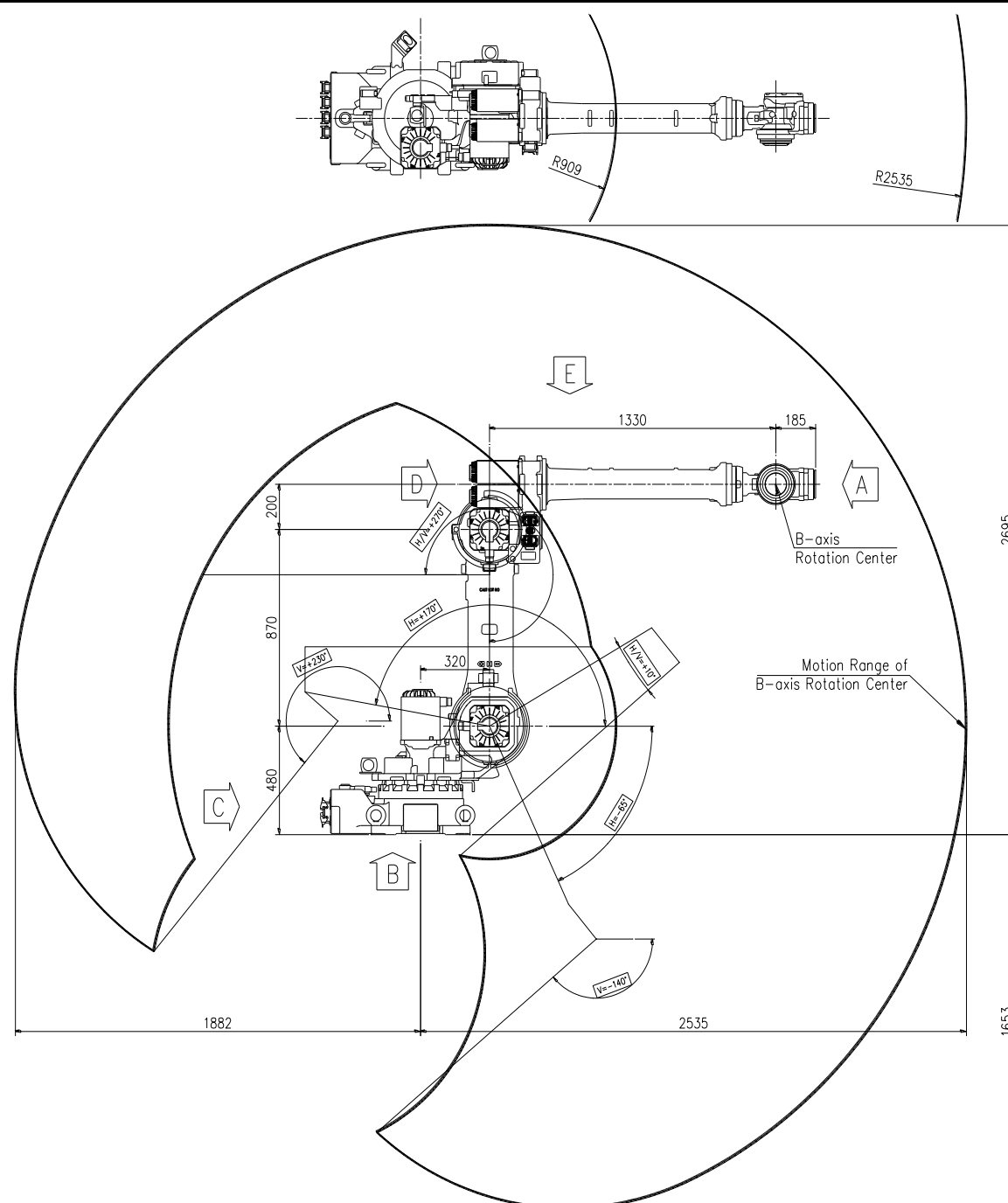


Item				Specification
Robot model				HDR30L-25
Payload				30 Kg
Structure				Articulated
Degree of freedom				6 axes
Max. working envelope	A r m	S	Swivel	± 3.14 rad ($\pm 180^\circ$)
		H	Horizontal	$+2.96 \sim -1.13$ rad ($+170^\circ \sim -65^\circ$)
		V	Vertical	$+3.14 \sim -1.39$ rad ($+180^\circ \sim -80^\circ$)
	Wrist	R2	Rotation 2	± 6.28 rad ($\pm 360^\circ$)
		B	Bending	± 2.18 rad ($\pm 125^\circ$)
		R1	Rotation 1	± 6.28 rad ($\pm 360^\circ$)
Max. working speed	A r m	S	Swivel	2.61 rad / s (150° / s)
		H	Horizontal	2.44 rad / s (140° / s)
		V	Vertical	2.61 rad / s (150° / s)
	Wrist	R2	Rotation 2	4.36 rad / s (250° / s)
		B	Bending	4.36 rad / s (250° / s)
		R1	Rotation 1	6.10 rad / s (350° / s)
Wrist torque		R2	Rotation 2	200 Nm (20.4 Kgfm)
		B	Bending	200 Nm (20.4 Kgfm)
		R1	Rotation 1	100 Nm (10.2 Kgfm)
Accuracy of position repeatability				± 0.05 mm
Ambient Temperature				$0 \sim 45^\circ\text{C}$ ($273 \sim 318$ K)
Robot's Weight				650 Kg



Technical drawing of a 10-M8 TAP DP13 (PCD100) showing side and top views with dimensions and annotations.

Side View Dimensions:

- Overall length: 125 h7
- Internal thread length: 63 H7
- Thread pitch: 1.25
- Thread diameter: $\phi 63$
- End face thickness: 6

Top View Dimensions and Annotations:

- Thread specification: 10-M8 TAP DP13 (PCD100)
- Positioning hole specification: 2- $\phi 8$ H7 DP10 (Pin Hole for positioning)
- Positioning hole diameter: $\phi 8$
- Positioning hole depth: 10
- Positioning hole pitch circle diameter: PCD100
- Positioning hole angular spacing: 30°

Technical drawing of a circular flange with the following dimensions and features:

- Overall Dimensions:**
 - Outer Diameter: 400
 - Inner Diameter: 320
 - Flange Thickness: 40
 - Central Bore Diameter: 165 ± 0.7
 - Distance from Center to Bolt Circle: 165 ± 0.1
 - Distance from Center to Tap Hole: 230
 - Distance from Center to Transport Hole: 235
 - Distance from Center to Pin Hole: 320
 - Distance from Center to Transport Hole: 330 ± 0.1
 - Overall Width: 460
- Features:**
 - 8- $\varnothing 23$ DRILL THRU (Bolt Holes)
 - 2- $\varnothing 20$ H7 THRU (Pin Hole for positioning, option)
 - 4-M24 TAP THRU (For Transport)

The graph shows the relationship between L_{R1} [mm] (Y-axis, 0 to 600) and L_R [mm] (X-axis, 0 to 1000). Two curves are plotted for different loads:

- 20 kg:** The curve is a horizontal line at $L_{R1} = 500$ mm for L_R from 0 to approximately 900 mm, then it curves downwards to $L_{R1} = 0$ at $L_R = 1000$ mm.
- 30 kg:** The curve is a horizontal line at $L_{R1} = 350$ mm for L_R from 0 to approximately 600 mm, then it curves downwards to $L_{R1} = 0$ at $L_R = 700$ mm.

An inset diagram shows a side view of the device with a dimension line indicating L_R from the front face to the center of the shaft.

Diagram illustrating the rear panel connections for the HC-PS3000:

- USER AIR LINE (Rc3/8)**: Points to the air line connection on the left side of the panel.
- SERVO MOTOR ENCODER (HDC HDD 42 MC)**: Points to the first connector in the central row of connectors.
- SERVO MOTOR POWER (HDC HEE 32MC)**: Points to the second connector in the central row of connectors.
- USER I/O (HDC HDD 42 MC)**: Points to the third connector in the central row of connectors.

Diagram illustrating the rear panel connections for the HC-RR3 robot head. The panel features four main connection points:

- USER I/O** (HDC HDD 24 FC): A 24-pin D-sub connector at the top.
- SERVO GUN ENCODER** (HDC HD 8 FC, option): An 8-pin D-sub connector below the I/O port.
- SERVO GUN POWER** (HDC HEE 10 BCM, option): A 10-pin D-sub connector below the encoder port.
- USER AIR LINE** (Rc3/8): A 3/8 inch Rc threaded air line connection at the bottom left.

Technical drawing of a mechanical assembly showing a cross-section of a shaft with various components and dimensions. The drawing includes the following labels and dimensions:

- 4-M10 TAP DP15**: Label pointing to a threaded section on the shaft.
- 6-M8 TAP DP10**: Label pointing to a threaded section on the shaft.
- 70**: Dimension indicating the length of the first section on the left.
- 80**: Dimension indicating the length of the second section.
- 234.5**: Dimension indicating the length of the third section.
- 50**: Dimension indicating the length of the fourth section.
- 100**: Dimension indicating the length of the fifth section.
- 300**: Dimension indicating the length of the sixth section.



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