



Object questionnaire for the statical calculation of jacking pipes
in accordance with ATV- A 161 (HDD - Horizontal Directional Drilling)

(1/3)

Project: _____

Client: _____

Construction company: _____ Contact person: _____

Street: _____ Postal Code: _____ City: _____

Phone: _____ Fax: _____

Pipe details

Pipe material: PE 80 PE 100 PE 100-RC PP-HM

Pipe dimension: OD: _____ mm Wall thickness: _____ mm SDR: _____

Information on calculation


Use of support material or lubricant:


Yes No Support material/lubricant pressure: _____ bar

Complete grouting of the overlap:

Yes No Pressure when grouting the overlap: _____ bar

Course of the pipe jacking section

Straight  With pilot jacking Without pilot jacking

Not straight  One curve Several curves

Minimum planned curve radius: _____ m

Pipe angle (only when the course is not straight):

- Routing with transition curves
- Routing without transition
- Pilot jacking with transition curves
- Pilot jacking without transition curves



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Soil properties

General information:

Soil structure: Loose rock* Part rock, part loose rock** Rock

* Support angle pipe 2α : 180° (normal case) 90° (special case)

*/** Soil group: G1 G2 G3 G4

** K 2.0 is present: Yes No

If yes: Earth pressure ratio K 2.0 of the rock _____ [-]

Deformation module of the rock _____ N/mm²

Support angle (rock, construction state): 30° 60°

Support angle (rock, operating state): 30° 60°

Specific weight of the soil:

Manual specification of the specific weight of the soil: Yes No

Specific weight of the soil _____ kN/m³ (RF: 20 kN/m³)

Buoyant specific weight of the soil _____ kN/m³ (RF: 11 kN/m³)

Earth pressure ratio above the pipe crown K1:

Compactness of the soil: Very loose Loose Loose to medium density

Medium density Medium density to dense Dense

Dense to very dense Very dense

Loads

Constant external loads:

Soil cover: _____ m Additional area load: _____ kN/m²

Groundwater above pipe base: _____ m



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Internal pressure and water fill:

Internal pressure (construction state): _____ bar

Internal pressure (operating state): _____ bar

Pipe is filled with liquid during pipe jacking: Yes No

Pipe is filled with water during operation: Yes No

Specific weight of the fill medium: _____ kN/m³

Traffic loads:

None

Road traffic load LM 1
(3 m lane widths, DIN FB 101)

Road traffic load LM 1
(2.7 m lane widths, DIN FB 101)

Equivalent load on green spaces 0.5 x LM 1 (DIN FB 101)

Rail traffic load LM 71, single track

Rail traffic load LM 71, multiple track

Air traffic load BFZ 90

Air traffic load BFZ 180

Air traffic load BFZ 350

Air traffic load BFZ 550

Air traffic load BFZ 750

Weakening through slots / perforation:

Slots

Without slots

1/3 crown

2/3 crown/side

Distance between slots: _____ mm

Width of slots: _____ mm

Perforation

Not perforated Perforated → Perforation distance _____ mm

Number of holes/m: _____ 1/m Hole diameter: _____ mm

Date: _____

Signature:  _____