

CAT® SDX SCREED PLATE SYSTEM

DESIGNED TO INCREASE DENSITY, SMOOTHNESS, AND LONGEVITY

» DYNAMIC COMPACTION TECHNOLOGY

INFLUENCE THE OUTCOME

IMPROVE ROAD QUALITY WITH BETTER CONSISTENCY AND HIGHER RELIABILITY

Project planning, base preparation, mix design, reliable equipment, and proper paving techniques are keys to producing quality pavements. Ideal placement of the asphalt and reaching target densities are also extremely important factors that help pavements last longer.

Compacting asphalt at its highest temperature helps maximize density and deliver smoother results. In doing so, air void reduction must occur through manipulation and compaction techniques to ensure that targeted results are being met.

Since the inception of the asphalt paver, screed plates have been manufactured with a flat surface. However, a recent design utilizes three-dimensional angular plates. This innovative design provides dynamic flow through the screed plate in order to reduce air voids and increase density behind the screed.

» HOW THE **CAT® SDX SYSTEM** WORKS

The revolutionary Cat SDX Screed Plate System consists of an adaptor plate that retains the heating elements and attaches to the screed frame. The screed plates are designed with integrated tapered blocks that fit over the front and rear of the adaptor plates. High-temperature silicone locking bands apply tension to the plates to keep them in position. This unique design reduces standard hardware and lessens screed plate replacement time to as little as 4 hours.

TWO PLATE DESIGNS AVAILABLE

The system offers two extended-life plate designs that provide flexibility for highways, interstates, and commercial paving applications.

The textured plates are designed to increase density and smoothness, while the smooth plates perform like traditional flat screed plate designs with the added benefit of modular, quick-change capability. Both plates are comprised of chromium-alloy materials that have 4.2X more abrasion resistance when compared to traditional Cat screed plate material and 1.2X more abrasion resistance when compared to traditional, cladded Cat extended-life screed plates.





In testing performed by Caterpillar utilizing ASTM G65 Dry Sand Rubber Wheel test procedures, the chromium-alloy material utilized in Cat SDX extended-life screed plates provided 4.2X more abrasion resistance when compared to the material utilized in standard-wear Cat screed plates. Furthermore, the chromium-alloy material provided 1.2X more abrasion resistance when compared to the cladded material utilized on traditional Cat extended-life screed plates.

Note: Test results do not guarantee similar abrasion resistance improvements in paving application performance. Results may vary due to individual plate variation, paving techniques, and paving conditions.

ENHANCED MAT QUALITY, INCREASED UPTIME

TEXTURED SCREED PLATE DESIGN

The innovative design of the textured plates incorporates three-dimensional angular surfaces on the front and tapering smooth surfaces near the back to provide a kneading action that manipulates the mix as it passes through the diamond shaped channels. This unique innovation is designed to enhance the structural integrity of the asphalt, lessen compactor shoving, strengthen unconfined edges, and promote better surface temperature uniformity.

HIGHLIGHTS:

- Kinetic mixing action is designed to create consistency across the width of the mat to increase density and smoothness
- Modular screed plates support removal and installation in as little as 4-hours for easy conversion between textured and smooth plates
- Chromium-alloy material provides increased abrasion resistance compared to the material used in traditional Cat screed plates



SYSTEM COMPONENTS

Innovative Cat® SDX Screed Plate System utilizes an aluminum adaptor plate with beveled edges that retains the heating element and supports the screed plates. A unique screed plate locking system eliminates hardware for simplified removal and installation.



ADAPTOR PLATE

- Utilizes existing structural design for easy retrofit from standard screed plates
- Heating elements are retained by the aluminum adaptor plates
- Screed plate leveling and angle of attack adjustment occurs on the adaptor plates



CAT SDX SCREED PLATES

- The modular 100 mm (4") and 300 mm (12") plate designs simplify handling, transport, and installation
- The 100 mm (4") center plates enable cross-slope and crown that provides versatility for a variety of application profiles
- Plates run flatter, providing extended wear qualities

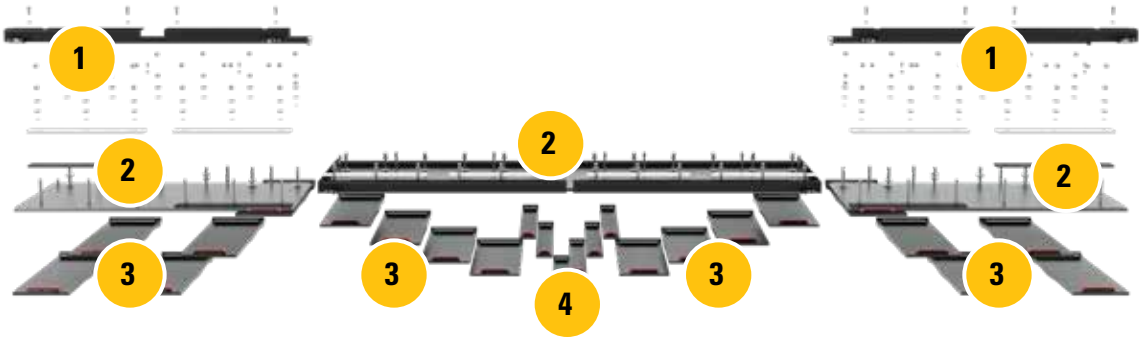


FASTENING SYSTEM

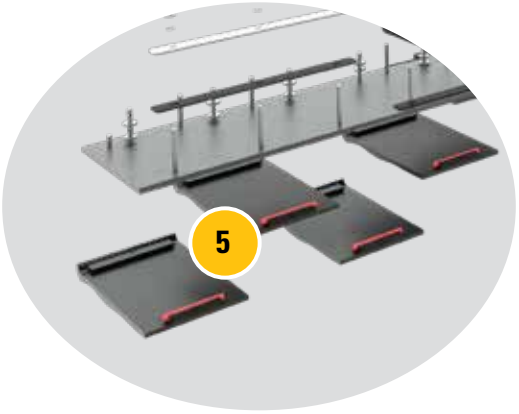
- The unique screed plate locking system is designed to eliminate hardware and simplify removal and installation procedures
- Tapered blocks integrated into the screed plates fit over the beveled edge of the adaptor plates
- High-temperature silicone retainers maintain tension for reliable performance

PARTS BREAKDOWN





1. Adaptor Plate Hardware
2. Adaptor Plates
3. 300 mm (12") SDX Screed Plates
4. 100 mm (4") SDX Screed Plates
5. Silicone Screed Plate Retainers (Red)



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QEHQ2136-03 (5/25)