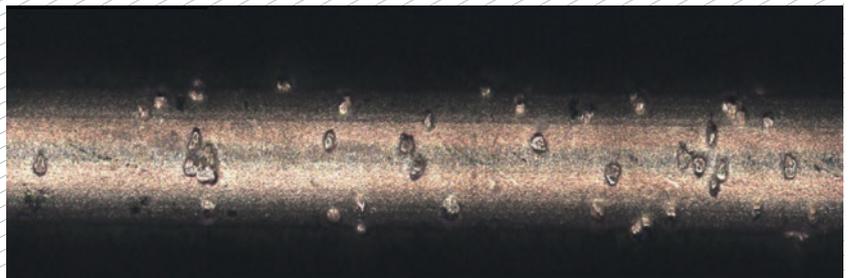




ThermoTronic®

By THERMOCOMPACT

DIAMOND WIRES
NEW GENERATION
**FOR DATA PROCESSING
ELECTRONIC INDUSTRY**



THERMOTRONIC IS DEDICATED TO DATA PROCESSING ELECTRONIC INDUSTRY

PRODUCT PROPERTIES:

› High cutting ability due to its fixed abrasive properties

ThermoTronic[®] reduces :

- the total thickness variation (TTV),
- bow and warp

› High stability and results in the machining process

ThermoTronic[®] resistance reduces significantly wire breakages and loss of diamond grains with a tensile strength >3000 MPa

› High productivity gains by reducing the cutting time

ThermoTronic[®] reduces:

- the cutting time and the operating costs
- the energy consumption of the machines
- the total wire consumption (m/wafer)
- the kerf loss

ECONOMICAL ADVANTAGES

Lower cost of ownership

Easily **adjusts length** to meet your cutting requirements

Ensures high efficiency for **surface and finish quality** requirements

ENVIRONMENTAL FRIENDLY

Increases the waste recycling:
less wire usage

No slurry management

CUSTOM MADE PROCESS according to:

Your brand of machine

The optimal diamond density required

The length

The pitch

The diameter

based on your needs

ENGINEERED BY A DEDICATED TEAM

The R&D team of Thermocompact offers a **COMPLETE TECHNICAL and LONG TERM SUPPORT FOR YOUR COMPETITIVE NEEDS**, including personalized recommendations.

We tailor technologies for your specifications and/or technical requirements.

We develop innovative products and applications like ThermoTronic® **for optimal performance, part design, and greater return on investment.**

WORLD PATENTED PRODUCT:

ThermoTronic® is manufactured by **Thermocompact**. Master of our manufacturing process, we engineer and work on **state-of-the-art** world class production lines, certified in Europe:

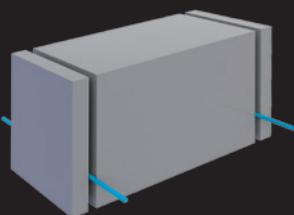


SECURED WORLD PATENTS FOR:

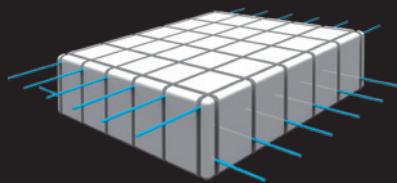
- › Manufacturing and process
- › Fixed abrasive wire
- › Loops technology

SLICING WITH ThermoTronic®

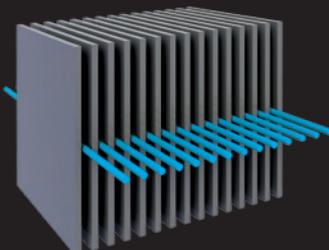
Wafering is the key part of the process and requires the best quality Diamond Wire.



CROPPING



SQUARING



SLICING

WITH THERMOTRONIC® WE OFFER CORE WIRES FROM 80µm TO 500µm DIAMETER

APPLICATION FIELDS		WIRE DIAMETER (mm)	DIAMOND GRAIN SIZE (mm)	WIRE BREAK STRENGTH (N)	DIAMOND DENSITY
WAFERING (mono, monolike and polycrystalline)	ThermoTronic®	0,08	8-16	>19	20-30
		0,10	10-20	>31	
		0,12	12-25	>43	
CROPPING	ThermoTronic®	0,50	40-60	350	30-40
SQUARING/ BRICKETING	ThermoTronic®	0,230	30-40	130	30-40
		0,250		150	
		0,350		230	

EXAMPLE WITH THERMOTRONIC® CORE WIRE 120µm

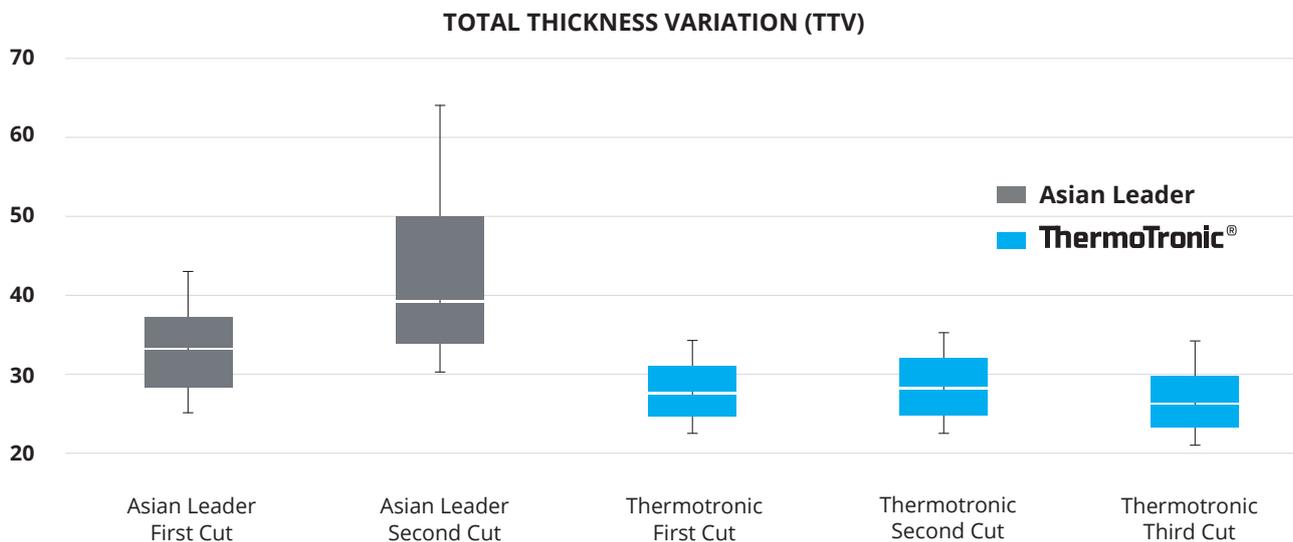
GENERAL CONDITIONS

Wire material	High strength steel
Wire core diameter	120 µm
Abrasive material	Diamonds 12-25 µm

SPECIFIC CONDITIONS

Mono crystalline brick	200 mm diameter
Cutting time	4,5 hours
Wire consumption	5m/wafer

- › Kerf: 155 µm
- › Wafer thickness : 815 µm



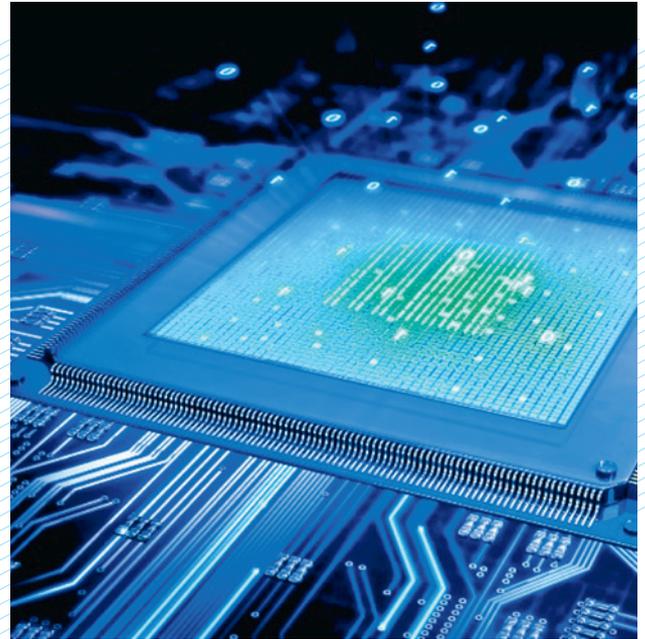
A comparison of efficiency for fresh and used wire (several cuts)

Due to the high performance of its 3 patented technologies, ThermoTronic® guarantees high cutting properties with low and constant TTV.



Newest fixed abrasive
highly technical
engineered wire,
ThermoTronic® is the
result of:

- › A century of technological expertise and innovation in electroplating.
- › The R&D's team dynamic and proven approach of research and progress.



ThermoTronic®

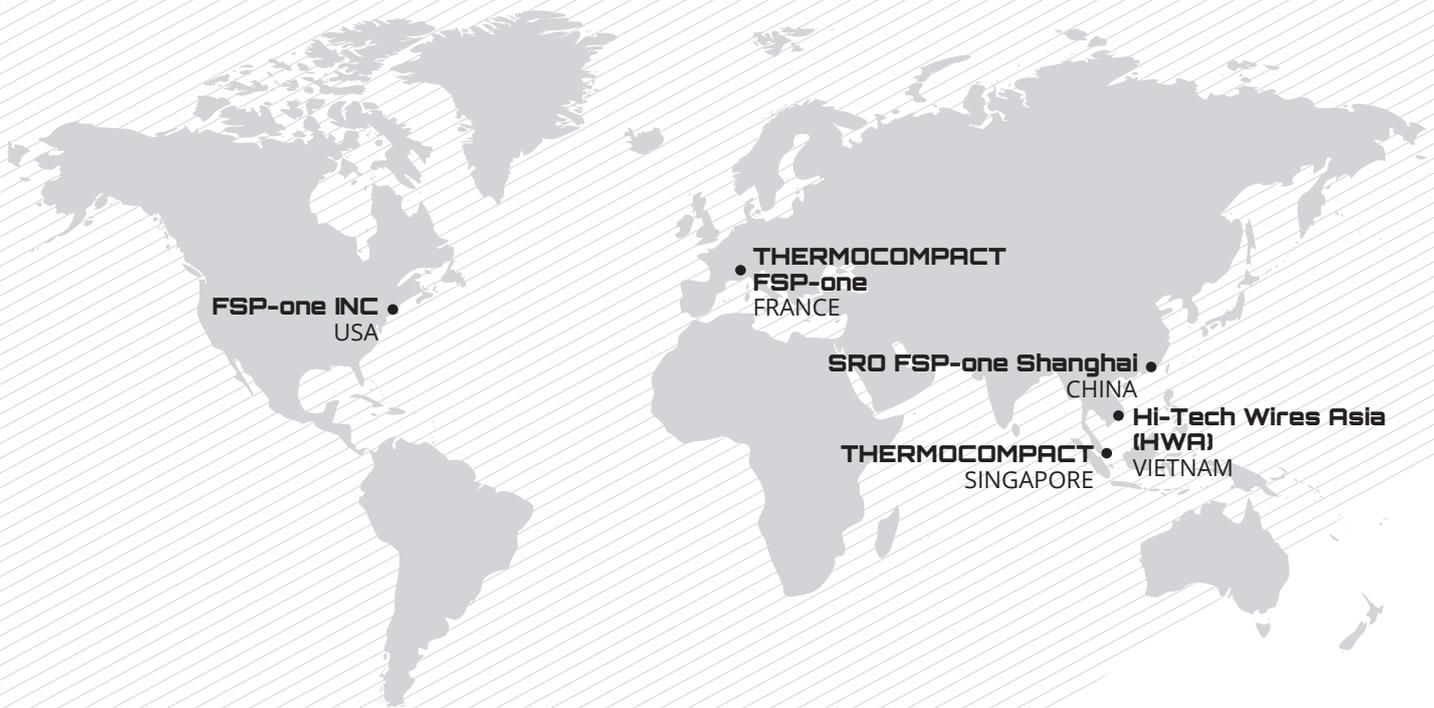
By THERMOCOMPACT

ThermoTronic® is a brand of Thermocompact.

Thermocompact is part of the **THERMO** Technologies group that includes FSP-One (France and USA) and HWA (Vietnam). In order to achieve technological goals and improve productivity for our customers, we apply our founding values **since 1913**:

Expertise – Excellence - Innovation.

WHEREVER YOU ARE IN THE WORLD



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