

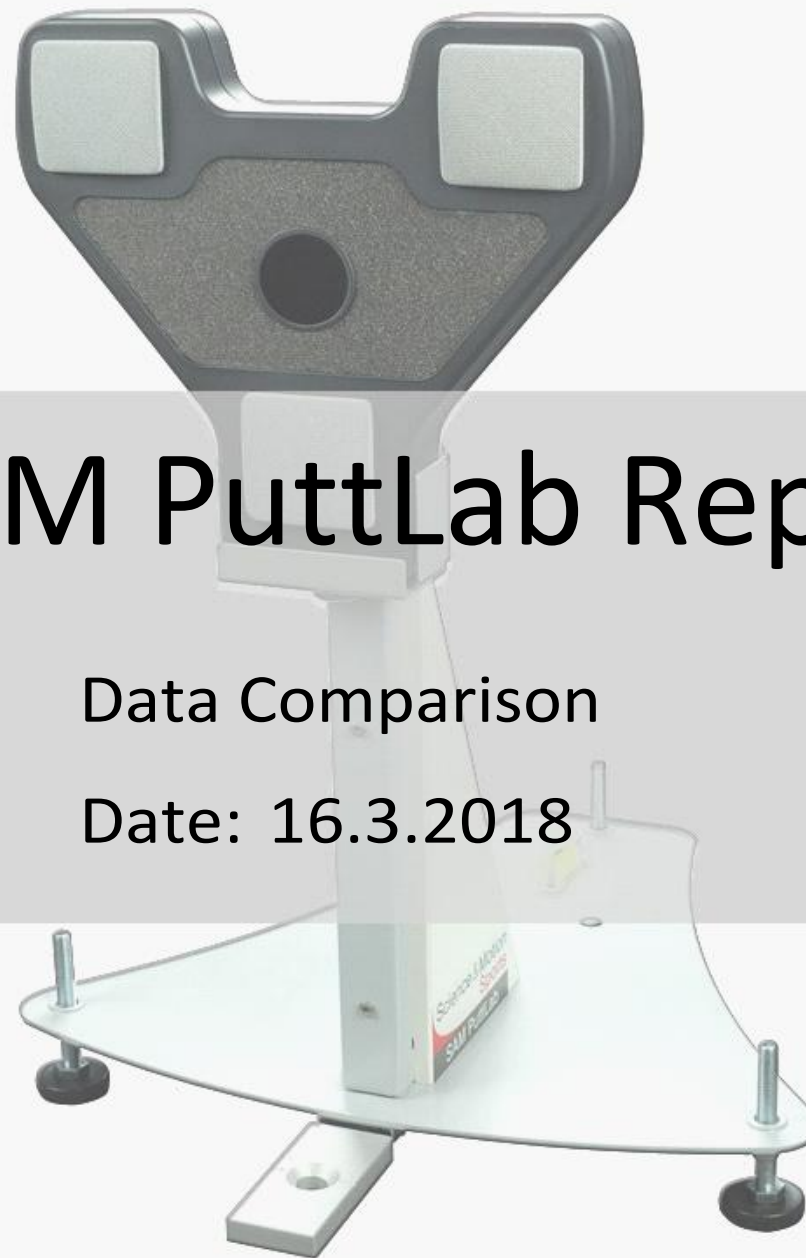
SAM PuttLab
...the reference in
putt training

Science & Motion
Sports

SAM PuttLab Report

Data Comparison

Date: 16.3.2018



info@scienceandmotion.com
www.scienceandmotion.com
#SAMPuttLab

Player: Amateur HC-15
Session: Amateur HC-15

Data Summary

Project: Examples
Description: Example Project with 14 Player..

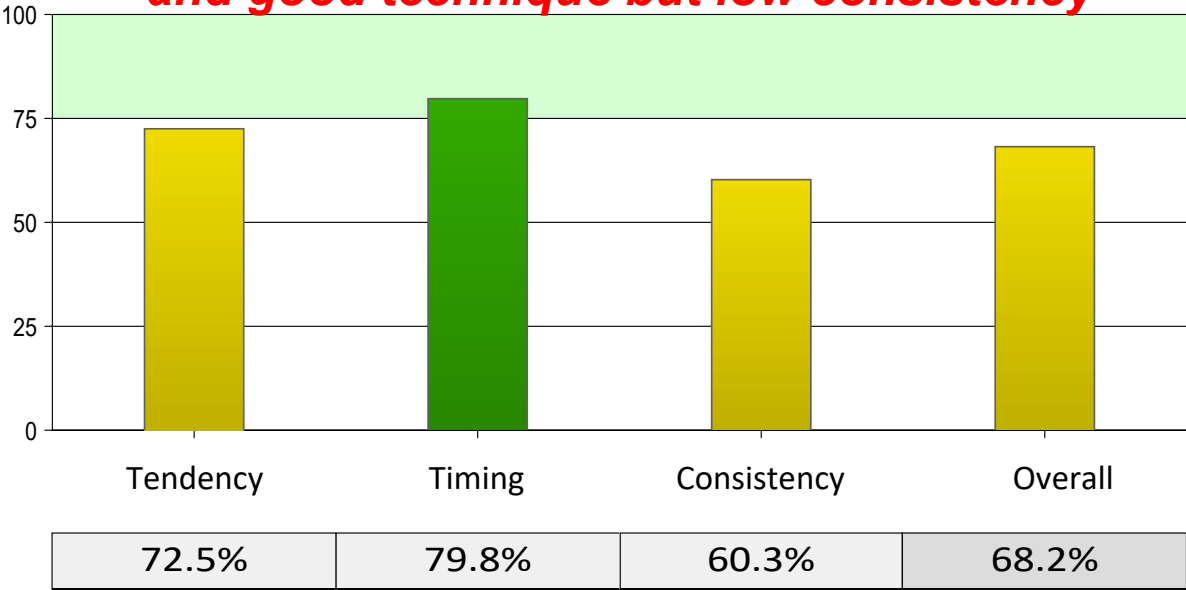
Session: 001 - Amateur HC-15
Description: Amateur Measurement
Type: Measurement

Player: Amateur HC-15
Handicap: 15
Lefthand:
Comment: Amateur Handicap 15: Performan..

File: 001 - Amateur HC-15
Date: 10.03.2010
Putts: 7

Putter: Custom
Length: 35.0
Loft: 3.0
Lie: 71.0

A skilled HC 15 player with a quite neutral and good technique but low consistency



Player: Tour Player Swing
Session: Swing putting stroke

Data Summary

Project: Examples
Description: Example Project with 14 Player..

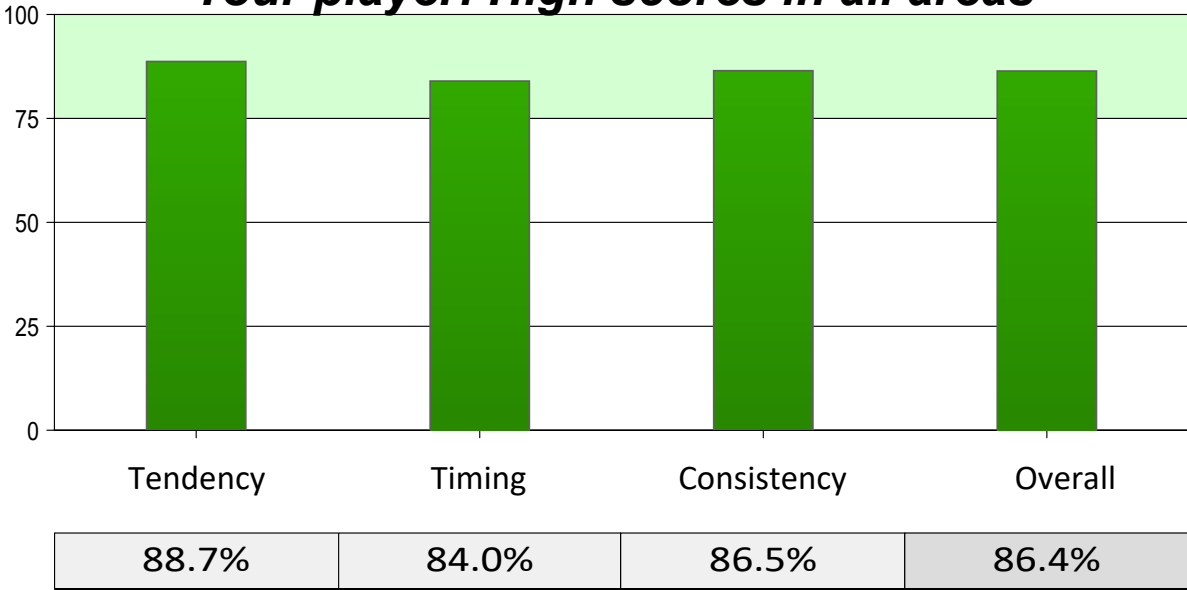
Session: 001 - Swing putting stroke
Description: PGA Tour Measurement
Type: Measurement

Player: Tour Player Swing
Handicap: +4
Lefthand: -
Comment: Tour player with a "swing putt..

File: 001 - Swing putting stroke
Date: 18.08.2012
Putts: 6

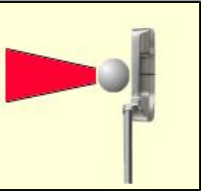
Putter: Odyssey Twoball
Length: 34.0
Loft: 3.0
Lie: 71.0

Tour player: High scores in all areas



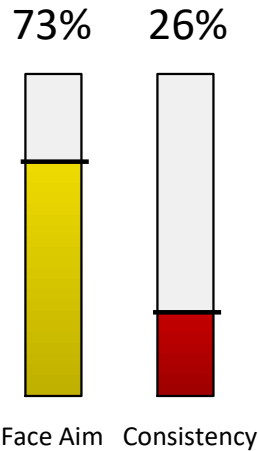
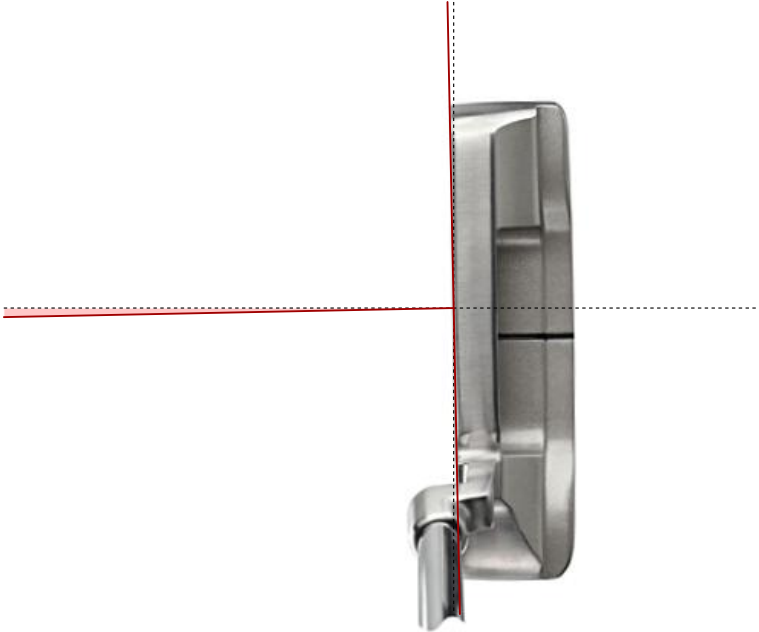
Player: Amateur HC-15
Session: Amateur HC-15

Face Aim



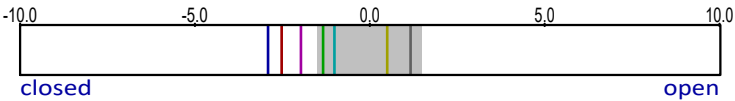
Inconsistent aim is a problem of most amateurs

- 2.91
- 1.33
- 2.52
- 1.01
- 1.97
- 0.50
- 1.17



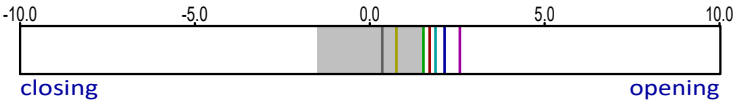
1.2° closed

Face at address



1.2° closed

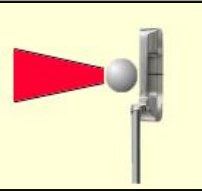
Face change



1.6° opening

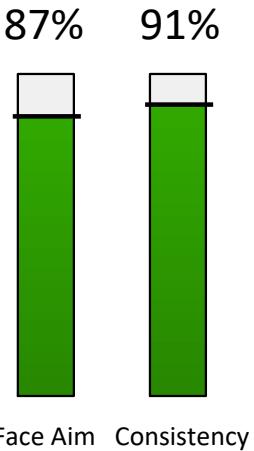
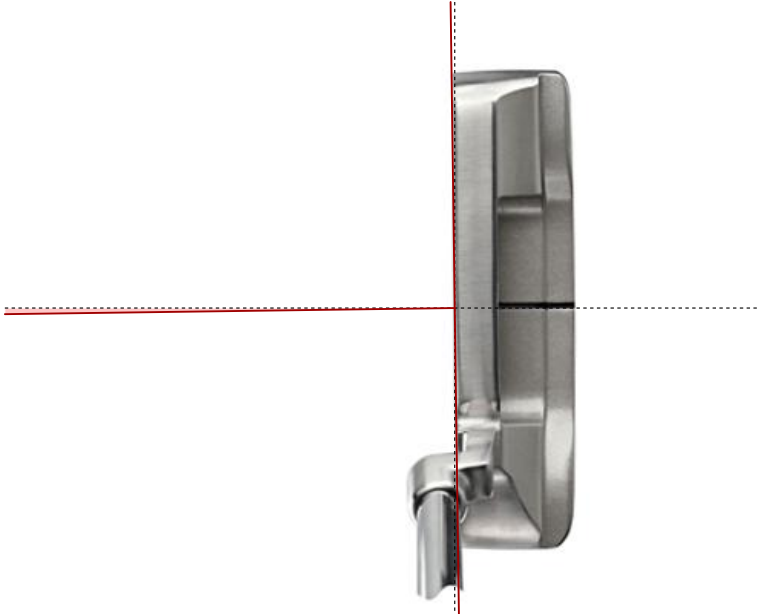
Player: Tour Player Swing
Session: Swing putting stroke

Face Aim



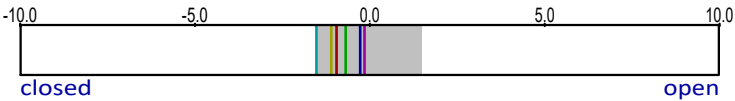
Tour player: Aim slightly left but highly consistent

- 0.27
- 0.69
- 0.95
- 1.53
- 0.15
- 1.10



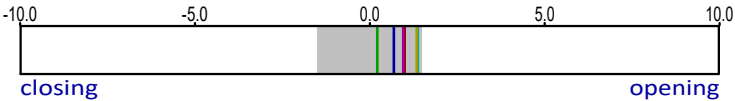
0.8° closed

Face at address



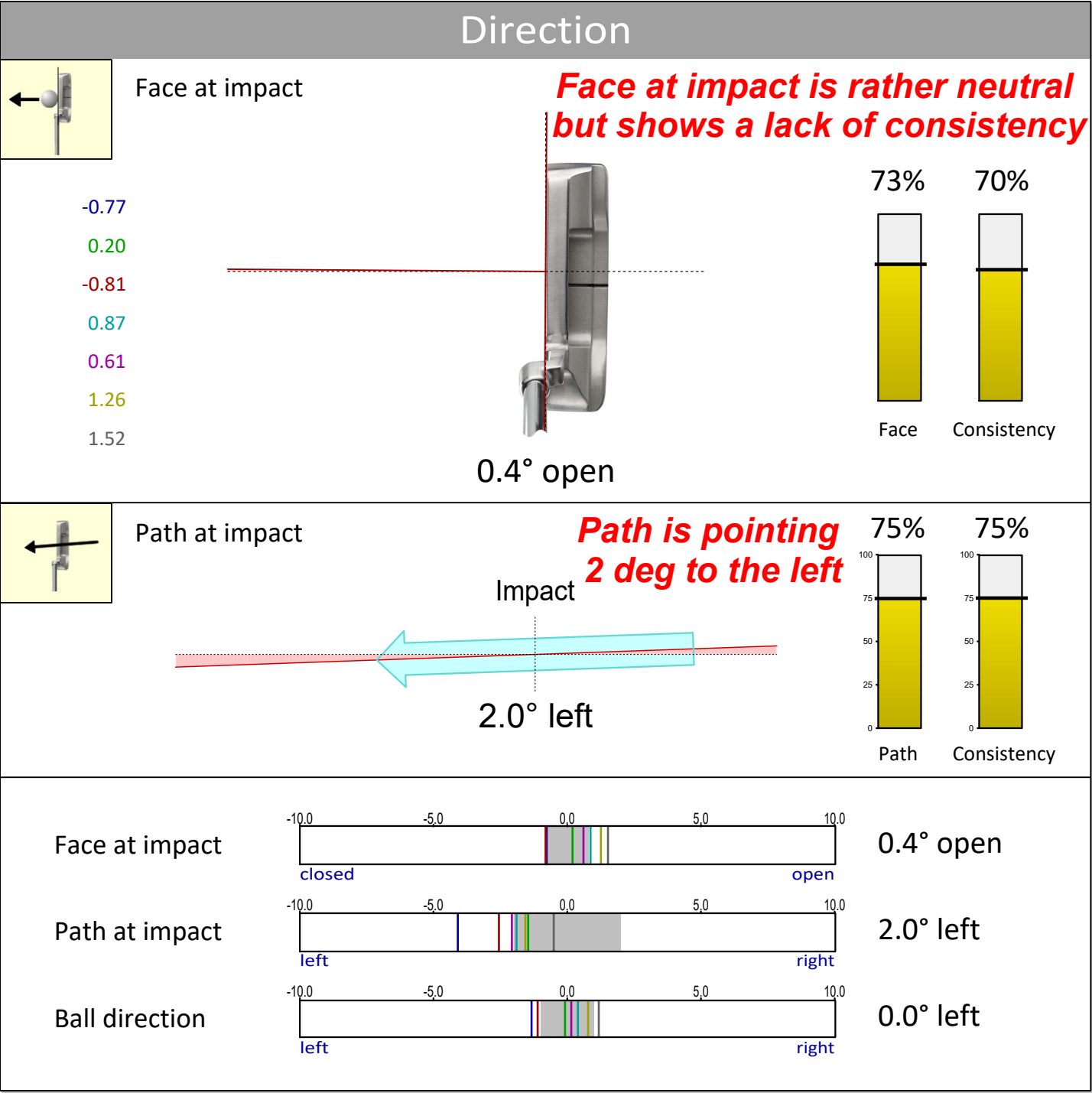
0.8° closed

Face change



0.9° opening

Player: Amateur HC-15
Session: Amateur HC-15

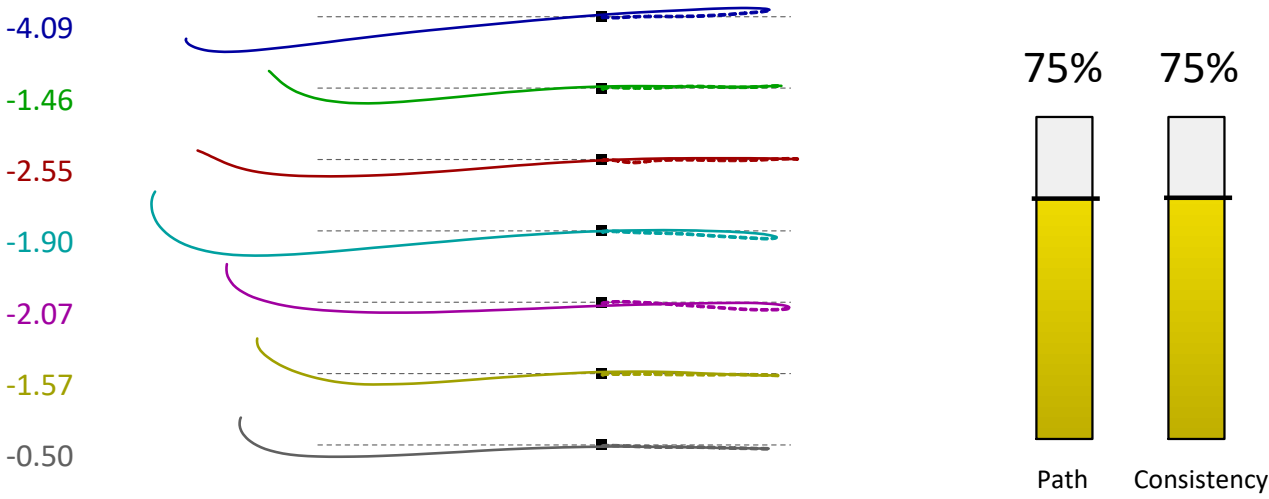


Player: Amateur HC-15
Session: Amateur HC-15

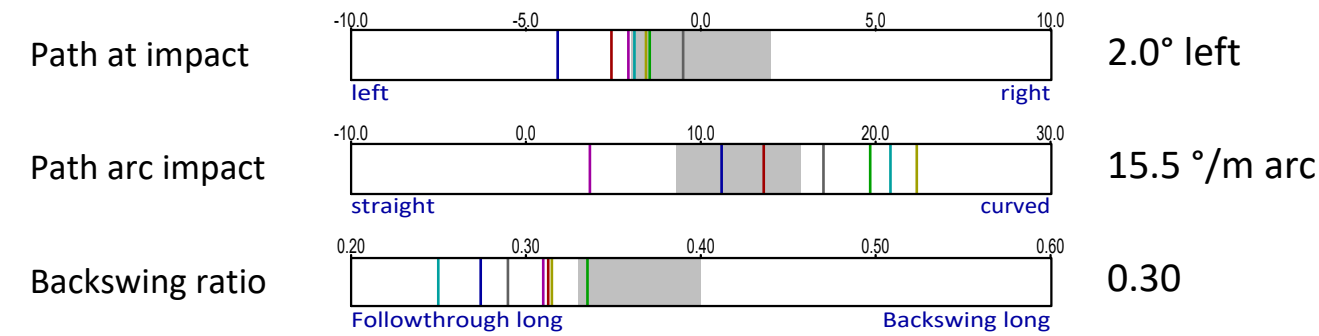
Path at Impact



Fluctuating curvature of path
with poor end position



Path: 2.0° left

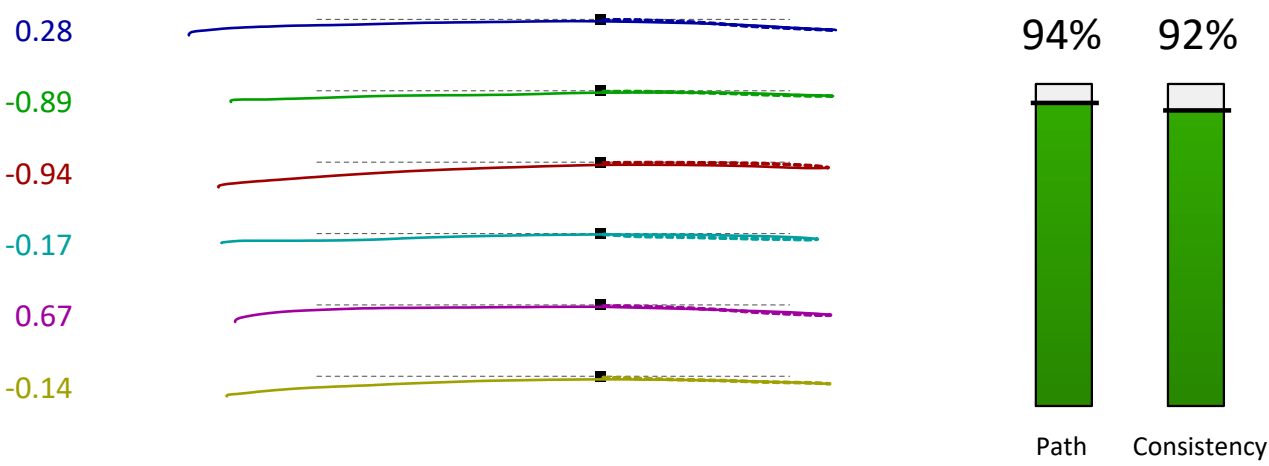


Player: Tour Player Swing
Session: Swing putting stroke

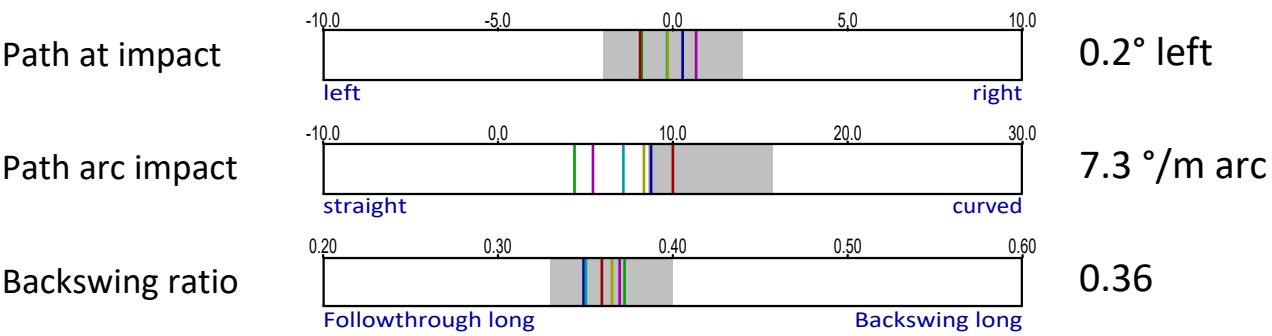
Path at Impact



Tour player: Very natural
and consistent path



Path: 0.2° left



Player: Amateur HC-15
Session: Amateur HC-15

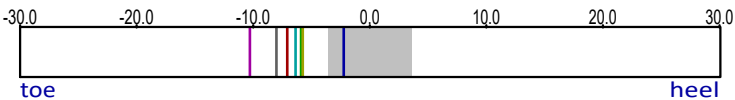
Impact Spot

Impact spot at the toe



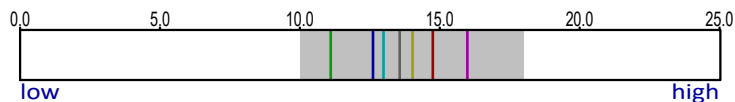
6.5 mm toe

Impact spot



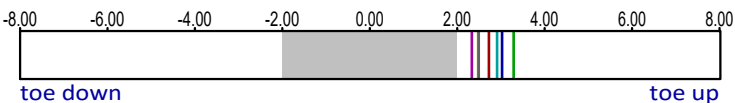
6.5 mm toe

Height on Face



13.6 mm

Lie impact



2.8 toe up

Player: Tour Player Swing
Session: Swing putting stroke

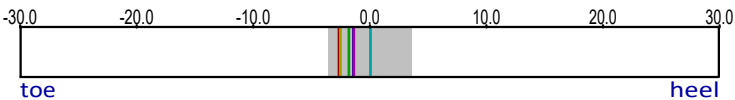
Impact Spot

Very consistent spot, as typically for Tour players up on the face



1.6 mm toe

Impact spot



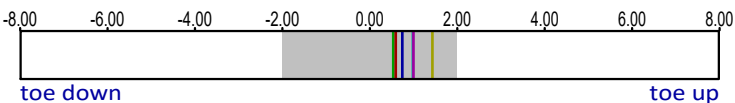
1.6 mm toe

Height on Face



17.6 mm

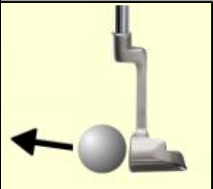
Lie impact



0.9 toe up

Player: Amateur HC-15
Session: Amateur HC-15

Launch



Shaft: 0.4° deloft
Eff. Loft: 2.6° pos.
(Putter Loft: 3.0 °)

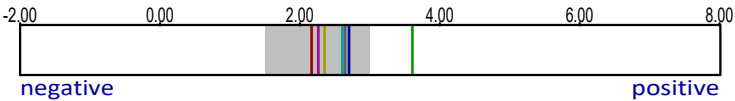
Launch conditions
in the preferred range

Pred. Launch:
2.4° up

Rise angle:
1.5° up

Pred. Spin: neutral

Effective loft



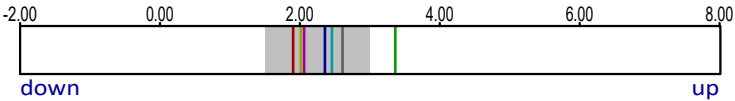
2.6 ° pos.

Rise angle



1.5 ° upward

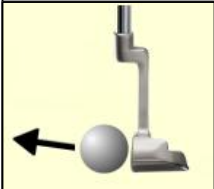
Predicted Launch



2.4 ° up

Player: Tour Player Swing
Session: Swing putting stroke

Launch



Shaft: 0.6° addloft
Eff. Loft: 3.6° pos.
(Putter Loft: 3.0 °)

Slightly more loft
than recommended
on the Tour

Pred. Launch:
3.5° up

Rise angle:
3.0° up

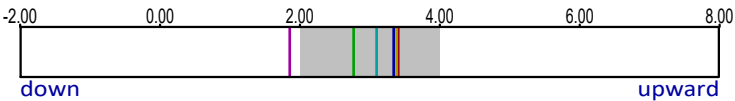
Pred. Spin: neutral

Effective loft



3.6 ° pos.

Rise angle



3.0 ° upward

Predicted Launch

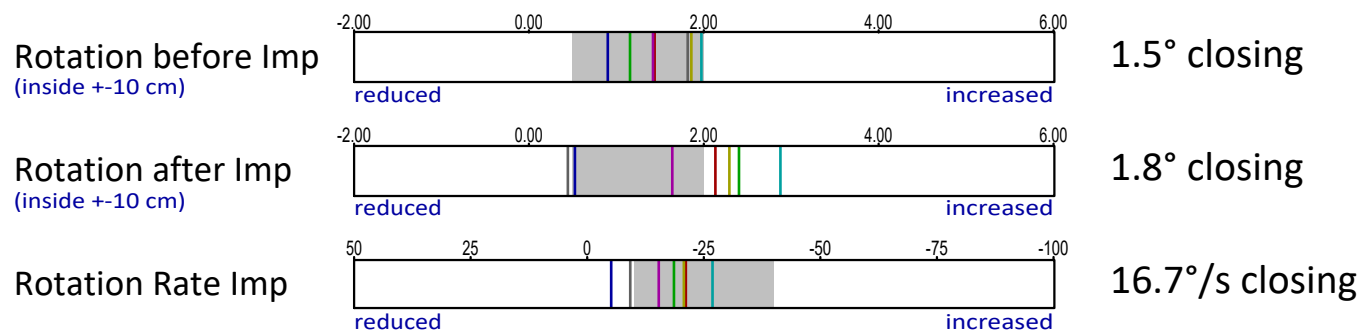
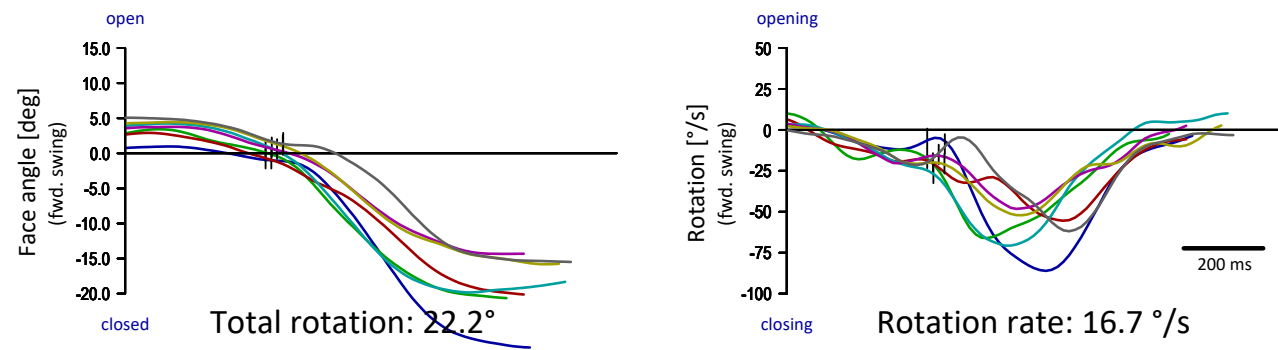
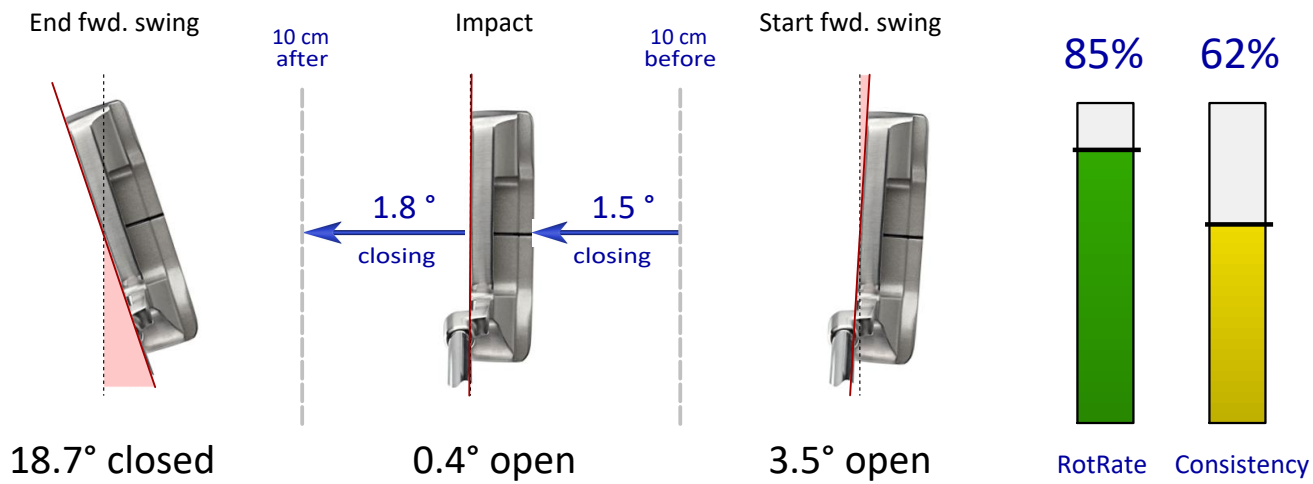


3.5 ° up

Player: Amateur HC-15
Session: Amateur HC-15

Increased and inconsistent rotation in the followthrough, oscillations at/after impact are related to active hands

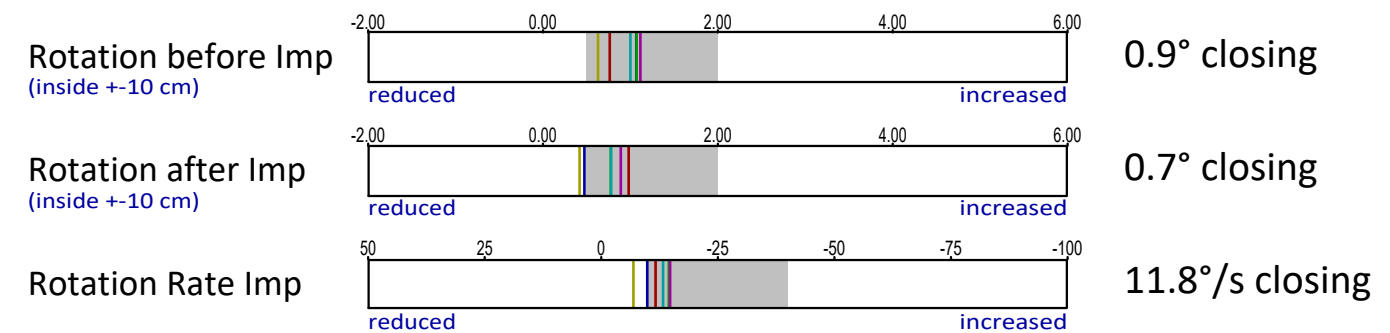
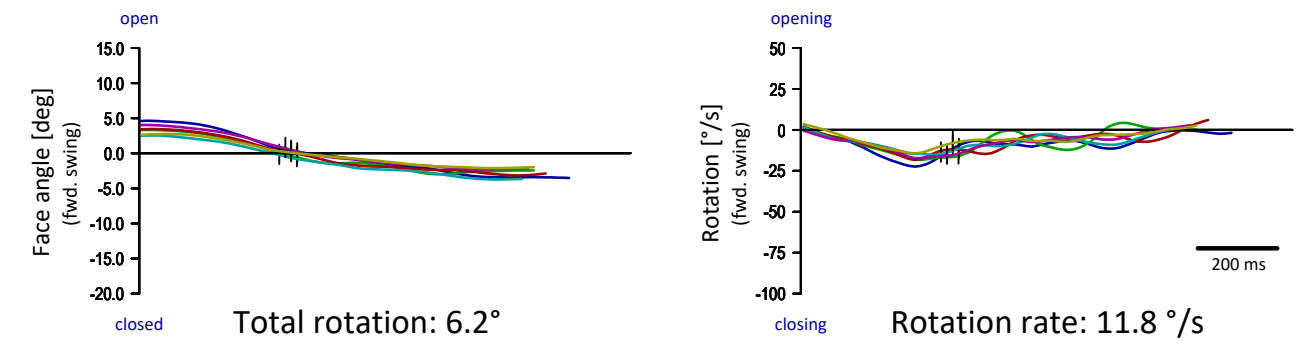
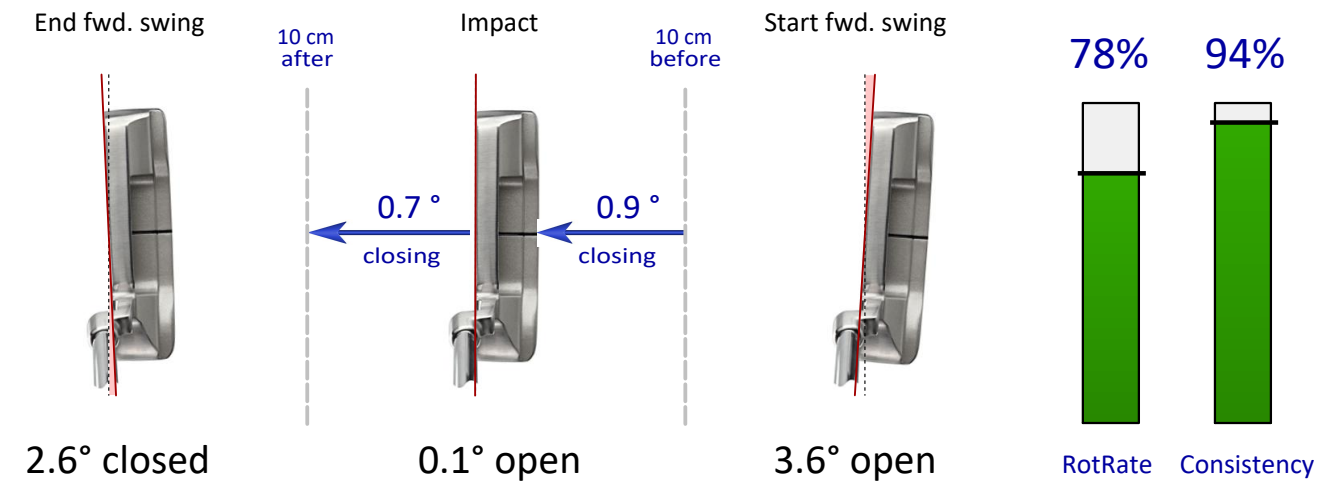
Face Rotation



Player: Tour Player Swing
Session: Swing putting stroke

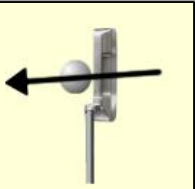
Tour player: Very smooth and consistent rotation

Face Rotation

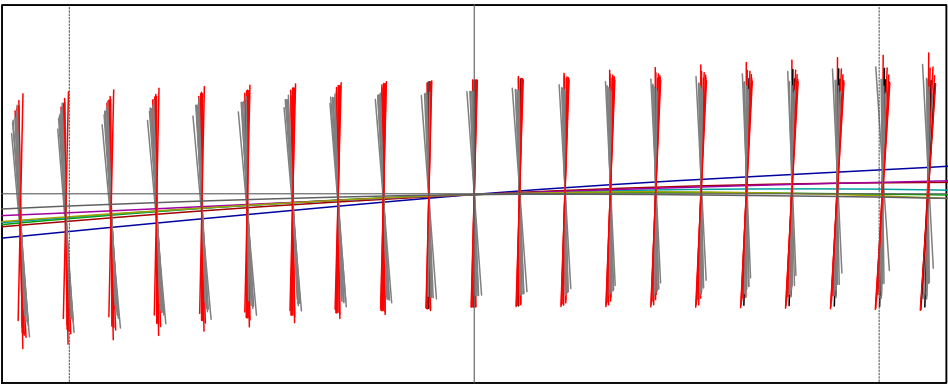


Player: Amateur HC-15
Session: Amateur HC-15

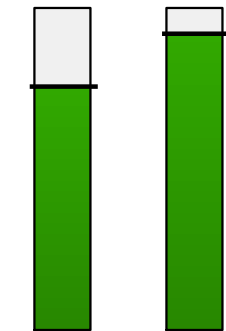
Face rel to Path



Open face on path, but
good coupling of face and path



76% 92%

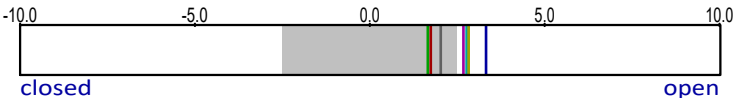


Face/Path Consistency

10 cm / 4'' Impact 10 cm / 4''

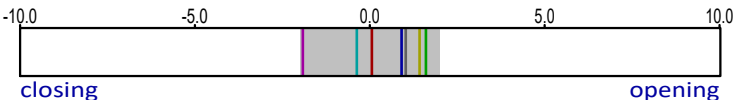
Colors: | = open | = square | = closed

Face rel to path
(at impact)



2.4° open

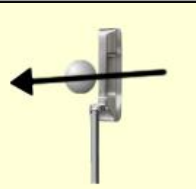
Rotation rel to path
(inside of impact zone)



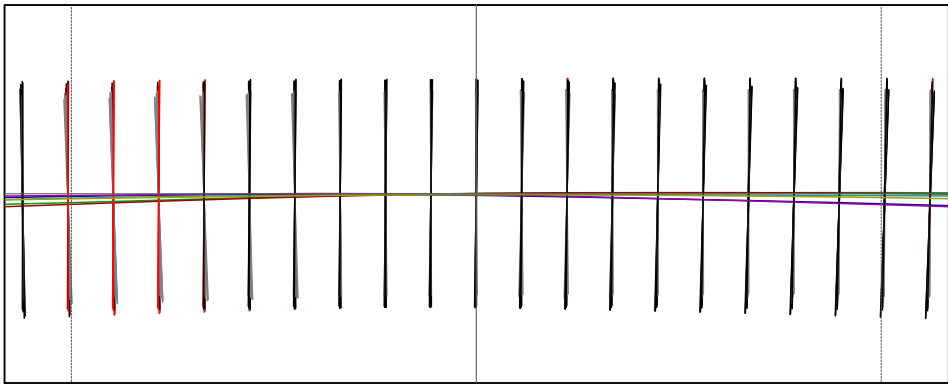
0.4° opening

Player: Tour Player Swing
Session: Swing putting stroke

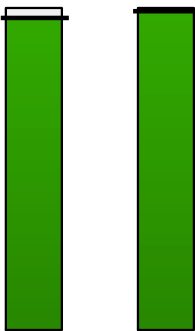
Face rel to Path



Tour Player: Perfectly neutral and
consistent coupling of face and path



97% 99%

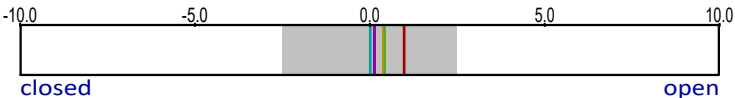


Face/Path Consistency

10 cm / 4'' Impact 10 cm / 4''

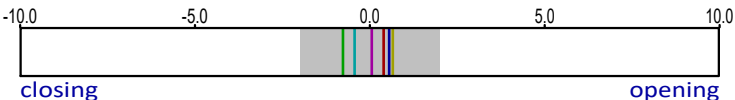
Colors: | = open | = square | = closed

Face rel to path
(at impact)



0.3° open

Rotation rel to path
(inside of impact zone)

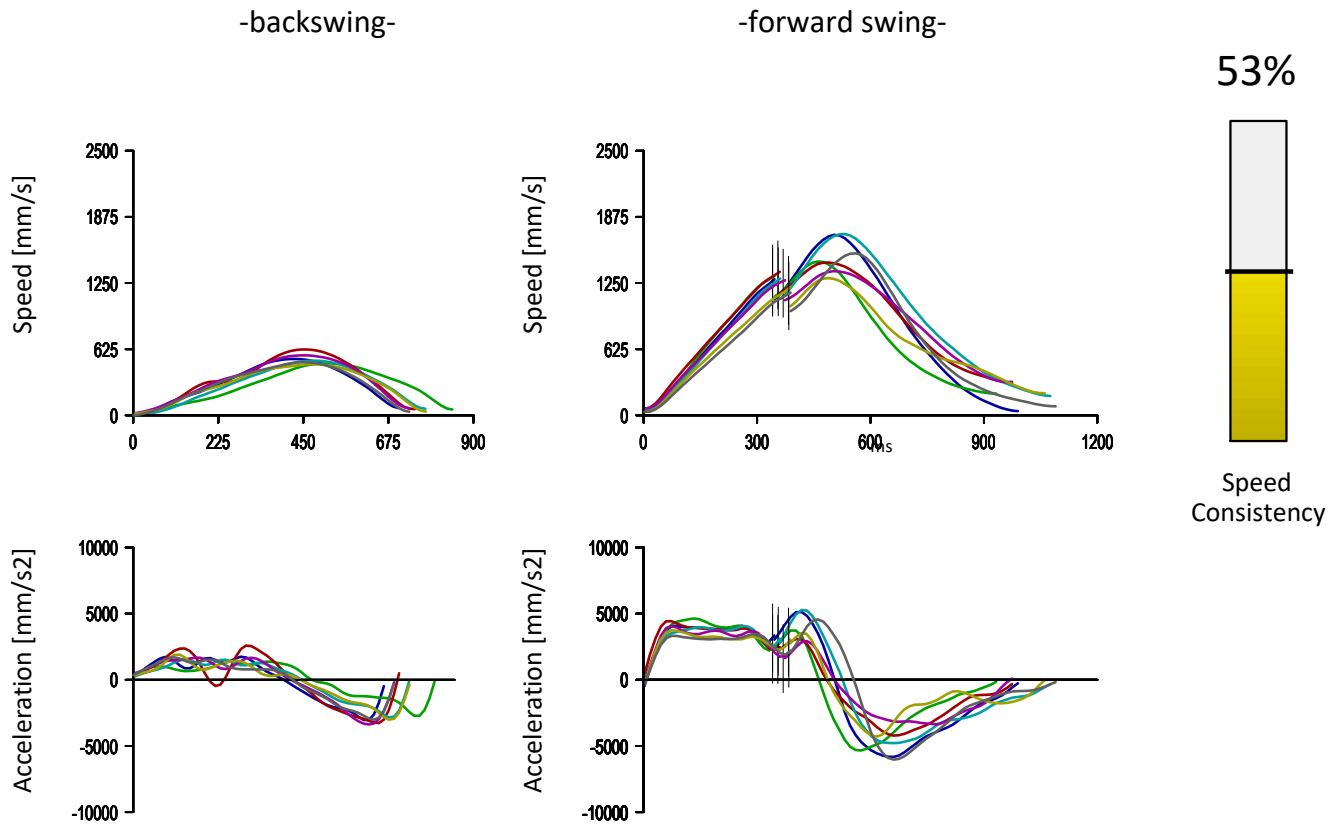


0.1° opening

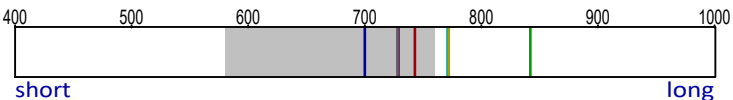
Player: Amateur HC-15
Session: Amateur HC-15

Smooth stroke until impact,
inconsistent and increasing
acceleration after impact

Stroke Dynamics

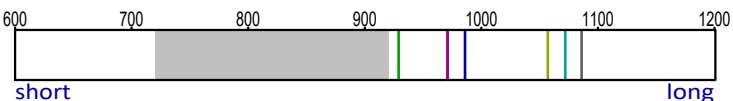


Back swing time



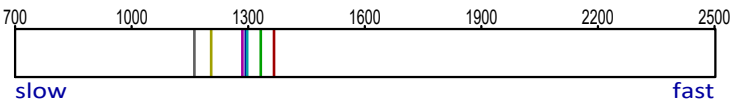
755 ms

Forward swing time



1010 ms

Speed at impact

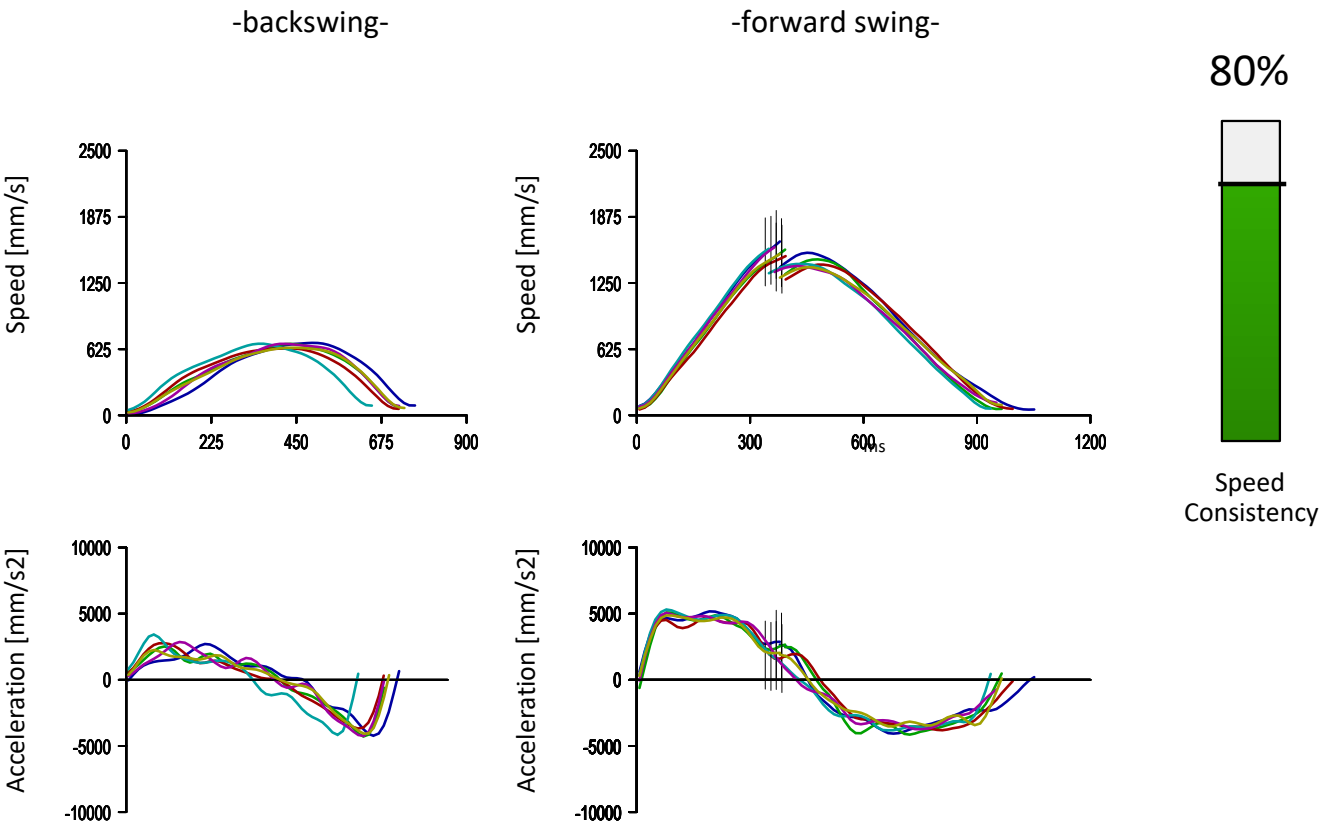


1277 mm/s

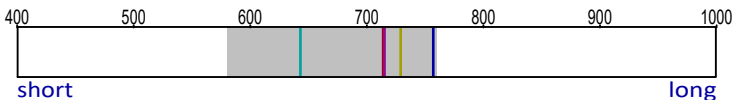
Player: Tour Player Swing
Session: Swing putting stroke

Tour player: Very smooth
velocity & acceleration curves,
smoothly hitting through impact

Stroke Dynamics

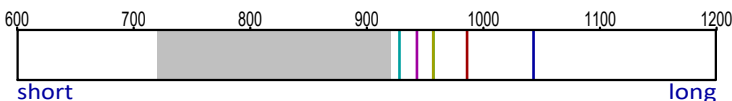


Back swing time



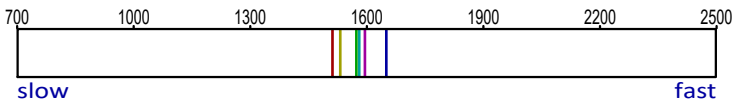
712 ms

Forward swing time



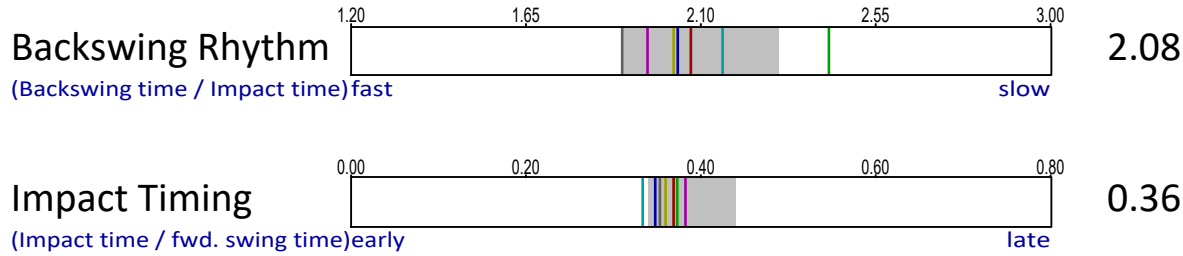
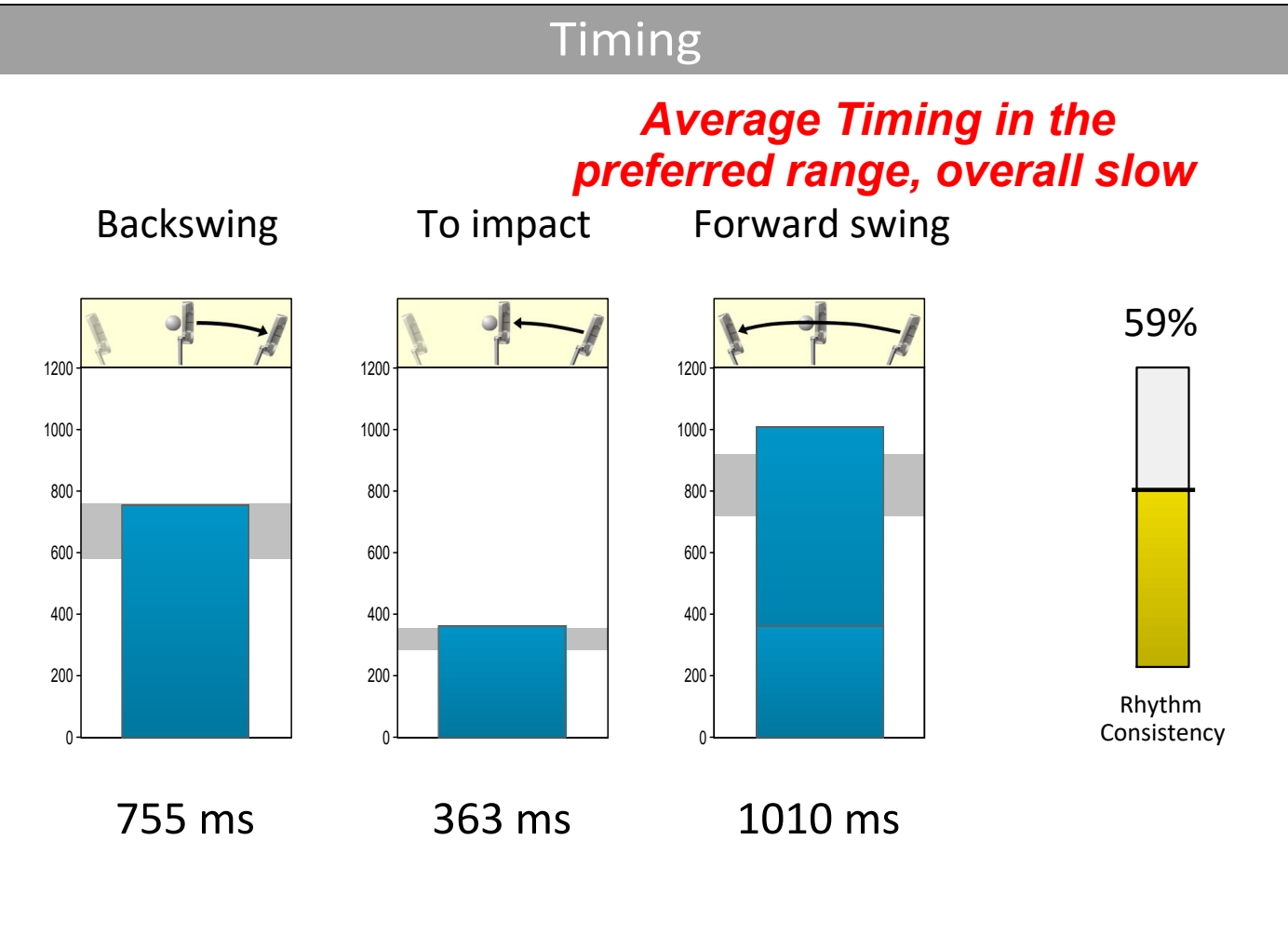
969 ms

Speed at impact



1574 mm/s

Player: Amateur HC-15
Session: Amateur HC-15



Player: Tour Player Swing
Session: Swing putting stroke

