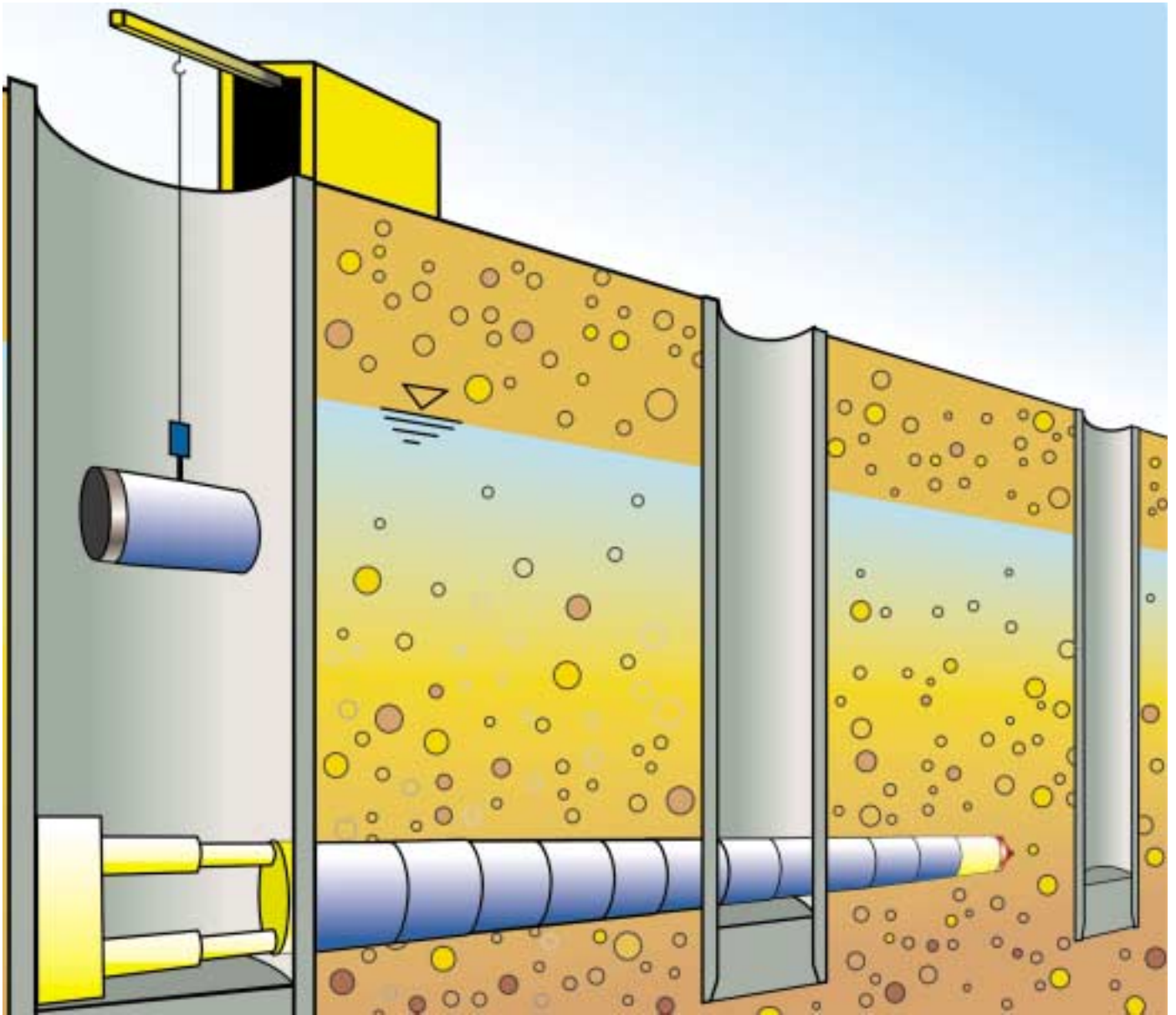
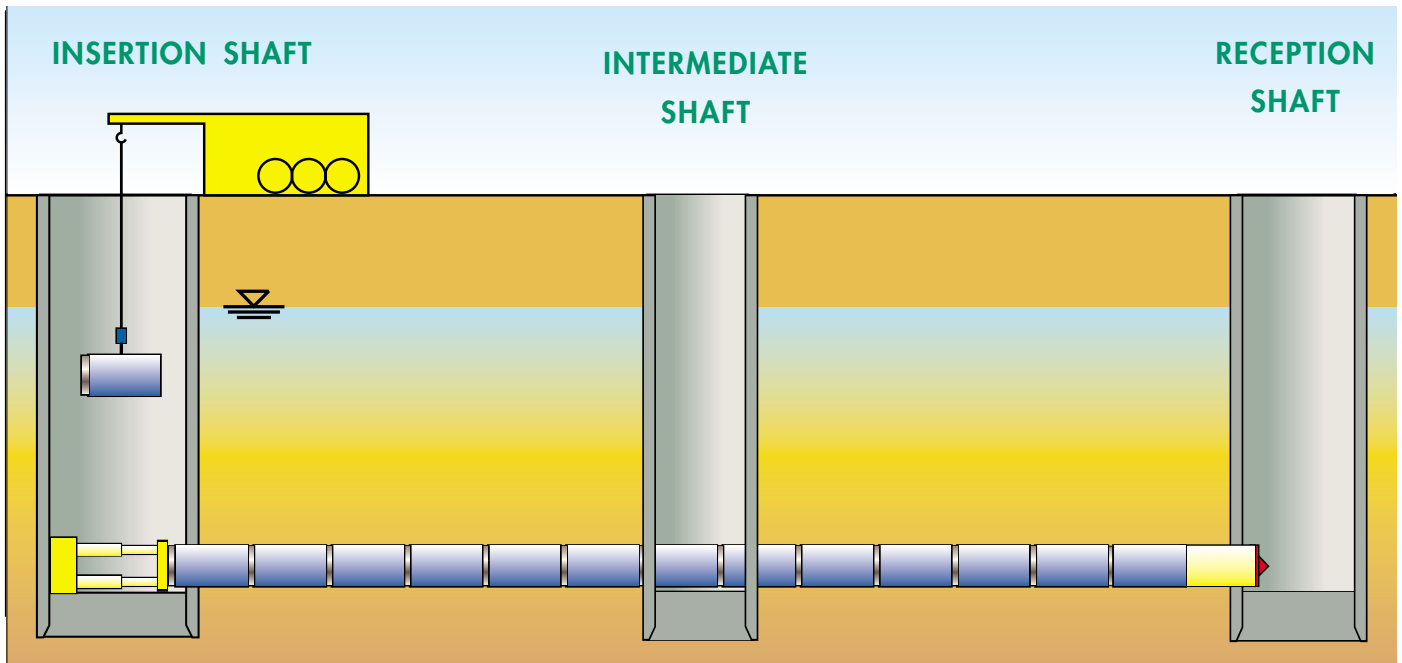


INSERTION AND RECEPTION SHAFTS FOR MICROTUNNELING



The environmentally friendly and cost-efficient solution for constructing insertion and reception shafts for microtunneling is the use of circular steel-reinforced concrete shafts. These shafts made of pre-fabricated elements are designed for future use as manhole or junction box structures. When the ground water level is high they can be installed cost-efficiently using the caisson method. Meyer, the manufacturer of a broad product range of pipe jacking products, can plan, design and manufacture insertion and reception shafts in any dimension required by the contractor and client.

STEEL-REINFORCED CONCRETE SHAFTS FOR MICROTUNNELING



SYSTEM I

insertion shaft	DN 3200
jacking pipes	DN 200 – DN 800
intermediate shaft	DN 2000
jacking pipe length	L = 2,00 m
reception shaft	DN 2600

SYSTEM II

insertion shaft	DN 2000
jacking pipes	DN 100 – DN 300
intermediate shaft	DN 2000
jacking pipe length	L = 1,00 m
reception shaft	DN 2000



FEATURES

- Tight pipe connections with interlocking spigot and bell as specified in DIN EN 1916 and elastomeric sliding ring seal as specified in DIN EN 681-1;
- Protruding steel-reinforced concrete bell, beveled inside;
- Recess for interlocking connection with hydraulic concrete;
- Recess for structural connection with steel-reinforced concrete bottom slab;
- Pipe passage section (entrance and exit ring) made of glass fibre-reinforced concrete with injection nipples;
- Alternative design as required by the customer;
- Round head transportation anchors, DEHA system; steel bars for firm, non-extendible connection between shaft elements;
- steel-reinforced concrete cover slabs.

BENEFITS

QUALITY

- Watertight steel-reinforced concrete structure, vibration-compacted;
- Shaft rings
- Hardened in the steel molds;
- Concrete quality B 45, with sulfate resistant portland cement;
- Dimensions and reinforcement as specified in DIN EN 1916 and DIN EN 681-1 Eurocode.

SERVICE

- Design drawings, rings, and shaft parts lists drafted by shaft design software;
- Proof of buoyancy protection;
- Cost-efficient offer on the basis of the optimum design.

TECHNICAL PROCESSING

- Structural calculation qualified for certification;
- Certification of structural calculation by registered engineer.

DELIVERY

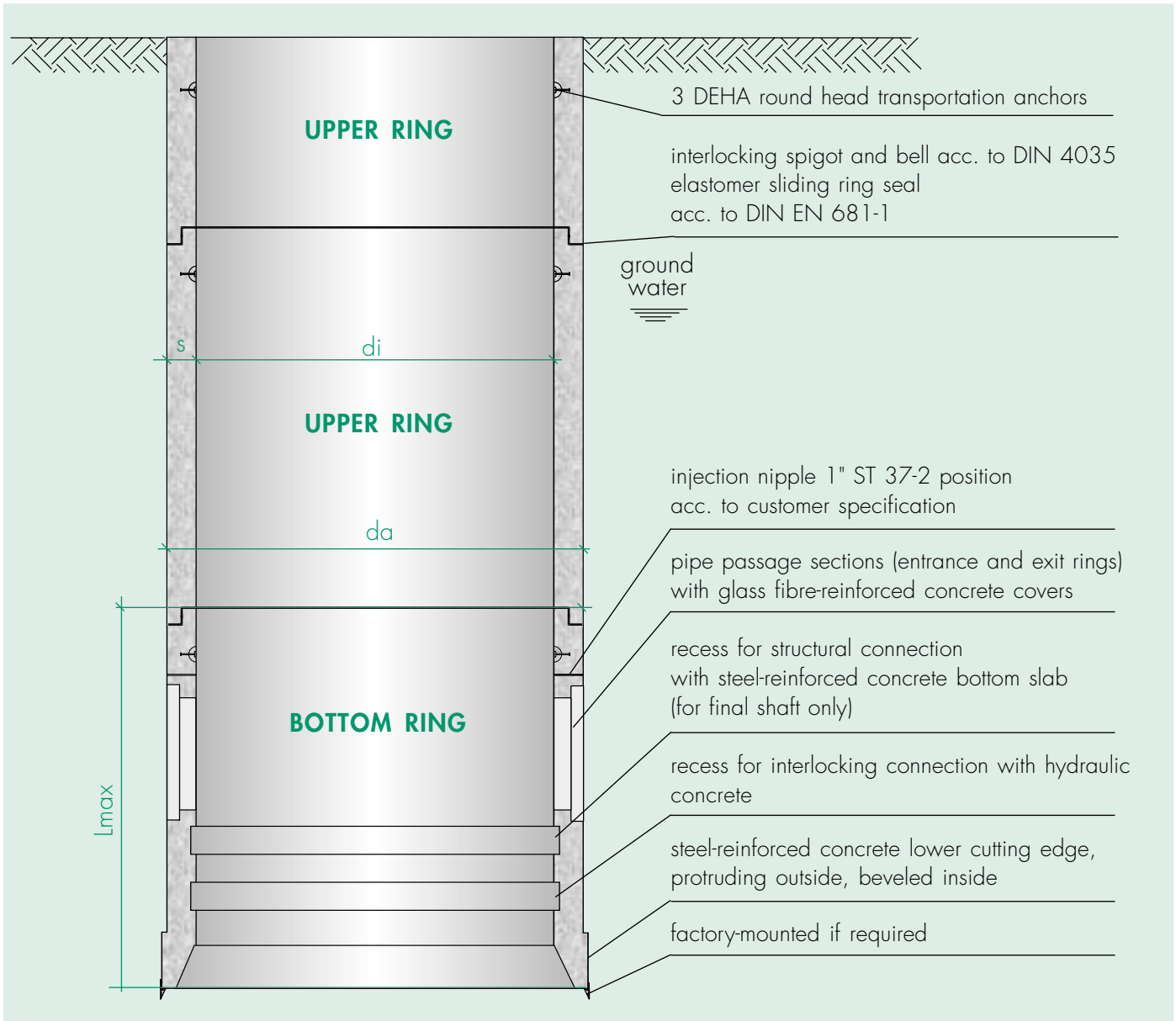
- Shafts delivered in accordance with contractors schedule
- Special approval for oversize transports.

- Quick, cost-efficient installation of any depth using caisson method;
- Use of circular shafts allows choice pipe jacking in any direction;
- Dewatering not required;
- Vibration-compacted, smooth, non-porous concrete surface for easier lowering into the ground;
- Exact positioning of pipe passage sections (entrance and exit ring) and glass fibre-reinforced concrete covers;
- Thrust blocks for pipe jacking force in the bottom of the insertion shaft;
- Shaft drawings available on short notice based on the following information:
 - ground surface profile
 - ground water level
 - deflection angles
 - pipe invert level
 - jacking pipe exterior diameter
 - type of pipe jacking machine



STEEL-REINFORCED CONCRETE SHAFTS

DN 3200 INSERTION SHAFT



DIMENSION TABLE FOR START AND RECEIVING SHAFTS

	di	s	Da	Lmax ⁽¹⁾	weight t/m
DN 3600	3600	360	4320	3300	11,20
DN 3200	3200	260	3720	3650	7,07
DN 2600	2600	200	3000	3650	4,40
DN 2000	2000	200	2400	3000	2,46

All dimensions are specified in mm.

¹⁾ When the shafts are designed the individual lengths of upper parts and bottom part are adapted to the local conditions and structural requirements.



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