

9 DUPLEX JET GROUTING DRILLING SYSTEM D 76.1 mm – 114.3 mm (3" – 4-1/2") with rotary head unit and hydraulic chuck



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 rotary head unit 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 from D 76.1 (3") up to D 114.3 (4-1/2") with different nozzle diameters and drill bit types available that are suitable for boulders and loamy grounds and other ground conditions.

DUPLEX JET GROUTING DRILLING SYSTEM

with rotary head unit and hydraulic chuck

DIAMETERS OF
76.1 mm TO 114.3 mm
(3" TO 4-1/2")



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 Duplex jet grouting flushing head (swivel)
- 2 Flushing head (swivel) mounting brackets
- 3 U-seal (1 set of 2) for the outer tubes
- 4 U-seal (1 set of 2) for the inner tubes
- 5 Duplex jet grouting tubes –
in lengths of 500 mm (approx. 1-5/8') to
6000 mm (approx. 20')
- 6 Duplex jet grouting monitor with nozzle seats
- 7 Jet grouting nozzles in diameters of 2 mm (5/64")
to 8.5 mm (21/64")
- 8 Jet grouting air nozzle
- 9 Sealing plug for high pressure passage
- 10 Sealing plug for air passage
- 11 Air passage sealing plug for non-air supported
jet grouting (not shown)
- 12 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.
- 13 Rotary reamer – only in combination with a
rotary drill bit
- 14 Rotary drill bit / drag bit

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 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.