



CAPABILITY STATEMENT

Marais Laying Technologies

« We build tomorrow's networks »





Marais Laying Technologies is a leading organisation in networks construction. We deliver innovative solutions to build tomorrow's infrastructure with minimal impact to people and environment. Marais Laying Technologies expertise and experience on every network gives the opportunity to adapt its fleet to your needs. We offer our clients complete turnkey point to point network installation solutions across all sectors requiring underground service deployments.

For any big job, Marais Laying can propose specific solutions to support you even more in your performance improvement.



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ABOUT US

*« More than 1,000,000m of cables
laid in Australia and New-Zealand »*

Marais's Group was founded in 1962 in France and has worked consistently to develop installation technologies to speed up and simplify the installation of various kinds of networks. Marais is a designing and manufacturing company of innovative mechanical solutions for mechanical laying process improvement. The company has refined a variety of systems to install all different kinds of network in different environments: narrow village streets, railway rights of way, motorways, rural and urban roads. Its unique solutions are protected by 27 patents. As part of Tesmec Groupe since 2016, Marais has access to all Tesmec equipment, this combination brings the group to the largest high-tech trenching machine fleet around the world.

Groupe Marais has been trading in Australia since 2009, when it has incorporated the Marais Lucas joint venture. Since then, the Marais Lucas JV has successfully completed several significant cable laying projects in Australia and New Zealand. At the end of 2013, both partners of the Marais Lucas JV decided to terminate their partnership and the company was dissolved on 28 February 2014. Groupe Marais decided to pursue its successful development in Australasia and incorporated a new company now called Marais Laying Technologies, this company is 100% owned by the Groupe. Since the beginning, more than 1,000,000m of cables have been laid all around Australia and 200,000m of cables have already been installed in New Zealand.

The incorporated Marais Laying Technologies company has access to the latest technologies for the construction of cable networks and other associated cabling, ducting infrastructure. Marais's Australian and New Zealand subsidiaries are involved in many different projects, working with customers from Oil and Gas (Gathering), Wind Farms, Solar Farms, Fibre Optic, Power and Water Infrastructures.

In the last decade, Groupe Marais has constructed more than 40,000km of telecommunication and power infrastructure in over 12 countries.

- **Power (MV-HV cables, Wind farm, Solar farm)**
- **Oil & Gas (HDPE pipelines and conduits)**
- **Telecommunications (Backbone, FO, FTTH, FTTX)**
- **Large scale renewable energy projects**
- **Road, Rail and Port**
- **Airport infrastructure services**
- **Mining**
- **Utilities**
- **Water and Waste Water Infrastructure**
- **Defence**



OUR VALUES

*« Marais, a worldwide
acknowledged quality supplier »*

By making your projects a success; we take part in the development of companies, communities and countries' infrastructures and networks:

TEAM SPIRIT

Marais Laying Technologies understands that a capable and motivated team is our key asset. We are committed to supporting openness, tolerance and integrity and we take pride in the diversity of our dedicated workforce. To develop a sustainable relationship with our employees, we promote the efficient utilisation of skills and resources. The strategy is to integrate employee expectations and vision with those of the company, promote team work and encourage tolerance.

HEALTH AND SAFETY APPROACH

For every project, every meeting, safety is always the first thing we do. Marais Laying Technologies is committed to maintaining the safety of our people and the safety mindfulness of our entire organisation. Marais's management systems, leadership and processes deliver projects with genuine dedication to safety and health. Our people take personal responsibility for minimising risk in the workplace.

- Supply and use of materials and components that comply with current standards and regulation
- Continuously improving the environmental and OH&S systems on work sites.

ENVIRONMENTAL MANAGEMENT:

- This innovative technology in micro-trenching also incorporates environmentally friendly principles:
- Reduction of excavated materials from the trenches
- Reduction of pollution levels to the minimum
- Reduction of dust and rubble residue
- Reduction in energy use: the mechanical power used to excavate trenches is located on the vehicle. Its value represents less than 50% of the power required for traditional methods.

INNOVATION

Continuous improvement of technology and equipment environmental performance is at the heart of our corporate culture. We continuously observe changes in our environment, anticipate future needs and develop and invent new techniques and processes to build tomorrow's infrastructure. We strive to improve our activities, placing the utmost emphasis on the quality and reliability of our products and services.

CUSTOMER

Customer success is our motivation. We make every effort to meet the expectations of our customers and we strive to offer the best services to deliver successful projects.

PROFESSIONALISM

Professionalism is our state of mind. It is known and recognised by our clients who have had confidence in our services for more than 56 years.

CLIENT NEEDS

« *Deploying innovative technical solutions* »

RESPONDING TO OUR CLIENT NEEDS:

Marais Laying Technologies approach to projects is to analyse our client requirements and develop a comprehensive network installation solution that will minimize disturbance on site and increase the speed of installation.

SCOPE OF WORK:

- Consultancy services
- Project management
- Material sourcing and services
- Communication networks installation
- Rural and remote power networks
- Connection of power station to the grid
- Underground street lighting
- Power distribution network construction
- Fibre To The Home (FTTH) infrastructure deployment
- Irrigation network installation
- Under pressure sewage network installation
- Gas distribution network construction
- Power and fibre optic network testing
- Water reticulation
- Road reinstatement



At all times, Marais Laying Technologies focuses on reducing the cost of infrastructure deployment while delivering a high standard network solution in a safe and reliable manner.



TRENCHING

Renewable Energy Wind & Solar Farm



Project	Type	Client	Power installed	Trench length	Cables laid	Completion Date
Bodangora NSW	Wind Farm	INFIGEN / CPP	113 MW	43,500m	94,337m	2018
Badgingarra WA	Wind Farm	APA / CPP	130 MW	46,700m	89,103m	2018
Willogoleche SA	Wind Farm	ENGIE / CPP	119 MW	37,000m	87,000m	2018
Silverton NSW	Wind Farm	AGL/ CPP/CATCON	200 MW	30,000m	73,000m	2018
Crookwell 2 NSW	Wind Farm	CATCON/CPP	91 MW	40,000m	92,000m	2018
Mt Emerald QLD	Wind Farm	RATCH/ CATCON/CPP	180 MW	6,200m	12,000m	2018
Hamilton-Whitsundays QLD	Solar Farm	BOUYGUES/ NILSEN	126 MW	22,000m	67,000m	2017
Clare Solar QLD	Solar Farm	DOWNER	150 MW	12,000m	25,000m	2017
Emu Downs WA	Solar Farm	UGL Limited	20 MW	12,000m	12,000m	2017
Hornsedale Stage 3 SA	Wind Farm	NEOEN/ SIEMENS/CPP	115 MW	50,000m	120,000m	2017
Hornsedale Stage 2 SA	Wind Farm	NEOEN/ SIEMENS/CPP	100 MW	50,000m	110,000m	2016
Hornsedale Stage 1 SA	Wind Farm	NEOEN/ SIEMENS/CPP	100 MW	53,000m	134,000m	2016
Meikle BC Canada (done by MLT)	Wind Farm	Borea / Lean Field	179 MW	43,000m	43,000m	2015
Bald Hills VIC	Wind Farm	SENVION / CPP	165.5 MW	46,000m	46,000m	2014
Gullen Range NSW	Wind Farm	GOLDWIND / CPP	165.5 MW	85,000m	85,000m	2013

TRENCHING

HDPE - Pipeline



Project	Client	Cable installed	Trench length	Completion Dates
HDPE Flowline	SANTOS / LUCAS	HDPE	17,000m	2015
Dingo Pipeline Alice Springs	CENTRAL PETROLEUM	HDPE	43,000m	2014

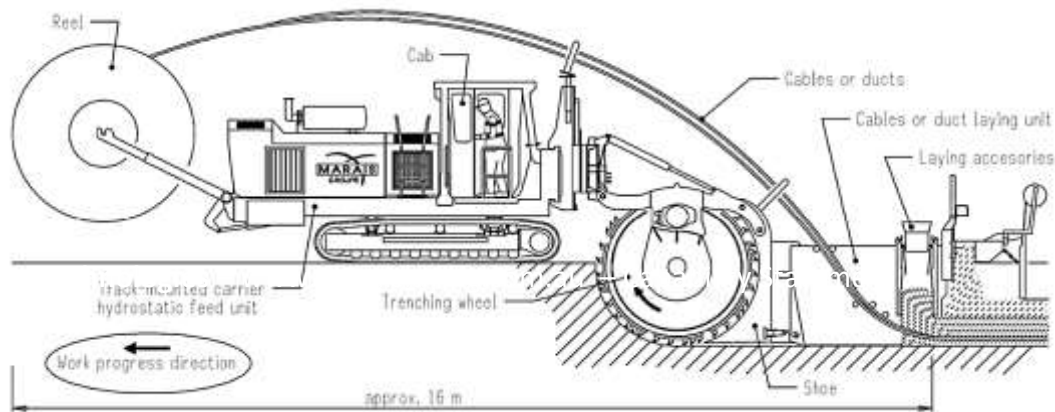


TRENCHING

« Mechanical Trenching & Laying Machine »



MECHANICAL TRENCHING & LAYING MACHINE – ST2 / SMC 200

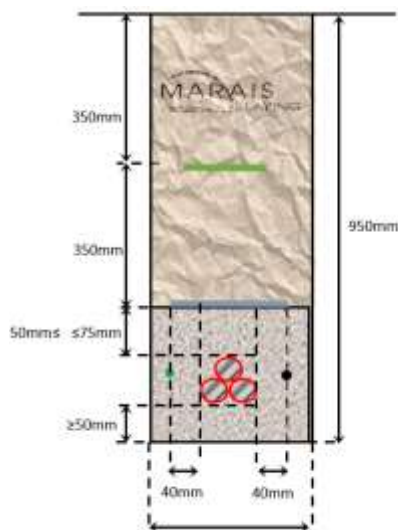









Ideal for the deployment of networks (telecommunication, electricity, drainage, water, gas, sewerage....) in rural and urban areas.

- One pass cable installation solution
- Up to 15 times faster than conventional processes
- Cable installation integrity
- No open trench & nobody into the trench
- Lower and steady construction costs
- Constant and reduced width of the trench
- Reduced use of materials
- Trenching in different grounds
- Small footprint
- Up to 1550mm of depth trench



Typical trench cross section :



-  : Clean Backfill free of Sharp materials and objects > 25mm
-  : Sand Bedding, TR ≤ 1.2K.m/W fully dry
-  : Power Cable, 1 x tri core or 3 x single core in trefoil position
Maximum 3 x 20t drum unwinding and trefoil binding
-  : Earth Cable
-  : Fiber Optic Cable
-  : Cable Protection Cover (AS 4702-2000)
-  : Warning Tape / Non-detectable marker tape

TRENCHING

« *Marais Laying is a part of TESMEC GROUP* »



TRENCHING IN EVERY GROUND CONDITION:

TESMEC designs, manufactures and sells products, technologies and integrated solutions for the construction, maintenance and efficiency of infrastructures related to the transport and distribution of energy, data and material.

TESMEC core business is divided into 4 main activities:

- Stringing equipment
- Energy automation
- Trencher
- Railway maintenance

As part of TESMEC GROUP, Marais has access to all TESMEC equipment.

- Compact Rocksaw trencher machine specially design for fibre optic projects in urban areas
- Rocksaw for long distance projects in the toughest rock conditions



TRENCHING

« Cable Management »



REEL CARRIER

Our reel carrier can load up to 3 drums of 20t each which allows bigger drums (up to 1200mm²) and less cables joints.



Max. Capacity	RC 320
Capacity	3 drums, self-loading
Max drum weight	20ton
Max total charge	3 x 20ton
Max drum external Ø	4200mm
Max drum width	2200mm
Min core Ø	900mm
Min drum shaft Ø	110mm for all drum < 10ton 152mm for all drum 10ton < W < 20ton

BINDING MACHINE

Our binding machine can bind together three single core cables in a trefoil position avoiding cables spirals for a regular laying.



LAYING BOX



The laying box, installs all the cables, TR sand, hard cover, screened backfill and warning tape, all in only one pass, without any obstacle between the drum and the bottom of the trench which guarantees the cables installation integrity.

MICRO-TRENCHING

Telecommunication & Fiber optic



Project	Client	Total cables laid	Completion Date
Melbourne VIC	VIC-ROAD - ITS	2,000m	2017
Auckland NZ	VISIONSTREAM	32,000m	Ongoing since 2015
Wellington NZ	DOWNER	118,000m	Ongoing since 2012
Christchurch NZ	NDA BROADSPECTRUM	44,000m	Ongoing since 2016

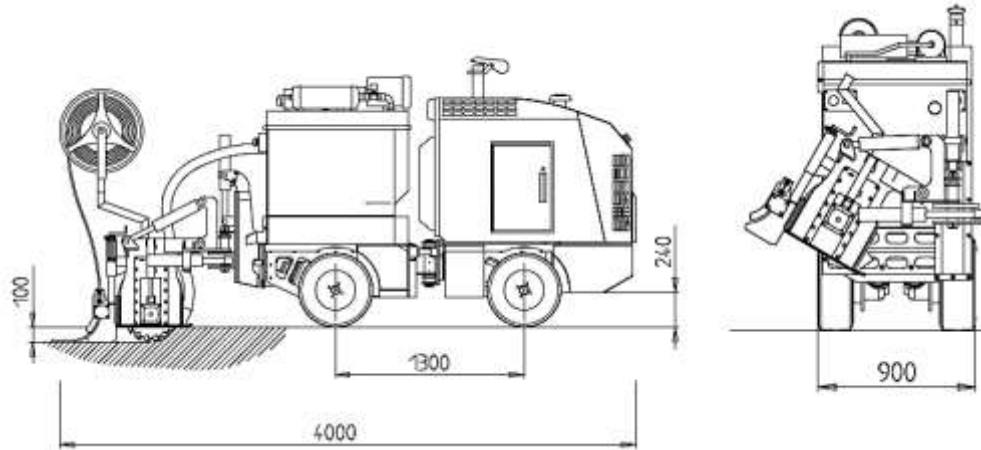


MICRO-TRENCHING

« Micro-Trenching Machine »



MICRO TRENCHER - SIDECUT:



Ideal for fibre deployment, bringing fibre to the customer's door for a fast, clean and safe network installation with minimal disturbance of the environment. Designed for an easy use, this small sized equipment answers every expectation of high output, efficiency and simplicity in any environment.

- Installing at a shallower depth
- Less material to be excavated
- Less new materials imported
- Limited disturbance to residents, traffic
- No disturbance to pedestrians
- All components are sound-proofed
- Increased safety of the job site
- No damage to road foundations
- Reduction in building costs
- Fast execution of the job
- Trenching in curbs
- Small sized machine: low and narrow for trenching on sidewalks

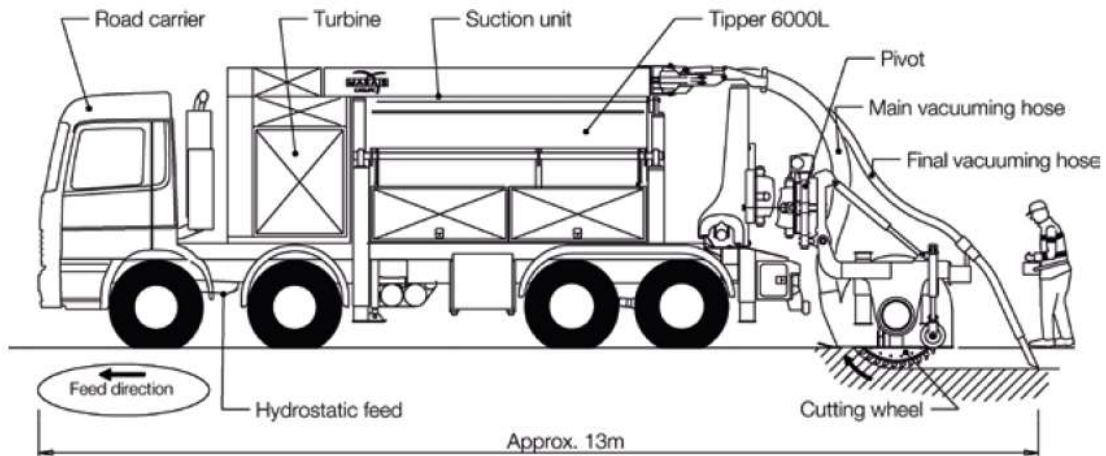


MICRO-TRENCHING

« Micro-Trenching Machine »



MICRO TRENCHER - CLEANFAST:



The Cleanfast machine cuts a narrow microtrench, simultaneously removing all spoil by suction to its integral storage bucket.

- Installing at a shallower depth
- Less material to be excavated
- Sucks away and stores earth removed
- No spray or dust
- Less new materials imported
- Limited disturbance to residents, traffic
- All components are sound-proofed
- Increased safety of the job site
- No damage to road foundations
- Reduction in building costs
- Fast execution of the job
- Trenching in curbs
- Preserves pedestrian's freedom of movement



MICRO-TRENCHING

« Micro-Trenching Machine »



MICRO TRENCHER – MINI-CLEANFAST



The mini-Cleanfast combines both SideCut and CleanFast advantages for an efficient micro trenching in the tightest environments

- Installing at a shallower depth
- Less material to be excavated
- Sucks away and stores earth removed
- No spray or dust
- Small sized machine: low and narrow for trenching on sidewalks
- Less new materials imported
- Limited disturbance to residents, traffic
- Increased safety of the job site
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- Trenching in curbs
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Marais Laying Technologies

« WE BUILD TOMORROW'S NETWORKS »

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