

Introduction

Static Deflection Test for positioning guides on the blank

Works for any type rod that can be supported flexed

Optimizes guide size and position for: reel, handle, line, action, power

Tools: Spine Finder, Guide Tubing, Clamps, Tie-off Line

Action and Power

Action: where blank initially bends when flexed from tip

Rated Extra-Fast to Slow (think of Speed)

Power: casting power and lifting power

Rated Ultra Light to Extra Heavy (think of Weight)

Use lure range to evaluate casting power

Use line range to evaluate lifting power

Action and Power are not consistent across manufacturers

Action and Power ARE important for: casting, working lure, hookset, fighting/landing fish

For detailed characterization of Action and Power or to match rods or blanks

use the Deflection Tool/Chart in the Mudhole catalog

Highsticking

Loading rod past 90° bend

Transfers force on the rod from the powerful butt to the weaker and fragile tip

Casting Setup

Minimize friction on line from: Guides, Rod, Wind

Choke near middle of rod: New concept or KR concept, specific for reel/line, excels with braid/light mono/FC

Use table for starting point for reduction guides

Equal space running guides between tip and last reduction guide

Test Cast: Watch line, listen for line noise, adjust reduction guide positions and repeat

Key Parameters: Ring diameter, guide height/clearance, reel to first guide distance

Power Setup

Want line to closely follow the curve of the blank

Setup with rod flexed in fish fighting position from tip

Move, add or exchange guides as needed

Key Parameters: Angle of line through guides, space between line and rod between guides, line touching blank

Repeat test cast if guides close to reel change

General Rules

Use smallest and least number of guides for reel, line, leader

Spinning Rods (and Surf)

Same choke layout for reel regardless of rod length

Larger reel use first guide with larger ring/frame and move farther from reel

Casting Rods (and Surf)

Consider reel height and width for ring/frame of first guide

Boat Rods

First guide must allow for foregrip and hand clearance based amount of line for fishing condition

Fly Rods

Same as spinning, but consider how line is stripped for first guide position

Keep Records!

**Spinning Reel
Line**

2000 Braid 10#, Mono 6#	2000 - 3000 Braid 20#, Mono 10#	4000 - 5000 Braid 30#, Mono 14#
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NGC

Reduction Guide Style	Y Frame	Y Frame	Y Frame
Reduction Guide Model	CRB LZR YR	CRB LZR YR	CRB LZR YR
Reduction Guide Sizes	20, 10, 6	25, 12, 6	30, 16, 8
Reduction Guide Positions	19-21", +7-9", +6-8"	20-22", +7-9", +6-8"	21-24", +7-10", +6-9"
Running Guide Model	CRB LZR R	CRB LZR R	CRB LZR R
Running Guide Sizes	4	5 or 6	6 or 7
Running Guide Positions	Static Deflection	Static Deflection	Static Deflection

KR

Reduction Guide Style	Tangle Free Tall	Tangle Free Tall	Tangle Free Tall
Reduction Guide Model	Fuji KLH	Fuji KLH	Fuji KLH
Reduction Guide Sizes	16, 8H, 5.5L	20, 10, 6L	25, 12, 7M
Reduction Guide Positions	17-20", +7-9", +6-8"	19-21", +7-9", +6-8"	20-23", +7-9", +6-8"
Running Guide Model	Fuji KT	Fuji KT	Fuji KT
Running Guide Sizes	5 or 5.5	5.5 or 6	7
Running Guide Positions	Static Deflection	Static Deflection	Static Deflection

**Casting Reel
Line**

Low Profile
Braid 30#, Mono 14#

	NGC	KR
Reduction Guide Model	CRB LZR C/R	Fuji KW/KT
Reduction Guide Sizes	C10, R8, R5 or R6	KW10, KT8, KT5.5
Reduction Guide Positions	18-22", +7-9", +6-8"	18-22", +7-9", +6-8"
Running Guide Model	CRB LZR R	Fuji KT
Running Guide Sizes	4 or 5	5 or 5.5
Running Guide Positions	Static Deflection	Static Deflection

Positions measured from lip of front hood of reel seat with reel installed
 Second and third casting reduction guides may be same style as running guides
 Round casting reels will require larger reduction guides
 Heavier casting lines may require larger running guides
 Line/leader knots may require larger running guides

Go to www.mudhole.com to choose guide frame and ring options
 Compare ring size and guide height to find equivalent models

Go to www.anglersresource.net for detailed explanations of guide layouts
 Theory of the New Guide Concept (NGC)
 Theory of the KR Concept (KR)