

RETECONREPORT

An information service to our clients



2023 | 2

Machine Tools | Cutting Tools | Accessories and Measuring Equipment



LASERSYSTEMS

FOR METAL PROCESSING



ISTMA
2023
16TH WORLD CONFERENCE

Hosted by
PTSA Production Technologies Association of South Africa



SPECIAL TOOLING & MACHINING
WORLD CONFERENCE & EXHIBITION

6 - 10 NOVEMBER 2023

CAPE TOWN INTERNATIONAL CONVENTION CENTRE - SOUTH AFRICA

RETECON (PTY) LTD - Stand No: 406

**AFRICA'S
BIGGEST
MACHINE
TOOLS
EXHIBITION**


**MACHINETOOLS
AFRICA 2024**
21-24 MAY
EXPO CENTRE • NASREC
JOHANNESBURG • SOUTH AFRICA

**SHAPING
TOMORROW**
THROUGH TECHNOLOGY & INNOVATION

An event by:

#MTA2024
www.machinetoolsafrica.co.za

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Solar in South Africa, expect an increase in local manufacturing

TRUMPF

Loadshedding, copper cable theft, and transformer failures are common talking points around the weekend braai in South Africa. We have seen a massive spike in Solar installations nationwide for both households and industry alike. The increase in solar installations in South Africa has been driven by several factors, including falling solar PV costs, increasing electricity prices, lack of electricity supply, and the country's commitment to reducing its carbon emissions.

According to the South African Photovoltaic Industry Association (SAPVIA), the country's solar photovoltaic (PV) installations have shown significant growth over the past five years and South Africans have procured ± R2.2 billion in rooftop solar alone in just 5 months ending Dec 2022.



Looking ahead, the future for solar installations in South Africa looks very bright. The South African government has set a target of installing 6,000 MW of solar PV by 2030, which is expected to attract significant investment across the solar industry. The country also has a favorable solar resource, with high levels of solar irradiance, which makes it an attractive location for solar projects. In addition, the South African government has introduced several policies and initiatives to support the growth of the solar industry, such as the Renewable Energy Independent Power Producer Procurement Program (REIPPPP). The REIPPPP is a competitive bidding program that aims to increase the share of renewable energy in South Africa's electricity mix.

Lasers in Low Carbon Energy

Solar Farms in particular have a high requirement for Tubes, Profiles, and Structural Steel needed for the mounting frames/structures of the PV panels.

We should expect a huge increase in demand for this type of manufacturing process locally and manufacturers should be thinking about gearing up for this increased demand for Tubes. By using tubes in Solar PV panel structures, manufacturers can create high-quality, durable, and cost-effective mounting structures that are well-suited for this application.

TRUMPF – TruLaser Tube... your solution for high volume, high-quality processing of Tubes and Profiles!!



TruLaser Tube 3000

Image source: TRUMPF Group

TruLaser Tube 3000 fiber

Max. outside diameter of round tube	mm	152 ^[1]
Max. outer circle diameter of rectangular tube	mm	170
Max. unprocessed material length for automatic loading	mm	6500 8000 ^[3]
Max. finished part length	mm	3000 4750 ^[3] 6500 ^[3]
Max. workpiece weight	kg/m	18.5 (120 148 ^[3] kg total)
Available lasers		TruFiber 2001 TruFiber 3001

World No. 1 - German machine tool manufacturer- TRUMPF, is renowned for its innovative and reliable Fiber TubeLaser technology. For the manufacturing of Solar PV panel mounting structures, Trumf offers several benefits - Speed, Quality, and Efficiency provided by Trumf - TruLaser Tube make it an ideal choice for customers, where precision, accuracy, and efficiency are essential. With local support and service available through Retecon (Pty) Ltd, customers can be confident that their tube production needs will be met with minimal downtime, ensuring manufacturing remains profitable and efficient.

Competition arena in the DMG MORI showroom

WorldSkills raises the profile and recognition of skilled people, and show how important skills are in achieving economic growth.

WorldSkills builds confidence, empowers communities, and helps to fuel economies

- They inspire young people to develop a passion for skills and pursuing excellence, through competitions and promotions.
- They develop skills through global training standards, benchmarking systems, and enhancing industry engagement.
- They influence industry, government, and educators through cooperation and research — building a global platform of skills for all.

For DMG MORI as a global machine tool manufacturer it is important that well-trained experts are available all over the world. As a Global Industry Partner of WorldSkills International, they are now deepening their investment in education. You can participate as an industry customer if you want to actively enhance the skills of your employees and your company's performance.

DMG MORI Academy in Bielefeld trains young CNC talents. The company is now certified as the only federal training centre of WorldSkills Germany in the field of CNC knowledge.

Following national competitions, an international competition takes place every two years for participants aged 22 and under.



As an official replacement for WorldSkills Shanghai 2022, WorldSkills Germany hosted the WorldSkills Competition 2022 Special Edition from October 10 to 15, 2022 for the the skills CNC Turning and CNC Milling. As a long-time supporter of the competition, DMG MORI made its showroom in Leonberg available. Technical support was provided by the DMG MORI Academy in the form of six CLX 350 V4 machines for CNC turning and five DMU 50 3rd Generation machines for CNC milling.

WorldSkills Competition

“DMG MORI has supported WorldSkills vocational competitions for many years because it is important to us to promote young talent worldwide,” explains Jörg Harings, Head of Training DMG MORI Academy. The commitment to the World Cup of Trades is a good example of this. Indeed, the competition enjoys great popularity among young talents. Every two years, the best among them have the opportunity to compete in their discipline and vie for the title. After WorldSkills Shanghai 2022 could not be held due to recurring lockdowns, the event was divided according to occupational groups and moved to local venues – including Leonberg. There were only eleven weeks to organize. “That was a mammoth task,” recalls Jörg Harings, “The result was impressive. We offered a perfect environment at our technology center in Leonberg.”

DMG MORI has already supported the World Skills Championships as a main sponsor six times since 2007 and has been a Global Industry Partner of the umbrella organization WorldSkills International since 2016. This year, the machine tool manufacturer transformed its showroom into an arena. During the WorldSkills Competition 2022 Special Edition, 20 countries competed in CNC turning and 22 countries in CNC milling. The German National Team received a very special honor this year: German Chancellor Olaf Scholz took over the patronage for Team Germany. The audience in Leonberg consisted of industrial customers with apprentice workshops as well as representatives from educational institutions and from politics.

During the competition week, the participants did their utmost to convert their experience from the training week into a good placing.

The topic of sustainability is also taken into account in the WorldSkills vocational competitions. Three criteria are decisive here: power consumption, material consumption and the size and weight of the toolboxes brought along. DMG MORI has developed a solution based on TULIP to evaluate the power consumption of each participant for the results achieved. For the first time, the best three in CNC turning and CNC milling were presented with the DMG MORI Sustainability Award.

“DMG MORI was also able to organize the WorldSkills Competition 2022 Special Edition so quickly and smoothly because numerous partners actively supported the event in Leonberg,” says Jörg Harings. Thanks go to Chiron, CWS, Fuchs, Insight KB, Mastercam, Mitutoyo, Paul Horn, Sandvik, Schunk, Siemens and Zoller.

SA was at the WorldSkills Championships, competing and plugging DMG MORI CNC Turning and CNC Milling.

Shivaya Balakisten (21) from Legit Engineering in Nigel competed in the WorldSkills International competition in the CNC turning category in Leonberg, Germany.

His mentor, Jared Moonsamy, competed in Russia in 2019.

“We are all extremely proud of Shivaya,” Pierre Palm, owner of Legit Engineering and recognised international judge for WorldSkills, said.

“He has worked very hard and we are proud of how far he has come.”

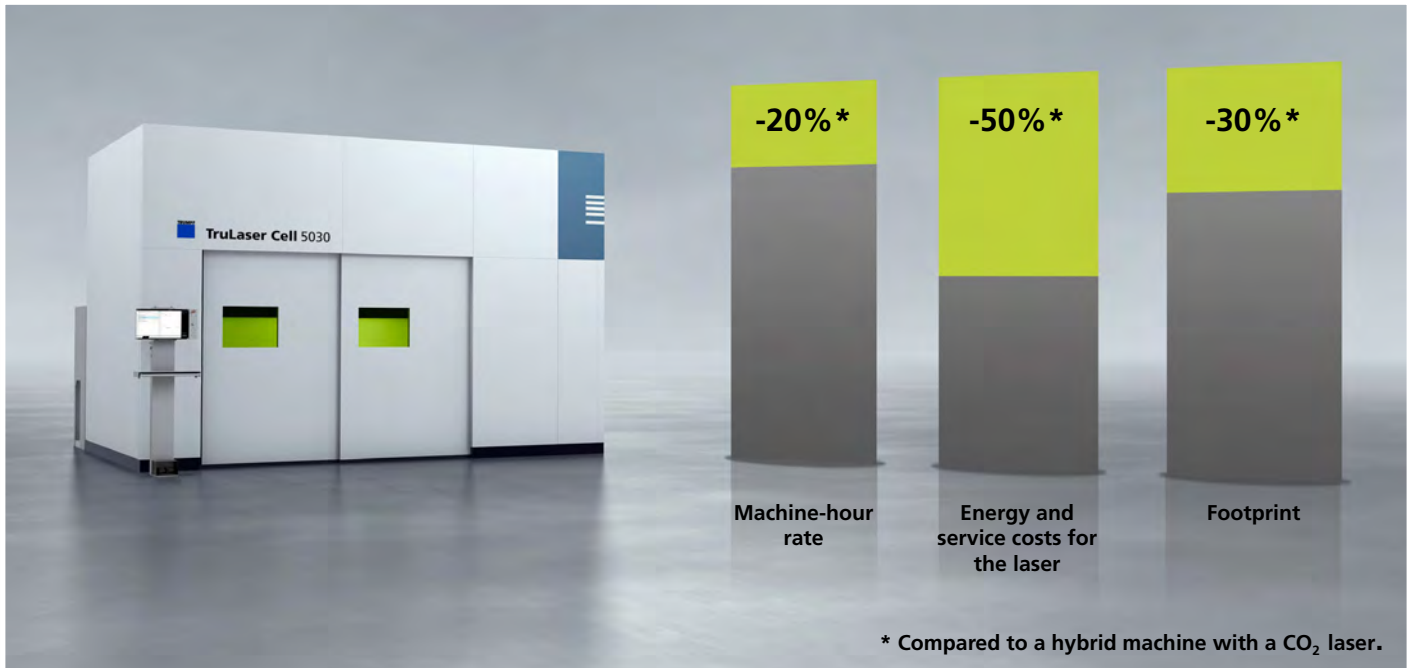


Left: Pierre Palm, owner of Legit Engineering. Right: Shivaya Balakisten

TruLaser Cell 5030

The entry model for 2D as well as 3D laser cutting and welding of large parts

It has never been so affordable and flexible: the TruLaser Cell 5030 impresses with its low machine-hour rate and is ideally suited to small and medium lot sizes where components are frequently changed. It comes with an energy-efficient, low-maintenance TruDisk solid-state laser as well as a wealth of functions from the tried-and-tested TruLaser Cell product groups. As such, the TruLaser Cell 5030 offers maximum flexibility for cutting and welding in equal measure.



Excellent value for money

The TruLaser Cell 5030 doesn't just mean lower investment costs, it is also very economical when in operation.

Dynamic and precise

The flying optics ensure high-quality results and exceptional productivity.

Reliable and quick

Benefit from the magnetic coupling for cutting and welding optics and quick sliding doors at the front.

30% less space required

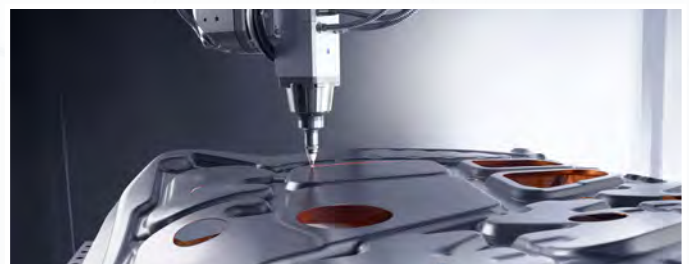
The use of flying optics means the component stays in its spot. As a result, less space is required to set up the machine.

20% lower machine-hour rate

With the energy-efficient, low-maintenance TruDisk laser, you can cut more economically than ever before.

Process flexibility for cutting and welding

The 2-in-1 LLK solution for solid-state lasers enables the use of the same optical cable for both welding and cutting operations.



The same optical setup and working principle used with the high-end 3D chimes make top processing speeds possible.

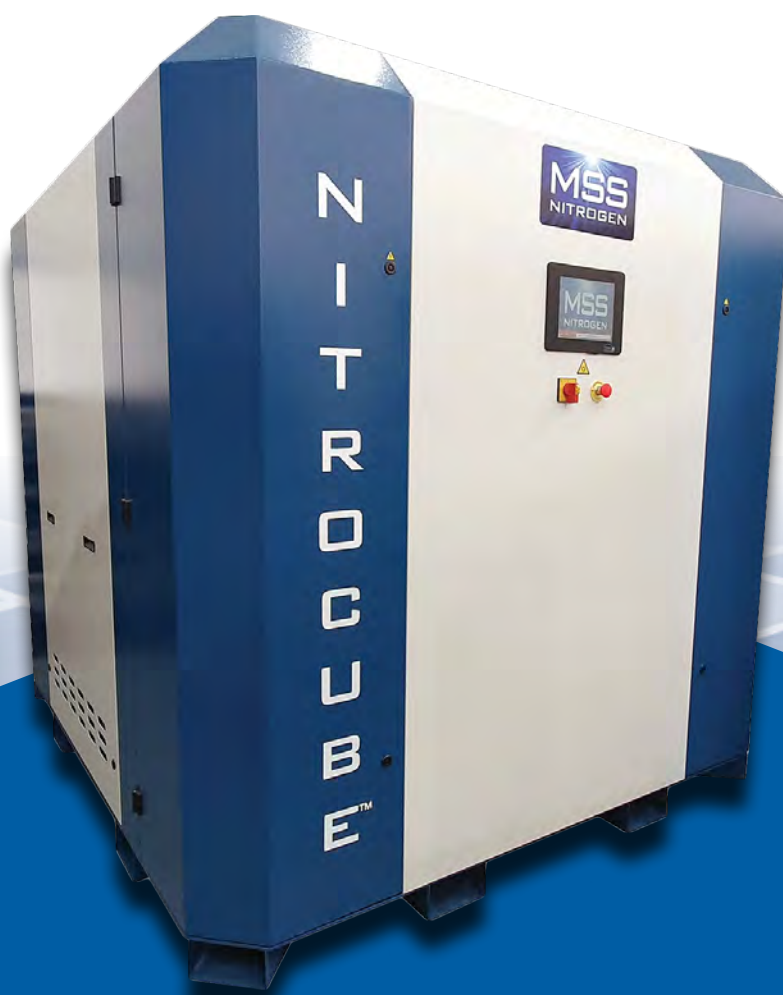




NitroCUBE™

PLUG & PLAY Nitrogen Generation Systems

PLUG & PLAY



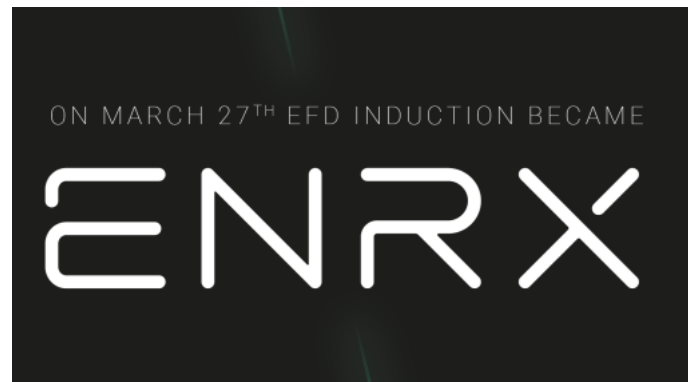
Nitrogen Generation Systems

For further information contact Gábor or Graham on 011 976 8600 or email machines@retecon.co.za

EFD INDUCTION AND IPT TECHNOLOGY ARE NOW ENRX

Industrial induction heating expert EFD Induction and inductive charging and power supply innovator IPT Technology now form ENRX. The new company is represented in more than 80 countries and holds over 1,200 patents for induction technology. By bringing out the best of induction technology, ENRX is determined to speed up the journey to cleaner and greener manufacturing and mobility.

ENRX: A new powerhouse in advanced induction technology



The manufacturing industry is shifting toward eco-friendly and more efficient industrial heating systems. As induction heating is accurate, controllable, fast, and repeatable, the technology is perfectly suited for smart factories driven by an Industry 4.0 approach. Industrial induction heating also promotes safe and healthy workplaces, and the technology has been proven for decades.

“We are a new company with more than 70 years of experience in induction heating,” says Bjørn Eldar Petersen, CEO of ENRX. “Last year was record-breaking for EFD Induction. We passed our forecasted order intake for the full year in October. We now have a new brand, ENRX, and many products in the pipeline. The future looks bright for us.”

Mobility is the other focus area for ENRX, and IPT Technology has been a pioneer in this field. The world of mobility is going wireless, and ENRX pushes the evolution further by removing the need for cables. Inductive charging of buses, cars, ferries, and trucks is convenient for users and requires virtually no maintenance. The same technology can be used in factories and warehouses to charge mobile equipment, robots, and vehicles. Another offer from ENRX is a contactless power supply, where power is transferred instantly to tracks used for everything from conveyor belts to amusement rides.

Speeding up the journey

ENRX aims to speed up the journey to a sustainable world through smart energy transfer. By offering technology for inductive heating, charging, and power supply with low or no carbon footprint, ENRX provides value to companies worldwide in manufacturing and mobility. The vision for the company is: “When people look back, they will find that we were years ahead.”

Minac:

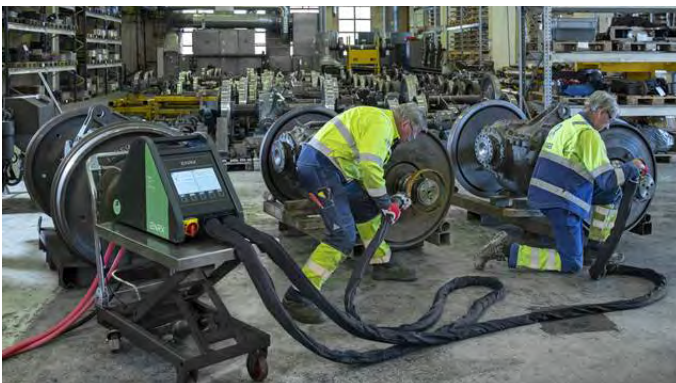
Mobile induction heating equipment

Minac is an all-in-one-solution for the heating of practically any electrically conductive material.



Minac is our family of mobile and versatile induction equipment. Examples of ideal jobs are brazing, curing, hardening, shrink-fitting and straightening. Minac equipment can be fitted with a single or twin output, various coils and coil fixtures, flexible cables, closed or separate cooling systems, and specially designed heating cables. We equip the Minac to fit your need.

- ✓ ENRX MINAC – offering mobile and static heating solutions
- ✓ Available in single and twin operation
- ✓ Ideal for shrink fitting, brazing, heat treatment, pre and post heating and straightening
- ✓ Flexible and easy to use
- ✓ Energy efficient





MV5 M80
Marking area: 80 x 45 mm

HAND-HELD MARKING SYSTEMS MV5 M80

✓ MOBILE

- High functionality through combination with various control systems
- Space-saving and very handy hand-held marking system
- Compact construction and ergonomic design
- High functionality through modular MARKATOR design system

✓ FAST

- High rigidity due to high-quality linear guides (double guided)
- Fast oscillating marking pin for precise line markings
- High repeatability
- Shortest marking times due to latest control technologies



Battery Operated Hand-Held Marking System FlyMarker® mini 85/45 plus 4,3"

100 % mobile marking

- Ergonomic device design for energy-saving, non-tiring work.
- Heavy and immovable components are marked on site.
- Self-sufficient work without power and compressed air cables.
- Reduction of occupational accidents.



Benefits at a glance

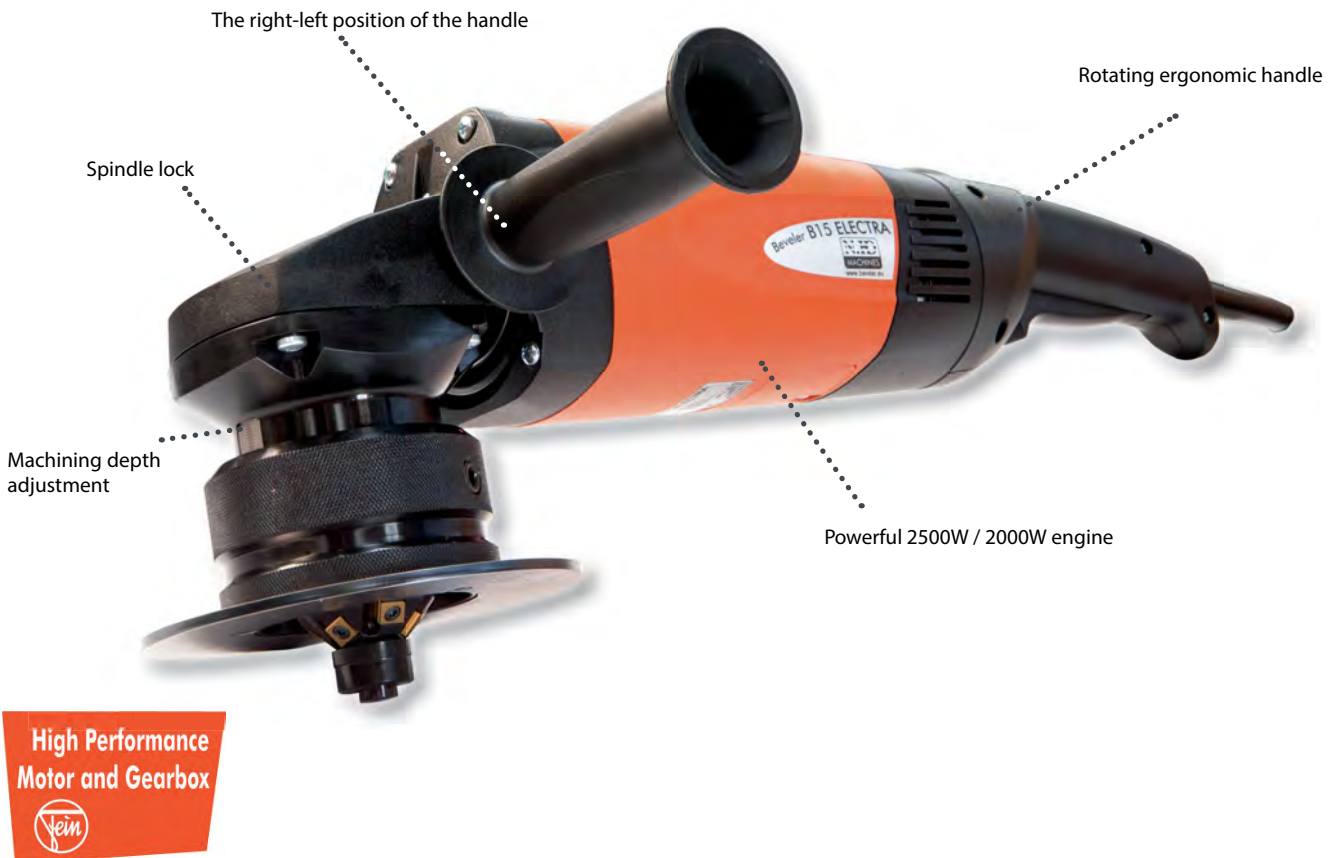
- Integrated controller (All-In-One)
- Attractive price-performance ratio
- Extra strong magnet for deep markings (optional)
- Integrated user friendly keyboard mat
- Switchable LED lighting of the marking field
- Pollution-protected electronics and interfaces
- Drag chain guided electric cables
- Laser pointer for simulating the marking process
- One or two-handed operation

Bevelling system B 15 ELECTRA

Maximum bevel width 15 mm / 0.6 in. Edge rounding function.



B 15 Electra



Designed for bevelling and deburring of parts, internal and external radiuses and holes. Specially designed for producing visual bevel and welding preparation. Powerful electric drive for extreme loads.

- Scale for accurate bevel size adjustment.
- For bevelling and deburring of steel, aluminium and other materials.
- Replaceable head for changing bevel angle.
- Handheld powerful equipment.
- Swivelling ergonomic handle.
- Edge rounding function, preparation before surface treatment.

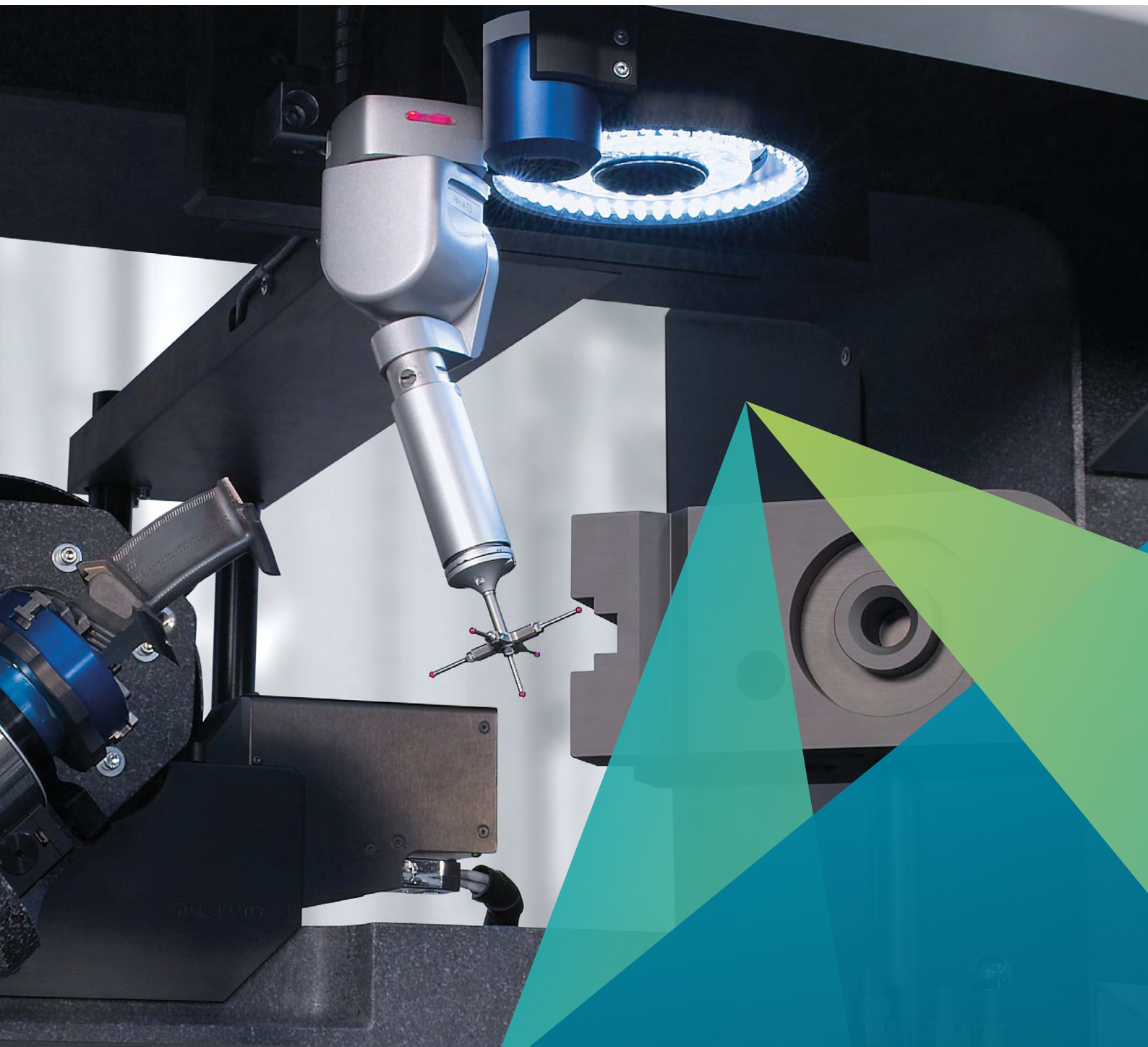
Technical data:

Bevel angle:	Replaceable head 30°, 37,5°, 45°, 50°, 60°- other angles on demand
Bevel width:	0 to 15 mm / 0 to 0.6 in < 400 MPa / 58 015 PSI 0 to 8 mm / 0 to 0.3 in > 400 MPa / 58 015 PSI
Engine:	2500 W / 2000W
Speed:	6600 rpm
Weight:	9.5 kg / 20.9 lb

OPTIV multisensor CMMs

Flexible multisensor CMMs that adapt to specific productivity needs

A coordinate measuring machine (CMM) that can assure the quality demands of complex, free form or delicate parts, while maximising throughput gives manufacturers a key competitive advantage. Especially if the CMM is designed for flexibility and is easy to configure around a manufacturer's individual productivity drivers.



ALM

THE NO. 1 MOBILE LASER

Extremely short set-up times allow a vast range of machine components, pressing tools and large molds to be repaired and modified with the ALM at any imaginable location.

The ALM's versatility is impressive. The workpiece can be transported to the laser, or the laser to the workpiece. This ensures mobility within the company or at the customer's.

The ALM is air cooled and requires no additional cooling system. Just move the laser to the workpiece, secure the laser area, aim the slim laser arm at the weld, and start welding.

The hydraulic brakes fix the laser beam exactly at the desired work position. Welding can be done manually using a joystick, semi-automatically, or using an external operating unit.

Additional flexibility is possible with the unique turn and tilt objective, which allows the laser beam to be moved continuously up to 40° from vertical to any direction.



Application example



Robomac TF

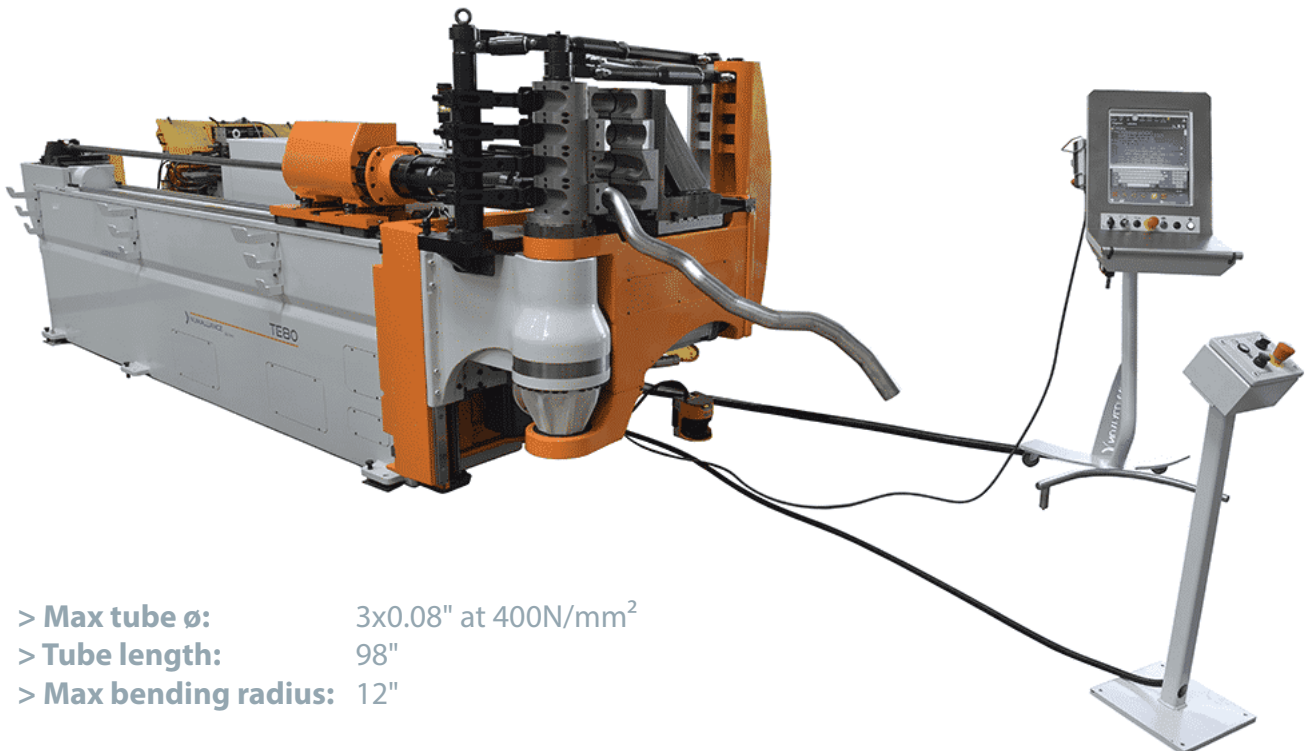


Feed & Form
Robomac 106TF



Wire capacity up to 600 N/mm^2
> From 2 to 6,35 mm

Large Tube Bender - TE80



- > Max tube \varnothing : 3x0.08" at 400 N/mm^2
- > Tube length: 98"
- > Max bending radius: 12"

TRUMPF shears:

Easier
in
turns.



TRUMPF offers sheet metalworkers, plumbers, electrical installers, sanitary installers, heating and air conditioning installers, and container and elevator builders the perfect shear for any application. You can be perfectly equipped for any ferrous or non-ferrous metal in different sheet thicknesses and for different applications.

Thanks to the field-tested cutting geometry of our machines you can cut with minimal damage to the surface of the material and with no thermal effects, whether you choose our electric or cordless version.

Cutting Shears (power tools)

Technical Data TruTool S 114

		230 V	110 V
Max. sheet thickness			
Steel 400 N/mm ²	mm	1.6	1.6
Steel 600 N/mm ²	mm	1	1
Aluminium 250 N/mm ²	mm	2.0	2.0
Spiral ducts steel 400 N/mm ²	mm	4 x 0.75	4 x 0.75
Spiral ducts steel 600 N/mm ²	mm	4 x 0.5	4 x 0.5
Working speed	m / min	4 – 6	4 – 6
Smallest radius	mm	60	60
Min. tube diameter	mm	50	50
Throat depths	mm	30	30
Rated input power	W	350	350
Strokes at nominal load	1 / min	3500	3100
Weight without cable	kg	1.9	1.9



Trumpf TruTool S 450 Cutting Shear

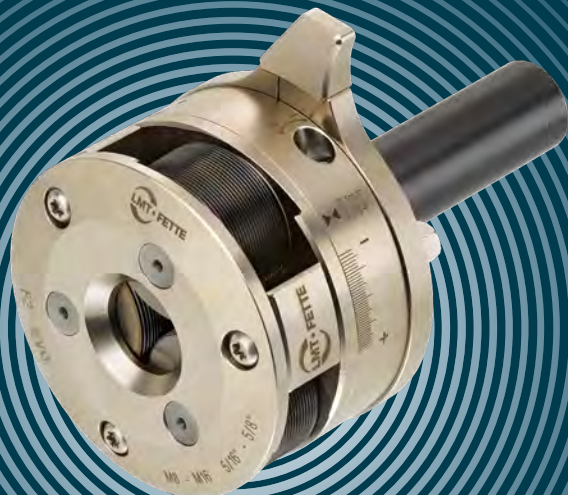


Universal Milling Machines

For further information contact Mike on 011 976 8600 | 083 441 3391 or email machines@retecon.co.za



LMT Tools Advances Thread Rolling Development



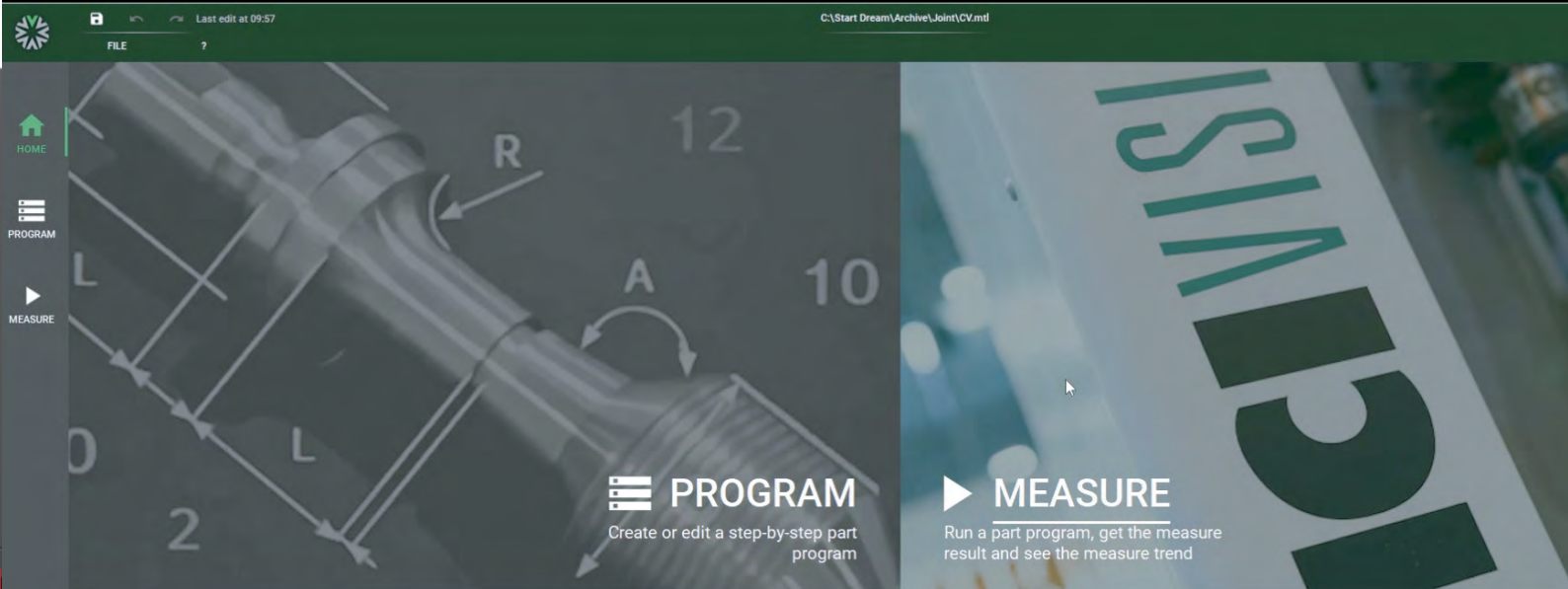
LMT Fette has demonstrated how to combine quality and speed within this field with its new generation EVOLine thread rolling head.

It creates threads whose fatigue strength is three times greater than that produced using cutting techniques.


Simple handling – optimized processes

LMT Tools brings together the expertise of leading specialists in precision tool technology.

DISCOVER THE NEW PROGRAMMING FEATURES AND IMPROVEMENTS



 **REPORTS**
Create and edit report templates

 **SETTINGS**
Manage users, data, machine and system settings

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Calibrate the machine

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Take full manual control of machine axes

 **MACHINE ANALYTICS**
Get statistical insights into your machine usage and results

Now the Dream has officially come true.

Techno, X-Series, Touch Probe and Confocal. Everything is set. But are you sure you are using it to its full potential? Check out what's new:

Improved programming

Vivian

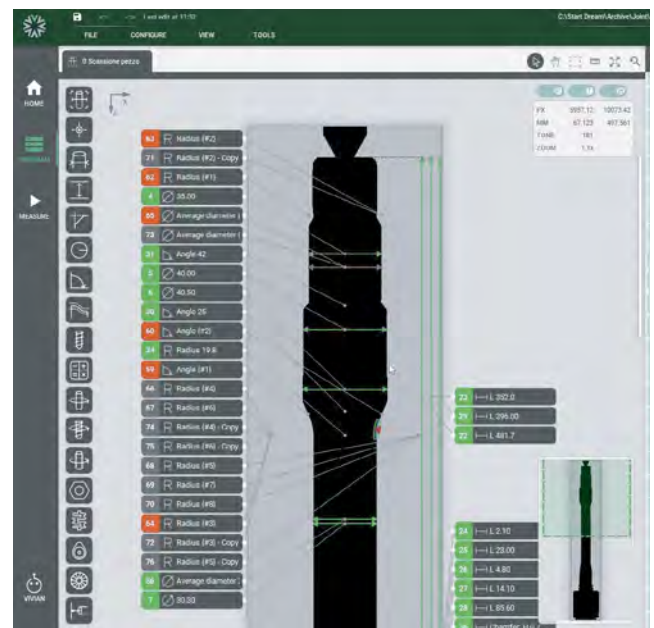
Support for the production/operator

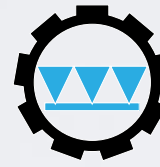
Customizable measurement report

Touch probe management added

IQ/OQ audit trail

Machine analytics





SPECIAL SERVICES OFFERED

Retecon Service has provided skilled, motivated and dedicated machine tool technicians for the South African manufacturing and engineering industries since 1978.

The newest edition to what Retecon Service has to offer is their Preventative Maintenance Service contracts for various machine tools, providing customers with planned, regular maintenance services with the added benefit of discounted labour rates for the service period.

Keep your machines in optimum condition by taking advantage of our Preventative Maintenance Service contracts.

Our Maintenance Service packages are available on a 1 or 2 year contract.

The following are a few benefits of having a Preventative Maintenance Service contract:

- Discounted rates apply.
- Financial flexibility through monthly payments.
- Optimum support for achieving maximum machine availability.
- Maximum machine uptime by adjusting all mechanical, pneumatic, and hydraulic functions.
- Early detection of faults due to wear and tear, therefore reduced downtime and expenditure.
- The value of the machine is preserved.
- Operating costs are minimized.
- Service can be scheduled so as to have the least impact on production operations.

To avoid unnecessary expenses, contact us to schedule a service appointment!



Multifaceted performer for molds and parts

+GF+

GF Machining Solutions



FORM E 350 FORM E 600

Easily switch between die sinking and hole drilling while maintaining performance, accuracy and quality.

Increase autonomy of the machining process while reducing human interventions.

Expert solutions for your success

CUT E 350 CUT E 600

The CUT E 350/CUT E 600 range puts efficiency at the touch of your finger with a smart, easy-to-use human-machine interface (HMI) and onboard technologies that streamline your job setup, improve your cutting speed, improve your surface finish, protect your valuable workpieces, and ensure your process robustness.



CUSTOMER ORIENTED REvolution

C.O.R.E. IS NOT ONLY AN EYE-CATCHER



C.O.R.E.®



Join us on our Customer Oriented REvolution. Find out more about C.O.R.E. and the role it plays in the digital future of your production.

➔ studer.com/digitalization



SINCE
1930

WORLD LEADER IN CNC MACHINE MANUFACTURING

FICEP is **the largest producer in the world** today of automated systems for the fabrication of

STRUCTURAL STEEL

EXCALIBUR

Productive drilling of structural steel shapes in half the floor space of conventional drilling lines

- Automated drilling, scribing, milling, tapping, countersinking and more
- Sub-axis spindle positioning for enhanced productivity and capability
- Automatic tool changer to facilitate different applications



VANGUARD

Multiple spindle drilling line that can also be integrated with sawing or robotic thermal cutting

- High performance "Direct Drive" drill spindles maximize productivity
- Scribing to eliminate manual layout on up to 4 surfaces
- Automatic tool changers for each spindle to address diverse processes



GEMINI

Gantry Style Plate Processor Combines Drilling, Milling and Scribing with Plasma/Oxy-Fuel Cutting

- One or two totally independent spindles with sub-axis positioning can double productivity in the same footprint
- Multiple plasma and oxy-fuel torches can be provided
- Automatic tool changers with up to 48 tools available



RETECONREPORT

An information service to our clients



2023 | 2

Machine Tools | Cutting Tools | Accessories and Measuring Equipment

bedra

intelligent wires

BRASS WIRE

BRASS WIRE 0.25mm - SOFT | ECONOMICAL

- Berco Cut 372-392 Nmm 4kg soft
- Berco Cut Special 500 Nmm 16kg soft
- Berco Cut Pro 500 Nmm 5kg soft
- Berco Cut Pro 500 Nmm 8kg soft

BRASS WIRE 0.25mm - HARD 900/Nmm²

- Berco cut Special 900 Nmm 5kg hard
- Berco Cut Special 900 Nmm 16kg hard
- Berco Cut Pro 900 Nmm 5kg hard
- Berco Cut Pro 900 Nmm 8kg hard

COATED WIRE

GAPSTAR WIRE - THE NEW EDM HIGH PERFORMANCE WIRE

- Gapstar.9 - COATED WIRE 900 N/mm 0.25mm 5kg
- Gapstar.9 - COATED WIRE 900 N/mm 0.25mm 8kg

- New Bedra Technology (TRIMPAC)
- Suitable for all EDM wire cutting machines.

TOPAS WIRE - HARD | HIGH TENSILE | FAST | ACCURATE

- Topas Plus H - ZINC COATED 800 Nmm 5kg hard
- Topas Plus H - ZINC COATED 800 Nmm 8kg hard
- Topas Plus H - ZINC COATED 800 Nmm 16kg hard
- Topas Plus H - ZINC COATED 800 Nmm 25kg hard

COATED WIRE (CuZn) - HIGH PERFORMANCE

- Bronco Cut 520 N/mm² 4kg soft
- Bronco Cut 520 N/mm² 8kg soft
- Bronco Cut 520 N/mm² 16kg soft
- Bronco Cut 520 N/mm² 25kg soft

**GREAT VALUE FOR
Money!!**

EDM WIRE

CONTACT DETAILS ▼

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Telefax: 041 453 6678

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Pinetown

Tel: 031 701 8149

Telefax: 031 701 0313

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Montague Gardens

Tel: 021 555 2270/1

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