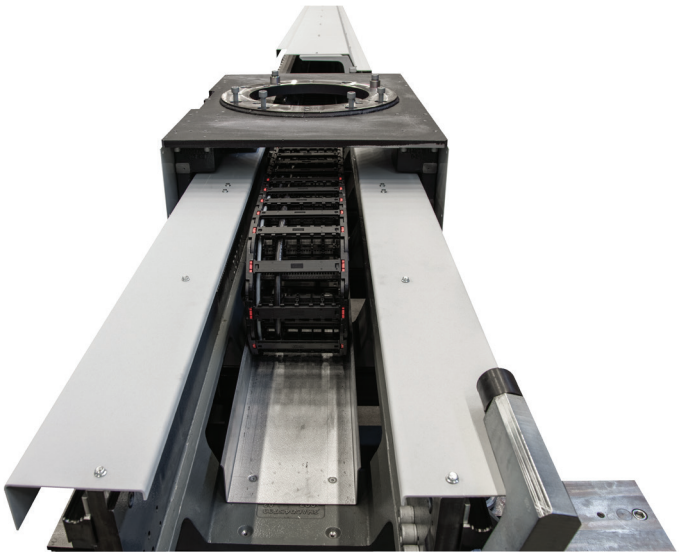
Robotics

IRBT 2005
Medium Track Motion Platform

The only track motion platform on the market to guarantee high speed and precision accuracy, the IRBT 2005 from ABB offers greater flexibility and up to 50% shorter cycle times.



Modular platform design

ABB's Medium Track Motion (MTM)'s design is smart and compact with a symmetrical profile. Maximum integration ensures the protection of components in a small footprint.

The IRBT 2005 consists of a standard 1 meter long module that allows for the addition of numerous track and travel lengths for robots and transfer applications. The track's modularity allows for product evolution during its entire life span.

Adaptable to various environments, the IRBT 2005 is available in two variants, standard uncovered and fully covered.

Supported robot families

- IRB 1520
- IRB 1600
- IRB 2600
- IRB 4600

Prepared for different process applications

The IRBT 2005 is available with multiple carriages - two for the robot and up to three for transfer applications. The robot track is available with additional carriage plates that allow them to carry the required equipment for specific applications such as Arc Welding and Sealing.

The internal cable chain of IRBT 2005 can be delivered pre-equipped with the suitable cables for different arc welding sources, or different customer power and signal cables.

Each robot carriage has the option of being equipped with an empty external cable chain for additional application cables. Robot pedestals range from 250mm to 1000m and can be selected as can robot orientations.

Outstanding speed and accuracy

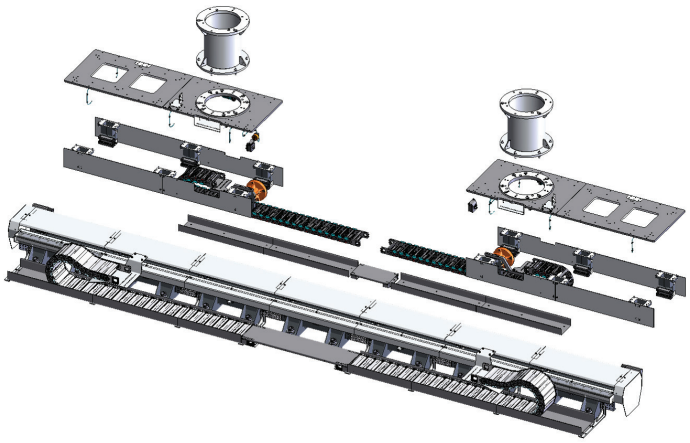
ABB's unique QuickMove™ and TrueMove are also critical to the MTM's functionality. Together they guarantee optimal movement for the robot and the track with actual load. Path accuracy and speed are also optimized.

Benefits

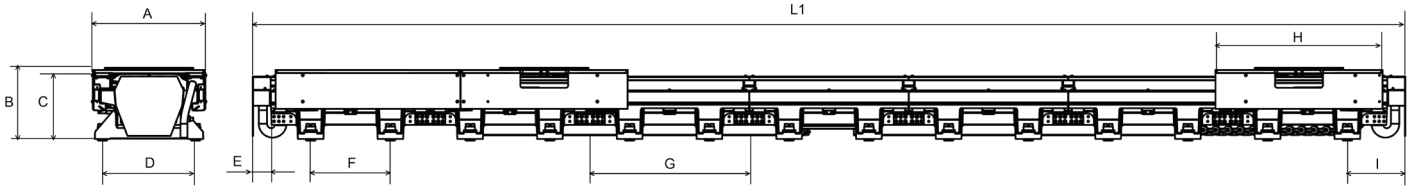
- Path accuracy best in class.
- Compactness and modularity
- Integrated and protected components
- Prepared for different applications (Arc Welding, Material Handling, Machine Tending).
- Wide range of options for different configurations.
- Unique platform for robots and transfer applications
- High reliability, low maintenance need, easy to repair

Options	IRBT 2005
Track type	Robot or Transfer
Carriages	1 to 2 for Robot , 1 to 3 for Transfer
Track length	2 to 21 modules of 1m length
Track travel direction	Standard or Mirrored
Track version	Standard or Covered
Extension module for transfer	2 to 21 modules of 1m length, 1 to 3 transfer carriage
Additional carriage plate	For each robot carriage
Robot Oriantation	0°, 90°, 180° 270°
Robot Pedestals	250mm to 1000mm (limited to 250mm for IRB4600)
External cable chain	For each robot carriage
Internal cables packages	Robot Cables, Arc welding equipment including TSC (torch service center), Customer power/Customer signals (CP/CS)

Travel Lenght	1	3	5
Positioning time (s) max payload 1200kg	1,42	2,48	3,46
Positioning time (s) payload <600kg	1,15	2,15	3,16



IRBT 2005		
Max Payload (Kg)	1200 kg	< 600kg
Speed (m/s)	2 m/s	2 m/s
Max. acceleration (m/s²)	2,5 m/s²	4 m/s²
Pose repeatability, RP (mm)	≤ ± 0.05	≤ ± 0.05



Pos	Description*	Robot	Robot with extra plate	Transfer
A	Total width	700		
B/C	Height	450		435
D	Width (foot print)	584		
E	End cover	115		
F	Distance between two feet	500		
G	Length of one section	1000		
H	Carriage table length	1048	2209	1150
I	Distance between the end cover and its nearest feet	365		
L1	Total length of the track with internal cable chain	230 + N x 1000**		

Note: If option external cable chain is used some of the values in the table will change.
*All dimensions are in mm.
**In which N indicates the numbers of sections

For more information please contact:

ABB AB
Robotics
Hydrovägen 10
SE-721 36 Västerås, Sweden
Phone: +46 21 325000

www.abb.com/robotics