

Scaglia Indeva has been designing and manufacturing **industrial manipulators** since 1970 and today it's a world leader in supplying **material handling solutions**. Thanks to its experience, know-how and state of the art technology developed by its R&D department, **Scaglia INDEVA** is able to address the need for **higher productivity combined with safety and ergonomics**.

Industrial manipulators are the only available solution to suit the demand for more ergonomics and safety in the material handling, in order to:

- Prevent musculoskeletal disorders
- Keep production rate consistent (a man that manually handles loads cannot keep the same working pace all day long every working day),
- comply with the EU (**EN 1005-2**) and National Regulations relative to **ERGONOMICS AND SAFETY**

All **lift assist equipments** have a positive impact on ergonomic safety, nevertheless conventional ergonomic assist equipment (actuated by pressing buttons to control either pneumatic or fixed-speed electric devices) have not been associated with productivity improvements. For applications requiring rapid and accurate movement, they are awkward, slow and do not take advantage of the natural human ability to coordinate and control motions. They over-travel, bounce and require lots of little corrective movements that cause strain and reduce productivity.

The lack of intuitive and responsive control also results in product damage and cumulative trauma injuries, especially when people force the equipment, or they get frustrated working with unresponsive equipment and put it aside.

For a real ergonomic safety it is necessary that the manipulator not only eliminates the strain in the vertical load handling, but also the inertia during acceleration, braking or direction changing.

Only a new generation electronic manipulator better referred to as intelligent assist device (IAD) or INDEVA (Intelligent Device for Handling) can satisfy these requirements!

Only Scaglia Indeva, in Europe produce Intelligent Devices for Handling.

They allow a very precise positioning of the load and very smooth, quick handling movements. It also allows handling loads with different weights or that change their weight while being handled (filling/emptying cases etc...), with no need of selecting a different setting each time and with the gripping tool remaining perfectly still while the weight is changing.

SCAGLIA INDEVA has been designing and manufacturing industrial manipulators for over thirty years and is constantly upgrading its products, which today are the only solution available that meets the need for faster and more accurate way to move loads, whilst increasing safety.

Scaglia INDEVA can provide you with:

- 360° assessment study on your company work (NIOSH assessment criteria, etc...);
- Design or re-design of your work stations;
- **Material handling solutions** that increase productivity together with ergonomic safety, thus your profit;
- **Workshops on ergonomics and safety** for your engineers and managers.

Scaglia INDEVA Ltd in UK holds periodical Manual Handling Workshops that give help and instruction in the safe method of handling and safe lifting of loads, with advice on how to carry out effective accurate risk assessments using NIOSH method, that meet the demands of current EEC Health & Safety legislation.

An INDEVA enables operators to lift and manoeuvre naturally, as if it were an extension of their own arm.

An INDEVA contributes to productivity increase and helps reduce the costs of product damage and minimize work-related injuries.

For high value products that require rapid, repetitive movement an INDEVA is the safest and most productive lifting device available as it gives the responsiveness and flexibility of a human operator plus

the power of a machine; it is therefore the perfect solution for quick, repetitive motions and slow, precise load placements.

Compared to traditional pneumatic control manipulators the INDEVA offers countless advantages that produce: more ERGONOMICS, more SAFETY and more PRODUCTIVITY.

- **Auto-weight sense and automatic load balancing**
the system automatically and instantly balances the load weight. The operator can handle loads with varying weights (e.g.: drum, cases, bags etc.. emptying) or loads with different weights without interrupting his handling operations. The operator can handle loads in a natural and intuitive way almost forgetting he's using a machine.
Traditional pneumatic control manipulators, do not automatically and continually sense the weight and do not automatically adjust balancing as weight varies;
High precision in load positioning
The INDEVA gripping tool doesn't over-travel, nor bounce and doesn't require lots of little corrective movements to reach the required position, as it occurs with pneumatic controlled manipulators.
- **More ergonomics and effortless handling**
The fingertip control mode by means of an in line force sensing handle, provides immediate response to the operator's moves up and down.
- **Quick movements**
The INDEVA respond swiftly, yet smoothly to human touch, winning inertia both during acceleration and braking, amplifying operator movements. The operator notices no time lapse between the machine sensing and its response, which is impossible with pneumatic control manipulators
- **Greater visibility and ease of maneuverability**
Lifting tools used for the INDEVA are much lighter and more compact than those used for traditional manipulators and allow for greater visibility and ease of maneuverability.
- **Versatility.**
The Liftronic Easy series gripping tools can be equipped with a quick coupling device, by means of which it is possible to change quickly and easily different toolings and handle different types of loads with only a 15 seconds long work interruption.
Modifications to handling parameters or tooling functions are very easy to carry out via electronic software. This is especially important in case of special toolings with multiple functions