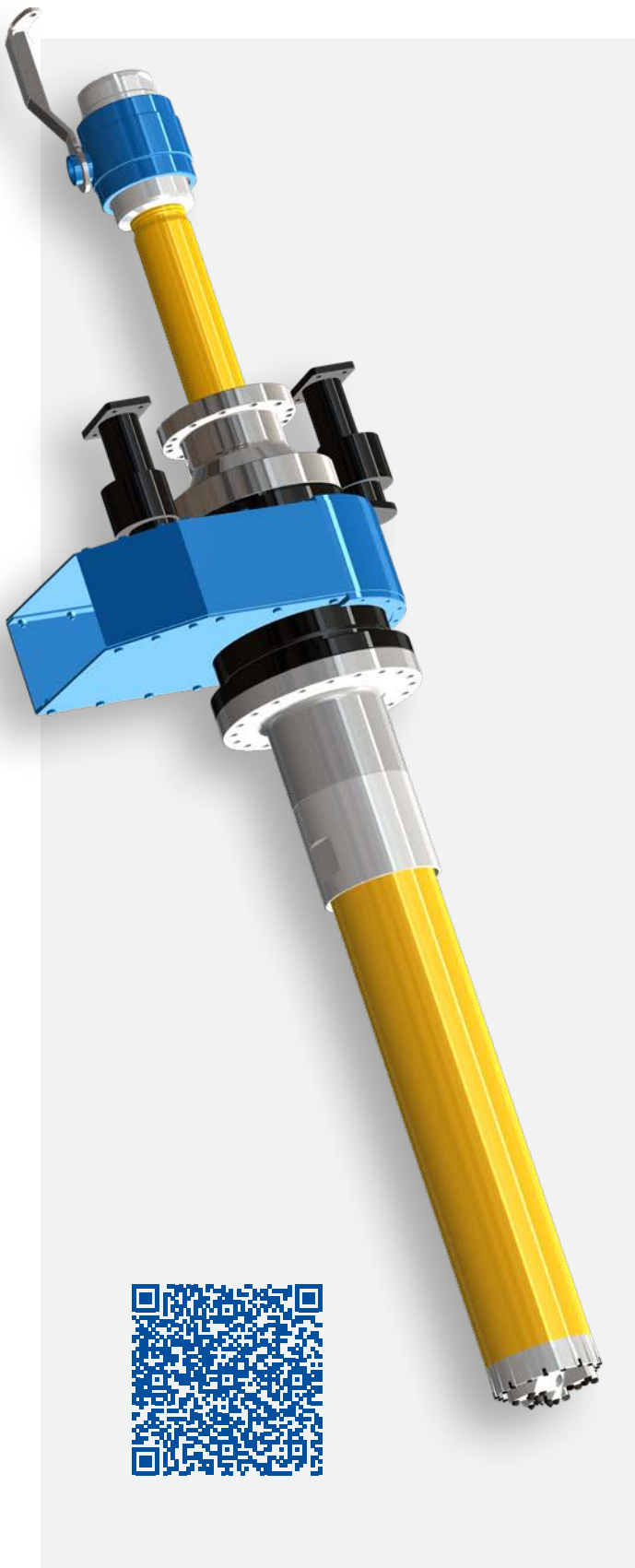


4 OVERBURDEN DRILLING SYSTEM DUPLEX D 88.9 mm – 219.1 mm (3-1/2" – 8 5/8") with double head unit (rotary / rotary percussion)



Depending on the intended purpose of the borehole, for instance, to support a bored diaphragm wall, or a subterranean curtain wall, a cased drilling system is necessary to realise such a borehole. The system listed here features an external and an internal drill string, respectively. The internal drill string is driven by a hydraulic drifter, while the outer drill string is driven by a rotary head or vibro drill head unit, each drill string driven independently from the other.

This system is characterised by outer casings and inner drill rods that rotate in opposite directions to each other. 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 together with the spoils, above ground and expelled from the system.

Due to the individual movement of the rotary heads on their respective slide carriages, it is possible to either drill with the inner drill string completely retracted and encased within the outer drill string, or to drill with the inner drill string leading the outer drill string acting like a pilot. The latter method results in a greater drilling accuracy. For this reason, the system is applied in canopy tube, exploratory drilling, as well as anchor drilling applications.

Depending on the ground conditions, the inner percussion rods that are continuously rotated with percussion may be simultaneously drilled with a DTH hammer. Here a specially designed flushing head, the Dual Percussive Flushing Head (DPFH) allows for the simultaneous operation of hydraulic drifter and DTH hammer.

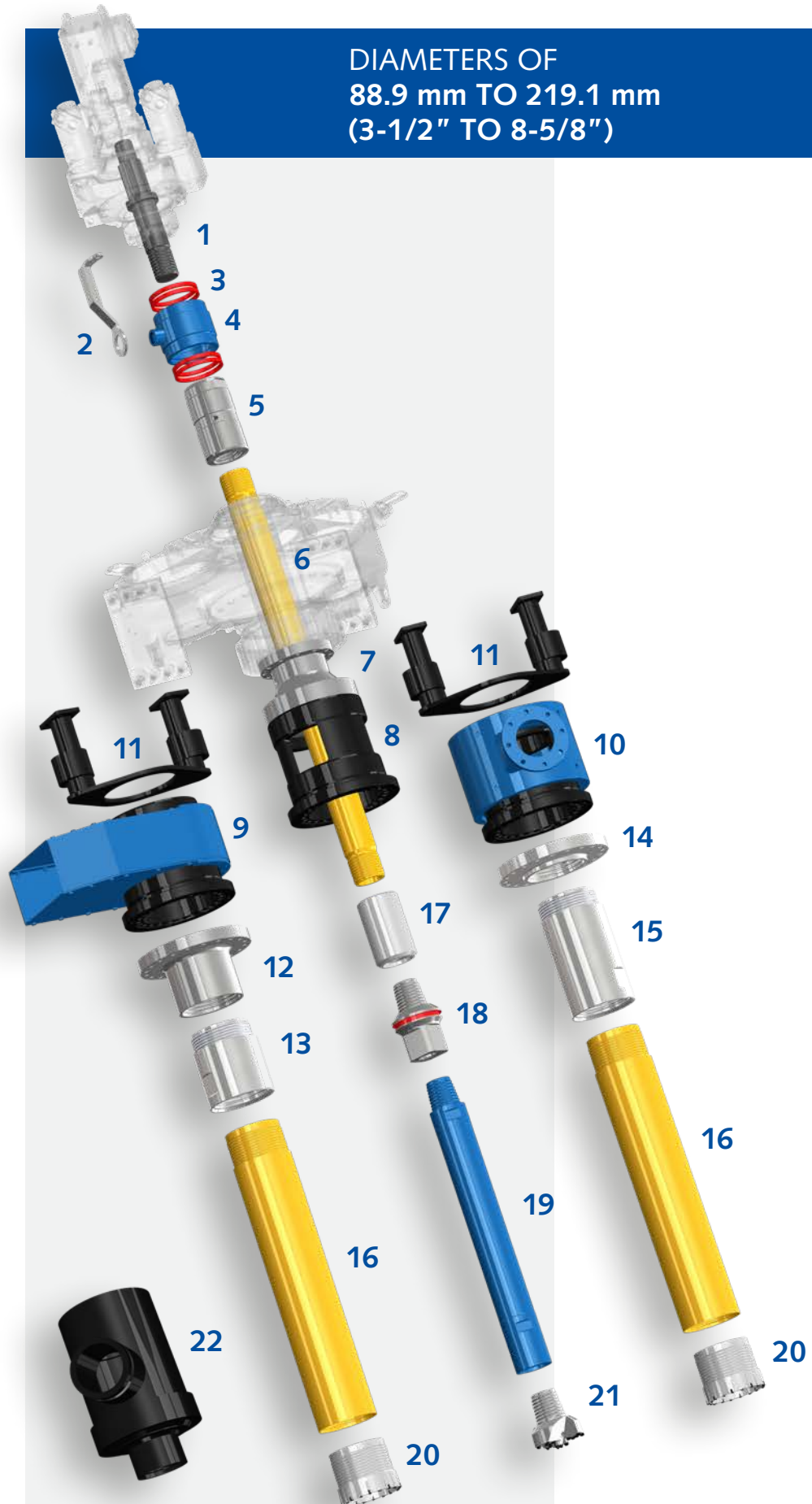
Should flushing with air or water be prohibited due to inherent structural or environmental concerns, inner auger drill rods may be used to carry the spoils to the surface.



OVERBURDEN DRILLING SYSTEM

with double head unit (rotary / rotary percussion)

DIAMETERS OF
88.9 mm TO 219.1 mm
(3-1/2" TO 8-5/8")



COMPLETE FLEXIBILITY

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

- 1 Shank adapter to suit hydraulic drifter brand and model

- 2 Flushing ring holder taylor-made to integrate seamlessly with brand and model of hydraulic drifter as well as drill mast characteristics

- 3 Flushing ring lip seals

- 4 Flushing ring with a suitable / incorporated hose connection

- 5 Flushing shaft to suit shank adapter, ejection bell and balancing rod

- 6 Balancing rod with length adapted to machine and double head

- 7 Double flange to suit front rotary head unit and balancing rod

- 8 Ejection bell

- 9 Ejection bell with splash protection

- 10 Discharge preventer / diverter

- 11 Holder / Traverse for splash protection or discharge preventer / diverter

- 12 Drive flange to suit outer casings

- 13 Adaptor-sub (thread-saver, starter casing, grout injection pipe)

- 14 Interface flange (centring flange)

- 15 Adaptor-sub (thread-saver, starter casing, grout injection pipe)

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

- 17 Adaptor-sub (thread-saver)

- 18 Injection adaptor / piston

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

- 20 Casing bit

- 21 Percussion drill bit

- 22 Soil / ground preventer – delivered with a sheath type connection, threaded connection, bayonet system or as a multi-part system

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 mirrored 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.

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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.