

## Incredibly User Friendly

RODSTAR-D for Windows has an improved user interface that is very easy to use. It contains help for each input parameter and for all program features. It displays recommendations and warnings to help you avoid mistakes or to improve system design. With RODSTAR-D for Windows you can enter everything yourself, or have the program do most of the hard work for you.

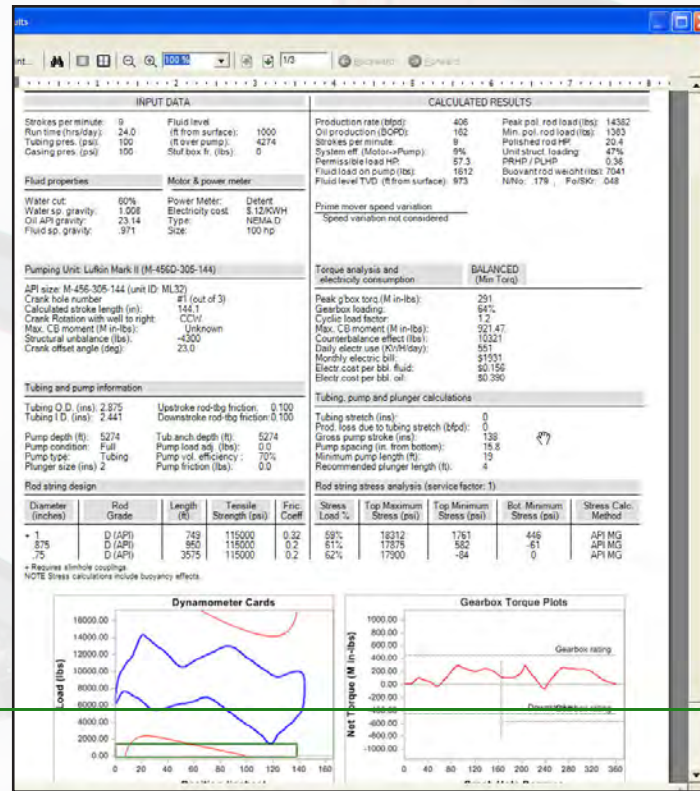
## User Customizable Defaults

RODSTAR-D allows you to select English, SI (Metric), or Canadian (mix of English and Metric) units. You can save time by specifying values that usually do not change such as: your company name, electricity cost, standard sucker rod length, tubing size and pump type, rod and pumping unit costs, etc.

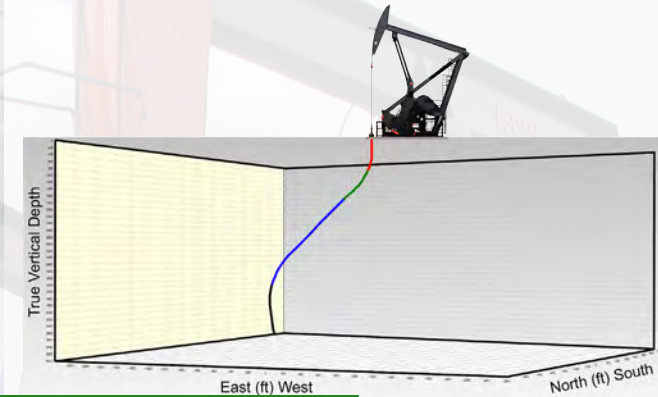
Also, you can specify different types of sucker rod guides and how much side load is recommended per guide. The program uses this information to recommend rod guide placement.

## Outstanding Technical Support

Theta Oilfield Services is dedicated to your satisfaction. Our technical support, provided by Unlimited Petroleum Consulting | UPC, in the first year, includes an emailed newsletter, upgrades, "bug" fixes and immediate response to problems or questions. Program upgrades can be downloaded directly from our web site. When you have a problem, solving it becomes our highest priority.



# RODSTAR-D™ for Windows™



## Modern Design and Simulation of Deviated Rod Pumping Systems



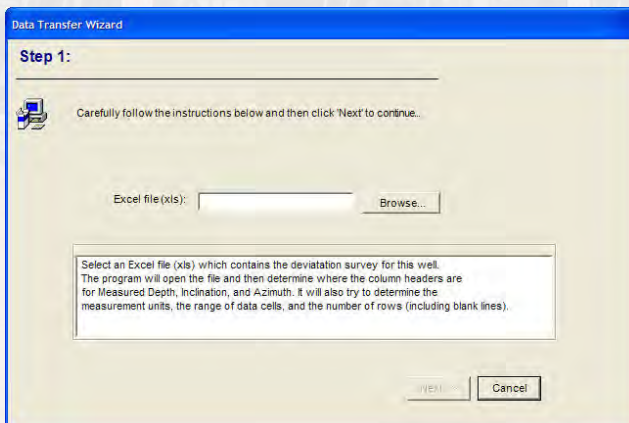
## System Requirements

- Processor:
- 1.6 GHz or higher
- Operating System:
- Windows XP/Vista/7
- Memory:
- 1 GB of RAM or higher
- Hard Disk:
- 125 MB available disk space
- Display:
- 1024 x 768 or higher

Please contact UPC Global for more information  
RODSTAR-D.

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## Finally !!! A Smart Design Program for Deviated or Straight Rod Pumping Wells.

RODSTAR-D is the most sophisticated and most accurate design computer program for rod pumping systems in deviated wellbores. RODSTAR-D makes it very easy to enter deviation data either from a spreadsheet file, or even with Optical Character Recognition (OCR) software. Also, RODSTAR-D has all the powerful "smart" features familiar to RODSTAR-D users.

**You can enter a "target" production (or IPR data) and have the program automatically calculate the pumping speed, plunger size, and the optimum rod string design you need.**

IPR integration allows you to have RODSTAR-D calculate the target production from pump intake pressure or fluid level, or to calculate the pump intake pressure from a target production or entered spm. RODSTAR-D can even recommend the pumping unit and motor size you need while it simultaneously designs the rod string for you. RODSTAR-D has a powerful "batch" run capability

that allows unattended execution of as many RODSTAR-D files as you want. **RODSTAR-D can summarize the results of all these runs in a customizable Excel® spreadsheet file** for easier comparison. This allows you to select the best design with the least amount of work.

RODSTAR-D even calculates the cost of the rods, pumping unit, and monthly electrical bill, for even more accurate comparisons between different system design options.

### Concise Output Report

RODSTAR-D has an improved output report that looks the same on the screen as on the printer. All deviation related plots are one page, saving paper and making the output report easier to use.

### Compare Pumping Units

RODSTAR-D can simulate any pumping unit, including long stroke (Rotaflex) or hydraulic units. It comes with a huge pumping unit data base (with about 4000 units) that includes data for most new and old pumping units. Also, you can enter your own pumping unit dimensions and you can customize the list of units to only show units you have.

### Sophisticated 3-D Wellbore Plot

After you enter (or import) your deviation survey you can select to see a 3-D plot of the wellbore, spin it around to look at different views, zoom in, etc.. The program shows the different sections in the rodstring with different colors and also shows the rest of the wellbore in black. This shows where the pump is located.

## On-Screen Dynamometer Card Comparison and Animation

After you analyze a system with RODDIAG or XDIAG (diagnostic programs developed by Theta Oilfield Services), you can load the RODDIAG or XDIAG file into RODSTAR-D. Then, you can overlay the measured dynamometer card on the predicted dynamometer card plot. This saves time and allows you to determine unknown quantities such as rod-tubing friction, fluid level, detect bad data, etc.

Also, RODSTAR-D for Windows can "animate" its dynamometer card plots by simultaneously showing how the surface and downhole loads change. This allows you to "see" rod stretch effects, load fluctuations on the plunger, the delay between pump and surface position, the severity of fluid pound, and other interesting effects that cannot be seen any other way.

#	Meas depth (ft)	Inclination (°)	Azimuth (°)	Dogleg sev.	TVD (ft)	N-S (ft)	E-W (ft)
1	0	0	0	0	0	0	0
2	262	0.1	307.2	0.04	262	0.14	-0.18
3	358	3	271.3	3.04	357.95	0.25	-2.76
4	453	7.1	275.7	4.33	452.57	0.89	-11.09
5	544	10.2	276.5	3.41	542.52	2.36	-24.7
6	636	14.5	278	4.69	632.37	4.88	-44.21
7	728	18.2	281.8	4.18	720.64	9.43	-69.69
8	820	21.1	283.2	3.19	807.27	16.15	-99.88
9	912	23.4	284.6	2.57	892.42	24.54	-133.68
10	1007	24.7	284.1	1.39	979.17	34.13	-171.19
11	1105	29.4	281.6	4.93	1066.42	43.96	-214.64
12	1194	32.1	280.9	3.06	1142.9	52.92	-259.27
13	1289	34.2	280.6	2.22	1222.44	62.51	-310.3
14	1384	36.6	280.3	2.53	1299.97	72.49	-364.42
15	1479	38.7	281	2.26	1375.00	83.22	-421.44
16	1574	39.2	281.7	0.7	1448.96	94.97	-479.99
17	1604	39.2	281.9	0.42	1472.21	98.85	-498.55

