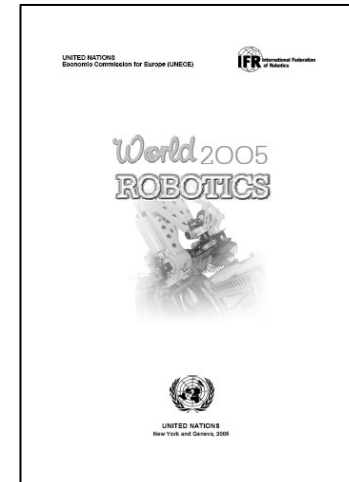


10 good reasons to invest in robots



The 10 good reasons to invest in robots

1. Reduce operating costs
2. Improve product quality & consistency
3. Improve quality of work for employees
4. Increase production output rates
5. Increase product manufacturing flexibility
6. Reduce material waste and increase yield
7. Comply with safety rules and improve workplace health & safety
8. Reduce labour turnover and difficulty of recruiting workers
9. Reduce capital costs (inventory, work in progress)
10. Save space in high value manufacturing areas



*Based on research carried out by the International Federation of Robotics (IFR)
Published in World Robotics 2005*



1. Reduce operating costs



“I am so impressed with the ABB cell that we will install a second by the end of the year and full ‘lights-out’ operation will follow that.”

Andy Knight, Characteristix

Client

Characteristix (part of Gemma International)
Cornwall, United Kingdom

Application - Injection Moulding

Plastic, injecting moulding specializing in badges, pendants, pencil toppers and fridge magnets

System installed by GeKu UK

Key Drivers & Benefits

- ✓ Huge decrease in downtime
- ✓ Improved efficiency and costs reduced by 5%
- ✓ Performance up more than 100 per cent
- ✓ 33,000 pieces produced per day
- ✓ Employees newly motivated



2. Improve product quality & consistency



“Using ABB systems has not only improved our manufacturing processes and productivity, but it has also freed up time and manpower for developing innovative new products and tailoring production to meet the specific needs of our customers.”

Sousa Pires, Farama

Client

Farama

Lisbon, Portugal

Application – Arc & Spot Welding

Cells to weld cut & bent steel wire, rods and tubes for manufacture of supermarket trolleys

System installed by ABB Portugal

Key Drivers & Benefits

- ✓ Improved product range for global competition
- ✓ Each robot can be quickly adapted to a new or different product – with fast change overs
- ✓ All programming and operating staff can use all the welding stations. Common cell design.
- ✓ Freed up people for developing innovative new products



3. Improve quality of work for employees



“We’re increasing our moulds by 30% to 40% with the same amount of people, and there is still a lot of capacity left.”

Kevin Weaver, Franklin Bronze and Alloy Inc

Client

Franklin Bronze and Alloy Inc.
Pennsylvania, USA

Application – Materials Handling

Investment casting of precision parts in brass, bronze, aluminium, stainless steel and nickel-based alloys

System installed by ABB USA

Key Drivers & Benefits

- ✓ Reduction of man-hours from 56 to 32 per day
- ✓ Mould production up 60%
- ✓ Improvement of shell quality
- ✓ Return on investment in 2.5 years
- ✓ Cleaner environment for employees & reduction in physical stress



4. Increase production output rates



“The benefit of using robots is the ability to have low-volume runs, as well as to change jobs every few minutes, to cater to any application and suit practically any size and shape.”

Darren King, D&M

Client

D&M Auto Industrial Spray Painting Pty. Ltd
Melbourne, Australia

Application - Painting

Spray painting - specializing in small plastic parts for the automotive industry

System installed by ABB Australia

Key Drivers & Benefits

- ✓ Productivity and profitability boosted by 80%
- ✓ Consumption of paint reduced from 35% to 30%
- ✓ Flexibility increased, allowing for very low-volume runs and fast change overs
- ✓ Number of accidents and work-related illnesses reduced



5. Increase product manufacturing flexibility



“With the new system, we’re running the packaging machine at full capacity, giving us a performance increase of up to 25 percent compared with manual loading.”

Carim Gad, Unilever

Client

Unilever (Bifi Salami)
Ansbach, Germany

Application – High Speed Picking/Packing

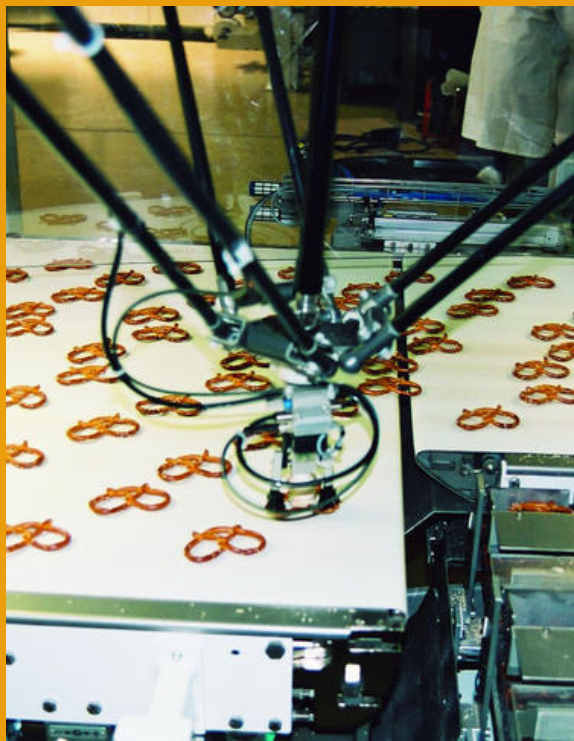
High speed picking and placing of salami sausages in a fully integrated packing line
System installed by Robomotion GmbH

Key Drivers & Benefits

- ✓ Production increased by 25%
- ✓ Improved efficiency
- ✓ Six different products accommodated
- ✓ Flexible system thanks to application software & vision guidance
- ✓ No pre-arranging or pre-placing of products required



6. Reduce material waste and increased yield



“Because there are fewer breakages, fewer people are needed to check the packaged pretzels & replace the broken ones by hand.

Walter Fuchs, Roland Murten

Client

Roland Murten AG
Murten, Switzerland

Application – High Speed Picking/Packing

High Speed packing of baked pretzels in vacuum formed trays

System installed by ABB Switzerland

Key Drivers & Benefits

- ✓ Breakage's have reduced from 12% to 4%
- ✓ 134 kilograms of pretzels are packed every hour
- ✓ Reduced noise levels and improved working environment for employees



7. Comply with safety rules & improve H&S



“At first, people were extremely wary of this new technology. Now they feel proud of it. Far from threatening jobs it has preserved employment in the face of global competition”

Reben Ritter, Svedplan

Client

Svedplan
Alingsås, Sweden

Application – Depalletizing & Packing

Handling of heavy and awkward wooden panels & boxes in flat pack furniture production

System installed by Teamster AB

Key Drivers & Benefits

- ✓ Production has increased by 45%
- ✓ Automated lines preparing 15 boxes per hour compared to 10 on the manual lines
- ✓ Work conditions for employees have improved without loss of jobs
- ✓ Ability to accommodate wide range of products with fast change overs



8. Reduce labour turnover



“Our workers were happy to see the robots arrive because they are relieved of a hot, hard, noisy, repetitive task.
Giovanni Pasotto, MP Filtri

We gained a lot in productivity, because we have no more downtime.”

Cesare Gatti, MP Filtri

Client

MP Filtri

Pessano con Boragno, Italy

Application – Machine tending

Unloading hot parts from forming presses & machine tools and loading finished parts into baskets for aluminium oil filter production.

System installed by MP Filtri

Key Drivers & Benefits

- ✓ Increased productivity - the production line can complete in 2 hours what used to take 8.
- ✓ No longer struggle to find “qualified” workers
- ✓ Rapid return on investment < 2 years
- ✓ Consistent high quality. Rejects reduced from 10% to 2%



9. Reduce capital costs



“We now only have one process compared to 4 in terms of welding when making the rotor.

It is also better for the operator”

Ulrik Bastholm, Kverneland

Client

Kverneland
Kerteminde, Denmark

Application - Arc Welding

Welding of specialised agricultural machinery including disc mowers & mower conditioners
System installed by DanRob

Key Drivers & Benefits

- ✓ Efficiency boosted and tied-up capital costs reduced
- ✓ Welding processes reduced from 4 to 1
- ✓ Production time down from 150 minutes to 45
- ✓ Programming implemented off-line
- ✓ Production runs during lunch breaks
- ✓ Improved working conditions



10. Space savings in high value manufacturing areas



With pressure to save costs & increase efficiency the pharmaceutical industry is learning tricks from the food sector

Client

Industria Macchine Automatiche (IMA)
Castenaso, Bologna, Italy

Application – High speed Picking / Packing

Development of specialised “Flexa” packing machine for medical droppers for American pharmaceutical company.

System designed & installed by IMA

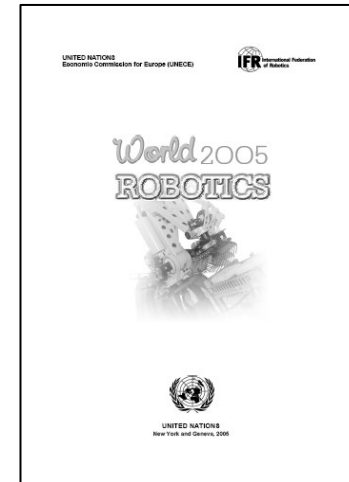
Key Drivers & Benefits

- ✓ Need to handle 150 droppers per minute
- ✓ Handles product inconsistency using vision guidance
- ✓ Overall machine layout saves space
- ✓ Can also handle spoons & syringes
- ✓ Reduced maintenance costs



Summary - The 10 good reasons to invest in robots

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