



# SDA20F

ASSEMBLY | HANDLING | MACHINE TENDING  
PACKAGING | PART TRANSFER

### KEY BENEFITS

Dexterity to perform complex tasks; dual 7-axis arms work together or independently

Slim design optimizes space; provides “human-like” flexibility and range of motion, even in tight spaces

Simplified tooling reduces cost

Can be used in environments that are hazardous to humans

Labor savings justifies capital investment

### SPECIFICATIONS

20 kg payload per arm  
1,820 mm vertical reach  
910 mm horizontal reach per arm  
±0.1 mm repeatability

### CONTROLLERS



DX200



FS100



MLX200

### SLIM, DUAL-ARM ROBOT WITH “HUMAN-LIKE” FLEXIBILITY

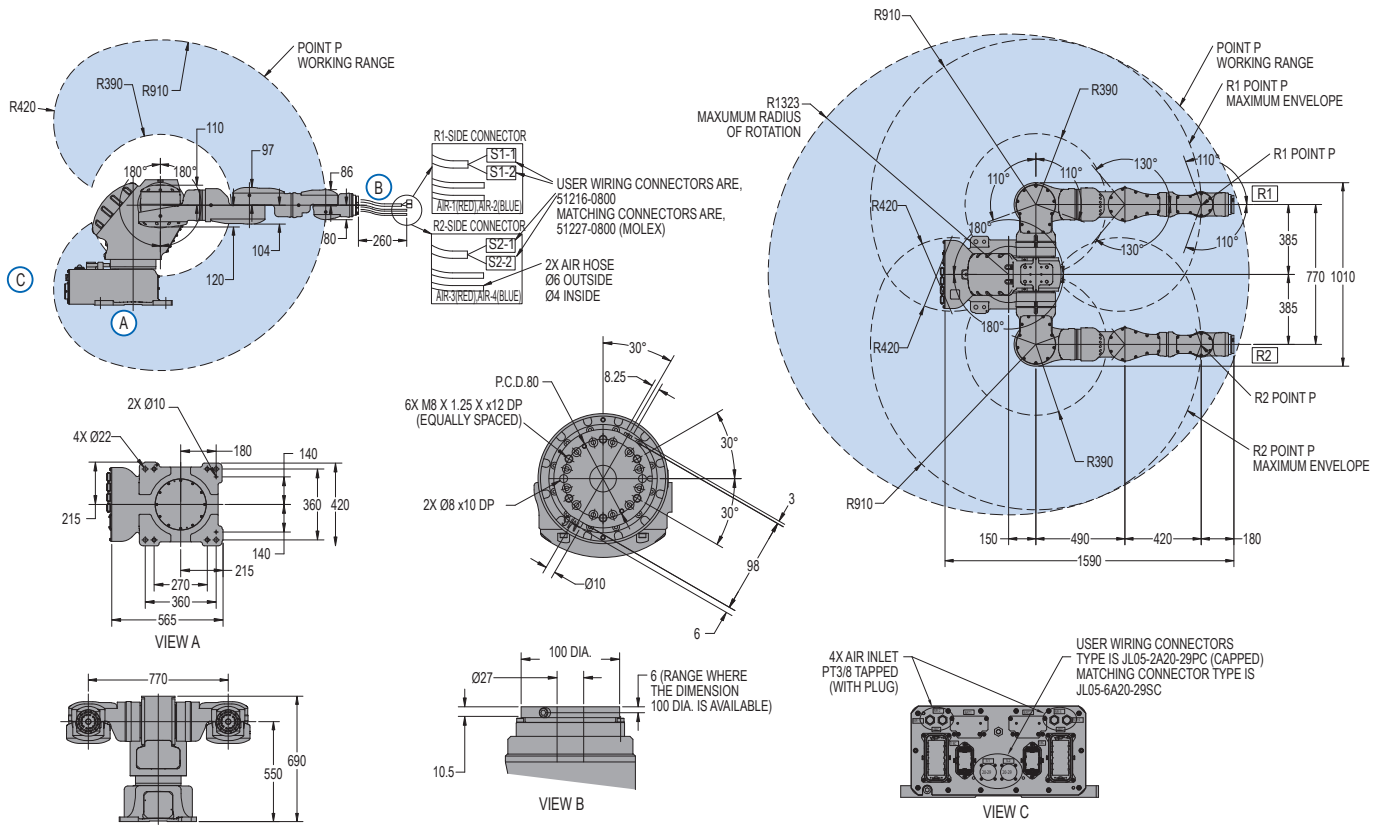
- Powerful actuator-based design provides “human-like” flexibility and fast acceleration.
- Superior dexterity and best-in-class wrist characteristics make slim, dual-arm robot ideally suited for assembly, part transfer, machine tending, packaging and other handling tasks that formerly could only be done by people.
- Highly flexible; 15 axes of motion (7 axes per arm, plus a single axis for base rotation).
- Internally routed cables and hoses (6 - air, 12 - electric) reduce interference and maintenance, and also make programming easier.
- 20 kg payload per arm; 910 mm horizontal reach per arm; 1,820 mm vertical reach per arm; ±0.1 mm repeatability.
- Both robot arms can work together on one task to double the payload or handle heavy, unwieldy objects. Two arms can perform simultaneous independent operations.

- Ability to hold part with one arm while performing additional operations with other arm and to transfer a part from one arm to the other with no need to set part down.

### FS100 CONTROLLER

- Small, compact controller.
- 470 mm wide, 200 mm high, 420 mm deep.
- Designed for packaging and small parts handling robots with payloads of 20 kg and under.
- Compatible with integrated MotoSight™ 2D vision (optional).
- Improved communication speeds and functionality.
- High-speed I/O response and high-resolution timers.
- Open architecture enables software customization in widely accepted environments such as C, C++, C# and .NET.
- Uses similar programming pendant hardware as DX200 controller, providing a consistent programming interface.

# SDA20F ROBOT



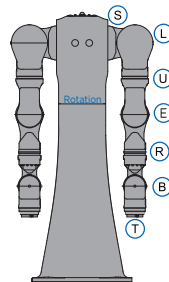
All dimensions are metric (mm) and for reference only.  
Request detailed drawings for all design/engineering requirements.

## SPECIFICATIONS

Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [N·m]	Allowable moment of inertia [kg·m <sup>2</sup> ]	Controlled axes	15
Rotation	±180	125	-	-	Maximum payload (per arm) [kg]	20
S	±180	130	-	-	Repeatability [mm]	±0.1
L	±110	130	-	-	Horizontal reach (per arm) [mm]	910
E	±170	170	-	-	Horizontal reach (P-point to P-point) [mm]	2,590
U	±130	170	-	-	Vertical reach [mm]	1,820
R	±180	200	58.8	4	Protection - IP rating XP Package (optional)	IP54 Base; IP65 Body; IP67 Wrist
B	±110	200	58.8	4	Weight [kg]	380
T	±180	400	29.4	2	Power requirements	1- or 3-phase; 200/230 VAC at 50/60 Hz
					Power rating [kVA]	4.4

## OPTIONS

- Wide variety of fieldbus cards
- Vision systems
- Robot base I/O cables
- External axis kit
- Material handling software package
- Conveyor tracking
- MotoFit™ force sensing package



### AXES LEGEND

- Rotation Axis: Waist
- S-Axis: Lifting
- L-Axis: Lower Arm
- E-Axis: Elbow
- U-Axis: Upper Arm
- R-Axis: Upper Arm Twist
- B-Axis: Wrist Pitch / Yaw
- T-Axis: Wrist Twist

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