



VOYAGER 200R

VOYAGER 200 R is BM Group Polytec S.p.a. AGV project.

Its purpose is to **automate and optimize transport** of 30kg payload tools in automated machinery shops. Its **payload of 2000 kg** lets our AGV be able to transport a Fanuc M-20iB-35S and up to **10 tools** without any other safety measure, even in crowded environment.



GENERAL CARACTERISTICS

Type	Autonomous Guided Vehicle (AGV)
Use	Transport for indoor logistic
Color	Black RAL 9005 / Yellow RAL 1021

MECHANICAL CARACTERISTICS

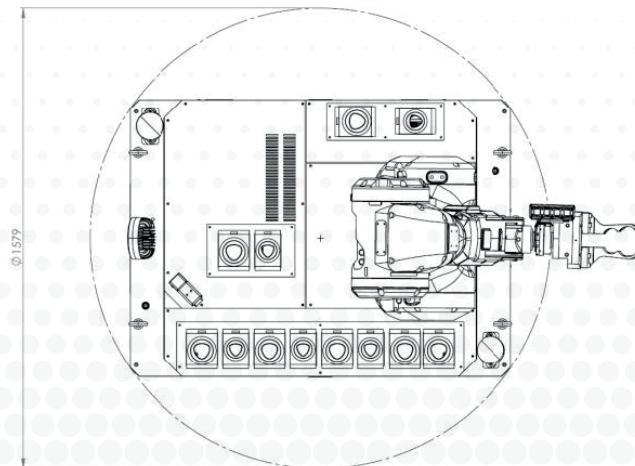
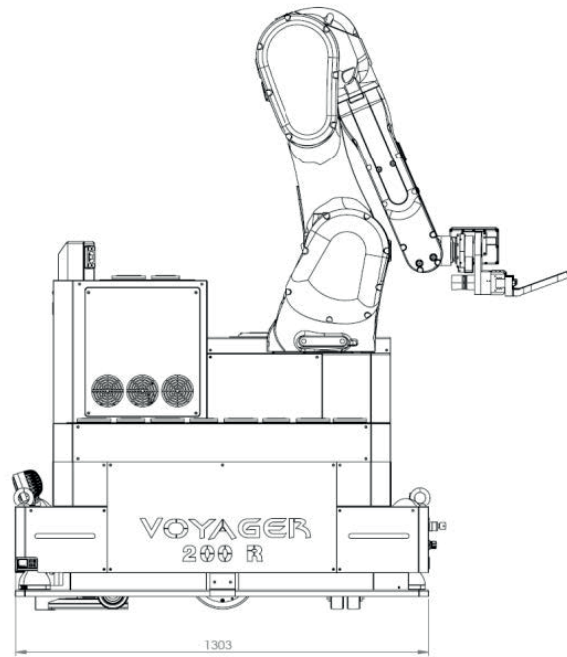
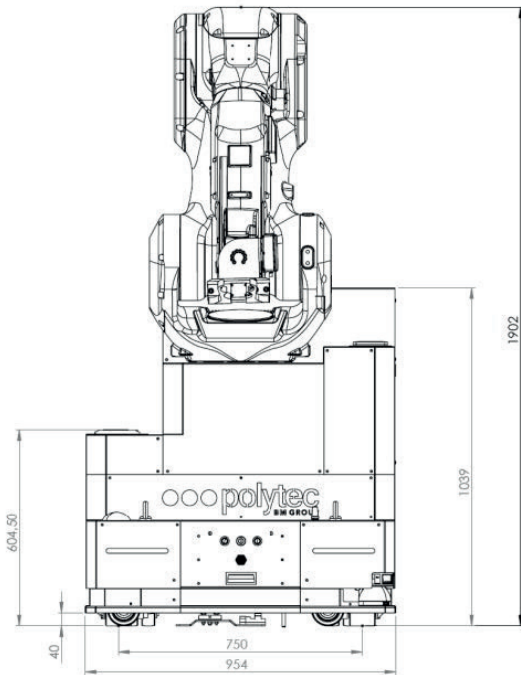
Length (mm)	1300
Width (mm)	954
Height (mm)	1902 (Robot in home position)
Tool poses height (mm)	605 - 1039
Weight (kg)	1043
Ground clearance (mm)	40
Load surface (mm)	10 x CAPTO (C6-C8) Positions

PAYLOAD

Payload (Kg)	1500
--------------	------

ROBOT

Robot type	Fanuc M-20iB-35S
Maximum lifting load (kg)	30
Maximum EOAT speed (mm/s)	300
Vision system	Fanuc 3DV-400



NAVIGATION GUIDANCE

Navigation type	Natural (Laser scanner based)
Positioning precision (mm)	± 20 (With optimal environment fixed references)
Angular precision (°)	± 2
Maximum speed (m/s)	1,2
Maximum obstacle height (mm)	25
Minimum width (rotation in place) (mm)	1700
Minimum corridor width (mm)	1250

BATTERY & RECHARGE

Battery type	LiNMC
Rated Voltage (VDC)	44,4
Capacity (Ah)	100
Available energy (kWh)	4,440 (100 Ah @ 44,4V)
Fast Recharge capacity	1 C (100 A)
Standard Recharge capacity	0,5 C (50 A)
BMS (Battery management system)	CAN OPEN communication enables charging only if communication with Battery charger is active
Cycle life	≥2000 at 80% Depth Of Discharge
Charger connection type	Contacts plate
Charger power (kW)	1,5 (48V 33A rated)
Charger connection	85-270 VAC - 50 / 60 Hz
Recharge time (min)	< 180 (10% - 90%)
Autonomy	8h (continuous movement @ full load)

ENVIRONMENT

Ambient temperature (°C)	-5 ÷ 45 (Rated performance @ 25° C)
Humidity	10-95% without condensation
Type of environment	Indoor