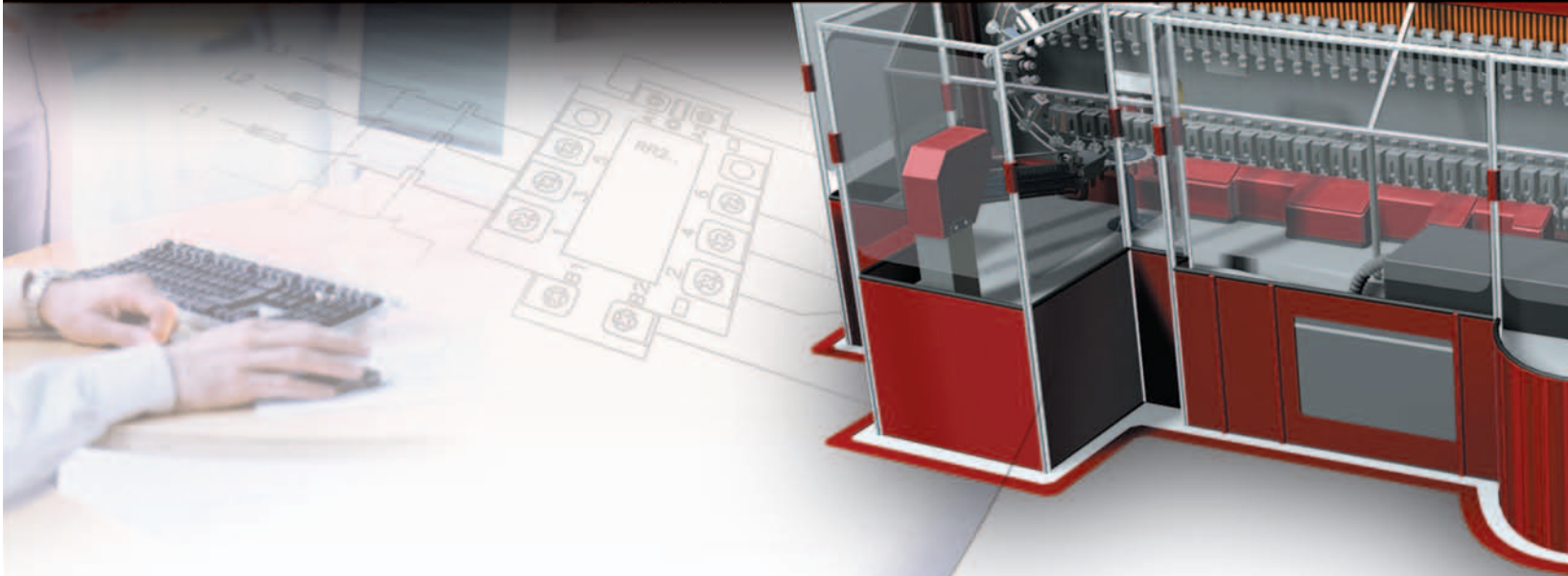
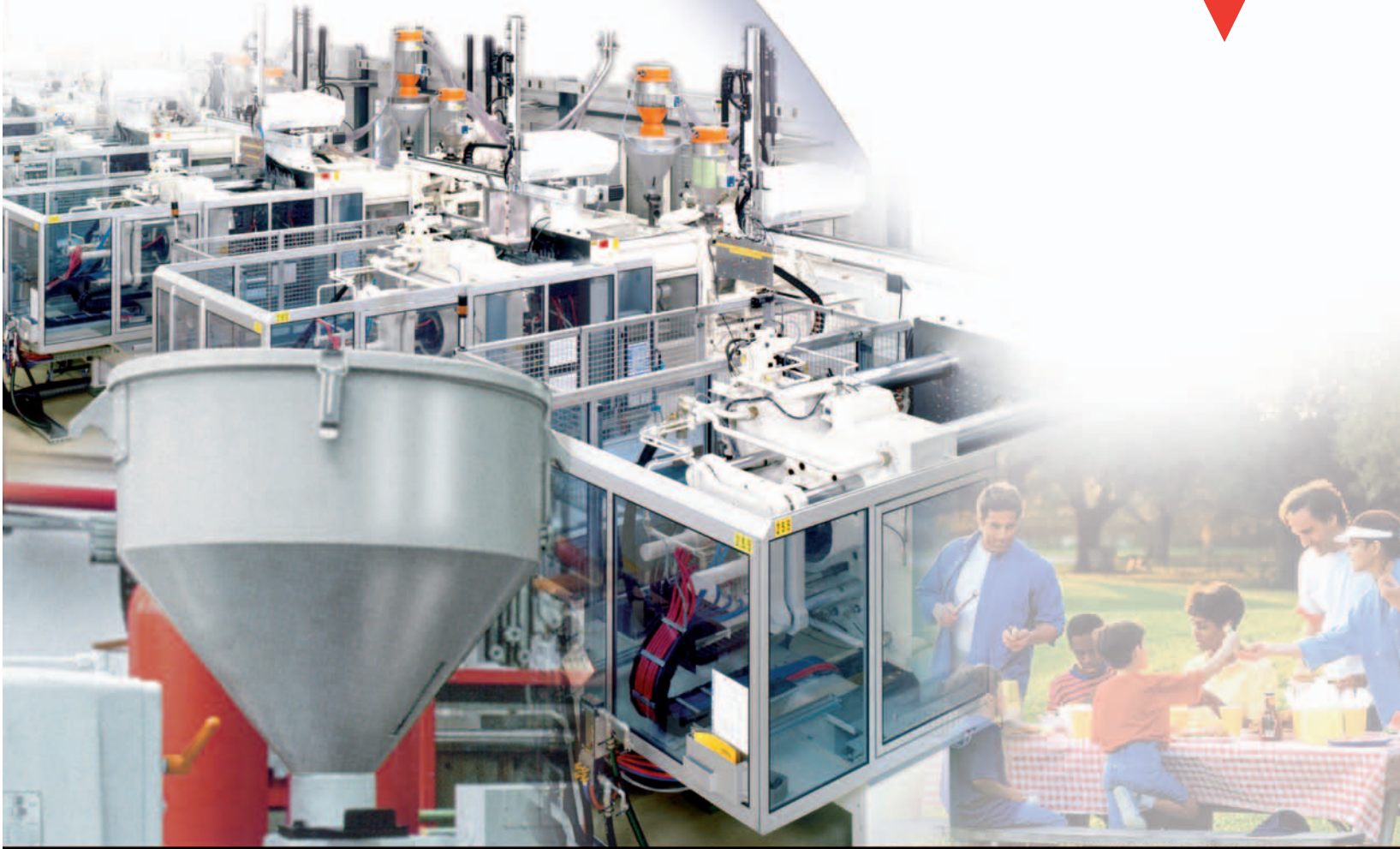


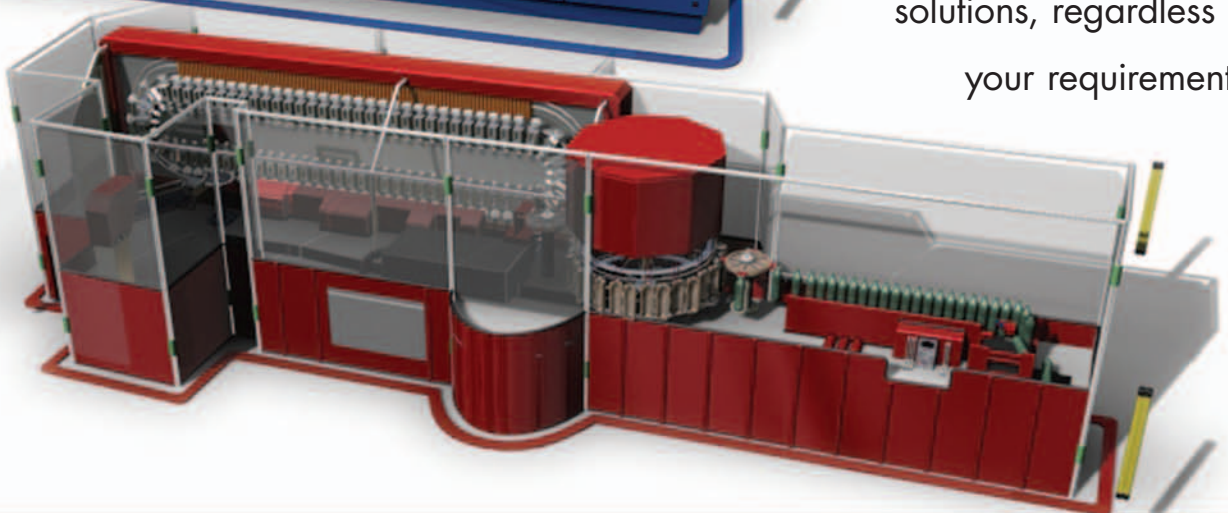
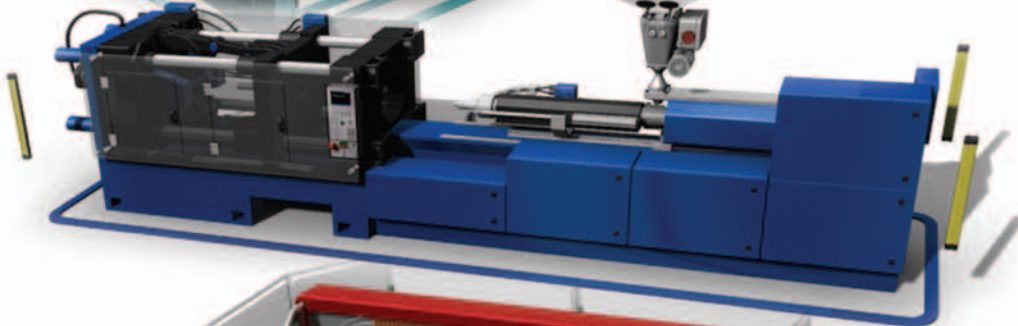
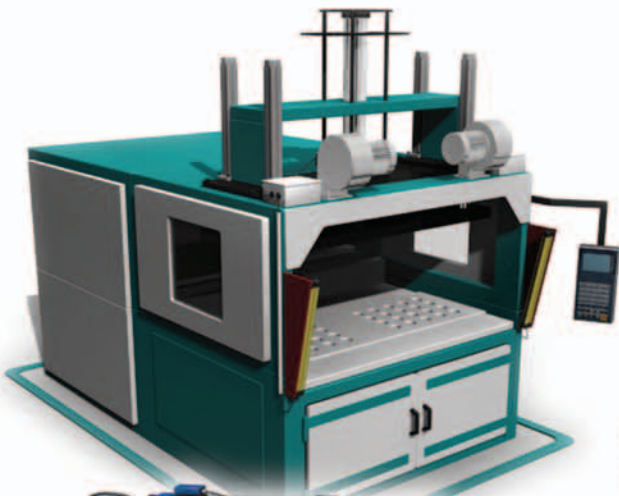
**CARLO GAVAZZI**  
Automation Components



***Solutions for Plastics Machinery***

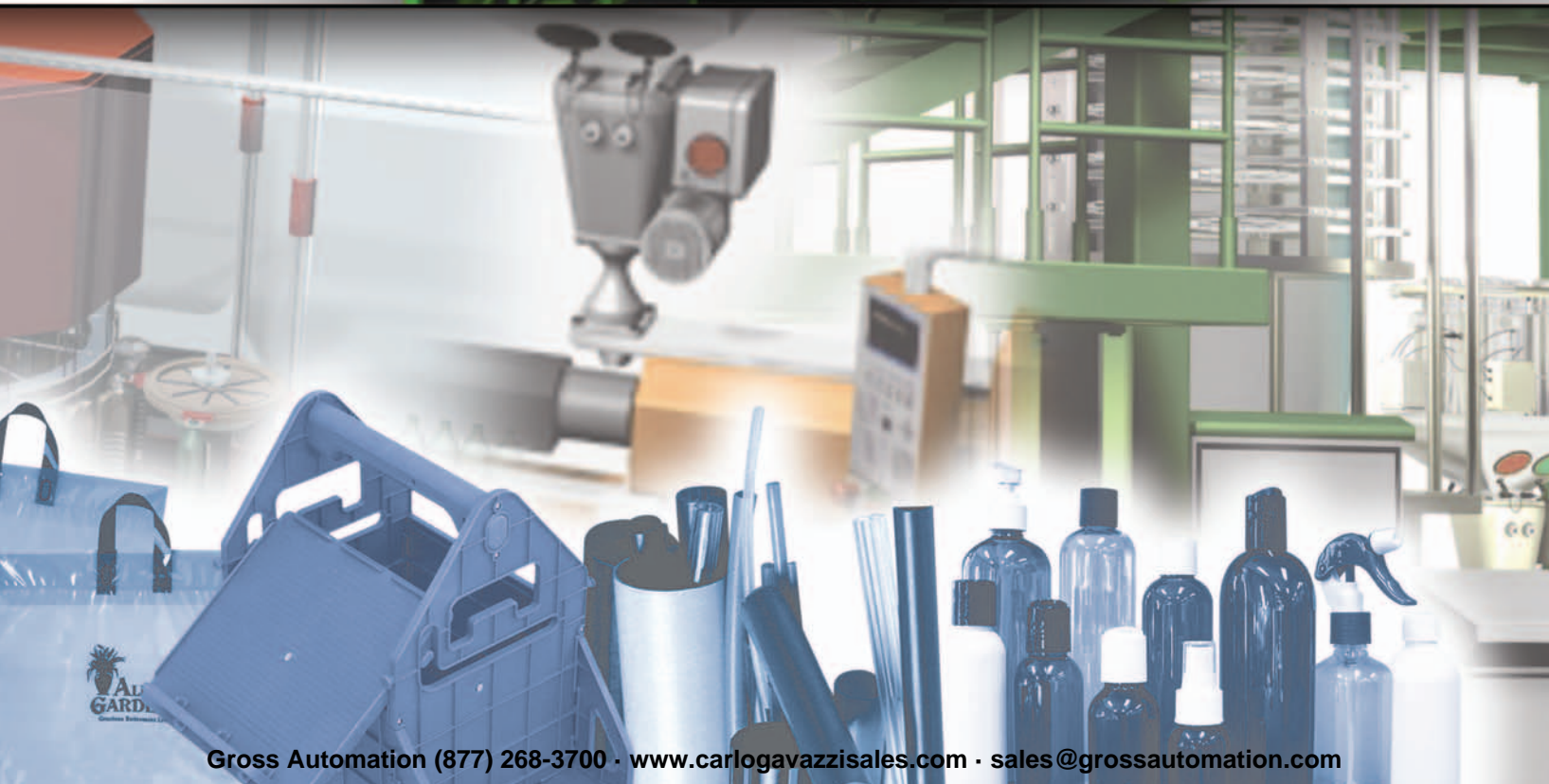
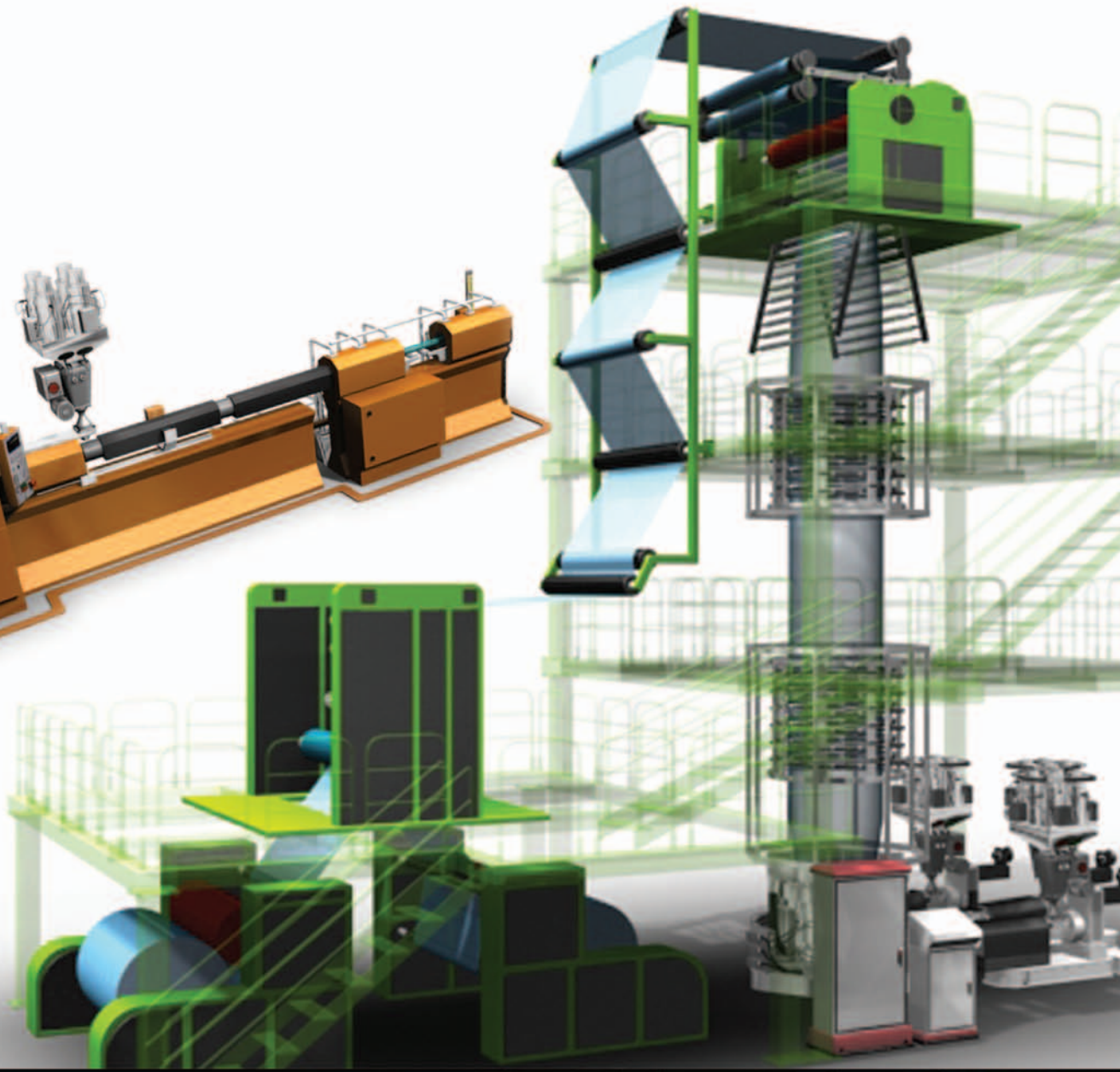
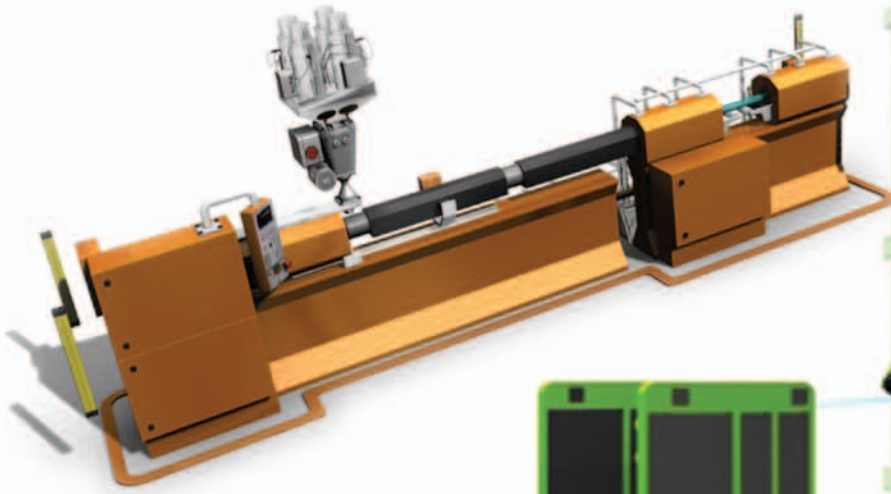
# Solutions for Plastics Machinery

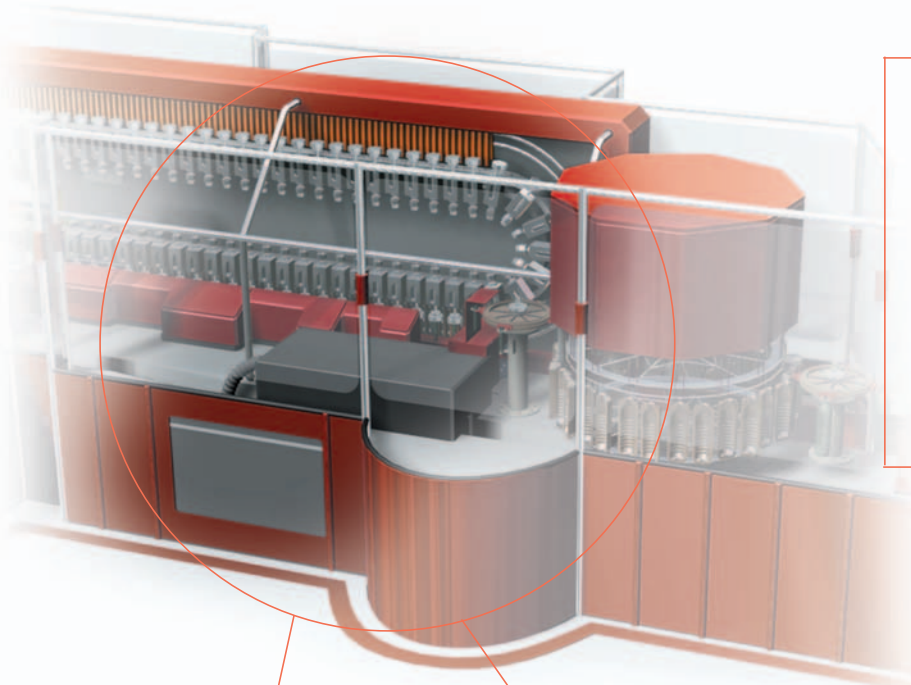
With more than 40 years  
expertise in designing  
and building components  
for plastics machinery,  
**Carlo Gavazzi** can  
provide fully customized  
solutions, regardless of  
your requirements.





MEMBER





**Modular Power Quality Analyzers**

**WM23 96 Series**

- 96 x 96 x 140mm for panel mounting
- 3-phase power quality analyzer with back lit LCD display for measurement of systems and phase variables
- Up to 830VAC (*phase to phase*), up to 20kV (*VT connection*) and up to 5,000A (*CT connection*)
- Instantaneous variable: 4 x 3 1/2 digits
- Accuracy: 0.5% reading (A,V)
- IP65 protection
- CE, UL and CSA



**Power Quality Transducers**

**PQT90 Series**

- 90 x 90 x 138mm for DIN rail mounting
- 32 bit microprocessor based power quality transducer for measurement of all instantaneous variables
- SMS messages
- Energy, water and gas meter
- 2MB Memory and real time clock
- Class 0.5 (A,V)
- IP20 protection
- CE, UL and CSA



RJCS Series single phase solid state relays with integrated current monitoring

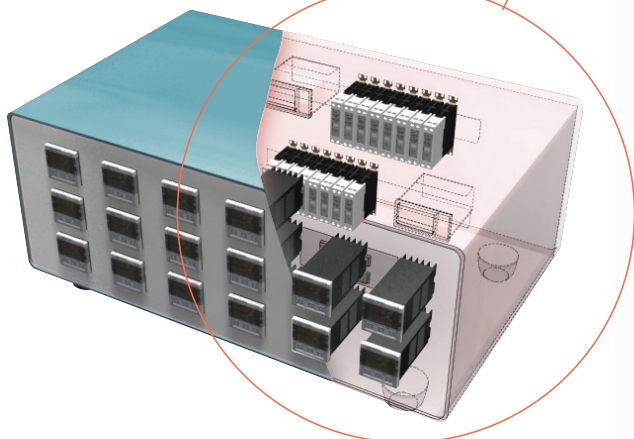


IA, CA, PA and UA Series inductive, capacitive, photoelectric and ultrasonic sensors

RJ Series Solitron-Mini single phase solid state relays (also offered in wider housings for up to 90 amps and two or three pole switching)



SMS and CLS Series safety magnetic sensors with magnet



# Our Product Range



## Compact Power Transducers

### CPT DIN Series

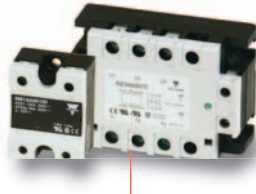
- 45 x 83 x 98.5mm for DIN rail mounting
- Power analyzer and energy meter for measurement of all instantaneous variables
- Up to 2 alarm or pulse outputs or up to 2 analog outputs
- Dupline bus
- RS232/485/422 (Modbus)
- Class 0.5 (A, V)
- IP20 protection
- CE, UL and CSA



## Current Monitoring Relays

### DIA53 Series

- 81.5 x 17.5 x 67mm for DIN rail mounting
- Self-powered 1-phase over current monitoring relay with 12mm hole for insulated current carrying wire
- Set point adjustment for up to 20, 50 or 100 AAC
- 100mA normally open transistor output
- 0.5% repeatability
- IP20 protection
- CE, UL and CSA



## Chassis Mount Solid State Relays

### RM1A Single Phase Series

- 58.2 x 44.8 x 28.8mm
- Zero switching, with other types available
- Up to 100AAC output at up to 660VAC
- IP20 protection
- CE, UL and CSA

### RZ3A Three Phase Series

- 73.5 x 103 x 41mm
- Zero switching
- Up to 75AAC output at up to 660VAC
- Optional over-temperature protection, transistor alarm output and red LED alarm status indicator
- IP20 protection
- CE, UL and CSA



## SSRs with Integrated Heat Sinks

### RJ Mini Series

- 80 x 22.5 x 103mm
- 1-phase solid state relays (2 and 3 pole versions also offered in wider housings)
- Zero switching or instant-on
- Up to 30AAC output at up to 660VAC (larger sizes available in wider housings)
- IP20 protection
- CE, UL and CSA

### RJCS Series

- 81.7 x 45 x 103mm
- 1 phase solid state relays
- Integrated current monitoring with local or remote setup
- Zero switching
- Up to 50AAC output at up to 660VAC
- IP20 protection
- CE, UL and CSA



## Fast-Connect Solid State Relays

### RX ThyRex Series

- 76 x 22.5 x 56mm
- 1-phase solid state relays
- Zero switching
- Up to 32AAC output at up to 550VAC
- Screw, spring or fast-on terminal connection options decrease installation time
- IP20 protection
- CE, UL and CSA

[www.GavazziOnline.com/Plastics](http://www.GavazziOnline.com/Plastics)

### Designed to Market Requirements

Dedicated application engineering teams design special products upon request from the customer.

### Solution to Applications Challenges

Carlo Gavazzi's individual product ranges complement one another, thereby offering the customer all the advantages of a synergistic range of products in terms of application and availability.

### Guaranteed Reliability

Each product group is designed and manufactured in a center of excellence to assure that each individual product is the best in its field. Carlo Gavazzi products are subject to stringent quality tests to guarantee they exceed the performance we specify.

# for Plastics Machinery



## Inductive Proximity Sensors

### IA Series

- M5, M8, M12, M18 and M30 threaded diameters
- Sensing ranges up to 22mm
- NAMUR, transistor, SCR or analog output
- Thermoplastic polyester, stainless steel or nickel-plated brass housings
- 2m PVC cable or M8/M12 plug
- IP67 protection
- CE, UL and CSA



## Capacitive Proximity Sensors

### CA / EC Series

- M12, M18, and M30 threaded diameters
- Rectangular flat-pack housings also offered
- Sensing ranges up to 30mm
- Transistor or SCR output
- Thermoplastic polyester, stainless steel, Teflon, polypropylene, or PVC housings
- 2m PVC cable or M12 plug
- IP67 or IP68 protection
- High temperature models (up to 356°F)
- Teach-in models with push button programming
- UL, CSA, and CE



## Photoelectric and Ultrasonic Sensors

### PA18/Ex18 Series

- Diffuse reflective: 400mm
- Retro-reflective: 3m
- Polarized retro-refl.: 2m
- Through beam: 10 or 20m
- M18 diameter
- Transistor or SCR output
- 2m PVC cable or M12 plug
- IP67 protection
- CE, UL and CSA

### UA12/18/30 Series

- Ultrasonic sensors with integrated amplifier providing a transistor and/or analog output and integrated amplifier; up to 3,500mm range (138")
- M12, M18 and M30 diameters
- Transistor or analog output
- 2m PVC cable or M12 plug connector
- IP67 protection
- CE mark



## Safety Light Curtains

### SB4 Series

- Light curtains to protect both employees and machinery
- Total or partial muting, override and automatic or manual reset
- 35 x 40mm in lengths from 256 - 1,726mm (10 - 68")
- 24VDC supply with two PNP transistor outputs
- M12 4 pole plug connection for transmitter and M12 8 pole plug connection for receiver
- Aluminum housing
- IEC-61496-2 environment light rejection
- IP65 protection
- CE, UL and CSA



## Safety Modules

### NA1/3 and NL1/3 Series

- Safety modules for gate and emergency stop (NA) and light curtain (NL)
- Safety category 4
- 3 normally open safety outputs
- 24VAC/DC, 110VAC or 230VAC power supply (NA), 24 VAC/DC power supply (NL)
- < 30ms response time
- IP40 protection for housing and IP20 protection for terminals
- CE, UL and CSA

- Panel building can be a time-intensive operation as each solid state relay needs to be individually mounted and wired. The ThyRex Series is an innovative fast-connect SSR from Carlo Gavazzi. Mounting and wiring are done simultaneously, thus speeding up the installation process.
- In the blow moulding process, subtle temperature control is key in determining the quality of the final outcome. SSRs offer a greater degree of control over the process than electromechanical relays or contactors, as they don't have moving parts and allow for frequent switching of loads.

- With their integrating thyristors and direct copper bonded ceramic, Carlo Gavazzi SSRs provide an extremely robust switching solution for blown film extrusion and injection moulding technologies. SSRs can help maximize plant up-time and minimize loss of production.
- By using an ultrasonic sensor to check film loop tension in blown film machinery, film breakage is prevented and interruptions in the production cycle are minimized.
- Ultrasonic sensors can continuously monitor the diameter of the blown film reel. Early warning signals alert technicians when a reel will need replacing, ensuring greater control over the production process.



**Safety Magnetic Sensors**

**SMS Series Sensors**

- 88 x 25 x 13mm
- Normally open or closed output
- Up to 100VAC switching
- 250mA maximum output
- Up to 5VA switching power
- Rugged plastic housing
- IP65 protection

**CLS Magnetic Units**

- 88 x 25 x 13mm
- Rugged plastic housing
- IP65 protection



**Dupline Channel Generators**

**G3800 Series**

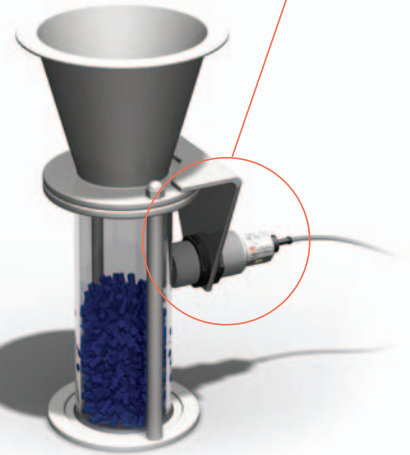
- 77 x 144 x 70mm for DIN rail mounting
- Modbus interface with built-in GSM or external radio modem.
- Up to 32 controllers can be networked together via RS485 or Ethernet via a converter module
- Selectable number of channels
- 10-30VDC or 115/230VAC power supply
- IP20 protection
- CE mark



NL1 Series safety light curtain modules

NA1 Series safety gate and emergency stop modules

CA Series capacitive proximity sensors featuring Tripleshield protection, providing protection against static electricity, inverters, mobile phones, wire conducted noise, as well as humidity, dirt and moisture



CPT DIN Series power analyzer and energy meter

RX ThyRex Series single phase solid state relays



DIA53 Series over current monitoring relays



G3800 Series Dupline Modbus interface

PQT90 Series power quality transducer

