

# EPS Unlimited

the **ULTIMATE** Sheet Product

The Flat Rolled Steel Sheet Product That Outperforms Acid Pickled, Dry or Oiled, Plus Hot Roll Black And SCS  
**GUARANTEED**



EPS - Eco Pickled Surface

+



Stretcher Leveling

Scale Removal

EPS process removes all scale. No hydrochloric acid used, so corrosion performance beats acid-pickling.

Oil-Free Surface

A dry surface (EPS is rust inhibitive without oil) solves manufacturing problems caused by oil while boosting laser cutting speeds. (Note: EPS is also available oiled.)

100+ Ra Surface

Surface Ra > 100 provides superior paint adhesion, while its low Rz produces a smooth, consistent finish. (Note: EPS also available with Ra < 100.)

Ultra Flat Shape

Uses stretcher leveling for the ultimate in flatness and stress removal that eliminates springback. (Note: EPS available roller leveled or temper passed.)

We developed **EPS Unlimited**, a specialized EPS sheet product that's ultra-flat, dry (oil-free) and optimized for paint performance and appearance. The EPS process does not affect steel chemistry or hardness, so you can order the very same substrate you always have, but when it becomes **EPS Unlimited**, it will gain this guarantee:

EPS Unlimited will meet or exceed the performance of roller leveled or temper passed:

- Acid Pickled & Oiled • Acid Pickled Dry • Hot Roll Black • SCS
- against these criteria:
- Paint Adhesion • Paint Corrosion • Flatness After Lasering
  - Laser Cutting Speed

or we buy the steel under our money back guarantee.

competitive steel parts and EPS Unlimited parts must originate from same coil heat.

"Since stocking **EPS Unlimited**, our customers' comment on how well the clean, oil-free surface laser cuts, how it lets them increase their laser speed, and how the dry surface helps throughout their other fabricating processes. Nothing else we've ever supplied elicits the positive feedback **EPS Unlimited** does."

- Terry Orsbun, GM of O'Neal Steel  
Evansville, Indiana

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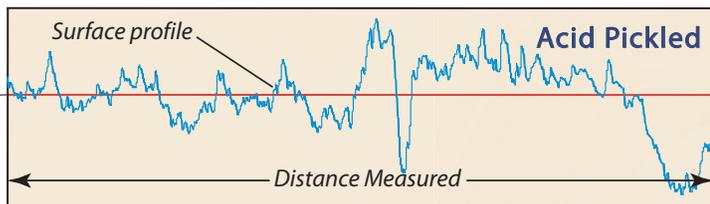
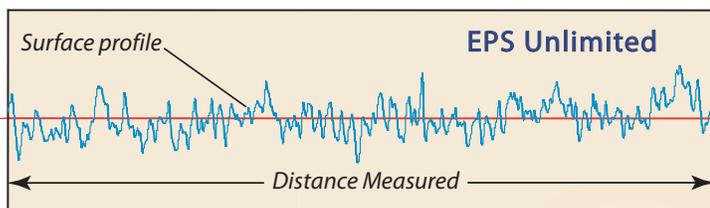
## Which Is The Right Sheet Steel For You? For Your Customers ?

Property	EPS Unlimited	Hot Roll Black	Acid Pickled Oiled	Acid Pickled Dry	SCS
Surface Free of Scale	★★★		★★★	★★★★	★
Surface Free of Oil	★★★	★★★		★★★★	★★★★
Paint Corrosion Resistance	★★★		★★	★★	★
Paint Adhesion Performance	★★★	★	★★	★★	★
Paint Finish Appearance	★★★	★	★★★★	★★★★	★★
Minimize Manual Paint Prep Effort	★★★	★		★★★★	★★
Laser Cutting Speed	★★★		★	★★★★	★★
Minimize Laser Lens Fogging	★★★	★★★★		★★★★	★★★★
Strength of Welds	★★★	★★	★	★★★★	★★★★
Minimize Dangerous Welding Fumes	★★★	★★★		★★★★	★★★★
Mill Surface Defect Mitigation	★★★		★	★	★
Storage Life Warranty	★★★		★★		★★★★

★★★★ = excels   ★★ = above average   ★ = average

### Why the EPS Unlimited Surface Is Better

The EPS process creates a surface characterized by 'micro jagged' peaks and valleys which improves paint adhesion. It's more uniform than a typical acid-pickled surface, as shown in the profilometer traces shown below. EPS Unlimited's profile has a higher Ra (average peak height) to provide superior adhesion, but doesn't compromise the paint finish since EPS has a lower Rz (peak height deviation).



"This combination of EPS Processing and Stretcher Leveling creates an unrivaled value among prime steel products. A demanding customer of ours raves about **EPS Unlimited**. The stress-relieved sheets laser great and their surface quality gives a consistently high-quality paint finish."

- Richard Klein, The Steel Works LLC

### Why EPS Unlimited's Shape Is Flatter

Sheets that are roller leveled or temper passed can certainly look flat, stacked in a bundle. But when they're sheared, laser or plasma cut, punched or stamped, trapped stresses can cause 'springback' leading to non-flat parts.

EPS Unlimited is **stretcher-leveled**, completely eliminating trapped stresses and 'shape memory'. There's no 'snapback' of the sheet that damages the laser head nor springback of a cut part that keeps it from meeting dimensional specs.

### Begin Your EPS Unlimited Trial

Whether tile-size samples or a truckload quantity, the best test of EPS Unlimited is in your own or your customer's manufacturing processes. Contact TMW today to start your trial of EPS Unlimited. To read customer application stories, obtain test reports and get the full details of EPS process technology, visit the EPS technology web site, [www.epsprocess.com](http://www.epsprocess.com).



101 South Main Street · Red Bud, IL 62278  
Phone: 618 282-4200 · Fax: 618 282-4201

[www.TheMaterialWorks.com](http://www.TheMaterialWorks.com)