MP 145 PNEUMATIC HAMMER

Description
The pneumatic hammer MP 145 is designed for tunneling in compacted soils, for drilling through and blind horizontal boreholes in compacted soils, and for pipe driving.

Technical specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter of laid pipes</td>
<td>up to 300 mm</td>
</tr>
<tr>
<td>Length of laying</td>
<td>up to 60 m</td>
</tr>
<tr>
<td>Diameter of driven boreholes</td>
<td>greater than 145mm</td>
</tr>
<tr>
<td>Length of driven boreholes</td>
<td>smaller than 40m</td>
</tr>
<tr>
<td>Energy of unit impact</td>
<td>400 J</td>
</tr>
<tr>
<td>Impact frequency</td>
<td>greater than 4 Hz</td>
</tr>
<tr>
<td>Type of energy input</td>
<td>compressed air</td>
</tr>
<tr>
<td>Dimensions (excluding the hose length)</td>
<td>1830 mm</td>
</tr>
</tbody>
</table>

MP 145 machine for borehole drilling and pipe driving
1 – anvil; 2 – muff; 3 – striker; 4 – valve muff; 5 – valve.

Technical appraisal and economic benefits
Advantages of the trenchless operation methods are:
- minimal volume and cost of preliminary and final operation stages (in pipeline driving, the volume of excavation decreases by a factor of 6-10);
- mobility of energy supply (compressed air is fed from a mobile pump);
- sufficient accuracy of borehole drilling and steel pipeline driving;
- possibility of pipe driving under winter conditions.

Application area
The pneumatic hammer MP 145 is used in construction operations. Application of the pneumatic hammer is particularly effective in arrangement of communication passaged under highways and railroads, in the territories of operating enterprises, under confined urban conditions, etc.

Development stage
Average-scale batch production. The pneumatic hammer MP 145 is marketed both in Russia and abroad.
**Patent situation**
There are three patents of the Russian Federation for the pneumatic hammer design and its application technology.

**Commercial offers**
Production and procurement contract.

**Estimated cost**
The cost of the pneumatic hammer MP 145 is 4800 USD.

**Contacts**
Cand.Sc. Vladimir P. Boginsky, Innovation Secretary
Institute of Mining, Siberian Branch of the Russian Academy of Sciences
54, Krasny Prospekt, Novosibirsk, 630091, Russia
Phone: (383) 217-07-68
Fax: (383) 217-06-78
E-mail: innotdel@misd.nsc.ru
http://www.misd.nsc.ru/