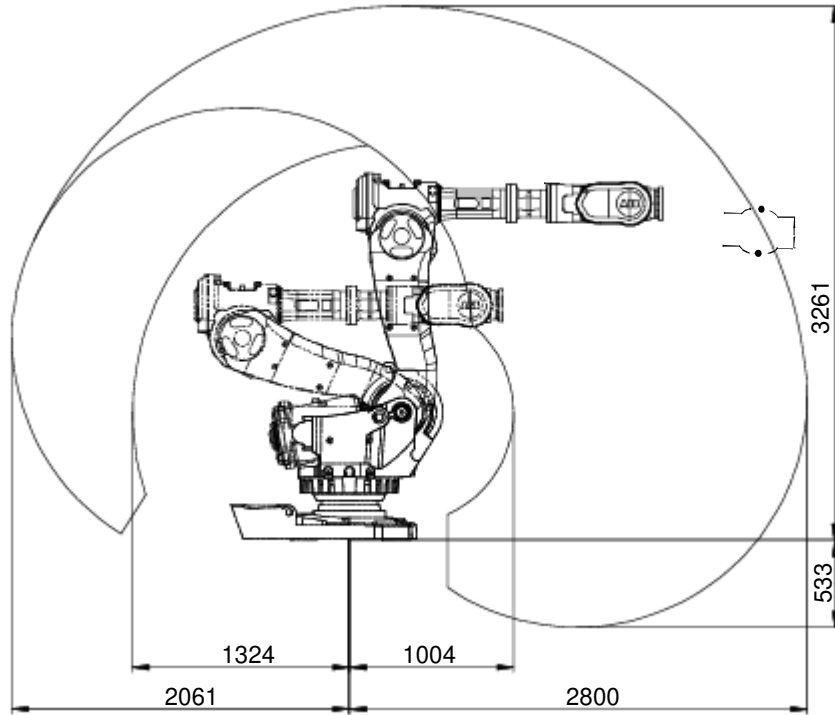


Figure 38 The extreme positions of the robot arm specified at the wrist center (dimensions in mm).

Illustration

Robot Type	Handling capacity (kg)	Reach (m)
IRB 6650	125	3.2

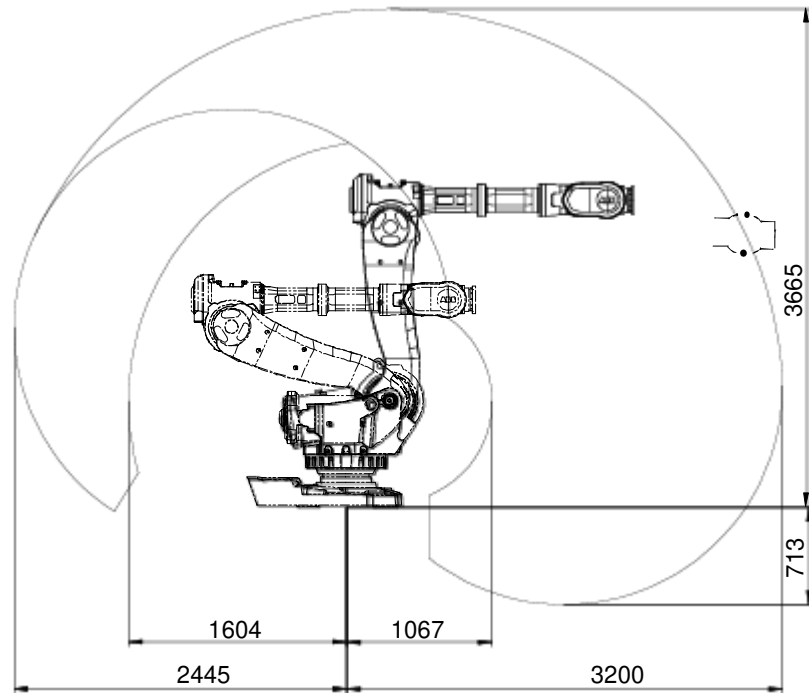


Figure 39 The extreme positions of the robot arm specified at the wrist center (dimensions in mm).

1 Description

1.7.1 Introduction

Illustration

Robot Type	Handling capacity (kg)	Reach (m)
IRB 6650	200	2.75

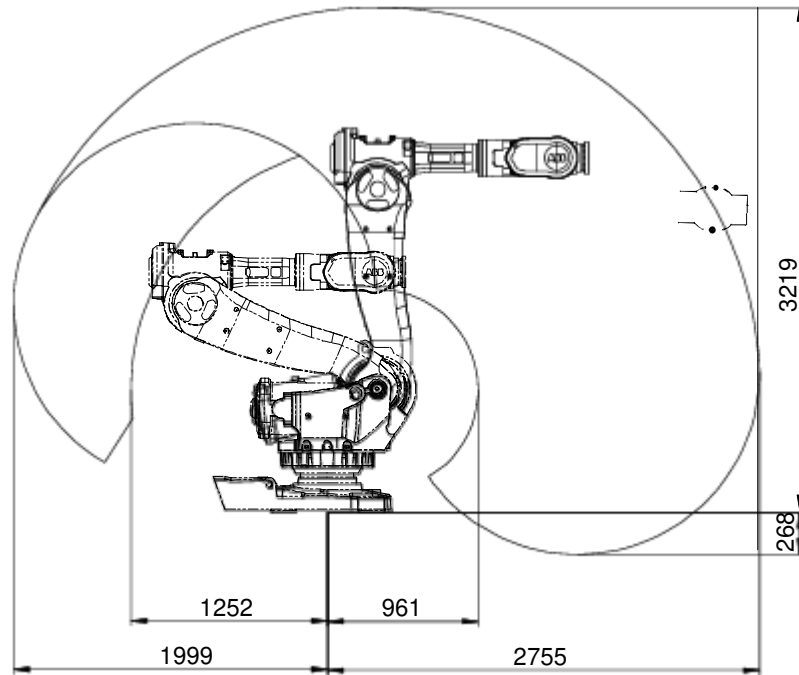


Figure 40 The extreme positions of the robot arm specified at the wrist center (dimensions in mm).

Illustration

Robot Type	Handling capacity (kg)	Reach (m)
IRB 6650S	200	3.0

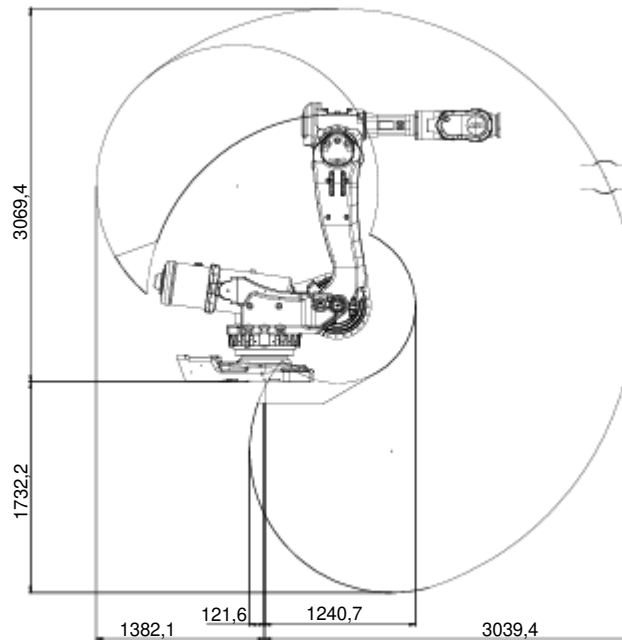


Figure 41 The extreme positions of the robot arm specified at the wrist center (dimensions in mm)

Robot Type	Handling capacity (kg)	Reach (m)
IRB 6650S	125	3.5

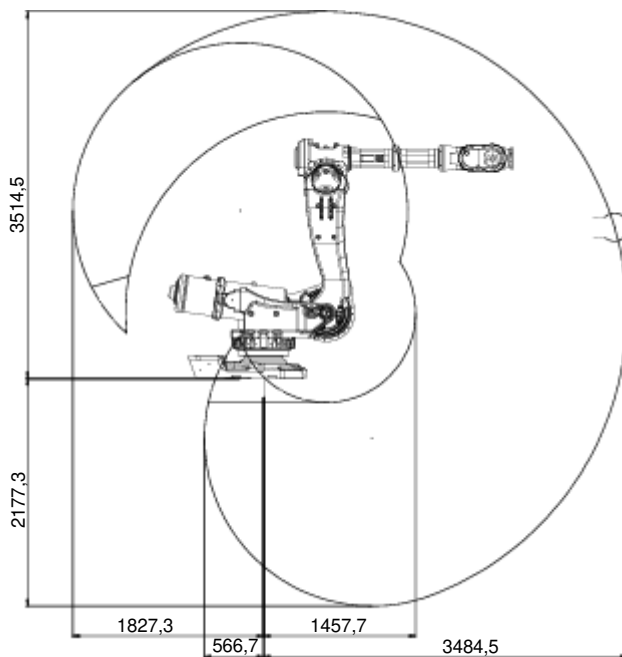


Figure 42 The extreme positions of the robot arm specified at the wrist center (dimensions in mm).

1 Description

1.7.2 Performance according to ISO 9283

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General

At rated maximum load, maximum offset and 1.6 m/s velocity (for IRB 6600-225/2.55, 1.0 m/s velocity) on the inclined ISO test plane, 1 m cube with all six axes in motion.

IRB 6600/6650*	175/2.55	225/2.55	175/2.8	125/3.2	200/2.75
Pose accuracy, AP (mm)	0.02-0.09	0.02-0.18	0.03-0.13	0.04-0.11	0.03-0.11
Pose repeatability., RP (mm)	0.08-0.18	0.14-0.28	0.08-0.20	0.10-0.27	0.09-0.29
Pose stabilization time, PSt (s)	0.02-0.03	0.46	0.21	0.30	0.17
Path accuracy, T (mm)	1.96-2.33	3.56	2.25	1.59	2.40
Path repeatability, RT(mm)	0.67-1.05	0.22	0.32	0.37	0.38

* The values for IRB 6650S-125/ and IRB 6650S-200/3.0 not yet available.

The above values are the range of average test results from a number of robots.

1.7.3 Velocity

Maximum axis speeds

Robot Type	Axis 1	Axis 2	Axis 3	Axis 4	Axis 5	Axis 6
IRB 6600-175/2.55	100°/s	90°/s	90°/s	150°/s	120°/s	190°/s
IRB 6600-225/2.55	100°/s	90°/s	90°/s	150°/s	120°/s	190°/s
IRB 6600-175/2.8	100°/s	90°/s	90°/s	150°/s	120°/s	190°/s
IRB 6650-200/2.75	100°/s	90°/s	90°/s	150°/s	120°/s	190°/s
IRB 6650S-200/3.0	100°/s	90°/s	90°/s	150°/s	120°/s	190°/s
IRB 6650-125/3.2	110°/s	90°/s	90°/s	150°/s	120°/s	235°/s
IRB 6650S-125/3.5	110°/s	90°/s	90°/s	150°/s	120°/s	235°/s

There is a supervision function to prevent overheating in applications with intensive and frequent movements.

Axis Resolution 0.001° to 0.005°.