

IRT 501

FlexTrack: modular track motion platform for robot 7th axis & material transfer



The FlexTrack is designed to transfer the part/workpiece in front of the process robots or to carry robots for various processes therefore increasing the robot working envelope. The carriages are servo driven and could be free positioned. The FlexTrack has a high degree of modular design and could be ordered with different lengths and a number of options.

Key Benefits

- Driven by ABB IRC5 robot controller
- Support SafeMove to ensure robot and human safety
- Compact modular design - with one-meter module and multiple carriages
- Easy to use – integrated leveling system
- Entirely protected – cable chain inside track
- High repeatability
- Dynamic payload capacity for heavy duty
- High speed and acceleration
- Low maintenance

Applications

- Material handling
- External axis for industrial robots

Base package

- IRT 501 FlexTrack minimum length 2.3 m
- One carriage
- Upper, lateral, and side cover
- Parameter disk
- Documentation
- Automatic lubrication

Options

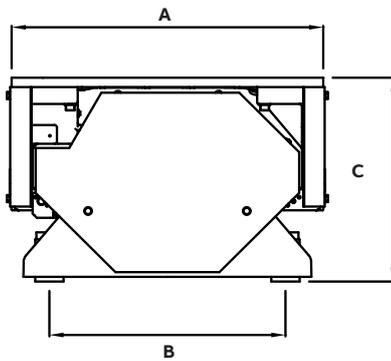
- Additional carriages
- Electric working range limit switch
- Zone division for track motion
- SMB box

Data		IRT 501-66	IRT 501-66R	IRT 501-90	IRT 501-90R	IRT 501-90RE	IRT 501-90RS
A (mm)	Total width	660	660	900 ⁱ	900 ⁱ	900 ⁱ	900 ⁱ
B (mm)	Width (foot print)	500	500	680	680	680	680
C (mm)	Height	435	435	495	495	495	495
D (mm)	Distance between 2 feet	1050	525	1050	525	525	525
E (mm)	Top plate length	1050	1150	900	900	900	900
F (mm)	End cover length	366 ⁱⁱ					
L (mm)	Total length	732 ⁱⁱⁱ + (M x 1050) ⁱⁱⁱ with M = number of modules.					
Repeatability		+/- 0.02 mm	+/- 0.02 mm	+/- 0.02 mm	+/- 0.02 mm	+/- 0.02 mm	+/- 0.02 mm
Acceleration		2 m/s ²	1.2 m/s ²	1.2 m/s ²	1.0 m/s ²	1.0 m/s ²	1.6 m/s ²
Deceleration		2 m/s ²	1.8 m/s ²	1.8 m/s ²	1.2 m/s ²	1.2 m/s ²	1.6 m/s ²
Travel Speed		2 m/s	1.5 m/s	1.5 m/s	1.2 m/s	1.2 m/s	1.8 m/s
Maximum Payload		900 kg	2,000 kg	2,000 kg	2,950 kg	2,950 kg	2,950 kg

ⁱ When equipped with external cable chain, the IRT501-90 and IRT501-90R total width is extended to 1,200 mm.

ⁱⁱ In option, for FlexTracks with a single carriage, a short end cover can be used on one end. The length of such cover is 105 mm and the total length is then reduced to 474 + M x 1050. It is also possible to order the FlexTrack without any casing.

ⁱⁱⁱ The total length of the FlexTrack depends on the quantity of elementary modules, each module being 1,050 mm long. A FlexTrack can be assembled with a minimum of 2 modules and a maximum of 115 modules.



Type	Weight (kg)
IRT 501-66	W = 595 + M x 195 + C x 327
IRT 501-66R	W = 637 + M x 237 + C x 327
IRT 501-90	W = 710 + M x 222 + C x 393
IRT 501-90R	W = 752 + M x 264 + C x 393
IRT 501-90RE/RS	W = 805 + M x 264 + C x 446

with:
M = Number of modules
C = Number of additional carriages
(first carriage already included, C = 0 if only one carriage)

