



A STEEL THAT COSTS LESS AND SOLVES TOUGH MANUFACTURING PROBLEMS

Since its introduction in 2003, SCS has been saving money and solving problems for a growing number of flat-rolled steel users. The patented SCS process gives basic hot-rolled black carbon steel a clean, dry, cold-rolled surface that actually prevents rust without the use of oil, preservative coatings or special packaging.

But SCS does more than look good. It works hard. SCS lasers faster, welds better and paints beautifully with less paint prep than other steels. The reason is its smooth, 'white-glove' clean surface with *NO OIL!* How does no oil help manufacturers?

- *equipment and work areas stay cleaner*
- *easier handling - blanks don't stick together*
- *hazardous welding fumes are reduced*
- *no paint pre-treatment to remove oil*
- *no skin irritation from oil exposure*
- *lasers faster - no oil smoke to fog up laser lens*

A WELDER'S NEW BEST FRIEND

If you weld sheets of P&O, a switch to SCS will increase safety, save you money and give you stronger welds.



The secret is getting rid of the oil. Burning through the oil film generates additional contaminants and gives a less uniform weld bead that serves to weaken the weld. Welds of SCS plates have been shown to be 20% stronger than comparable welds of P&O. And SCS' more uniform weld bead reduces filler wire consumption by up to 30%.

Burning the oil when welding P&O also generates excess fumes that have been found to pose a serious health risk. You can protect welders by installing bulky, expensive exhaust systems or by switching to SCS and eliminating the main source of the fumes.

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PROVEN RUST RESISTANCE



Rust on untreated side

In February 2002, a sheet of hot-rolled black received the SCS treatment on one side only. The other side was left untreated. These are recent photos of opposite sides of a corner of the sheet.



Treated side remains clean and rust-free

Besides preventing rust, SCS treatment will actually remove existing surface rust. After treatment, rust will not return and the surface remains clean and smooth. This SCS feature turns secondary material into prime.

TESTED IN LABS AND ON THE FACTORY FLOOR

SCS has been thoroughly tested to qualify its performance over the full spectrum of fabrication processes. Labs have studied the metallurgy and mechanical properties of SCS to learn how it consistently performs as well as or better than the steels it commonly replaces in these applications:

- *welding*
- *bonding*
- *shearing*
- *chrome plating*
- *punching*
- *batch galvanizing*
- *stamping*
- *laser, plasma cutting*
- *roll forming*
- *e-coat and powder coat painting*
- *press braking*

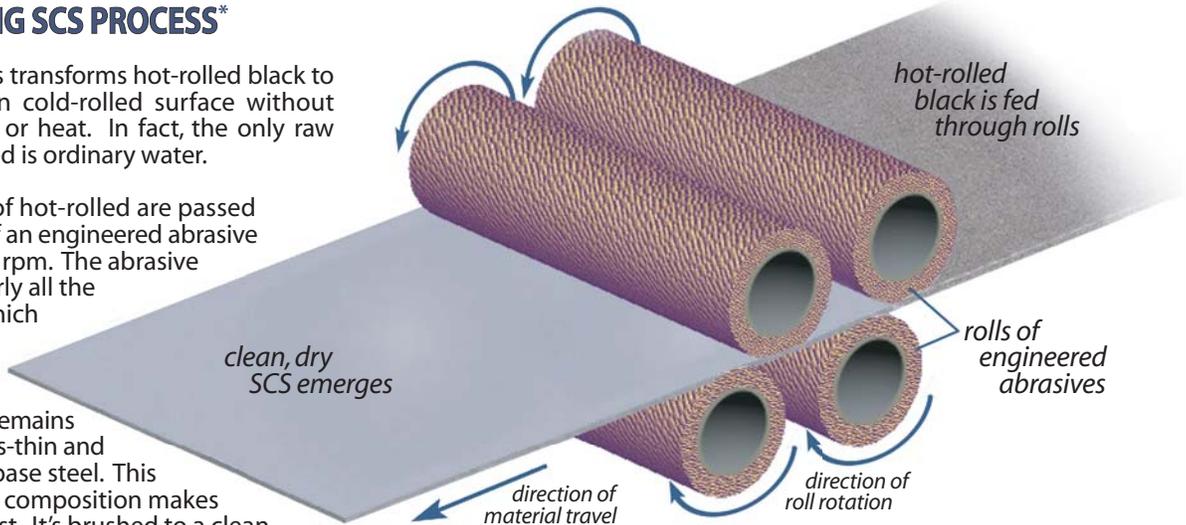
But the most important tests come in real production shops making real products. In industries ranging from appliance to automotive and goods as diverse as cookware to grain bins, SCS has proven to be a steel manufacturers can rely on for superior performance.

THE AMAZING SCS PROCESS*

The SCS process transforms hot-rolled black to a smooth, clean cold-rolled surface without chemicals, acid, or heat. In fact, the only raw material involved is ordinary water.

Blanks or coils of hot-rolled are passed between rolls of an engineered abrasive spinning at 900 rpm. The abrasive brushes off nearly all the surface scale which is flushed away with water.

A layer of scale remains which is microns-thin and bonded to the base steel. This layer's chemical composition makes it resistant to rust. It's brushed to a clean premium finish which is perfect for painting.



* the SCS Process is protected by multiple US patents.

SWITCH TO SCS AND START SAVING

The SCS process is efficient and economical, costing much less than temper pass, pickling, cold rolling and other steel processing technologies. It can also restore secondary material to prime condition or allow you to use inexpensive transition and conversion slabs. SCS has already replaced:

- cold roll
- hot roll
- shot blast
- pickle dry
- pickle & oil
- temper pass
- temper pass P&O
- temper pass pickle dry

PANEL-FLAT & STRESS FREE

SCS blanks are made 'ultra-flat' by a process called stretcher-leveling. Unlike roller or tension leveling, stretching actually causes material to exceed its yield point throughout its entire thickness. This corrects waves, buckles and camber permanently. *In fact, stretched SCS blanks are flatter than temper pass or the SCS processing is free.*

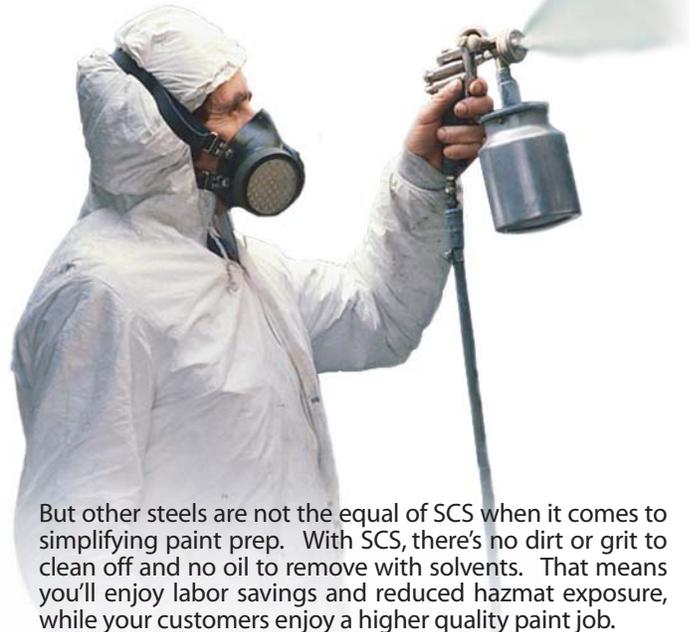
Besides overcoming severe shape defects, stretching equalizes stresses across the blank, and this eliminates springback when the blank is lasered or sheared. *In fact, stretched SCS blanks will meet 1/4 ASTM A568 Table 15 tolerances AFTER lasering or the SCS processing is free.*

Eliminating springback reduces scrap and it may let you laser cut double-stacked sheets. That's right - laser through two blanks at a time and have both parts drop out perfectly.



ULTIMATE PAINTING PERFORMANCE

The SCS surface is optimum for corrosion resistance. It's been exhaustively tested and a leading paint laboratory stated "In our salt spray creep tests, 1010 unpolished CRS and SCS performed equally."



But other steels are not the equal of SCS when it comes to simplifying paint prep. With SCS, there's no dirt or grit to clean off and no oil to remove with solvents. That means you'll enjoy labor savings and reduced hazmat exposure, while your customers enjoy a higher quality paint job.

PUT SCS TO YOUR OWN TEST

You can learn more about the advantages of SCS, obtain test reports and read customer success stories by visiting www.scsprocess.com. Or contact us at the number below to get your own SCS samples and perform the trials to see how this revolutionary steel product outperforms the rest.

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