Titan Industries, Inc.
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Technical Bulletin

To Calculate the Amount of Water Flow (GPM)
Through Slotted PVC Well Screen

First calculate the amount of open area per linear foot:

Number/Rows X Slots/Row X Slot Width X Slot Length = Sq. Inch Per Ft.

An Example of this would be:

5" SDR 21 with 4 rows of .032" slots on ¼" (.250") spacing
Open Area = 4 X 42 X .032 X 2.125" (inside length) = 11.42 sq in. /ft.

To determine water flow at entrance velocity of .1 ft. per second:

Multiply square inches X .31 = GPM at .1ft. per second (ideal)
11.42 X .31 = 3.54 GPM per foot
If 40' of screen = 3.54 X 40 =141.6 GPM

Water flow at velocity of .2 ft. /sec (up to .4 ft. /sec in most formations)

At .2 ft. /sec. = 11.42 X .31 X 2 = 7.08 GPM per foot
If 40' of screen = 7.08 X 40 = 283.2 GPM

At .4 ft. /sec. = 11.42 X .31 X 4 = 14.16 GPM per foot
If 40' of screen = 14.16 X 40 =566.4 GPM

Another Example of This would be:

12" SDR 21 with 10 rows of .40" slot on ¼" (.250") spacing
Open Area X 10 X 41 X .040 X 2.125" (inside length) = 34.85 sq. in. /ft.

To determine water flow at entrance velocity of .1 ft. per second:

Multiply square inches X .31 = GPM at .1 ft. per second (ideal)
34.85 X .31 =10.8 GPM per foot
If 80' of screen = 10.8 X 80 = 864.0 GPM

Another way of looking at this is to total the square inches of open area X the amount of screen.

34.85 sq. in. X 80 = 2,788 sq inches = 19.36 sq. ft.
This is roughly equivalent to a square hole of 4.4' X 4.4'

Based on the above, you could safely assume that this amount of open area would, in actual fact, yield far in excess of the 864 GPM noted in the second example.

Obviously this is based upon the water being available in the formation, because neither Titan (nor any other manufactures slotted PVC) will produce water if it is not there to start with.