



**DRILL FASTER  
RUN HARDER  
WORK SMARTER**



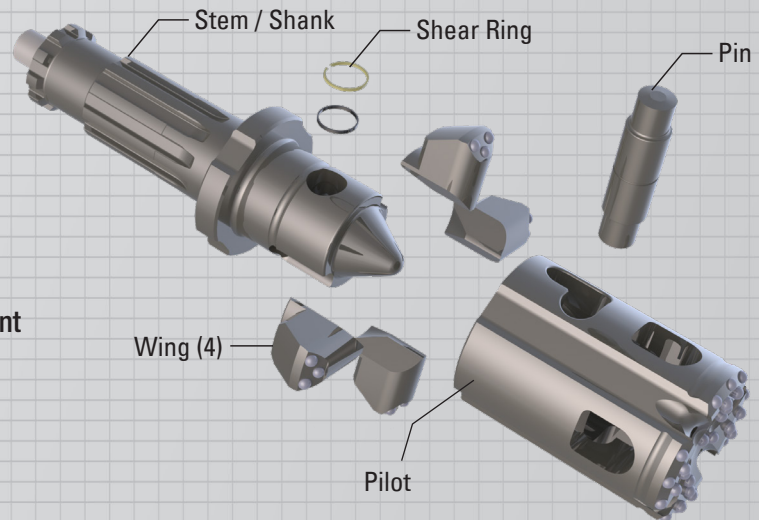
**ROTO LOC<sup>®</sup> UNDERREAMER**

# GENERAL INFORMATION

## ADVANCED DESIGN ROTO LOC UNDERREAMER SYSTEM

### ROTO LOC™ UNDERREAMER

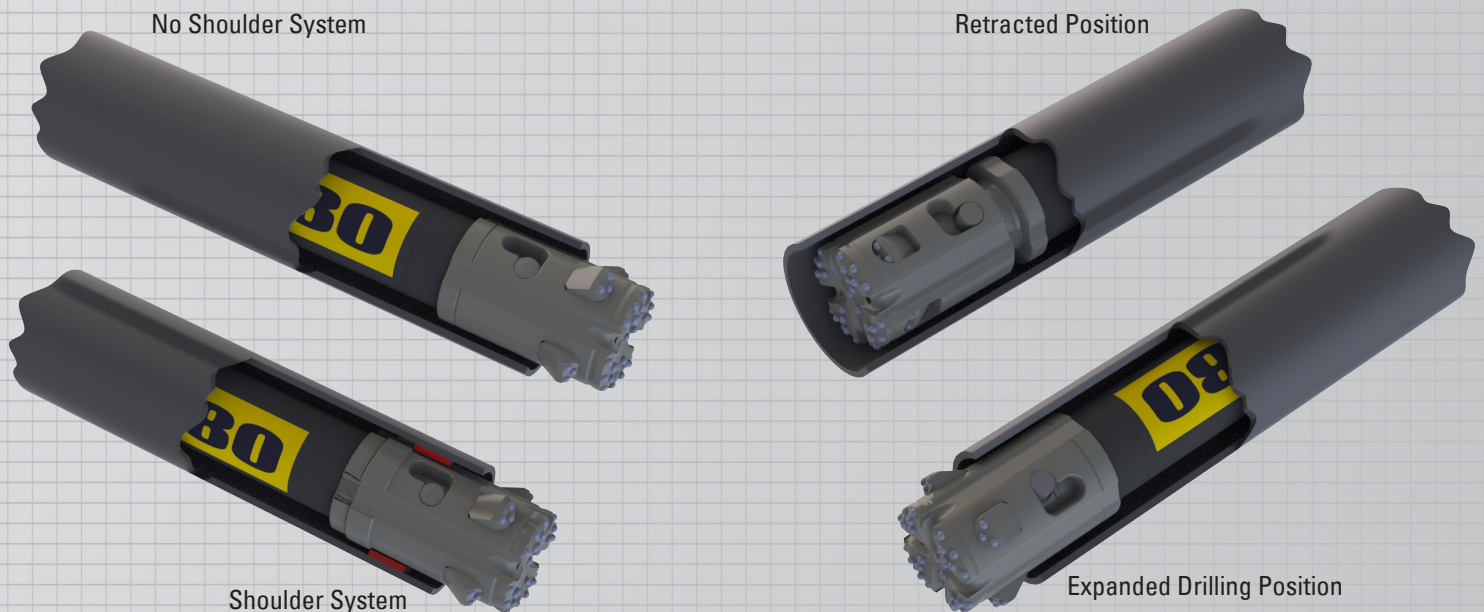
- Sizes from 5 1/2" to 36" (140-914 mm)
- Wings lock in place to cut full diameter through any rock formation
- No expensive starter casing teeth or ring bit left in the hole
- Easily retractable wings
- Straight holes in pinnacle limestone and karst, eliminating bent or broken casing.
- Positive locking wings can be used to retrieve casing.
- Simple, quick wing replacement.



## HOW IT WORKS

As the pilot bit rotates and makes contact with the ground, the drive pin rotates into locked position and the wings are fully extended. While in this position, the wings are positively locked, ensuring that the pilot will drill a borehole to full expanded diameter until retracted. The long nose on the pilot leads/guides the tooling through sloping and karstic formations maintaining the desired angle and minimizing deviation. When the target is reached, with a slight bump backwards, the pin moves to the retract position allowing the wings to collapse in. At that point, the bit is retracted from the casing, leaving the casing behind.

ROTO LOC™ is the ultimate under reamer system. It delivers straighter holes, minimizes casing friction which can cause casing failures, requires NO expensive casing teeth, and provides industry-leading penetration rates.



# SPECIFICATIONS

SYSTEM	SHANK	WINGS	WING DIAMETER		SHOULDER DIAMETER	APPLICABLE CASING		WALL	WEIGHT
			EXPANDED	RETRACTED		OD	ID		
			IN (MM)	IN (MM)	IN (MM)	IN (MM)	IN (MM)	IN (MM)	LBS (KGS)
<b>NO DRIVE SHOE SYSTEM</b>									
ROC-0550RL2	CR40 340	2	5.86 (148.8)	4.38 (111.3)	N/A	5.500 (139.7)	4.670 (118.6)	.415 (10.5) .361 (9.3)	47 (22)
ROC-0600RL2	CR40 340	2	6.35 (161.3)	4.92 (125.0)	N/A	6.000 (152.4)	4.990 (126.8)	.505 (12.8)	58 (26)
ROC-0663RL2	QL50	2	7.28 (184.9)	5.55 (141.0)	N/A	6.625 (168.3)	5.761 (146.3)	.432 (11.0) .500 (12.7)	71 (32)
ROC-0700RL2	QL50 QL60 360	2	7.74 (196.6)	5.90 (149.9)	N/A	7.000 (177.8)	6.000 (152.4)	.500 (12.7) .453 (11.5) .408 (10.4)	83 (38)
ROC-0763RL2	QL60 360	2	8.35 (212.1)	6.50 (165.1)	N/A	7.625 (193.7)	6.625 (168.3)	.500 (12.7) .430 (10.9)	108 (49)
ROC-0863RL2	QL60	4	9.33 (237.0)	7.54 (191.5)	N/A	8.625 (219.1)	7.625 (193.7)	.500 (12.7) .406 (10.3)	168 (76)
ROC-0963RL2	QL80 380	4	10.33 (262.4)	8.39 (213.1)	N/A	9.625 (244.5) 9.875 (250.8)	8.535 (216.8)	.545 (13.8) .472 (12.0)	231 (105)
ROC-1075RL2	QL80 380	4	11.42 (290.1)	9.45 (240.0)	N/A	10.750 (273.1)	9.560 (242.8)	.595 (15.1) .545 (13.8)	250 (113)
ROC-1188RL2	N100	4	12.54 (318.5)	10.17 (258.3)	N/A	11.875 (301.6) 11.750 (298.5)	10.711 (272.1)	.582 (14.8) .534 (13.6)	362 (164)
<b>DRIVE SHOE SYSTEM</b>									
ROC-0863RL2S	QL60	4	9.33 (237.0)	7.54 (191.5)	8.25 (209.6)	8.625 (219.1)	8.311 (211.1)	.157 (3.9) .125 (3.2)	184 (83)
ROC-0963RL2S	QL80 380	4	10.33 (262.4)	8.39 (213.1)	8.75 (222.3)	9.625 (244.5)	8.535 (216.8)	.545 (13.8) .375 (9.5)	233 (106)
ROC-1075RL2S	QL80 380	4	11.42 (290.1)	9.45 (240.0)	9.90 (251.5)	10.750 (273.1)	9.560 (242.8)	.595 (15.1) .375 (9.5)	306 (139)
ROC-1275RL2S	N100	4	13.38 (339.9)	10.87 (276.1)	11.62 (295.2)	12.750 (323.9)	11.750 (298.5)	.500 (12.7)	521 (236)
ROC-1338RL2S	N100	4	14.00 (254.0)	11.48 (291.6)	12.22 (310.4)	13.375 (339.7)	12.347 (313.6)	.514 (13.1)	571 (259)
ROC-1600RL2S	QL120	4	16.91 (429.5)	14.37 (365.0)	15.13 (384.3)	16.000 (406.4)	15.000 (381.0)	.500 (12.7) .375 (9.5) .575 (14.6)	1026 (465)
ROC-1800RL2S	QL120 QL200	4	18.82 (478.0)	16.10 (408.9)	16.88 (428.8)	18.000 (457.2)	17.000 (431.8)	.500 (12.7) .375 (9.5)	1370 (621)
ROC-2000RL2S	QL200	4	20.87 (530.1)	17.63 (447.8)	18.63 (473.2)	20.000 (508.0)	18.750 (476.3)	.625 (15.9) .375 (9.5)	2045 (928)
ROC-2400RL2S	QL200	4	24.86 (631.4)	21.39 (543.3)	22.88 (581.2)	24.000 (609.6)	23.000 (584.2)	.500 (12.7)	2670 (1211)
ROC-3000RL2S	QL200S CR260	4	30.87 (784.1)	27.25 (692.2)	28.38 (720.9)	30.000 (762.0)	29.000 (736.6)	.500 (12.7) .750 (19.1)	4950 (2245)
ROC-3600RL2S	CR260	4				36.000 (914.4)	35.000 (889.0)	.500 (12.7) .750 (19.1)	7100 (3220.5)
ROC-4000RL2S	CR260	4				40.000 (1016.0)	39.000 (990.6)	.500 (12.7) .750 (19.1)	8300 (3764.8)

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