

# CMZ

Company profile

soga  energyteam

## SYSTEMS & SOLUTIONS FOR MOTION CONTROL

2024 SPS ITALIA



SINCE 1976

  
MADE IN ITALY



CANopen EtherCAT

PROFINET

Linux  EtherNet/IP

COMPANY

APPLICATIONS

PRODUCTS

WHERE WE ARE

CMZ engineers and produces in Italy electronic systems for industrial automation.



## HARDWARE

- IEC61131 controllers
- Drives and Motors
- Planetary gearboxes
- Peripherals & I/OS
- HMIs

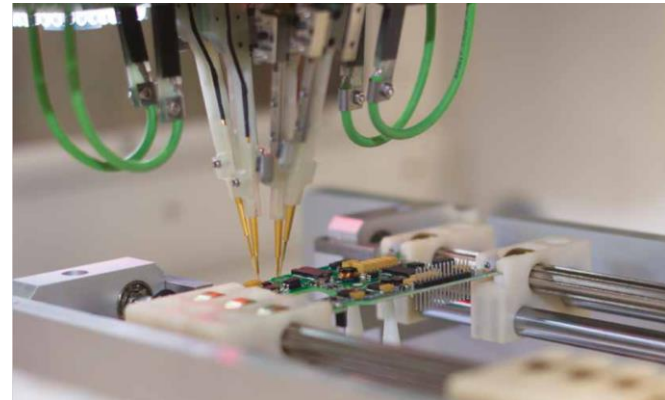
## SOFTWARE

- Communication, motion and utility libraries
- Configurable dedicated applicatives

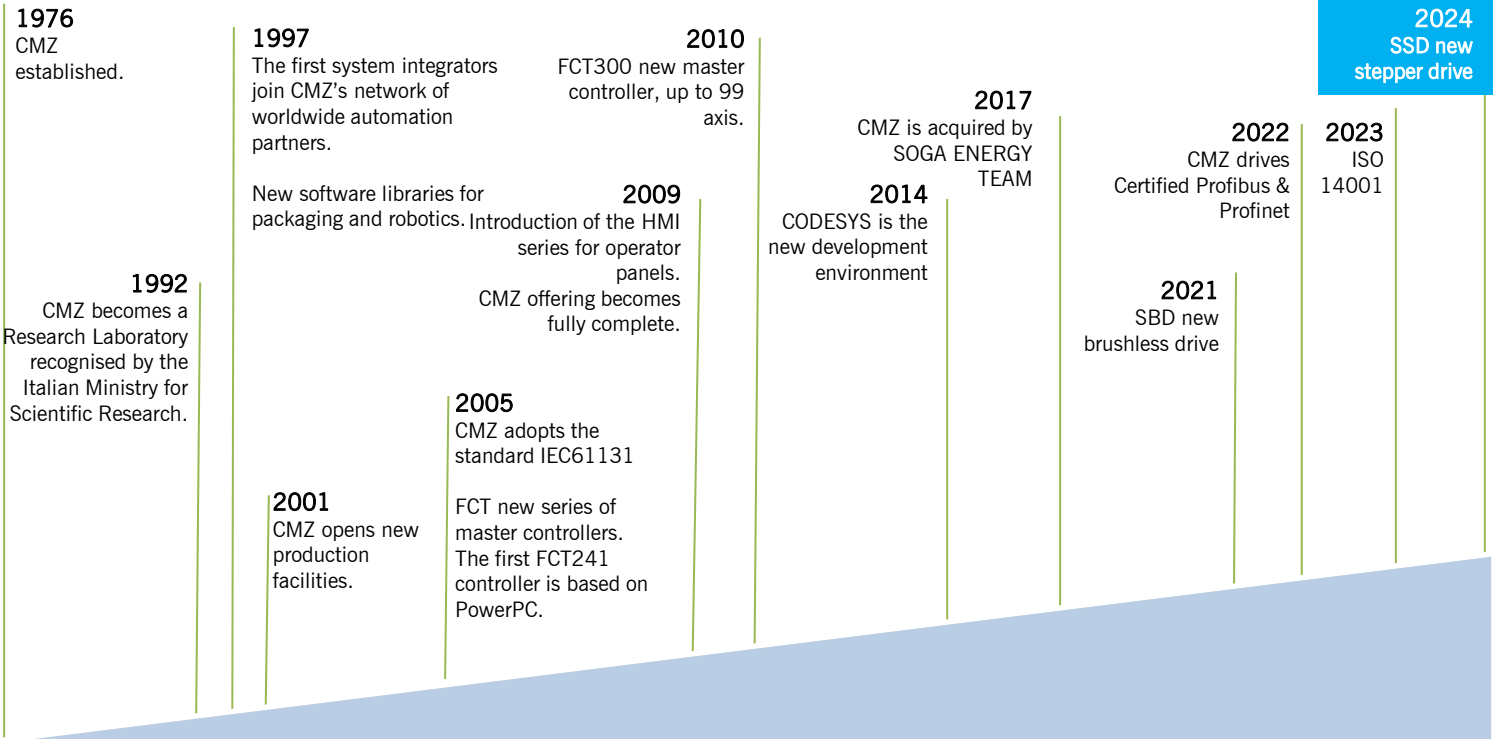
## SERVICE

- Engineering & Co-Design
- Remote technical assistance
- Maintenance programs
- Revamping

**CMZ MISSION** is to be a recognized reliable Partner for **Original Equipment Manufacturers** and **system integrators** for the co-development of automatic machines and equipment with **customized** and specific configuration in **multi axis motion**.



# KEY MILESTONES



Volume of Business 2023  
(Order Intake, mln €)

10,0



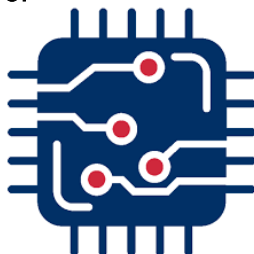
Headcount



65

Investment in R&D  
(OpEx & CAPEX; % of  
Revenue)

18,3%



# of R&D SW and HW  
engineers

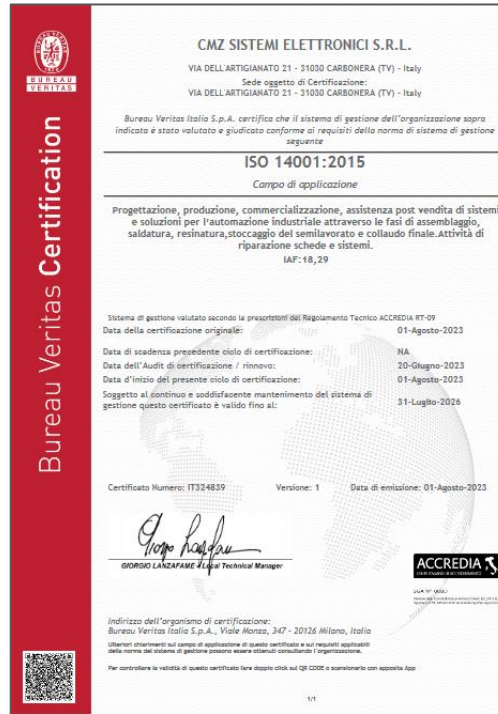
28



ISO 9001:2015



ISO 14001:2015



Our first ESG Rating.  
CMZ is in category BBB



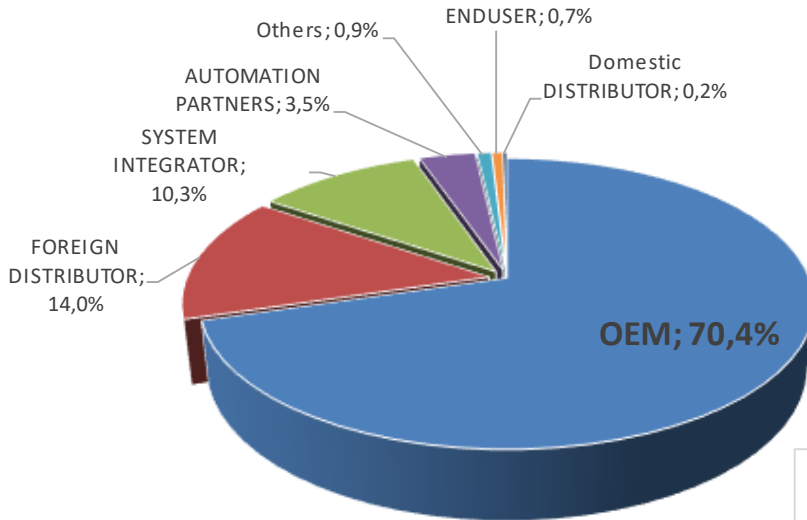


**SOGA S.p.A**

Group headquarter

COMPANIES	BRANDS	
Soga S.p.A	<b>soga</b> <sup>®</sup>	AC electric motors
	<b>sincro</b> <sup>®</sup>	AC and DC alternators and welders
	<b>wate</b>	PTO tractor-driven generators
	<b>sogaenergies</b>	AC generators for renewables and special projects
Sincro d.o.o		Industrial alternators
CMZ Sistemi Elettronici S.r.l	<b>CMZ</b>	Electronic systems for industrial automation
Veneta Press S.p.A	<b>VENETA PRESS</b>	Aluminium die-casting
		<b>ENERGY</b>
		<b>AUTOMATION</b>
		<b>FOUNDRY</b>

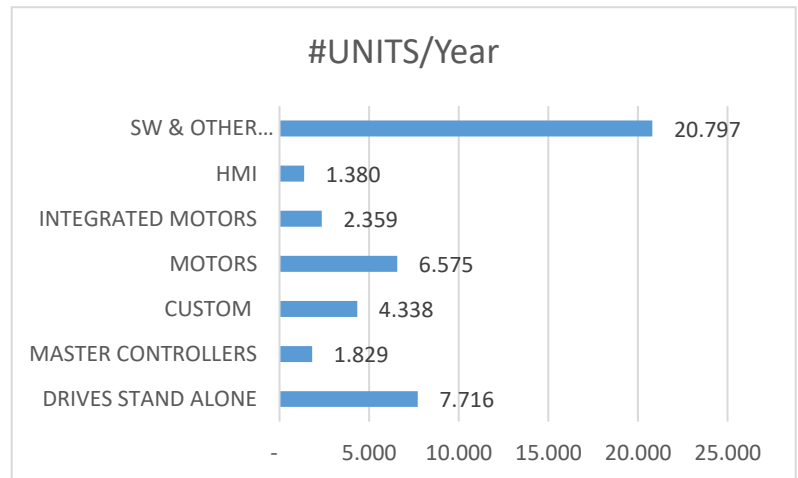
- 6 brands
- 7 production plants in Italy and Croatia
- Group Turnover 80.000.000,00 €
- Export in 90 countries
- (results 2023)
- ~ 400 employees



With a team of 28 SW and HW engineers CMZ is the ideal partner to support the OEM's

CMZ provides a **full service** platform to a wide installed base:

- 500 Active Clients
- 250.000 Units







COMPANY

APPLICATIONS

PRODUCTS

WHERE WE ARE



## KEY APPLICATION MARKETS



Packaging

24,3%



Dosing &  
Weighing

9%



20,2%

Beverage



Converting

7,2%



Special  
Machines

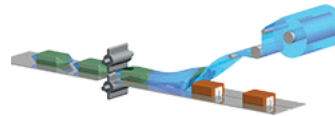
24,9%



14,4%

Textile

## Packaging



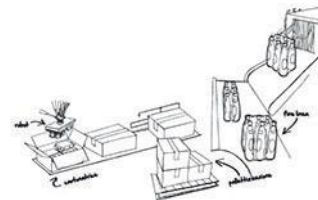
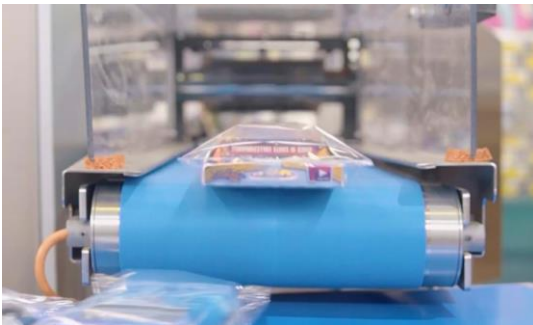
HORIZONTAL PACKAGING MACHINE



VERTICAL PACKAGING MACHINE



LOADING SYSTEMS  
SMART BELTS

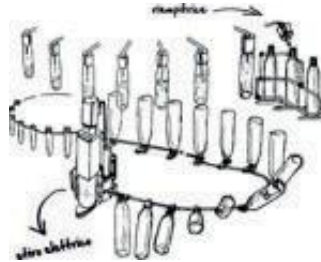


END LINE

## Food & Beverage

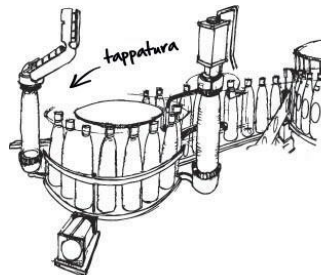


LABELLING MACHINES



FILLING MACHINES

BLOWING MACHINES



CAPPING MACHINES

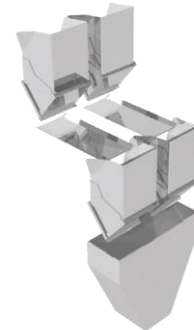
## Dosing & Weighing



MULTIHEAD WEIGHERS



LINEAR WEIGHERS



VIBRATING FEEDERS



## Printing



SYNCHRONIZATION OF PRINTING CYLINDERS

REGISTRATION CONTROL OF PRINTING CYLINDERS

## Paper converting



INTERFOLDERS

REWINDERS CUTTING LINE

FLEXO MACHINES

## Textile



MACHINES FOR FIBERS TREATMENT  
(SYNTHETIC AND NATURAL) SUCH AS:  
COMBING MACHINES, DRAW FRAME MACHINES

CROCHET AND JACQUARD MACHINES

SEWING/EMBROIDERY MACHINES

SINGLE AND MULTI NEEDLE QUILTING MACHINES

## ISO interpreter (G-code)



CNC MACHINES



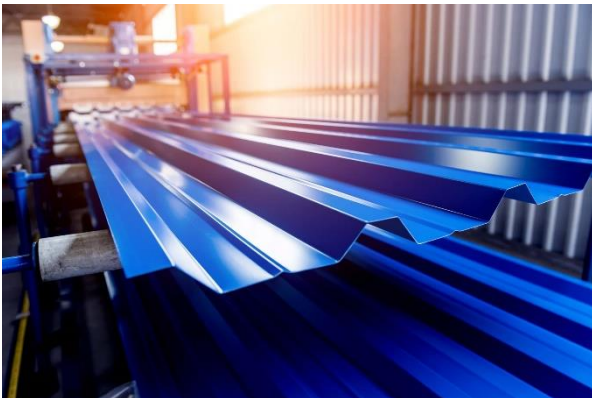
## Glass



THREADING MACHINES  
SEALING MACHINES EDGERS  
MACHINES COATING  
REMOVERS  
GLASS CUTTING

---

## Metal sheet



FLYING SHEAR  
DEFORMATION

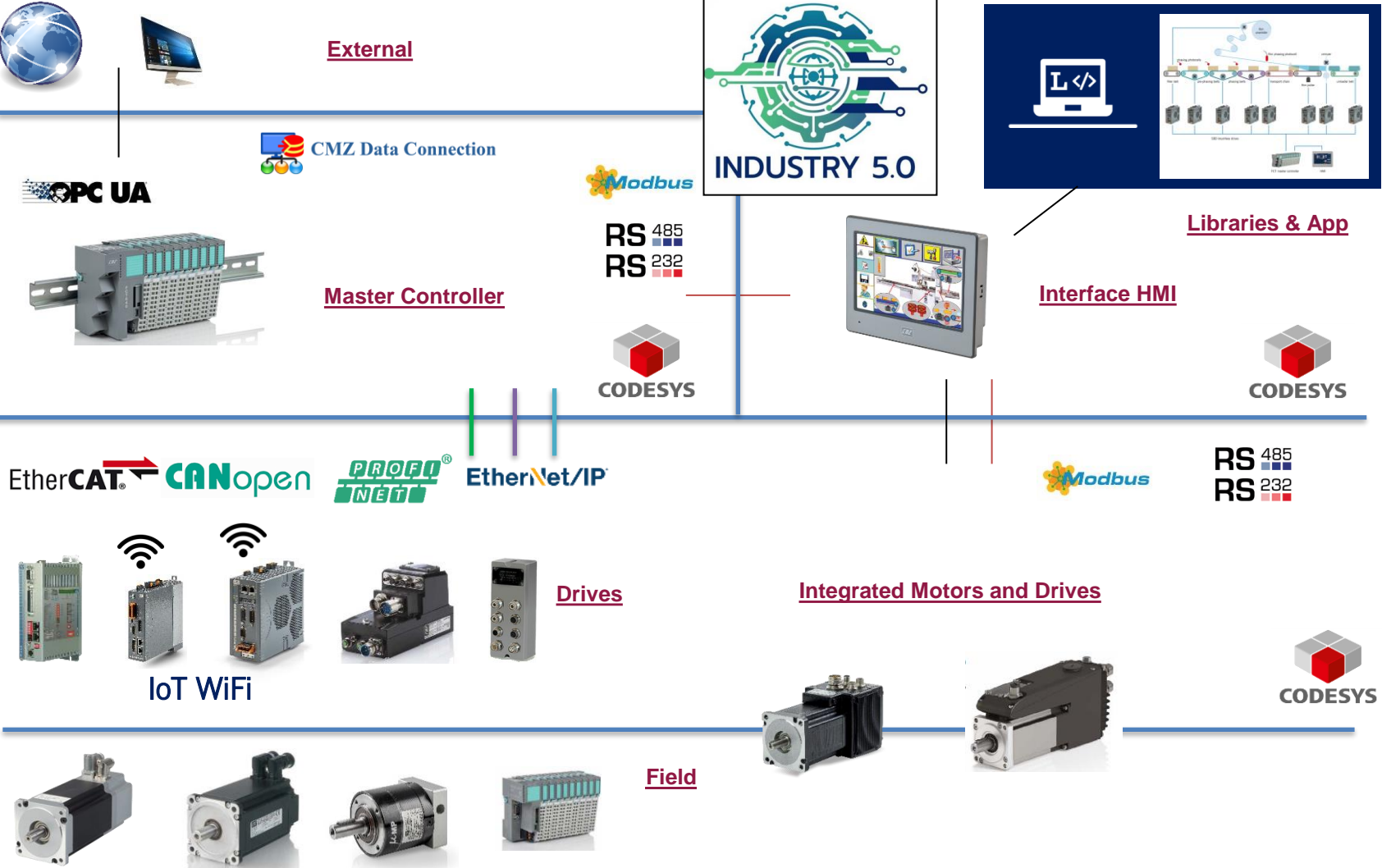
COMPANY

APPLICATIONS

PRODUCTS

WHERE WE ARE





## FCT640 | FCT641: Master Controllers

Up to 99 axes

### Processor:

CPU: RISC dual core 64bit, 1.0 GHz three level cache

### Memory capability:

1 GB Nand Flash for storage  
512 MB DRAM high bandwidth 64 bit 1666 MT/s  
32 KB Ferromagnetic RAM (non-volatile PLC data)  
SD-Card

### Communication ports:

1xRJ45 Ethernet 10/100 MBit TCP/IP (Debug)  
2xRJ45 Ethernet 10/100 MBit (Fieldbus)  
1xRJ45 CAN-Bus (CANopen Master)

### Local I/O modules:

64 modules, each with a maximum of 16-bit IO (1024 digital) or  
8 channels analog (512 analog) - Big variety of modules available.

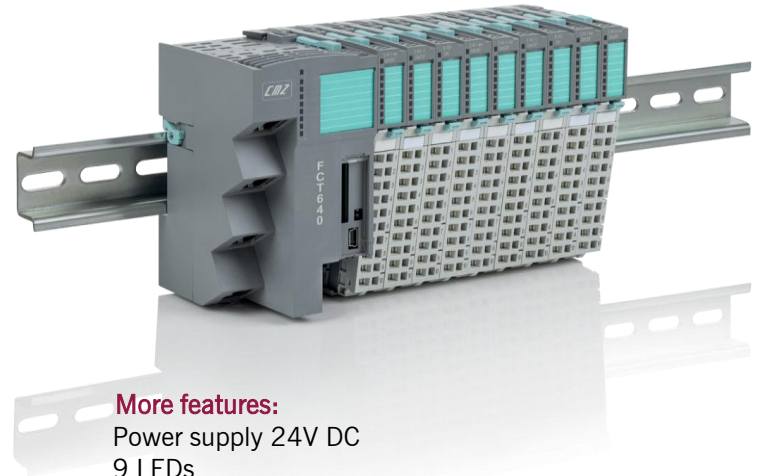
**Wide variety of modules available**

### Fieldbus:

EtherCAT Master, CANopen Master

### Connectivity:

OPC-UA  
Modbus TCP Master/Slave  
Communications based on UDP-TCP  
WEB server, PLCHandler



### More features:

Power supply 24V DC  
9 LEDs  
RTC with CR2032 Battery  
Reset-Button – Restore-Button  
0° - 50°C ambient temp  
Fanless



## SSD: Smart Drives

Stepper drives with CANopen, EtherCAT and Profinet interface

- 5 A Nominal
- 110 or 230 Vac single phase
- Feedback: Incremental encoder
- Auxiliary encoder input
- Analog and digital IO on board
- STO (under certification)



## SBD: Smart Drives

Brushless drives with CANopen, EtherCAT and Profinet interface

- from 5 to 20 A Nominal
- 230 Vac single phase or 400 Vac 3-phases
- Feedback: Resolver, Incremental encoder, absolute Hiperface Encoder
- Auxiliary encoder input
- Analog and digital IO on board
- STO (under certification)

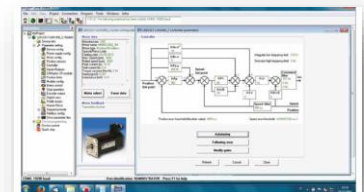


## RP064: I/O module

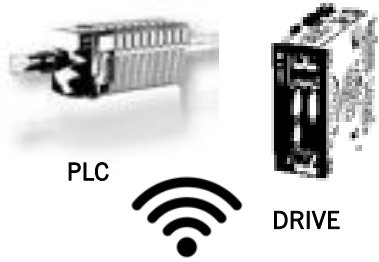
CANopen Coupler  
32 Di + 32 Do + 2 Ai + 2 Ao



CMZ PROPRIETARY SOFTWARE ENVIRONMENT



1  
CMZ is investing for introducing WiFi connection on its main devices



2  
What is WiFi useful for?



Cloud Storage

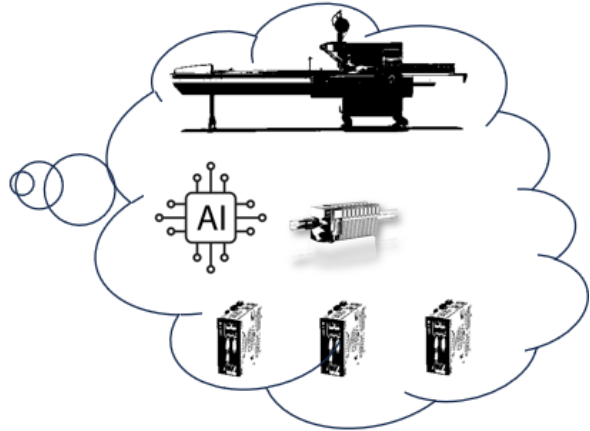


Cloud Service



Energy Consumption

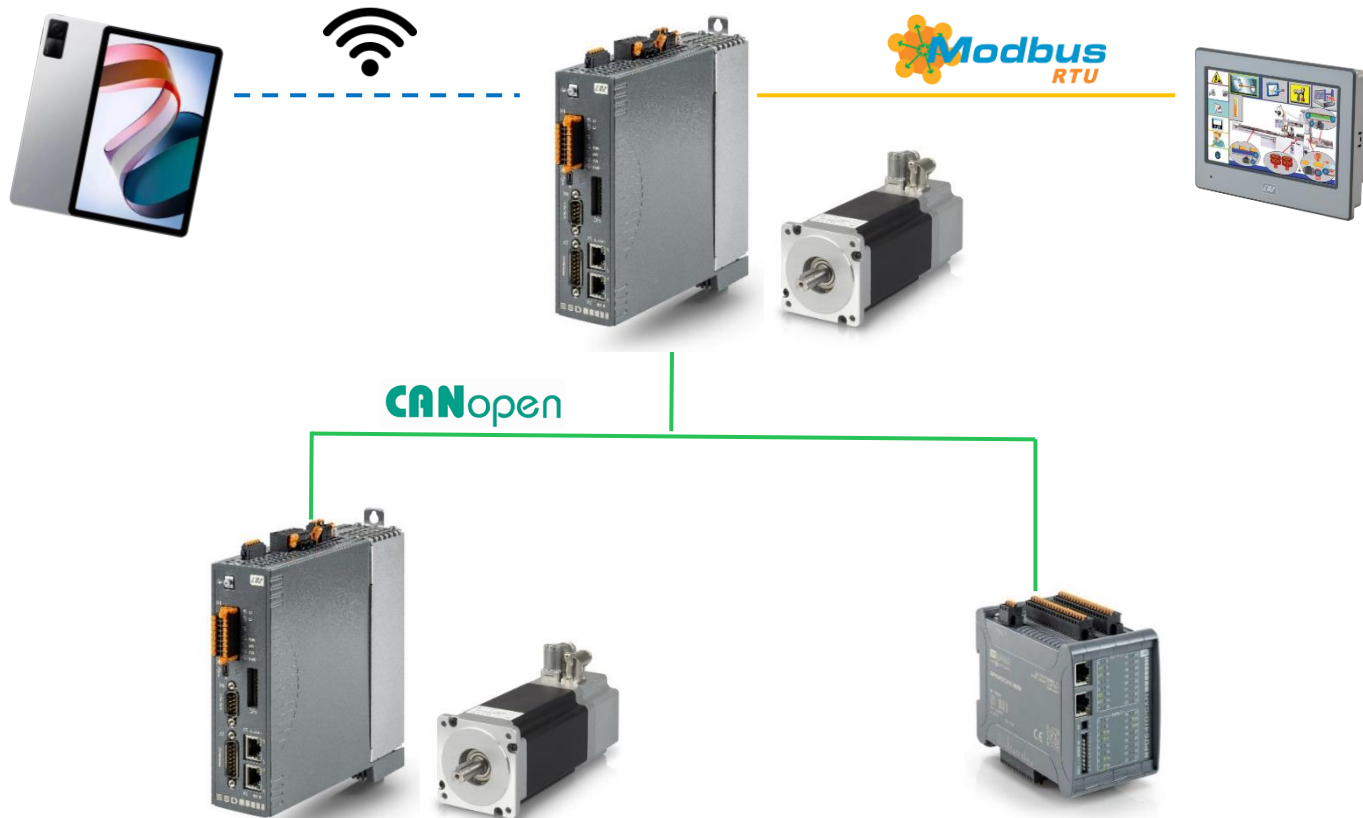
3  
Complete package HW and SW with integrated IoT functions



**NEW**  
2024

**UNDER CONSTRUCTION**

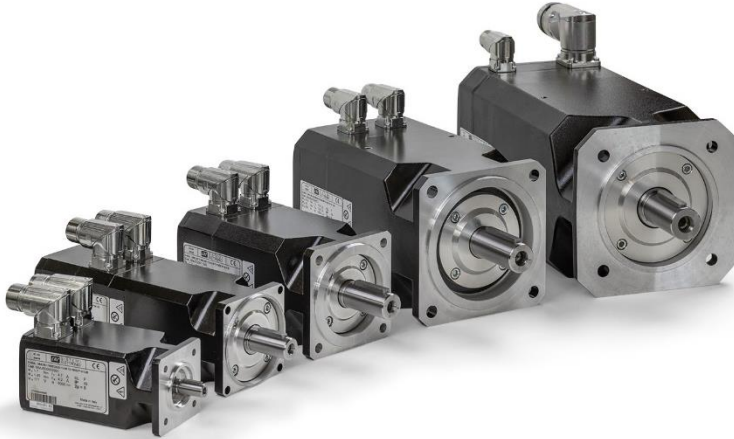
CMZ system new architecture. The IoT era has been starting!



## PRODUCTS – SERVO MOTORS

### MMD/B/S: Servo Motors

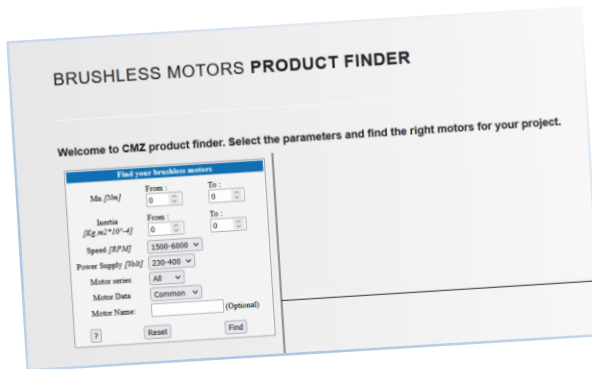
Brushless motors



#### WEB CONFIGURATOR

TRY IT ON OUR WEBSITE!

[www.cmz.it/en/brushless-motors-product-finder/](http://www.cmz.it/en/brushless-motors-product-finder/)



#### TORQUE RANGE

- From 0,5 to 120 Nm stall torque

#### POWER SUPPLY

- 230 Vac and 400 Vac

#### SPEED

- From 1500 to 6000 rpm

#### FLANGE

- From 70 to 240 mm

#### FEEDBACK

- Resolver / Incremental / Absolute – Hyperface / DSL

#### OPTIONS

- Brake / Flywheel / IP67





PPG: Precision Planetary Gearboxes



TR series



MP series



TR/MP\_G series



TR/MP\_IS series



TR/MP\_MB series



LC series



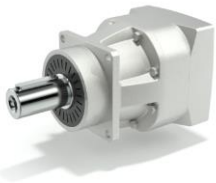
LCK series



SL series



KR series



TQ series



TQFEK series



TQK series



TQF series



## IBD: Integrated Brushless Drives

**Power supply:** 275 ÷ 730 Vdc (560 Vdc Nominal)

**Logic supply:** 24 Vdc

**Torque range**

Stall torque 1,3 - 2,8 – 4 - 5,6 – 6 - 15,4 - 30 Nm

**Rated speed:**

Vn=5000 rpm (for 1,3 Nm)

Vn=3000 rpm (for 2,8 – 4 - 5,6 – 6 - 15,4 - 30 Nm)

**Feedback**

**HIPERFACE absolute encoder single or multiturn**

**On board I/O's**

**for size 1,3 Nm:**

3 digital inputs PNP 24 V

2 digital outputs PNP 24 V

1 programmable input/output PNP 24 V

**for sizes from 2,8 Nm to 30 Nm:**

6 digital IN 24 Vdc general purpose, configurable as:

PSTOP, NSTOP, Enable, Home, Capture, Step/Direction

3 digital OUT 24 Vdc 250mA, general purpose

1 digital IN/OUT 24 Vdc with configurable function

3 differential I/O's configurable as master incremental encoder

1 Analogue IN +/-10 V

**Interface:**

EtherCAT, CANopen

PROFINET (IBD up to 6 Nm)

**Safety:**

-For size 1,3 Nm: SIL3 (pending)

-For sizes from 2,8 Nm to 30 Nm:

STO 2 channels (only CAN and ETC)

SIL3 (pending)

**Protection:**

IP65

**Option:**

Internal brake

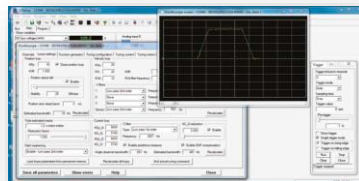
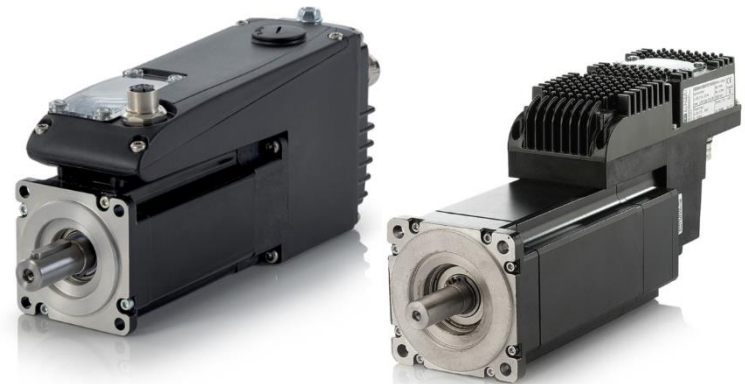


EtherCAT®

CANopen



PROFI®  
INDUSTRIAL ETHERNET  
NET



### SOFTWARE ENVIRONMENT

SD Setup

## NBD: Nearby Servo Drives

Drive IP65 for linear and rotating brushless motors

**Power supply:** 275 ÷ 730Vdc (560Vdc Nominal)

**Rated current:** 8Arms

**Peak motor current:** 15Arms

**Logic supply:** 24Vdc

**Protection:** IP65

**Security:** STO 2 channels

**Input/Output:**

3 digital inputs PNP 24V

2 digital outputs PNP 24V

2 digital input/digital output bidirectional PNP

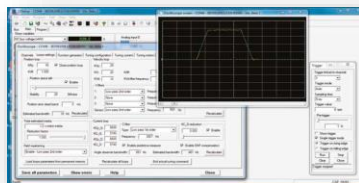
1 analog input +/- 10V

Encoder master input + 5V out



### SOFTWARE ENVIRONMENT

SD Setup



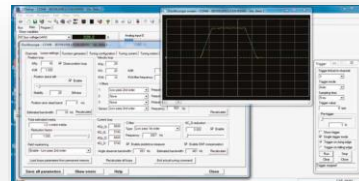
# PRODUCTS – STEPLESS SOLUTIONS

## SVM: Stepless Servo Drives MM: Stepless Motors

Interface: CANOpen, Profibus DP,  
±10V, RS485 Modbus, pulse/direction  
Profiles of speed, position and torque

Internal PLC programmable in IEC 61131  
dedicated and general purpose IN/OUT's

**Motors sizes** available up to 21 Nm  
on 5 sizes, DC power supply up to 160 Vdc



## ISD: Integrated Stepless Drives

Up to 12 Nm, DC power supply up to 130 Vdc

Interface: CANOpen, Profibus DP, ±10V,  
RS485 Modbus, pulse/direction

Profiles of speed, position and torque

Internal PLC programmable in IEC 61131  
dedicated and general purpose IN/OUT's



**SOFTWARE ENVIRONMENT**  
SD Setup

\* through external gateway



## TSC: Nearby Servo Drives

### Drive for 3 stepper motors

**Power supply:** 48 Vdc

**Protection:** IP65

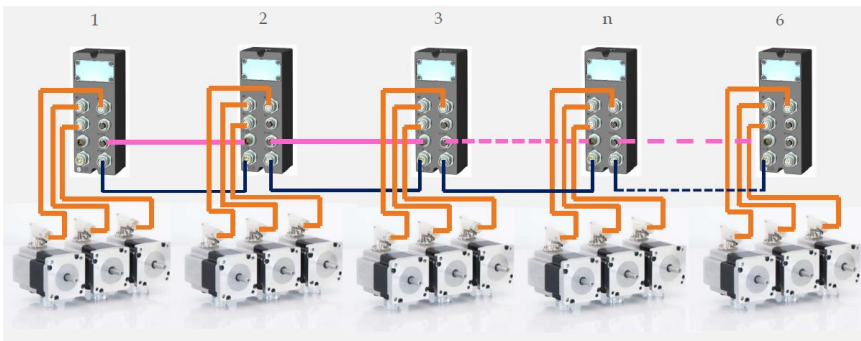
**Input:** 1 analog input +/- 10V

**Daisy chain connection:** up to 3 devices

**Stepper motors size 60 mm**

**Torque:** 1,65 and 3,1 Nm

**Feedback:** Absolute single turn encoder



CANopen

PROFI<sup>®</sup>  
INDUSTRIAL ETHERNET  
NET



\* through external gateway

## PT2 Series: HMI

### HMI panels

- Premium level panels suitable for Industry 4.0
- Embedded touch system
- Sizes from 4,3" to 15" LCD display
- TFT-LCD
- Max. colors 16-bit
- LED
- CPU: RISC ARM9 32 bit
- Working Memory 64 MB
- USB
- IP66
- 5 years life battery



EtherNet/IP™

SOFTWARE ENVIRONMENT

Panel Master Designer



CUSTOM PRODUCTS



STEPPER MOTOR CONTROL  
**CPMSGO**



VIBRATING FEEDERS CONTROL  
**CP6V16**



POWER SUPPLY  
FOR ISD AND SVM DRIVES  
**SDPOW1 - SDPOWR**



LOAD CELLS ACQUISITION  
**SGACQA**



VIBRATING FEEDERS CONTROL  
**CP4PWM**



POWER SUPPLY  
FOR IBD AND NBD DRIVES  
**BDPOW**

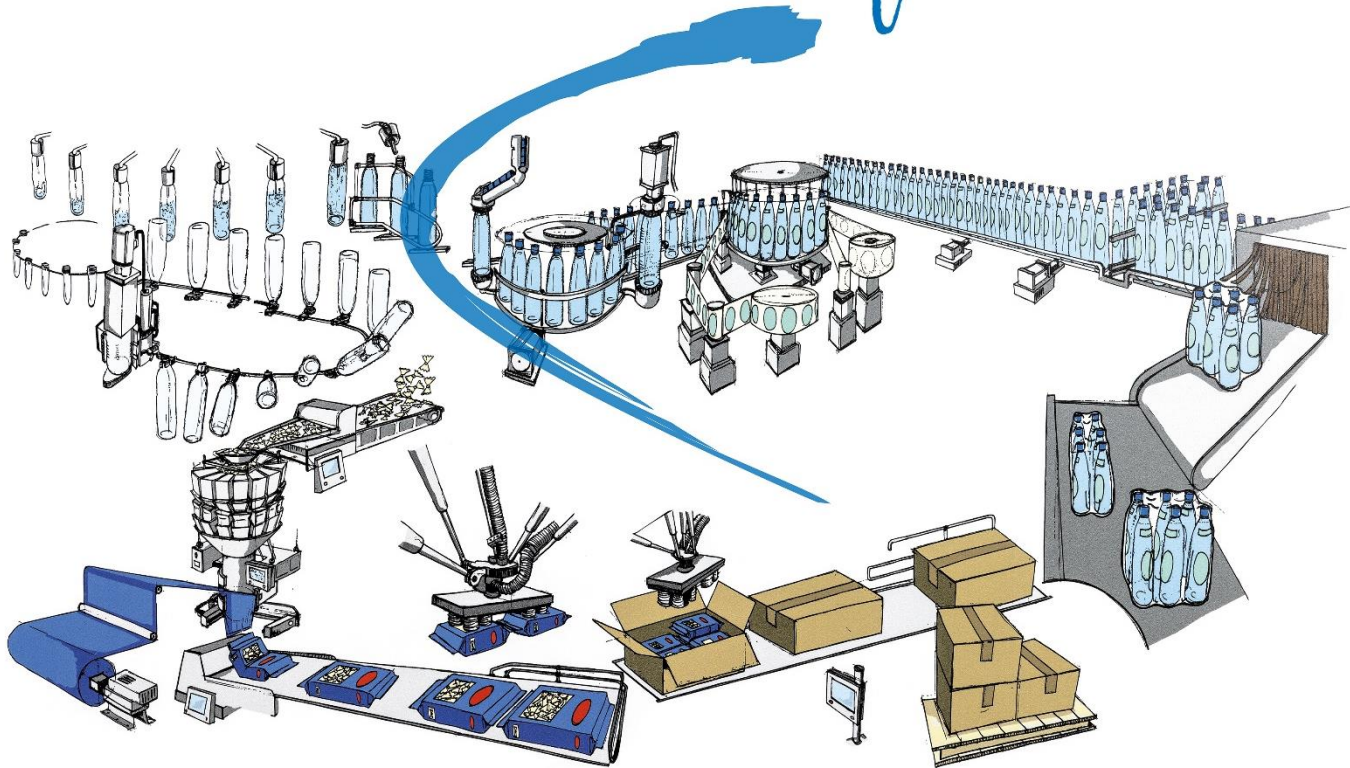


THERMOCOUPLES  
**CP6TS0**



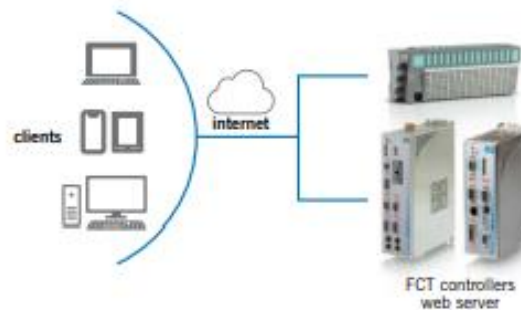
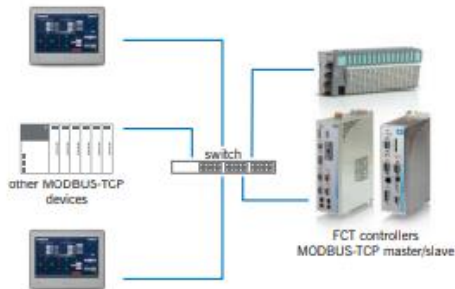
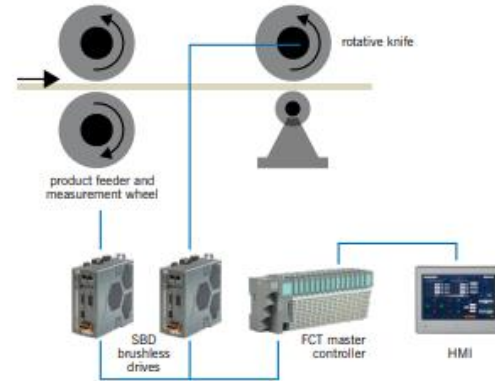
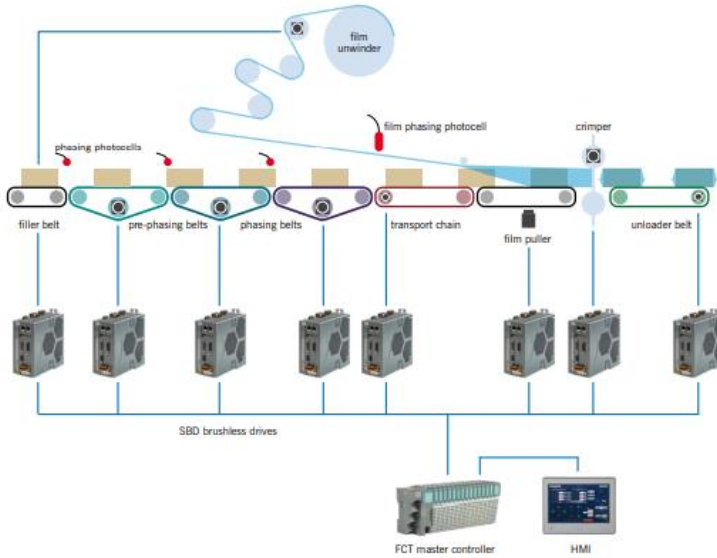
FCT300 & FCT200  
**I/O LOCAL MODULES**

# *tailor made software*





SOFTWARE: Codesys Solutions



COMPANY

APPLICATIONS

PRODUCTS

WHERE WE ARE







cmz.it

