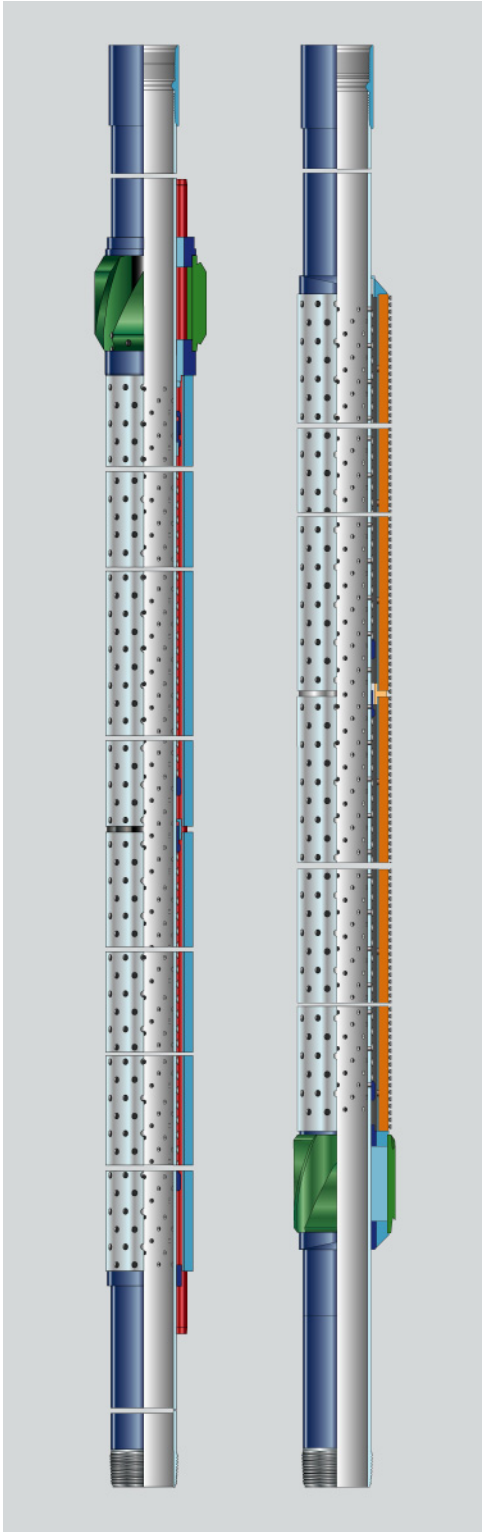


Fiber-Optic-Compatible Screens

Schlumberger

Fiber-optic-compatible screens.



Schlumberger fiber-optic-compatible screens are based on the performance-tested Schlumberger standard wire-wrap or Alternate Path[®] screens concept.

The Schlumberger family of screens for fiber optics installation has a modified protective shroud and an inset designed to hold an encapsulated flat-pack unit with twin control lines embedded. The flat pack is secured in the screen's inset with spaced clamps welded to the shroud. Another type of clamp is used to hold the control-line flat pack across every connection.

Particular attention was given during design of the inset/clamp/flat-pack system to ease of handling on the rig floor and reliability of running to depth without control-line damage that could compromise fiber deployment and data transmission to surface after installation.

The clamps can be opened or closed repeatedly if it is necessary to retrieve the screens from the well prior to gravel packing.

This system mates precisely with wet-connect systems for production-seal assemblies, providing a continuous control line from the surface to the screen's shoe and back after installation of the production tubing. A turnaround sub is located next to the screen's shoe to connect the two control lines in each flat pack.

The fiber optics are pumped down through one leg of the control line and return to the surface on the other side.

Applications

- Monitoring temperature along horizontal wellbores
- Openhole gravel packs
- Openhole stand-alone screen completions
- Alternate Path screen jobs

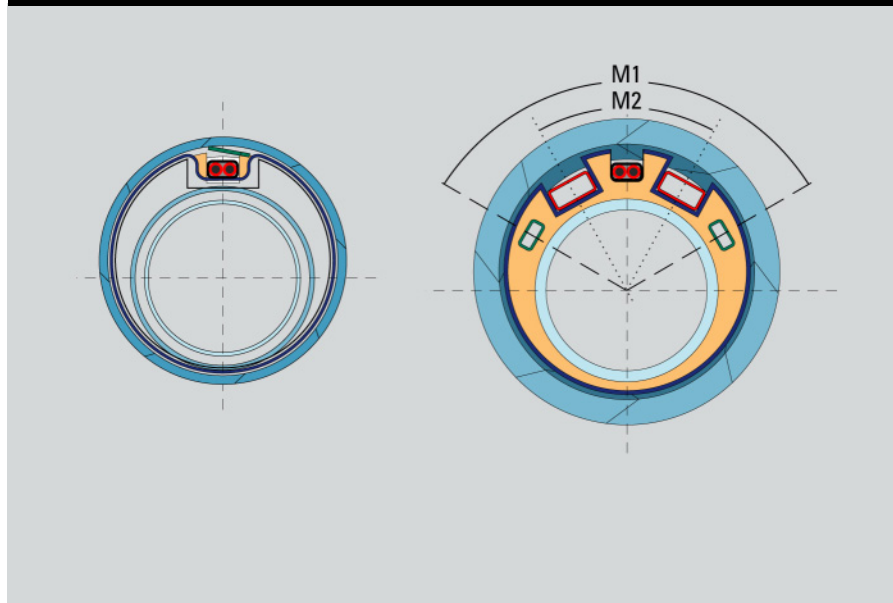
Benefits

- Enables measurement of wellbore temperature every 3 ft [1 m]
- Reliability
- Simple fiber-optics installation

Features

- Specially designed shroud with a dimple designed to hold a two-control-line flat pack
- Compatible with premium, wire-wrap and AIPAC[®] screens
- Mechanical properties of fiber-optic screens determined by the base screen only
- Robust design and construction

Cross-sectional view of the premium fiber-optic or wire-wrap screen option (left) and cross-sectional view of the AII PAC fiber-optic screen option (right).



Fiber-Optic-Compatible Screens Specifications

Base Pipe OD (in. [mm])	Weight (lbm/ft)	Screen OD [†] (in. [mm])	Offset (in. [mm])	Shroud OD (in. [mm])	Angle (M1)	Angle (M2)	Clearance (in. [mm])
2.375 [60.3]	4.6	2.660 [67.6]	0.375 [9.5]	5.170 [131.3]	88°	56°	0.720 [18.3]
2.875 [73.0]	6.4	3.160 [80.3]	0.420 [10.7]	5.531 [140.5]	80°	49°	0.600 [15.2]
3.500 [88.9]	9.3	3.790 [96.3]	0.500 [12.7]	5.980 [151.9]	72°	42°	0.440 [11.2]
4.000 [101.6]	11.0	4.290 [109.0]	0.562 [14.3]	6.320 [160.5]	66°	38°	0.290 [7.4]
4.500 [114.3]	12.6	4.800 [121.9]	0.600 [15.2]	6.650 [168.9]	62°	34°	0.200 [5.1]
5.000 [127.0]	15.0	5.312 [134.9]	0.580 [14.7]	7.130 [181.1]	60°	32°	0.200 [5.1]
5.500 [139.7]	17.0	5.812 [147.6]	0.570 [14.5]	7.610 [193.3]	57°	29°	0.200 [5.1]
6.625 [168.3]	20.0	6.950 [176.5]	0.550 [14.0]	8.700 [221.0]	49°	27°	0.200 [5.1]
7.000 [177.8]	23.0	7.330 [186.2]	0.540 [13.7]	9.070 [230.4]	47°	27°	0.200 [5.1]

[†] ODs for screens without Alternate Path shunt tubes are similar.

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