



NCS Series

High-Speed Precision Cropping, Shaping, and Dicing

Low Cost of Ownership and High Yield

- **Yield increase:** resulting from minimally destructive low-kerf cutting method
- **Material saving:** based on potential kerf loss savings
- **Versatile equipment for multi-use cutting:** reduces and/or eliminates the need for additional equipment expenditures
- **Low consumable costs:** offer increased savings
- **Increased uptime**
- **Decreased CoO** versus slurry and blade saws
- Capstan design decreases non-cutting wire wear **increasing wire lifetime**

Consistent Quality due to Process Management

- **Tangential cutting available resulting in:** faster cuts, higher precision, superb surface finish, lower TTV and reduced bow and warp
- **Programmable software:** allows automated operation
- **Recipe management:** numerous independent process recipes can be stored
- **Wire management:** ability to run different wire diameter sizes, down to 60 um
- **Reduced secondary process:** reduces grinding, polishing, and other secondary processes

Simple Maintenance and environment friendly

- **Simple to maintain:** due to accessibility and minimal moving parts
- **Quiet operation:** benefits the operator and the environment Ecological use of all substances and media
- **Small footprint:** compact, maintenance-friendly design
- **Compliant** with relevant environment and safety standards (CE)



Features | Options | Data

Features

- Accommodates a variety of Innov Wire Technology electro plated wire sizes
- High wire speed for increased cutting efficiency.
- Spray system: increases cut quality
- Door interlock switch for added safety
- Numerous process recipes programmable through touch screen interface
- Capstan design increases wire lifetime
- High Tension capable

Technical Data at a glance

Specification	NCS100	NCS200
Work Piece Dimensions	102 mm x 102 mm x 200 mm	203 mm x 203 mm x 200 mm
Work Table	Optional	
Saw Dimensions	Width: 1103.93 mm / 43.46" Height: 1523.50 mm / 59.98" Depth: 776.13 mm / 30.56"	
Saw Weight (Max)	KG / LBS: 470 / 1035	
Diamond Wire	Max capacity: Up to 1,800 km (60 µm) Diameters (Core Size): 60 um to 400 um	
Power Requirements (V/f/A/ph)	Standard Tension: 208 – 230/50-60 hz/30/Single High Tension: 208 – 230/50-60 hz/30/3 phase	
Compressed Air (Variable tension only)	Pressure: 55 N/cm ² Volume: 0.14 m ³ / min	
Yoke Speed (mm/min)	min: 0.001 max: 200	
Wire Speed (m/s)	Standard: 0 - 12 Optional: 0 - 20	
Tension (N)	Standard: 10, 20, 30 High Tension: 30 - 120	

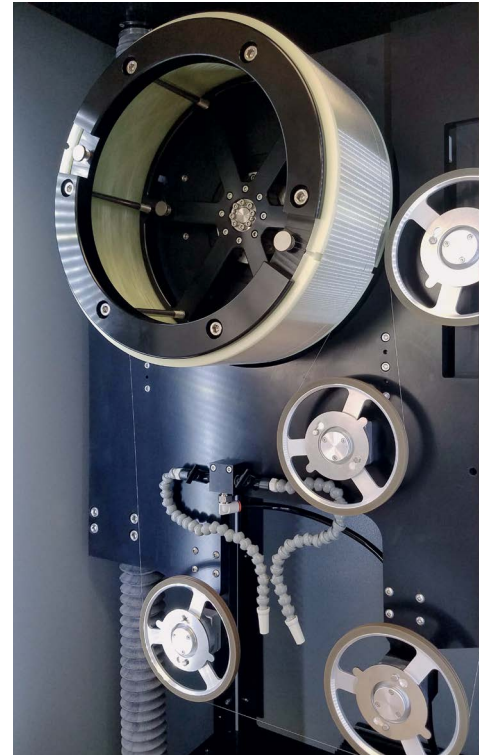
NCS Series Options

- Tangential Cutting Provides 0 – 6 degrees of rock for increased cut performance.
- High Wire Speed provides up to 20 m/s
- High Tension allows for tension settings up to 120 N
- Standard configuration allows for wire down to 60 um core size
- Encoder options to improve yoke and table accuracy
- Tables available to fit the most demanding process requirements.
 - Standard Table
 - Precision Table
 - Indexing Tables
 - Tilt and Rotation Table
- Stainless steel enclosure / fittings
- Custom designed stand to hold the NCS
- Available MES Connection
- Available Ingot Mounting station

Summary of Benefits

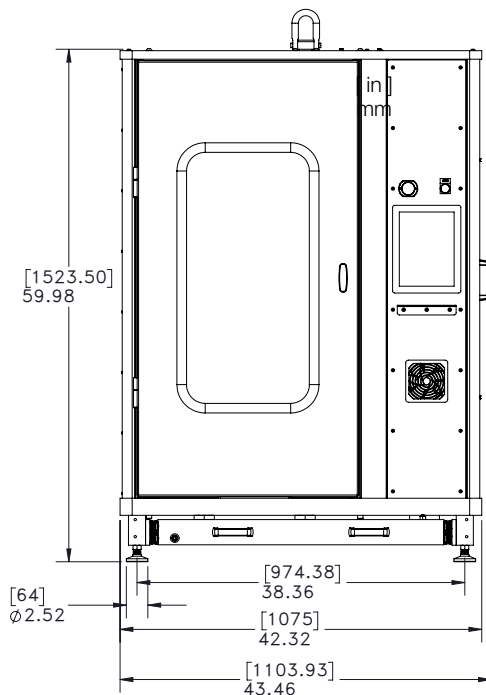
Summary

- Ideal for cutting hard and brittle materials such as: silicon, silicon carbide, quartz, fused silicon glass, ceramics, graphite, germanium, etc.
- Increased working speed over conventional slurry and blade
- Reproducible results deliver high-quality cuts
- Efficient wire usage - increases cutting speed and enables wire changes in minutes
- Wire break detection is a standard feature

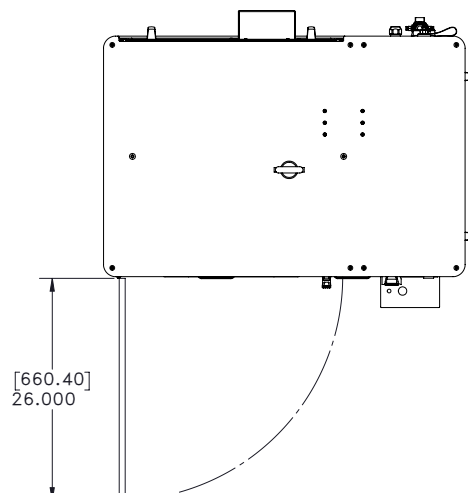


NCS Series Footprint

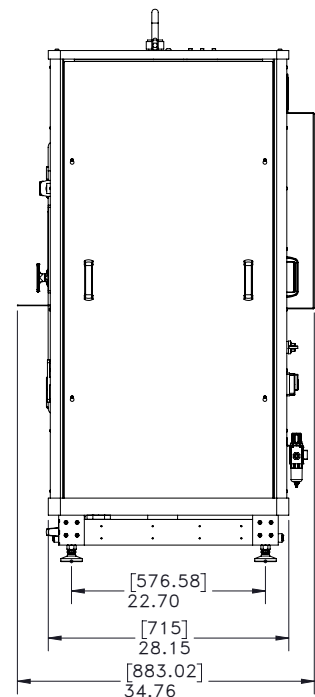
Front View



Top View



Side View



Electro-Plated Diamond Wire

NCS Series

Core	Diamond Size	Concentration	Outer Diameter
60	6-12	High	73
70	6-12	Hight / Ultra	83
80	6-12	High	90
	8-16	Hight / Ultra	95
100	6-12	High	110
	8-16	Hight / Ultra	116
	10-20	High	124
120	10-20	Standart / High	149
	12-25	Standart / High	156
	22-36	Standart / High	169
140	10-20	Standart / High	167
	12-25	Standart / High	174
	22-36	Standart / High	187
160	12-25	Standart / High	192
	22-36	Standart / High	192
	30-40	Standart	221
	40-50	Standart	225
175	22-36	Standart / High	225
	30-40	Standart / High	240
	40-50	Standart / High	256
200	22-36	Standart	241
	40-50	Standart / High	257
300	22-36	Standart / High	338
	30-40	Standart	356
	40-60	Standart / High	378
350	22-36	Standart	388
	30-40	Standart / High / Ultra	396
	40-60	Standart / High	423
400	30-40	Standart / High	441
	60-60	Standart / High	468

Additional Consumable Offerings*

Cutting Fluids

- WaferKool 2010
- WaferKool 3010

Anti-Foam

- SAG 2001

Saw Cleaners

- SawKleen

Beams

- IWT 710 beam
custom sizes available

Questions | Request for Quote

To facilitate your order, please provide the following information

Required information:

- Diamond wire
- Wire outer diameter or kerf
- Type of spool

Useful information, if known:

- Wire core diameter
- Wire speed
- Wire tension at slicing
- Diamond grit size
- Process time



*Detailed consumable product information can be provided upon request

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Designed and manufactured by IWT
Part of the Thermo Technologies Group

