WITTMANN ROBOTS
Leading Worldwide with the Best Technology

Decades of application experience, innovative developments and more than 35,000 produced units have made the WITTMANN robots what they are today – the best robots for the plastics industry! Well planned detailed solutions and state-of-the art components allow highest reliability, shortest cycles and long intervals between maintenance.

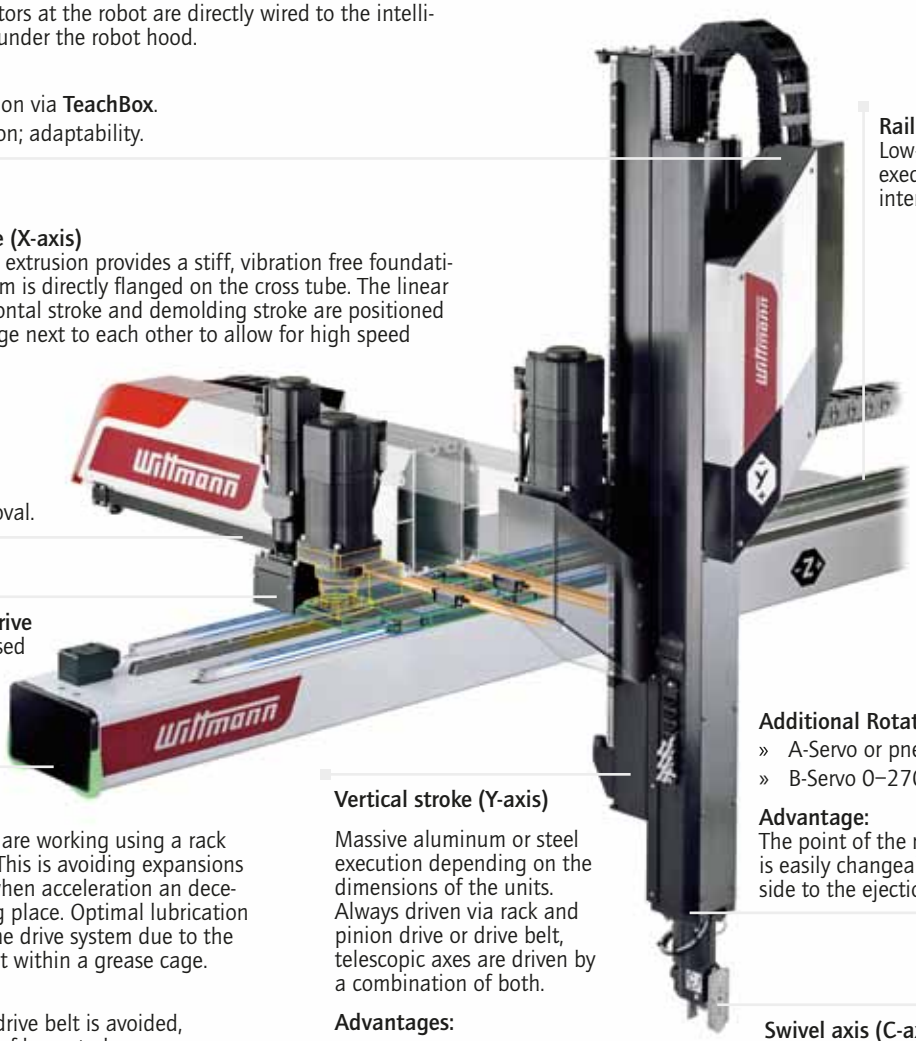
BUS technology
All sensors/actuators at the robot are directly wired to the intelligent control card under the robot hood.

Advantages:
» Central operation via **TeachBox**.
» Simple extension; adaptability.

Demolding stroke (X-axis)
A large aluminum extrusion provides a stiff, vibration free foundation. The vertical arm is directly flanged on the cross tube. The linear bearings for horizontal stroke and demolding stroke are positioned in the main carriage next to each other to allow for high speed operation.

Advantages:
» Reduction of vibrations.
» Most precise insertion/removal.

Powerful Servo Drive
Servo drives are used on all main axes.



Rail guides
Low-maintenance execution for lubrication intervals of about 1 year.

Horizontal stroke (Z-axis)
95% of all robots are working using a rack and pinion drive. This is avoiding expansions of the drive belt when acceleration an decelaration are taking place. Optimal lubrication and life span of the drive system due to the pinion's placement within a grease cage.

Advantage:
Expansion of the drive belt is avoided, especially in case of long strokes.

Vertical stroke (Y-axis)

Massive aluminum or steel execution depending on the dimensions of the units. Always driven via rack and pinion drive or drive belt, telescopic axes are driven by a combination of both.

Advantages:
» Torsional stiffness through high-strength construction.
» B-axes can be directly integrated into the profile.
» Possibility of placing the compressed air supply and the control lines internally.

Additional Rotational Axes (optional)
» A-Servo or pneumatic.
» B-Servo 0–270°.

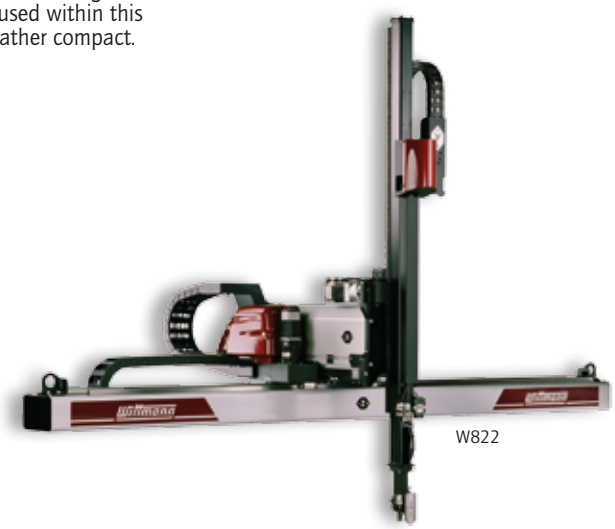
Advantage:
The point of the removal activity is easily changeable from the nozzle side to the ejection side.

Swivel axis (C-axis)
For nearly all scales equipped with locking bolts. This avoids the deviation when a decrease in pressure occurs.

MIDDLE SERIES
Clamping Forces from 300 to 1,200 tons

Middle series robots are primarily units that are equipped with a moving demolding stroke. In the first line, this is due to the more complex grippers that are used within this range, and also to the need of keeping the overall height of the system rather compact.

» **W822**
Rack and pinion drive for the vertical axis. The **W822** can handle 15 kg of payload on strokes of either 1,000 mm or 1,200 mm and 12 kg when fitted with the 1,400 mm axis option.


W822

» **W832 pro**
The vertical arm is a rigid aluminum extrusion with two high load linear bearings and a maximum length of 1,600 mm (63"). Designed for payloads up to 35 kg (77 lbs) and offering a high torque C-axis rotation for placing. A popular robot for insert jobs.


W832 pro

» **W833 pro**
Gripper and part weight up to 15 kg (33 lbs) with a maximum vertical stroke of 1,800 mm (71"). Therefore best suited for flexible automation on injection molding machines up to approximately 750 tons.


W833 pro

Technical Specifications

Control CNC 8 + Teachbox R8

	W808	W818	W818T	W821	W822	W823	W828	W831
Payload	3	6	6	12	15	12	12	12
Fixed X-axis	●	●	●				●	
Movable X-axis				●	●	●		●
Single Y-axis	●	●		●	●		●	●
Teleskopic Y-Axis			●			●		
Z-Stroke [mm]	1,250–2,000	1,250–2,500	1,250–2,500	1,250–4,000	1,250–4,000	1,250–4,000	1,500–3,000	2,000–5,000
X-Stroke [mm]	440	420–620	390–590	350–550	350–550	350–550	905–1,105	800
Y-Stroke [mm]	600–1,000	800–1,200	800–1,000	800–1,400	1,000–1,400	800–1,400	1,200–1,400	1,000–1,400

	W832 pro	W833 pro	W842 pro	W843 pro	W853	W873	W821 UHS	W832 UHS	W833 UHS
Handling load	25	15	25	35	50	125	3	7	5
Fixed X-axis									
Movable X-axis	●	●	●	●	●	●	●	●	●
Single Y-axis	●		●				●	●	
Telescopic Y-axis		●		●	●	●			●
Z-Stroke [mm]	2,000–5,000	2,000–5,000	2,500–6,000	2,500–6,000	3,000–6,000	5,000–8,000	1,500–2,500	2,000–4,000	2,000–4,000
X-Stroke [mm]	500–900	500–900	1,200	1,200	1,200–2,000	2000	500	500–900	500
Y-Stroke [mm]	1,200–1,600	1,200–1,800	1,400–1,600	1,600–2,600	2,400–3,000	2,800–3,600	800–1,200	1,200–1,600	1,200–1,400