

SYSTEMS & SOLUTIONS FOR MOTION CONTROL









PRESENTATION INDEX

COMPANY

APPLICATIONS

PRODUCTS

WHERE WE ARE



THE OTHER SIDE OF MOTION CONTROL



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

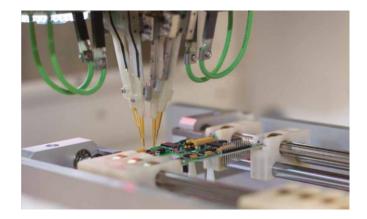


- IEC61131 controllers
- Drives and Motors
- Planetary gearboxes
- Peripherals & I/OS
- HMIs

SOFTWARE

- Communication, motion and utility libraries
- Configurable dedicated applicatives
 <u>SERVICE</u>
- 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**.



CMZ soga (i) energyteam

KEY MILESTONES

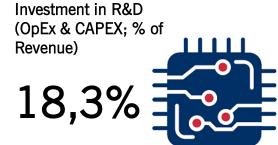
1976 CMZ	1997	2	2010	I				ę	202 SSD ne
established. 1992 CMZ becomes a esearch Laboratory recognised by the Italian Ministry for Scientific Research.	The first system integioin CMZ's network of worldwide automatic partners. New software libraring packaging and robot	of controller, up on		CMZ is ac SOGA 2014 CODESYS is the new development environment	2017 quired by ENERGY TEAM	CMZ Certified Prof	2022 drives ibus & rofinet	step 2023 ISO 14001	per driv







Headcount



of R&D SW and HW engineers

28





CERTIFICATIONS

ISO 9001:2015

	CMZ SISTEMI ELETTRONICI S.R.L						
録)	VIA DELL'ARTIGIANATO 21 - S1030 CARBONERA (TV) -	Italy					
EAU THAT	Sede oggetto di Certifidazione: VIA DELL'ARTIGIANATO 21 - 31030 CARBONERA (TV) - Italy						
Ę	Bureau Veritas Italia S.p.A. certifica che il sistema di gestione dell' indicata è stato valutato e giudicato conforme ai requisiti della normi seguente	organizzazione sopra a di sistema di gestione					
2	ISO 9001:2015						
at	Campo di applicazione						
Certifio	Progettazione, produzione e commercializzazione, assistenza e soluzioni per l'automazione industriali IAF:18,29	post vendita di sistemi e.					
Bureau Veritas Certification	Data della certificazione originale: Data di soudenza propeñente olos di cacelficazione: Data dell'Audit di certificazione / nonovo: Data d'inito del presente olis di certificazione: Sogetta al contuno e a oddificame mantenimento del cazena di gestione questo certificazio e valido fino al:	01-Agosto-2023 HA 22-Guagno-2023 01-Agosto-2023 31-Lugito-2026					
BL	Certificato Humero: (1324838 Versione: 1 Data di	emissione: 01-Agosto-2023					
	Mar Land Jau anno Lakawase fully reasons Wanger Indirizes dell'organized of certifications:	ACCREDIA Internet of constants					
	Indicate dell'organismo di certificazione: Bureco Verezi Ello S. S.A., Viele Missan, 247 – 20126 Missan, 2481 Indicate Verezi Ello S. S.A., Viele Missan, 2481 Indicate della Secto di persona di ante	ei apposita kop					

ISO 14001:2015

VERITAS

Certification

Bureau Veritas

CMZ SISTEMI ELETTRONICI S.R.L.

VIA DELL'ARTIGIANATO 21 - \$1030 CARBONERA (TV) - Italy Sede oggetto di Certificazione: VIA DELL'ARTIGIANATO 21 - 31030 CARBONERA (TV) - Italy

Bureau Veritas Italia S.p.A. certifica che il sistema di gestione dell'organizzazione sopra indicata è stato valutato e giudicato conforme ai requisiti della norma di sistema di gestiane seguente

150 14001:2015

Campo di applicazione

ACCREDIA

Progettazione, produzione, commercializzazione, assistenza post vendita di sistemi e soluzioni per l'automazione industriale attraverso le fasi di assemblaggio, saldatura, resinatura, stoccaggio del semilavorato e collaudo finale. Attività di riparazione schede e sistemi. IAF:18,29

Sistema di gestione valutato secondo le prescrizioni del Regolamento Tecnico ACCREDIA RT-09 Data della certificazione originale: 01-Agosto-2023 Data di soadenza precedente ciolo di certificazione: NA. Data dell'Audit di certificazione / rinnovo: 20-Glugno-2023

01-Agosto-2023 Data d'inizio del presente ciolo di certificazione: Soggetto al continuo e soddisfacente mantenimento del siste gestione questo certificato è valido fino al: 31-Luglto-2026

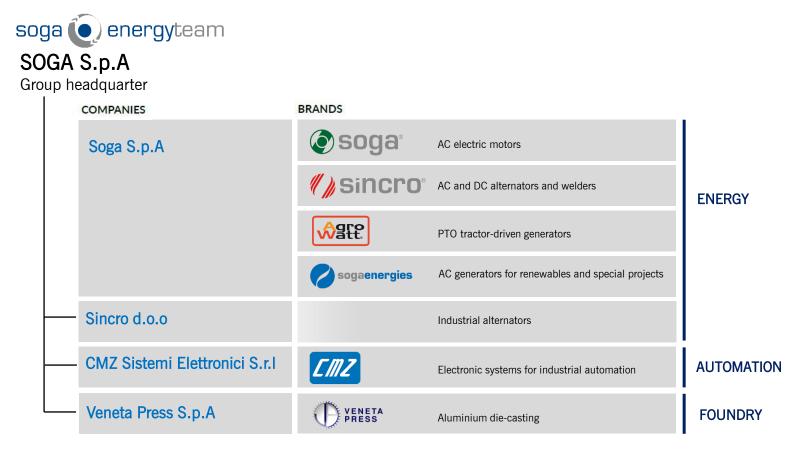
Certificato Numero: IT324839 Data di emissione: 01-Agosto-2023 Versione: 1

Indirizzo dell'organismo di certificazione: Bureau Veritas Italia S.p.A., Viale Monza, 347 - 20126 Milano, Italia wrbi sul campo di applicazione di questo certificato e sui requisiti applica

Our first ESG Rating. CMZ is in category BBB



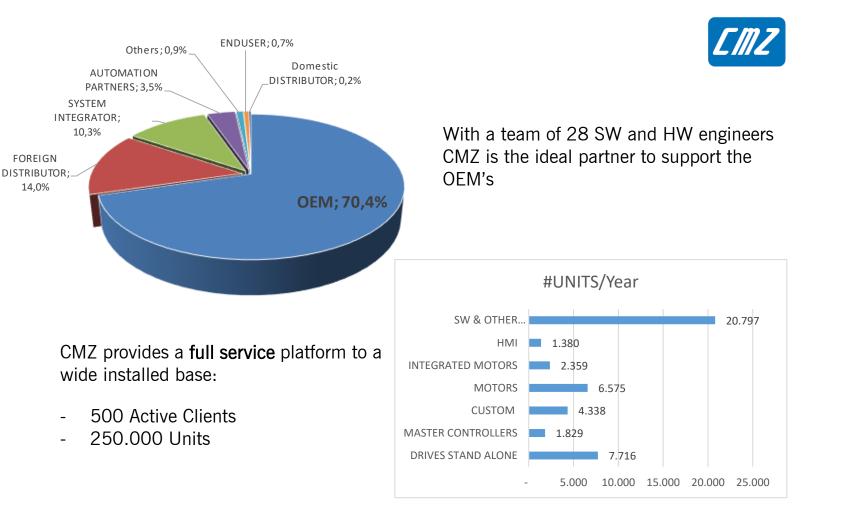
A COMPANY OF SOGA ENERGY TEAM GROUP



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



KEY MARKET SECTORS











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COMPANY

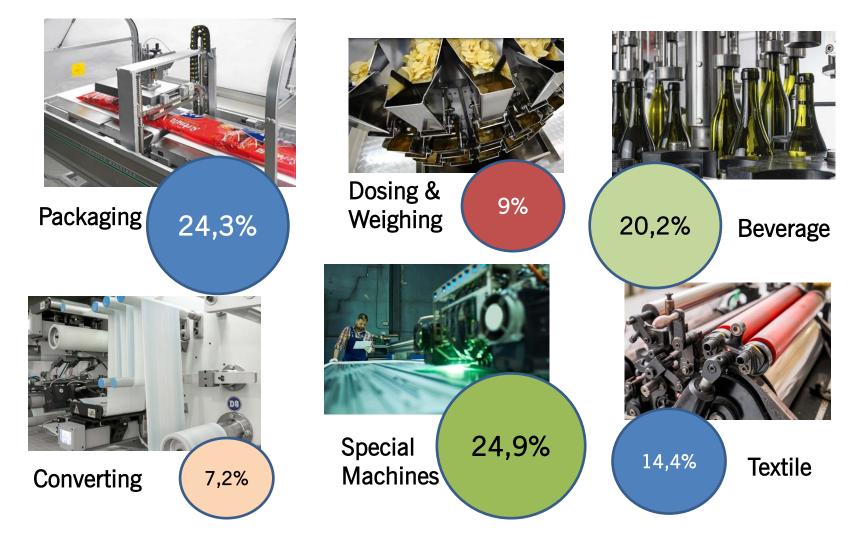
APPLICATIONS

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WHERE WE ARE



KEY APPLICATION MARKETS





Packaging







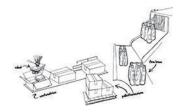
HORIZONTAL PACKAGING MACHINE



VERTICAL PACKAGING MACHINE



LOADING SYSTEMS SMART BELTS



END LINE

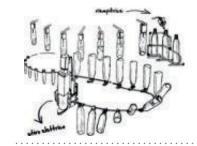


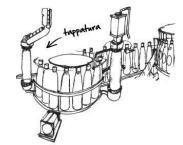
Food & Beverage











LABELLING MACHINES

FILLING MACHINES

BLOWING MACHINES

CAPPING MACHINES



Dosing & Weighing





MULTIHEAD WEIGHERS



LINEAR WEIGHERS









Printing



Paper converting



INTERFOLDERS REWINDERS CUTTING LINE FLEXO MACHINES

SYNCHRONIZATION OF PRINTING CYLINDERS

REGISTRATION CONTROL OF PRINTING CYLINDERS



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

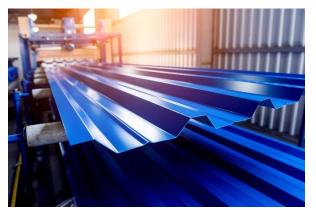


Glass



THREADING MACHINES SEALING MACHINES EDGERS MACHINES COATING REMOVERS GLASS CUTTING

Metal sheet



FLYING SHEAR DEFORMATION



PRESENTATION INDEX

COMPANY

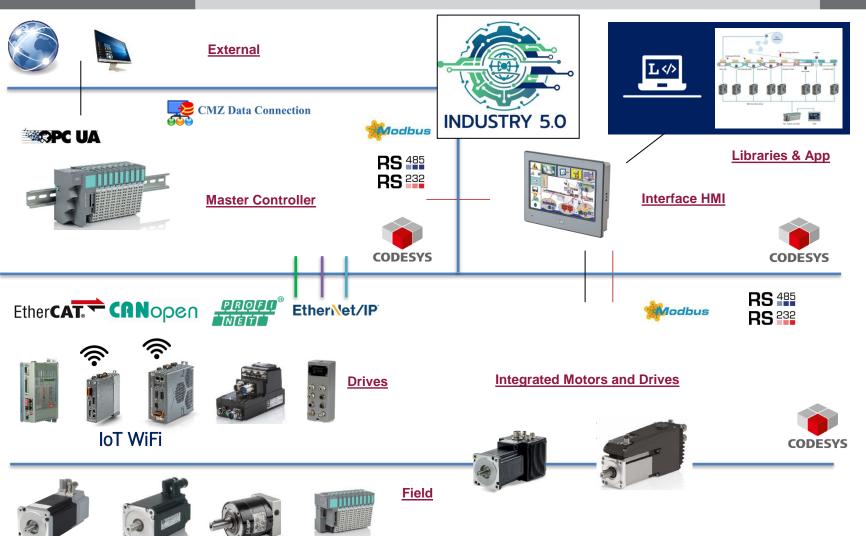
APPLICATIONS

PRODUCTS

WHERE WE ARE



PRODUCTS





PRODUCTS – MASTER CONTROLLERS

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







PRODUCTS – DRIVES

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



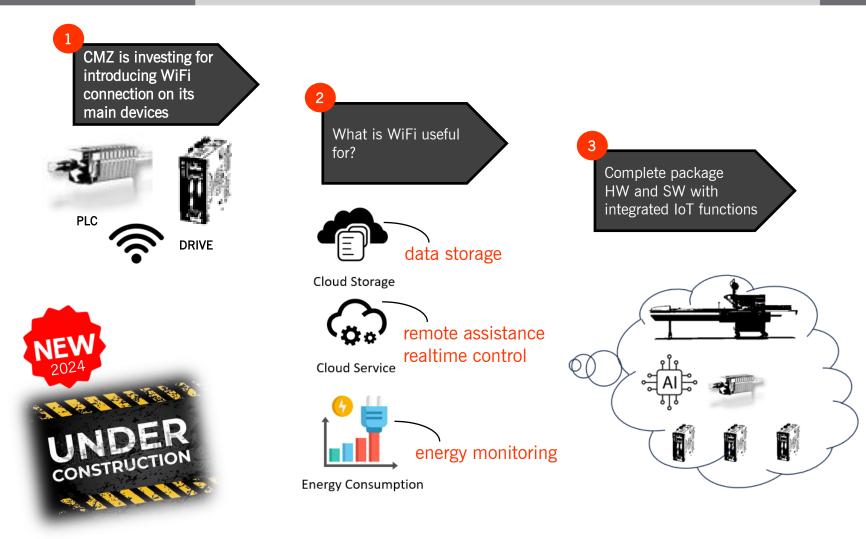
CMZ PROPRIETARY SOFTWARE ENVIRONMENT







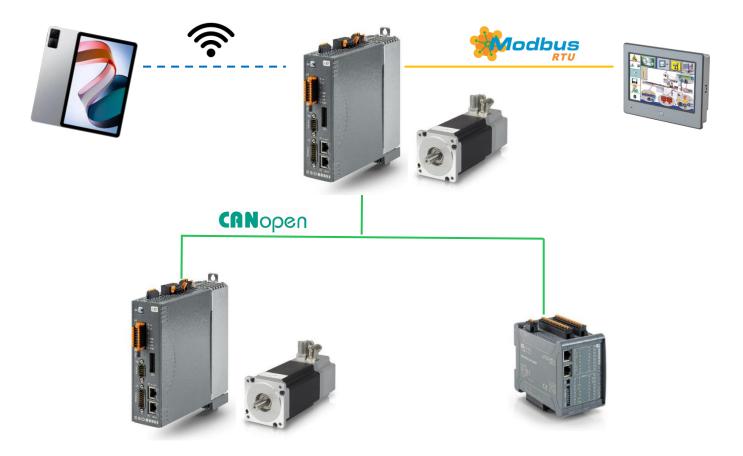
CMZ next evolution: IoT & WiFi connection





CMZ next evolution: IoT & WiFi connection

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/

BRUSHLESS MOTORS PRODUCT FINDER

Nelcome to CMZ product finder. Select the parameters and find the right motors for your project.

	ur brushless mot	To :	
Mn [Nm]	From :	0 0	
Inertia [Kg.m2*10^-4]	From :	To:	
Speed [RPM]	1500-6000 ~		
Power Supply [Volt]	230-400 ¥		
Motor series	All 🗸		
Motor Data	Common V		
Motor Name:		(Optional)	
2	Reset	Find	

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





PRODUCTS - PLANETARY GEARBOXES

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















TQ series

TQFEK series

TQK series



PRODUCTS - INTEGRATED DRIVES

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

SOFTWARE ENVIRONMENT SD Setup



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









PRODUCTS - NEAR BY DRIVES

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

















PRODUCTS – STEPLESS SOLUTIONS

2024

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

Modbus OVEr RS485

CANopen



PROFO[®]*



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







SD Setup

* through external gateway





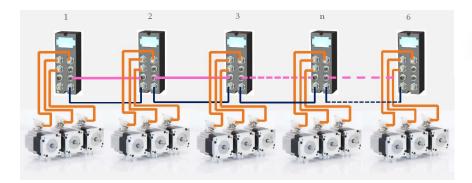
PRODUCTS – NEAR BY DRIVES

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













* through external gateway



PRODUCTS – HMI

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-I CD
- Max. colors16-bit
- IFD
- CPU: RISC ARM9 32 bit
- Working Memory 64 MB
- USB
- IP66
- 5 years life battery



RS ⁴⁸⁵ **RS** 232

EtherNet/IP^{*}

SOFTWARE ENVIRONMENT

Panel Master Designer





PRODUCTS – CUSTOM SOLUTIONS

CUSTOM PRODUCTS



STEPPER MOTOR CONTROL



VIBRATING FEEDERS CONTROL





LOAD CELLS ACQUISITION



CP4PWM

VIBRATING FEEDERS CONTROL



POWER SUPPLY FOR IBD AND NBD DRIVES BDPOW



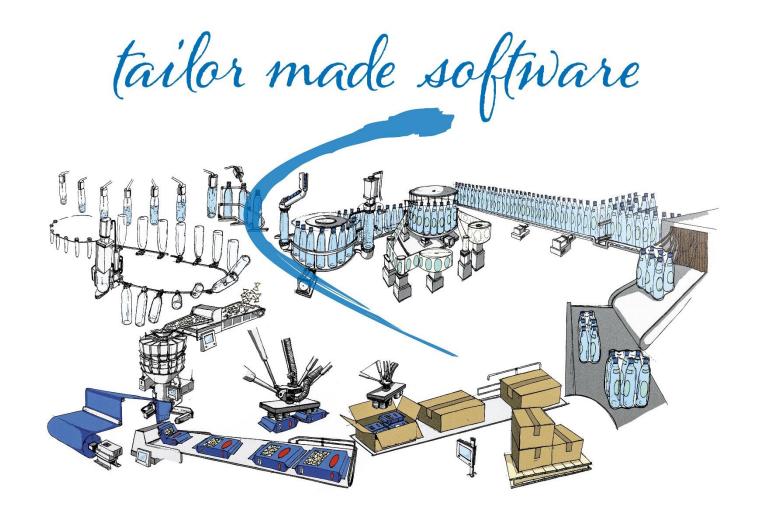
CP6TS0



FCT300 & FCT200



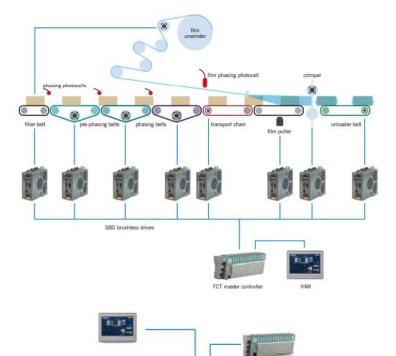
PRODUCTS – SOFTWARE





PRODUCTS - SOFTWARE

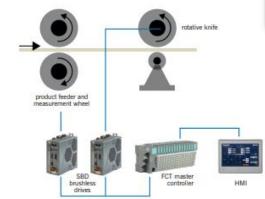
SOFTWARE: Codesys Solutions

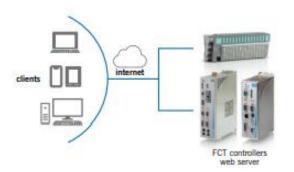


switch

FCT controllers MODBUS-TCP master/slave

other MODBUS-TCP devices









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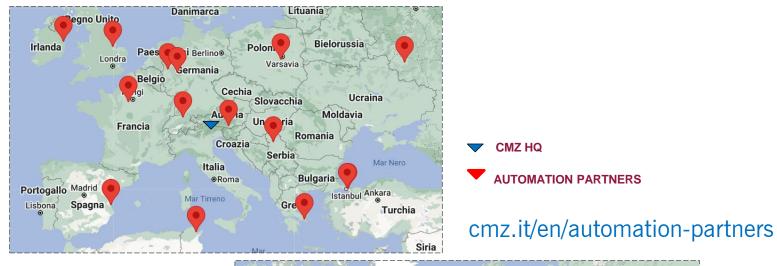
APPLICATIONS

PRODUCTS

WHERE WE ARE



AUTOMATION PARTNERS NETWORK WORLDWIDE









cmz.it





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