Model	Parameters
ROBOTIC ARM PELLET 3D PRINTING SOLUTION Pellet P10 KUKA210 	**Temperature System:** Printing Temperature:Max 450℃,3 Heating Zones Hopper Dryer Temperature:Max 90℃
	Material System: 1-5mm Granular Diameter 3D Printing Pellet（Thermoplastic) High-Temperature Composite Mold Materials: CF-PEI, CF-PESU, CF-PEEK, GF-PEEK, CF-PPS, GF-PPS, CF-PPA, GF-PPA Medium-Temperature Composite Mold Materials: CF-PC, GF-PC, CF-ABS, GF-ABS, CF-ASA, GF-ASA, CF-PAHT, GF-PAHT, CF-PA6, GF-PA6 Low-Temperature Composite Mold Materials: CF-PETG, GF-PETG, CF-PET, GF-PET, CF-PP, GF-PP, CF-PLA, GF-PLA Art&Design Materials: Transparent PC, Outdoor ASA, Transparent PETG, FR Transparent PETG, Bamboo Fiber, Wood Fiber, Recycled PET, Recycled PLA
	Extrusion System: Extrusion Flow: Max 10KG/H / 2130mm³/s (10mm Nozzle,Under Condition of High Speed PLA Pellet Printing) Nozzle Quantity: 1 Nozzle Modular Extrusion motor: Servo motor Cooling Method: Water Cooling(Heat Dissipation Zone) Nozzle Size: 4mm(Standard), 2/6/8/10 mm(Optional) Nozzle Material:Hardened Steel Recommended Layer Thickness:1-8mm
	Motion Hardware: Robotic Arm:KUKA 210 2700-2 Number of Axes: 6 motion axes + 1 extrusion axis Pose Repeatability (ISO 9283): ±0.05 mm Rated Payload: 210 kg Maximum Reach: 2700 mm
	Main Control Hardware: Controller: KR C4 + SmartPad touch-screen teach pendant
	Software Functionality: Offline Programming Software:SprutCam 1. Supports full-direction and multi-angle slicing. Not limited to horizontal layers; it enables side-direction printing and conformal layering on curved surfaces, allowing overhanging structures to be printed without supports (subject to actual working conditions). 2. Real-time adjustment of print-head posture. The nozzle remains perpendicular to the printing surface to improve inter-layer bonding strength. 3. Comprehensive process parameters: layer thickness, line width, extrusion, rapid traverse, speed, etc. 4. Robot Axis Map visualization tool: Intuitively marks singularity zones, overtravel conditions and collision risks. 5. Supports coordinated motion of external additional axes: Synchronized linkage with linear guides and rotary positioners, infinitely expanding the printing workspace, suitable for printing extra-large components. Data Transmission:USB File Formats:STP/STEP,STL, OBJ etc Operating System:Windows10/11 64 Bits
	Size and Weight: Build Volume:2500*1500*3000mm(Non-standard length-width-height dimensions; please refer to the schematic diagram) Installation Dimensions:Maximum required footprint approx. 3000*3000*3200 mm (includes the installation envelope for all hardware in the solution; adjustable according to specific project requirements) Package Size:Total shipping volume approx.12.3 CBM. Net Weight:Total weight approx.2597 KG Gross Weight:Total weight approx.2967 KG Please see the Packing List for details.
	Electric Parameter: Printer Power Supply:360-400V Three-Phase Five Wire System 50-60Hz,load current 35–45 A 24 Hrs Average Power Consumption:6KW/H(PETG Pellet Printing) Please see the Installation Prerequisites for details.
	Packing List: KUKA 210 2700,Robot controller,SmartPAD； Pellet extruder,Extruder controller,Air compressor,Hopper dryer,Print platform plate,Offline Programming Software,Tool Kits,Test materials

Maximum Printing Dimension Schematic

Notes: The motion envelope of the robotic arm does not feature standard length-width-height dimensions. This schematic has an approximate 3% error (interference from different axes may occur under different working conditions).

Unit: mm





