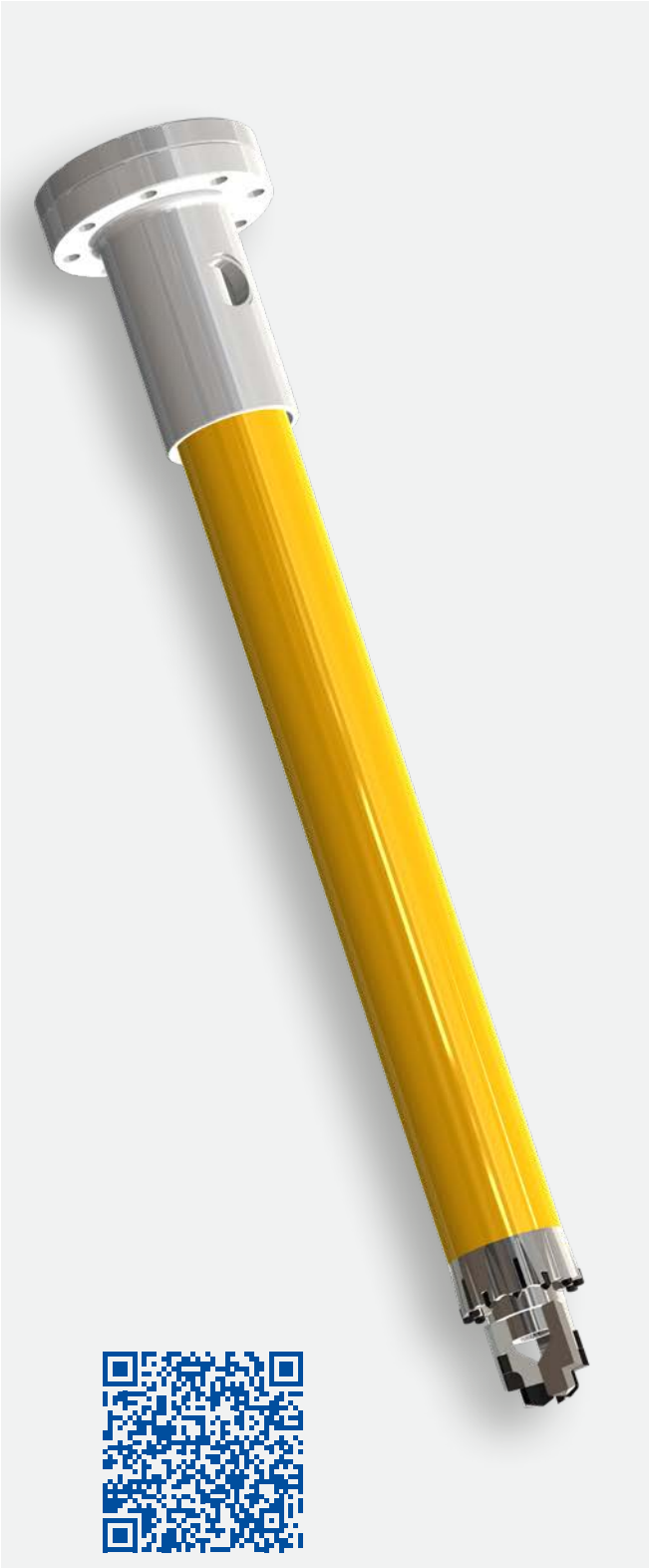
SYSBOHR®
Drilling Technique for the Construction Industry

1 OVERBURDEN DRILLING SYSTEM DUPLEX D 88.9 mm – 323.9 mm (3-1/2" – 12-3/4")

with rotary drill head unit



A method of drilling through the overburden with the aid of an outer casing to support the borehole wall is the so-called duplex drilling process. The system depicted here is drilled simultaneously with outer casings and inner rods and driven by a rotary head unit.

The flushing for the discharge of the cuttings is directed through the centre of the inner drill string, conveyed to the toe of the borehole and carried back up the drill string, in the annular space between the inner surface of the outer casing, and the outer surface of the inner rod, above ground and expelled from the system.

Depending on the ground formations, casing bits and rotary drill bits are utilised and / or a DTH hammer as well. If the use of flushing media such as air or water are prohibited during drilling due to structural or environmental concerns, then an auger drill rod may be used to discharge the drill cuttings to surface, in a similar fashion to an Archimedean screw. In this case, the outer casings and inner auger drill rods are drilled successively. First the outer casing string and then the auger string are drilled in succession or vice versa.

There is a complete systems offering from D 88.9 mm (3-1/2") to D 323.9 mm (12-3/4") available with a wide sortiment of external casings and inner rod combinations, as well as a plethora of ground specific drill bit designs available.

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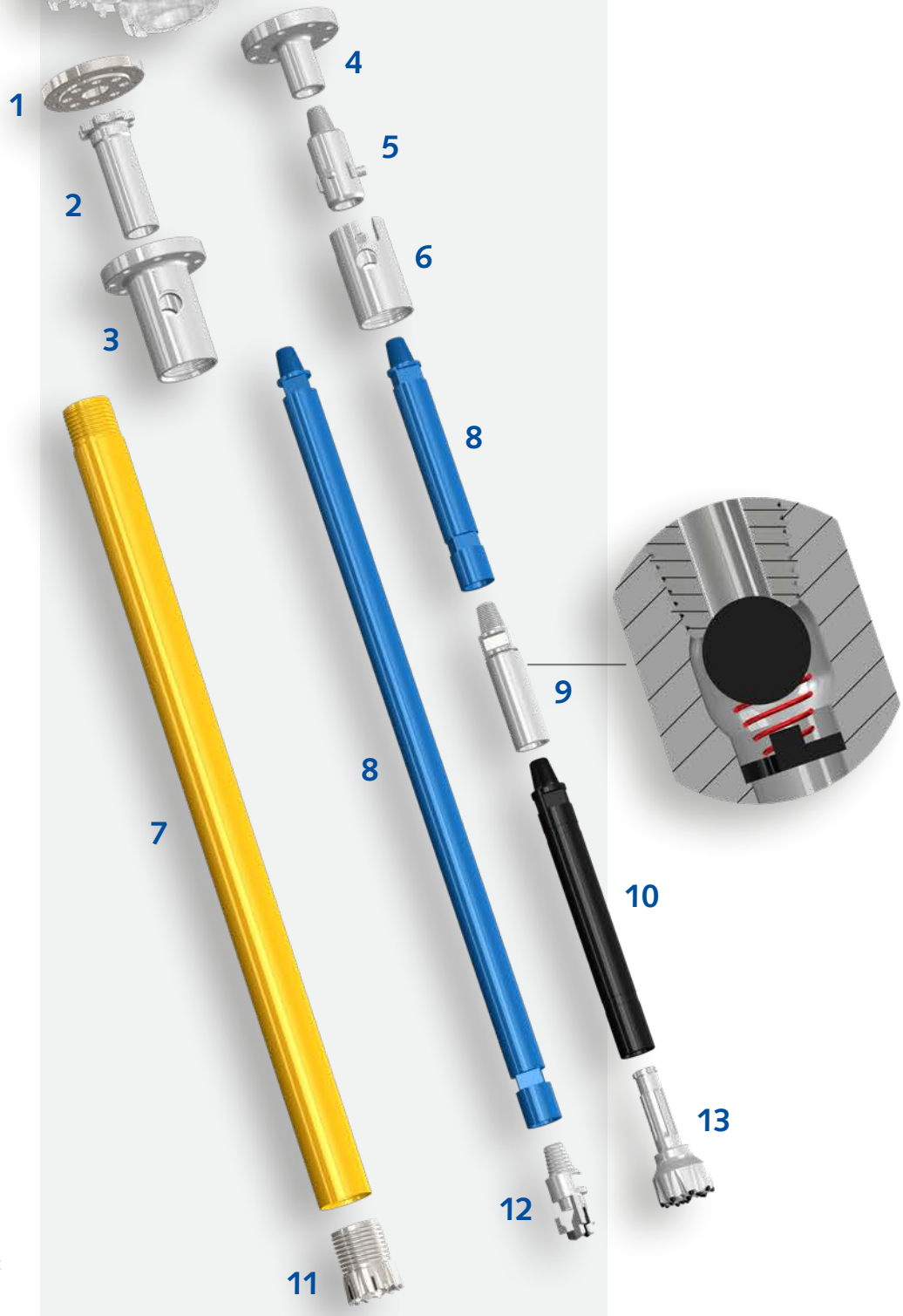
OVERBURDEN DRILLING SYSTEM DUPLEX

with rotary drill head unit

DIAMETERS OF
88.9 mm TO 323.9 mm
(3-1/2" TO 12-3/4")



COMPLETE FLEXIBIITY

Each of our drilling systems are custom-made – 100 % adapted to the project needs and the ground conditions encountered at the construction site.

All drill bits are available in a plethora of designs and borehole diameters, project and / or customer specific

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1 Interface flange between rotary head and balancing rod

2 Balancing rod for the inner drill rods with interlocking teeth to connect to ejection flange

3 Ejection flange / bell for the outer casing with interlocking teeth to connect to balancing rod

4 Flange to inner rods to suit rotary head unit

5 Bayonet adapter connection with radial pins to inner rods

6 Bayonet casing bell connection with mating slots to bayonet adapter and ejection port

7 Rotary casing (outer drill string) – in lengths of 500 mm (approx. 1-5/8') to 6000 mm (approx. 20')

8 Rotary drill rods (inner drill string) – in lengths of 500 mm (approx. 1-5/8') to 6000 mm (approx. 20')

9 Check valve

10 Down-The-Hole (DTH) Hammer

11 Casing bit

12 Rotary drill bit

13 DTH drill bit

The thread profiles are available in right-hand (RHT) and left-hand (LHT), as well as conical and cylindrical versions. All supplied casings are realised through various manufacturing methods and are application specific.

THE SYSTEM IN ACTION

PRECISION ENGINEERED DRILLING SOLUTIONS FROM INITIAL CONCEPT TO FINAL TOOL SYSTEMS – EVERYTHING UNDER ONE UMBRELLA!

Sysbohr's highly qualified team develop custom tooling and economically efficient solutions for all drilling projects in the special civil engineering and geothermal energy sectors.

THE ADDED ADVANTAGE

Project planning including: Support and guidance of drilling personnel over the entire duration of the project at hand. Quick and on-track customer results mirrrored by Sysbohr's quick turn around times from order to final delivery.

We look forward to being your partner of choice on your next projects and challenges.

Sysbohr's offering includes the development and production of tools and accessories for the entire range of applications in diameters from 51 mm (2") to 610 mm (24").

The systems shown in this product catalogue show standard system variants and can be combined together to form unique systems if required.

Non-off-the-shelf products for complex drilling applications and extreme drilling conditions can be tailor-made to meet customer needs and expectations.

Sysbohr's sales team look forward to guiding customers through a detailed in-house consulting process, whereby a comprehensive drilling solution is identified and generated.

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