

DOMESTIC CIVIL ENGINEERING



Connecting the caissons

Kinuura Port Final Waste Disposal Site (Aichi Prefecture)

The Company was in charge of seawall construction as part of the coastal disposal site construction project under way at Kinuura Port, Aichi Prefecture. It involved the manufacture and installation of eight giant hybrid caissons (90m long, 15m wide, 16.5-17.5m high) that were each the size of a high-rise building. This was the largest construction project in Japan of this type in terms of scale and quantity.

These huge caissons were manufactured some 60km from the

construction site and towed by sea over an eight-hour period to the construction site. We achieved a high precision of ± 5 cm in the installation, ensuring construction quality.

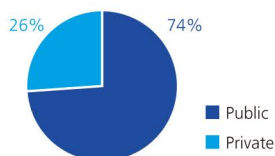
To ensure the impermeability of the disposal site, we used impermeable materials where the caissons meet the surface of the sea floor, including an environmentally conscious, soil-based impermeable material that the Company developed.

Kobato Tunnel (Yamagata Prefecture)

The Nihonkai-Engan Tohoku Expressway (Sea of Japan Coast Tohoku Expressway), which extends from Niigata Prefecture to Aomori Prefecture, runs along the Japan Sea side of the Tohoku Region. Along a stretch of the expressway undergoing improvements (a distance of 26km) between Atsumi and Tsuruoka in Yamagata Prefecture, the Company constructed the Kobato Tunnel (2,496m).

In consideration of the environment and work safety during construction, we introduced a continuous belt conveyor system to convey out excavated earth from the tunnel. As a result, the number of trips taken by dump trucks was significantly reduced, allowing for a reduction of approximately 26% in the amount of CO₂ generated.

Additionally, 100% of the excavated earth removed was used as embankment material within the construction site or in adjacent construction areas.



Domestic Civil Engineering: Fiscal 2009 Orders Received by Sector [Non-Consolidated]

The decline in public works investment has continued, and orders received for domestic civil engineering projects decreased by 7% compared with the previous fiscal year. However, public construction projects increased in relative terms, because private sector investment fell sharply due to the decline in corporate earnings.