



New thread profile PFS

*(Potens Filo Subtegmis=High-performance thread)

for rotary- percussion drilling with DTH-hammer and hydraulic drifter

Patent pending

Due to the current technical development towards more powerful drill rigs for foundation and geothermal engineering, the requirements for the durability of drilling tools are increasing constantly. This requires higher quality standards for the raw materials and also innovative progress in technical design. Over the years, Sysbohr took a lot of measures needed to meet actual technical requirements, the next is the new thread profile PFS.

Due to the complexity of the construction sites, many drilling companies apply DTH- hammers as well as hydraulic drifters to penetrate the overburden layer. For DTH- drillings, rods with threads according to API standard are widely used. These rods you do not want to change when switching to hydraulic drifters, as on the one hand an additional set of rods needs to be on stock and on the other hand changeover is laborious, time-consuming and expensive. However, the rotary drill rods with API thread do not withstand higher impact and torque loads, so that always the same damages appear. In order to avoid this, Sysbohr has developed the thread profile „PFS“.

Drilling rods with PFS threads are suitable for rotary and rotary- percussion drilling and due to the conical thread profile they can be easily screwed and unscrewed and thus have a lower level of wear and higher reliability. Furthermore, the larger inner diameter of the PFS thread allows significantly higher flushing than with API threads.

Therefore the alternative usage of rotary- percussion drilling rods with PFS threads for DTH- hammer drilling as well as for hydraulic drifters is possible. This has been proven by Sysbohr in various drilling tests. Of course, our new and unique thread is protected with a patent which is actually pending.

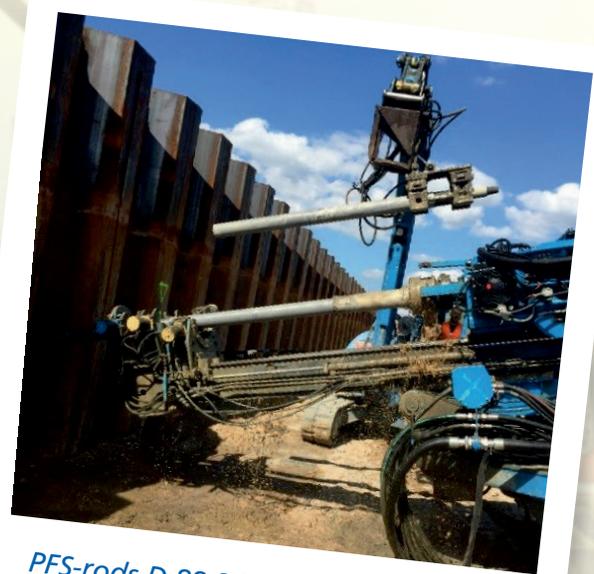
Our rotary- percussion drilling rods with PFS threads are manufactured using friction welding process and high quality steel and are available in different diameters from D 76,1mm to D 152,4mm, with wall thicknesses from 6,3mm to 12,5mm. See table on back side for details.

- ✓ 20-30% higher flushing vs. API Reg.
- ✓ 4-7 times higher torque absorption
- ✓ Low wear and high reliability

- ✓ Much faster screwing
- ✓ Friction welded
- ✓ High quality steel



PFS-thread D 88,9 after usage in difficult soil conditions



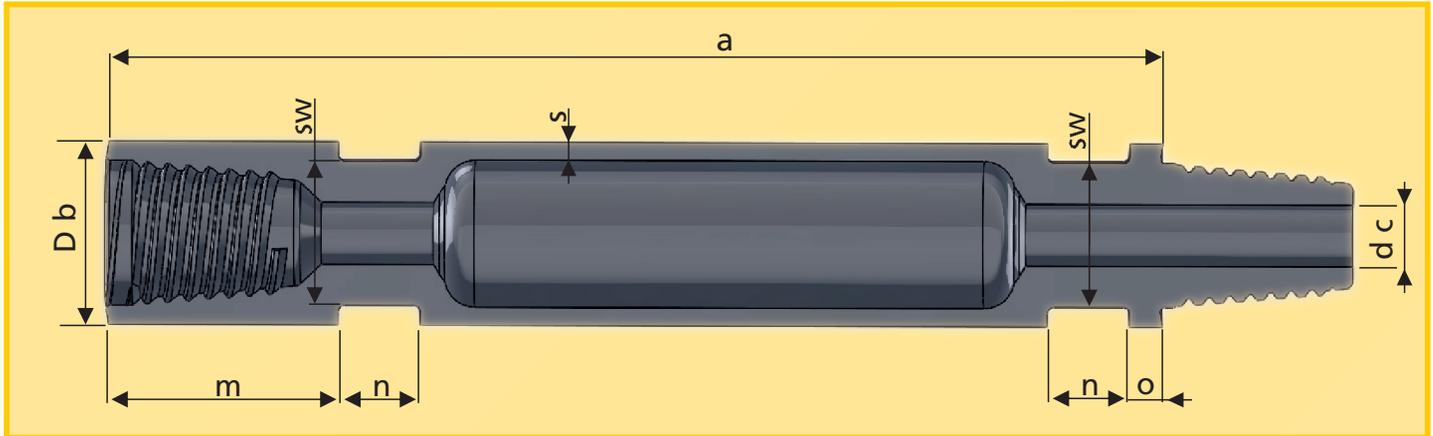
PFS-rods D 88,9 in usage with hydraulic drifter



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Technical Specification



Rotary percussion rods with PFS thread

Drilling System	Description	Thread Description	d c [mm]	a [mm]	D b [mm]	s [mm]	SW [mm]	m [mm]	n [mm]	o [mm]	max. torque [kNm]
76,1	PFS 76,1	PFS 76,1, 2 start con.	25	1000-6000	77	6,3-12,5 wth.	65	100	40	15	15
88,9	PFS 88,9	PFS 88,9, 2 start con.	30	1000-6000	88,9	6,3-12,5 wth.	80	113	40	15	22
101,6	PFS 101,6	PFS 101,6, 2 start con.	40	1000-6000	102	6,3-12,5 wth.	90	118	40	15	26
114,3	PFS 114,3	PFS 114,3, 2 start con.	52	1000-6000	115	6,3-12,5 wth.	105	120	40	15	30
133	PFS 133	PFS 133, 3 start con.	70	1000-6000	134	6,3-12,5 wth.	120	130	40	15	52
139,7	PFS 139,7	PFS 139,7, 3 start con.	72	1000-6000	140	6,3-12,5 wth.	125	134	40	15	55
152,4	PFS 152,4	PFS 152,4, 3 start con.	85	1000-6000	153	6,3-12,5 wth.	140	138	40	15	61

Special dimensions upon request.

