



ADVANTAGES OF **IMT PILING RIGS**

ITALIAN ENGINEERING AT ITS FINEST

SUMMARY

PILING RIGS ADVANTAGES:

| | |
|-------------------------------------------------|----|
| QUALITY COMPONENTS | 3 |
| WORLD CLASS BUILD QUALITY & WORKMANSHIP | 4 |
| 2000-HOUR WARRANTY | 4 |
| DOUBLE DISCHARGE ROTARY | 5 |
| SUPERIOR STABILITY | 5 |
| ROTARY | 6 |
| MULTI-LOCK KELLY BAR | 6 |
| RUBBER CUSHION | 7 |
| INCREASED PRODUCTION IN DRILLING HARD MATERIALS | 7 |
| INCREASED LIFE OF ENGINE COMPONENTS | 8 |
| EASY & SAFE TECHNOLOGY CONVERSION | 8 |
| SIMPLICITY | 8 |
| SIMPLE OPERATION | 9 |
| COMPONENTS & STRUCTURAL ITEMS | 10 |
| REAL TORQUE | 10 |
| CONTACT IMT | 11 |

IMT PILING RIGS

advantage **1**

QUALITY COMPONENTS

IMT is the first Italian manufacturer of piling and drilling rigs and the inventor of the telescopic Kelly Bar.

IMT has a long tradition and extensive experience building market leading

large diameter piling and drilling rigs. This experience is reflected in the selection of only the **highest quality components** during the manufacturing process.



| | | | |
|-------------------------------------|--------------------------------------------|----------------------------|--------------------|
| Engine: | Caterpillar or Cummins | Winches: | Zollern or Brevini |
| Hydraulic Pump & System: | Rexroth Bosch | Hydraulic Motors: | Volvo-Parker |
| Tracks: | Tracmec (A140) or Sampierana (A215 & A290) | Kelly Bars Steel: | Hardox 500 |
| Rollers: | Berko | Rotary Power Shift: | Zollern |

IMT PILING RIGS

advantage **2**

WORLD CLASS BUILD QUALITY & WORKMANSHIP

Every individual IMT product undergoes an intense quality assurance process that enables the technicians to identify any potential issues during the final assembly.



IMT PILING RIGS

advantage **3**

2000-HOUR WARRANTY

While most manufacturers offer a 1500-hour warranty period, IMT offers 2000 hours on all new machines.

IMT offers extended warranty packages for the entire machine including all auxiliary parts and options.

IMT PILING RIGS

advantage **4**

DOUBLE DISCHARGE ROTARY

IMT offer both Fast Spin-off and the click-clack discharge functions as standard inclusions on all machines.

High Speed discharge – 112 rpm

Click-clack function – fast rotary spin clockwise and anti-clockwise.

View double discharge function video at <https://www.youtube.com/watch?v=wcl05BJKEYo>



IMT PILING RIGS

advantage **5**

SUPERIOR STABILITY

All IMT models are capable of drilling raked piles at 15 degrees to the rear & 5 degrees laterally, providing **superior capabilities** over comparable competitors machines.



IMT PILING RIGS

advantage 6

ROTARY

Thanks to the multi lock rotary, the IMT machines **guarantee straighter piles**, even in fractured rock due to longer support of the kelly bar.

Thanks to the **longer rotary insert**, the

IMT machines **guarantee straighter piles even in fractured rock**. All IMT rigs have double bearing inside the rotary head which guarantee a longer life of crowns and pinions.

IMT PILING RIGS

advantage 7

MULTI-LOCK KELLY BAR

As **the only manufacturer with patented Multi Lock Kelly Bars**, IMT offers its users a significant production advantage. With the ability to lock the kelly bar straight away and apply immediate crowd force and torque on the tool, friction drilling time is drastically reduced. This results in greater production times in any ground conditions.

Multiple locks on the entire length of the kelly bar allows increased kelly bar life and decreased maintenance intervals.

IMT kelly bar canister (tubes/elements) are almost double in thickness compared to other kelly bar brands, as well as significantly heavier duty.

By locking the rotary on the kelly at any chosen point, the operators can now drill with the rotary motor utilising immediate crowd force above any obstacles or structures. True on boundary drilling is now possible **without the removal of fencing, retaining walls or even buildings**.

IMT A140 of Hardrock Piling in VIC drilling with rotary above a fence applying immediate crowd force and penetrating hard materials.



IMT PILING RIGS

advantage **8**

RUBBER CUSHION

IMT Kelly Bars offer **another unique advantage** while drilling in harder grounds due to the **vibration-absorption rubber cushion**.

The cushion, in place of the conventional spring, offers a more consistent pressure and contact between the tool and the ground. This results in higher production, less vibration on the machine, increased comfort for the operator and less operational noise.



IMT A215 of Alorra Group in NSW with the rubber cushion (in white) on the Multi-Lock Kelly Bar

IMT PILING RIGS

advantage **9**

INCREASED PRODUCTION IN DRILLING HARD MATERIALS

Rock drilling is where IMT really separate themselves from their competitors.

IMT are known worldwide to produce significantly greater productivity thanks to the Kelly Bar / Rotary / Cushion / Pull Down assembly.

IMT A140 of Access Excavation in VIC drilling Basalt in excess of 200 MPa at 750mm diameter to a depth of 8.5m. On this particular job, the A140 was able to consistently pull 1 - 1.5 meters long cores at 750 mm diameter.



IMT PILING RIGS

advantage **10**

INCREASED LIFE OF ENGINE & MAIN COMPONENTS:

Thanks to the IMT Smart design, the Cummins and Caterpillar are capped (by the IMT Manufacturer) at a maximum 1900 rpm instead of 2200 rpm, resulting

in approximately 12-14% longer life for the most expensive components on the machine.

IMT PILING RIGS

advantage **11**

EASY AND SAFE TECHNOLOGY CONVERSION

IMT Machines are coming with a standard segmental mast **allowing its users to convert to low head room version with a minimum effort and low cost.**

Quick change over kits also allow CFA conversions to be undertaken quickly and safely.

IMT PILING RIGS

advantage **12**

SIMPLICITY

IMT Piling Rigs are built **without relying on complicated electronic/software systems.** The result is almost eliminating downtime due to unwanted breakdowns or electronic failure, therefore maximising production time.

With every main drilling command being actuated by hydraulic means (servo pilot pressure), the IMT machines are guaranteed to offer the highest degree of reliability.

IMT PILING RIGS

advantage **12**

SIMPLE OPERATION

IMT Piling Rigs have multiple devices enabling the operators to achieve better performance with the rig while increasing the safety and simplicity.

- **Free fall winch**

When crowd force is applied on the Rotary/Kelly Bar, the main winch will automatically release the rope without the pressing of any buttons or pedals.

- **Automatic winch stop function (swivel up function)**

As the operator releases the main winch rope when returning to a hole, the main winch automatically disengages upon

contact with the base of the excavation. The swivel on top of the kelly bar will remain upright and hold the rope in a vertical position. This results in easier operation, less wear and tear on the main winch rope and greater lifespan of the main winch.

- **Simple hydraulic operation**

Every single command on the IMT is performed using direct feel hydraulics. This increases the reliability of the machine as well as making for easier operation and greater operator feedback through the controls.



Inside the cockpit of the IMT A215 Piling rig. For more details, please check link <https://www.youtube.com/watch?v=7MbDq361jkU&t=149s>

IMT PILING RIGS

advantage **14**

COMPONENTS & STRUCTURAL ITEMS

IMT Piling Rigs are built to **withstand the roughest drilling conditions.**

With reinforced undercarriage, armour style belly plates, slewing ring guards, rotary protection, double wall thickness kelly bars, 700 MPa Strength steel used across main structural components, reinforced mast & cathead, IMT are guaranteed to offer its users the most value for money available on the market.



IMT PILING RIGS

advantage **15**

REAL TORQUE

IMT quotes **actual torque values at a minimum 10 rpm.**

Therefore, please note the values below:

- **IMT A140**
real installed torque of **140 kNm**
- **IMT A215**
real installed torque of **215 kNm**
- **IMT A290**
real installed torque of **290 kNm**





I.M.T. S.r.l. - Industria Meccanica Trivelle
via D'Ancona,39 60027 Osimo (AN) Italy
Tel. +39 071 723341 - Fax +39 071 713352
imt@imtspa.com - www.imtspa.com
