

Further technical data for HORST600 robot system.

Technical data version: **V220506**

## 1 Technical data - HORST600

<b>Robot</b>	HORST600
<b>Number of axes</b>	6
<b>Maximum payload</b>	3 kg
<b>Nominal load</b>	2 kg
<b>Max. range</b>	584 mm
<b>Repeatability</b>	+/- 0.05 mm
<b>Protection classification</b>	IP54
<b>Sound level</b>	< 70 dB (A)
<b>Weight</b>	ca. 30 kg
<b>Power supply</b>	230 VAC, 50-60 Hz, typically: 250 W
<b>Ambient temperature</b>	5-40 °C
<b>Installation area (L x W)</b>	382 mm x 200 mm
<b>Standard color</b>	RAL 5021 (water blue)

## 2 Performance data - HORST600

	<b>HORST600</b> without horstFX performance	<b>HORST600</b> with horstFX performance
<b>Max. speed TCP</b>	1.4 m/s	4.4 m/s
<b>Payload individually adjustable</b>	No	Yes

## 3 Axis data - HORST600

### 3.1 HORST600 speeds

		<b>HORST600</b> without horstFX performance	<b>HORST600</b> with horstFX performance
<b>Axis</b>	<b>Range of movement</b>	<b>Speed</b> (Payload-independent; rounded down)	<b>Speed</b> (With a payload of 0 kg; rounded down)
1	+/- 173°	115 °/s	370 °/s
2	+115° / -64°	25 °/s	140 °/s
3	+41 / -176°	80 °/s	340 °/s
4	+/- 172°	240 °/s	1080 °/s
5	+/- 142°	220 °/s	940 °/s
6	+/- 300°	210 °/s	1080 °/s

The maximum axis speeds were determined with a payload of 0 kg as this is the only way to ensure that the measured values can be compared properly. At maximum payload, the maximum speed can vary greatly since it depends directly on the position of the center of mass. The maximum speed at 0 kg payload, on the other hand, is unambiguous as the influence of the center of mass of a payload does not apply.

In general, speed is rather less suitable as a basis of decision-making in robot selection, as it only shows the actual performance of a robot to a limited extent. Depending on the range of motion and the motion profile of the application, high accelerations, for example, can have a significantly greater influence on cycle time and economic efficiency than speed. It is therefore recommended to analyze the application with the corresponding framework conditions by using horstFX Web<sup>1</sup> or via a feasibility analysis, for example.

<sup>1</sup> <https://horstcosmos.com/apps/horstfxweb>

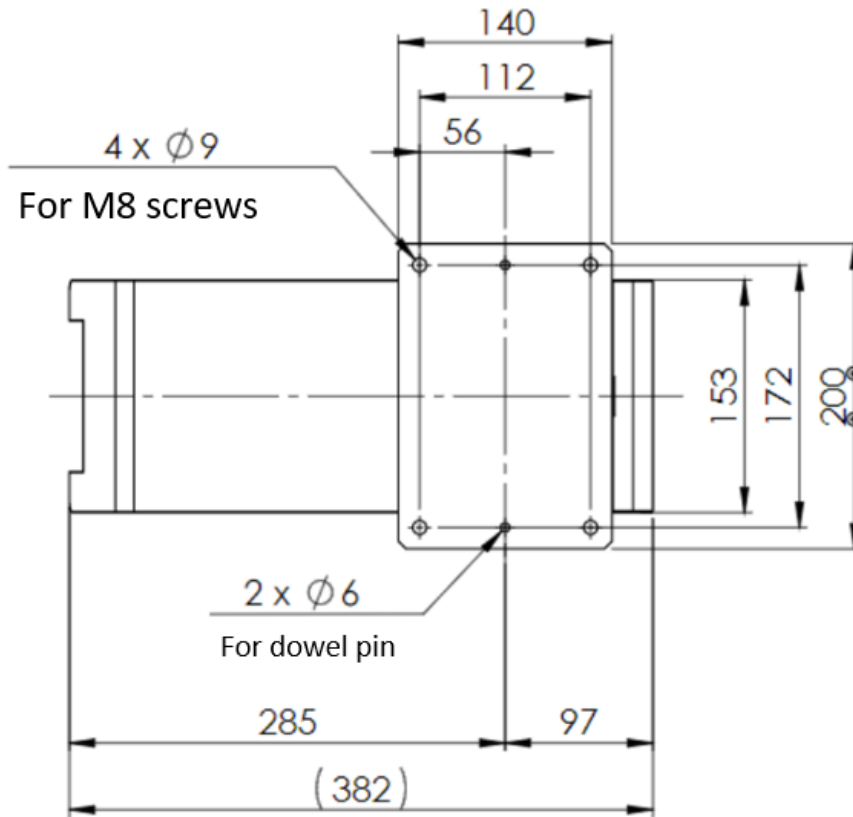
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## 4 Technical data horstCONTROL

<b>horstCONTROL</b>	
Dimensions (H x W x D)	313 mm x 174 mm x 446 mm
Weight	ca. 10 kg
Protection classification	IP20
I/O connections on switch cabinet	20 digital inputs (expandable to 28) 18 digital outputs (expandable to 30)
I/O connections on tool flange	2 digital inputs and outputs each M8 male, 4-pin, angled, A-coded
I/O power supply	24 V/7 A at control 24 V/2.5 A at tool flange
Communication	TCP/IP 100-Mbit/s Ethernet [Web interface via HTTP]
Fieldbuses	Modbus/TCP Profinet  (Activation of the interfaces via horstFX extension "horstFX External")
Safety-relevant Interfaces (2 channels each)	Emergency stop [input and output] Safety stop [input and output] In accordance with DIN EN ISO 10218-1; PL d.  + 4 config. safe inputs (also configurable as 8 digital inputs) + 6 config. safe outputs (including 2 potential-free contacts)
USB ports	2x USB port 3.0
Wiring of HORST	3 m cable between robot and switch cabinet
Wiring of operating panel	5 m cable between operating panel and switch cabinet

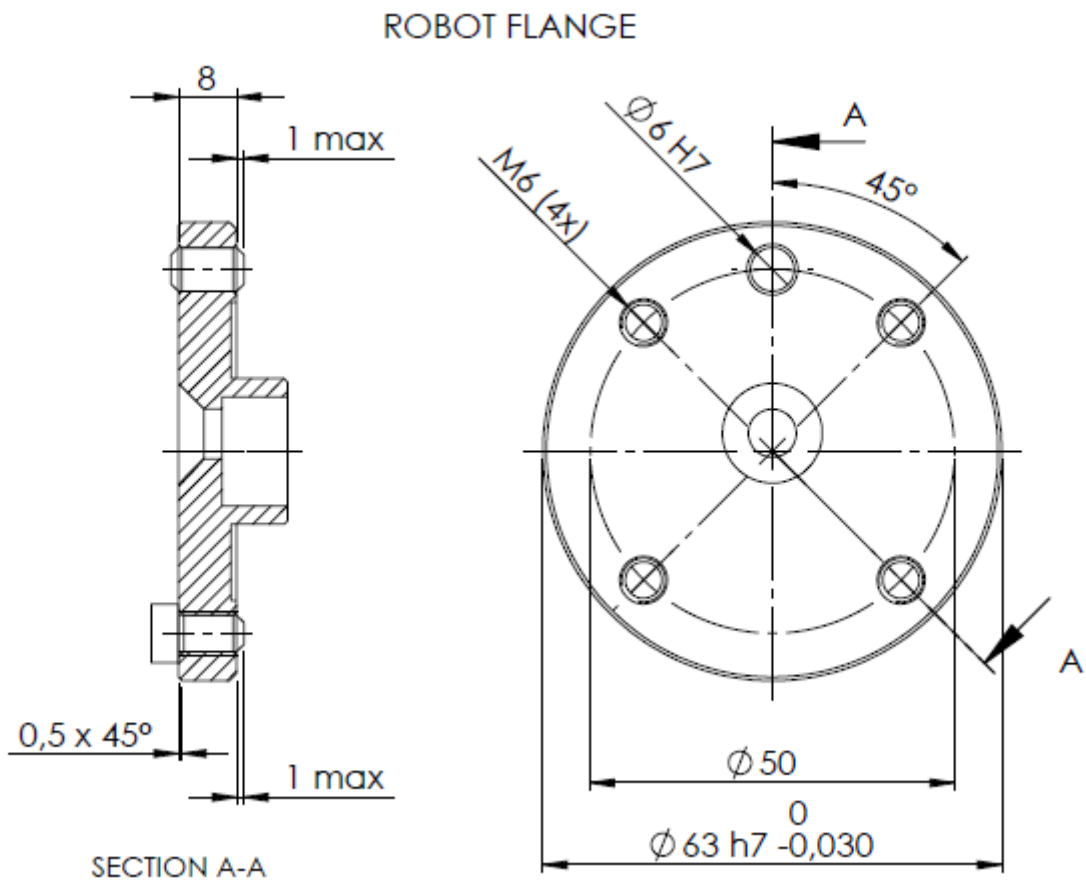
## 5 HORST600 Base drilling pattern

### Base drilling pattern on the robot



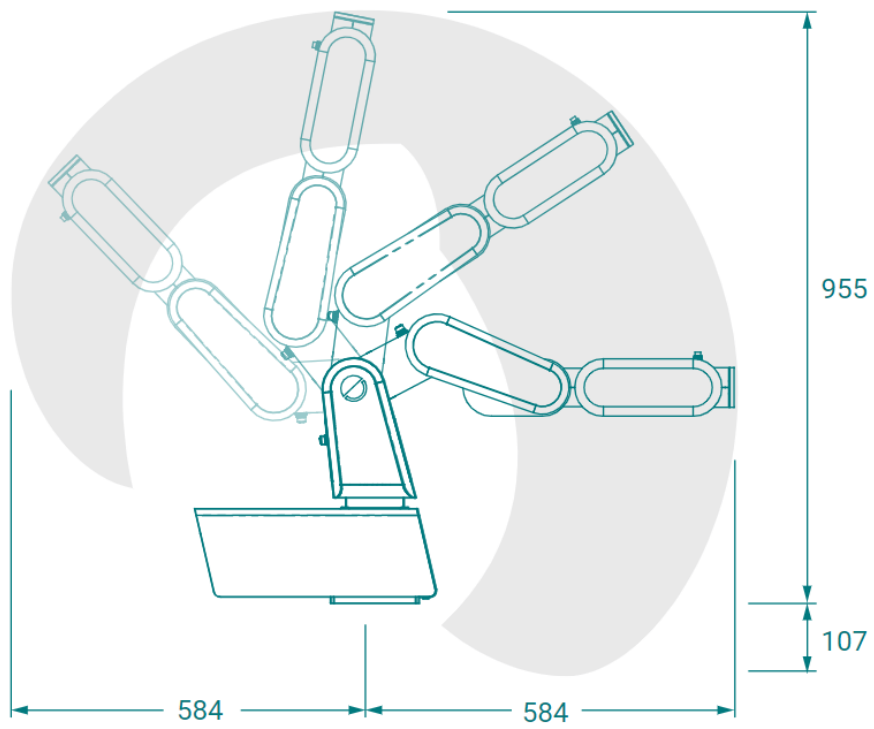
Dimensions of the installation area and base drilling pattern of HORST600.

## 6 Illustration robot flange

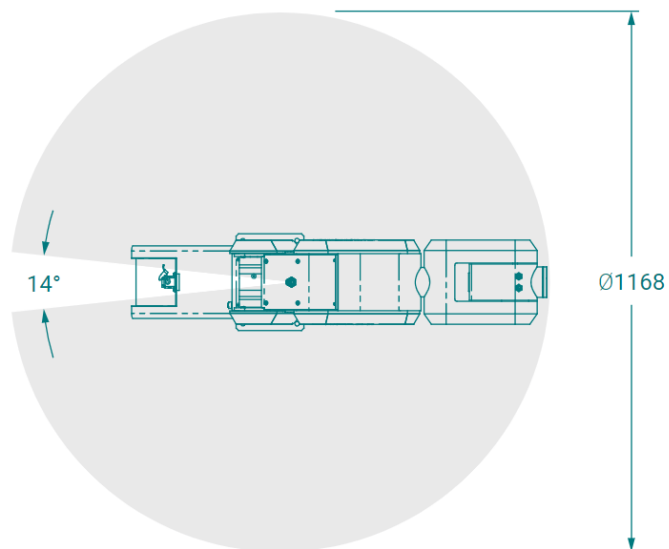


Flange of all HORST robot models

## 7 HORST600 Workspace

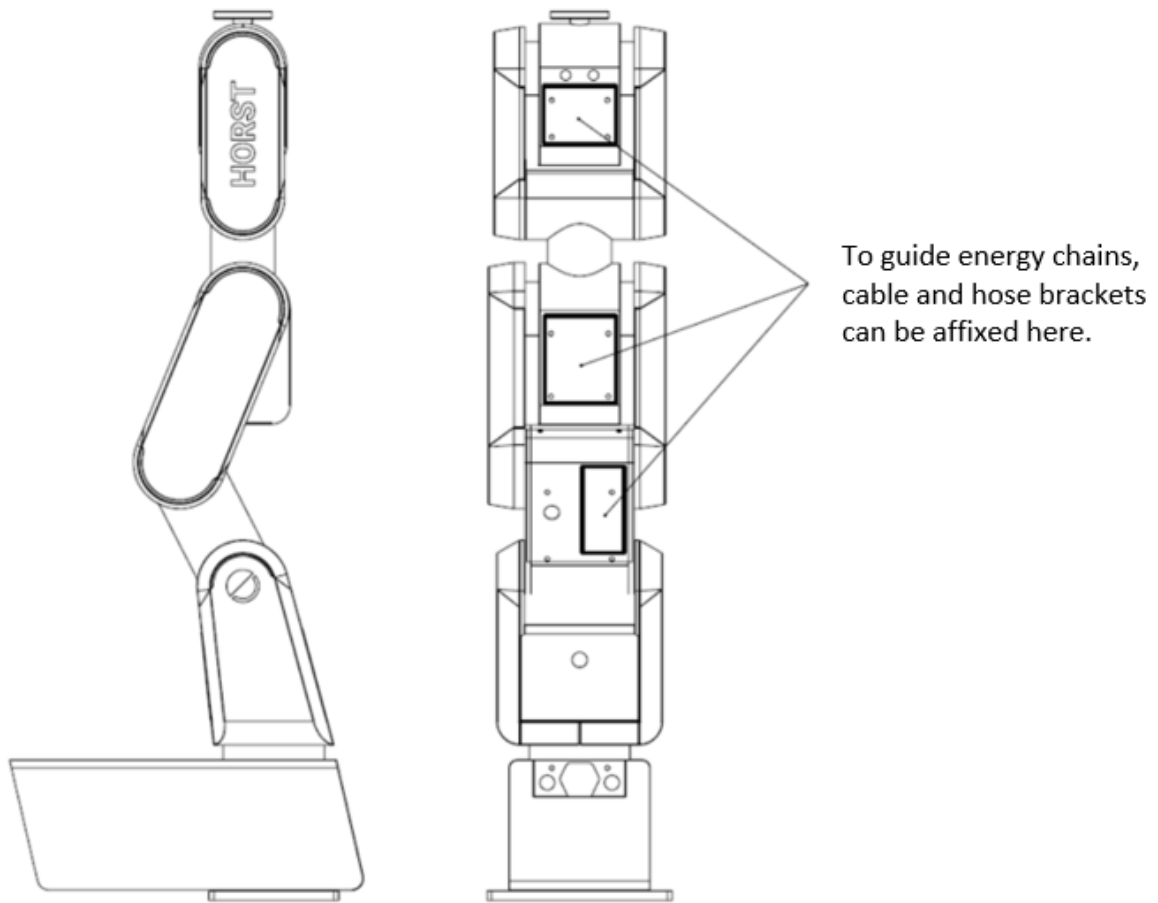


HORST600 workspace – side view



HORST600 workspace – plan view

## 8 Attachment of external energy chains



External energy chains can be attached to HORST600 at the positions shown. Hose brackets are not included in the scope of delivery of the robot system.