



COMPANY GENERAL DATA

APPLICATIONS

PRODUCTS

WHERE WE ARE

CMZ has been designing and making programmable controllers for industrial automation since 1976

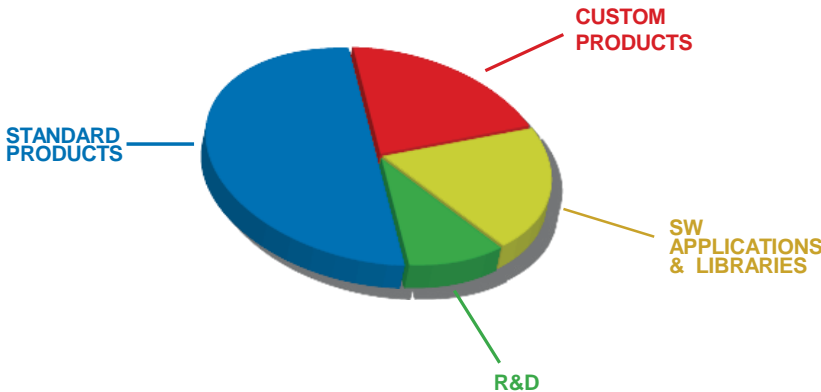


Today CMZ offers a complete **range of standard products** for automation:

- IEC61131 axis controllers
- Drives and motors
- I/O modules
- HMI.

Besides the production of standard systems, CMZ is organized to develop **dedicated projects** being certified as a Research Laboratory co-operating with University of Padua, Italy.

45 years of experience within automation have allowed axis control expertise to be refined and some **dedicated software packages** have been created for dedicated special applications and specific sectors: **real configurable applications for motion control** providing all the characteristics of an automated machine.



1976
origins

73
employees

9,4
millions
consolidated
revenues

Worldwide
distributors

WHO WE ARE



- 3 companies : SOGA SpA, CMZ Sistemi Elettronici Srl, Sincro d.o.o.
- 5 commercial brands, international presence in 80 countries
- Turnover ~ 50.000.000,00 € / yearly • ~ 300 employees
- Plants and offices for more than 76.000 sq.m.



POWER GENERATION, MOTION & CONTROL

AGRICULTURE AUTOMOTIVE BEVERAGE
 COGENERATION CONSTRUCTION INDUSTRIAL
 LIGHTING MARINE OIL&GAS PACKAGING
 RAILWAY RENEWABLES RESCUE RESIDENTIAL
 TELECOM WELDING

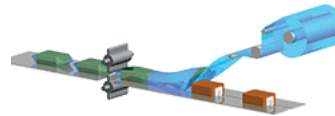
COMPANY GENERAL DATA

APPLICATIONS

PRODUCTS

WHERE WE ARE

Packaging



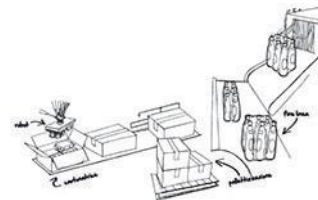
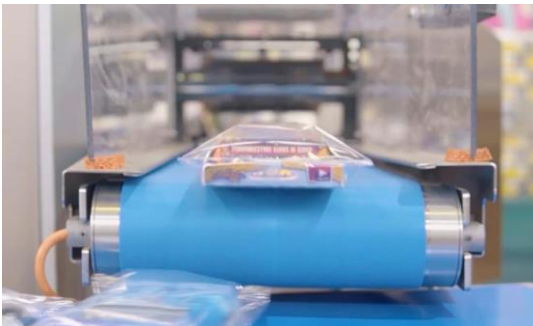
HORIZONTAL PACKAGING MACHINE



VERTICAL PACKAGING MACHINE



LOADING SYSTEMS
AND SMART BELTS

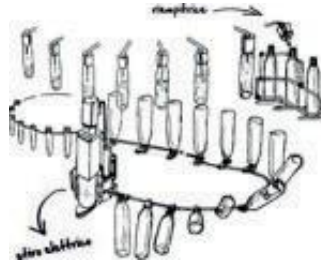


END LINE

Beverage

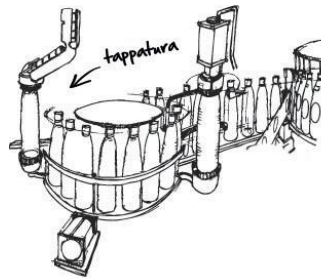


LABELLING MACHINES



FILLING MACHINES

BLOWING MACHINES



CAPPING MACHINES

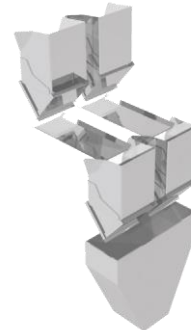
Dosing & Weighing



MULTIHEAD WEIGHERS



LINEAR WEIGHERS



VIBRATING FEEDERS



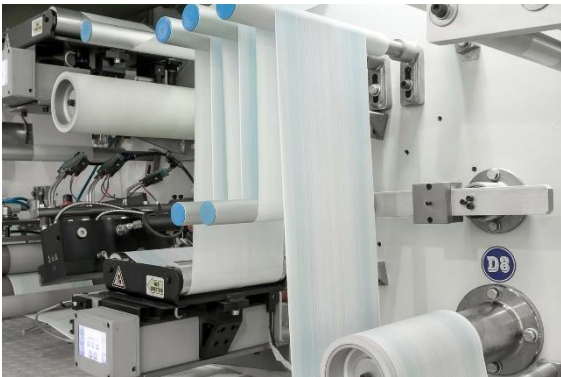
Printing



SYNCHRONIZATION OF THE PRINTING CYLINDERS

REGISTRATION CONTROL OF THE PRINTING CYLINDERS

Paper converting



INTERFOLDERS

REWINDERS

CUTTING LINE

FLEXO MACHINES

Textile



MACHINES FOR THE TREATMENT OF SYNTHETIC AND NATURAL FIBERS

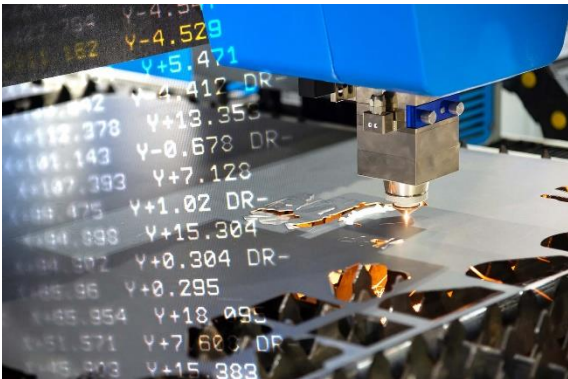
CROCHET AND JACQUARD MACHINES

MACHINES FOR THE TREATMENT OF THE FIBER
(COMBING MACHINES, DRAW FRAME MACHINES)

SEWING/EMBROIDERY MACHINES

SINGLE and MULTI NEEDLE QUILTING MACHINES

ISO interpreter (G-code)



TRANSVERSAL AND PRESENT
IN QUITE ALL AUTOMATION
FIELDS

CNC MACHINES

Glass



MACHINES FOR THREADING

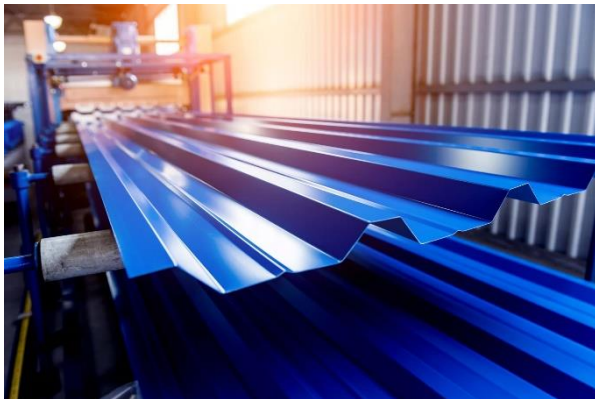
SEALING MACHINES

EDGERS MACHINES

COATING REMOVER

CUTTING UNIT

Metal sheet



CUT WITH TRANSLATING CARRIAGE

CUT WITH ROTATING SHEAR

COMPANY GENERAL DATA

APPLICATIONS

PRODUCTS

WHERE WE ARE



External

Internet , PC , Teleservice ,
Other systems

EtherNet/IP

CMZ Data Connection



Master Controller

FCT series with Codesys



RS 485
RS 232



Interface HMI



Libraries & App
For many applications



EtherCAT

CANopen

PROFINET



RS 485
RS 232



Drives

SBD, LBD,
SVM, NBD



Integrated Motor and Drives

IBD and ISD



Field

Motors, Transducer, I/O

FCT640: Master Controller

Processor

CPU: QorIQ T1024, 1 GHz

Memory capability 1 GB

Nand Flash 512 MB DRAM

32 KB Ferromagnetic RAM (non-volatile PLC data) EEPROM (Serial no., IP-config)

SD-Card

Communication ports

1x RJ45 Ethernet 10/100 MBit (“Debug”/PC/Codesys) 2x RJ45 Ethernet 10/100 MBit (Fieldbus) optional

1x RJ45 CAN-Bus (CANopen Master/Slave) optional

Local I/O modules

64 modules, each with a maximum of 16-bit IO (1024 digital) or 8 channel analog (512 analog)

Fieldbus

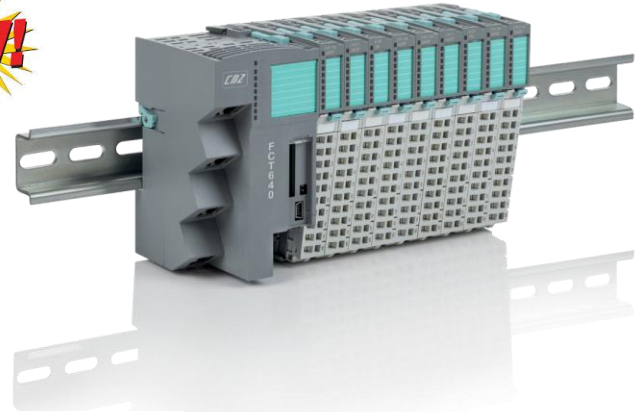
EtherCAT Master CANopen

Master/Slave ModbusTCP

EtherNet/IP

Fieldbus options:

everything with software stack offered by CODESYS



Connectivity

Integrated LTE modem

General

Power supply 24V DC

9 LEDs, dual color possible

0° - 60°C ambient temp

FCT200: Master Controller

Up to 8 axes real - time via CANopen

Communication ports:

RS232, Ethernet, RS422-485, SMI port

Field BUS on board:

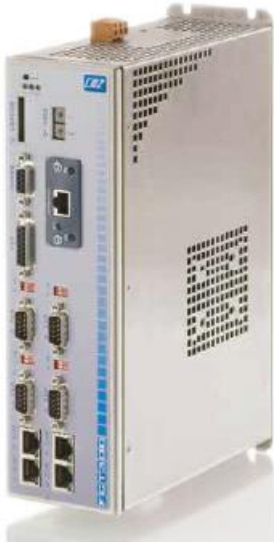
up to 2 CANopen ports

Optional Field BUS: Profibus-DP

slave

Mass memory:

SD card



FCT300: Master Controller

Up to 99 axes real-time via CANopen & EtherCAT

Communication ports:

RS232, 2xEthernet, RS422-485, SMI port

Field BUS on board:

2 CAN ports, 1 EtherCAT port

Optional Field BUS:

2xCANopen auxiliary, 2x Ethernet port , Profibus DP slave, DeviceNet, Ethernet/IP

Mass memory: 1xSD card, 1X internal, SD card



SOFTWARE ENVIRONMENT

2 choices: same HW platform-same support

CODESYS (3.5 Versions)

4CONTROL (Our environment in IEC61131)



LBD: Servo Drives

Brushless drive with CANOpen and EtherCAT interface

- From 5 to 75 A nominal
- 230 and 480 Vac
- Feedback: Resolver or absolute/incremental encoder
- Encoder OUTPUT or second encoder INPUT
- STO

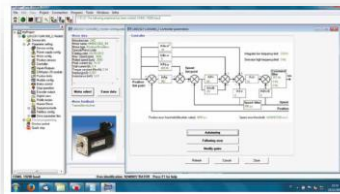


SBD: Servo Drives

Brushless drive with CANOpen EtherCAT and Profinet* interface

- From 5 to 20 A nominal
- 230 and 400 Vac
- Bluetooth Control*
- Feedback: Resolver or absolute/incremental encoder
- Encoder OUTPUT or second encoder INPUT
- STO

SELF SOFTWARE ENVIRONMENT



* Coming soon

MMB/D/S: Servo Motors

Brushless motors



TORQUE RANGE

- From 0,25 to 300 Nm stall torque

TORQUE POWER

- From 0,15 to 80 kW

POWER SUPPLY

- 48 / 230 / 400 V AC

SPEED

- From 1500 to 6000 rpm

FLANGE

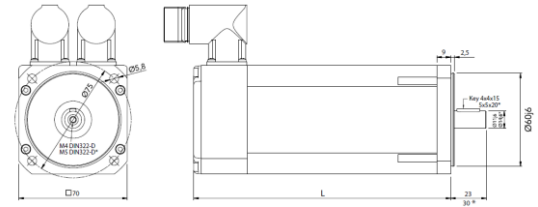
- From 40 to 230 mm

FEEDBACK

- Resolver / Incremental / Absolute – Hyperface / DSL

OPTIONS

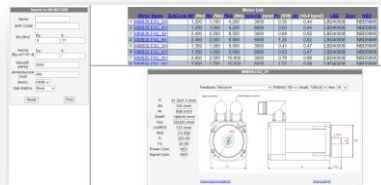
- Brake / Flywheel / IP67



ONLINE CONFIGURATOR

Website*

*Coming soon



IBD: Integrated brushless drive

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

Logic supply: 24 Vdc

Torque range

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

Rated speed:

Vn=5000 rpm (for 1,3Nm)

Vn=3000 rpm (for 1,5-2,8-4-5,6-6-15-30Nm)

Feedback

HIPERFACE absolute encoder single or multiturn

On board I/O's

for size 1,3Nm:

3 digital inputs PNP 24V

2 digital output PNP 24V

1 programmable input/output PNP 24V

for sizes from 1,5Nm to 30Nm:

6 digital IN 24Vdc general purpose, configurable as:

PSTOP, NSTOP, Enable, Home, Capture

3 digital OUT 24Vdc 250mA, general purpose

1 digital IN/OUT 24Vdc with configurable function

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

and Step/Direction

1 analogue IN +/-10V

Interface

EtherCAT, CANopen

Safety

for size 1,3Nm:

STO 2 channels, SIL3 (pending)

for sizes from 1,5Nm to 30Nm:

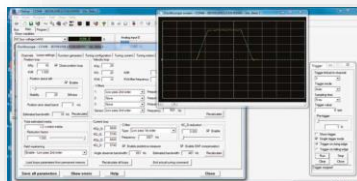
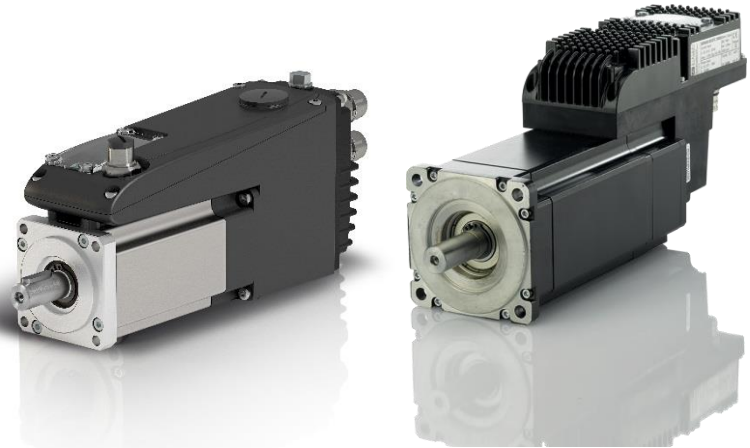
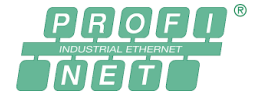
STO 1 channel, SIL3 PL 'd' category2

Protection

IP65

Option

Internal brake



SOFTWARE ENVIRONMENT

SD Setup

NBD: Near by 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

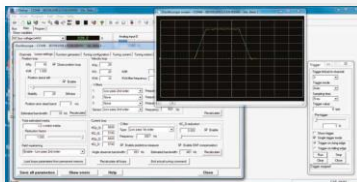
digital outputs PNP 24V

2 digital input/digital output bidirectional PNP 1 analog
input +/- 10V

Encoder master input + 5V out

SOFTWARE ENVIRONMENT

SD Setup



PRODUCTS – STEPLESS SOLUTIONS

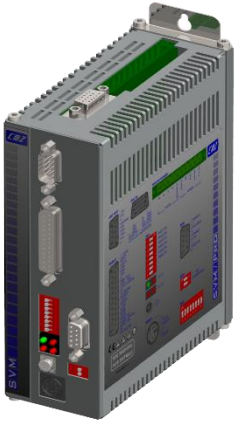
SVM: Stepless servo drive & MM stepless motors

Interface: CANOpen, Profibus DP, $\pm 10V$, RS485 Modbus, pulse/direction

Profiles of speed, position and torque

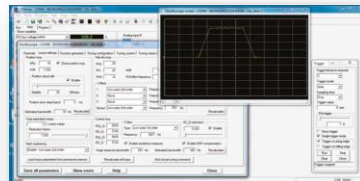
Internal PLC programmable in IEC61131 dedicated and general purpose IN/OUT's

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



SOFTWARE ENVIRONMENT

SD Setup



ISD: Integrated Stepless drive

Up to 12Nm, DC power supply up to 135 Vdc

Interface: CANOpen, Profibus DP, $\pm 10V$, RS485 Modbus, pulse/direction

Profiles of speed, position and torque

Internal PLC programmable in IEC61131 dedicated and general purpose IN/OUT's



* Through external getaway

TSC: Near by Servo Drives

Drive for 3 stepper motors

Power supply: 48 Vdc.

Protection: IP65

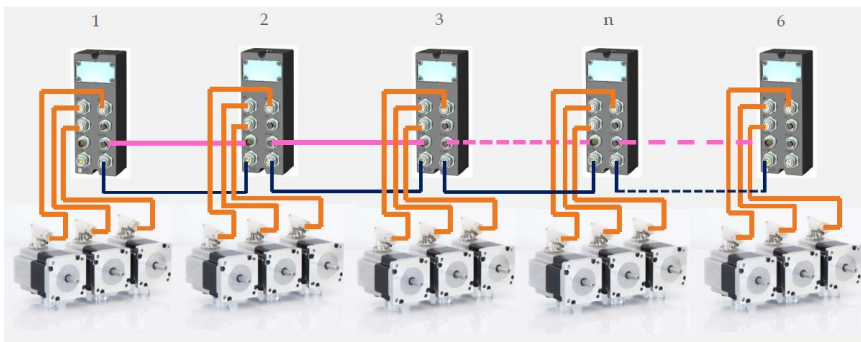
Input: 1 analog input +/- 10V

Daisy chain up to 6 devices

Stepper motors size 60 mm

Torque: 1,65 and 3,1 Nm

Feedback: Absolute single turn encoder



* Through external gateway

PT Series: HMI

HMI panel

- Consist of premium level panels.
- Available sizes: from 4,3" to 15" LCD display
- TFT-LCD
- Embedded touch system
- 16-bit
- LED
- From 250 to 450 cd/m2
- CPU RISC ARM9 32 bit
- Working Memory 64 MB
- USB



EtherNet/IP™

SOFTWARE ENVIRONMENT

Panel master designer



CP4PWM: Solution for management vibrating channels

Control of 4 channels not depending from frequency and main voltage

Adjustment during installation:

- Fast self-search of resonance frequency
- Automatic calculation of the impressed voltage

Movement dynamic regulation

- Boost start for product release
- Soft Start for silent start
- Fast stop of the vibrator for reduction of the product queue

Programmability

- Stand Alone with IEC61131 programmability

Supply voltage:

- 110/230 Vac 50/60 Hz
- Maximum output power 600W/channel
- Maximum output power of the system 1,4 kW @ 230 Vac , 700 W @ 110 Vac

I/O:

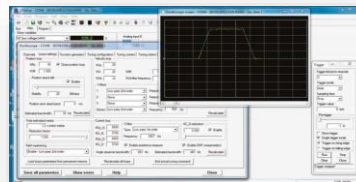
- 8 digital pnp input, 8 digital pnp output 24V 500 mA,
- 2 analog output 4-20 mA, 4 analog input 4-20 mA

Features:

- Fanless, electronically protected against overheating,
- configuration trough USB

SOFTWARE ENVIRONMENT

SD Setup



* Through external getaway

SOFTWARE: Codesys Solutions



LIBRARIES	FUNCTIONALITIES	APPLICATIONS
Flying shear	Management of the basic movement cycle of a moving carriage	Cutting and working of material in movement(metal sheet, plastic, wood, etc)
Electronics cams	Movement of a slave in relation with a master. The movement is described by a master-slave positions table with many interpolation modalities between points.	Very common library allows the movement of an axis in relation with the master one.
Interpolation	Synchronized movement of many axes. The movement is described by a table of positions with a lot of interpolation modalities between points.	Materials processing, palletizers, pick and place, generic movement
ISO	Management of an ISO file (G Code)	Allows the execution of a movement with 9 interpolated axes described by a G Code file.
APPLICATIVES	FUNCTIONALITIES	APPLICATIONS
Flowpack and vertical packaging machine	Complete control of a flow-pack or a vertical packaging machine	Offers the complete realization of a flow-pack or vertical packaging machine. It allows to configure a lot of options
Linear and multihead weigher	Complete control of a linear or multihead packaging machine	Offers the complete realization of a linear or multihead packaging machine. It allows to configure a lot of options
TOOLS	FUNCTIONALITIES	APPLICATIONS
MODBUS	Management of the MODBUS protocol, on various communication ports, both in master modalities and slave	Intercommunication between systems, connections of panels and other devices to the controller.
PCCOMX	Communication between a PC and a controller	It allows to interface program that runs in a PC with the program that runs in the controller.
Embedded file	Mass memory management	Saving and restoring of user data in the mass memory (compact flash or SD)
ProfibusDP	Control of ProfibusDP interface (Hardware option)	Make the controller able to work as ProfibusDP node slave and so to exchange data with a master PLC.

COMPANY GENERAL DATA

APPLICATIONS

PRODUCTS

WHERE WE ARE



www.cmz.it



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