SYSBOHR®
Drilling Technique for the Construction Industry

8 SIMPLEX JET GROUTING DRILLING SYSTEM D 76,1 mm – 114,3 mm (3″ – 4-1/2″)

with hydraulic drifter

This drilling system is an erosion based system that creates in situ engineered geometries, such as columns, of mixed soil-cement in the subsoil. The aim is to improve the ground conditions by i. e. consolidation, vertical shoring or slicing the soil structure by means of a high velocity jet of grout at pressures of 100 bar (1450 psi) to 600 bar (8700 psi). The drill tools have been specifically designed to withstand these high pressures.

The drilling process is primarily performed with a hydraulic drifter and external flushing.

Having reached the final depth, the rods will be retracted slowly, allowing a jet of cement suspension to cut through the surrounding ground. The corresponding nozzles are mounted within the monitor. The drilled cuttings are partly discharged with the return movement of the flushing medium, partly homogenised with cement.

There are complete systems with D 76,1 (3″) up to 114,3 (4-1/2″) with different nozzle diameters and percussion drill bit types available that are suitable for soils with rocky enclaves and rocky strata.

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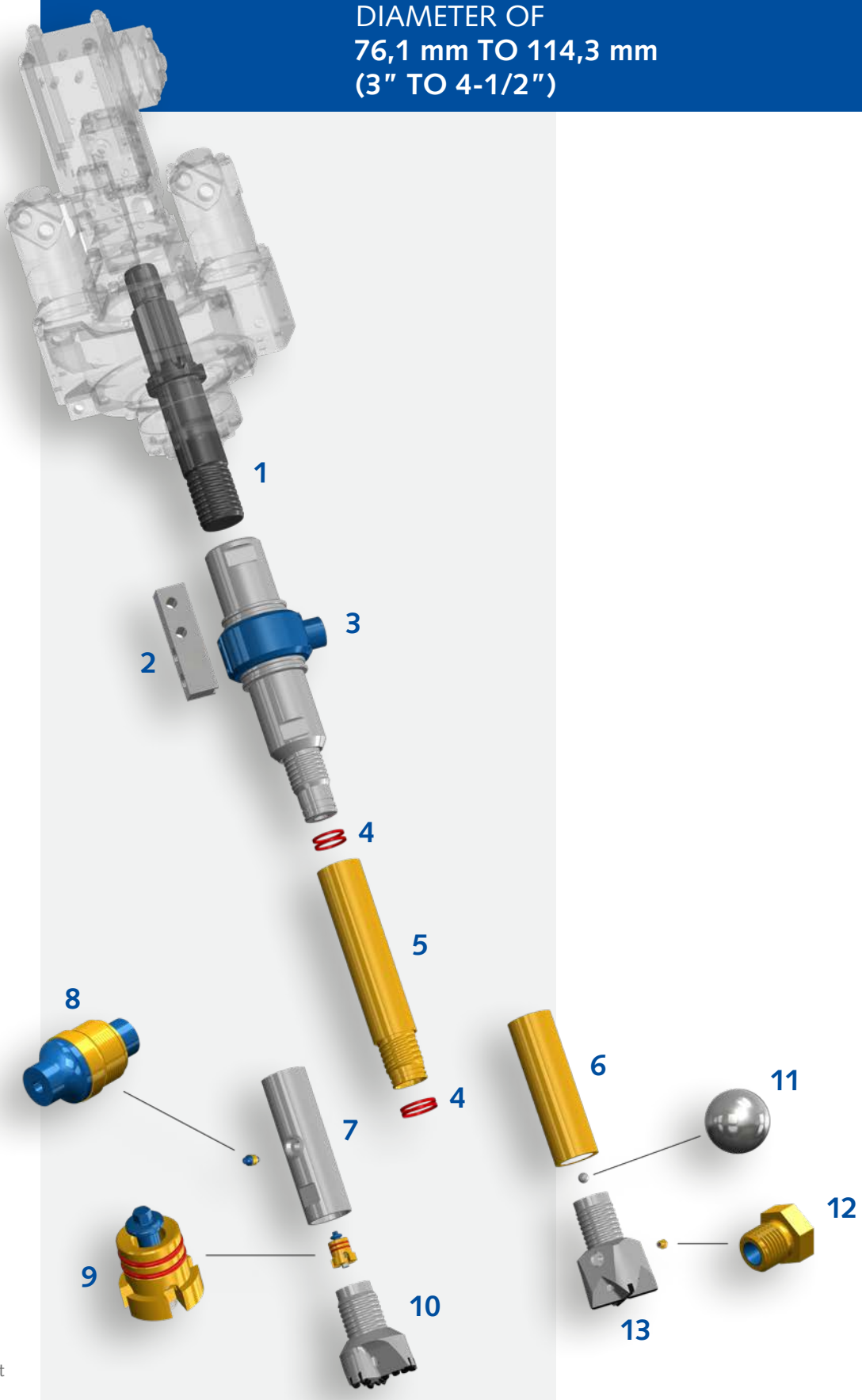
SIMPLEX JET GROUTING DRILLING SYSTEM
with hydraulic drifter

DIAMETER OF
76,1 mm TO 114,3 mm
(3″ TO 4-1/2″)



COMPLETE FLEXIBIITY

Each of our drilling systems are custom-made – 100 % adapted to the project needs and the ground conditions en-countered 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	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	Simplex jet grouting flushing head (swivel) to suit shank adapter and jet grouting tubes
4	U seals (1 set of 2)
5	Simplex jet grouting tubes – in lengths of 500 mm (approx. 1-5/8′) to 6000 mm (approx. 20′)
6	Starter rod with box threads at both ends – connected to a percussion drill bit with incorporated nozzle seat
7	Simplex jet grouting monitor with nozzle seats
8	Jet grouting nozzles in diameters of 2 mm (5/64″) to 8.5 mm (21/64″)
9	Jet grouting automatic valve with matching springs (blanche, green, copper, red and blue) Each colour has a certain spring force. More information available upon request.
10	Percussion drill bit
11	Steel ball (to be used with the drop ball method if preferred)
12	Jet grouting nozzles in diameters of 2 mm (5/64″) to 8.5 mm (21/64″)
13	Percussion drill bit with nozzle seats and steel ball seat (drop-ball method)

The thread profiles are available in right-hand (RHT) and left-hand (LHT), as well as conical and cylindrical versions.

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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