



DYNATECH

DYNATECH INDUSTRIES PVT LTD

UPD – SERIES

UNDERGROUND PRODUCTION ITH Drill

MODEL – UPD40-TH

TECHNICAL SPECIFICATIONS



Product Introduction

Dynatech Industries **Underground Production Drill with Hydraulic Top Hammer - UPD40-TH** is a versatile Track mounted Drill.

Designed to drill with High pressure Top hammer .

Features

- Drill diameters from 1-3/4" (45mm) to 3 1/2" (89mm).
- Depth rated to 30m (98.4ft) .
- Accepts different size drill rods.
- Unique compact feed Cylinder -25% more efficient cable feed.
- High efficiency long stroke
- Hydraulic feed frame raise and dump feature provides 360° drilling capability
- Incorporates the stranded DYNATECH drill components for reliability and easy servicing

Drilling size and Depth Capacity

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|----------------------|----------------------------------|
| Method of drilling | : TOP Hammer |
| Drill Diameter holes | : 1 ¾"inch (45mm) to 3 ½"(89mm). |
| Depth | : 30 Mtrs (98.4 Ft) |

MAST & FEED ASSEMBLY

- Mast is made of stiff and torsion steel profile construction . Feed boom is mounted on a frame with two hydraulic tilt cylinders and mechanical lockable supports. The positioner system is specially designed to handle various loads.
- The feed cylinder is situated between the drill slide members. It is of unique design which allows 1.4m of head travel with the use of wire ropes.
- The design has the advantage with wire ropes and pulleys, resulting in higher efficiency and less maintenance .
- Drifter unit drive mounting plate has longer wearing replaceable sliders for positive control of rotation unit movement up and down.

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| Type | : Hydraulic cylinder over Ropes. |
| Head travel length | : 1, 4 m (4.6 ft) |
| Rod Handling length | : 1, 20 m (3.93 ft) |
| Retract force | : 20.5 KN (4608 lb) |
| Pull down force | : 20.5 KN (4608 lb) |
| Pull up speed | : 25 meters/min |
| Pull down speed | : 25 meters/min |
| Fine feed speed | : 4.5 metres/min |
| Centralizer opening | : 4.5inch (115mm) |

Positioning

- The feed is positioned horizontally for trimming .
- The feed can be rotated 360 degree by rack and pinion mechanism.
- The drill has a slide over mechanism for faster position of the drill hole.
- Fixing of the feed is done two set of stringer cylinders.

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| Swing angle | : 360degree |
| Feed extension | : 750mm |
| Stinger extension top | : 1524mm (5.0 ft) |
| Stinger extension bottom | : 1000 mm (3.2 ft) |

Hydraulic Rock Drill

- The High frequency Hydraulic rock drill specially designed for underground production drilling.

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|------------------------------|--------------------------|
| Percussion power | :16KW |
| Rotation Torque | :900Nm (intermittent) |
| Speed | :100-200RPM |
| Shank Adaptor | : T38 , T45 |
| Shank Lubrication | : Oil Mist Lubricator |
| Shank lubrication air flow | :200 – 300 liters/min. |
| Shank lubrication Compressor | : EN5- 0.6 m3/min (7bar) |
| Air Consumption | :200-330 l/m |
| Oil Consumption | :300-600 g/h |
| Flushing air pressure | :5-7bar |
| Flushing water flow | :150liters/min. |

Flushing system

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|-----------------|-----------------|
| Flushing | : Water |
| Water pump type | :DCIL-10-12 |
| Water Capacity | :100Lpm (12bar) |
| Pressure | :12bar max |
| Drive | :electric |

Powerpack

- The power pack consists of a rugged skid frame on which is mounted the 56kw(75hp) electric motor, Load sensing variable displacement piston pump. Oil cooled by shell and tube type oil /water cooler.
- The large 200L reservoir provides flooded suction for all pumps. Lockable full bore valves in the suction lines permit easy servicing. Hydraulic oil can only be added to the tank through a hand pump and filter preventing contamination of the hydraulic system. An external sight gauge allows easy monitoring hydraulic oil level and temperature .
- A full flow 10 micron beta rated return filter with virtual indicator keeps the hydraulic oil clean a water cooled heat exchanger cools the hydraulic oil.

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| Electric Motor | : 56kW (75hp) TEFC electric motor. |
| Protection | : IP55 ,(Flame proof Optional) |
| Hydraulic Tank Capacity | : 200 L (52.8 gal US) |
| Max Operating pressure | : 207bar (3000 Psi) |
| Hydraulic oil Cooling | : oil/water cooler. |

CONTROL CONSOLE

The control console is the valves which controls direction and speed (continuously variable) of rotation, fast travel and handling .

Hydraulic pilot controls .
Panel : remote place able with 6 meter long pilot hoses.

Electricals

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|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Total input power | :70KW |
| Standard Voltage | :400V |
| Frequency | :50HZ |
| Starter | :Delta-WYE starter |
| Safety | :circuit breaker, on/off reset buttons, :Phase loss/Phase reversal protection :Motor Over load Protection :Digital Earth leakage relay |
| Lighting | :Voltmeter / ammeter , indicator lamps :working 2x100w LED flood lights on drill :working x100w LED flood lights on tripod :Driving 2x20W LED lights |

Undercarriage

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|------------------|-------------------------------------------|
| Tracks | :Sealed and lubricated |
| Type | :Triplex Grouser |
| Width | :350mm |
| Brakes | :SAHR (spring applied hydraulic released) |
| Gradeability | :40% |
| Ground Clearance | :178mm |

Tramming kit

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|------------------|-------------------------------------------|
| Type | :Hydraulic powered |
| Power source | :Diesel engine |
| Engine | : Air cooled Diesel Engine |
| Power | :47Hp |
| Speed | :2300Rpm |
| Emission | : compliance as per CMVR STAGE III |
| Brakes | :SAHR (spring applied hydraulic released) |
| Gradeability | :40% |
| Ground Clearance | :178mm |

Dimensions –Standard Configuration

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|--------|-------------------------------------------------------------------------------------|
| Width | :standard 70.8inch(1800mm) |
| Height | :mast down tramming :94.5inch (2400mm) :Mast up drilling :116inch (2950mm) |
| Length | :mast down tramming :169.3 inch (4300mm) :Mast up drilling |
| Weight | :8000kg (17664 lbs) |

Options

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|--------------------------|------|----------------------------------------------------------------------|
| Fire extinguisher | Type | : Dry Chemical fire extinguisher |
| Electrical Panel | Type | : DGMS approved explosion proof NEMA4 standard , stainless steel. |
| Electrical motor | Type | : DGMS approved Explosion proof . |
| Electrical Cables | Type | : DGMS approved . |
| Hydraulic fluid | Type | : Fire resistance hydraulic fluid . |
| Tramming | Type | : Electric remote control . |

Specifications are subjected to modify or change ,Which are made time to time by DynatechIndustries Pvt Ltd and their suppliers according to their polices for upgrade their products.
All Dimensions and weights are approximate and are subjected to change without notice.



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