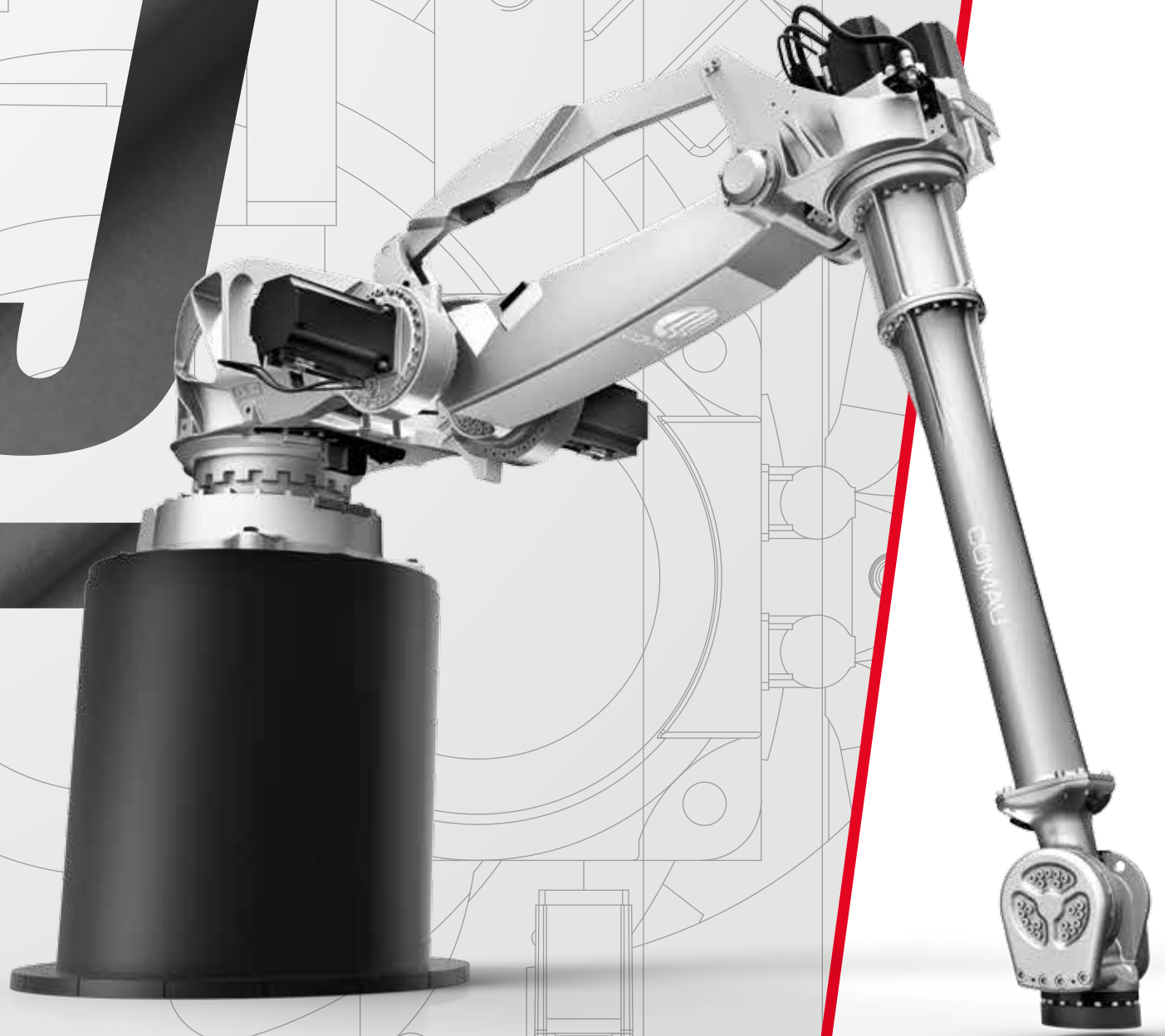


# WJ

**Shelf robots  
for wider  
operation areas**

***NJ 165 - 3.4 SH***  
***NJ 210 - 3.1 SH***



## TECHNICAL SPECIFICATIONS

Model		NJ 165 - 3.4 SH	NJ 210 - 3.1 SH	Suggested applications
Number of axes		6	6	<ul style="list-style-type: none"> <li>• Assembly</li> <li>• Cosmetic Sealing</li> <li>• Dispensing</li> <li>• Handling / Packaging</li> <li>• Laser Welding / Cutting</li> <li>• Machine Tending</li> <li>• Measuring / Testing</li> <li>• Plasma Cutting / Water Jet</li> <li>• Polishing / Deburring</li> <li>• Press Brake Bending</li> <li>• Press to Press</li> <li>• Process Machining</li> <li>• Spot Welding</li> <li>• Wood / Glass Machining</li> </ul>
Maximum wrist payload		165 kg	210 kg	
Additional load on forearm		25 kg	25 kg	
Maximum horizontal reach		3450 mm	3151 mm	
Torque on axis 4		1089 Nm	1177 Nm	
Torque on axis 5		804 Nm	1177 Nm	
Torque on axis 6		411 Nm	677 Nm	
Stroke (Speed)	Axis 1	+/- 180° (85°/s)	+/- 180° (110°/s)	
	Axis 2	-50° / +170° (90°/s)	-50° / +170° (90°/s)	
	Axis 3	-18,8° / -288° (110°/s)	-21,3° / -288° (110°/s)	
	Axis 4	+/- 2700° (130°/s)	+/- 2700° (130°/s)	
	Axis 5	+/- 125° (130°/s)	+/- 125° (130°/s)	
	Axis 6	+/- 2700° (195°/s)	+/- 2700° (195°/s)	
Repeatability		0.10 mm	0.10 mm	
Tool coupling flange		ISO 9409 - 1 - A 160 / 200	ISO 9409 - 1 - A 160	
Robot weight		1430 kg	1415 kg	
Protection class		IP65 / IP67 Foundry Version	IP65 / IP67 Foundry Version	
Mounting position		Shelf	Shelf	
Operating Areas	A	3100 mm	2801 mm	
	B	3450 mm	3151 mm	
	C	449 mm	547 mm	
	D	397 mm	93 mm	
	E	2100 mm	1800 mm	
	F	850 mm	850 mm	

