

## EcoRP S053i and EcoRP S153i

### Especially Conceptualized for Commercial Vehicles

The Swing-arm robots **EcoRP S053i** and **EcoRP S153i** are specially designed for spray painting commercial vehicles and offer the best accessibility for small and large vehicle bodies in a production line.

The fully automatic station can be designed for both interior painting of the loading area and exterior painting of the rear doors, maximizing flexibility in a spray booth. It is equally suitable for line tracking as well as stop & go operations.

The advantages of the third generation of robots also apply to the Swing-arm robot, in that identical components can be found across all models in order to simplify the management of spare parts. This saves storage costs and eases maintenance work. Quick-release fasteners provide very effective access for exchanging the integrated pneumatic, control or high-voltage components.

#### ADDITIONAL HIGHLIGHTS



[An optimized maintenance concept using quick couplings on the covers with fast access to application technology](#)

[Highly dynamic gears](#)

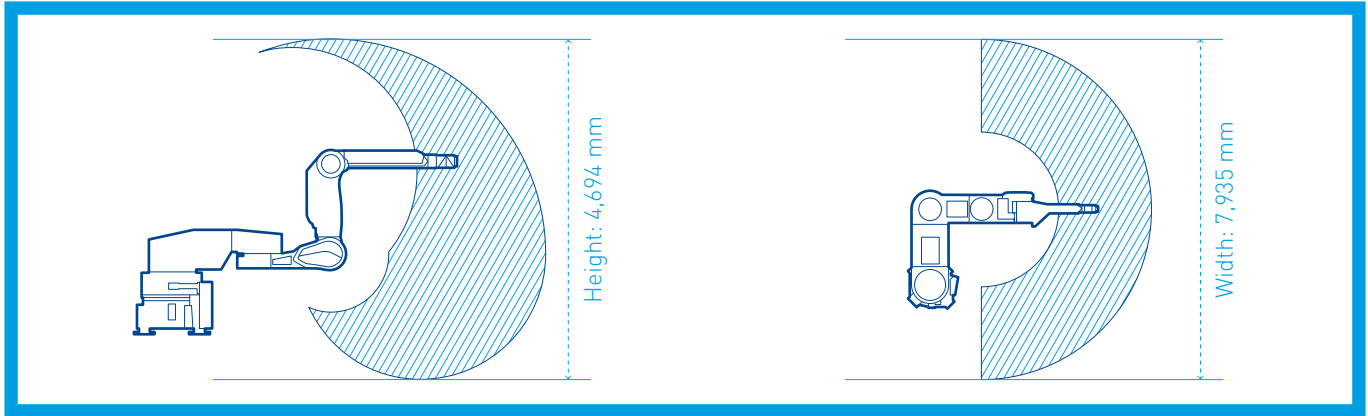
[Optimized heat budget to reduce stress for individual assemblies](#)

[Fully integrated application](#)

[Modular robot compatible with the \*\*EcoRP\*\* robot family](#)

# Technical Data

## EcoRP S053i and EcoRP S153i



Working area EcoRP S053i – referenced to flange

	Operational range	Max. speed
Axis 1 – Rotation of the robot	$\pm 90^\circ$	115°/s
Axis 2 – Swiveling of the vertical arm	+25° / -90°	115°/s
Axis 3 – Swiveling of the horizontal arm	+80° / -66°	115°/s
Axis 4 – Hand axis	(in total $\llcorner^\circ$ ) $\pm 540^\circ$	540°/s
Axis 5 – Hand axis		540°/s
Axis 6 – Hand axis		540°/s
Axis 7 – Traverse axis	maximum 50 m	1.2 m/s
Axis 8 – Mounted right in reference to conveying direction	+90° / -40°	+55°/s
Axis 8 – Mounted left in reference to conveying direction	+40° / -90°	
Axis 9 – Mounted right in reference to conveying direction	+60° / -90°	+69°/s
Axis 9 – Mounted left in reference to conveying direction	+90° / -60°	
Mass	S053i in total: 4,230 kg	
Arm lengths	Arm 1: 1,250 mm · Arm 2: 1,726 mm	
Operational range (without traverse axis to hand axis flange)	Height: 4,694 mm Width: 7,935 mm (from robot base)	
Max. TCP speed	1,500 mm/s	
Max. TCP acceleration	5,000 mm/s <sup>2</sup>	
Explosion protection	ATEX category 2, 3 FM approval for Class 1, Div 1	
TCP accuracy	$\pm 2.5$ mm	
Strength for door handling	200 N	
Loading at arm 1 and 2	30 kg each	

Subject to change. The information in this brochure solely contains general descriptions and performance features, which may vary in specific cases of application. The desired performance features are only binding if they have been agreed upon explicitly at the conclusion of the contract. © Dürr 2019