



Site Navigation

[OGI Homepage](#)

[World Industry News](#)

[Exploration & Discoveries](#)

[Drilling & Completion](#)

[Development & Production](#)

[Licensing & Concessions](#)

[Geosciences](#)

[Health Safety Environment](#)

[Company News](#)

[Special Features](#)

[Technical Reports](#)

[Regional Spotlight](#)

[Hot Spots](#)

[Oil/Gas Prices & Analysis](#)

[World E&P Stats](#)

[New Products & Services](#)

[Industry Calendar](#)

[Industry Book Reviews](#)

[Industry Associations](#)

[Industry Links](#)

Search Archives

Company News

Varel expands large diameter bit manufacturing capacity

(1/9/2006 - OGI: Houston) Varel International said today it is increasing its manufacturing capacity for large diameter roller cone bits measuring 16 to 36 inches in size. The significant investment required for the expansion will triple Varel's monthly manufacturing capacity for large diameter bits.

"Our decision to increase our manufacturing capacity for large diameter bits is a direct response to the increased global demand for bits ranging in size from 16 to 36 inches," said Chris Byrd, Varel's vice president Roller Cone Business Unit. "By tripling our output, we believe we can meet industry demand for these products even with the high drilling levels we are seeing presently."

Jim Nixon, Varel's president and CEO, said, "In general, the use of large diameter bits is driven by well geometry and well depth. Many of the wells drilled in the Eastern Hemisphere are deep and use bits up to 36 inches in diameter for drilling the surface hole. The deep gaswells drilled in the Middle East use 26, 28, 34, or 36 inch bits for drilling the surface hole followed by a long 16 or 17.5 inch intermediate section. Therefore, by expanding our capabilities and capacity, we can meet the increasing demand in key markets around the world."

A key part of increasing large bit manufacturing capacity was the purchase of a 48 inch numerically controlled vertical turret lathe (VTL) with programmable shuttle tables for Varel's Matamoros, Mexico plant. This lathe is the single largest piece of equipment in Varel's global manufacturing arsenal. The VTL provides the company more capacity to machine precision bearings on large diameter head sections.

Additionally, the lathe is being used to machine threaded connections on 20" and larger diameter roller cone bits.

"The installation process for the 48 inch VTL was an awesome project," said Byrd. "The foundation for the machine required us to excavate a hole more than six feet deep, install reinforcing steel, and then fill it with



A 36-inch Varel bit.

concrete. Due to the thickness of the foundation, the concrete was cured for one month before we could begin installing the lathe. Shipping the machine to our plant required four flat bed semi-trailers. The lathe then had to be reassembled on site. The entire project, from the start of site preparation to starting production took eight months." In addition to the installation of this massive lathe, Varel has added considerable resources in welding steel tooth hardfacing, cone-bearing machining, and large bit assembly. As a result of these combined efforts and other changes, Varel has been able to triple their previous output of large diameter bits.

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