

PASSION FOR AUTOMATION

 **WEMO.**

WEMO ROBOTSYSTEM THE COMPLETE RANGE



 **PLASTIC**

WWW.WEMOGROUP.COM

part of the **HAHN**GROUP

SMART AUTOMATION

BOOST YOUR PRODUCTIVITY

PLASTIC

USE THE ROBOT AS MASTER

Smart factories will be based on more intelligent machines, named as smart products.

Smart products are equipment which can recognize with sensor and read information from transponders and communicate with larger amount of data.

In smart automation - the robots will play an important role as master.

CONNECTIVITY

The equipment will communicate to each other with cloud and Ethernet connection in fast speed. Wemo has already the platform in WIPS 4.0 with POWERLINK, openSAFETY and OPC UA.

With this functionality and interface you are already prepared to run your production as smart factories - powered by Wemo

WIPS 4.0
=
INDUSTRY 4.0



INNOVATIVE

RIGID DESIGN

FLEXIBILITY

USER FRIENDLY

ENERGY EFFICIENCY

SUSTAINABILITY

STATE OF ART DESIGN

BENEFITS

ADDED VALUE

We are proud of innovative solutions that break barriers and set new standards of performance.

1

By using our wealth of experience in robot manufacturing we ensure that we continue to bring optimised solutions for higher productivity to our customers.



2



With highly efficient integrated vacuum ejectors, the consumption of compressed air is considerably reduced.

3



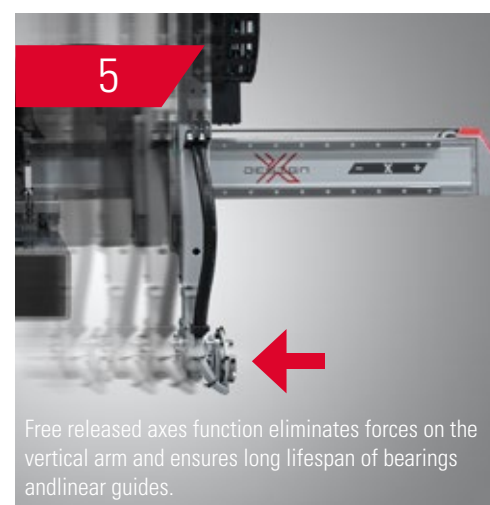
The new laser welded axes makes higher strength compare to aluminium profiles and result in higher working load and weight optimisation.

4



Powerlink bus system for fast reactions and precise synchronisation with response time below 0.5 milliseconds to reduce delay times in the process.

5



Free released axes function eliminates forces on the vertical arm and ensures long lifespan of bearings and linear guides.

EFFICIENCY & RELIABILITY



TROUBLE FREE MANUFACTURING

MAXIMUM OUTPUT

It is an important decision to evaluate the right automation concept for your production. You want maximum output from your equipment, consistent product quality and trouble free manufacturing. A profitable investment also needs a fast return of investment to achieve low total running costs.

THIS RESULTS IN A LOWER TOTAL COST

19% HIGHER PRODUCTIVITY - WITH PERFORMANCE PACKAGE AS STANDARD

78% LESS ENERGY CONSUMPTION - WITH VACUUM SAVE FUNCTIONS

98% AVAILABILITY - THANKS TO HIGHEST QUALITY COMPONENT INSIDE

18% LESS FLOORSACE - WITH MIRRORED PLACEMENT OF Y-AXIS

100% ERGONOMIC - WITH MORE USERFRIENDLY SOFTWARE AND FAST SETUP TIME



ROBOT PRINCIPLES

Wemo Robotssystem for the plastic industry is one of the widest range of linear robots. The main principles can be offered in two ways.

Fixed X-axis:

With the fixed X-axes the Vertical Y-arm is moving along the X-beam. This makes the robot more compact and save floor space for the automation. This is also the fastest version of robots.



3-5 Linear Picker, eDesign, xDesign & sDesign

Movable x-axis:

With the movable x-beam it results in a more free space for larger end-of-arm-Tooling and also the right solution for opposite entry when the machine is a multicomponent type with vertical injection units.



xLine & Tandem

CONFIGURATIONS FOR YOUR NEED

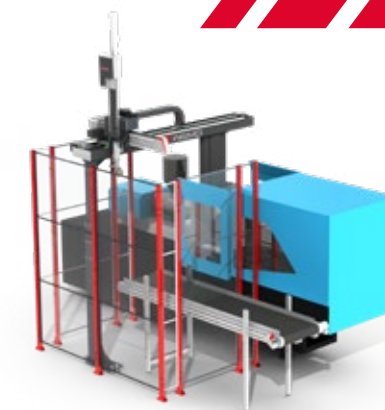
EFFICIENT REDUCE OF FLOORSPACE

Whatever the layout of your factory, there are several solutions how you can use our robot systems.

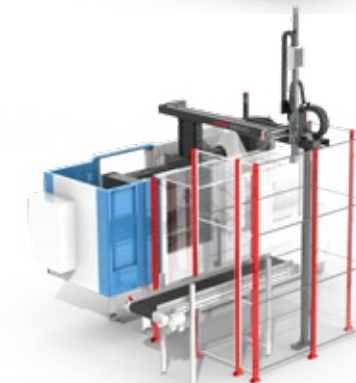
The most cost-efficient and popular way is the rear side application.

Let us show you other solutions according to your needs.

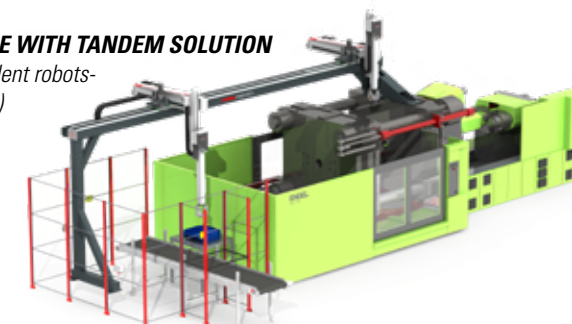
REAR SIDE
(non operator side)



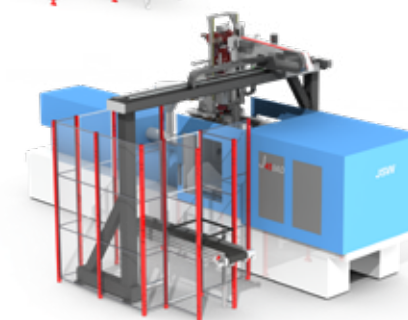
OPERATOR SIDE



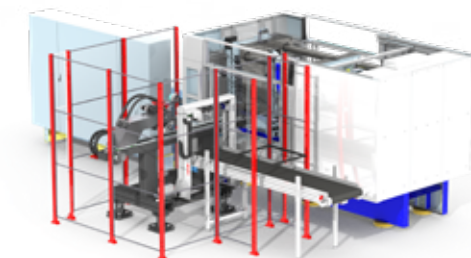
LENGTHWISE WITH TANDEM SOLUTION
(two independent robots on one Z-axes)



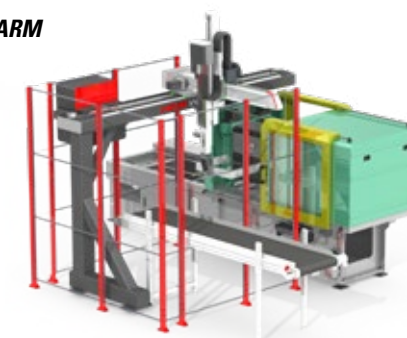
OPPOSITE ENTRY
(multi component)



SIDE ENTRY

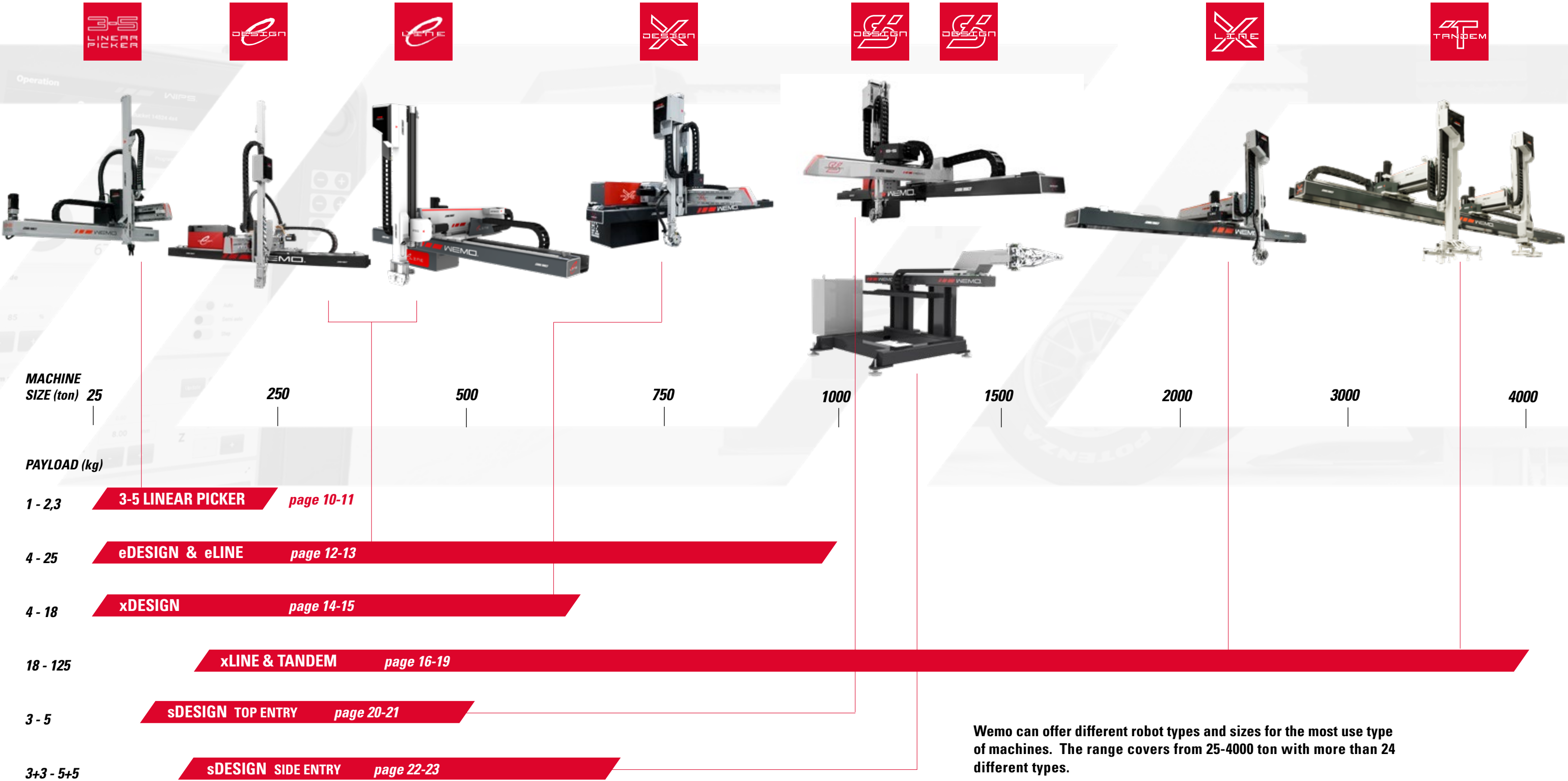


ANGLE MOUNTED ARM



WEMO ROBOT SYSTEM

THE COMPLETE RANGE



Wemo can offer different robot types and sizes for the most use type of machines. The range covers from 25-4000 ton with more than 24 different types.

So you can be sure it will always be a optimal solution of linear robot for your production.



FOR SPRUE & PART HANDLING

WEMO 3-5 LINEAR PICKER

The new concept to integrate a linear picker instead of existing pneumatic solutions offers a lot of advantages.

Thanks to the compact and space saving design, it's possible to integrate the robot inside the machine guarding. The result is no need for external safety guarding on the floor and makes the installation easier and faster.

With the 3-5 Linear Picker it is possible to integrate in the moulding machine or in the conventional way over the machine guarding allowing for extended strokes.



LINEAR SERVO PICKER

The robot is equipped with a strong sprue finger gripper as standard which has part detection sensor and one vacuum circuit with saving function for lowest energy consumption.

A variety of options enable you to extend the robots functionality, for instance longer stroke length, wrist-axis, additional vacuum etc.

EASY PROGRAMMING

The simplest way is the fastest way, leading to time and cost savings. This is our well-proven programming-concept using the new WIPS symbols.

Our symbol-based solution makes programming easy to learn. This programming method offers the user unique opportunities.

WIPS.
PLASTIC



USER FRIENDLINESS



W-HP11

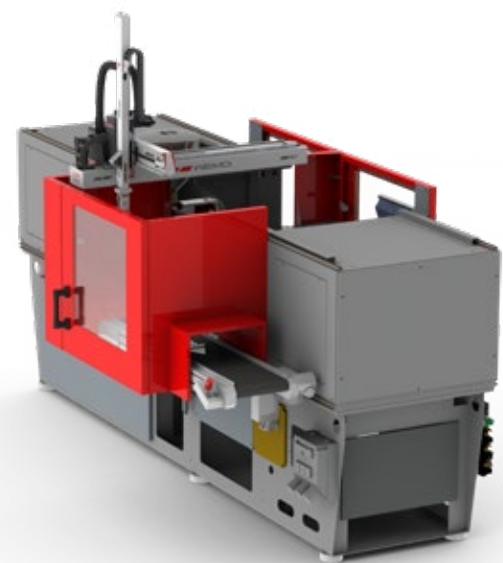
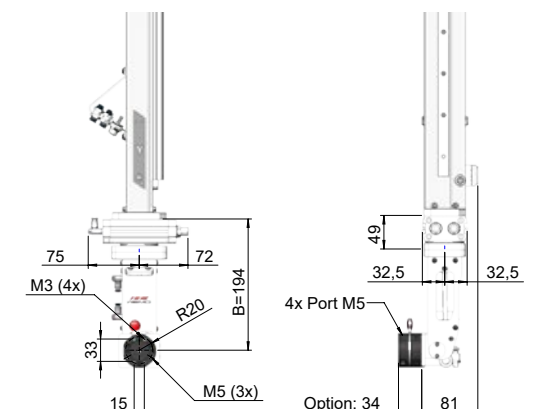
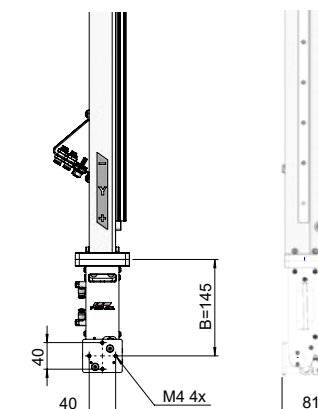
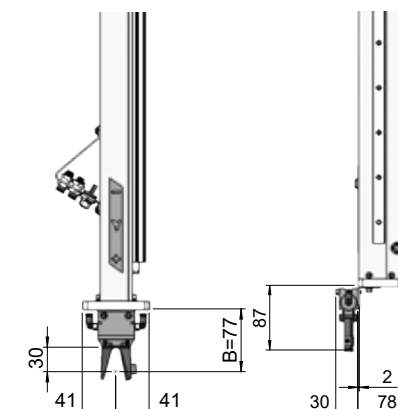
FLEXIBLE USE

This robot type can be configured with different setup of grippers and rotation axes:

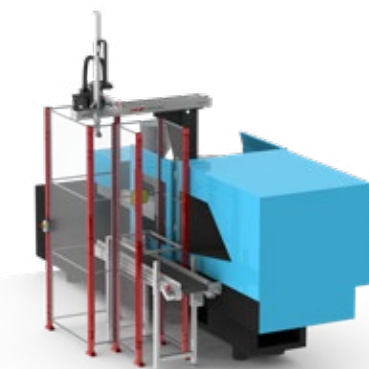
Standard version with sprue gripper

Optional with C-axis

Optional with B & C-axis



INTEGRATED INSIDE MOULDING MACHINE



CONVENTIONAL APPLICATION

3-5
LINEAR
PICKER

COSTEFFICIENT

WEMO eDESIGN & eLINE RANGE

The new eDesign & eLine robot range is designed for pick and place applications up to more flexible automation.

With the wide range of models from the 6-5 eDesign with 4kg handling weight up to the largest robot in the range, 250 eLine with 25 kg, it manages the requirements of machine sizes from 25-1000 ton.



USER FRIENDLINESS

eCONOMY eFFICIENCY eENERGY SAVING

eDesign stands for economy, efficiency and energy saving. These are the most important factors for an investment to be competitive in production. All components are well known high-quality European brands to ensure a long life.



FLEXIBILITY

The robot range is designed with AC servo motors in all three axes for simultaneous movement (3D), ensuring speed and with high precision. This is important for inserting of parts or assembly operations. The planetary gearboxes result in maximum output efficiency.

THE NEW WIPS 4.0

The eDesign and eLine series is equipped as standard with our latest development of symbol programming with the brand new hand held controller W-HP12 powered by WIPS 4.0 software platform.

For more detailed information, see page 24-27.

WIPS 4.0

W-HP12



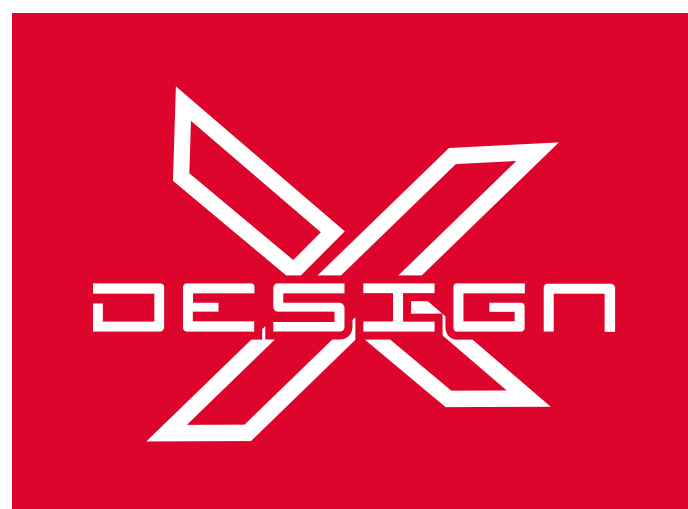
THE RIGHT CHOICE

WEMO xDESIGN RANGE

The xDesign is designed for all types of application for moulding of technical parts for more complex automation.

This range of robots is possible to fit with servodriven rotation axes and also control external axes.

A smart solution is to use Wemo Smartdrive units with the same controller, for even more flexible and cost efficient setup.



OPTIMAL SOLUTION

OPTIMAL SOLUTION xDESIGN

With the latest development of robots, it covers machine sizes from 25 to 650 ton. With an increased handling weight and faster movement it will be the right choice for flexible high end automation solutions.



FOR FLEXIBLE USE

To ensure flexible automation it has to be easy and fast to add functionality. The xDesign robots can control up to 6 additional servo axes which means no additional controller. The robot will work as a master in the automation architecture.

THE NEW WIPS 4.0

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WIPS 4.0

W-HP12



THE RIGHT CHOICE

WEMO xLINE RANGE

The xLine is designed for all types of application for moulding of technical parts for more complex automation.

With the movable x-beam and results in a more compact use in different applications.

Especially for handling larger parts like in automotive industry.



PROVEN DESIGN NOW EVEN BETTER

OPTIMAL SOLUTION xLINE

With the latest development of robots, it covers machine sizes from 150 to 4000 ton. With an increased handling weight and faster movement it will be the right choice for flexible high endautomation solutions. This type of robot is also the right choice for multi component machines with vertical injection units.



FLEXIBLE USE

To ensure flexible automation it has to be easy and fast to add functionality. The xDesign robots can control up to 6 additional servo axes which means no additional controller. The robot will work as a master in the automation architecture.

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WIPS 4.0

W-HP12

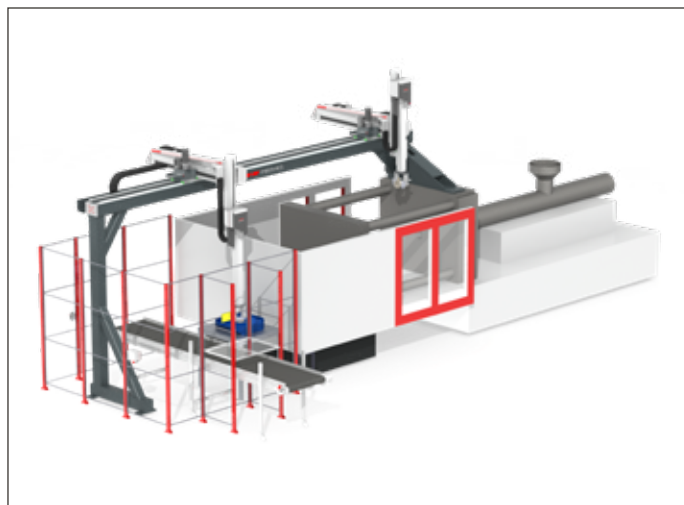


TANDEM - 2 IN 1

WEMO TANDEM RANGE

For a more cost-effective production, more operations are often added outside the injection moulding machine, like assembly, inspection or packing of pattern layouts in boxes.

In these cases, all robot movements can be an obstacle to reach the requested cycle time.



THE MULTIPLE WAY

TWO ROBOTS ON THE SAME Z-AXIS

In order to improve this, Wemo presents a solution called Tandem Concept. With this concept, two robots are mounted on the same main axis (Z-axis). The required operation processes are divided without installing two separate robots in the cell. So, valuable surface space is released, compared to previous solutions. The tandem robot covers machine sizes from 150-4000 ton.



The control of the two robot is easy done by one hand held controller for best user friendliness and comfortable programming and operation.

THE NEW WIPS 4.0

The Tandem serie is equipped as standard with our latest development of symbol programming with the brand new hand held controller W-HP12 powered by WIPS 4.0 software platform.

For more detailed information, see page 24-27.

WIPS 4.0

W-HP12

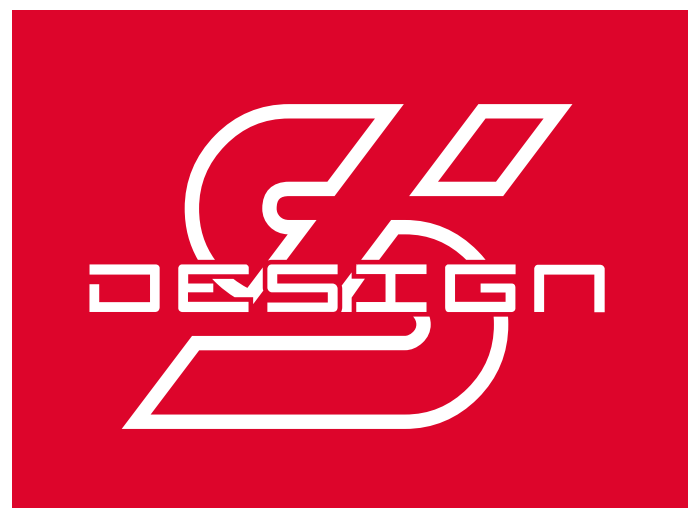
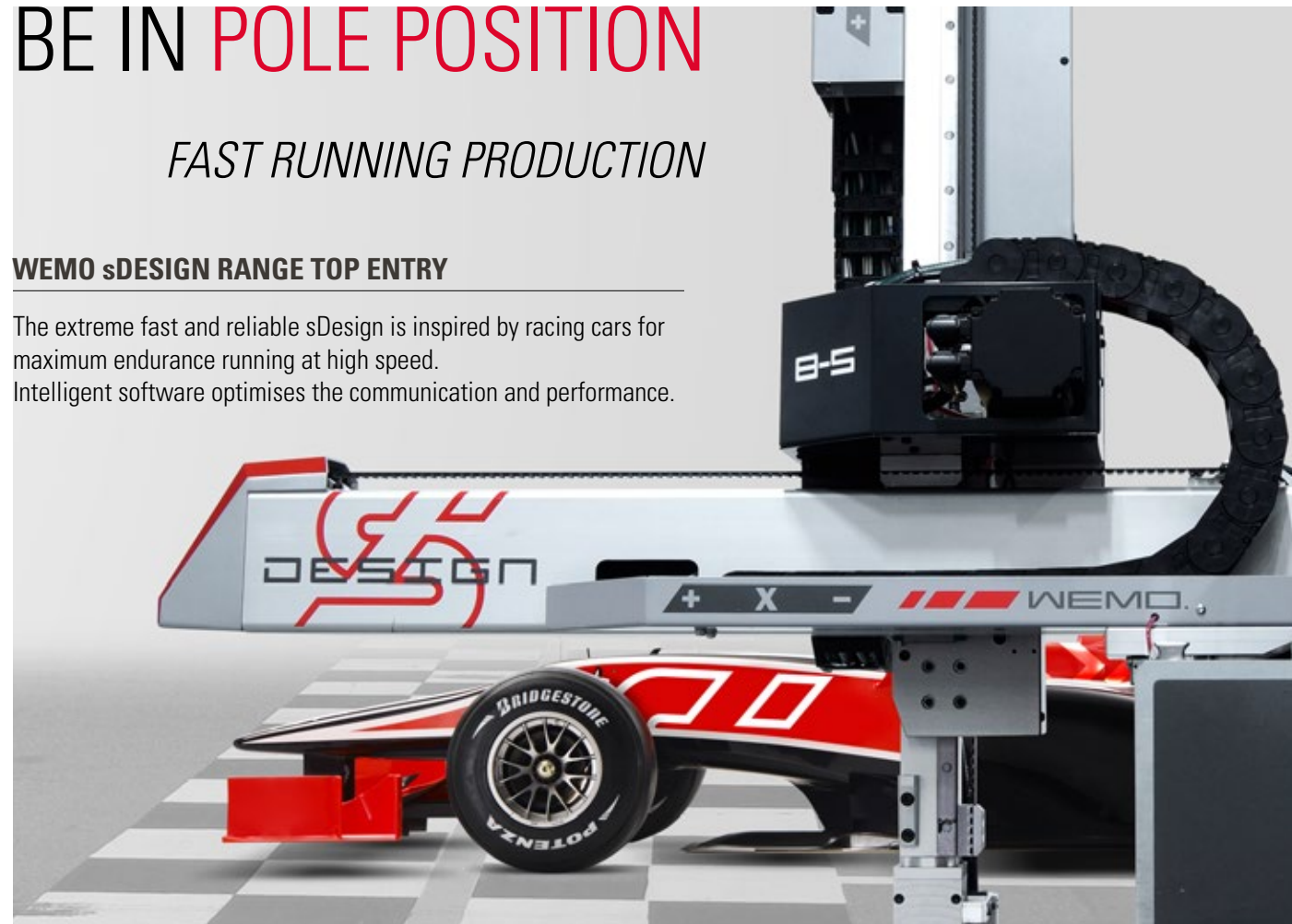


BE IN POLE POSITION

FAST RUNNING PRODUCTION

WEMO sDESIGN RANGE TOP ENTRY

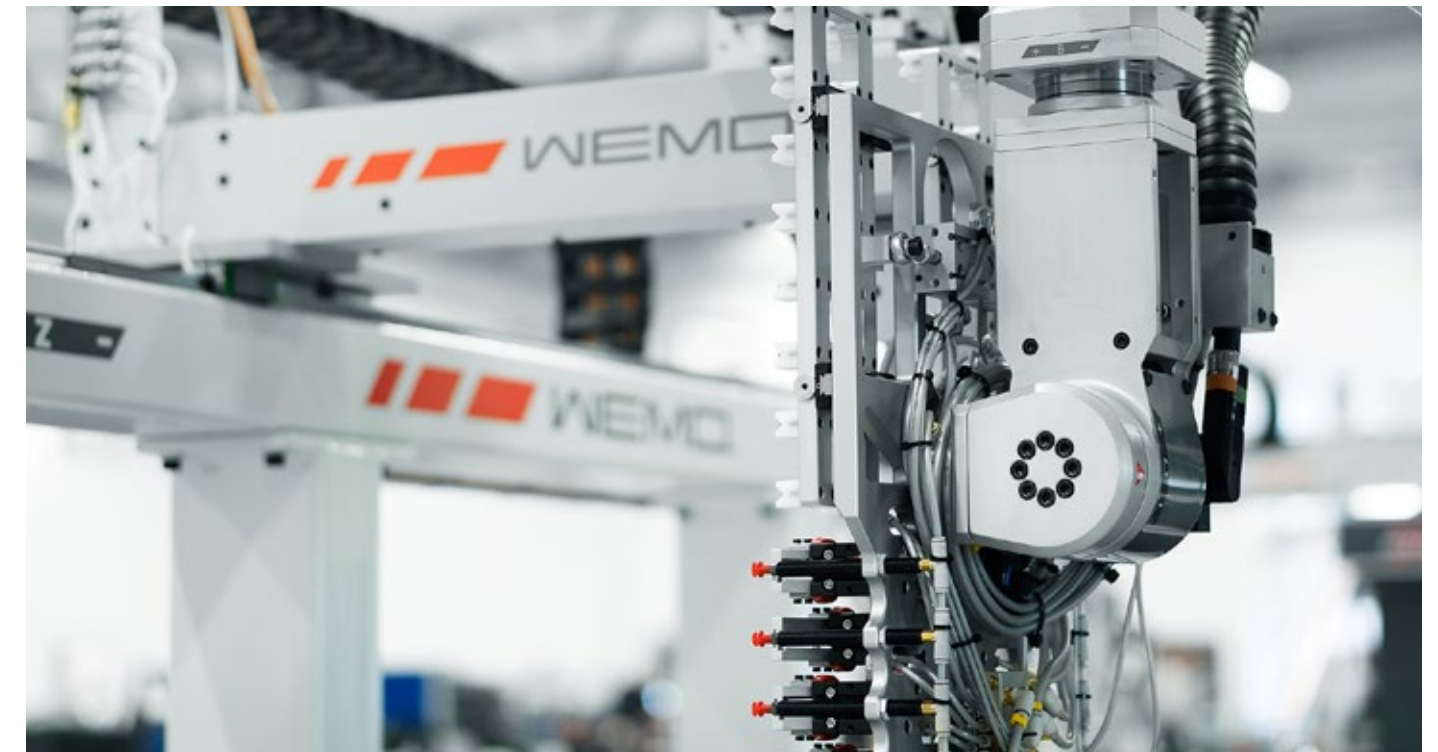
The extreme fast and reliable sDesign is inspired by racing cars for maximum endurance running at high speed. Intelligent software optimises the communication and performance.



IN THE FASTEST WAY

HIGH OUTPUT BASED ON STANDARD

For the fastest running operations, such as packaging with thin-walled parts, the sDesign is the optimal choice for the highest production output. To use a fast topentry robot result in a more flexible automation for easy and fast setup of new Moulds even if the its needed just to takeout and stack parts or even insert labels for IML applications. With the additional option with servo-driven stacking units its possible to come down less than 3 seconds total cycletime. The sDesign top entry robot covers machine sizes from 75-500 ton.



If the machine can be running with rear door open it is also possible to use the top entry robot with angular mounted arm for lower application. Intelligent software optimises the communication and performance. This results in shorter cycle times for sustainable fast running production.

THE NEW WIPS 4.0

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For more detailed information, see page 24-27.

WIPS 4.0

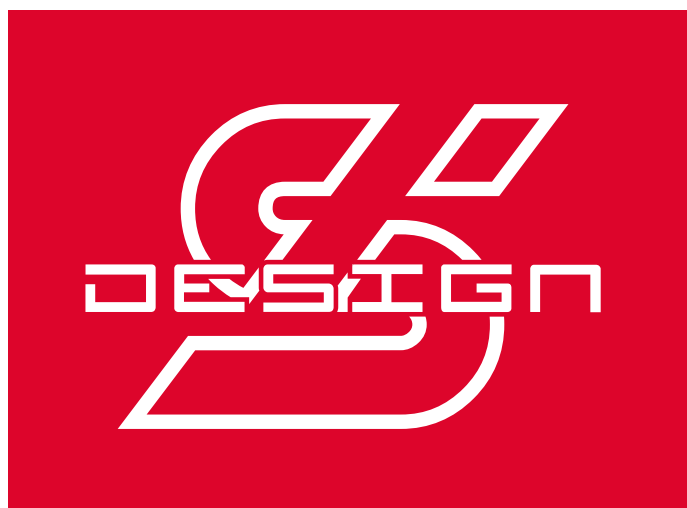
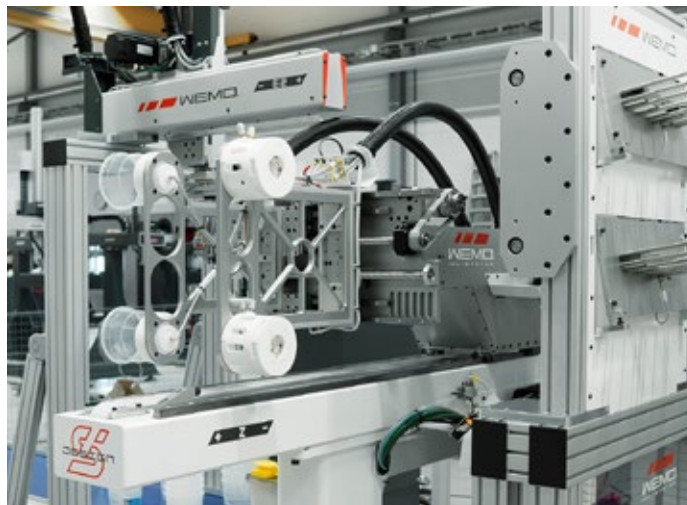
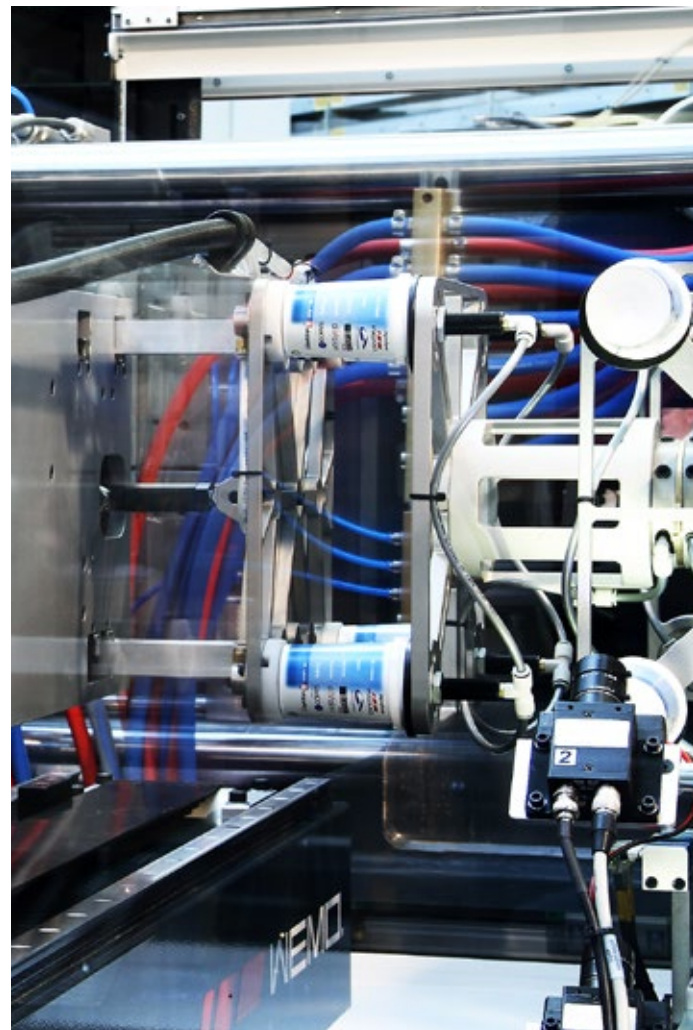
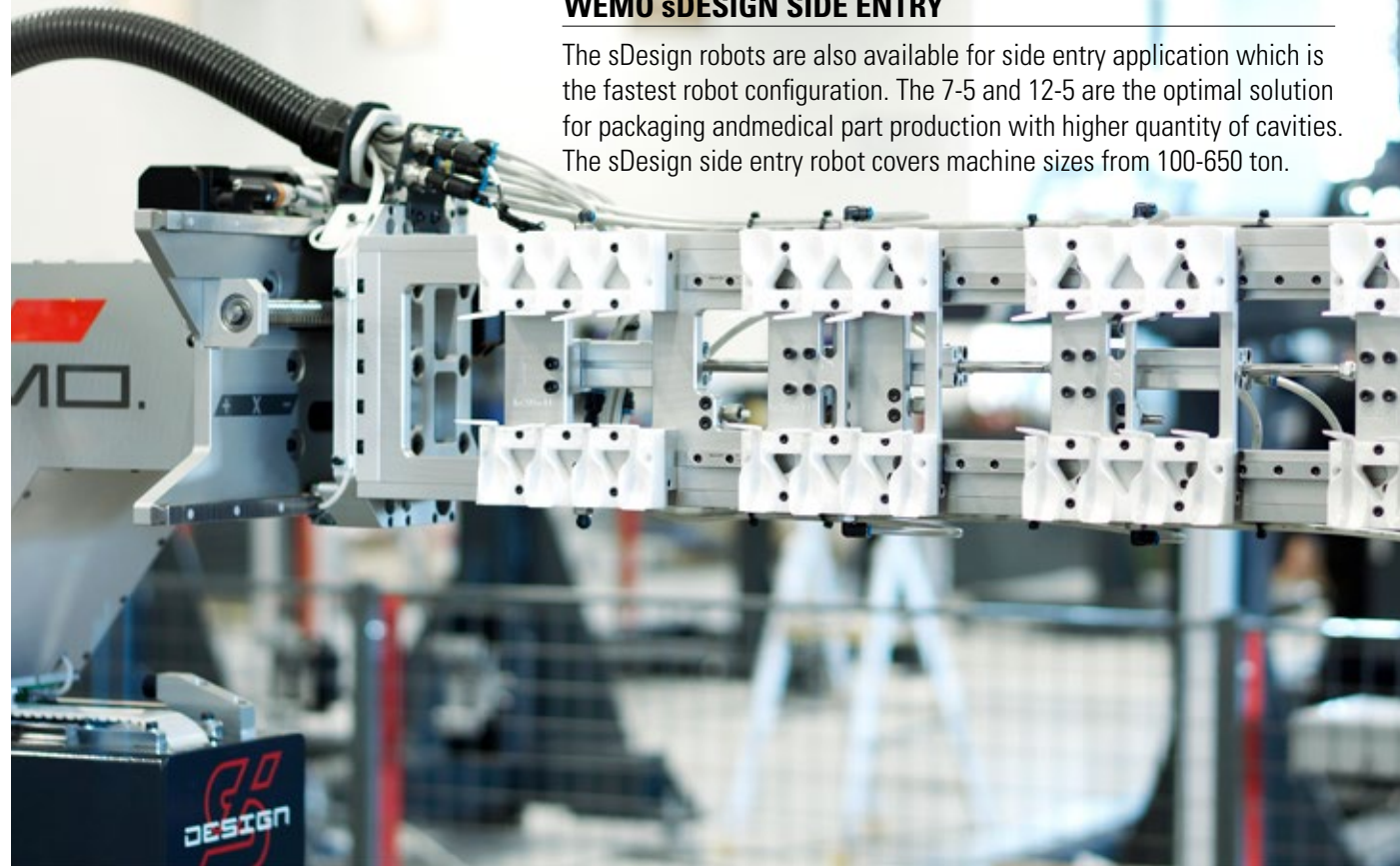
W-HP12



HIGHER AMOUNT OF PARTS

WEMO sDESIGN SIDE ENTRY

The sDesign robots are also available for side entry application which is the fastest robot configuration. The 7-5 and 12-5 are the optimal solution for packaging and medical part production with higher quantity of cavities. The sDesign side entry robot covers machine sizes from 100-650 ton.



FASTEST ROBOT TYPES

DESIGNED FOR INTEGRATION WITH LABELING SOLUTION

The Wemo IML & IMD System is a professional solution for the labeling process in plastics industry.

WEMO.
IML-SYSTEM



The system is designed for integration in the moulding process, with innovative and technically sophisticated solutions. Depending on the level of automation, our modular systems can be equipped with various types of label and design.

THE NEW WIPS 4.0

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For more detailed information, see page 24-27.

WIPS 4.0

W-HP12





THE FUTURE OF PROGRAMMING
IS ALREADY HERE

VISUALIZATION

IMPROVED USER INTERFACE

PERFORMANCE

FASTEST RESPONSE TIME

CONNECTIVITY

INTERFACE FOR INDUSTRY 4.0

WIPAC 4.0

THE NEW POWERFUL W-HP12



POWERED BY
WIPS4.0

ERGONOMIC AND LIGHT WEIGHT

The new handheld controller W-HP12 is ergonomic and with a lightweight design for more comfortable use for programmers and operators. The high resolution 10.1" full color screen is now used in portrait format for better overview of status and program structure.

The new screen is also based on the latest technology of processors, which will work much faster and result in a more effective handling and use than before.

SWIPE FUNCTIONALITY

Another improvement is that the Screen has swipe functionality, like smartphones and tablets. This makes the daily operation faster and more efficient which results in a better usability with reduced page changes.

On the right side of the panel, Wemo continue the requested design with hardware buttons for the most used functions like activate axes movement and main operational buttons. As always by Wemo, the handheld controller is equipped with hand-wheel and a 3 level safety button.

HARDWARE BUTTONS AND HANDWHEEL

FAST PERFORMANCE

CONNECTIVITY BASED ON INDUSTRY 4.0

EASY TO USE

The simplest way is the fastest way, leading to time and cost savings. This is our basic idea of programming concept.

We invest our resources in functional design to make the most user-friendly system on the market. Simple symbolic icons and self-generated program lines guides the operator through various alternatives and results in short operator learning times.

A clear and understandable interface is the highest priority to make the work easier.



OPERATION MAIN VIEW With personal settings
PROCESS MONITORING Status and outputs
WIZARD DIALOGUE Symbolic programming
FUB EDITOR Function block program
PLC EDITOR Ladder program

FLEXIBLE SYSTEM ARCHITECTURE

WIPS 4.0 = READY FOR INDUSTRY 4.0

The open architecture of the WIPS control system can control not only the robot but also external axes and communicate to several types of equipment in the automation. This results in more stable functions and reduces the costs in automation, simplifies operation, maintenance and service.

The controller and the software platform is already prepared for communication by the defined OPC UA-TSN interface. That means that the robot normally fits perfect to be the master in the process and receive and transmit the data of the complete automation.

PLUG & PLAY FUNCTIONS WITH W-LINK

When additional downstream equipment needs to be connected, it's important to add new options in an easy and safe way. With different bus systems it's possible to communicate to external systems by Industry 4.0.

In all Wemo linear robots the hardware design are based on Plug & Play connections with modules for direct communication with W-link. This results in fast and easy installations, stable functions and reduces the cost to expand the automation.

WEMO CONNECT THE ENTER INTO INDUSTRY 4.0

WEMO CONNECT- THE ENTER INTO INDUSTRY 4.0

Being physically present in front of each machine can sometimes seem like a mission impossible, especially if you are in a meeting, travelling or busy with other activities.

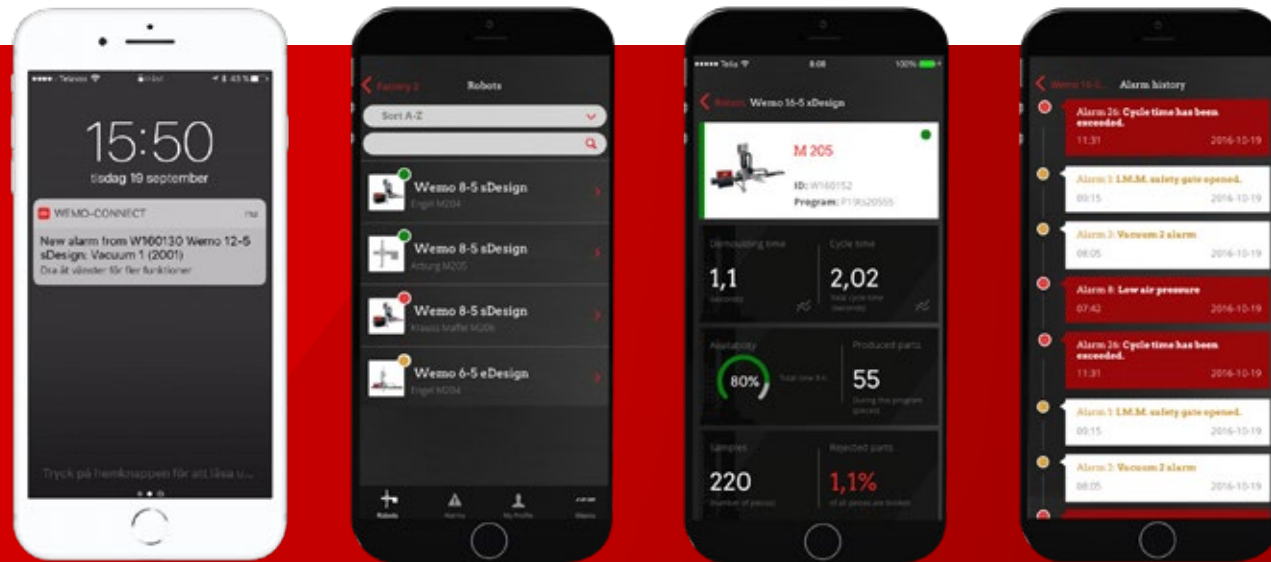
The solution is the Wemo CONNECT concept which allows you to connect online to the production process via your smartphone or tablet with just a simple click.



“LET PRODUCTION CONTINUE WHEREVER YOU ARE”

CHECK YOUR STATUS

The Wemo Connect app allows you to check the status of specific machine and robotic cells and monitor production status via smartphone or tablet at any time. It also keeps an overview of all the current robot alarms to be processed.



ADVANTAGES:

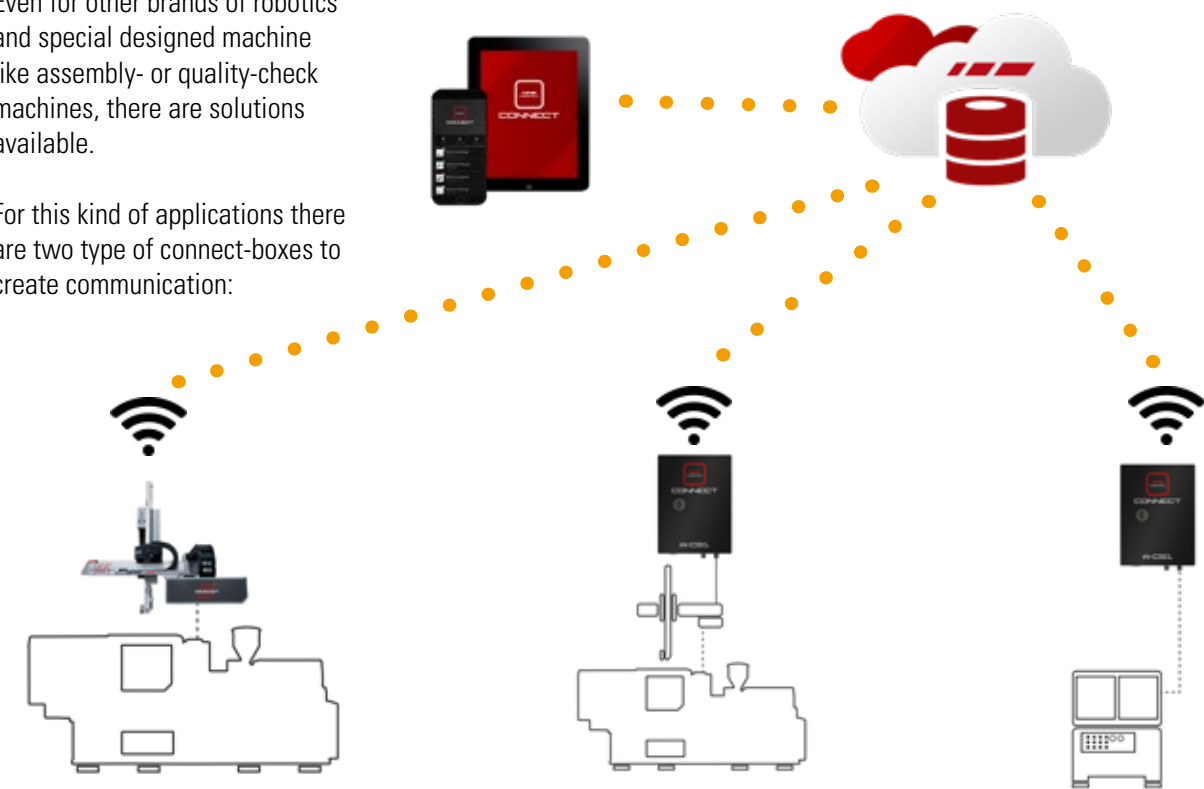
- GET ONLINE STATUS FOR TOTAL PRODUCTION OR FOR EACH DEPARTMENT
- ONLINE STATUS OF EACH ROBOTIC CELL
- DECREASES DOWNTIME WITHOUT NEEDING TO BE PHYSICALLY PRESENT AT THE MACHINE
- ONLINE QUALITY CHECK-UP
- ACCESS TO CLEAN ROOM AREA WITHOUT BEING AT SITE

CONNECT IT ALL

WEMO CONNECT- THE PRINCIPLE

Even for other brands of robotics and special designed machine like assembly- or quality-check machines, there are solutions available.

For this kind of applications there are two type of connect-boxes to create communication:



WEMO CONNECT - WIPS interface

This is the way to get maximum outcome of information on robots with WIPS software.

This bus system can be integrated from factory or by retrofit.

WEMO CONNECT - EUROMAP interface

This is for older robots or other brands of robots using the signals from the interface E12 or E67.

WEMO CONNECT - I/O interface

This is for other type of machines which will communicate by digital input signals to present status of the running process.

WRS - WEMO REMOTE SYSTEM ALWAYS SUPPORT ANYWHERE



This hardware and software package provides a higher level of connectivity and creates direct full remote support in two-way communication with your equipment.

FOR WHO

- Service/maintenance engineers
- Robot programmers
- Setup staff
- Process technicians

FOR WHAT

- Global connectivity between user and automation
- Remote support – two-way communication
- Increases reliability and productivity
- Decreases downtime
- Secure program handling via automatic backup

All certificate and security parameters are proofed and certified as a safe system

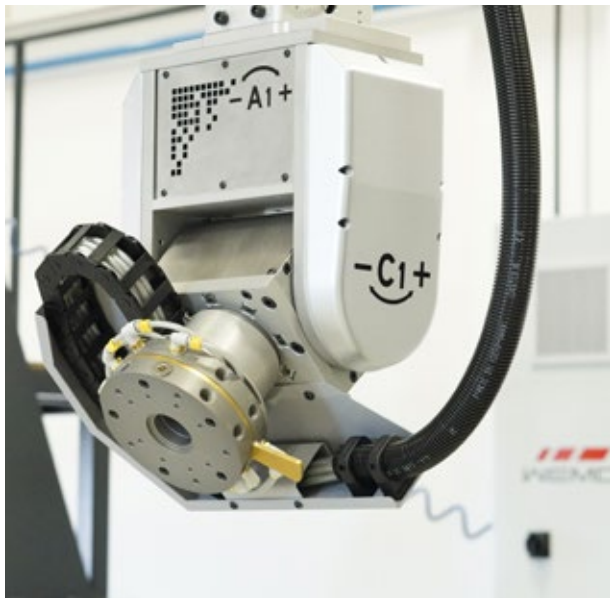
WEMO FLEXIBLE OPTIONS

ALWAYS POSSIBLE TO UPGRADE FUNCTIONALITY

Even how your Wemo robot is equipped from the beginning it's possible almost for every robot type to be upgraded with retrofit kit to increase the functionality and flexibility. This makes the investment in a Wemo robot even more profitable in your production.

A/C OR B/C SERVO FIVE AXES COMBINATIONS

Compact rotation axes for more flexibility and cost effective applications. This ensures faster and more accurate position for your automation.



EXTERNAL SERVO AXES CONTROL

With the new WIPS control system it is possible to control up to 6 external servo motions from the handheld panel on the robot.



BUS COMMUNICATION BETWEEN ROBOTS

Robots can be connected by Ethernet powerlink and integrated safety functions for more complex automation solutions.



PLUG & PLAY FUNCTIONS WITH W-LINK

When additional down stream equipment needs to be connected. In all Wemo linear robots the hardware design are based on Plug & Play connections with modules for directly communication by W-link.

IMPROVE THE PRODUCTIVITY

FOR MORE AUTOMATED OPERATIONS

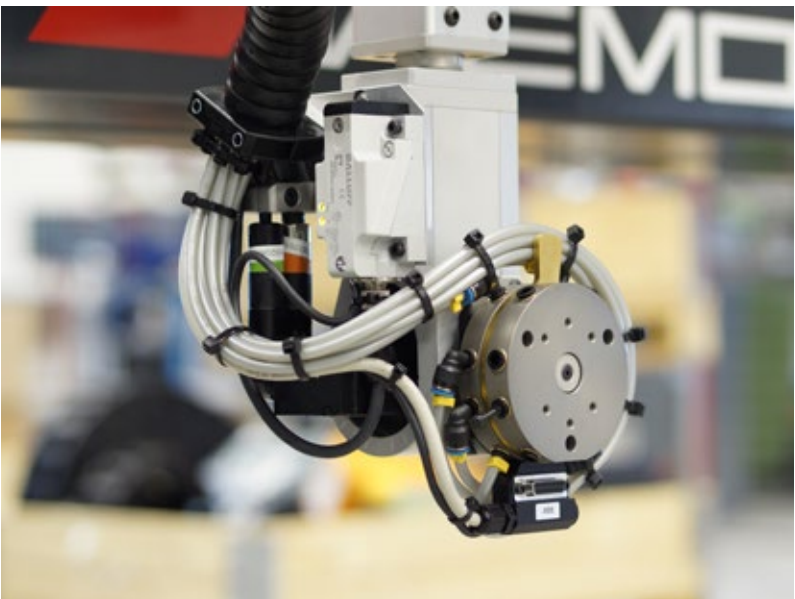
EXTERNAL OPERATOR PANEL

This touch screen panel is a solution to get access to operate and make settings close to the IMM controlpanel.



AUTOMATIC CENTRAL LUBRICATION

The robot calculates the used distances and ensures optimised quantity of lubrication for maintenance-free operation.



GRIPPER IDENTIFYING SYSTEM

The QuickLock gripper change system can be added with an RFID reader to identify the right type of gripper, and open the actual program in the editor of the robot.



NEW SAFETY SWITCHES

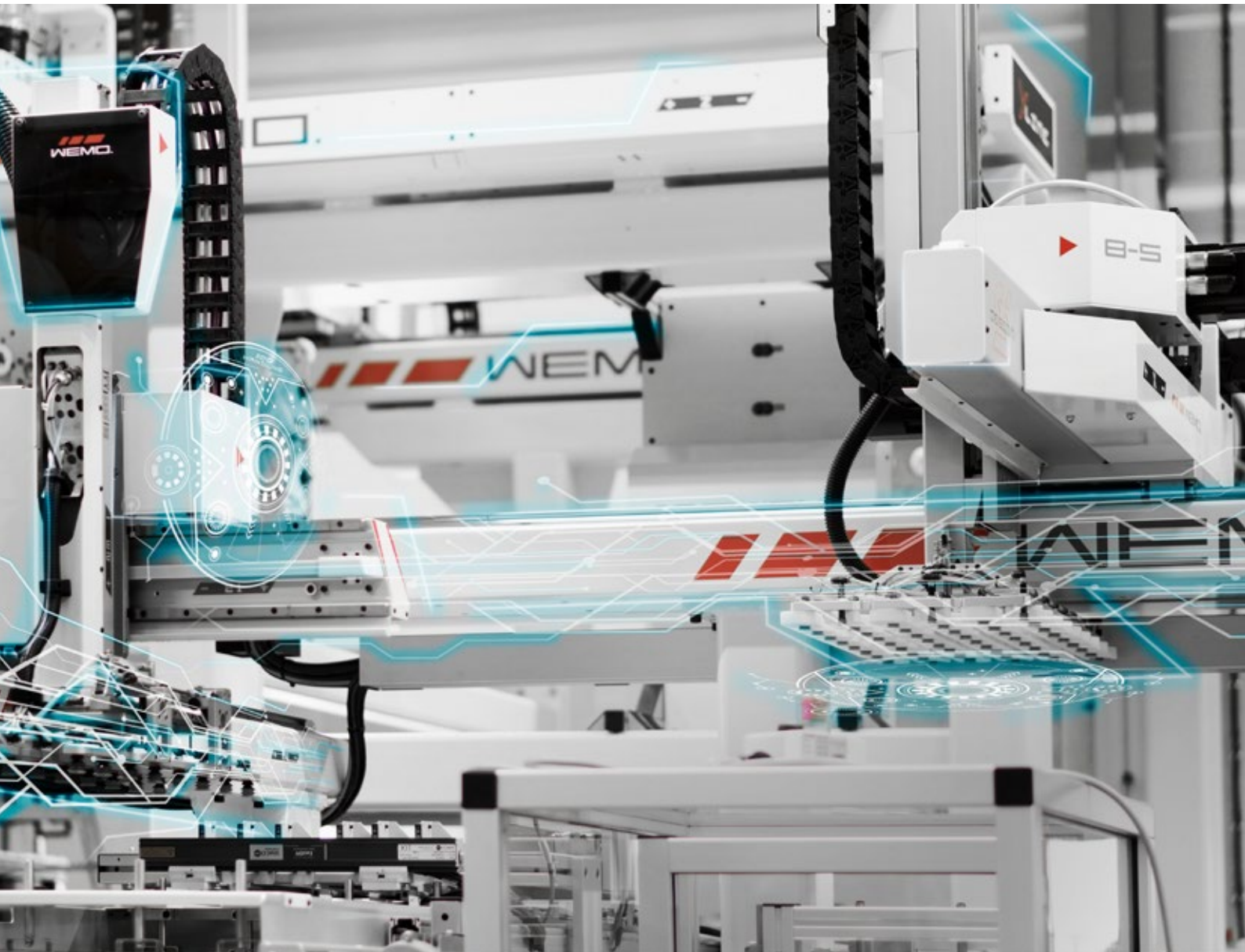
Fufill the new CE safety regulations EN2006/42/EC with electromagnetic locking with coded non-contact function.

TURNKEY SOLUTIONS

AUTOMATION FACTORY

HIGHEST LEVEL OF QUALITY

Our modern automation factory is staffed by engineers with the ambition of continuously achieving new levels of user friendliness and flexibility. Our range of modern machines ensures production of precision parts to the highest level of quality. This results in innovative solutions from our modular platforms to provide customers with turnkey solutions.



EXPERIENCE

INNOVATIVE

FLEXIBLE

WEMO APPLICATION & SYSTEMS

PLASTIC

With an experience of more than 30 years in the plastic automation and more than 10 000 automations, we have the experience to evaluate the right solution for your specific project or complete production.



AUTOMOTIVE



SERVICE MINDED



TECHNICAL



THRUSTNESS

GLOBAL PRESENT

WEMO THE GROUP

PASSION FOR AUTOMATION

The company Wemo has always been based on the initiatives of incredibly innovative people - people who love what they are doing and with high ambitions. Our specialists in robot manufacturing ensure the highest quality and long product lifespan.

Our professional support team analyses our customers' situations so that they can provide training and a maintenance procedure for trouble-free operation. Wemo has an active, well-educated network for support in more than 40 countries around the world

STRONG TOGETHER

HAHN GROUP

Wemo group belongs since 2015 in the business unit Material handling in the HAHN Group, a German based automation specialist. Together with Waldorf and GeKu this business unit can offer the whole range from standard portfolio of robots to high end complex automation lines. Total turnover for 2019 in Hahn Group will be estimated to 240 milion Euro and are 1400 employees with factories in 14 countries around the world. www.hahn.group

HERITAGE

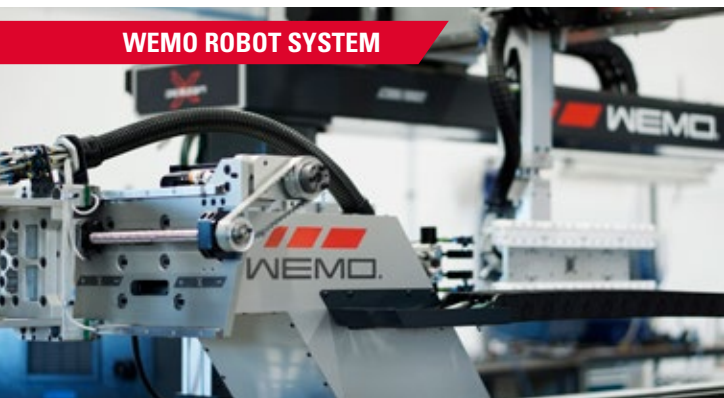
The existence of Wemo Automation is and has always been based on the initiatives of incredibly innovative people, with a natural connection to life. Our inspiration comes from the silence and clarity of nature which is fundamental to our way of life and work. Using the philosophy of nature inspires us to find the easiest and most simple way to use state of art technologies.

THIS IS WHAT WE CALL "NORDIC INSPIRATION "

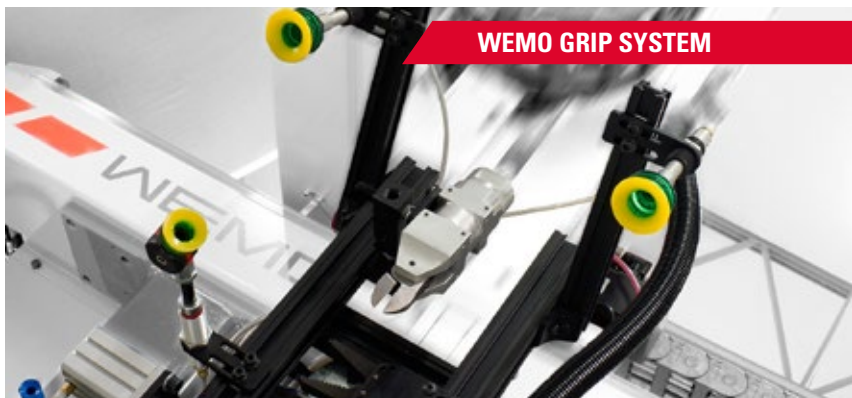


WEMO PRODUCTS

WEMO ROBOT SYSTEM



WEMO GRIP SYSTEM



WEMO CONVEYOR SYSTEM



WEMO SAFETY SYSTEM



WEMO SMARTDRIVE SYSTEM



WEMO APPLICATION SYSTEM



PASSION FOR AUTOMATION



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WWW.WEMOGROUP.COM

part of the **HAHN**GROUP