

New SPEEDBOX and SPEED RIBFACE Technologies Make “Every Shot is the Best Shot of the Day”

Yamaha introduces UD+2 Series Golf Clubs

In addition to the two-club extra distance enabled by the popular current model series, the new full line of more advanced 2021 inpres UD+2 model series clubs, released throughout Japan on October 16, also generates “explosive flight” and “super-straight flight”, due to the highest center-of-gravity angle and moment of inertia levels available for comparable club weights.

The concept for the 2021 model inpres UD+2 series clubs being released is “Every Shot is the Best Shot of the day.” This is the third generation of the series and is designed to achieve both “explosive flight” and “super-straight flight”, which can be felt when merely holding the clubs. For the driver, fairway woods, and utility clubs, the new SPEEDBOX technology prevents energy losses and increases kick velocity by increasing rigidity around the perimeter of the face.

With the highest center-of-gravity angle and moment of inertia levels available for comparable club weights, the clubs grab the ball and launch it on a directionally-stable trajectory with no curving. Irons are designed with thinner metal in the face and sole areas, which increases kick velocity, and new SPEED RIBFACE technology that positions five ribs behind the face to achieve both “explosive flight” and a “high trajectory”.

A more extensive line of Yamaha-branded merchandise will also be released on October 23, such as a selection of caddy bags for a wide variety of scenarios, head covers and caps with the Yamaha logo, stand bags, ball markers, and other products.



<Overview>

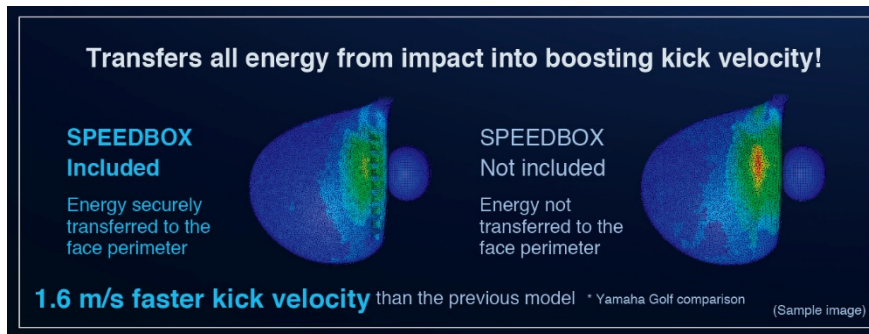
1. New SPEEDBOX technology generates “explosive flight” by increasing kick velocity (DR, FW, and UT).
2. The highest center-of-gravity angle and moment of inertia levels for comparably weighted clubs result in “super-straight flight” (DR, FW, and UT).
3. New SPEED RIBFACE technology generates “explosive flight” and a “high trajectory” (IR).

<Key Features>

■ inpres UD+2 Driver

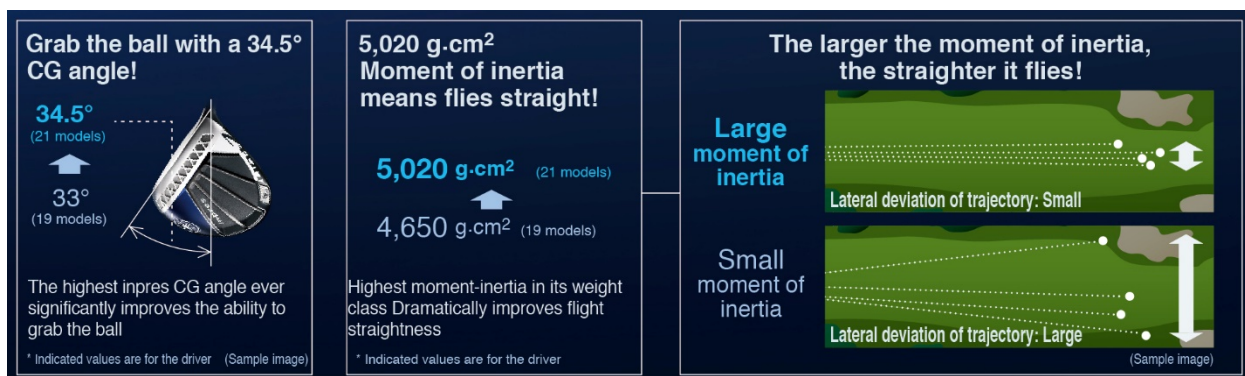
1. New SPEEDBOX structure receives impact energy around the face perimeter and transfers it into boosting kick velocity

The SPEEDBOX structure consists of 1.5 mm deep box-like indentations in the crown and sole, about 10 mm from the face. That increases the rigidity around the face perimeter to minimize energy-robbing rearward head vibrations and maximize efficient transfer of impact energy, producing higher kick velocities that cause the ball to explode off the face.



2. Highest levels of both center-of-gravity angle and moment of inertia among comparably weighted clubs

The kick velocity-boosting SPEEDBOX structure minimizes added weight and allows the extra weight savings from the head design to be utilized for engineering the center of gravity. As a result, the driver features both a “ball-gripping” 34.5 degree center-of-gravity angle, which is among the highest angle available for similar weight drivers, and a 5,020 g·cm² moment of inertia that “inhibits curving.” In combination, they help achieve “super-straight flight” with high directional stability.



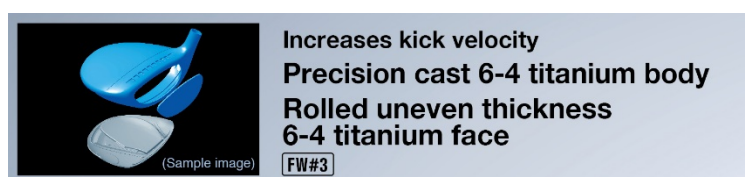
3. Unique Acoustically Tuned Design Produces an Optimized Impact Sound

Given that internal resonance generated during impact has a major effect on how pleasing the impact sound is, and given the high correlation between the impact sound and how comfortable the impact feels, Yamaha considers a pleasing impact sound as an important parameter of club performance. Therefore, due to Yamaha's extensive expertise as a musical instrument maker, a pleasing impact sound was achieved by analyzing vibration and other characteristics in cooperation with our research and development department involved in optimizing the acoustics of musical instruments. The impact sound is similarly optimized for fairway woods and utility clubs as well.

■ inpres UD+2 Fairway Woods and Utility Clubs

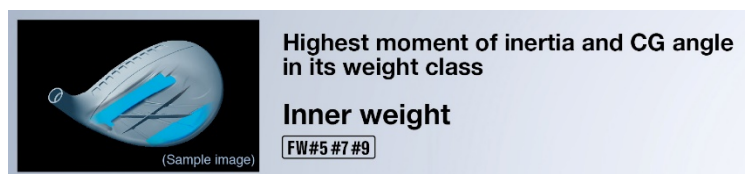
1. All clubs feature the SPEEDBOX structure, but the 3-wood also includes manufacturing improvements that result in even longer flight distance

The new SPEEDBOX structure is used to increase rigidity around the face perimeter on all fairway woods and utility clubs as well. Furthermore, unlike previous models designed with an integrated face and body, the new 3-wood features a precision cast titanium body combined with a high-strength titanium face rolled to uneven thickness, which increases face deflection to boost kick velocity.



2. All clubs generate “super-straight flight”

All fairway woods and utility clubs achieve “super-straight flight” as well, due to among the highest center-of-gravity angle and moment of inertia levels available for comparably weighted clubs.

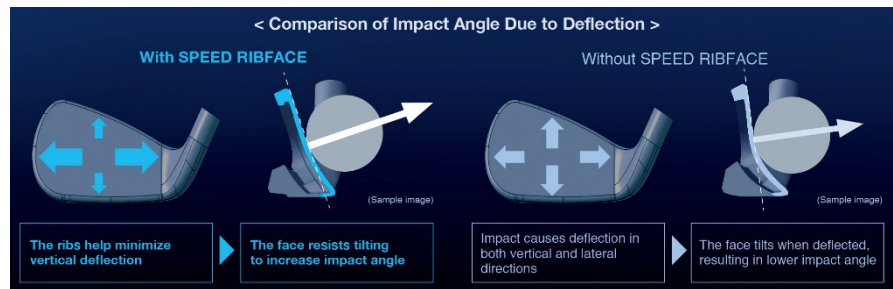


■ inpres UD+2 Irons and Wedges

1. New SPEED RIBFACE technology increases kick velocity and kick angle

Irons feature new SPEED RIBFACE technology that generates higher kick velocity and kick angle. The ultra-thin face material increases kick velocity by generating more deflection of both the face and sole to maximize deflection of the lower face, generating more “explosive flight.” Meanwhile, five ribs positioned behind the face serve to maintain overall deflection while inhibiting vertical deflection. That increases kick angle to achieve “super-straight flight” with a high trajectory.

2. With a higher face height typical of irons, the club shape makes it easier to establish a comfortable stance and feel confident.



Irons are designed 2.6 mm higher at the toe and 0.6 mm higher at the heel than previous models, which makes it easier to establish a comfortable stance and improves confidence.

However, despite the increased face height, the center of gravity is 0.5 mm lower, which results in both improved shape and better performance.

3. Relative distances of AW, AS, and SW irons were optimized

More reliable spin was achieved by milling the face of AW, AS, and SW irons.

■ inpres UD+2 Carbon Shafts (Driver, Fairway Woods, Utility Clubs, and Irons)

Clubs feature Air Speeder carbon shafts designed for Yamaha, which were developed in cooperation with Fujikura. The shafts are designed specifically for Yamaha, with a medium kick point and higher rigidity toward the grip and head ends. By taking advantage of the characteristic rebound feel of Air Speeder shafts, they not only increase kick velocity but also increase directional stability.



(Specification)

Driver:

| Loft angle (°) | 9.5 | 10.5 |
|--------------------------------|--|----------|
| Lie angle (°) | 61 | |
| Face angle (°) | 0 | |
| Head volume (cm ³) | 460 | |
| Structure | 6-4 titanium face with uneven thickness, 811 titanium precision casting body | |
| Shaft | Air Speeder for Yamaha M421d | |
| Shaft flex | S | S/SR/R |
| Shaft weight (g) | 53 | 53/48/43 |

| | | |
|----------------------|--|-------------|
| Loft angle (°) | 9.5 | 10.5 |
| Shaft torque (°) | 5.6 | 5.6/6.0/6.2 |
| Shaft kickpoint | Middle | |
| Club length (inches) | 45.75 | |
| Balance | D5/D4/D4 | |
| Club weight (g) | 284/279/275 | |
| Grip | Y21GT3560F (35g, equivalent to M60, Ribbed, logo on front) | |

Fairway Woods:

| Number | #3 | #5 | #7 | <#9> |
|-------------------|--|------|-----|------|
| Loft angle (°) | 14.5 | 17 | 19 | 21.5 |
| Lie angle (°) | 58 | 58.5 | 59 | 59.5 |
| Face angle (°) | 0 | | | |
| Head volume (cm³) | 189 | 164 | 150 | 138 |
| Structure | Precision cast 6-4 titanium body Rolled uneven thickness 6-4 titanium face High-density alloy sole Maraging 455 face and SUS 630 precision casting body | | | |

| Number | #3 | #5 | #7 | <#9> |
|----------------------|--|-------------|-------------|-------------|
| Shaft | Air Speeder for Yamaha M421f | | | |
| Shaft flex | S/SR/R | | | |
| Shaft weight (g) | 55/50/45 | | | |
| Shaft torque (°) | 4.7/5.2/5.9 | | | |
| Shaft kickpoint | Middle | | | |
| Club length (inches) | 43.5 | 42.75 | 42.25 | 41.75 |
| Balance | D2/D1/D1 | | | |
| Club weight (g) | 297/291/286 | 302/297/292 | 306/301/296 | 310/305/300 |
| Grip | Y21GT3560F (35g, equivalent to M60, Ribbed, logo on front) | | | |

Utility Clubs:

| Number | #U4 | #U5 | #U6 |
|-------------------|--|------|------|
| Loft angle (°) | 19 | 21.5 | 24 |
| Lie angle (°) | 59.5 | 60 | 60.5 |
| Face angle (°) | 0 | | |
| Head volume (cm³) | 126 | 126 | 126 |
| Structure | Maraging 455 face with uneven thickness and SUS 630 precision casting body | | |
| Shaft | Air Speeder for Yamaha M421u | | |

| Number | #U4 | #U5 | #U6 |
|----------------------|--|-------------|-------------|
| Shaft flex | S/SR/R | | |
| Shaft weight (g) | 56/51/46 | | |
| Shaft torque (°) | 4.2/4.8/5.2 | | |
| Shaft kickpoint | Middle | | |
| Club length (inches) | 40.5 | 40 | 39.5 |
| Balance | D2/D1/D1 | | |
| Club weight (g) | 320/314/311 | 324/318/315 | 328/323/319 |
| Grip | Y21GT3560F (35g, equivalent to M60, Ribbed, logo on front) | | |

Irons:

| Number | | #5 | #6 | #7 | #8 | #9 | PW | AW | AS | SW | |
|--|----------------------|--|--|---------|---------|---------|---------|--------------------------|---------|---------|----|
| Loft angle (°) | | 21 | 23 | 25 | 28 | 32 | 37 | 42 | 48 | 55 | |
| Lie angle (°) | | 60.75 | 61 | 61.25 | 61.5 | 61.75 | 62.25 | 62.75 | 62.75 | 63.25 | |
| Structure | | AM355 Precision casting | | | | | | SUS630 Precision casting | | | |
| Air Speeder for Yamaha M421i (SR/R) | Shaft weight (g) | 47.5/46 | 48.5/47 | 49/47.5 | 49.5/48 | 50/48.5 | 51/49.5 | 52.5/51 | | | |
| | Shaft torque (°) | 5.2/5.2 | 5.1/5.1 | 4.9/4.9 | 4.9/4.9 | 4.5/4.5 | 4.4/4.4 | 4.0/4.0 | | | |
| | Shaft kickpoint | Middle | | | | | | | | | |
| | Club length (inches) | 39 | 38.5 | 38 | 37.5 | 37 | 36.5 | 36 | 36 | 35.75 | |
| | Balance | C9 | | | | | | D0 | | D1 | D2 |
| | Club weight (g) | 339/338 | 346/345 | 352/351 | 358/357 | 366/364 | 374/373 | 384/383 | 385/384 | 391/390 | |
| Grip | | Y21GT4560F (45g, equivalent to M60, Ribbed, logo on front) | | | | | | | | | |
| | | | | | | | | | | | |
| N.S.PRO Zelos 7(S) | Shaft weight (g) | 77.5 | | | | | | | | | |
| | Shaft kickpoint | Tip | | | | | | | | | |
| | Club length (inches) | 38.75 | 38.25 | 37.75 | 37.25 | 36.75 | 36.25 | 35.75 | 35.75 | 35.5 | |
| | Balance | D0 | | | | | | D1 | | D2 | D3 |
| | Club weight (g) | 368 | 373 | 378 | 384 | 390 | 400 | 408 | 409 | 415 | |
| | Grip | | Y21GT4558F (45g, equivalent to M58, Ribbed, logo on front) | | | | | | | | |