



Tightening automation.
Only excellent solutions.

**Solutions for industrial tightening
process automation**



PEOPLE AND SOLUTIONS

TRUE INNOVATION STARTS FROM GREAT EXPERIENCE

Here at Fiam, we firmly believe that in order to provide effective solutions for the automation of whatever industrial process, it is essential to have a thorough knowledge of the process in question.

Our 60 years of specialist knowledge of the industrial tightening process in its every form constitute the solid, exclusive basis on which we build automatic tightening solutions for every field of use.

THE BEST TECHNOLOGY IS ONLY THE TRULY RELIABLE ONE

We challenge the future, to bring it closer to you: every time we design and manufacture a solution for the automation of the assembly process. We always ask ourselves: as innovative as it is, will this solution also be the most reliable one? Every time we find a solution to an automatic tightening problem, be it the simplest or the most complex one. And we sense that the future has never been so close to you.



FIAM AUTOMATION: ARE YOU ASKING YOURSELVES WHY IT IS YOUR BEST SOLUTION?

EXCELLENCE IS A COMBINATION OF PERFECT ANSWERS

Fiam automation solutions are entirely designed in Fiam. Every critical component in the solution is designed entirely by Fiam and, where appropriate, produced by us, too. However, no solution qualifies as truly excellent unless it goes beyond what it has achieved in terms of the assembled product. This is when we speak of service, which demands just as much effort in listening, replying and satisfying customer needs. For every customer, worldwide.

► Reliability

We've focussed on reliability as a precondition for any truly innovative solution

■ Machines and their components are **designed entirely by Fiam**: this guarantees **long lifetime** - even with high production rates - and **lower repair and maintenance costs**.

■ The pre-sales service starts with a **thorough analysis of customer requirements**, in order to provide **prompt and reliable solutions**.

■ All machines use **Fiam electric and air motors**, which are valued and recognized in the market for their reliability and durability.



■ Use of innovative **control systems like Digital Thermographic Cameras** during internal commissioning to check how much the various components are overheating and hence check the solution's reliability over time.

► Productivity

We've defeated time and challenged productivity

■ **Automatic pallet lines** that cut out the time required to pre-assemble components, thus increasing productivity.



■ Solutions that allow **assembly with several screws at the same time**.

Fiam. Nobody can deliver "your solution"

► Flexibility

We've produced machines designed to respond to all your production needs

■ Solutions that incorporate the use of **anthropomorphic arms**, which are extremely flexible operationwise and not only. Capable of tightening on different working heights, **they actually have a high reconversion factor**: if the product or production method is changed, the arm can be used in a wide variety of different applications.

■ We tighten any threaded element automatically.



■ Versatile solutions for **performing assembly on different tightening points**, on the same working height: ideal when dealing with different product types.



quite like us.

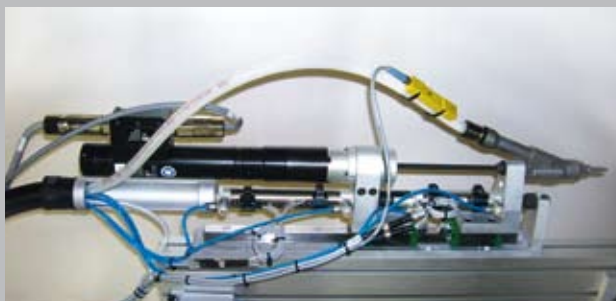
► Quality

We've achieved assembled product excellence

■ Use of **electric, computerized controlled, hi-tech** tightening systems. Systems that can even be managed in **Fieldbus and Ethernet networked** environments.



■ Auto-fed solutions boasting extremely high **tightening precision** (tolerance +/- 5%) and positioning on component.



■ Prearrangement of controllers that **reject non conforming components** based on tolerances required by process.

► Safety

We've demanded utmost operator safety and an ergonomically correct workplace

■ Design and manufacturing of **dedicated jigs for workpieces to be tightened**: to ease correct manual positioning of workpiece by operator, to hold workpiece while tightening occurs and allow possible successive movements of the workpiece to effect tightening at different height (controlled axis X, Y)

■ Solutions that **reduce the amount of hard work** to be performed by operators.

■ Solutions that incorporate the use of optical **safety barriers** during the tightening cycle.

■ Easy and safe **monitoring of tightening operations** via the operator panel and practical push button panels.



► Return on investment

We've aimed to turn each one of your investments into a competitive and financial advantage



■ **Extremely efficient production cycles:** automatic assembly and transfer of the assembled part on the conveyor belt take place within few seconds.

■ Solutions that also foresee further **production stages**, such as packaging.



► Innovation

We've designed intelligent solutions that already look ahead

■ Assembly using **screws with special features and proportions** (e.g. ratio between screw length and screw head diameter, close to 1).

■ Solutions that involve **shooting the screw upwards** and adapt to unusual products requiring assembly.



■ Solutions designed to automatically pick up and position nuts on the components to be assembled.

■ Solutions through which **the washer and screw can be tightened in sequence**.



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Quality Management
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Environmental Management
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