

FACT SHEET

Stäubli Robotics Smart Factory Solutions

Industry 4.0 provides huge opportunities when it comes to robotics. A crucial advantage of Stäubli is that the company is one of the very few manufacturers worldwide that offers comprehensive solutions for a smart factory. Stäubli does not just produce robots, POWER cobots and mobile robots, but a broad spectrum of AGVs to suit diverse industry needs. This way, Stäubli enables the automation of digital factories, both in terms of intralogistics as well as at different stages of production.



This simplified illustration of a smart production line of an e-bike assembly demonstrates the intelligent interaction of robots, mobile robots and AGVs as well as the collaboration of humans and machines. Each application area is explained in more detail on the next page.

1

Logistic cell TS2 100 4-axis SCARA robot

- fully designed to handle all kinds of precise and fast handling operations - covering even more than the size of an Euro palette
- all Stäubli robots can be mounted on the ceiling including all connections
- equipped with a 400mm Z-stroke and different tools the robot is organizing and preparing different containers, parts and boxes for the following manufacturing processes

4

AGV WFTPF 100 mobile platform

- perfect solution to efficiently link production processes not only physically but also digitally
- compact and scalable design, even for sensitive environments like cleanrooms
- patented drive unit and seamless navigation software, this mobile platform is bringing the right parts at the right time acting like a mobile stock
- inductive charging is ensuring the further autonomy of the device
- digitally connected to the production network it can communicate with production management software, any cell or mobile unit

7

Brake disk assembly TX2touch POWER cobots

- designed for full open cell concepts where humans can work close to productive robots granting highest safety level
- benefits from performance in speed and accuracy without any compromise on the safety of employees

2

Motor assembly cell TX2 6-axis and TS2 4-axis series controlled by CS9

- perfect match to raise productivity in assembly processes
- with their high agility and very small footprint with vertical cable outlet the two robots can work efficiently as a team, even in confined spaces
- managing also the conveyor they assure a fast, precise and flexible assembly process including quality inspection on the fly

5

Final bike assembly TX2 140, 160 or 160L

- with the new TX2 140 the final bike assembly benefits from all the added values of our TX2 series – like unmatched performance, reliable precision, high connectivity
- modular TX2 safety functionalities enable high productive and safest man and machine collaboration
- for an efficient teamwork, the CS9 embedded WEB Server can provide custom user interfaces to guide the operator through his tasks

8

Mobile robot HelMo

- fast and easy referencing system
- precise and reliable operation
- bringing his tool, transporting parts and devices
- completely autonomous even to perform assembly processes

3

Battery cell TS2 ESD robot

- driving the battery pack assembly process
- available version for all Stäubli robots when electronic components need to be handled safely, preventing damages from electrostatic discharge
- compact SCARA tool changer to further increase the application flexibility enabling the robot to use the proper tools for the dedicated tasks at any time

6

Bottle individualization TX2 robots / HelMo

- HelMo can fully connect itself to any cell and become part of it – using the same energy, pneumatics, safety functions and data
- once the bottles arrived the cell is able to process them individually according to the order properties even for batch size one manufacturing
- encapsulated TX2 robots with their integrated user wiring, tubing and even network cable are experts for such flexible tasks. They have to be highly productive and safely adapt their behavior in case of man - machine coexistence

9

Test cell CS9 Controller

- ensures full traceability of the results of visual inspection and mechanical tests
- within quality processes it might be important that robots work hand in hand with operators, in order to benefit from their complementary competences