



ADT RMK Motor Specification/Performance

4 3/4" 5/6 8.3 HR (1)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
5 7/8"- 6 7/8"	3 1/2 Reg	51"	46"	20"	29'	1,270#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		25,000 lbs		100,000 lbs		300,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
1	100-275 gpm	100-280 rpm	1,870 psi	2,800 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
4,810 ft/lbs		7,200 ft/lbs	239 hp	150° - 205° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
6"	Slick	9	10.8	12.3	13.9	15.1	16.3	17.2	17.9
	Stabilized	9.6	11.3	12.9	14.4	15.7	16.8	17.8	18.5
6 1/8"	Slick	8.6	10.3	11.9	13.4	14.7	15.9	16.8	17.5
	Stabilized	9.7	11.4	13	14.5	15.7	16.9	17.8	18.6
6 1/2"	Slick	7.3	9	10.6	12.1	13.4	14.5	15.5	16.2
	Stabilized	9.9	11.6	13.2	14.7	16	17.1	18.1	18.8
6 3/4"	Slick	6.4	8.1	9.7	11.2	12.5	13.7	14.6	15.3
	Stabilized	10	11.7	13.3	14.9	16.1	17.3	18.2	18.9

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



Alliance Drilling Tools, LLC.

ADT RMK Motor Specification/Performance

4 3/4" 7/8 2.6 HR (.26)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
5 7/8"- 6 7/8"	3 1/2 Reg	51"	46"	20"	29'	1,270#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		25,000 lbs		100,000 lbs		300,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.26	150-300 gpm	39-79 rpm	590 psi	880 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
5,250 ft/lbs		7,830 ft/lbs	75 hp	150° - 205° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
6"	Slick	9.4	11.2	12.8	14.4	15.7	16.9	17.9	18.7
	Stabilized	10	11.8	13.4	15	16.3	17.5	18.5	19.2
6 1/8"	Slick	8.9	10.7	12.4	13.9	15.2	16.5	17.4	18.2
	Stabilized	10.1	11.8	13.5	15.1	16.4	17.6	18.6	19.3
6 1/2"	Slick	7.6	9.4	11	12.6	13.9	15.1	16.1	16.8
	Stabilized	10.3	12.1	13.7	15.3	16.6	17.9	18.8	19.6
6 3/4"	Slick	6.7	8.4	10.1	11.7	13	14.2	15.2	15.9
	Stabilized	10.5	12.3	13.9	15.5	16.8	18	19	19.7

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



Alliance Drilling Tools, LLC.

ADT RMK Motor Specification/Performance

4 3/4" 7/8 3.8 HR (.52)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
5 7/8"- 6 7/8"	3 1/2 Reg	51"	46"	20"	17.2'	1,326#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		25,000 lbs		100,000 lbs	300,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.52	150-250 gpm	78-140 rpm	860 psi	1,280 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
4,450 ft/lbs		6,620 ft/lbs	74 hp	150° - 205° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
6"	Slick	10.8	12.8	14.7	16.5	18	19.5	20.6	21.4
	Stabilized	10.8	12.8	14.7	16.5	18	19.4	20.6	21.4
6 1/8'	Slick	10.3	12.3	14.2	16	17.5	18.9	20	20.9
	Stabilized	11.7	13.7	15.6	17.4	18.9	20.4	21.5	22.3
6 1/2"	Slick	8.7	10.7	12.6	14.4	15.9	17.4	18.5	19.3
	Stabilized	12	14.1	15.9	17.8	19.3	20.7	21.8	22.6
6 3/4"	Slick	7.6	9.7	11.6	13.4	14.9	16.3	17.4	18.3
	Stabilized	12.2	14.3	16.2	18	19.5	20.9	22	22.9

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



Alliance Drilling Tools, LLC.

ADT RMK Motor Specification/Performance

5" 6/7 8.0 HR (.81)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
5 7/8"- 6 7/8"	3 1/2 Reg	51"	46"	20"	30'	1,281#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		25,000 lbs		100,000 lbs		300,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.81	150-350 gpm	121-290 rpm	1,800 psi	2,700 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
5,720 ft/lbs		8,580 ft/lbs	298 hp	150° - 205° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
6"	Slick	9.7	11.4	13	14.4	15.7	16.8	17.7	18.5
	Stabilized	9.3	11	12.6	14.1	15.3	16.5	17.4	18.1
6 1/8'	Slick	9.3	11	12.6	14	15.3	16.4	17.3	18.1
	Stabilized	9.4	11.1	12.7	14.1	15.4	16.5	17.4	18.2
6 1/2"	Slick	8.1	9.8	11.4	12.8	14.1	15.2	16.1	16.9
	Stabilized	9.6	11.3	12.9	14.4	15.6	16.8	17.7	18.4
6 3/4"	Slick	7.3	9	10.6	12	13.3	14.4	15.3	16.1
	Stabilized	9.8	11.5	13	14.5	15.7	16.9	17.8	18.5

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

6 1/2" 4/5 7.0 HR (.49)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2" Reg.	76"	66"	26"	27'	1,814#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		50,000 lbs		200,000 lbs		600,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.49	300-600 gpm	149-300 rpm	1,580 psi	2,360 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
9,090 ft/lbs		13,570 ft/lbs	482 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	9.3	11.1	12.7	14.2	15.5	16.7	17.7	18.4
	Stabilized	10	11.7	13.3	14.9	16.2	17.4	18.4	19.1
8 1/2"	Slick	7.9	9.7	11.3	12.8	14.1	15.3	16.3	17
	Stabilized	10.4	12.1	13.8	15.3	16.6	17.8	18.8	19.5
8 3/4"	Slick	7.3	9.1	10.7	12.3	13.5	14.8	15.7	16.5
	Stabilized	10.5	12.3	13.9	15.5	16.8	18	18.9	19.7
9 7/8"	Slick	4.8	6.6	8.2	9.7	11	12.2	13.2	13.9
	Stabilized	11.3	13	14.6	16.2	17.5	18.7	19.6	20.4

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

6 1/2" 5/6 6.0 HR (.37)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2" Reg.	76"	66"	26"	26.3'	2,266#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		50,000 lbs		200,000 lbs	600,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.37	200-500 gpm	75-180 rpm	900 psi	1,200 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
6,900 ft/lbs		9,200 ft/lbs	179 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	9	10.7	12.3	13.8	15	16.2	17.1	17.8
	Stabilized	9.6	11.3	12.9	14.4	15.7	16.8	17.8	18.5
8 1/2"	Slick	7.6	9.3	10.9	12.4	13.7	14.8	15.8	16.5
	Stabilized	10	11.7	13.3	14.8	16	17.2	18.1	18.9
8 3/4"	Slick	7.1	8.8	10.4	11.9	13.1	14.3	15.2	15.9
	Stabilized	10.2	11.9	13.4	14.9	16.2	17.4	18.3	19
9 7/8"	Slick	4.6	6.3	7.9	9.4	10.7	11.8	12.8	13.5
	Stabilized	10.8	12.5	14.1	15.6	16.9	18	19	19.7

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



Alliance Drilling Tools, LLC.

ADT RMK Motor Specification/Performance

6 1/2" 7/8 5.0 HR (.28)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2" Reg.	76"	66"	26"	26'	1,747#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		50,000 lbs		200,000 lbs	600,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.28	300-600 gpm	86-180 rpm	1,130 psi	1,690 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
10,460 ft/lbs		15,690 ft/lbs	323 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	9.7	11.6	13.3	14.9	16.2	17.5	18.5	19.3
	Stabilized	10.5	12.3	14	15.6	17	18.2	19.2	20
8 1/2"	Slick	8.3	10.1	11.8	13.4	14.8	16	17	17.8
	Stabilized	10.9	12.7	14.4	16.1	17.4	18.7	19.7	20.5
8 3/4"	Slick	7.7	9.5	11.2	12.8	14.2	15.5	16.4	17.2
	Stabilized	11.1	12.9	14.6	16.2	17.6	18.9	19.9	20.6
9 7/8"	Slick	5	6.9	8.6	10.2	11.5	12.8	13.8	14.6
	Stabilized	11.9	13.7	15.4	17	18.4	19.7	20.7	21.4

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

6 1/2" 9/10 3.7 HR (.16)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2" Reg.	76"	66"	26"	26.3'	1.753#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		50,000 lbs		200,000 lbs		600,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.16	200-500 gpm	20-70 rpm	450 psi	600 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
12,000 ft/lbs		16,000 ft/lbs	109 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	9	10.7	12.3	13.8	15	16.2	17.1	17.8
	Stabilized	9.6	11.3	12.9	14.4	15.7	16.8	17.8	18.5
8 1/2"	Slick	7.6	9.3	10.9	12.4	13.7	14.8	15.8	16.5
	Stabilized	10	11.7	13.3	14.8	16	17.2	18.1	18.9
8 3/4"	Slick	7.1	8.8	10.4	11.9	13.1	14.3	15.2	15.9
	Stabilized	10.2	11.9	13.4	14.9	16.2	17.4	18.3	19
9 7/8"	Slick	4.6	6.3	7.9	9.4	10.7	11.8	12.8	13.5
	Stabilized	10.8	12.5	14.1	15.6	16.9	18	19	19.7

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

6 1/2" 9/10 4.0 HR (.36)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2 Reg.	76"	66"	26"	21.1'	1.753#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		50,000 lbs		200,000 lbs	600,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.36	200-500 gpm	50-180 rpm	600 psi	800 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
10,900 ft/lbs		14,530 ft/lbs	282 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	11	13	14.9	16.8	18.3	19.7	20.8	21.7
	Stabilized	11.9	13.9	15.8	17.7	19.2	20.6	21.7	22.6
8 1/2"	Slick	9.3	11.4	13.3	15.1	16.6	18.1	19.2	20.1
	Stabilized	12.4	14.5	16.4	18.2	19.8	21.2	22.3	23.2
8 3/4"	Slick	8.6	10.7	12.6	14.5	16	17.4	18.5	19.4
	Stabilized	12.7	14.7	16.6	18.5	20	21.4	22.5	23.4
9 7/8"	Slick	5.6	7.7	9.6	11.5	13	14.4	15.5	16.4
	Stabilized	13.7	15.8	17.7	19.5	21	22.5	23.6	24.4

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

6 3/4" 4/5 7.0 HR (.49)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2 Reg.	78"	66"	26"	29.4'	2,961#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		75,000 lbs		225,000 lbs		650,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.49	300-600 gpm	149-300 rpm	1,580 psi	2,360 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
9,090 ft/lbs		13,580 ft/lbs	482 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	9.8	11.5	13.1	14.7	15.9	17.1	18.1	18.8
	Stabilized	9.5	11.2	12.8	14.3	15.6	16.7	17.7	18.4
8 1/2"	Slick	8.4	10.1	11.7	13.3	14.5	15.8	16.7	17.4
	Stabilized	9.9	11.6	13.2	14.7	15.9	17.1	18	18.8
8 3/4"	Slick	7.8	9.6	11.2	12.7	14	15.2	16.1	16.9
	Stabilized	10	11.8	13.3	14.8	15.1	17.3	18.2	18.9
9 7/8"	Slick	5.3	7.1	8.7	10.2	11.5	12.7	13.6	14.4
	Stabilized	10.7	12.4	14	15.5	16.8	18	18.9	19.6

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



Alliance Drilling Tools, LLC.

ADT RMK Motor Specification/Performance

6 3/4" 5/6 6.0 HR (.32)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2 Reg.	78"	66"	26"	27.4'	2,878#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		75,000 lbs		225,000 lbs	650,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.32	250-600 gpm	80-180 rpm	900 psi	1,200 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
7,840 ft/lbs		10,450 ft/lbs	203 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	9.6	11.3	12.9	14.4	15.6	16.8	17.7	18.4
	Stabilized	9.5	11.2	12.8	14.3	15.6	16.7	17.7	18.4
8 1/2"	Slick	8.2	9.9	11.5	13	14.3	15.4	16.4	17.1
	Stabilized	9.9	11.6	13.2	14.7	15.9	17.1	18	18.8
8 3/4"	Slick	7.7	9.4	10.9	12.5	13.7	14.9	15.8	16.5
	Stabilized	10	11.8	13.3	14.8	16.1	17.3	18.2	18.9
9 7/8"	Slick	5.2	6.9	8.5	10	11.2	12.4	13.3	14.1
	Stabilized	10.7	12.4	14	15.5	16.8	18	18.9	19.6

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

6 3/4" 7/8 2.9 HR (.16)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2 Reg.	78"	66"	26"	26'	2,808#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		75,000 lbs		225,000 lbs		650,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.16	300-500 gpm	48-80 rpm	650 psi	980 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
10,030 ft/lbs		15,120 ft/lbs	143 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	9.5	11.2	12.8	14.3	15.5	16.7	17.6	18.3
	Stabilized	9.4	11.1	12.7	14.2	15.4	16.6	17.5	18.2
8 1/2"	Slick	8.1	9.8	11.4	12.9	14.1	15.3	16.2	16.9
	Stabilized	9.8	11.5	13.1	14.6	15.8	17	17.9	18.6
8 3/4"	Slick	7.6	9.3	10.9	12.4	13.6	14.8	15.7	16.4
	Stabilized	10	11.6	13.2	14.7	15.9	17.1	18	18.7
9 7/8"	Slick	5.2	6.9	8.4	9.9	11.1	12.3	13.2	13.9
	Stabilized	10.6	12.3	13.9	15.4	16.6	17.8	18.7	19.4

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



Alliance Drilling Tools, LLC.

ADT RMK Motor Specification/Performance

6 3/4" 7/8 3.3 HR (.14)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2 Reg.	78"	66"	26"	26'	2,808#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		75,000 lbs		225,000 lbs		650,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.14	300-600 gpm	45-84 rpm	740 psi	1,110 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
14,110 ft/lbs		21,160 ft/lbs	212 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	8.8	10.4	11.9	13.3	14.4	15.5	16.4	17
	Stabilized	8.8	10.3	11.8	13.2	14.3	15.4	16.3	16.9
8 1/2"	Slick	7.6	9.2	10.6	12	13.2	14.2	15.1	15.8
	Stabilized	9.1	10.7	12.1	13.5	14.7	15.7	16.6	17.3
8 3/4"	Slick	7.1	8.7	10.1	11.5	12.6	13.7	14.6	15.3
	Stabilized	9.2	10.8	12.2	13.6	14.8	15.9	16.7	17.4
9 7/8"	Slick	4.8	6.4	7.8	9.2	10.4	11.5	12.3	13
	Stabilized	9.8	11.4	12.8	14.2	15.4	16.4	17.3	18

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



Alliance Drilling Tools, LLC.

ADT RMK Motor Specification/Performance

6 3/4" 7/8 5.0 HR (.28)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2 Reg.	78"	66"	26"	26'	2,808#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		75,000 lbs		225,000 lbs		650,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.28	300-600 gpm	86-180 rpm	1,130 psi	1,690 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
10,460 ft/lbs		15,640 ft/lbs	323 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	10.2	12.1	13.7	15.3	16.7	17.9	18.9	19.7
	Stabilized	10.2	12	13.7	15.3	16.6	17.9	18.9	19.6
8 1/2"	Slick	8.8	10.6	12.3	13.9	15.2	16.5	17.5	18.2
	Stabilized	10.6	12.4	14.1	15.7	17.1	18.3	19.3	20.1
8 3/4"	Slick	8.2	10	11.7	13.3	14.6	15.9	16.9	17.6
	Stabilized	10.8	12.6	14.3	15.9	17.2	18.5	19.5	20.3
9 7/8"	Slick	5.6	7.4	9.1	10.7	12	13.3	14.2	15
	Stabilized	11.6	13.4	15.1	16.7	18	19.3	20.3	21

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

6 3/4" 7/8 5.7 HR (.24)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
7 7/8" - 9 7/8"	4 1/2 Reg.	78"	66"	26"	31'	2,968#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		75,000 lbs		225,000 lbs		650,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.24	300-700 gpm	75-145 rpm	1,240 psi	1,405 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
13,300 ft/lbs		19,900 ft/lbs	394 hp	105° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	10.3	12	13.6	15.2	16.5	17.7	18.6	19.4
	Stabilized	10.3	12	13.6	15.2	16.5	17.7	18.6	19.4
8 1/2"	Slick	8.9	10.7	12.3	13.9	15.2	16.4	17.3	18.1
	Stabilized	10.9	12.6	14.2	15.8	17.1	18.3	19.2	20
8 3/4"	Slick	8.5	10.2	11.9	13.4	14.7	15.9	16.9	17.6
	Stabilized	11.1	12.9	14.5	16	17.3	18.5	19.5	20.2
9 7/8"	Slick	9.5	11.2	12.8	14.4	15.6	16.9	17.8	18.5
	Stabilized	12.2	13.9	15.6	17.1	18.4	19.6	20.5	21.3

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

7" 7/8 4.8 (.15)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
8 1/2"- 11"	4 1/2 Reg.	N/A	63"	20"	34.5'	3,150#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		75,000 lbs		225,000 lbs		650,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.15	300-700 gpm	45-105 rpm	1,080 psi	1,620 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
18,310 ft/lbs		27,470 ft/lbs	316 hp	90° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
8 1/2"	Slick	5.8	7.1	8.3	9.4	10.4	11.3	12	12.6
	Stabilized	7.5	9	10.3	11.6	12.6	13.6	14.4	15
8 3/4"	Slick	5.5	6.8	8	9.1	10.1	11	11.7	12.2
	Stabilized	7.5	9	10.3	11.6	12.6	13.6	14.4	15
9 7/8"	Slick	4.3	5.6	6.8	7.9	8.9	9.8	10.4	11
	Stabilized	7.5	9	10.3	11.6	12.6	13.6	14.4	15
10 5/8"	Slick	3.5	4.8	6	7.1	8	8.9	9.6	10.2
	Stabilized	7.5	9	10.3	11.6	12.6	13.6	14.4	15

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

7 3/4"- 8" 5/6 6.0 HR (.27)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
9 1/8"- 15"	6 5/8 Reg	91"	74"	26"	27.3'	3,343#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		80,000 lbs		275,000 lbs	750,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.27	300-900 gpm	80-180 rpm	900 psi	1,200 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
12,465 ft/lbs		16,600 ft/lbs	323 hp	90° - 150° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
9 7/8"	Slick	7.3	8.9	10.4	11.8	13	14.1	14.9	15.6
	Stabilized	9.5	11.1	12.6	14	15.2	16.3	17.2	17.9
10 5/8"	Slick	5.9	7.5	9	10.4	11.6	12.7	13.6	14.3
	Stabilized	10.6	12.3	13.7	15.2	16.3	17.5	18.3	19
12 1/4"	Slick	3	4.6	6	7.5	8.6	9.8	10.6	11.3
	Stabilized	10.8	12.4	13.9	15.3	16.5	17.6	18.5	19.2
13 1/2"	Slick		2.3	3.8	5.2	6.4	7.5	8.4	9
	Stabilized	11.5	13.1	14.6	16	17.2	18.3	19.2	19.9

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

7 3/4"- 8" 7/8 3.4 HR (.09)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
9 1/8"- 15"	6 5/8 Reg	91"	74"	26"	37'	4,662#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		80,000 lbs		275,000 lbs	750,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.09	400-900 gpm	35-81 rpm	770 psi	1,150 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
21,450 ft/lbs		32,180 ft/lbs	288 hp	90° - 150° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
9 7/8"	Slick	6.1	7.4	8.7	9.8	10.8	11.7	12.4	13
	Stabilized	7.7	9	10.3	11.4	12.4	13.3	14	14.6
10 5/8"	Slick	4.9	6.2	7.4	8.6	9.5	10.5	11.2	11.7
	Stabilized	1.5	1.8	2	2.2	2.4	2.6	2.7	2.9
12 1/4"	Slick	2.4	3.8	5	6.2	7.1	8	8.8	9.3
	Stabilized	8.6	9.9	11.1	12.3	13.3	14.2	14.9	15.4
13 1/2"	Slick		1.9	3.1	4.3	5.3	6.2	6.9	7.4
	Stabilized	9	10.4	11.6	12.8	13.7	14.6	15.3	15.9

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

7 3/4"- 8" 7/8 4.0 HR (.16)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
9 1/8"- 15"	6 5/8 Reg	91"	74"	26"	28.2'	3,559#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		80,000 lbs		275,000 lbs	750,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.16	400-900 gpm	66-150 rpm	900 psi	1,350 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
14,930 ft/lbs		22,400 ft/lbs	401 hp	90° - 150° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
7 7/8"	Slick	7.6	9.3	10.9	12.3	13.6	14.7	15.7	16.4
	Stabilized	10	11.7	13.3	14.8	16	17.2	18.1	18.8
8 1/2"	Slick	6.2	7.9	9.4	10.9	12.2	13.3	14.2	14.9
	Stabilized	11.2	12.9	14.5	16	17.2	18.4	19.3	20
8 3/4"	Slick	3.1	4.8	6.3	7.8	9.1	10.2	11.1	11.9
	Stabilized	11.5	13.2	14.7	16.2	17.4	18.6	19.5	20.2
9 7/8"	Slick		2.4	4	5.5	6.7	7.9	8.8	9.5
	Stabilized	12.2	13.9	15.5	17	18.2	19.4	20.3	21

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

7 3/4"- 8" 7/8 5.9 HR (.15)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
9 1/8"- 15"	6 5/8 Reg	91"	74"	26"	37.1'	4,315#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		80,000 lbs		275,000 lbs	750,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.15	400-900 gpm	60-135 rpm	1,330 psi	1,990 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
22,020 ft/lbs		33,030 ft/lbs	486 hp	90° - 150° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
9 7/8"	Slick	5.9	7.1	8.3	9.4	10.3	11.2	11.9	12.4
	Stabilized	7.4	8.8	10.1	11.3	12	13.3	14.0	14.7
10 5/8"	Slick	5.4	6.6	7.8	8.9	9.8	10.7	11.3	11.9
	Stabilized	7.4	8.8	10.1	11.3	12	13.3	14.0	14.7
12 1/4"	Slick	4.3	5.6	6.7	7.8	8.8	9.6	10.3	10.8
	Stabilized	7.4	8.8	10.1	11.3	12	13.3	14.0	14.7
13 1/2"	Slick	3.6	4.8	6	7.1	8	8.9	9.5	10.1
	Stabilized	7.4	8.8	10.1	11.3	12	13.3	14.0	14.7

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

7 3/4"- 8" 8/9 6.0 HR (.22)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
9 1/8"- 15"	6 5/8 Reg	91"	74"	26"	27.3'	3,602#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		80,000 lbs		275,000 lbs	750,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.22	300-900 gpm	65-196 rpm	1,200 psi	1,500 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
17,926 ft/lbs		35,852 ft/lbs	576 hp	90° - 160° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
9 7/8"	Slick	4.3	6.2	7.7	9.1	10.2	11.3	12.1	12.8
	Stabilized	7.6	9.1	10.4	11.7	12.8	13.8	14.6	15.2
10 5/8"	Slick	2.9	4.5	6	7.3	8.5	9.6	10.4	11.1
	Stabilized	7.6	9.1	10.4	11.7	12.8	13.8	14.6	15.2
12 1/4"	Slick		0.8	2	3.6	4.8	5.9	6.7	7.4
	Stabilized	7.6	9.1	10.4	11.7	12.8	13.8	14.5	15.1
13 1/2"	Slick				0.9	2	3.1	3.9	4.6
	Stabilized	7.6	9.1	10.4	12	12.7	13.7	14.5	15.1

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

7 3/4"- 8" 9/10 4.0 HR (.27)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
9 1/8"- 15"	6 5/8 Reg	91"	74"	26"	21.8'	2,668#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull	Pull to yield	
1,500 psi		80,000 lbs		275,000 lbs	750,000 lbs	

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.27	300-900 gpm	80-180 rpm	600 psi	800 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
14,800 ft/lbs		19,700 ft/lbs	383 hp	90° - 150° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
9 7/8"	Slick	8.8	10.8	12.6	14.3	15.8	17.1	18.2	19
	Stabilized	11.8	13.8	15.6	17.4	18.8	20.1	21.2	22
10 5/8"	Slick	7.2	9.1	11	12.7	14.1	15.5	16.5	17.4
	Stabilized	13.4	15.3	17.1	18.9	20.3	21.7	22.7	23.5
12 1/4"	Slick	3.6	5.6	7.4	9.1	10.5	11.9	13	13.8
	Stabilized	13.8	15.8	17.6	19.3	20.8	22.1	23.2	24
13 1/2"	Slick		2.8	4.6	6.3	7.8	9.1	10.2	11
	Stabilized	14.9	16.8	18.6	20.4	21.8	23.2	24.2	25

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Fixed Bend	50	50	40	30	20
Adj Bend	50	40	20	NR	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

9 5/8" 5/6 4.0 HR (.12)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
12 1/4"- 18 1/2"	6 5/8 Reg 7 5/8 Reg	95"	N/A	28"	28'	5,376#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		90,000 lbs		480,000 lbs		1,000,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.12	600-1200 gpm	66-132 rpm	800 psi	1,200 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
17,100 ft/lbs		22,800 ft/lbs	443 hp	90° - 150° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
12 1/4"	Slick	6.2	7.7	9.1	10.4	11.5	12.6	13.4	14
	Stabilized	9.2	10.7	12.1	13.4	14.5	15.6	16.4	17
13 1/2"	Slick	4.3	5.8	7.2	8.5	9.6	10.7	11.5	12.1
	Stabilized	9.8	11.3	12.7	14	15.1	16.2	17	17.6
14 3/4"	Slick	2.4	3.9	5.3	6.6	7.7	8.8	9.6	10.2
	Stabilized	10.4	11.9	13.3	14.6	15.7	16.8	17.6	18.2
17 1/2"	Slick			1.1	2.4	3.5	4.6	5.4	6
	Stabilized	11.7	13.2	14.6	16	17.1	18.1	18.9	19.5

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Adj Bend	60	50	30	15	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10



ADT RMK Motor Specification/Performance

9 5/8" 5/6 6.0 HR (.15)

Physical/Dimensional Data

Bit size range	Bit box	Bit to bend ABH	Bit to bend fixed	Bit to stabilizer	Overall length	Weight
12 1/4"- 18 1/2"	6 5/8 Reg 7 5/8 Reg	95"	N/A	28"	29.5'	5,477#
Maximum off bottom pressure		Maximum weight on bit		Maximum overpull		Pull to yield
1,500 psi		90,000 lbs		480,000 lbs		1,000,000 lbs

Performance Specifications

Revs/Gal	Flow range	Speed range	Maximum operating differential pressure	Stall differential pressure
0.15	600-1200 gpm	87-180 rpm	900 psi	1,300 psi
Torque at max operating differential pressure		Stall torque	Maximum power	Best operating temperature
19,240 ft/lbs		27,800 ft/lbs	516 hp	90° - 150° F

Theoretical Build Rates (Deg./100ft.)

Hole Size	Configuration	1.50°	1.76°	2.0°	2.23°	2.42°	2.60°	2.74°	2.85°
12 1/4"	Slick	5.6	6.9	8.2	9.4	10.3	11.3	12	12.6
	Stabilized	8.2	9.5	10.8	11.9	12.9	13.9	14.6	15.2
13 1/2"	Slick	3.9	5.2	6.5	7.7	8.6	9.6	10.3	10.9
	Stabilized	8.6	10	11.2	12.4	13.4	14.3	15.1	15.6
14 3/4"	Slick	2.2	3.5	4.8	5.9	6.9	7.9	8.6	9.2
	Stabilized	9.1	10.5	11.7	12.9	13.9	14.8	15.6	16.1
17 1/2"	Slick			1.0	2.2	3.2	4.1	4.8	5.4
	Stabilized	10.2	11.5	12.8	14	14.9	15.9	16.6	17.2

Build rates are estimates and should only be used for general guidance. The table assumes the stabilizer is 1/8" under-gauge.

Continuous Rotary RPM (Max.)

Bend/ABH Setting	1.50°	1.76°	2.0°	2.23°	2.42°
Straight: 80 RPM					
Adj Bend	60	50	30	15	NR

NR-Not Recommended

Drilling Fluid Properties

Sand	Low gravity solids	Total solids	Chlorides	LCM	Aniline point (min)	PH
trace-1%	7%	8%	150,000 ppm	25 gal/bbl	180° F	8-10