





## **XEM IS THE** IDEAL MWD TOOL

for all directional applications by giving precision inclination/azimuth, full MWD, gamma ray logging, and bore/annular pressure while drilling (PWD), during every connection allowing for performance drilling in over balanced, under balanced, and high LCM environments.

### **CONSIDER EFFICENCY**

Extreme's Survey on Connection™ allows for zero NPT as XEM™ works independtly of the drilling process.

#### **CONSIDER VERSATILITY**

Ideal for all over-balanced and under-balanced applications, creating optimal performance in air drilling environments. Choose the data you need, from MWD quality toolfacing for steering and gamma for formation correlation, on demand.

## **CONSIDER RELIABILITY**

Our 24/7 Command Center watches all the activity of your rig in real time and proactively troubleshoots while you drill.

### **CONSIDER COST**

Reduced drilling time and personnel on site means a considerable cost savings to the client.

## **CONSIDER SAFETY**

Added safety by eliminating lithium battery use, and costly personnel on the wellsite.



# XEM TOOL **SPECIFICATIONS**

DESCRIPTION	4.75"	6.50"	8.00"	11.00"
GAP SUB ID	2.69 ± 0.010"	2.813 ± 0.005" - NC 46 3.25 ± 0.020" - NC 50	3.500 +/ 0.002"	4.000 + 0.020" / - 0.000"
GAP SUB OD	4.750 ±0.025"	6.500 ±0.025"	8.000 +/ 0.025"	11.000 ±0.025"
GAP SUB OD with Hard Banding	4.825 ±0.025" 6.575 ±0.025" No Hard Banding			
Connections	NC 38 (3 1/2 IF)	NC 46 (4 1/2 XH) NC 50 (4 1/2 IF)	6 5 /8 Regular	API NC77
Connection Make up Torque	9,400 ft. lbs.	23,000 ft. lbs - NC 46 26,000 ft. lbs - NC 50	39,000 ft. lbs.	100,000 ft. lbs.
Torsional Strength of Gap at 150 C	10,000 ft. lbs.	20,000 ft. lbs.	55,000 ft. lbs.	120,000 ft. lbs.
Gap Sub Overall Length	44.2"		45.2"	47.1"
Gap Sub Re Cut Length	6.50" Pin End & 4.75" Box		5.50" Pin End & 4.75" Box End	6.50" Both Ends
Flex Collar Requirements ***	4.00" Flex Sections Min. ⅔ Total Length (20' of 31') Collars Above and Below Gap Sub	5.625" Flex Sections Min. ½ Total Length (20' of 31') Collars above and Below Gap Sub	6.00" Flex Sections Min. <sup>2</sup> / <sub>3</sub> Total Length (20' of 31') Collars above and Below Gap Sub	N/A
Tool Length (Probe Dependant)	6.00" Flex Section			
Maximum Tool Weight (without collar) **	310 lbs.	470 lbs.	580 lbs.	1155 lbs.
Rotation	Up to 200 RPM, 20-80 RPM typical			
Shock	1000 g, $\mathcal{V}_2$ msec, $\mathcal{V}_2$ Sine Shock			
Vibration	30g, 30-500hz			
Maximum Operating Pressure	15,000 psi			
Maximum Operating Temperature	150°C (302°F) <sup>(3)</sup>			
Minimum Storage / Transportation Temperature	-40°C (-40°F)			
Maximum Sand Content by Volume	2%			
Maximum LCM Content	No Limits			
Maximum Axial Load: (Compression)	100,000 lbs.	200,000 lbs.	300,000 lbs.	600,000 lbs.
Maximum Axial Load: (Tension)	500,000 lbs.	1,000,000 lbs.	1,200,000 lbs.	3,000,000 lbs.
Max. Dogleg Severity Rotating: Slick Collars	15 / 100 ft.	10 / 100 ft.	8 / 100 ft.	8 / 100 ft.
Max. Dogleg Severity Rotating: Flex Collars	25 / 100 ft.	15 / 100 ft.	13 / 100 ft.	N/A
Max. Dogleg Severity Sliding: Slick Collars	30 / 100 ft.	20 / 100 ft.	16 / 100 ft.	16 / 100 ft.
Max. Dogleg Severity Sliding: Flex Collars	50 / 100 ft.	30 / 100 ft.	26 / 100 ft.	N/A
Recommended Maximum Flow Rate	317 GPM	528 GPM	1056 GPM <sup>(1)</sup> 900 GPM <sup>(2)</sup>	1350 GPM
Recommended Collar Bores	2 11/16" ID Collar	2 13/16" ID Collar	3 ½" ID Collar <sup>(1)</sup> 3 ¼" ID Collar <sup>(2)</sup>	4" ID Collar

<sup>\*\*</sup> Maximum Tool Weight, including Gamma Probe

\*\*\* Contact Extreme for maximum dogleg severity if a different size flex collar is to be used
(1) Collar ID 3 1/2"
(2) Collar ID 3 1/4"

<sup>(3)</sup> Maximum temperature range for alkaline batteries is 50°C (122°F)