Rod Guides

Standard Rod Guides

The standard line of line of Injection Molded Sucker Rod Guides is not new to the oil industry, but our manufacture's approach to the design, manufacture, and distribution of Sucker Rod guides is certainly new.

Shock load and impact calculations…erodible wear volume (EWV) … guide surface configurations … all have played critical roles in the development of Sucker Rod guides. Sucker Rod Guides have been individually designed to fit the appropriate rod size and tubing size for specific performance parameters. The fit is correct. The raw material from which it was manufactured is correct, and our manufacture stands behind the product.

What you can expect from our Sucker Rod Guides

- High flow characteristics and superb wear protection for your sucker rods, couplings, and production tubing.
- Maximum service life from your sucker rod guides because they have been designed to stay in the hole, on the rod, and perform longer.
- Longer wear because of their high resistance to damage form impact and shock loading.
- A full range of sizes to fit every rod size, tubing size, and down hole pumping condition.
- Pre-installed on your sucker rods in the best configuration for your particular and special needs, as only Norris can do.
- Backed by the only performance guarantee in the industry.

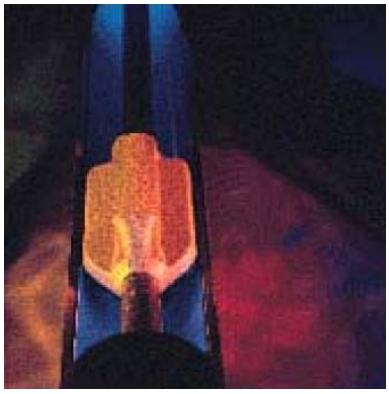
Standard Rod Guides Specifications		
Mechanical Property	**Amodel**	**PPS**
Tensile Strength	28,000 PSI	22,000 PSI
Elongation	2.1%	1.7%
Specific Gravity	1.46	1.60

Material Recommendation							
Material Limitation	**Temperature Oiling**	**Hot Service**	**Sweet Service**	**Sour Service**	**Sand Service**	**Highwater**	**Brine**
Amodel(PPA)	400F	x	x	x	x	x	x
PPS	400F	x	x	x	x		x
NFF	275F	x	x		x	x	
PPAU	250F		x	x		x	x

Rod Size	Material Type	Guide Recommendation	Guide Size
7/8” x 40” 3/4” Pin	Chrome Moly 4142	Maximum 3 sidewinder rod guides available	2” – 2-1/2”
1” x 40” 3/4” Pin	Chrome Moly 4142	Maximum 3 sidewinder rod guides available	2-1/2” – 3”
1” x 40” 7/8” Pin	Chrome Moly 4142	Maximum 3 sidewinder rod guides available	2-1/2” – 3”

Sidewinder Sucker Rod Guides

The Sidewinder Sucker Rod Guide provides more performance improvements to fulfill the needs of oil producers. The Sidewinder Sucker Rod Guide provides more performance out of difficult wells. More performance improvements that result in longer service life. More performance improvements that increase the efficiency of rod-pumped deviated oil wells.



Sidewinder Sucker Rod Guide Delivers:

- Shorter Length – so it won't inhibit sucker rod flex which reduces rod stress. In this case, less is more.
- More Erodable Wear Volume – for a lower incidence of replacement – or more oil for less maintenance.
- More pumping efficiency – the new flow geometry results in less flow turbulence, which increases your pumping efficiency.
- More pumping solutions for problem wells – Sidewinder is the right answer for really tough wells and is the best alternative for standard sucker rod guides.

Sidewinder Sucker Rod Guides enable oil producers to rely even more on Norris to solve their toughest pumping problems. When you have a really tough well, call on the Sidewinder.

How the Sidewinder Works
Standard sucker rod guides, with their improved body design, provided some of the best flow characteristics in the industry when they were first introduced in 1998. The all new Sidewinder now sets the new design standard. Alternating concave vanes provide the utmost in Erodable Wear Volume.

Why The Sidewinder Works
Our Manufactures testing center has proved the performance of the Sidewinder through hundreds of thousands of pumping cycles, performing in actual downhole fluid conditions, with very high side loading stresses applied. The Sidewinder design has performed flawlessly.

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Glide Rod Guides

- Manufactured from ultra-high molecular weight polyethylene.
- Has the highest impact strength of all thermoplastics.
- Will not break regardless of environmental conditions.
- More tolerance to chemicals and saltwater.
- Suitable for any low temperature well applications. Not to exceed 150 degrees.
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Glide Delivers:

Easy Installation	Single Slot design allows quick attachment to the rod
Holding Power	Guards against slippage on the rod
Low Coefficient of Friction	Minimizes friction in reciprocating and rotating applications
Self Lubricating	Excellent for high water cut wells
Abrasion Resistance	Excellent with low friction under load
Low Friction	Self-lubricating and high-slip properties also make it ideal for applications where bulk material flow enhancement is required, such as for lining chutes and hoppers, and for war strips and slide plates – all areas where sliding contact is encountered.
Corrosion and Chemical Resistance	Features virtually zero water absorption, ensuring dimensional stability in aqueous environments, as well as, the resistance of fungus and bacterial growth. Even ice will not adhere to it, which is a critical concern for applications involving the movement of moist bulk materials in below freezing temperatures. The Glide is also resistant to most aggressive chemicals, including strong oxidizing agents. These characteristics make the Glide the chosen material for war components and non-stick surfaces in material handling applications where a high degree of corrosion resista2nce is required.

Glide Specifications			
Coefficient of Friction			
		Coefficient of Friction (a)	
Sliding Surface	**Sliding Speed**	**Static**	**Kinetic**
On Itself	2 in./min	0.35	0.25
On chrome-plated steel	2 in./min	0.23	0.17
On stainless steel	2 in./min	0.25	0.14
On cold-rolled steel	2 in./min	0.31	0.18
On brass	2 in./min	0.21	0.15
a) Coefficient of friction tests conducted on Instrumentors Slip-Peel tester, Model SP-101A			