



OYS Horizontal Thrust Boring Machines are designed to bore the inevitable need of many public works and construction applications, the coated holes of diameter between 12" and 120".



It is the essential equipment in your horizontal pipe driving applications through several kinds of highways, roads and railroads.

The hydraulic system, by combining the design of easy use with the torque it forms when needed, will provide maximum safety while the machine is on hold.



Fast and easy usage, efficient performance and outstanding power and engineering are the features of Özkanlar Horizontal Trust Boring Machines.



**Pile Driving Equipment**

[www.oms.com.de](http://www.oms.com.de)

OYS SERIES

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**Horizontal Thrust Boring Machines**



To watch the video scan the QR code.

Boring method is the procedure to drive the pipes whose diameter varies between 250 mm – 1800 mm through auger horizontal drill. With this method, all kinds of highway, railway, passing can be managed. At the lines where Cover Steel Pipes should be used, ÖYS Series horizontal pipe jacking machines which we manufacture and sell and which work with the method of drilling and discharging are used.

# OPERATING PRINCIPLE

# TECHNICAL SPECIFICATION

## First Phase



Once the entrance and exit points are determined, necessary topographic measurements and job site studies are completed; a line mark is formed. Possible damages (like water, telecommunication, sewerage and electricity energy transmission networks) that may occur during shaft and tunnel excavation is checked and if necessary the transition code is identified by displacing.

## Second Phase



The excavation of the shaft which is convenient for the Project which is prepared according to the sizes of the machine to be used, diameter of the pipe and passing altitude is taken. Then, the formwork is set, the reinforcement is prepared, hip and base concrete is laid. If necessary, the side partition walls are made. Unless there is no danger considering the job safety, the partition walls have no contribution to the horizontal drilling.

## Third Phase



The walking rails of the machine are located in the chimney by a crane, and are located on the base concrete. The walking rails are adjusted according to the drilling axle. The middle axle of the rail should match with the drilling axle.

## Fourth Phase



The augers are located in the steel pipes which are 6m in length and in enough thickness (minimum %1 thickness (of the diameter)). The pipe is carried safely by a crane after the

balance point is identified; and is located in the chimney. The connection socket of the auger is fixed to the rotation housing of the machine. The fixation pin and cotter pin are mounted. Once the auger is connected to the machinery, pipe to be laid is abutted on the pushing mechanism of the machine and the drilling head is put on the starting point. Then, the drilling process starts.

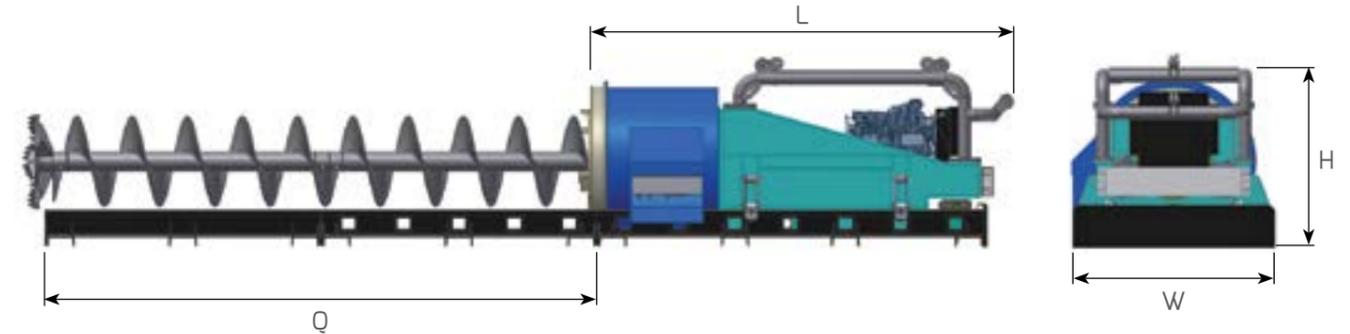
## Fifth Phase



After the auger arrives at the end, the rotation movement stops. The machine is withdrawn by the pipe length, and the other pipe which has an auger in is lowered. By welding,

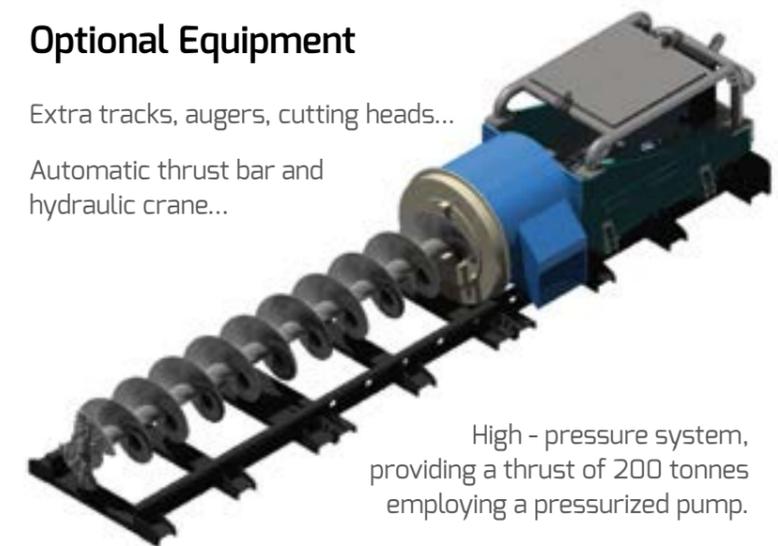
this process goes on till the line ends. Meantime, by entering in the pipe at certain intervals, direction and pitch controls are done and the line is completed.

## Dimensions



## Optional Equipment

Extra tracks, augers, cutting heads...  
Automatic thrust bar and hydraulic crane...



High - pressure system, providing a thrust of 200 tonnes employing a pressurized pump.

### Cutting Heads

Özkanlar Cutting Heads are designed to be long-lasting and at maximum efficiency boring applications.

### Heavy-Duty Rocky Heads

These tough and proven heads are at a shape of "V" for self-centralization, which results in a directional move. They are ideal in rocky and relatively less hard environments with fast substituted cutting heads.

### Combination of Heads

Rocky and soil cutting heads are ideal in environments with big rocks, soft rocks and clayey soils.

### Mud Cutting Heads

These high - quality cutting heads are applicable in boring works in all places except rocky ones. They are recommended for horizontal pipe driving of diameter less than 300 mm.

## Technical Specification

	ÖYS 42	ÖYS 60	ÖYS 72
Engine Power	70 - 80 HP Diesel	160 HP Diesel	180 HP Diesel
Transmission	3 ileri 1 geri	6 ileri 1 geri	6 ileri 1 geri
Thrust	115 ton	544 tons	544 tons
Rail Length (Q)	2 x 3.00 m	2 x 3.00 m	2 x 3.00 m
Drive	12.70 mm/s	8.33 mm/s	6.50 mm/s
Height (H)	1300 mm	2050 mm	2100 mm
Length (L)	3500 mm	4350 mm	4350 mm
Width (W)	1200 mm	2150 mm	2150 mm
Weight	3450 kgs	8500 kgs	12500 kgs
Drilling Diameter	10" - 42"	20" - 60"	24" - 72"