

Motion Defined Precise

NUTECH®

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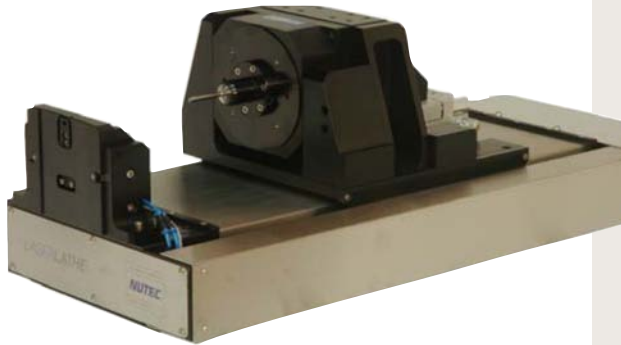
Advanced

Cylindrical Micromachining System

Tube & Stent Cutting



- 2, 3 or 4 Axis Systems
- User friendly HMI with easy to use intuitive and customizable GUI
- Modularity allows extensive customization
- Adapts all fiber lasers
- Integrated Video System
- Programs in G&M Code RS-274
- Compatible with most post-processors
- Front guide system options
- Class 1 or Class 4 machine version
- Wet or Dry Operation



Motion Sub-System

- 'LaserLathe[™]' X & Θ Axis
- Direct drive brushless servo technology
- High resolution encoders
- Environmentally hardened
- 250, 375 or 500mm travel
- High dynamic precision performance



Y-Cross Axis - 'U' Axis

- High stability stage
- Linear or rotary encoder
- Manual or servo drive
- Mechanical interface for all beam delivery systems

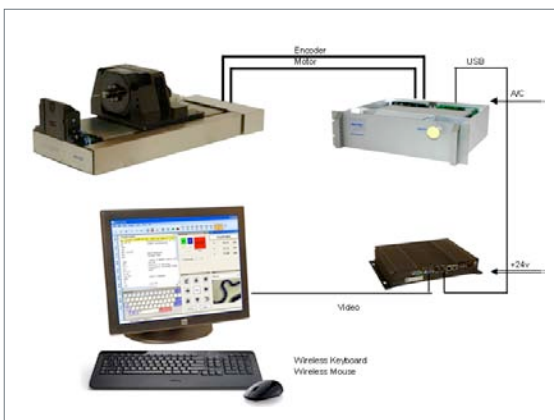
Z-Axis

- High stability stage
- Manual or servo drive
- Linear or rotary encoder
- Installed on bridge or cross axis

Software

- *'nuFace'* GUI as easy to use HMI
- Intuitive icons
- Customizable
- Select and move your favorite feature windows for custom layout
- Hide, show and/or rename inputs and outputs
- Edit programs in-situ with soft keyboard on 19" touchscreen
- Programs in G&M Code – RS274
- Inch or Metric programming
- Rotating Buffer for very large files
- Parts counter for automatic operation
- Coordinated motion for all deployed axes
- Piercing-on-the-Fly
- Position synchronized laser firing
- Total system monitoring
- System diagnostics and fault tracing
- Verify process using any USB DirectDraw Camera

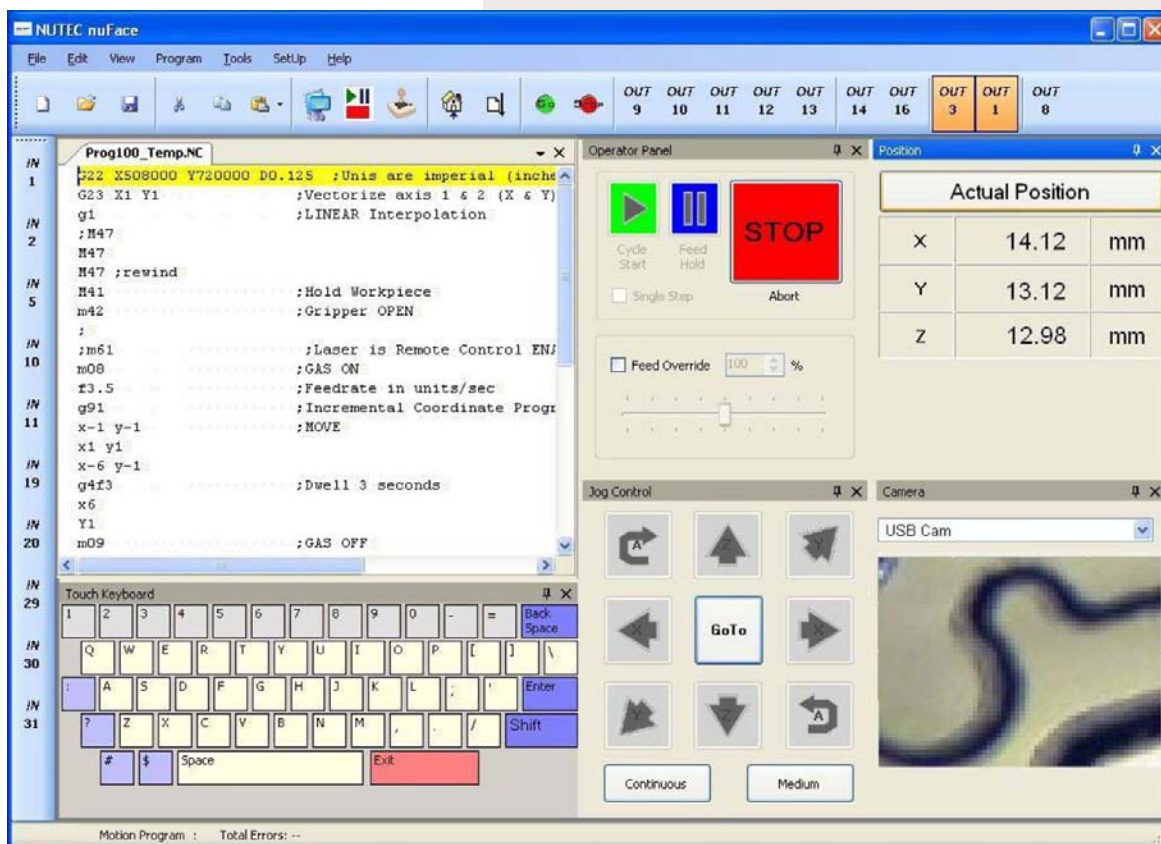
Hardware



- Digital servo control
- PCNC control system with industrial PC
- Opto-isolated I/O
- 19" LCD touchscreen monitor
- Keyboard & mouse
- Video camera system with window on-screen
- Gas pressure sensor
- Water system flow sensor

nuFace™ GUI

- Easy to use intuitive graphic user interface, show-hide soft keyboard, line-by-line tracking of code execution; status indicators, warning icons.
- Nice & clean graphics; written in C#.
- Diagnostic capabilities.
- WEBEX enabled
- Video camera image display on main screen



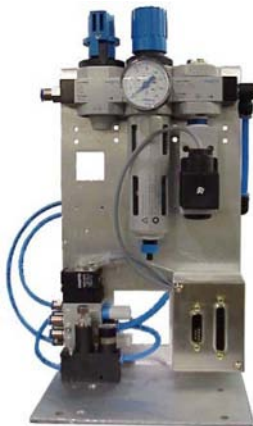
Water System



- Self-contained module, available as an optional accessory, featuring a 90PSI operating pressure.
- drain filter 200micron
- in-line filter 40micron
- Pressurized tank 17l/4.4gal
- electronic control interface
- 90PSI gear pump with 1/2HP motor
- 110VAC main supply

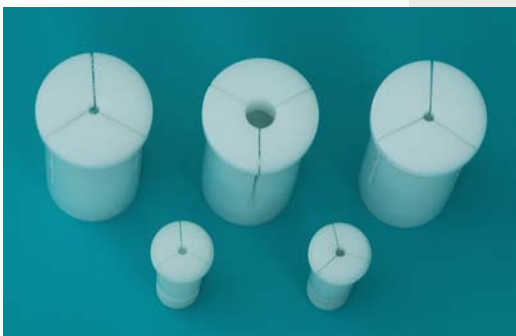
Features include:

- Baffled stainless steel holding tank 12l/3gal
- water level sensor
- water flow sensor
- weight 34Kg / 75lbs
- optional auto-refill array



Pneumatic Control Module

2-circuit, DB interconnect



Delrin Collets

5C and 3C and W15 sizes, with parabolic I.D configuration to avoid edge effect and facilitate reloading



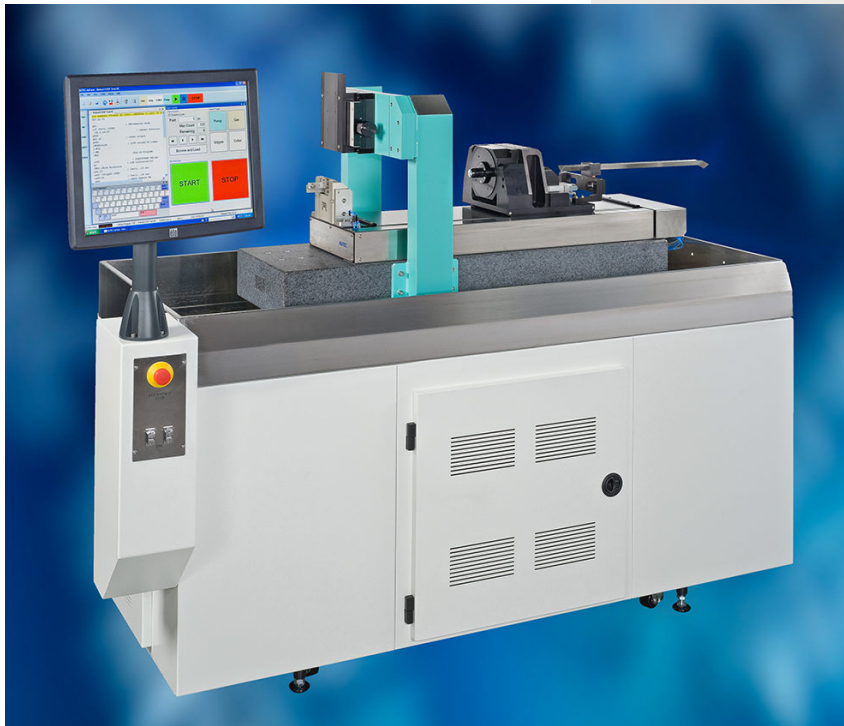
Water Couplers

Available in 6 sizes from 0,3mm –5,0mm



Moving Rear Guide

for supporting tubing stock behind rotary axis to facilitate re-loading process and accuracy and to prevent sagging, bouncing, curling, noise



CMS-500

Cylindrical Micromachining System with 500mm X-cross axis-axis travel; chassis anchored pendant. Ready for fiber laser installation on manual high stability cross axis.

nuFace GUI facilitates machine operation and G-Code programming

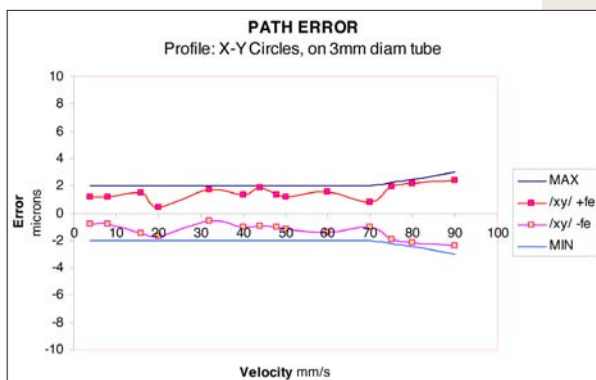
Basic LaserLathe Sub-System Composition



- **LaserLathe** with waterproof electrical connections
- Front Tooling Block
- Collet system (choice of collet type)
- Pneumatic collet release
- Pneumatic control module
- Digital Servo Control
- I/O device
- Power Supply

System Options

- Front Guide System (size range selectable)
- Calibration Kit (for aligning bushing concentric to rotary axis)
- Gripper (for reloading)
 - Water System
 - PCNC with ind. PC and 19" touchscreen monitor
 - I/O expansion
 - Z-Axis
 - Cross Axis
- Laser Interface, electronic & mechanical
- Post Processor
- Granite Base
- Bridge



Software Options

- 'nuFace' GUI
- G- & M Code RS274 Programming Language
- Customized control Buttons & other GUI features
- Laser Control / Interface
- Rotating Buffer (for large files)
- Piercing-on-the-Fly
- Parts Counter

Accessories

- Remote Control (for gripper & collet)
- Moving Rear Guide
- Delrin collets
- Water Couplers
- Cutter Box, stainless steel

CMS Machine Composition



- Steel weldment chassis with structural tubing, hybrid backfilling for vibration damping, polyurethane paint finish
- 6 hinged service doors
- Stainless steel waterproof tray, pitched for positive drain of spill water
- Granite Base for supporting motion platform, vibration dampened isolation from chassis
- Precision machined aluminum alloy weldment bridge with vibration damping backfilling
- Top access for water flow control valve @ constant pressure
- Operator interface pendant as cart desk or chassis anchored console
- Large cutter box for 375mm pieces, anchored on granite
- Fold-open cutter box with interlock for class1 machine, vacuum port, drain port
- Adjustable part support inside cutter box and part catching tray with drain screen
- Four integrated casters & adjustable footings allows rolling into location
- 19" RM frame for laser and control mounting inside the machine chassis

Available Models

CMS-250	250mm travel
CMS-375	375mm travel
CMS-500	500mm travel

Laser Interfaces

The CMS interfaces with most fiber laser currently on the market: SPI, IPG, GSI, ROFIN

femto and Disk lasers are also interfaced with their hard optics by installing them on a granite platform Raydiance, JenaOptik, Prenovatec, Quantronix and others

Beam Delivery Optics

Ready interfaces are available standard for:
Laser Mechanism, Haas, Precitec