

The background of the entire page is a collage of industrial images. On the left, there's a large red-tinted section showing workers in hard hats and safety gear working on large industrial machinery. On the right, there's a black-tinted section showing a close-up of a mechanical component. The bottom right features a white world map silhouette. The Mirage logo is positioned in the upper right quadrant, with the tagline 'AN ENERPAC BRAND' below it.

**MIRAGE**  
AN ENERPAC BRAND

**PORTABLE MACHINE TOOLS TO  
POWER YOUR SUCCESS**

**MIRAGEMACHINES.COM**



## FLANGE FACING

If you mention flange facing machines to an on-site machinist, the chances are the first manufacturer they'll think of is Mirage. This success stems from the robust construction of our machines, their patented power-feed tool posts and the precise results delivered by their linear and ball-screw technology. Choose from a variety of external and internal mount options - each offering easy setup, geared feed rates and consistent results.

### Applications include:

HEAT EXCHANGER FLANGES  
 HUB PROFILES  
 LENS RING JOINTS  
 RAISED FACE FLANGES  
 RECESSED GASKETS  
 AND SPIGOTS

RTJ GROOVES  
 SPO COMPACT FLANGES  
 SWIVEL RING FLANGES  
 TECHLOK FLANGES  
 WELD PREPS

MACHINE MODEL	FACING DIAMETER RANGE	DRIVE POWER OPTIONS	
		PNEUMATIC	HYDRAULIC
QUICKFACE	1" - 12"		
MM200e	0 - 8"	•	
MM300e	0 - 12"	•	
MM600e	0 - 24"	•	•
MM305i	2 - 12"	•	
MM610i	2 - 24"	•	
MM860i	6 - 34"	•	•
MM1000i	6 - 40"	•	•
MM1500i	12 - 60"	•	•
MM2000i	24 - 80"	•	•
MM3000i	45 - 120"	•	•

### QUICKFACE

25.4 TO 305MM (1" TO 12") DIAMETERS



- Manually operated
- Simple and Lightweight construction - weighs only 6.8kg (15lbs).
- Equipped with different lead screws making it capable for resurfacing damaged raised-face or lens-ring joint flanges to the highest standards.
- Calibrated slide to define cut depth and the correct finish

### MM200e

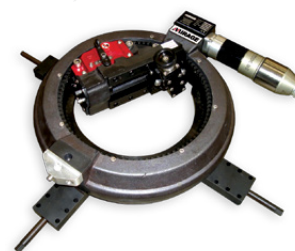
0 TO 203MM (0 TO 8") DIAMETERS



- Ideal for situations with restricted access
- Lightweight, precision construction
- Geared continuous groove facing feeds for a gramophone finish (ASME Standard)
- Optional lead screws available for alternative finish options
- Quick set integrated clamping jaws
- Optional 90 degree motor mount available for low clearance situations

### MM300e

0 TO 305MM (0 TO 12") DIAMETERS



- Preloaded cross roller drive, ensuring robust and repeatable machining
- Geared continuous groove facing feeds for a gramophone finish (ASME Standard)
- Two leadscrews provided as standard. (Extra two also available for alternative finish options)
- Quick-set integrated clamping jaws
- Toolpost aids RTJ groove creation

### MM600e

0 TO 610MM (0 TO 24") DIAMETERS



- Preloaded cross roller drive, ensuring robust, repeatable machining
- Geared continuous groove facing feeds for a gramophone finish (ASME Standard)
- Additional leadscrew available for alternative finish
- Hardened slide ways, to maintain long term accuracy
- Quick-set integrated clamping jaws
- Auto-axial boring feed

### MM305i

50 TO 305MM (2 TO 12") DIAMETERS



- Lightweight, precision construction
- Geared continuous groove facing feeds for a gramophone finish (ASME Standard)
- Striker/kick boring feed
- Quick set independent base for improved on-site operation
- Hydraulic drive available as optional extra
- Hardened slide ways to maintain long term accuracy
- Toolpost aids RTJ groove creation

### MM610i

50 TO 610MM (2 TO 24") DIAMETERS



- Geared continuous groove facing feeds for a gramophone finish (ASME Standard)
- Striker/kick boring feeds, to complete a full range of application machining
- Quick set independent base for improved on-site operation
- Hardened slide ways to maintain long term accuracy
- Toolpost aids RTJ groove creation
- High torque drive



## FLANGE FACING

### MM860i

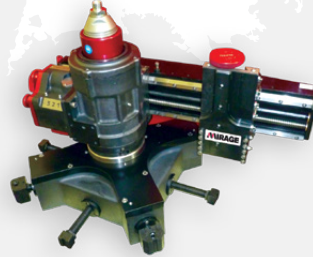
153 TO 864MM (6 TO 34") DIAMETERS



- 6 continuous groove facing feeds for a gramophone finish (ASME Standard)
- Hardened slide ways to maintain long term accuracy
- Swivel tool post for groove details
- Supplied with 3 quick set different base sizes
- High torque low noise drive
- Quick set up adjustable base jaws

### MM1000i

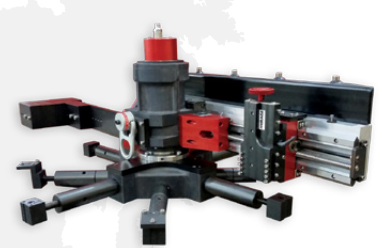
153 TO 1000MM (6 TO 40") DIAMETERS



- 6 continuous groove facing feeds for a gramophone finish (ASME Standard)
- 3 different sized quick set independent bases
- Hardened slide ways to maintain long term accuracy
- Toolpost aids RTJ groove creation
- High torque low noise drive
- Patented powered swivel tool post
- Quick set up adjustable base jaws

### MM1500i

305 TO 1525MM (12 TO 60") DIAMETERS



- 6 continuous groove facing feeds for a gramophone finish (ASME Standard)
- 3 different sized quick set independent bases for improved on-site operation
- Hardened slide ways to maintain long term accuracy
- Toolpost aids RTJ groove creation
- Patented powered swivel tool post
- Quick set up adjustable base jaws

### MM2000i

610 TO 2032MM (24 TO 80") DIAMETERS



- 6 continuous groove facing feeds for a gramophone finish (ASME Standard)
- 2 different sized quick set independent bases for improved on-site operation
- Hardened slide ways to maintain long term accuracy
- Swivel tool post for groove details; reduces need for separate accessories
- Patented powered swivel tool post

### MM3000i

1150 TO 3050MM (45 TO 120") DIAMETERS



- 6 continuous groove facing feeds for a gramophone finish (ASME Standard)
- Single base with extension legs to suit different mounting diameters
- Hardened slide ways to maintain long term accuracy
- Swivel tool post for groove details; reduces need for separate accessories
- High torque reduction drive to optimize machine performance





## HOT TAPPING

Hot tapping is a high pressure intervention and the Mirage range of hot tapping machines can help towards a safe and effective solution. Industry-leading innovations used in our machines include a helical gear drive located as close to the cutting head as possible that ensures maximum efficiency, rotary pressure seals, and four fixed feeds.

Applications include:

CONSTRUCTION TIE-INS  
 GAS DISTRIBUTION  
 PETROCHEMICAL PIPELINES  
 SUBSEA PIPELINES  
 TEMPORARY INSTALLATION

TRANSMISSION PIPELINES  
 VALVE INSTALLATION AND REPAIR  
 WATER MAINS PIPELINES  
 WELLHEAD MAINTENANCE

MACHINE RANGE	TAPPING DIAMETERS (MIN – MAX)	MAX STROKE	MAX OPERATING PRESSURE	DRIVE POWER OPTIONS	
				PNEUMATIC	HYDRAULIC
HTM	½ – 6"	18 – 32"	1480 psi		
LPHT	3 – 12"	30"	285 psi	•	•
MHT	3 – 60"	42 – 180"	1480 psi	•	•
CHT	2 – 48"	32 – 150"	5000 psi	•	•
VHT	1 – 3" SPINDLE DIAMETER	60 – 160"	5000 psi	•	•
LSA	LINE STOP Ø 4 – 48"	72 – 165"	1480 psi		•

### HTM100 & HTM150XL

MANUAL HOT TAPPING TOOLS

HTM100 – ½ TO 4" (18") STROKE

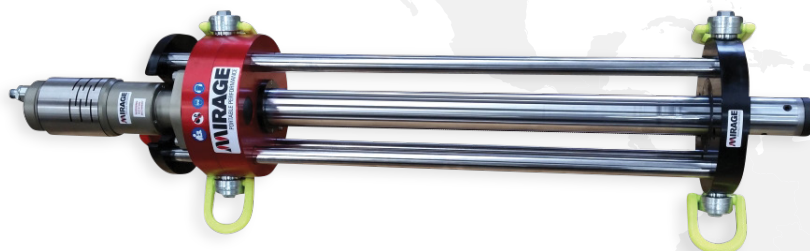
HTM150XL – ½ TO 6" (32") STROKE



- Operates to 1480psi
- Versatile hot taps, bypass lines and completion plugs
- Manual rotation & feed
- 2" NPT connection
- Lightweight construction

### LPHT LOW PRESSURE HOT TAPPING MACHINE

3" – 12" - 30" STROKE



- Operates up to 285 psi
- Pneumatic or hydraulic drive
- Depth stop to ensure correct hot tap distance
- Can also be utilised to line stop 4 - 8"
- Auto feed unit optional extra
- Optional smaller drill sizes

### MHT HOT TAPPING MACHINES

MHT312 3 TO 12" CAPACITY WITH 42" STROKE  
 MHT420 4 TO 20" CAPACITY WITH 72" STROKE  
 MHT824 8 TO 24" CAPACITY WITH 80" STROKE  
 MHT1236 12 TO 36" CAPACITY WITH 110" STROKE  
 MHT1242 12 TO 42" CAPACITY WITH 132" STROKE  
 MHT2460 24 TO 60" CAPACITY WITH 180" STROKE

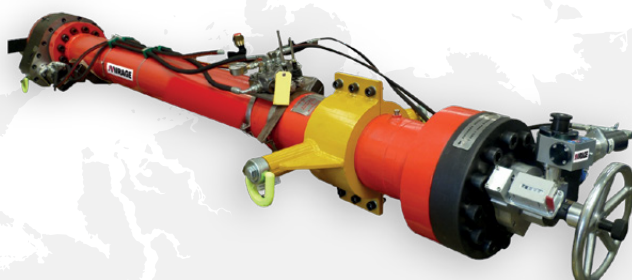


- Pressure rating up to 1480 psi
- Helical geared drive situated close to the cutter
- Hydraulic and pneumatic drive options
- Industry standard connection flanges
- Fast traverse feed motors available
- Cutter holders included
- Interchangeable seal cartridge



## HOT TAPPING

### CHT HOT TAPPING MACHINES



- Working pressure capacity up to 5000psi
- Drive as close to the cut enhances cut efficiency
- Auto feed - infinitely variable for differing cut conditions
- Constant pressure seal monitoring ports
- Internally pressure balanced for higher pressure applications

CHT815 HOT TAP MACHINE 2" TO 10" CAPACITY WITH 32" STROKE  
 CHT1000 HOT TAP MACHINE 3" TO 12" CAPACITY WITH 43" STROKE  
 CHT1675 HOT TAP MACHINE 3" TO 16" CAPACITY WITH 66" STROKE  
 CHT2000 HOT TAP MACHINE 6" TO 24" CAPACITY WITH 80" STROKE  
 CHT3000 HOT TAP MACHINE 12" TO 48" CAPACITY WITH 150" STROKE

### LSA LINE STOPPING ACTUATORS

LSA412 4 TO 12" CAPACITY WITH 72" STROKE  
 LSA1420 14 TO 20" CAPACITY WITH 105" STROKE  
 LSA2234 22 TO 34" CAPACITY WITH 140" STROKE  
 LSA3648 36 TO 48" CAPACITY WITH 165" STROKE

- Operates up to 1480 psi
- Hydraulic drive
- Depth measurement
- Control bar mechanical lock



Mirage Line Stopping Actuators (LSA) are used in conjunction with the required line stop head and housings to carry out line stops in surface or subsea environments. The range is designed for easy use on pipelines in various materials and differing wall thickness. Their use provides temporary pipeline isolation, temporary or permanent bypass and no costly interruption of service.

MACHINE MODEL	DIAMETERS (MAX)	MAX STROKE	MAX OPERATING PRESSURE	DRIVE POWER
LSA4-12	12"	72"	1480 psi	HYDRAULIC
LSA14-20	20"	105"	1480 psi	HYDRAULIC
LSA22-34	34"	140"	1480 psi	HYDRAULIC
LSA36-48	48"	165"	1480 psi	HYDRAULIC

### VHT VALVE HOT TAPPING MACHINES

VHT965 1" SPINDLE DIAMETER WITH 32" STROKE  
 VHT1500 2" SPINDLE DIAMETER WITH 60" STROKE  
 VHT2500 2" SPINDLE DIAMETER WITH 96" STROKE  
 VHT4000 3" SPINDLE DIAMETER WITH 160" STROKE



- Internal pressure balanced system - Reduces mechanical shocks and forces at high pressures
- Lightweight rigid construction - High power to weight ratio through patented design
- Auto feed gearbox and motor-variable feed with rapid traverse
- Geared mechanical depth display - No requirement for measuring rods; optional LCD display
- Constant seal & pressure monitoring - Pressure leaks can be monitored and contained whilst operating



## ORBITAL MILLING

Mirage orbital milling machines are designed to deliver fast material removal and achieve high accuracy across large flange diameters. The WP orbital milling range is designed especially for companies manufacturing wind turbine rotor blades and towers.

Applications include:

- MACHINING CRANE BEARING FACES
- REPAIRING DRAG LINES
- MACHINING LARGE FLANGES
- MACHINING SHIP THRUSTER FLANGES
- WIND TURBINE BLADE ROOT END MILLING
- WIND TOWER FLANGE MACHINING

MACHINE MODEL	CUTTER DIAMETER RANGE	MAIN APPLICATION	DRIVER POWER HYDRAULIC
OM2500	60"- 98"	GENERAL ORBITAL MILLING	•
OM3500	60"- 138"	GENERAL ORBITAL MILLING	•
OM4500	90"- 178"	GENERAL ORBITAL MILLING	•
OM6000	98"- 237"	GENERAL ORBITAL MILLING	•
OM8000	138"- 315"	GENERAL ORBITAL MILLING	•
WP2500	70"- 96"	WIND POWER	•
WP3500	90"- 137"	WIND POWER	•
WP4500	110"- 177"	WIND POWER	•

## ORBITAL MILLING MACHINES

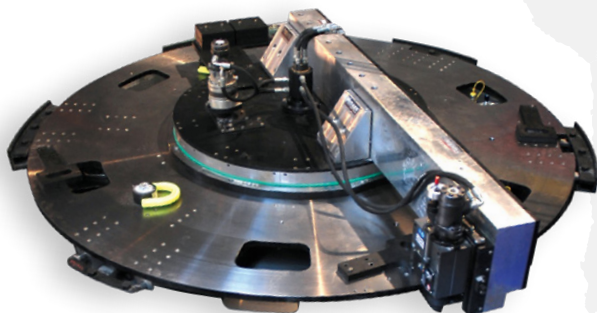
OM2500 – 1500 TO 2500MM (60 TO 98") DIAMETERS  
 OM3500 – 1500 TO 3500MM (60 TO 138") DIAMETERS  
 OM4500 – 2500 TO 4500MM (90 TO 178") DIAMETERS  
 OM6000 – 2500 TO 6000MM (98 TO 237") DIAMETERS  
 OM8000 – 3500 TO 8000MM (138 TO 315") DIAMETERS



- Precision flatness tolerances across large diameters
- Hydraulic high-torque anti-backlash drive
- Precision preloaded linear rotary drive
- Adjustable fast-set hydraulic chuck
- Rigid and adjustable mounting base
- Adjustable fast-set clamping jaws

## WP WIND POWER ORBITAL MILLING MACHINES

WP2500 – 1800 TO 2450MM (70 TO 96") DIAMETERS  
 WP3500 – 2300 TO 3500MM (90 TO 137") DIAMETERS  
 WP4500 – 2800 TO 4500MM (110 TO 177") DIAMETERS



- Accurate and repeatable process time
- Minimum distortion fast mount hydraulic base
- Adjustable arm for different diameters
- Patented hydraulic mounting system for blade and tower production
- Direct drive spindle
- High torque anti-backlash drive





## PORTABLE SAWS

Mirage provides a range of portable saws for a diverse range of tubular severance projects. The band saw range delivers a cost effective solution to cold cutting requirements in either surface or subsea situations, and our diamond wire saws are ideal for quickly cutting through dissimilar materials.

The Mirage bolt saw provides an effective solution for cutting seized flange bolts across a wide range of flange diameters.

Applications include:

**OFFSHORE PLATFORM DECOMMISSIONING**

**CONDUCTORS, CAISSONS, PILES AND**

**MULTIPLE GROUTED STRINGS**

**SUBSEA ROV APPLICATIONS**

**SUBSEA STRUCTURES,**

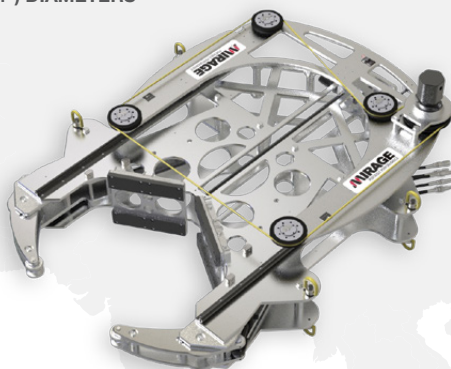
**PIPES, CASING, AND RISERS**

**FLANGE BOLT CUTTING**

MACHINE MODEL	DIAMETER	MAIN APPLICATION	DRIVER POWER HYDRAULIC
MBS1360	20.5 - 71.25"	FLANGE BOLT CUTTING	•
MDWS112-H	1 - 12"	SUBSEA	•
MDWS115-H	1 - 15"	SUBSEA	•
MDWS620	6 - 20"	SUBSEA	•
MDWS1638	16 - 38"	SUBSEA	•
MDWS3248	32 - 64"	SUBSEA	•
MDWS6084	60 - 84"	SUBSEA	•
BS920	9 - 24"	TOPSIDE	•
BS1636	16 - 36"	TOPSIDE	•
BS3248	32 - 48"	TOPSIDE	•

## DIAMOND WIRE SAWS

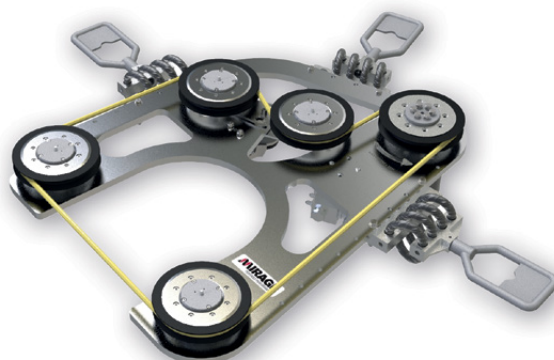
MDWS6-20 152 TO 508MM (6 TO 20") DIAMETERS  
 MDWS16-38 406 TO 965MM (16 TO 38") DIAMETERS  
 MDWS36-60 914 TO 1524MM (36 TO 60") DIAMETERS  
 MDWS60-84 1422 TO 2134MM (60 TO 84") DIAMETERS



- Strong aluminium frame
- Overload clutch for bow damage prevention
- Auto Clamp and auto feed
- Diver and ROV compatible
- Anode protection
- User replaceable clamp contact pads, wheels and wheel liners
- Crimped or continuous loop wires available

## MANIPULATOR DIAMOND WIRE SAWS

MDWS112-H CUTTING CAPACITY 1" TO 12" (25-305MM)  
 MDWS115-H CUTTING CAPACITY 1" TO 15" (25-381MM)



- Compact lower cost alternative to standard diamond wire saws
- Rapid deployment
- Hooks up directly into the main hydraulics of the ROV
- Automated wire tensioner
- D-Handle compatible with 3-finger, 4-finger or parallel jaw manipulators



## DL RICCI CLAMSHELL CUTTERS

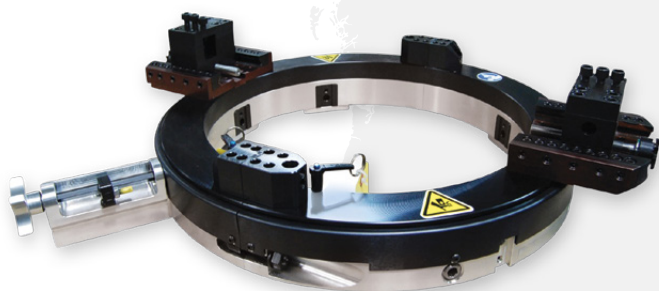
Throughout the world, the DL Ricci name is synonymous with pipe cutting and bevelling. Mirage is now able to offer these pioneering machines, each capable of delivering an outstanding performance in industries such as construction, decommissioning, maintenance, fabrication and refurbishment.

Applications include:

- PIPE CUTTING
- WELD PREPARATION
- CUTTING MATERIALS, INCLUDING SUPER DUPLEX, CARBON STEEL, STAINLESS STEEL, HASTELLOY AND INCOLLOY
- PIPE DIAMETERS UP TO 4496MM (177")
- PROJECTS BEYOND THE USUAL CLAMSHELL CONFIGURATION
- USING A WIDE RANGE OF PURPOSE DESIGNED ACCESSORIES

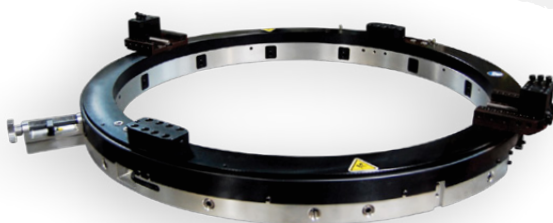
MACHINE MODEL	MOUNTING DIAMETERS MIN - MAX	DRIVE POWER OPTIONS		
		PNEUMATIC	HYDRAULIC	ELECTRIC
NB	2 - 43"	•	•	•
MS	4 - 50"	•	•	•
HD	20 - 180"	•	•	•

### NB (NARROW BODY) 2" - 43" (50.8MM - 1092MM)



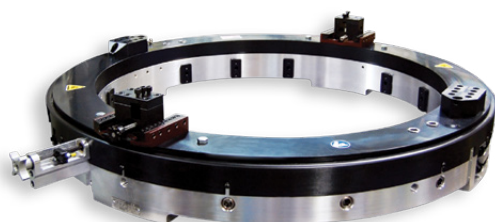
- Narrow body design: ideal when space is at a premium or obstructions present
- 15 Standard models covering a range from 50.8mm (2.0") to 1092.2mm (43") OD
- Pneumatic, hydraulic and electric drive options
- Several different drive options are available
- Accepts a wide range of accessories to increase performance and expand capabilities

### MS (MID-SIZE) 4" - 50" (105 - 1270MM)



- Mid-size machines weigh less than the HD series, but provide greater rigidity than the NB series
- Increased manoeuvrability and greater clearance than the HD series.
- 12 Standard models cover a range of 4" (105mm) to 50" (1270mm) OD
- Several different drive options are available to best position the motor for a specific machining application
- Accepts a wide range of accessories to increase performance and expand capabilities

### HD (HEAVY DUTY) 20" - 180" (508 - 4572MM)



- Robust body design - ideal for large diameter heavy wall pipe applications
- 16 Standard models cover a range of 20" (508mm) to 180" (4572mm) OD
- Pneumatic, hydraulic and electric drive options
- Accepts a wide range of accessories to increase performance and expand capabilities



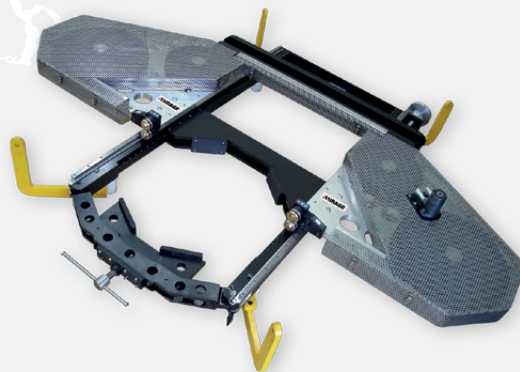


## PORTABLE SAWS

### PORTABLE BAND SAWS

BS924	228 TO 610MM (9 TO 24") DIAMETERS
BS1636	406 TO 914MM (16 TO 36") DIAMETERS
BS3248	812 TO 1219 (32 TO 48") DIAMETERS

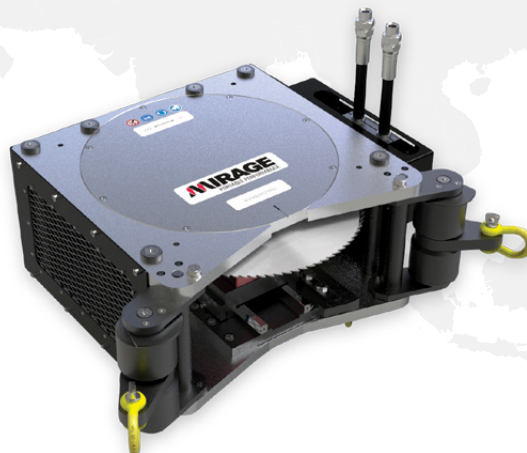
- Low cost /cut - fast clamping and set up
- Subsea kit available - R.O.V operation
- Low height for minimum clearances



### MBS 1360 PORTABLE BOLT SAW

FOR FLANGES DIAMETERS FROM 20.5" TO 71.25".  
MAXIMUM BLADE STROKE 150MM

- Designed to cut between gaps in flanges
- 'Rough Locators' aid fast installation
- Can be used in conventional and upside down orientation
- Circular saw blade powered by 10kw hydraulic motor
- Ratchet strap aids quick repositioning
- 4 lifting points





## LINEAR MILLING

These precise and robust milling machines are available in 2 and 3 axis configurations. Each includes the latest workshop tool technology in a portable format. For a fast and efficient set-up, you can choose our optional switch magnets.

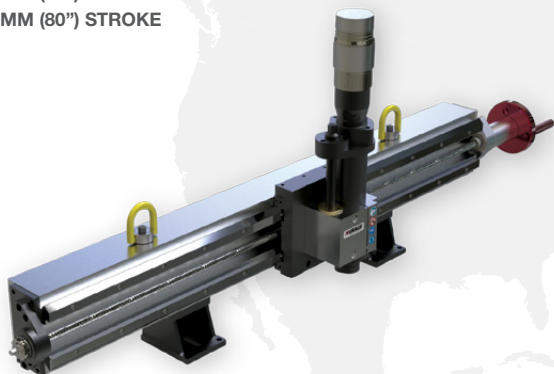
Applications include:

- AEROSPACE MACHINING
- CRANE PEDESTALS
- HEAT EXCHANGER REPAIR
- MOTOR AND PUMP MOUNTING PADS
- SHAFT KEYWAYS
- STEEL MILL HOUSINGS
- TURBINE SPLIT LINE MACHINING

MACHINE MODEL	X-AXIS MAX STROKE	DRIVE POWER OPTIONS	
		PNEUMATIC	HYDRAULIC
LMR1000	40"	•	•
LMR1500	60"	•	•
LMR2000	80"	•	•
MR500	21"	•	•
MR1000	40"	•	•
MR1500	60"	•	•
MR2000	80"	•	•
MR3000	118"	•	•

### LMR 2 AXIS MILLING MACHINES

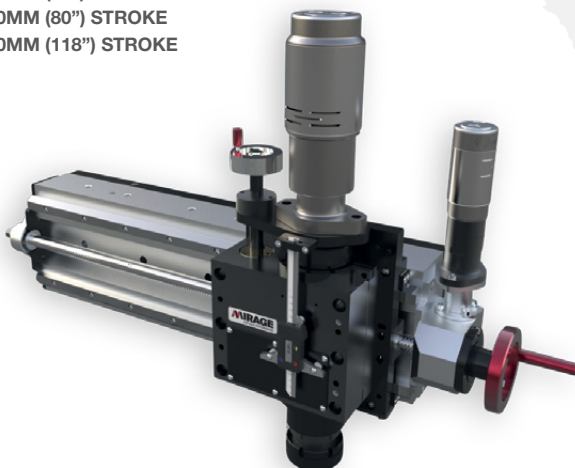
LMR1000 – 1000MM (40") STROKE  
 LMR1500 – 1500MM (60") STROKE  
 LMR2000 – 2000MM (80") STROKE



- Ideal for lightweight applications
- Hand feed to main axis; auto feed optional
- Features ER40 Collet with ISO30 spindle option

### MR 2 AXIS MILLING MACHINES

MR500 – 500MM (20") STROKE  
 MR1000 – 1000MM (40") STROKE  
 MR1500 – 1500MM (60") STROKE  
 MR2000 – 2000MM (80") STROKE  
 MR3000 – 3000MM (118") STROKE



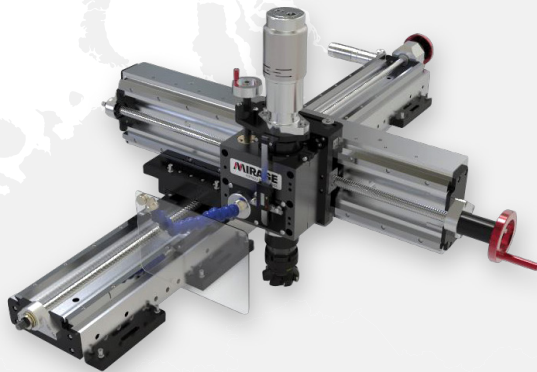
- Induction hardened 'V' rails ensure accuracy and durability
- Ball-screw feed
- Hand & auto feed to main axis
- Direct drive ISO 40 spindle
- Choice of Pneumatic and Hydraulic drive
- Variety of mounting options including; bolting, switch magnets, pipe chain clamps and gantry



## LINEAR MILLING

### MRY 3 AXIS MILLING MACHINES

MRY1500 – 1500MM (60") STROKE  
 MRY2000 – 2000MM (80") STROKE  
 MRY3000 – 3000MM (120") STROKE



MACHINE MODEL	X-AXIS MAX STROKE	X-AXIS MAX STROKE	DRIVE POWER OPTIONS	
			PNEUMATIC	HYDRAULIC
MRY1500	60"	12"	•	•
MRY2000	80"	12"	•	•
MRY3000	120"	12"	•	•

- Induction hardened 'V' rails ensure accuracy and durability
- Ball-screw feed
- Hand & auto feed to main axis
- Direct drive ISO 40 spindle
- Choice of Pneumatic and Hydraulic drive
- Variety of mounting options including; bolting, switch magnets, chain clamps and gantry

### GANTRY MILL

GANTRY RAIL KIT 1000 TO 10,000MM (40 TO 394") STROKE



- Modular jointing system for lengths up to 10m
- Linear rail and precision carriages
- Quick set up with jacking system
- Auto and manual feed
- Optional quick-set magnets for mounting

### HEAVY DUTY GANTRY MILL

GMHD HEAVY DUTY GANTRY MILL (40 TO 236") STROKE



- Heavy duty construction
- Twin ball screw feed
- Suitable for use in vertical and horizontal orientation
- Auto and hand feed
- Accepts Mirage MR and MRHD Milling Rails
- Modular design allows provides extended stroke options up to 6m

MACHINE MODEL	FEED TYPE	X-AXIS MAX STROKE OPTIONS (WITH EXTENSION CONFIGURATION)	Y-AXIS MAX STROKE OPTIONS (MILLING RAIL)	DRIVE POWER OPTIONS	
				PNEUMATIC	HYDRAULIC
GMRF	RACK FEED	1000 - 10,000MM (40"- 394")	1000 - 3000MM (40"- 118")	•	•
GMHD	BALL SCREW FEED	1000 - 6000MM (40"- 236")	1000 - 4000MM (40"- 157")	•	•





## LINE BORING MACHINES

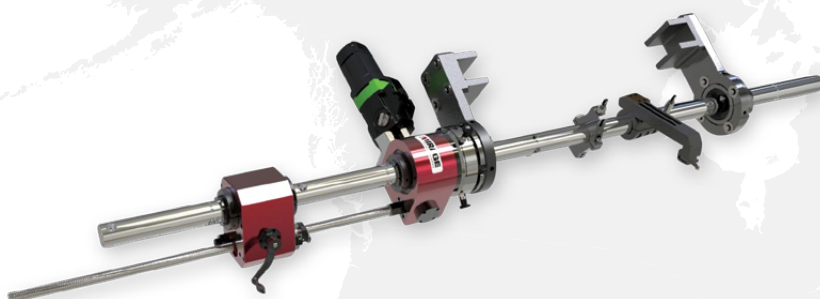
Mirage Line Boring Machines produce workshop quality tolerances on site - eliminating costly dismantling and production downtime. Many configurations are possible by choosing different bar diameters and lengths, along with a wide range of inserts, boring arms and facing heads.

Applications include:

TURBINE CASINGS	GEARBOX HOUSINGS
A-FRAME SUPPORTS	POWER PRESS FRAMES
DRIVE SHAFT HOUSINGS	SHIP STERN TUBES
EXCAVATOR BUCKETS	

MACHINE MODEL	RANGE	DRIVE POWER OPTIONS		
		BORING DIAMETERS	PNEUMATIC	HYDRAULIC
MLB610	1.5 - 24"	•	•	•
MLB915	6 - 36"	•	•	
MLB2000	16 - 80"	•	•	
MLB3000	36 - 120"		•	
MLB4000	48 - 157"		•	

### MLB610 PORTABLE LINE BORING 1.5 TO 24" DIAMETERS (12", 24", 36" STROKE OPTIONS)



- Modular add-on components provide a flexible line boring solution for multiple projects
- Choice of electric, hydraulic and pneumatic bar drive
- Quick set up with spherical bearing mounts
- Mechanical bi-directional variable auto-feed
- Drive and feed units accept a wide range of boring bar diameters
- Torque at the bar up to 1500Nm using optional hydraulic drive motor
- Auto-stop

### MLB915 PORTABLE LINE BORING 6 TO 36" DIAMETERS



- Modular add-on components provide a flexible line boring solution for multiple projects
- Hard chrome precision ground boring bar up to 8m length (jointed)
- Quick set up with spherical bearing mounts
- Infinitely variable feed rate
- Adjustable boring arms
- Pneumatic and Hydraulic drive options
- Hollow bar allows laser alignment

### MLB2000 PORTABLE LINE BORING 16 TO 80" DIAMETERS

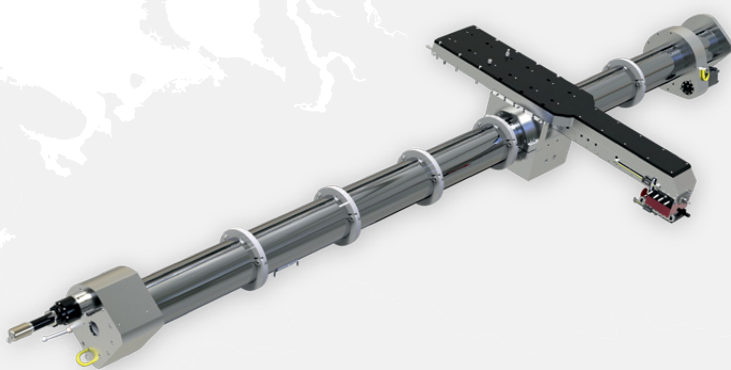


- Modular add-on components provide a flexible line boring solution for multiple projects
- Hard chrome precision ground boring bar up to 8m length (jointed)
- Quick set up with spherical bearing mounts
- Infinitely variable feed rate
- Adjustable boring arms
- Hydraulic drive
- Hollow bar allows laser alignment



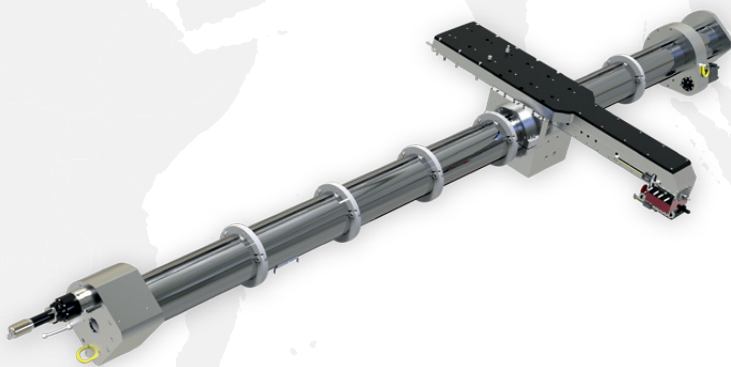
## LINE BORING MACHINES

### MLB3000 PORTABLE LINE BORING MACHINE 36 TO 120"



- Modular add-on components provide a flexible line boring solution for multiple projects
- Hard chrome precision ground boring bar up to 8m length (jointed)
- Quick set up with spherical bearing mounts
- Infinitely variable feed rate
- Adjustable boring arms
- Hydraulic drive
- Hollow bar allows laser alignment

### MLB4000 PORTABLE LINE BORING MACHINE 48" TO 157"



- Modular add-on components provide a flexible line boring solution for multiple projects
- Hard chrome precision ground boring bar up to 8m length (jointed)
- Quick set up with spherical bearing mounts
- Infinitely variable feed rate
- Adjustable boring arms
- Hydraulic drive
- Hollow bar allows laser alignment



## DRILLING & TAPPING

Mirage heavy duty drilling and tapping machines offer high torque and easy operation through their heavy duty spindles with ISO standard tapers. Optional switch magnet mounts and chain clamps are also available for a quick and easy setup. For large scale offshore decommissioning projects, Mirage casing pin drills provide an effective solution for creating lift holes into casings - especially in the most challenging of working environments.

Applications include:

### DRILLING THROUGH ARMOUR PLATE

BULKHEAD HOLE CUTTING

FLANGE STUD DRILLING

FLANGE STUD RE-THREADING

MOTOR PUMP STUD REMOVAL

### SHORT STROKE LINE BORING

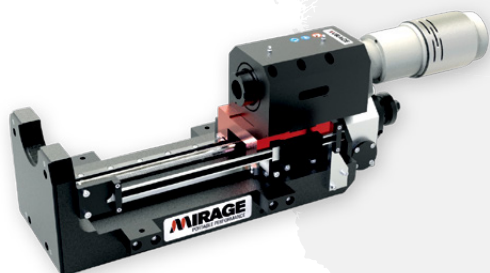
TURBINE CASE STUD REMOVAL

TURBINE PILL DRILLING

CASING PIN DRILLING

MACHINE MODEL	MAX DIAMETER WITH STANDARD DRILLS	MAX STANDARD STROKE	DRIVE POWER OPTIONS	
			PNEUMATIC	HYDRAULIC
HT20	Drilling 2"	11"	•	•
HT40	Drilling 4"	16"	•	•
HT50	Drilling 5"	17"	•	•
HT60VF	Drilling 6" (4" maximum dia through centre locator)	17"	•	•
T30	Tapping 3"	12"	•	•
T725	Tapping 7.25"	13"	•	•
DDU1636	Pin Drilling to 12"	16"		•
DDI4050	Pin Drilling to 12"	15.7"		•
DDHS4263	Pin Drilling to 12"	24"		•

### HT20 PORTABLE DRILL 0 TO 2" DIAMETER (11") STROKE



- 4MT spindle accepts standard tooling
- Linear rails & guides provide accuracy and high load carrying capacity
- Direct spindle drive
- Manual and variable auto feed

### HT40 PORTABLE DRILL 0 TO 4" DIAMETER (16") STROKE



- ISO40 geared spindle
- Linear rails & guides provide accuracy and high load carrying capacity
- Geared reduction spindle drive
- Manual and variable feed

### HT50 PORTABLE DRILL 0 TO 5" DIAMETER (17") STROKE



- ISO50 geared spindle
- Linear rails & guides provide accuracy and high load carrying capacity
- Geared reduction spindle drive
- Manual and variable auto feed

### HT60VF PORTABLE DRILL 0 TO 6" DIAMETER (17") STROKE



- 4 leg heavy duty construction
- 5MT spindle accepts standard drills & tooling
- Auto / hand feed
- Fast mount system and centre locator
- 4" maximum diameter through centre locator





## DRILLING & TAPPING

### T30 PORTABLE TAPPING 0 TO 3" DIAMETER (12") STROKE



- Rigid 3 pillar construction
- High torque reduction drive
- Quick key hole mounting
- Capable of tapping blind and through holes
- High torque reduction drive
- Hydraulic drive
- Pressure relief self feed system

### T725 PORTABLE TAPPING 0 TO 7.25" DIAMETER (13") STROKE



- Heavy duty 4 pillar construction
- Quick key hole mounting system
- Capable of tapping blind and through holes
- High torque reduction drive
- Hydraulic drive
- Pressure relief self feed system

### DDU1636 CASING PIN DRILL 16" TO 36" DIAMETER MOUNTING



### DDI4050 CASING PIN DRILL 40" TO 50" DIAMETER MOUNTING



### DDHS4263 CASING PIN DRILL 42" TO 63" DIAMETER MOUNTING



- Efficient pin drilling cold cut method
- Choice of internal, external and horseshoe mount options
- Helical drive spindle for 4", 6", 10", 12" cutters
- Subsea options available
- Auto-feed options available

# PORTABLE MACHINE TOOLS TO POWER YOUR SUCCESS

## INDUSTRIES

Whenever there's metal machining work to be done on-site, a Mirage product can help to ensure the project is completed efficiently and safely. Our portable machining tools are used widely across the following industry sectors:

OIL & GAS  
POWER GENERATION  
PETROCHEMICALS  
NUCLEAR  
SHIP BUILD & REPAIR

WIND TURBINE & TOWER  
MANUFACTURE  
MINING & CONSTRUCTION  
UTILITIES  
DECOMMISSIONING

## MACHINE RENTAL

Our rental service is ideal for short to medium term needs - giving you the opportunity to try products before committing to buy. Rental stock is located across our global network - ready to help you complete your project successfully and on time.

## TRAINING & ON-SITE MACHINE COMMISSIONING

For complex projects, Mirage on-site technicians can support you with commissioning of your new equipment. For those wanting to gain recognised qualifications we can provide ECITB approved machining training.

**AT MIRAGE, WE DESIGN AND MANUFACTURE HIGH PERFORMING PORTABLE MACHINE TOOLS FOR PROFESSIONAL USERS WORLDWIDE. OUR COMPANY HAS GROWN FROM A SMALL FAMILY BUSINESS INTO A SUCCESSFUL GLOBAL COMPANY.**

Decades of engineering know-how combined with a continuing drive to innovate has resulted in a broad range of world-class machining products - each one robust enough to handle the toughest of on-site machining challenges.

**OUR MISSION IS TO HELP YOU CREATE SUCCESS STORIES, FOR BOTH YOU AND YOUR CUSTOMERS.**

**MIRAGE**  
AN ENERPAC BRAND

[WWW.MIRAGEMACHINES.COM](http://WWW.MIRAGEMACHINES.COM)  
[SALES@MIRAGEMACHINES.COM](mailto:SALES@MIRAGEMACHINES.COM)

## CUSTOM ENGINEERED MACHINES

For more than two decades, Mirage has manufactured in-situ machining equipment for hundreds of companies throughout the world. Over the years we've learned that projects can vary enormously. That's why for non-standard and unusual applications, our in-house design team can custom-design a machine, or modify existing equipment to meet your specific requirements.

## MACHINE SERVICE AND REFURBISHMENT

Maintaining machine tools helps to ensure they deliver accurate and consistent results for many years. So whatever the machine's condition, age or whoever the original manufacturer is, we'd like to hear from you and develop a bespoke maintenance package.

## LOCATIONS

Wherever you are in the world, you can purchase a Mirage machine. Our group's global locations and carefully selected distributors offer technical advice and assistance - ensuring you get personal support whenever you need it most.

