

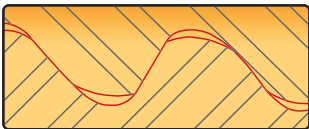
# VAM EXPRESS

Designed to drill farther, faster

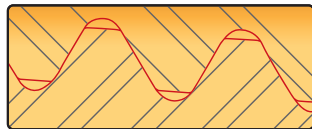
Developed using the latest VAM connection technology, the patented **VAM Express™** connection incorporates a proprietary thread profile and high-performance double shoulder design making the most rugged high-torque connection available today. The primary torque shoulder provides initial seal and pre-load during make-up to full recommended torque and the secondary torque shoulder provides high torque capability. Trip time is money. With the easy stabbing and quick make-up of the **VAM Express** high performance connections, drilling contractors can save valuable rig time, resulting in significant cost saving on each well.

The **VAM Express** thread form features a large, rounded stab crest and a laid down stab flank which allows easy stabbing of the connection. A back beveled crest reduces the chance of wedging the thread and increases the freedom of movement, allowing easy connection make-up. The elliptical root increases resistance to rotational-induced bending fatigue.

## Thread performance



VAM Express™ thread form



API thread form

## The VAM Express connection design provides:

### Quick rig make-up

6-7 turns from stab-in to full make-up similar to API connections with trip-time savings up to 16% better than other high-performance connections.

### High torque

Torque capacity averages 1 1/2 to 2 times that of API connections.

### User friendly

Reduces stabbing damage and the need for stabbing or de-stabbing guides because of thread form design.

### Durability

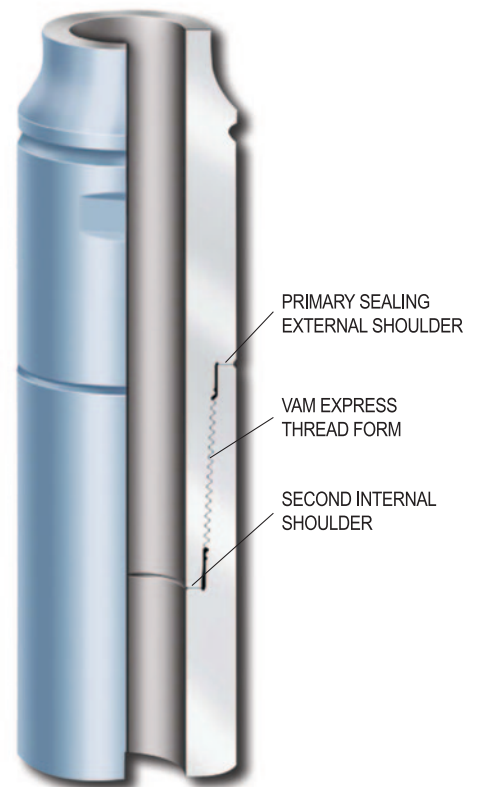
Reduces wedging risk, resulting in less thread damage and a low re-cut rate.

### Sour Service

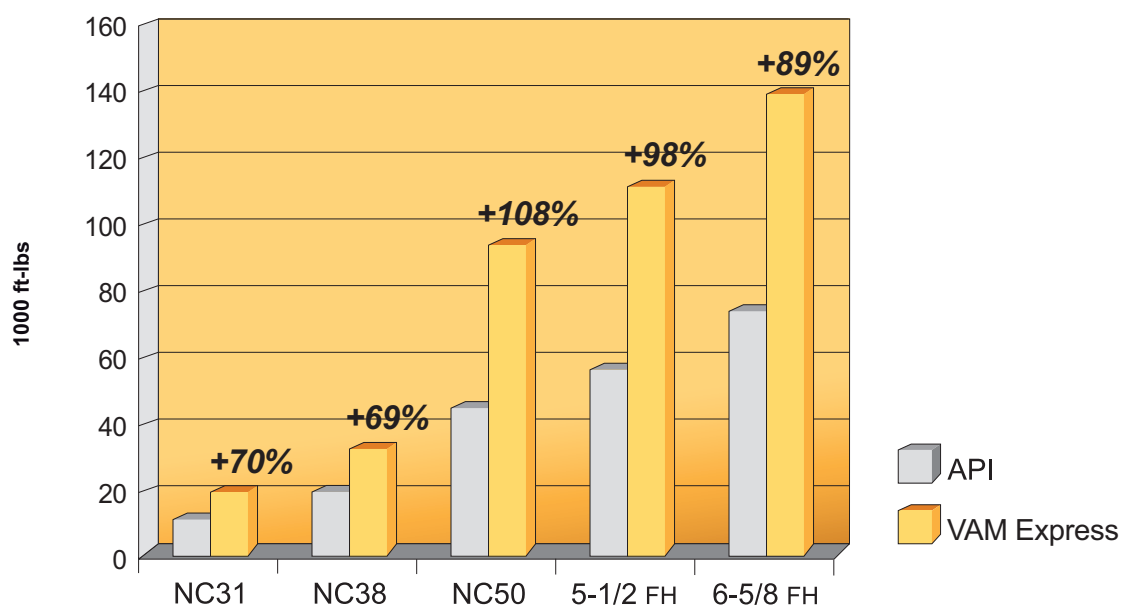
A lower grade tool joint (105 ksi or even 95 ksi) exhibits the same level of torque as an API connection in 120 ksi, enabling optimum drilling parameters in sour environments.

### Strength

Allows change of OD/ID for improved hydraulic performance.



### Torque Benefit - VAM Express™ vs API



Note: Data based on API and VAM Express connections. OD and ID were selected to be the same for comparative purpose.

### Typical Tool Joint Data and Comparison

Pipe Size (in)	Connection		Tool Joint		Make-up Torque (ft-lbs)
	Type	Size	OD (in)	ID (in)	
2-7/8	API	NC31	4	2-1/8	6 890
	VAM Express	VX-31	4	2-1/8	11 700
3-1/2	API	NC38	4-3/4	2-9/16	11 500
	VAM Express	VX-38	4-3/4	2-9/16	19 500
		VX-39	4-7/8	2-13/16	20 200
4	API	NC40	5-1/4	2-9/16	16 600
	VAM Express	VX-39	5	2-3/4	22 300
		VX-40	5-1/4	2-13/16	25 600
4-1/2	API	NC46	6-1/4	3-1/4	19 900
	VAM Express	VX-46	6-1/4	3-1/4	47 800
5	API	NC50	6-5/8	3-1/2	26 700
	VAM Express	VX-50	6-5/8	3-1/2	59 700
5-1/2	API	5-1/2 FH	7-1/8	4	33 400
	VAM Express	VX-54	6-3/4	4	57 500
		VX-57	7-1/8	4	70 000
5-7/8	API	NA	NA	NA	NA
	VAM Express	VX-57	7	4-1/4	59 000
6-5/8	API	6-5/8 FH	8	5	43 900
	VAM Express	VX-65	8	5	86 400