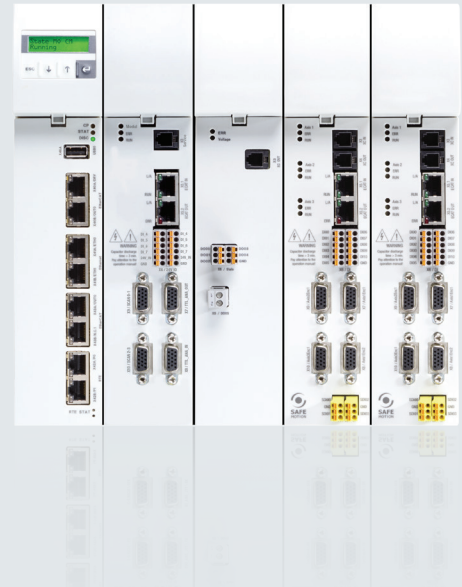


LASER PROCESSING

MotionOne CNC

Future-proof CNC technology
with the MotionOne control platform



MotionOne CNC offers you maximum flexibility. Openness and standardized interfaces ensure smooth integration into digital automation. The CNC programming in G-Code and FlexProg® allow a perfect adaptation to your machine process.

The CNC standard package already offers a comprehensive range of functions and performance spectrum. It can be extended with industry-specific technology packages (e.g. for laser processing).

CNC standard package - functional and performance spectrum	MotionOne CNC
CNC channels	1 + 8 parallel processes
Interpolating axes per channel	4 .. 16
Min. NC block cycle time	100 µs
Configurable Look Ahead	50.000 NC blocks
Min. position setpoint cycle time	125 µs
Max. position setpoint resolution	64 Bit (CNC) / 48 Bit (drives)
5-axis-interpolation	○ ¹⁾
Kinematic transformations	●
Positioning axes types (circular, linear, modulo)	●
G-Code programming acc. DIN 66025 / ISO 6983	●
FlexProg® extensions (high level language programming)	●
Polynomial / Spline programming / Interpolation	●
NC program size / number of lines for NC program	unlimited
Length compensation, 2D radius compensation	●
Axis error and grid compensation	●
Auxiliary functions with user functions	●
Synchronized Tasks - Fast communication between CNC & PLC	●
AFL function library (Open API e.g. for communication with GUI)	●

● standard

○ option

1) subject to export approval

MotionOne CNC

Industry-specific technology packages



CNC technology package "Laser" – Your added value through intelligent and future-proof software

Perfectly coordinated software modules and virtually delay-free signal processing are the basis for maximum machine productivity and quality. The CNC technology package "Laser" bundles these requirements in just one system.

CNC technology package "Laser" – functional and performance spectrum		MotionOne CNC
Gantry axes control		●
DLC – Direct Laser Control	CO ₂ -Lasers	●
	Fiber Lasers	●
	Ultrafast Lasers	● ¹⁾
Direct control of galvanometric scan heads (setpoint cycle time 10µs)		○ ¹⁾
CBP – Constant beam path (focus control for CO2 lasers)		●
NDC – Nozzle distance control via CNC controlled Z axis		●
LPC – Laser power control	time dependent	●
	speed dependent	●
PWM – Laser operating modes / technologies	Piercing	●
	Cutting (w or w/o Lead In)	●
	Marking	●
FTS – Fast technology parameter switch		●
Frog Jump – Time optimized jump to the next piercing point		●
Fly Cut – Cutting on the fly with laser synchronization		● ¹⁾
POD – Pulse on demand - Position synchronized laser pulse & frequency control / accuracy		● / 20 ns ¹⁾
AR – Automatic Retrace		●
BS – Block Search		●
Punching functions for punch/laser combo-machines		○

● → standard

○ → optional

1) → laser module MO CM-E required