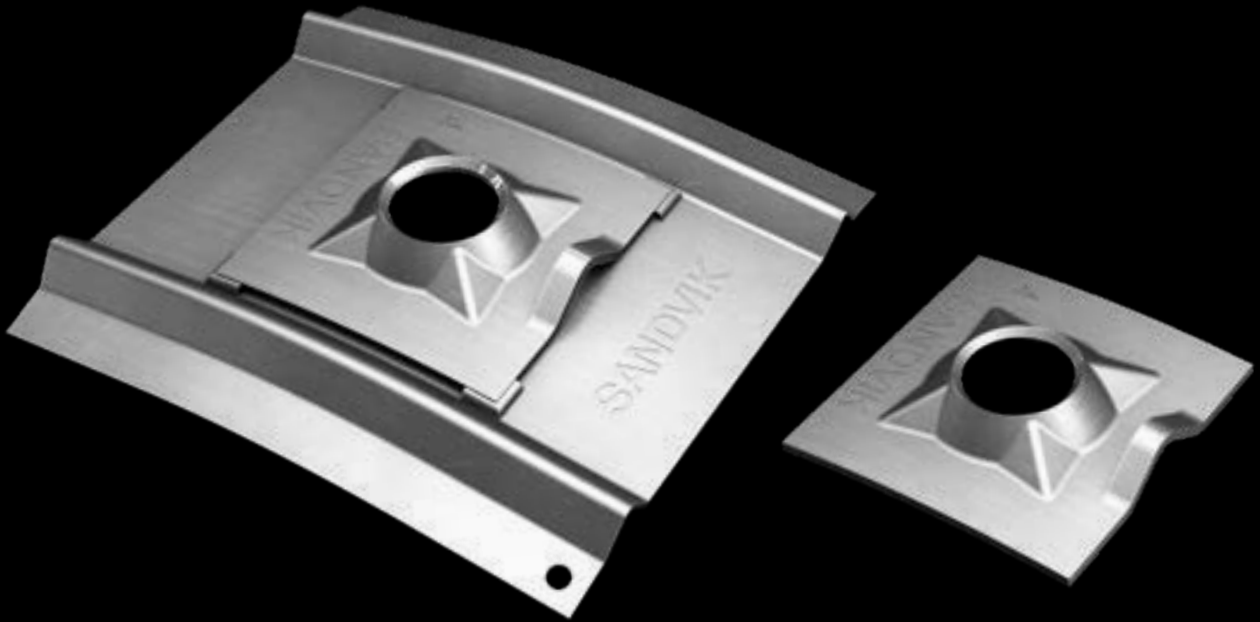


# SANDVIK X-PLATE



The new X-Plate from Sandvik is specifically developed to offer cutting-edge ground support in seismic ground conditions, and to complement the MDX bolts. The Sandvik X-Plate can absorb more energy thanks to its stronger plate and improved design, compared to current versions of the rock plates and combination plates, while at the same time being a thinner material. Test results, conducted in both static and dynamic test rigs, show that the X-Plate can absorb 22% more load than a standard product in static loading conditions, and 54% more energy in dynamic loading conditions.

**+54%**  
stronger than standard  
product in dynamic conditions

**+22%**  
stronger than a standard  
product in static conditions

## BENEFITS

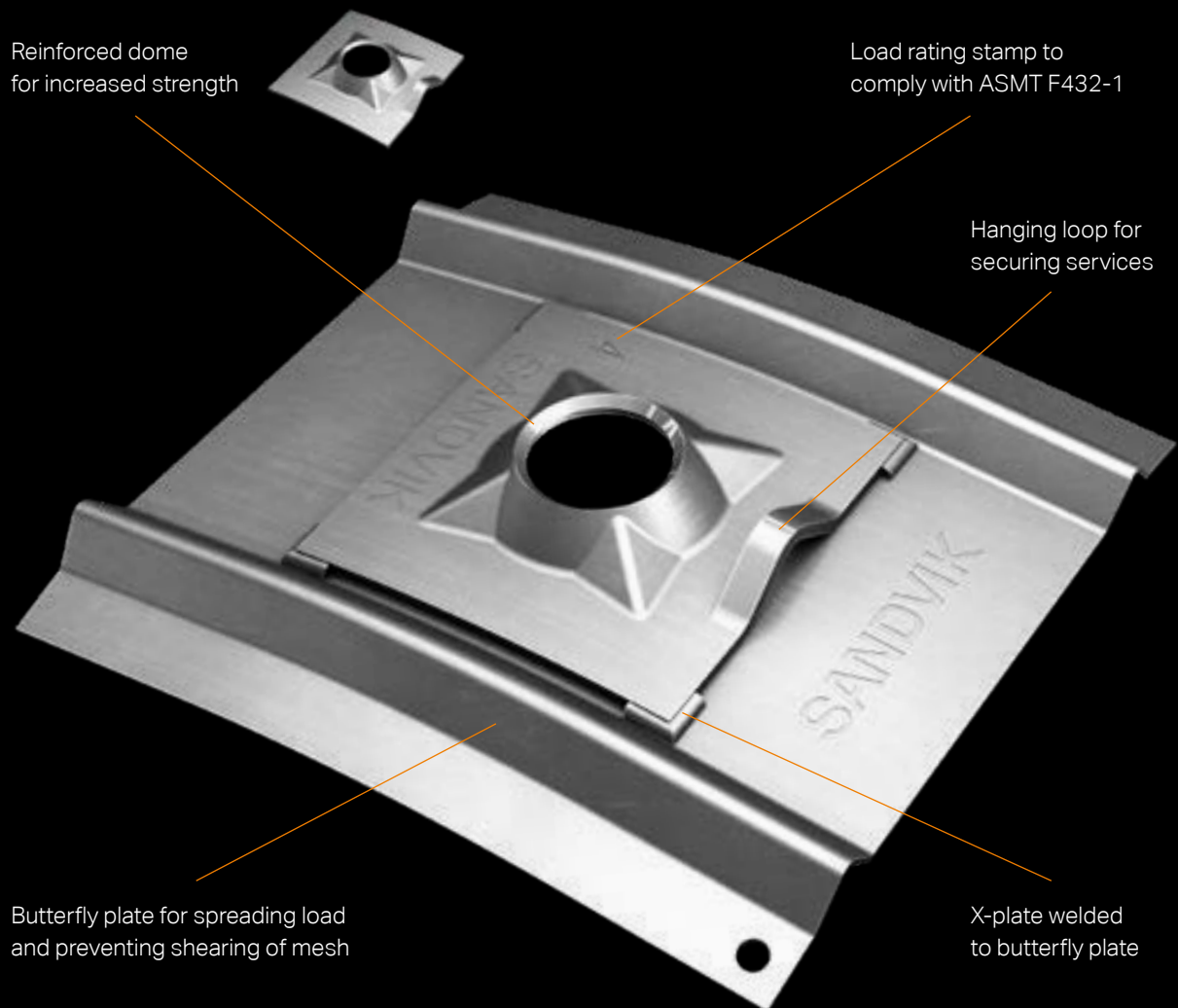
- State-of-the art rock plate, designed to improve performance in seismic conditions.
- Increased product strength during a seismic event providing more energy absorption.
- When tested in accordance with ASMT F432-19, the X-plate meets grade rating '4'.

## SUSTAINABLE SOLUTION

The new X-Plate is a more sustainable solution than a standard rock plate. The X-Plate requires 14% less steel in manufacturing, which represents great CO<sub>2</sub> savings in both manufacturing and shipping.

**-14%**  
reduction in steel.  
Reduced CO<sub>2</sub>

Test results and calculations are to be considered as results reached under certain and controlled conditions. These test results and calculations should not be treated as specifications and Sandvik does not guarantee, warrant or represent the outcome of test results or calculations in any or all circumstances.



### DYNAMIC TEST RIG

To enhance the development and testing of Sandvik Rock Tools ground support offering, a dynamic test rig has been designed and built at the Rock Tools site in Heatherbrae, Australia. It can test the load and displacement capabilities of several different products, such as rock plates, bolt components and full-scale bolts in the future. A high-speed camera captures a video of the test for displacement extrapolation and a load cell measures and records the load applied to the plate, allowing for detailed energy absorption calculations. All in all, the dynamic test rig provides outstanding evaluation possibilities with very precise data and has provided excellent R&D development capabilities without the necessity for mine site travel.



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