



DYNATECH

DYNATECH INDUSTRIES PVT LTD

UPD – SERIES

UNDERGROUND PRODUCTION ITH Drill

MODEL – UPD80

TECHNICAL SPECIFICATIONS



Product Introduction

Dynatech Industries Core Drill- **UPD80** is a versatile Track mounted DOWN-THE-HOLE-hammer Drill. Designed to drill with High pressure DTH hammers . High air pressure are achieved by an optional air booster .

Features

- Drill diameters from 3.5”(89mm) to 8.5”(216mm).
- Depth rated to 100m (330ft) .
- Accepts different size drill rods 2-3/8” OD to 5-1/2” OD.
- Unique compact feed Cylinder -25% more efficient than chain or cable feed.
- High efficiency long stroke
- This Drill Rig is used for large hole diameters ,and drilling for sub level caving, Drainage holes, service hole, slot raise , block caving, Ground sampling with reverse circulation method.
- 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

Method of drilling : Down-The-Hole Hammer

Drill Diameter holes : 3.5inch (89mm) to 8.5inch (216mm)

Depth : 330ft (100meters)

- By using High pressure air hammer. High pressure of air can be obtained with an optional air booster.

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 1.7m of head travel without the use of chains or wire ropes and equal force on both sides.
- The design has the advantage of doing away with chains and sprockets or wire ropes and pulleys, resulting in higher efficiency and less maintenance .
- Rotation unit drive mounting plate has longer wearing replaceable sliders for positive control of rotation unit movement up and down.

Type	: Hydraulic cylinder Direct coupled.
Head travel length	: 1, 7 m (5.75 ft)
Rod Handling length	: 1, 50 m (4.93 ft)
Retract force	: 51 KN (11465 lb)
Pull down force	: 51 KN (11465 lb)
Pull up speed	: 25 meters/min
Pull down speed	: 25 meters/min
Fine feed speed	: 4.5 metres/min
Centralizer opening	: 8.75inch (222mm)

Rotation Unit

- The Rotation unit is powered by a Hydraulic motor , a sealed gear box for faster and safer operation.

TORQUE AND SPEED RATINGS

Max Rotation speed	: 80rpm
Max torque	: 5500NM

- Note: Rotary Head indicated Output Speeds & torques are on 100% efficiency, Actual speed is effected by Prime mover Rpm and motor displacement settings

Positioning

- The feed is positioned horizontally for tramming .
- 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 clinders.

Slide over	: 700mm (27.55inches)
Swing angle	: 360degree
Feed extension	: 750mm
Stinger extension top	: 1524mm (5.0 ft)
Stinger extension bottom	: 610 mm (2.0 ft)

Powerpack

➤ The power pack consists of a rugged skid frame on which is mounted the 45kw(60hp) 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.

Electric Motor	: 45kW (60hp) 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.

Hammer lubricator:

Metering capacity	: 4L/Hr (adjustable)
Tank size	:10lts
System	:venture valve system.
Max pressure	:350psi.

Water injection system

Water pump type :Triplex Plunger pump
Capacity :36LpmCapacity
Pressure :30bar max
Drive :Hydraulic

Undercarriage

Tracks :Sealed and lubricated
Type :Triplex Grouser
Width :350mm
Brakes :SAHR (spring applied hydraulic released)
Greadeability :65%
Ground Clearance :178mm

Electricals

Total input power :55KW
Standard Voltage :415V
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
:Voltmeter / ammeter , indicator lamps
Lighting :working 2x100w LED flood lights on drill
:Driving 2x20W LED lights

Dimensions –Standard Configuration

Width :standard85inch(2159mm) type
:optional 75inch (1905mm)
Height :mast down tramming
:103.5inch (2630mm)
:Mast up drilling
:126inch (3200mm)
Length :mast down tramming
:187.5inch (4762mm)
:Mast up drilling
Weight :171.6inch (4360mm)
:8500kg (18739lbs)



UPD80 Technical Specification

Options

Fire extinguisher	Fire extinguisher	Type	: Dry Chemical fire
Electrical Panel		Type	: NEMA4 standard , stainless steel.
Tramming		Type	Air cooled Diesel engine
		Power	40Hp
Drill Operation control system		Remote Panel	: By Danfoss electronic system and propositional Joys ticks.
Remote ramming		Radio remote	: Tramming can be done by radio 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.



Dynatech Industries Pvt Ltd
Plot no 216/4, IDA Phase II,
SectorIII, Lane-3,
Cherlapally,
Hyderabad,
Telangana,
India
Pin code -500051

Phone: + 91 40 27260313
Phone: + 91 40 27260693
Fax : + 91 40 27260679
Email: info@dynatechindustries.com
Email: marketing@dipl.co
URL// www.dynatechindustries.com