



Liftronic[®] Air



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Liftronic Air is an Intelligent Assist Device of the INDEVA® Liftronic® Series

- It combines the strength of a traditional pneumatic parallelogram arm with the intelligence of an INDEVA®.
- Its power for lifting is pneumatic, but it is electronically controlled.

Scope of application: it is suitable for handling offset and/or very heavy loads. Models are available from 80 to 250 kg, that can be supplied either **column**, ceiling or overhead rail mounted.



Compared to a traditional manipulator with pneumatic control, Liftronic[®] Air offers important advantages which help improve safety, ergonomics and productivity.

Electronic control of the pneumatic balancing circuits has multiple benefits:

- Auto weight sensing
- Efficient use and delivery of air
- Precise movement of the load
- Photocell arming offering safe control of the system
- Touch sensitive handle giving fingertip controlled movement
- Safety in the event of sudden loss of load
- Speed of use and control

Many workers having to perform material handling tasks with a pneumatic manipulator complain that it is slow to respond and heavy to use.

These concerns are addressed in the design of the Liftronic[®] Air: it features fine control and immediate responsiveness the same as all intelligent assist devices of the INDEVA[®] Liftronic[®] family. The electronic control allows for smaller pneumatic circuits and for more compact gripping tools, thus providing greater manoeuvrability and visibility.



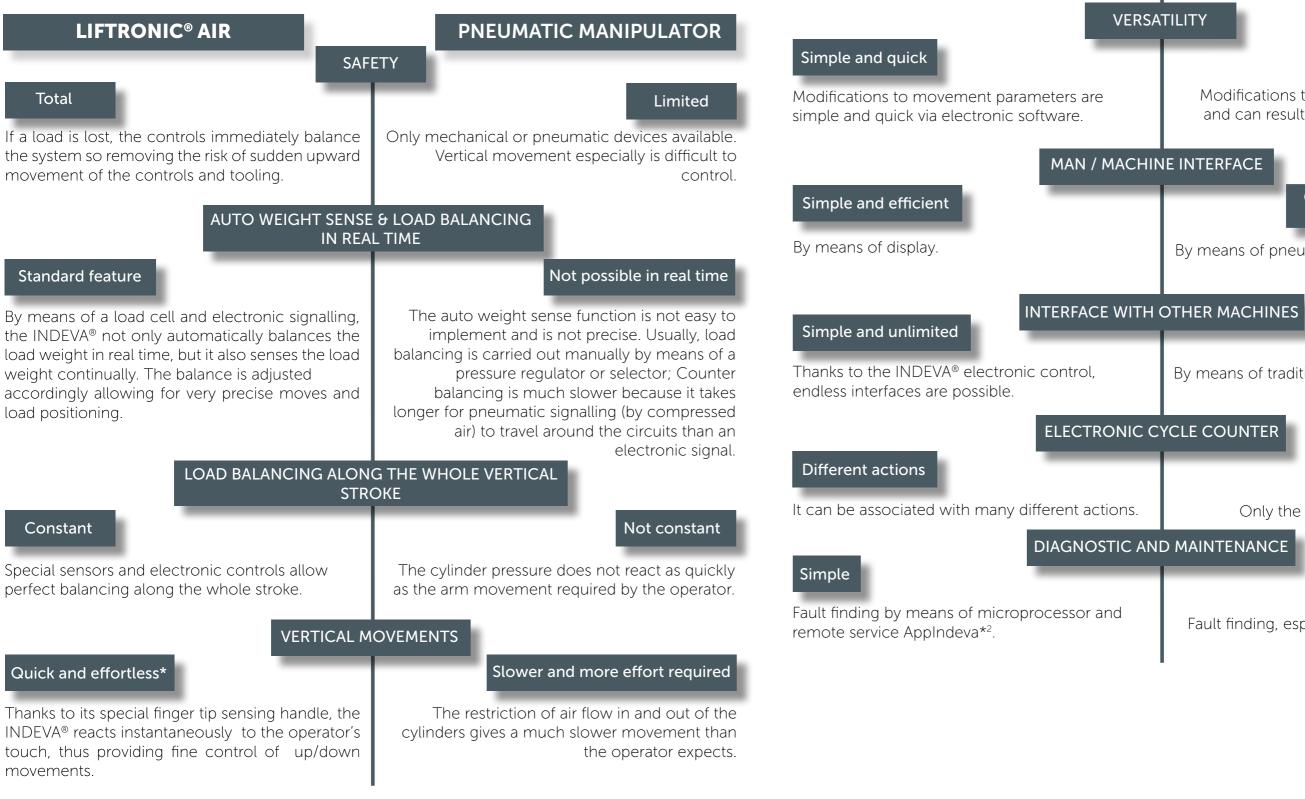


LIFTRONIC[®] AIR VS. **PNEUMATIC** MANIPULATOR



Very precise

The INDEVA® doesn't over-travel, nor bounce and doesn't require lots of small corrective movements to reach the required position; the load doesn't suffer any impact when positioned.



*The effort required for lifting or lowering a load of any weight is equal to 0, 3 kg

PNEUMATIC MANIPULATOR

LOAD POSITIONING

It requires lots of little corrective movements to reach the required position if load has to be placed in a restricted area. Load positioning implies an impact that may harm delicate loads.

Modifications to tooling functions are difficult and can result in costly upgrades by gualified technicians.

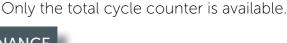
> Complicated and with fewer functions

> > Complicated and limited

By means of pneumatic lamps which are slow to react.

By means of traditional means which allows for a limited scope application.

Fault finding, especially for complex systems, is very difficult.



Difficult

Only the total cycle





Difficult

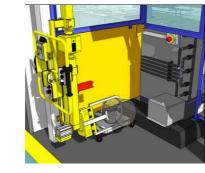
Not precise

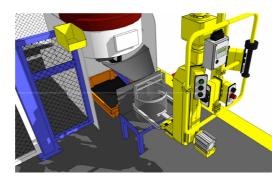
Liftronic[®] Air Case history: Handling Metal crates in Aerospace Industry



Metal crates must be moved and emptied at very high temperatures

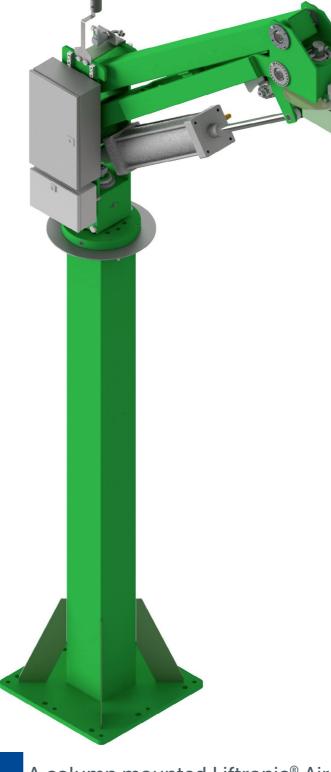






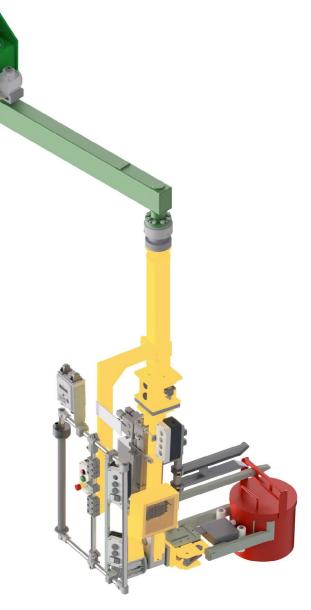
INDEVA[®] solution

Scaglia INDEVA® produced a custom solution taking into consideration all constraints present in the work cycle and the need to guarantee good ergonomics and safety for the workers.



A column mounted Liftronic® Air with tooling for handling and rotating offset crates.

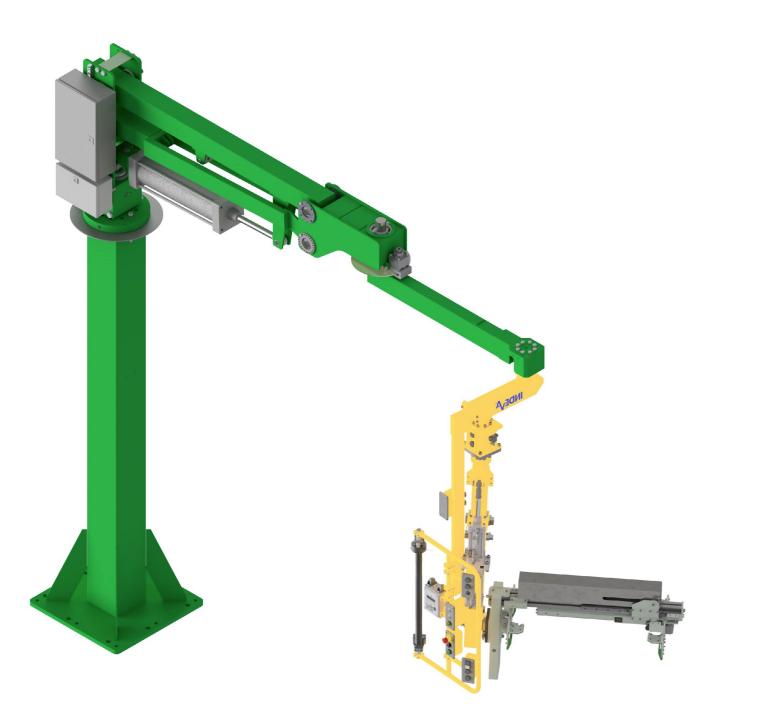
The whole case history is at: www.indevagroup.com/news/manipulator-metal-crates-aerospace



Liftronic[®] Air Case history: Manipulator for large trolleys

Handling large trolleys of different sizes with one Intelligent Lift Assist Device

A Company manufacturing trolleys for shop floor material handling needed a lift assist device for handling 46 different types of large trolleys at the sealing stage of their production line.



INDEVA[®] solution

A column mounted Liftronic[®] Air with custom gripping tool suitable for handling trolleys of different sizes, offering the following advantages:

- Liftronic[®] Air is auto weight sensing and auto balancing, thus making the no need of any adjustment.
- Liftronic[®] Air is very responsive allowing for smooth and natural movements.
- Liftronic[®] Air provides safety against load loss and against uncontrolled movements of the gripping tool.
- Ergonomic design.
- Liftronic[®] Air can handle heavy and bulky loads offset with ease and precision.
- Liftronic[®] Air's electronic control over the pneumatic circuits allows for efficient air consumption.



task of handling trolleys with different weights easy and user friendly with

Liftronic[®] Air Case history: Handling car dashboards

The Automotive industry chooses the latest technology for their assembly lines

Liftronic[®] Air has been chosen by large Companies in the Automotive industry because it is the latest technology for handling a car dashboard. Liftronic[®] Air is an INDEVA[®] manipulator suitable for handling offset loads. It is as powerful as a traditional pneumatic manipulator but features fine movement control as all INDEVA® manipulators.



INDEVA® solution

Rail mounted Liftronic[®] Air with custom gripping tool.

The advantages of the Liftronic[®] Air compared to pneumatic manipulators traditionally used in car assembly lines are being recognized more and more by all leading manufacturers.



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