Robot-based automation ensures you get the flexibility, productivity, and reliability you need to meet ever shorter product life-cycles, new packaging designs, multiple pack sizes & product variants, and batch manufacturing.
ABB Robotics is a pioneer in industrial and collaborative robots and advanced digital services. As one of the world’s leading robotics suppliers, we are active in 53 countries and over 100 locations and have shipped over 300,000 robot solutions in a diverse range of industries and applications. We help our customers to improve flexibility, efficiency, safety and reliability, while moving towards the connected & collaborative factory of the future.
Robotic packaging solutions
Flexible configurations to meet your production needs

Robot-based automation ensures you get the flexibility, productivity, and reliability you need to meet ever shorter product life-cycles, new packaging designs, multiple pack sizes & product variants, and batch manufacturing.

Why robot-based automation?
Robots have been proven to deliver a host of benefits in palletizing applications. End users introducing robots to their production processes have typically seen a significant transformation in their productivity and efficiency - with higher levels of output, product quality, and flexibility amongst the many improvements noted.

Flexibility
Global competition requires more frequent product and packaging changes than ever before. Marketers are changing products daily to obtain competitive advantage. Manufacturing is looking to continuously squeeze out efficiencies, making minor changes that hard automation can’t adapt to. Traditional automation solutions are cost prohibitive to change, whereas major changes can be made very inexpensively in robotic automation systems.

Software
Software has evolved significantly over the last 40+ years of robot use; The easy to understand and use operator pendant allows for simple adjustments and error reporting. Furthermore, software has become very intuitive with little to no programming skills needed, allowing virtually anyone to take their robot system from PC to production in minutes.

Labor
Savings go way beyond direct labor when robots are rolled out in larger quantities; You will also see benefits from reduced labor turnover and difficulty of recruiting workers. Additionally, robots allow you to improve working conditions for your staff. Robots can readily take over unpleasant, arduous, or health-threatening tasks that may currently be undertaken by manual workers.

Tooling
A variety of fixed and flexible end of arm tools have been developed over the years with proven designs – reducing the likelihood that expensive tooling design will be required for your project.

Maintenance
Robots are capable of 80,000+ hours mean time between failures, with very fast Mean Time to Repair due to designs that have been improved over 40+ years of development.

When you purchase from ABB, we work closely with you to tailor a service package to meet your needs – and then we stand ready, 24/7, to help you increase the product’s uptime, performance, and lifetime.

Reduced floor space requirements
The flexibility of robot mounting, increased reach, and tooling capabilities allows you to save highly valuable space in manufacturing areas. Carefully laid out automation can significantly reduce construction costs in new building design, as well as related long term facility operation costs.

Implementation of ABB’s safety solution, SafeMove2, allows up to a 30% workcell footprint reduction when compared to conventional palletizing offerings. Along with unsurpassed safety, this enables closer human-robot collaboration.
Robot-based packaging automation

There comes a point in the production process when practically all products are picked, packed and palletized. This is our reason for providing the best possible robots for the packaging process - always with a eye towards creating an efficient and flexible production flow.

Robot-based automation

Robot based automation ensures the kind of flexibility you need to meet shorter product life cycles, continually evolving packaging designs, variations of products and batch manufacturing. Compared to dedicated hard automation solutions, robot lines are shorter and allow far better utilization of valuable floor space. Robot based automation is an excellent alternative to manual operation, given it offers increased uptime, increased throughput and improved quality.

Additional arguments should be made for safety - less exposure for accidents and increasingly demanding workplace legislation. Robotics are typically associated with handling repetitive tasks in a process in either high volume production roles or flexible systems where changeovers are frequent. In the packaging industry robots generally fall into three main arenas: picking, where products are picked and loaded to primary packages or machinery (such as a flow wrapper infeed), packing, where products are loaded to secondary packaging and palletizing, which entails pallet loading and/or unloading.

Picking

This is an area in which ABB services a multitude of products, applications and packaging line configurations. Frozen food, bakery, confectionary, ice cream, meat and fish, cheese, pet food, medical products and personal care items are just a few examples. Our IRB 360 FlexPicker™ is the first 2nd generation delta robot. The family of this robot initially saw three models but it has now grown to six models with options for wash down and stainless steel for harsh environments such as meat and dairy applications. Apart from even greater performance over the 1st generation the latest delta robot has significantly increased payload of up to 8kg. For full 6-axis flexibility, less demanding cycle times and payloads of up to 7 kg the IRB 1200 is recommended.

Packing

In this stage of the packaging process robot automation offers easy integration, increased flexibility and high reliability compared to conventional hard automation solutions. Direct top loading of cases or cartons, unloading, mixing and feeding products to end loaders or over-wrappers is easily handled by ABB's compact 4-axis IRB 260 with its 30kg payload. With a comprehensive range of robots, controller equipment, vision technology and software ABB can help optimize all kinds of packaging applications including ones where conveyor or indexer tracking is required.

Palletizing

Placing boxes, trays, bags, bottles or other items on a pallet seems easy enough but when you are dealing with the rigorous demands of multiple infeeds, quick pattern changes and high uptime requirements nothing compares to robot based automation. The IRB 660 and IRB 760 have the versatility, reach and payload needed for nearly any palletizing application, single or multipick and even complete layers. For even greater payload requirements our standard 6-axis robots are built to handle as much as 650 kg. For high speed palletizing requirements the IRB 460 is recommended and is the fastest robot in its class.
Racerpack function package
The RacerPack is a modular solution for picking and packing products directly from flow wrappers into cartons, trays or cases. A single robot picking from a single collating conveyor can pack around 200 parts per minute, adding a second collator allows a single robot to reach speeds around 400 parts per minute. It is based on the IRB 360 FlexPicker and ICC (Indexed conveyor control). The system is modular and can be set up in different layouts and combined with various conveyor set ups in order to meet customer requirements. Stainless steel for harsh environments such as meat and dairy applications. Apart from even greater performance over the 1st generation the latest delta robot has significantly increased payload of up to 8kg. For full 6-axis flexibility, less demanding cycle times and payloads of up to 7 kg the IRB 1200 is recommended.

PalletPack 460 function package
As PLC programming is the dominate competence within automation engineers and not ABB’s RAPID programming language it makes sense to offer a set of hardware and software tools, based on PLC programming, that allows for the easy integration of ABB products. This PalletPack includes all the components necessary for a complete palletizing system now with an easy to program and operate interface. Standard components are the robot, ABB PLC, JOKAB safety PLC and software. Available options include the robot riser, tooling, safety enclosure and conveyors. And since the solution is focused on the IRB 460 robot system configs are limited to a maximum of 2in/2out with slip sheet and pallet stations. All programming is done through the FlexPendant Pallet Wizard.

Picking function package
This is a solution based on the IRB 360 FlexPicker and pre-engineered one or two robot modules that are scalable and can be easily integrated into new or existing lines. Options are available for also using ABB’s IRB 140, IRB 120 or IRB 1200 in this cell. Unification and customization of a standard platform eases integration and usability. Both single and dual robot packages are offered and feature adjustable robot mounting heights for any application. Other available features include a safety system, PLC, PickMaster (and PC) and pre-wiring individual cabinets for separation of high and low voltage.

Integrated vision
ABB’s Integrated Vision represents a true revolution in machine vision featuring powerful vision tools, autofocus, integrated lighting and optics, faster image capture, capability to power and control a range of external lighting and enough I/O capacity for virtually any inspection scenario. All this comes in a compact, industrial IP67 package that makes the system ideal for more applications than ever before. ABB Integrated Vision consists of 50 smart vision tools that both first time and advanced users will find easy to use.

There are a wide range of robotic vision systems on the market but none offer the programming power of RobotStudio’s comprehensive set of robot commands which seamlessly communicates with both robot and smart camera.

Camera resolution specifications:
Medium res: 6x speed & 800x600 resolution
High res: 12x speed & 1280x1024 resolution
Advanced software solutions

ABB spares no effort in creating smart software solutions for you. Easy to use software packages for picking, packing and palletizing, the IRC5 controller and graphical FlexPendant work in unison to enhance the interface for robot programming and operation.

RobotStudio® – the virtual world
Offline programming is the best way to maximize return on investment for robot systems. ABB’s simulation and offline programming software, RobotStudio, allows robot programming to be done on a PC in the office without shutting down production. It provides the tools to increase the profitability of your robot system by letting you perform tasks such as training, programming and optimization creating other benefits like risk reduction, quicker startup, shorter changeovers and increased productivity. RobotStudio is built on the ABB Virtual Controller, an exact copy of the real software that runs your robots in production, resulting in realistic performance identical to what you’d see in an actual system. Additional functionality and improved ease of use for specific applications can be found with the integration of any of the available PowerPac’s into RobotStudio. PowerPac’s are now available for both.

PickMaster - picking and packing the easy way
ABB’s dedicated PickMaster software makes programming and reprogramming easy and is the best tool for guiding robots in the packaging process. The PC based software solution uses comprehensive graphical interfaces to configure powerful applications where up to ten robots and ten cameras may work as team over continuously moving or indexing conveyors. Although typically used with ABB’s picking, packing and palletizing robots PickMaster works with any of the robots we offer. The powerful vision identification and inspection tools combined with a high performance conveyor tracking process makes truly flexible production a success. The vision system within PickMaster is advanced but the software is also open to the use of any external sensor be it line scan cameras, color vision, 3D or any available 2D sensor such as a Basler or COGNEX product. Advanced functionality for mixing and sorting are standard.

Palletizing PowerPac
A revolutionary new program from ABB makes programming robot palletizing systems easier than ever before. As no programming skills are required, RobotStudio Palletizing PowerPac software radically reduces programming times and creates fully tested simulations and real robot system programs in minutes. At a time when trained robot programmers are a scarce resource, Palletizing PowerPac addresses a growing need for a simple programming method for often complicated robotic palletizing systems. With the Palletizing PowerPac users do not have to write a single line of code. Instead they select robot and gripper types from an embedded library and then set simple parameters such as package sizes, pallet size, pallet patterns and number of layers. The software then creates the program to simulate, download, test and fine tune, thereby saving valuable time.

“Robot programmers are an increasingly rare resource,” says ABB Product Manager, Klas Bengtsson, about the Palletizing PowerPac. “So this software is truly transformative. What used to take days will now take only minutes”.

Regardless of whether you are a robot programmer or an operator, ABB offers you a full range of easy-to-use software tools to help you to improve your process, optimise production, increase productivity, reduce risks and maximise the return on investment of your robot systems.

Picking PowerPac – based on PickMaster
Released in 2014 the Picking PowerPac for RobotStudio joined the proven PickMaster 3 software solution with ABB’s RobotStudio making it possible to simulate conveyor tracking, vision guided picking and packing systems. As with PickMaster this PowerPac works with any of ABB’s standard robot offering but is targeted more towards the IRB 360 FlexPicker. The workflow of this PowerPac allows for the configuration of almost any production scenario; from ‘marching soldiers’ to totally random product flows, any package pattern, single or multiple picks and places, continuously moving or indexing conveyors. Also available for adjustment are any parameters found in PickMaster 3 including pick and place dwells and elevations, stop and start limits for the robots work envelopes, end effector and load data. This software makes it possible to prove out a concept – will the robot work, can the robot reach where it needs to, are there enough robots, will our anticipated end effector work – all these questions can be answered before the system is built.
ABB’s 4-axis robots optimized for packaging applications

IRB 260 – cost effective packing
The four axis IRB 260 houses all the necessary features for packing items into boxes, trays and more. Optimized for packing applications this robot can work closely to its own base allowing very compact packing cells and integration into tight packing machines. The IRB 260 features a 30 kg payload and short cycle times to meet the packaging industry requirements of up to 65 cycles per minute. Like all ABB robots the IRB 260 is compatible with PickMaster™, our dedicated software for packaging applications where vision guidance and conveyor tracking come together.

IRB 460 – compact, high-speed palletizing
The IRB 460 is perfect for end of line palletizing where cycle times are critical. It is capable of up to 2,190 cycles per hour with a 60kg payload which is the fastest in this class in the world. Along with this robot ABB offers the PalletPack 460 Function Package which is a set of pre-engineered products meant to improve the ease of use for Integrators and end users. The following products can be offered as standard or optional and include grippers, ABB PLC, JOKAB Safety systems, software, pedestals, conveyors and a FlexPendant with a tailored graphical HMI.

IRB 660 – reliable and proven
The IRB 660 is a refinement of our proven IRB 640 palletizer which has more than 2,000 installations worldwide. This new robot blends speed, reach and payload like no other. Exceptionally fast, this 4-axis performer combines a 3.15 meter reach with a 250kg payload making it ideal for palletizing bags, boxes, crates, bottles and more. The IRB 660 comes in two versions; a high throughput version designed for 250 kg pallets and a high speed version built to handle 180 kg at full speed. Additionally this unit is robust enough to perform steadily in even the toughest environments, 24/7/365.

IRB 760 – high payload, full-layer capable
Boasting an impressive payload capacity of 450 kg and a reach of 3.2 m this robot features high wrist inertia – double that of competitors – enabling it to rotate heavier and larger products faster than any other robot. This superior speed makes the IRB 760 especially suited for palletizing full layers of beverages, building materials, chemicals or any other high throughput product. For the Industry benchmark palletizing move the IRB 760 is capable of 1,500 cycles per hour at 65 kg payload and 880 cycles per hour at 450 kg payload making it the world’s fastest full layer palletizer.

ABB’s IRB 360 family of robots, more commonly known as the FlexPicker, are capable of the fastest picking applications and have been optimized for packing applications. The robot has outstanding motion performance with the shortest cycle times, precision accuracy, and high payloads.

The IRB 360 family includes variants with payloads of 1 kg, 3 kg, 6 kg, and 8 kg and reaches of 800 mm, 1130 mm and 1600 mm — meaning there is an IRB 360 for almost every need.

Featuring outstanding motion control, short cycle times, and precision accuracy, an IRB 360 can operate at very high speeds in anything from narrow to wide spaces with very tight tolerances. Every FlexPicker also benefits from a re-engineered tool flange which can accommodate larger grippers, allowing for efficient handling of flow wrapped products from an indexing belt.

Food handling capabilities
A stainless option for food handling applications is IP69K validated so that it can be washed down with industrial detergents and high pressure hot water. This variant is also designed with smooth and easy to rinse-off surfaces and lubricant free joints that are resistant to most corrosives.

IRB 660 FlexPicker®

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## Packaging portfolio

### 4-axis and delta robots

<table>
<thead>
<tr>
<th>Model</th>
<th>Load (kg)</th>
<th>Reach (m)</th>
<th>Position repeatability (RP) (mm)</th>
<th>Main applications</th>
<th>Protection</th>
<th>Mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB 260</td>
<td>30</td>
<td>1.53</td>
<td>0.03</td>
<td>Packing</td>
<td>Std: IP67</td>
<td>Floor</td>
</tr>
<tr>
<td>IRB 460</td>
<td>110</td>
<td>2.40</td>
<td>0.20</td>
<td>Depalletizing, Material Handling</td>
<td>Std: IP67</td>
<td>Floor</td>
</tr>
<tr>
<td>IRB 660</td>
<td>180/250</td>
<td>3.15</td>
<td>0.05</td>
<td>Material Handling, Palletizing</td>
<td>Std: IP67</td>
<td>Floor</td>
</tr>
<tr>
<td>IRB 760</td>
<td>450</td>
<td>3.18</td>
<td>0.05</td>
<td>Depalletizing, Full Layer Palletizing</td>
<td>Std: IP67</td>
<td>Floor</td>
</tr>
<tr>
<td>IRB 360</td>
<td>8/1/6</td>
<td>1.13</td>
<td>0.10</td>
<td>Assembly, Material Handling, Palletizing</td>
<td>Std: IP54/67/IP69K. Option: Wash down, Stainless Cleanroom, ISO class 5–7 (for IRB 360-1/1600 certified by IPA)</td>
<td>Floor</td>
</tr>
</tbody>
</table>

### Main applications

- **Packing**: Suitable for tasks involving precise placement of objects.
- **Depalletizing**: Designed for the reverse process of palletizing, ideal for unloading goods.
- **Material Handling**: Geared for moving or transporting materials in various applications.
- **Palletizing**: Specialized for creating pallet configurations.
- **Assembly**: Equipments for assembling parts in complex structures.
- **Pick and Place**: Generally used for moving or transferring objects within a range of applications.

### Protection and Mounting

- **Protection**: Typically includes IP67 for standard industrial environments.
- **Mounting**: Commonly specified as Floor, indicating versatile ground-level installations.

---

**IRB 260**: Suitable for precision tasks requiring a compact yet robust design.

**IRB 460**: Ideal for high-speed material handling with enhanced reach and precision.

**IRB 660**: Versatile for assembly tasks requiring a balance of load capacity and flexibility.

**IRB 760**: Designed for high-capacity palletizing and depalletizing tasks.

**IRB 360**: A diverse range catering to assembly, picking, and specialized cleanroom environments.

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Packaging portfolio
6-axis and collaborative robots

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>BASIC SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB 120 and IRB 120T</td>
<td>Load (kg) 3.00</td>
</tr>
<tr>
<td></td>
<td>Reach (m) 0.58</td>
</tr>
<tr>
<td></td>
<td>Position repeatability (mm) 0.01</td>
</tr>
<tr>
<td></td>
<td>Protection Std: IP30 Option: Cleanroom class 5, certified by IFA</td>
</tr>
<tr>
<td></td>
<td>Mounting Floor, wall, inverted, and tilted angles</td>
</tr>
<tr>
<td>IRB 1200</td>
<td>Load (kg) 5.00 7.00</td>
</tr>
<tr>
<td></td>
<td>Reach (m) 0.90 0.70</td>
</tr>
<tr>
<td></td>
<td>Position repeatability (mm) 0.25 0.02</td>
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<tr>
<td></td>
<td>Protection Std: IP40 Option: IP67, Cleanroom class 4, food-grade lubricant</td>
</tr>
<tr>
<td></td>
<td>Mounting Any angle</td>
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<tr>
<td>IRB 140 and IRB 140T</td>
<td>Load (kg) 6.00</td>
</tr>
<tr>
<td></td>
<td>Reach (m) 0.81</td>
</tr>
<tr>
<td></td>
<td>Position repeatability (mm) 0.03</td>
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<tr>
<td></td>
<td>Protection Std: IP67 Option: Cleanroom class 6, Foundry Plus</td>
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<td></td>
<td>Mounting Floor, wall, inverted, and tilted angles</td>
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<tr>
<td>IRB 1600</td>
<td>Load (kg) 6.00 10.00 10.00</td>
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<tr>
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<td>Reach (m) 1.20 1.45 1.20 1.45</td>
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<tr>
<td></td>
<td>Position repeatability (mm) 0.02 0.02 0.02 0.05</td>
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<tr>
<td></td>
<td>Protection Std: IP54 Option: Foundry Plus 2 with IP67</td>
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<td>Mounting Floor, wall, inverted, tilted angles, and shelf</td>
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</table>

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>BASIC SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB 2600 and IRB 2600ID</td>
<td>Load (kg) 8.0* 12.0 12.0 15.0* 20.0</td>
</tr>
<tr>
<td></td>
<td>Reach (m) 2.0* 1.65 1.85 1.85* 1.65</td>
</tr>
<tr>
<td></td>
<td>Position repeatability (mm) 0.02 0.04 0.04 0.02 0.04</td>
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<tr>
<td></td>
<td>Protection Std: IP67, IP54 (axis 4) Option: Foundry Plus 2</td>
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<tr>
<td></td>
<td>Mounting Floor, wall, inverted, and tilted angles</td>
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</table>

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>BASIC SPECIFICATIONS</th>
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<tbody>
<tr>
<td>IRB 4600</td>
<td>Load (kg) 20.40 40.0 45.0 60.0</td>
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<tr>
<td></td>
<td>Reach (m) 2.50 2.55 2.05 2.05</td>
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<tr>
<td></td>
<td>Position repeatability (mm) 0.05 0.06 0.05 0.06</td>
</tr>
<tr>
<td></td>
<td>Protection Std: IP67 Option: Foundry Plus 2, Foundry Prime 2</td>
</tr>
<tr>
<td></td>
<td>Mounting Floor, wall, inverted, tilted angles, and shelf</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>BASIC SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB 6700 and IRB 6700 LeanID</td>
<td>Load (kg) 150 155 175 200 205</td>
</tr>
<tr>
<td></td>
<td>Reach (m) 3.20 2.85 3.05 2.60 2.80</td>
</tr>
<tr>
<td></td>
<td>Reach (cont.) 235 245 300</td>
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<tr>
<td></td>
<td>Position repeatability (mm) 0.10</td>
</tr>
<tr>
<td></td>
<td>Protection Std: IP67 Option: Foundry Plus 2</td>
</tr>
<tr>
<td></td>
<td>Mounting Floor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>BASIC SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB 14000 YuMi™</td>
<td>Load (kg) 0.50</td>
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<tr>
<td></td>
<td>Reach (m) 0.60</td>
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<td></td>
<td>Position repeatability (mm) 0.02</td>
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<tr>
<td></td>
<td>Protection Std: IP30 Option: Foundry Plus 2 with IP67</td>
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<tr>
<td></td>
<td>Mounting Bench, table</td>
</tr>
<tr>
<td>Safety</td>
<td>Pl, b Cat B</td>
</tr>
</tbody>
</table>

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End of arm tooling
Standard palletizing grippers

**FlexGrippers - standards for palletizing**
ABB now offers off-the-shelf solutions for most palletizing applications; a claw gripper to handle bags up to 50 kg, a clamp gripper to handle heavy cases one or two at a time and a vacuum gripper with multiple zones to handle the most typical cases. All standard mechanical grippers feature adjustability to accommodate cases or bags of varying lengths, widths and heights. Additionally, pallet hooks can be attached to the vacuum gripper for additional functionality. Optional dress packs for controls and pneumatic cabling reside in the robot arm protected while still allowing for ± 180° rotation.

<table>
<thead>
<tr>
<th>FlexGripper specification</th>
<th>Gripper weight</th>
<th>Payload</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Handled products</th>
<th>Air pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuum</td>
<td>75.0 kg</td>
<td>40.0 kg</td>
<td>240-1200 mm</td>
<td>240-500 mm</td>
<td>100-300 mm</td>
<td>1 - 5</td>
<td>4 - 6 bar</td>
</tr>
<tr>
<td>Clamp</td>
<td>45.0 kg</td>
<td>40.0 kg</td>
<td>200-500 mm</td>
<td>200-500 mm</td>
<td>150-300 mm</td>
<td>1 - 2</td>
<td>4 - 6 bar</td>
</tr>
<tr>
<td>Double clamp</td>
<td>80.0 kg</td>
<td>60.0 kg</td>
<td>200-1200 mm</td>
<td>200-500 mm</td>
<td>150-300 mm</td>
<td>1 - 5</td>
<td>4 - 6 bar</td>
</tr>
<tr>
<td>Claw (bags)</td>
<td>60.0 kg</td>
<td>50.0 kg</td>
<td>300-750 mm</td>
<td>250-450 mm</td>
<td>150-250 mm</td>
<td>1*</td>
<td>4 - 6 bar</td>
</tr>
</tbody>
</table>

* 3" Finger pitch

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FlexGrippers - clamp for handling cases; two size variants
FlexGrippers - claw for high-speed bag palletizing
FlexGrippers - vacuum can handle up to five products at once
ABB standard palletizing cells
Flexible configurations to meet your needs

**Standard palletizing cells**

1 infeed with 1 outfeed manual pallet removal

- Cell configuration includes:
  - IRB 460 robot with FlexGripper Clamp
  - Pallet locator, supports 40x48", 42x48" pallets
  - Zoned infeed conveyor for product presentation
  - Product Stack Height: 60-70”
  - Pre-Loaded Palletizing software
  - Basic safety equipment including wire mesh fencing, access door for cell maintenance and pallet access via light curtain
  - Approximate dimensions 9x14 ft

2 infeed with 2 outfeed manual pallet removal

- Cell configuration includes:
  - IRB 460 robot with FlexGripper Clamp
  - Common base for major components offering quick deployment
  - Two Pallet locators, supports 40x48", or 42x48" pallets
  - Zoned infeed conveyor for product presentation
  - Product Stack Height: 60-70”
  - Pre-Loaded Palletizing software
  - Basic safety equipment including wire mesh fencing, access door for cell maintenance and pallet access via light curtain
  - Approximate dimensions 11x14 ft

1 infeed with 1 outfeed and pallet destacker

- Cell configuration includes:
  - IRB 460 robot with FlexGripper Dual Clamp
  - Common base for major components offering quick deployment
  - Pallet conveyors with pallet transfer, supports 40x48", 42x48" pallets
  - Zoned infeed conveyor for product presentation
  - Product Stack Height: 60-70”
  - Pre-Loaded Palletizing software
  - Basic safety equipment including wire mesh fencing, and access door for cell maintenance and pallet access via light curtain
  - Light curtain with muting circuit for full pallet exit
  - Pallet dispenser option available
  - Approximate dimensions 11x18 ft

**Standard palletizing cells (continued)**

1 infeed with 1 automatic outfeed and pallet destacker

- Cell configuration includes:
  - IRB 460 robot with FlexGripper Clamp
  - Common base for major components offering quick deployment
  - Over-Under pallet conveyor, supports 40x48" or 42x48" pallets
  - Zoned infeed conveyor for product presentation
  - Product Stack Height: 60-70”
  - Pre-Loaded Palletizing software
  - Basic safety equipment including wire mesh fencing and access door for cell maintenance
  - Light curtain with muting circuit for full pallet exit
  - Cell illustration with available slip sheet option
  - Approximate dimensions 9x18 ft

2 infeed with 2 outfeed manual pallet removal

- Cell configuration includes:
  - IRB 460 robot with FlexGripper Clamp
  - Common base for major components offering quick deployment
  - Two Pallet locators, supports 40x48", or 42x48" pallets
  - Two zoned infeed conveyors for product presentation
  - Product Stack Height: 60-70”
  - Pre-Loaded Palletizing software
  - Basic safety equipment including wire mesh fencing, access door for cell maintenance and pallet access via light curtain
  - Approximate dimensions 13x14 ft

1 infeed with 1 automatic in/outfeed layer sheet

- Cell configuration includes:
  - IRB 460 robot with FlexGripper Vacuum
  - Common base for major components offering quick deployment
  - Over-Under pallet conveyor, supports 40x48" or 42x48" pallets
  - Zoned infeed conveyor for product presentation
  - Product Stack Height: 60-70”
  - Pre-Loaded Palletizing software
  - Basic safety equipment including wire mesh fencing and access door for cell maintenance
  - Light curtain with muting circuit for full pallet exit
  - Cell illustration with available slip sheet option
  - Approximate dimensions 9x18 ft

1 infeed with 1 automatic in/outfeed layer sheet

- Cell configuration includes:
  - IRB 460 robot with FlexGripper Vacuum
  - Common base for major components offering quick deployment
  - Over-Under pallet conveyor, supports 40x48" or 42x48" pallets
  - Zoned infeed conveyor for product presentation
  - Product Stack Height: 60-70”
  - Pre-Loaded Palletizing software
  - Basic safety equipment including wire mesh fencing and access door for cell maintenance
  - Light curtain with muting circuit for full pallet exit
  - Cell illustration with available slip sheet option
  - Approximate dimensions 9x18 ft

*equipment location to be configured per customer layout requirements
For many years ABB Robotics has led the world in the development of purpose-designed robots for specific applications and industries. The food and beverages segment is no different. For over 20 years the R&D team at ABB have been designing robots to both suit and exceed the needs of an ever changing and developing industry.

The IRB 360 delta robot; the first and many believe the best of its kind has been successfully used in high speed picking applications both in high and low risk areas for processing, and packing since many years back. The focus on technological advances has seen the traditional IRB 360 FlexPicker become the most reliable delta robot available due to the world leading motion control and state of the art integrated vision incorporated into PickMaster software and probably the best payload and reach combination available. The ever expanding range of packing robots has resulted in ABB palletizing robots becoming the solution of choice for many global blue chip companies as well as smaller food processors who want to keep ahead of their competition by utilising the most cost efficient, versatile and reliable products available.

All of these core robots are complemented by a range of software products, end of arm tooling and function packages. These enhancements to the base robots enables a flexibility of choice to suit all requirements never before seen in the robotic automation market place. Recent years have seen ABB Robotics benefit all areas of the food processing segment. Whether your business is in meat, bakery, fish, fruit and vegetables, sugars, oils, dairy or any of the beverage industries or any other food area, and if your automation need is in processing, packing or palletizing, ABB is now and always will be, the robotic supplier to engage with. Designed to adhere to and surpass all hygiene and safety standards, see your business improve and expand with the implementation of ABB robots.