

NEWS RELEASE



THE YOKOHAMA RUBBER CO., LTD.

36-11, Shimbashi 5-chome, Minato-ku,
Tokyo 105-8685, Japan

August 6, 2012
For immediate release

Contact:
Sports Division
Phone: 81-3-5400-4742
Fax: 81-3-3436-3814

PRGR iD nabla to Go on Sale

*Achieves longer flight distances with inverted triangle design
Two new models in iD, which fuses inspiration with data*

Tokyo – The Yokohama Rubber Co., Ltd. announced today that it will begin sales of the new PRGR golf club series iD nabla. The series comes in two models: the iD nabla X for average golfers and the iD nabla BLACK for athlete golfers. Each model offers a driver, fairway woods, utilities, irons and the iD nabla wedge, which is used for both.

High initial speed area expanded 1.5 times with the nabla face

To expand the high initial speed area, which is directly connected with flight distance, the iD nabla driver maintains PRGR's proprietary "3 balance design" for the optimal location of the face center, center of gravity and maximum flexion point. To maximize the flexion area, the face thickness was divided into 187 sections and the data from an enormous amount of combinations narrowed down to about 250,000 different thickness deviation face designs. Simulations were then conducted using FEM analysis. The high-precision thickness deviation face created as a result achieves a high initial speed area 1.5 times larger than in the past, expanded to the shape of an inverted triangle.

Increased head speed with the super high-modulus carbon fiber 78t Dialead^{TM*1}

The grip of the shaft of the iD nabla X driver uses the super high-modulus carbon fiber 78t DialeadTM, which has a tensile strength much higher than the carbon fiber used in regular shafts. The whole length of the shaft uses Tough-QUIRE^{TM*2}, which generates flexibility and resilience. These two types of carbon prepreg sheet maximize the head speed with a shaft that is solid near the grip and a head that is fast moving like a whip.

*1. Dialed is a registered trademark of Mitsubishi Plastics, Inc.

*2. Tough-QUIRE is a registered trademark of Mitsubishi Rayon Co., Ltd.

The "nabla center-of-gravity design" gives an improved swing feeling from the driver through the irons

The iD nabla uses the "nabla center-of-gravity design" which maintains continuity in the center-of-gravity design from the driver through the irons. Unlike conventional design which emphasizes shape, the iD nabla is designed for a uniform swing feeling throughout the whole set by maintaining continuity in the three center-of-gravity design values FP (face progression), GR (center-of-gravity depth minus FP value) and FGL (center-of-gravity distance on the face surface) from the driver through the irons.

Nabla (symbol ∇), which means an inverted triangle, adopted as the brand name

nabla is a sign that stands for one of the vector differential operators used in vector analysis, represented by the inverse triangle (symbol ∇). nabla was selected for the brand name of the new series because the high initial speed area of the driver was expanded to an inverse triangle and because a graph of the center-of-gravity design of each club forms an inverted triangle.

Concept of iD nabla

Known for combining a golfer's inspiration with research data, iD has now achieved longer flight distances with **nabla** technology
(inverted triangle)

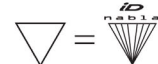
- 1 Designed with "1.5 times more repulsion,"** the nabla face makes longer distances possible
High initial speed area (99%) expanded to the maximum
- 2 Super high-modulus carbon fiber 78t "Dialead"** accelerates the shaft to achieve longer distances
With an optimum bending point and timing, an almost whip-like square impact is achieved
- 3 With nabla center-of-gravity design** ruling the total club design,
an inverted triangle is the key to achieving maximum distance
With the three design figures (FP, GR, and FGL) in a series, all clubs have uniform performance

*GR: Center-of-gravity depth minus FP value FGL: Center-of-gravity distance on the face surface FGI: Center-of-gravity height on the face surface

(For reference) nabla is...

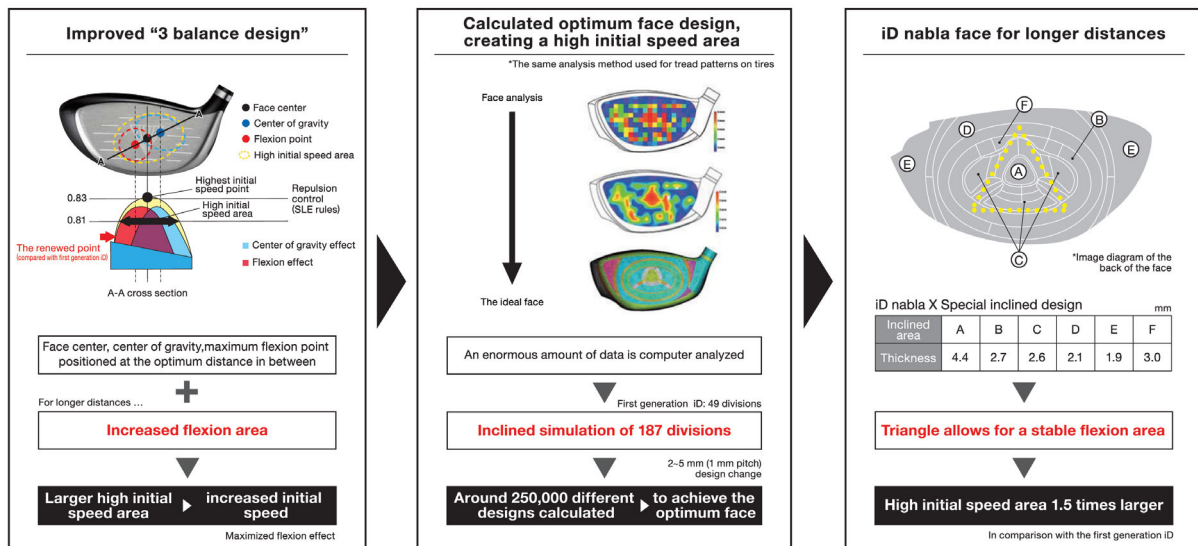
nabla is a sign that stands for one of the vector differential operators in vector analysis, represented by the inverted triangle ∇

$$\nabla = \frac{\sigma}{\sigma_x} = \frac{d}{dx}$$



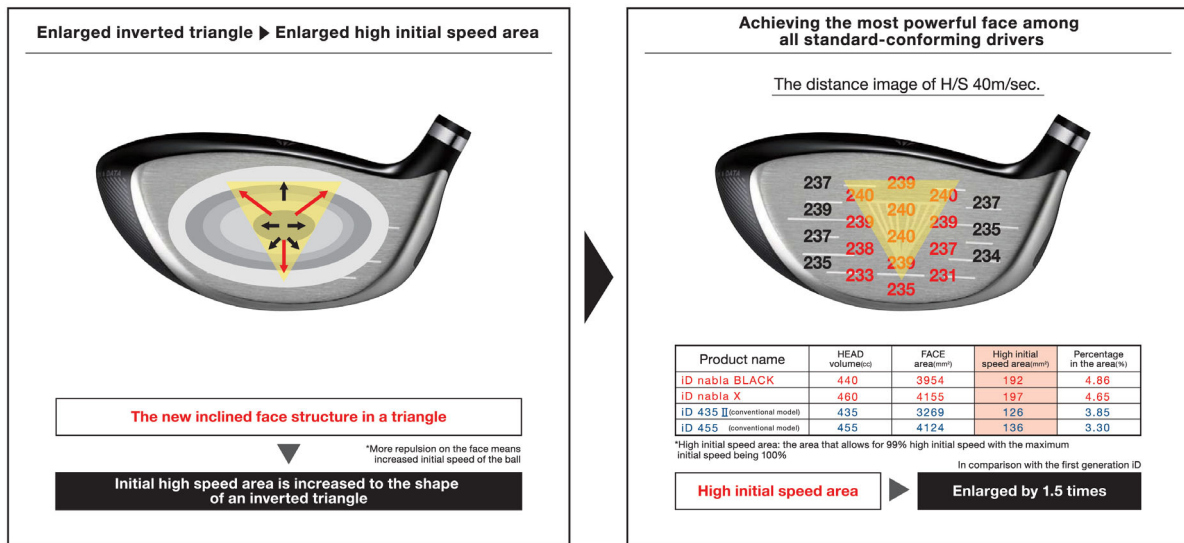
iD nabla face design

More distance with ease ...
high initial speed area has been expanded for this purpose



Dramatically enlarged high initial speed area achieved

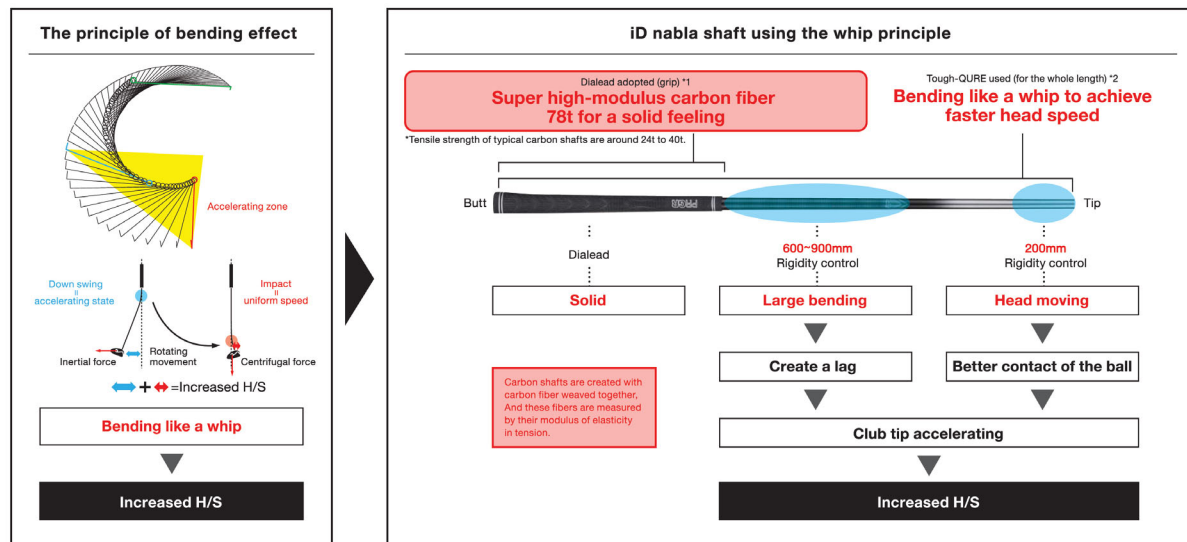
The iD nabra face for 1.5 times more repulsion!!! (compared with first generation iD)



The high initial speed area is enlarged to an inverted triangle shape of a nabra, which results in longer distances.

Shaft design

H/S-maximizing shaft has been developed for longer distances



Increased H/S in the accelerating zone with nabra, to achieve longer distances

Mitsubishi Rayon Tough-QURE is a registered trademark of Mitsubishi Rayon Co. Ltd. Mitsubishi Plastics Dialead is a registered trademark of Mitsubishi Plastics.

