

# MOTOMAN HD7

## Industrial Robot in Hygienic Design



**The new 6-axis high-performance robots from the MOTOMAN HD Series were developed in collaboration with the Fraunhofer Institute for Manufacturing Engineering and Automation IPA for use in hygienic and cleanroom environments.**

With its modern design, the HD Series meets the strict standards for applications in the food, life sciences, laboratory automation, medical and pharmaceutical sectors.

These robot models are particularly suitable for laboratory, humid and cleanroom environments, are easy to clean and resistant to commonly used disinfectants and disinfection processes.

The product can be operated with an intuitive Smart Pendant or conventional Teach Pendant.

As a MOTOMAN product, the HD7 robot guarantees the highest industrial quality standards and reliability for many years of 24/7 operation.

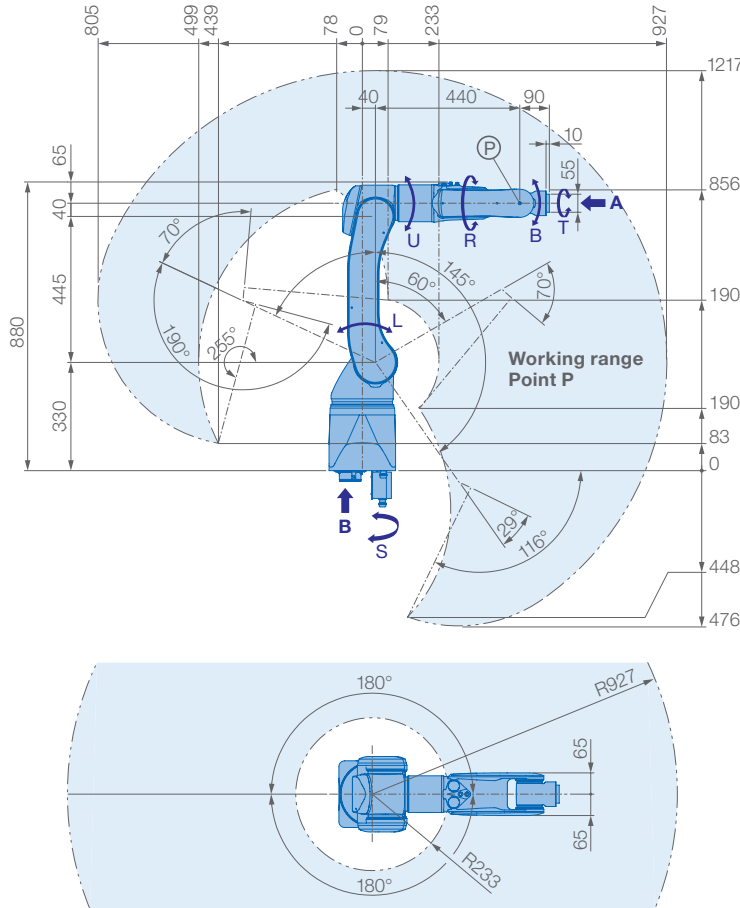
### ADVANTAGES AT A GLANCE

- Hygienic Design: encapsulated housing, no protruding screws
- FDA- and EC 1935/2004-compliant materials with high chemical resistance and excellent cleanability
- Stainless steel flange
- Robot connections on the underside
- Internally routed cables and hoses, including Ethernet connections
- Hygienically designed axes and flange with O-ring groove
- Very low particulate emissions
- Food grade grease
- Protection rating IP69
- Compliant to Bioquell HPV processes
- D-Value tested

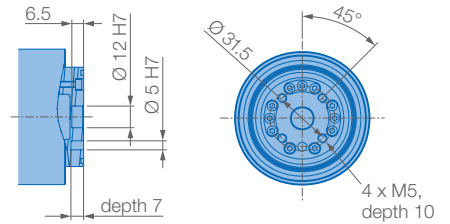
### CERTIFICATIONS AND COMPLIANCE

- ISO 14644-1, Cleanroom class 5
- GMP conform: Class A
- EN 1672-2:2005+A1:2009
- ISO 14159
- IEC 60529

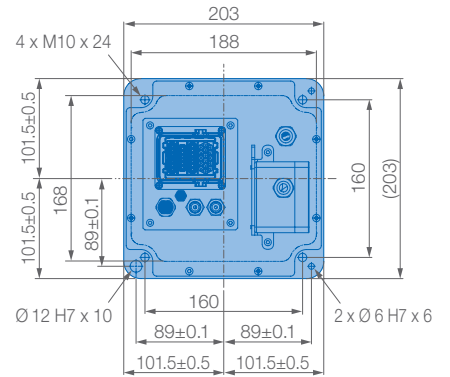




View A

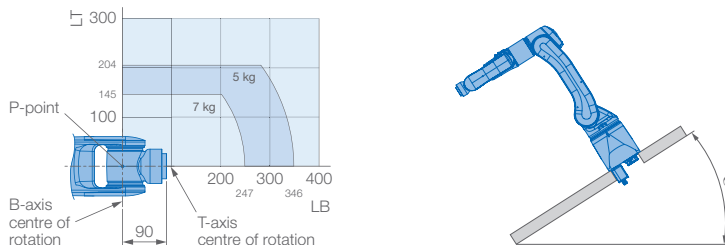


View B



Mounting options: Floor, ceiling, wall, tilt\*  
 IP Protection: IP69  
 \* tilt with condition of angle – see table below

Allowable wrist load



Robot installation angle $\theta$ [deg.]	S-axis operating range [deg.]
$0 \leq \theta \leq 30$	$\pm 180$ degrees or less (no limit)
$30 < \theta \leq 35$	$\pm 60$ degrees or less
$35 < \theta \leq 45$	$\pm 45$ degrees or less
$45 < \theta$	$\pm 30$ degrees or less

Specifications HD7						
Axes	Maximum motion range [°]	Maximum speed [°/s]	Allowable moment [Nm]	Allowable moment of inertia [kg · m <sup>2</sup> ]	Controlled axes	6
S	$\pm 180$	375	–	–	Max. payload [kg]	7
L	+145/–65	315	–	–	Repeatability [mm]	$\pm 0.02^*$
U	+190/–70	410	–	–	Max. working range R [mm]	927
R	$\pm 190$	550	17	0.5	Temperature [°C]	0 to +45
B	$\pm 135$	550	17	0.5	Humidity [%]	20 – 80
T	$\pm 360$	1000	10	0.2	Weight [kg]	47
					Power supply, average [kVA]	1**

\* Conforms to ISO 9283 \*\* Varies in accordance with applications and motion patterns Note: SI units are used for specifications.

Robotics Division

YASKAWA Europe GmbH  
 Yaskawastraße 1  
 85391 Allershausen, Germany  
 Tel. +49 (0) 8166/90-0  
 Fax +49 (0) 8166/90-103  
 robotics@yaskawa.eu  
 www.yaskawa.eu

YASKAWA Headquarters  
 Academy and Sales Office

YASKAWA Europe GmbH  
 Philipp-Reis-Straße 6  
 65795 Hattersheim am Main,  
 Germany  
 Tel. +49 (0) 6196/77725-0  
 Fax +49 (0) 6196/77725-39

All drawing dimensions in mm. Technical data may be subject to change without previous notice. Please request detailed drawings at robotics@yaskawa.eu.

YR-1-06VXM7-A01 · C-10-2025, A-No. 231036



YASKAWA