

SHOEI®



NEOTECH II
NO TRIP IS TOO LONG

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Development Concept



Since its introduction at the end of 2011, „NEOTEC,“ a flip-up helmet with an inner sun shield, has been supported by many riders. We have exhaustively brought SHOEI's state-of-the-art technology and know-how into a flip-up helmet required to have many functions and it has brought about „**NEOTEC II**,“ an advanced model of NEOTEC with enhanced functionality and comfort. Inheriting NEOTEC's basic performance, such as the design elements and the face cover off-center system, it has adopted a system that allows riders to wear an intercom as if it works as a part of your body more than before. We have pursued

comfort and functionality thoroughly in detail such as a newly-designed shield + shield system to prevent water leaking and a new cheek pad to improve quietness. Furthermore new lock system to provide a higher holding force with the face cover fully opened has been added to the face cover. Beyond NEOTEC that has been supported by many riders in a wide range of riding scenes including riding in a town, commuting, and long touring, it further broadens the scenes of riders' activities with its new functions and great comfort as a premium flip-up model. That's **NEOTEC II**.

Main Characteristics



Target user

From authentically-oriented commuters riding big scooters to touring riders riding touring bikes, cruisers, and dual-purpose bikes, **NEOTEC II** is targeting a wide range of uses.

- Touring/Sports touring Bike
- Cruiser

Product position

- An advanced model with improved functionality and comfort, inheriting the basic functions and the impression in design of NEOTEC
- **NEOTEC II** covers a various riding scenes like long touring, commuting, and city riding.

Design

- Flush-surfaced shield and face cover and partially used black parts realize a firm impression
- A sophisticated design even when an intercom is installed

- In order for the helmet to match various motorcycles, the top air outlet functions as a spoiler in an upright riding position and the rear shape of the shell works in a forward-bent riding position.

Pursuit/Improvement of functionality

- Newly designed cheek pad to improve quietness
- Inner sun shield
- Newly developed shield performing high air tightness and preventing water leaking
- Window beading that prevents water/air leaking and drains rain drops on the inner surface of the shield
- Face cover lock
- The integrated intercom attachment parts are equipped as standard

Pursuit of safety

- Multi-piece EPS liner to optimize impact absorption for each part by utilizing varying densities of form

Design and Performance



NEOTEC II Topview



NEOTEC II Sideview

A shell shape with a difference in height at the forehead section, which is to keep the thickness of the impact absorbing liner and to equip the sun shield without sacrificing safety, has been adopted following NEOTEC. While the whole design still has the impression of NEOTEC, curved lines are added to ventilation parts and others, and it makes **NEOTEC II** more advanced and distinctive design from simply designed NEOTEC.

The upper ventilation and the top air outlets use black base parts, and aero deflector which functions as the chin curtain bracket at the lower end of the face cover covers the surface of the face cover. These black parts sharpen the design of **NEOTEC II**.

For **NEOTEC II**, the upper end of the shield covers window beading and the end of the face cover is positioned at the rear, that makes the area where the face cover and the shield contact to the shell a smooth silhouette and compact.

Interior

The exclusively designed interiors for **NEOTECH II** are pursued the comfort required in various situations including long touring and commuting. A three-dimensional layered structure of urethane pads with different hardness ensures secure holding performance and, at the same time, well-received soft raised fabric is used for ease in fitting/removing a helmet and comfortable fitting in long riding. Needless to say, the interiors are fully detachable. The ear space provided as space to equip speakers of an intercom is punched to avoid the echo of a noise in the helmet. The ear space has a detachable ear pad attached with four tabs, which are easy to attach/detach.



Newly designed cheekpad with noise isolation

In addition, the newly-designed cheek pad has noise isolator. When the chinstrap is drawn through the hole of noise isolator and the chinstrap is tightened, it prevents the wind invading from the bottom of a helmet, providing high quietness and good wearing comfort.

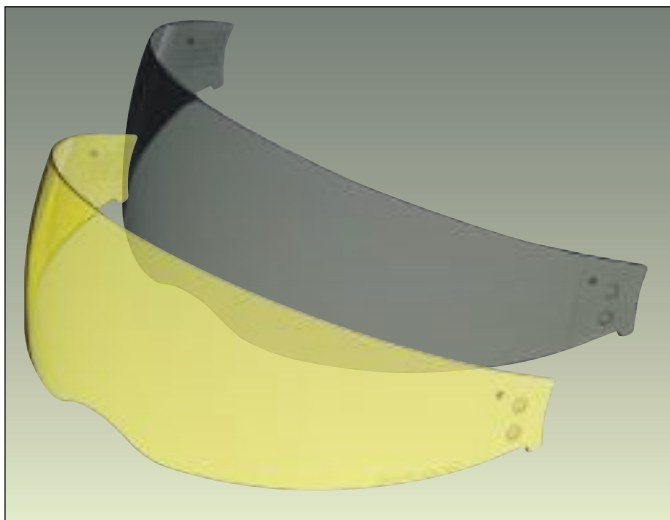


Cheekpad with flap to close chin area

Sun shield



QSV-1 sun shield installed



QSV-1 new color (high definition yellow (optional))

The inner sun shield allows riders to switch smoke to clear in a moment in case of a sudden change of their field of view, such as when approaching a tunnel. A lot of riders appreciate it for its convenience.

The QSV-1 sun shield that has been introduced from NEOTEC has a quality comparable to EN1836, the European sunglass standard, with high optical characteristics and low distortion.

NEOTEC II has also equipped the well-received QSV-1 sun shield. The smooth handling of the sun shield realized by strong wires, and the mechanism having a click for a stopper function with sliders to avoid the sun shield coming down unexpectedly, they can be achieved only by SHOEI.

Face cover



Facecover with Areo deflector

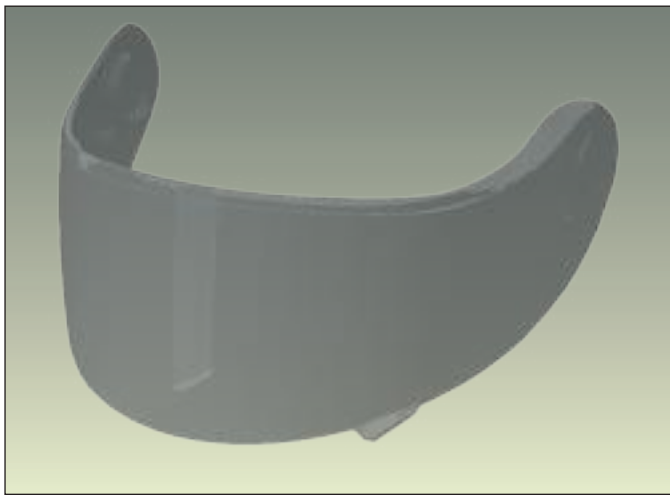


Facecover now has a stronger lock system to stay open

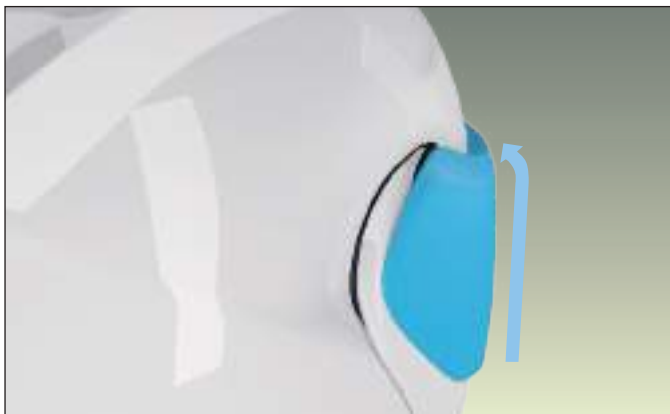
The face cover is a key of a flip-up helmet. The aero deflector located at the bottom end of the face cover give an accent to the design, and it also contributes to improve the aerodynamic performance. **NEOTEC II** introduces the well-designed mechanism of NEOTEC, such as the mechanism in which variable axis of the face cover is eccentric to enhance the close contact between the shield and the window beading and the unlock button that is easy to operate with winter gloves.

NEOTEC II introduces a newly developed lock system to avoid the face cover dropping unexpectedly. The lock system has the force not too strong, but enough to stay the face cover opened. When the face cover is fully opened, the face cover stays in the position enough to fit/remove the helmet, and press the face cover backward from that position, it is locked by a higher holding force. Riders can easily open/close or lock the face cover in a fully-opened position depending on the situation.

Shield



Newly developed CNS-3 shield



Upper edge of the CNS-3 shield bends inwards



New window beading for Neotec II

Exclusively developed CNS-3 shield is introduced to **NEOTEC II**. Its greatest feature is the shape in which the upper end areas on both sides of the shield are bent toward the shell, and this structure prevents water leaking around the shield or the face cover. Advanced from existing shield which distortion is reduced by injection molding, CNS-3 shield provides a clearer vision by an optical design with varying thickness for each part.

Airtight sealing window beading which performs close contact with a shield and has durability is adopted for **NEOTEC II** instead of the conventional double-lip type. In addition, the drain-shaped window beading that has also been adopted in NEOTEC drains rain drops on the inner surface of the shield.

The fog resistant PINLOCK® EVO lens comes standard. Even in riding under the conditions of high humidity and cold temperature, it prevents fogging and keeps a clear vision. The supported type is DKS301, the same as in NEOTEC.

Ventilation

Lower air intake

The upper line of a lower air intake is uniquely shaped using smooth curves. Air is efficiently taken in with the shutter opened, and it provides high airtightness with the shutter closed. Air taken from the lower air intake goes to riders' mouths, and at the same time, sent to defogger ventilation system, air passes through the inside of the shield to reduce a fog.

Upper air intake

Upper air intake is designed to take air effectively from the front part which is expanded compared to the existing model to two air intake holes.

There are outlet holes to exhaust the hot air inside the helmet absorbed from the sun shield area at the rear of the upper air intake, and it comes outside from the slits on both sides of the upper air intake. The outlet hole is located above the slits to prevent water leaking from the outlet holes to inside of the helmet.

Top air outlet

Hot air inside the helmet is exhausted from the three outlets and prevent heat staying in the helmet. A shutter is not equipped with top air outlet to reduce the weight.



Lower air intake



Upper air intake



Top air outlet

Quietness

Various ideas to improve quietness are gathered into **NEOTEC II**.

The new cheek pad of **NEOTEC II** is equipped with noise isolator at its lower end. As the chinstrap is drawn through the hole of the noise isolator, it wraps under the chin by tightening the chinstrap, preventing wind noise from the bottom of the helmet. Compared to the conventional method by making the bottom part of the cheek pad thicker, the volume of cheek pad is looked reduced and it realizes compact appearance while keeping the quietness.

SHOEI helmets equipping an inner sun shield use strong wires in the operation system to realize smooth handling of the sun shield. The cutting part of the shell where the wires inside the shell and sun shield lever connect is minimized in order to remove the possible parts where wind noise can arise as much as possible, and that improves quietness at a maximum.



Cheekpads with noise insulator



Neotec cutout for sunshield action



Neotec II cutout for sunshield action



Neotec II still has vortex generator on the facecover

Aerodynamic performance

It is assumed that **NEOTECH II** is used for various types of motorcycles. Therefore, the riding position should be also various, upright, slightly forward-bent, or in other positions. For this reason, the spoiler-shaped part of the shell is located at the rear to support sporty riding. And, the rear of the top air outlet is flipped up to function as a spoiler in riding in an upright position.



Top air outlet also works as a second spoiler



Facecover with Aero deflector

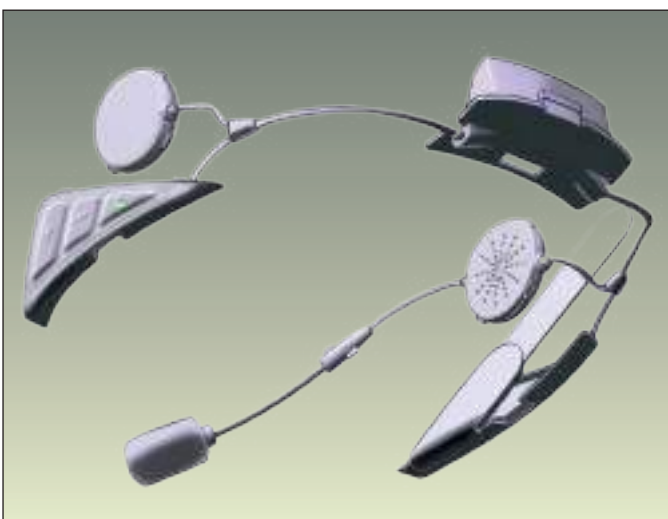
For this reason, on the assumption that an intercom is attached, a flip-up helmet and an integrated intercom is now in high demand. When a general intercom is attached to a helmet, it is possible that riders

Intercom integration

Intercoms have been made more convenient and now widely become popular for the purpose of having communication between riders or with a passenger, listening to music, receiving a call, or connecting a navigation system. Especially users of flip-up helmets attach an intercom more frequently compared to users of other helmets.



Concept image of Neotec II with communication system installed



SENA integrated intercom concept for Neotec II

face problems, such as an unnatural and awkward appearance when it is attached and difficulty in attaching it or arranging cables. In order to solve such problems, we made the sketch of **NEOTEC II** supposing to develop the integrated intercom which is easily installed and matches perfectly to the helmet. Based on the sketch, we have studied the attachment mechanism and the design of the integrated intercom.

There are triangular base parts provided on both sides of the helmet to attach a switch unit and an antenna unit, and each unit is attached by fixing the claws to the grooves on the base and sliding them. The battery unit is fitted in the space provided between the shell and the liner at the rear of the helmet. It is designed not to “stand out” from the helmet, and not to just hide the intercom by removing the impact absorbing liner, but to integrate with the helmet without sacrificing safety. Each attachment part is equipped with a cover, so the appearance is not spoiled even when the integrated intercom is not installed.

Based on this design of **NEOTEC II**, SENA will develop the integrated intercom.

Impact absorbing liner

The liners are separated into main (composed of top and main liners), side, and cheek. Utilizing various densities of form provides the most efficient

Safety

impact absorbing performance.

AIM shell

AIM (Advanced Integrated Matrix) is SHOEI's proprietary high-performance shell structure which is lightweight and superior in rigidity and elasticity based on complex structure of strong glass fibers and organic fibers. We have secured safety high enough to pass the strict standards in each country. While pursuing rigidity and lightness, we continuously ensure uniform safety for every product as before.



Impact absorbing liner with EPS in different densities



AIM shell construction

Sizes

| NEOTEC II E22/05 | | | | | | |
|-----------------------|-----|----|----|----|-----|-----|
| Product size | XS | S | M | L | XL | XXL |
| Shell size | M | | L | | XL | |
| Liner size | XS | S | M | L | XL | |
| Cheek/side liner size | XS | S | M | | | |
| Centerpad size | XS9 | S9 | M9 | L9 | XL9 | XL5 |
| Cheekpad size | 35 | 35 | 35 | 35 | 35 | 31 |

Available colors



Specifications

SAFETY

- Shell in AIM
Organic fibre and multi-composite fibre in various layers for a shock-absorbent shell with optimum rigidity
- EPS-liner system with different densities
Optimized protection through EPS elements with different shock absorbing levels
- CNS-3 visor system
With Pinlock® antifog system
- Micro ratchet system
Easy to handle, always perfect adjusted

WEARING COMFORT

- 3 different outer shell constructions
For perfect fit and compact dimensions
1) XS-M, 2) L, 3) XL-XXL
- 3D-centerpad, detachable, washable
For pleasant wearing comfort
- Cheek pads detachable, washable
For better care and individual adjustment
- Chinstrap cover detachable, washable
Easy to maintain and clean
- Ear pads
To reduce noise

VENTILATION

- Multiple air inlets and outlets
For optimum ventilation performance
- Inlets at the chin and forehead
- Exhausts at the rear and neck

AERODYNAMIC

- Two integrated Spoiler
For optimised aero dynamical performance

ACCESSORIES

- PINLOCK® EVO lens(DKS301)
- Chin curtain (leather type)
- Breath guard

Drawings and photos used in this publication are made from trial products or based on design data. Each specification may be changed or renewed without notice for improvements of the product at any time.