

ROBOT-IN-A-BOX FLEXIBLE AND COMPACT PALLETISING CONCEPT

- Universal vacuumgripper head
- Easy programming
- Plug and play



ROBOT-IN-A-BOX

The SOCO SYSTEM Robot-in-a-box concept is a complete "plug and play" solution for case palletising.

See it in action at www.socosystem.com

SOCO
SYSTEM

WWW.SOCOSYSTEM.COM

IMPROVES PRODUCTIVITY AND THE WORKING ENVIRONMENT

The SOCO SYSTEM palletising robot streamlines production, eliminates strenuous tasks and is extremely cost-effective.

THE ROBOT-IN-A-BOX CONCEPT

The concept is based on the standard SOCO SYSTEM portal robot base construction. An easy and flexible unit for you to deploy wherever it is needed in your production setup.

The Robot-in-a-box unit is equipped with universal vacuum gripper head and universal pallet positioning device and will handle practically any case or pallet you want to operate.

Online or offline programming

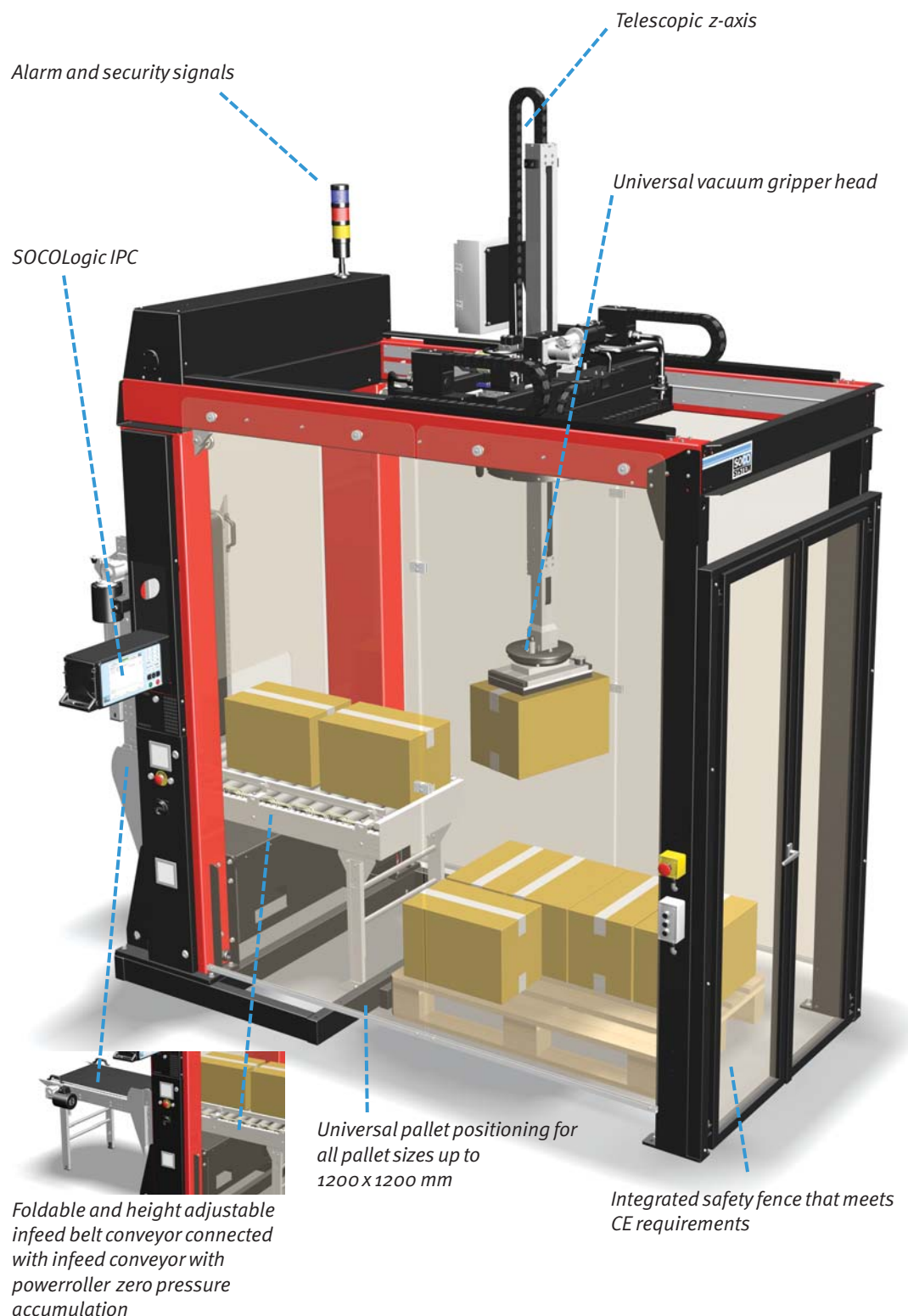
The robot IPC is delivered preinstalled with SOCOlogic self-programming software and PalletBuilder software for complex pallet patterns.

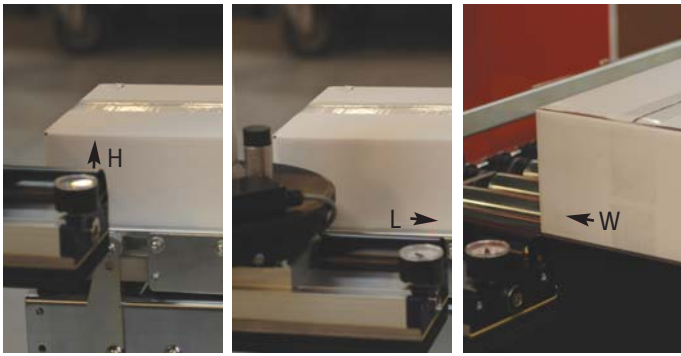
Service, education, and delivery

The Robot-in-a-box solution comes with a complete service management backup including webcam and remote control assistance setup, e-learning based education of all relevant personal, a standard service contract for the first year of operation as well as “door-step” delivery to your specific production site.

Safe to operate, simple and versatile

The machine requires minimal maintenance and is easy to access.





The robot scans the case dimensions and calculates the pallet pattern.

Online programming

The robot calculates the pallet pattern by itself ...

The case to be palletised is led into the robot, which then registers the case dimensions. The robot then quickly calculates the optimum pallet pattern and starts palletising.

The preferences required behind the calculation are entered in the SOCOlogic software before the robot is put into operation. Preferences can be number of layers, pallet pattern type, layer pads, etc.

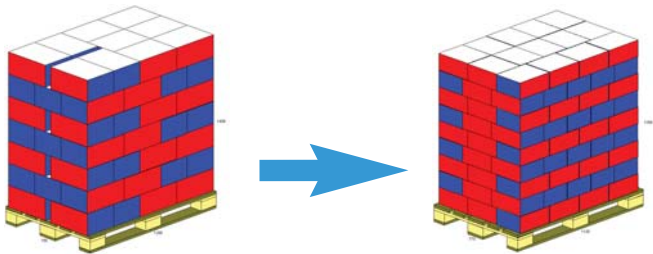
It is, naturally, possible to choose another pallet pattern or change the current pattern at any time.



Offline programming

For programming of more advanced pallet loader programmes, the PalletBuilder software included is used.

The software is Windows-based and the IPC can be used for control of peripheral equipment such as pallet conveyors, pallet magazines, etc.



Change between existing pallet patterns

If the pallet pattern is already in the IPC it is easy to change to another pallet pattern.

New pallet patterns generated using optimisation software such as CAPEPACK® can be transferred online or via disk.

GENERAL SPECIFICATIONS

Axes

The 3 basic x-, y-, z-axis as well as 270 dg. turning of the robot head in steps of 1 dg.

Maximum item weight

The maximum item weight depends on the item type and quality, the lifting technique used, speed, etc. The maximum item weight is typically around 30 kg.

Capacity

Up to ten transfers a minute. The robot can transfer one, two, or more items simultaneously depending on the pallet pattern, the size, weight, and quality of the items.

Conveyor

The standard width is 500 mm.

Colour

As standard, the robot is supplied in RAL 2002. Alternative colours are available at additional cost.

Stainless steel

The palletising robot is available in stainless steel.

Air consumption

Min. 6 Bar.
App. 15 l per cycle.

Power

3 x 210/230/250 Vac + PE
50/60 Hz
or
3 x 360/400/440/480 Vac +
PE 50/60 Hz.

Connected load

App. 2.5 kW.

Pallet types

Standard:
800 mm x 1200 mm
1000 mm x 1200 mm
1200 mm x 1200 mm
and any variation in between these sizes.

Load height/ Floor-to-ceiling height*

Standard:
1500 mm 3600 mm
1800 mm 4200 mm
2100 mm 4800 mm
2400 mm 5400 mm
2700 mm 5700 mm

Telescopic z-axis option:

1385 mm 2750 mm
1685 mm 3200 mm
1985 mm 3650 mm
2285 mm 4100 mm

*The values stated are guidance and depend on the type and construction of the vacuum gripperhead.

Accessories

- Alarm notification via SMS
- Webcam and remote control/assistance setup
- Safety fence with foldable "garage" door opening
- Safety fence with laser scanner door opening
- Rollerskate supports for extreme mobility
- Financial options such as leasing, rent, or pay-per-use contracts

Manual palletising

Illustration 1 shows the traditional operator work station. Filling, taping and palletising manually.

If you concentrate your end-of-line manpower on the refined steps of your packing process, you can rationalise and increase effectiveness/throughput.



1



Geberit AG,
Switzerland

Automatic palletising

Install a standardised plug & play robot solution with close-to-zero project management overhead.

Illustration 2 shows the robot for pallet size 800 mm x 1200 mm. Same or less floor space as the traditional manual operator work station.

Ergonomics are improved by eliminating heavy load functions.



2



Sig. Ágústsson ehf.,
Iceland

Two or more lines with automatic palletising

Illustration 3 one robot on each production line means:

- Flexibility
- High productivity
- Less downtime

The Robot-in-a-box concept can be installed after any sealer, strapper or likewise.



3



Laru,
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