

IRB 6400R /2.5-120, /2.5-150, /2.5-200, /2.8-150, /2.8-200 and /3.0-100

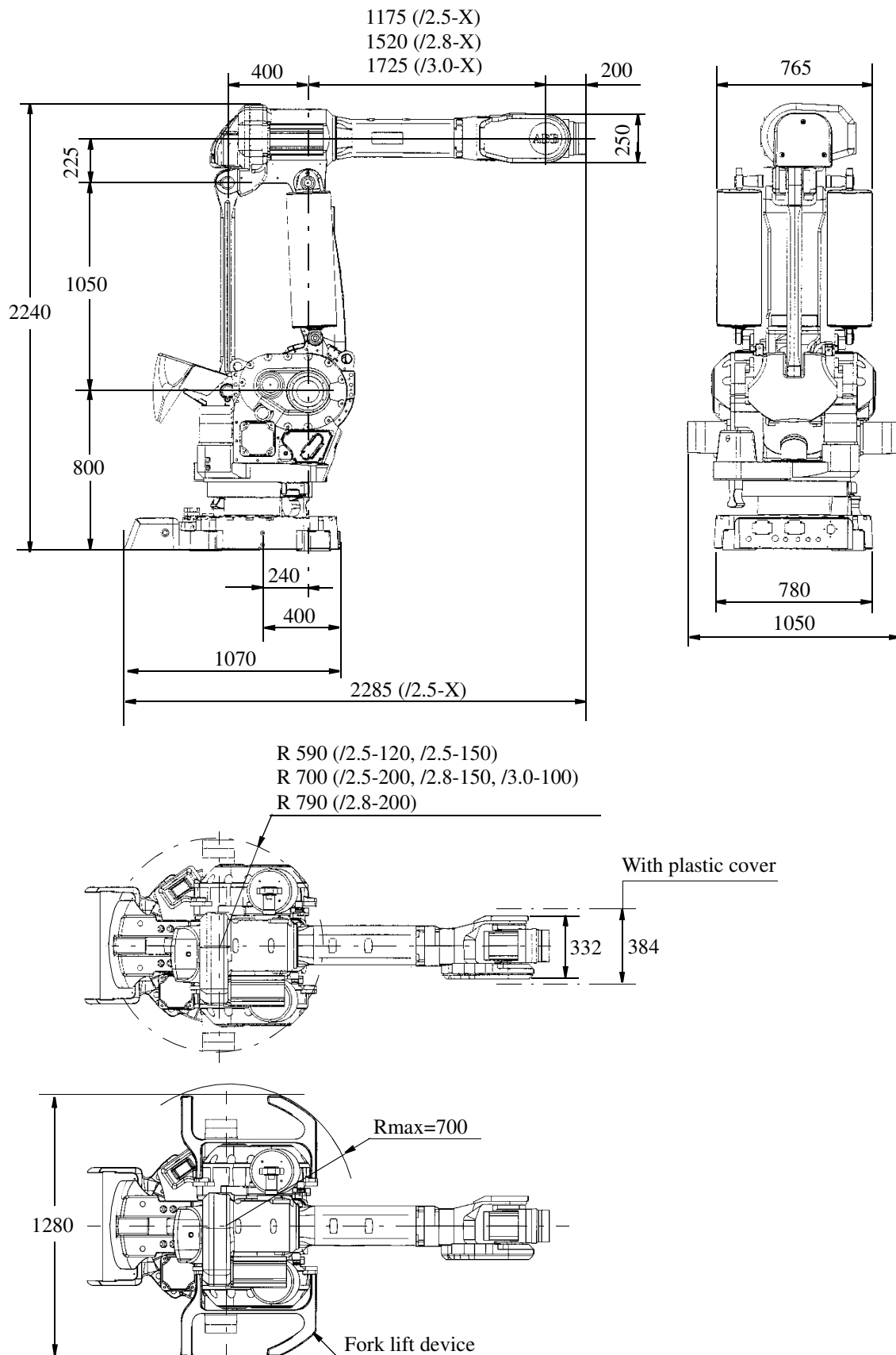
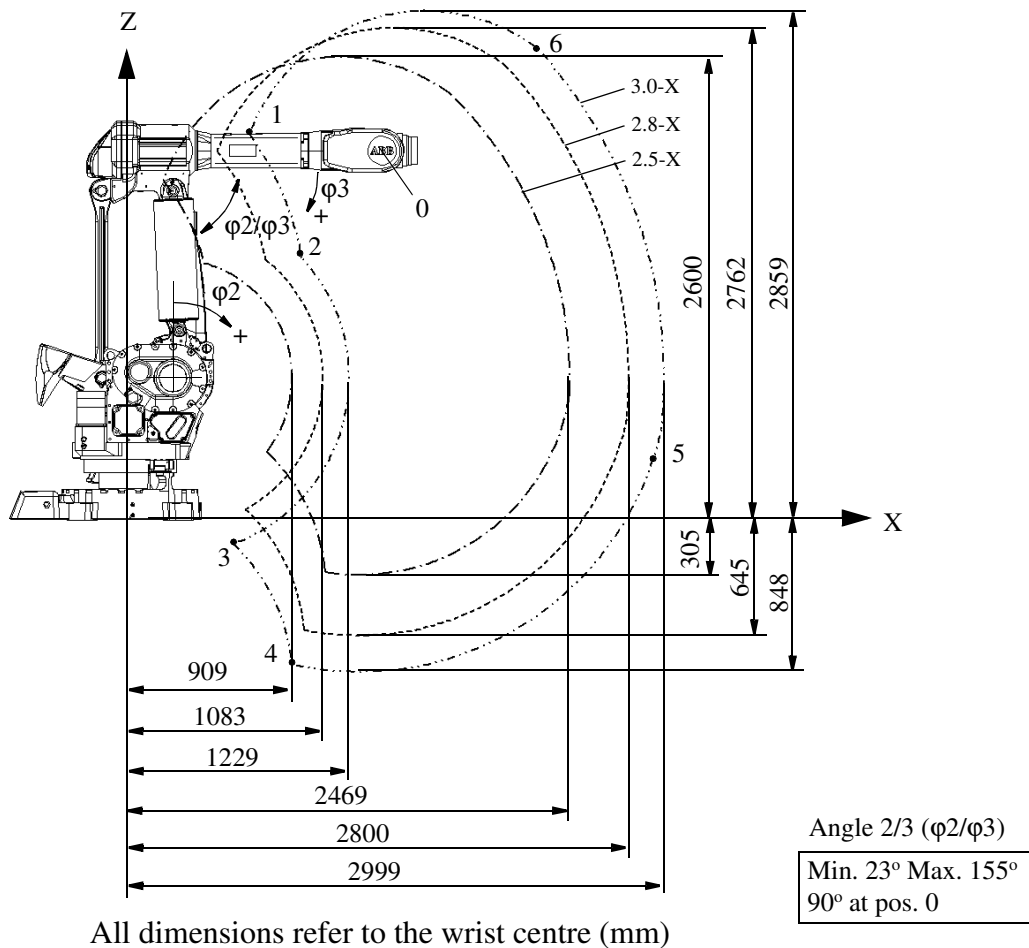


Figure 2 View of the manipulator from the side, rear and above (dimensions in mm).

1.5 Robot Motion

Type of motion	Range of movement
Axis 1 Rotation motion	+180° to -180°
Axis 2 Arm motion	+85° to -70°
Axis 3 Arm motion	+110° to -28°
Axis 4 Wrist motion	+300° to -300°
Axis 5 Bend motion	+120° to -120°
Axis 6 Turn motion	+300° to -300°



All dimensions refer to the wrist centre (mm)

Positions at wrist centre (mm)

Pos.	2.5		2.8-150 -200		3.0-100	
	-120	-150 -200	x	z	x	z
0	1415	2075	1760	2075	1965	2075
1	185	1909	490	2071	671	2168
2	415	1445	760	1463	964	1474
3	766	387	648	63	578	-130
4	1096	-290	978	-614	908	-806
5	2467	701	2791	583	2984	513
6	1804	2389	2108	2551	2289	2647

Angle ϕ_2, ϕ_3 (degrees)

pos.	axis 2 (ϕ_2)	axis 3 (ϕ_3)
0	0	0
1	-70	-28
2	-70	-3
3	43	1101
4	85	1020
5	85	-28
6	37	

Figure 15 The extreme positions of the robot arm

Performance according to ISO 9283

At rated load and 1 m/s velocity on the inclined ISO test plane with all six robot axes in motion.

Unidirectional pose repeatability:

RP = 0.1 mm

Linear path accuracy:

AT = 1.6 - 2.1 mm

Linear path repeatability:

RT = 0.4 - 0.6 mm (IRB 6400R/2.5-120, 2.5-150, 2.8-150)

RT = 0.8 - 1.0 mm (Others)

Minimum positioning time, to within 0.4 mm of the position:

0.2 - 0.25 sec. (IRB 6400R/2.5-120, 2.5-150 on 35 mm linear path)

0.5 - 0.6 sec. (IRB 6400R/2.5-120, 2.5-150 on 350 mm linear path)

0.25 - 0.35 sec. (Others, on 35 mm linear path)

0.6 - 0.7 sec. (Others, on 350 mm linear path)

The above values are the range of average test-results from a number of robots. If guaranteed values are required, please contact your nearest ABB office.

Velocity

IRB 6400R versions: 2.5-120 2.5-150 2.8-200
 3.0-100 2.5-200
 2.8-150

Axis no.

1	110°/s	100°/s	90°/s
2	100°/s	90°/s	70°/s
3	100°/s	90°/s	70°/s
4	210°/s	120°/s	110°/s
5	150°/s	120°/s	110°/s
6	210°/s	190°/s	110°/s

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

Resolution

Approx. 0.01° on each axis.