

CARBONADO DRILLING PARAMETER GUIDE

SIZE	BIT WEIGHT		BIT RPM
	kg	lb	
NWL	1350 - 2275	3000 - 5000	400 - 1000
NWL-3	1600 - 2475	3500 - 5500	
HWL	2275 - 3375	5000 - 7500	200 - 700
HWL-3	2275 - 3650	5000 - 8000	
PWL	3375 - 4950	7500 - 11,000	150 - 450
PWL-3	3375 - 5175	7500 - 11,500	

Penetration Index - RPC (RPI)

This is a useful calculation to help assess if the bit is being optimized in relationship to RPM and ROP

$$\text{RPC (RPI)} = \text{RPM} / \text{ROP}$$

e.g. $\text{RPC} = 1200 \text{ RPM} / 15 \text{ cm} = 80 \text{ rotations per centimeter}$
 $\text{RPI} = 1200 \text{ RPM} / 6 \text{ inches} = 200 \text{ rotations per inch}$

A good target is 80 - 100 RPC (200 - 250 RPI)