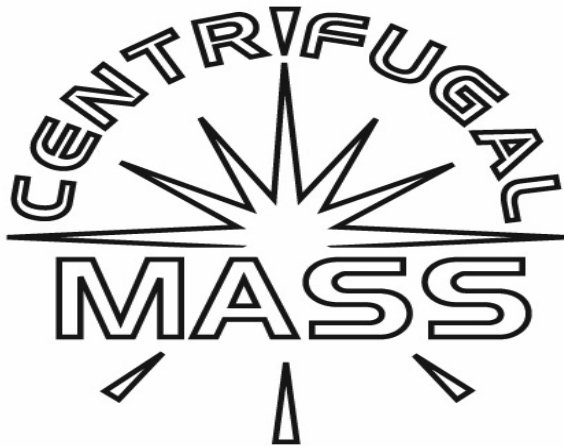


DYNO-THANE CENTRIFUGAL MASS DRILLING INSTRUCTIONS

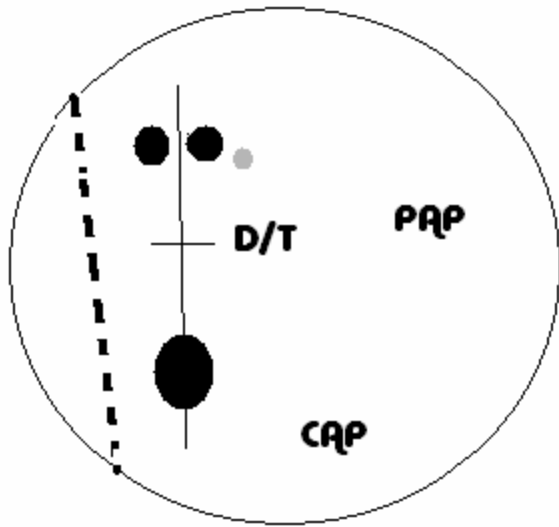





- PIN LOCATIONS
- CAP LOCATIONS
- SURFACE
- EXTRA HOLES

CENTRIFUGAL MASS SPECIFICATIONS

- RG-2.510
- DIFFERENTIAL-0.055
- COVERSTOCK-Solid/Pearl Blended Soaker ATC Reactive Resin
- 60 Degree Spin Time-5.8 Seconds

REFERENCE POINTS



LEGEND	
	INITIAL TRACK FLARE
	CENTER OF SPAN
	PIA
D/T	CG LOCATION
PAP	POSITIVE AXIS POINT
CAP	CENTRIFUGAL AXIS POINT

DETERMINING THE PROPER PIN LOCATION

- THE PIN LOCATION CONTROLS THE LENGTH OF THE BALL REACTION. USE HIGHER PINS FOR LENGTH, LOWER FOR EARLIER ROLL.
- Use the Control Pin Location for a very early smooth reaction, (2" from your PAP)
- Use the Power Pin Location to allow the ball to use its full flare potential and the strongest mid-lane reaction. (3 1/2" from your PAP)
- Use the Delay Pin Location to store the balls energy and add length with an angular backend, (5" from your PAP)

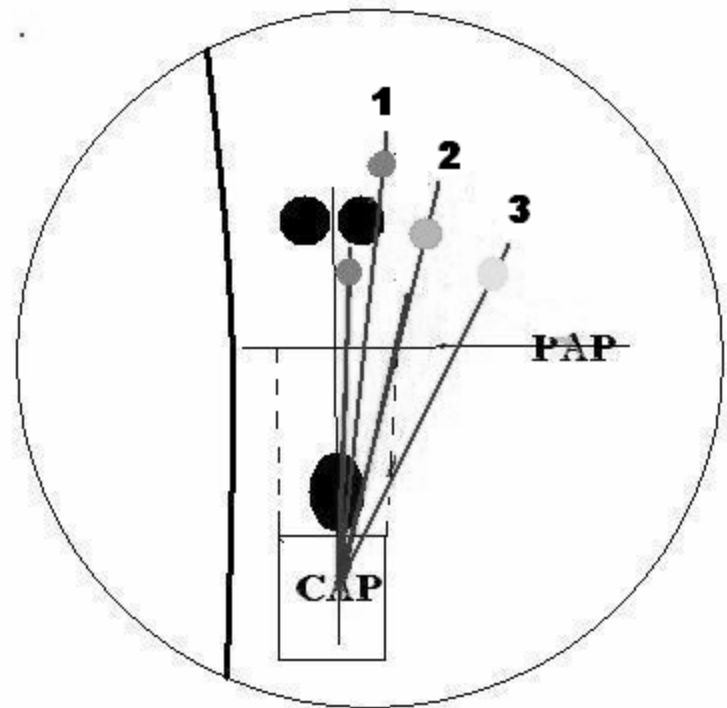
DETERMINE THE PROPER “CAP” LOCATION

- THE CAP LOCATION CONTROLS YOUR BREAKPOINT ANGLE. It is the point where the centrifugal forces spin around during each revolution.
- The Direct Cap Location decreases the entry angle, (5 to 6” from your PAP usually below your thumb hole)
- The Power Cap Location maximizes the entry angle, (3 to 4” from your PAP)
- The Control Cap Location produces a medium entry angle, (directly below you PAP)
- *On Asymmetrical cores the CG’s only influence is to determine the size of the extra hole, if needed. That is why we use the Pin and the CAP only for layouts.*

DIRECT CAP LOCATION

RECOMMENDATIONS

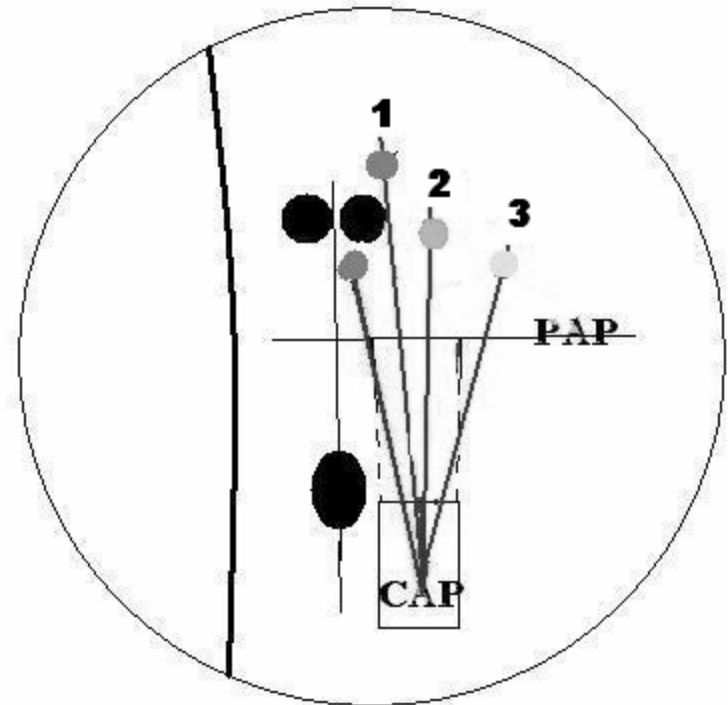
1. Adds length and helps control dry backends
2. Allows you to stand closer to the “dry”
3. Freshly oiled lanes and extremely “wet-dry” conditions



POWER CAP LOCATION

RECOMMENDATIONS

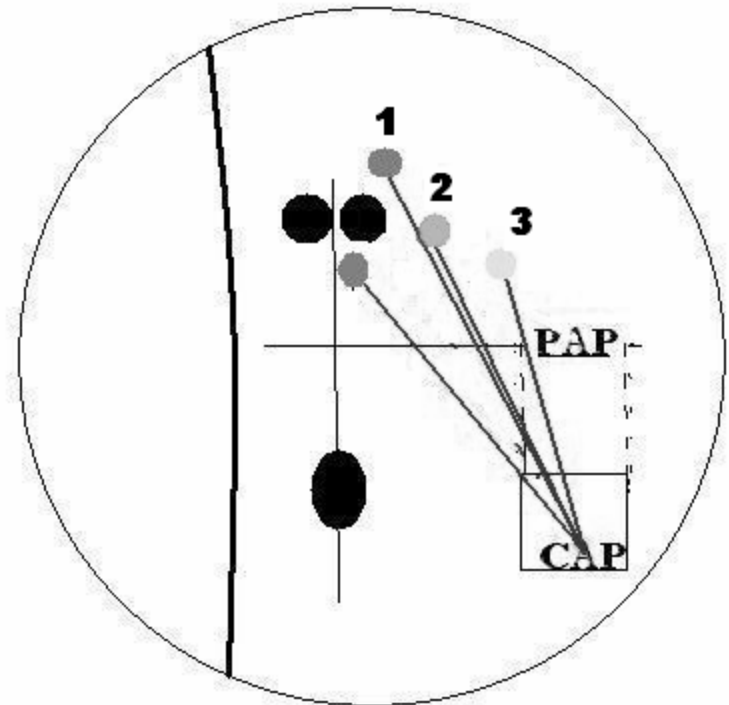
1. Creates length with an angular backend reaction
2. Good for Heavy oil lines with carrydown
3. Fresh Heavy oil with clean backends



CONTROL CAP LOCATION

RECOMMENDATIONS

1. Allows for smooth continuous backend reaction
2. Good for Players with Higher Ball Speeds on Heavy oiled patterns
3. High Ball speeds and extremely dry backends



ADJUST THE BALL SURFACE

- You have determined your desired ball reaction with the drill pattern
- NOW ADJUST THE SURFACE OF THE BALL TO ACCOMMODATE THE OIL VOLUME
 - Polish for Dryer Conditions
 - 1000 Grit or Higher Polish
 - Lightly sand for Medium Conditions
 - 1000 Grit Wet Sand, no polish, Gray or Green Scuff Pad
 - Heavy sand for Heavier Oil
 - 400 Grit Wet Sand, no polish, Burgundy or Green Scuff Pad

SOME DRILL PATTERNS MAY REQUIRE EXTRA HOLES

- **EXTRA HOLE CONSIDERATIONS**
 - **Size – Bigger holes, (larger than 7/8), produce earlier roll and a stronger reaction while smaller holes have a much lesser effect on the ball reaction.**
 - **Location – Holes located inside the bowlers PAP (toward the grip) tend to smooth out the ball reaction, while holes on the bowlers PAP create a stronger mid-lane roll, and holes past the PAP help create more flare and a stronger overall reaction. *Be careful on hole location for high rev players or high Differential equipment(.050 and higher), it is recommended that the extra hole NOT go past the players PAP or the ball may roll over the extra hole.* It is also recommended that extra holes not be located more than 2 inches in any direction from the bowlers PAP.**