

BTG Duroblade® high-performance blades: the environmentally friendly choice!

In a world of mounting environmental concerns, individuals and industries alike are looking for ways of reducing their carbon footprint. The Pulp & Paper sector was one of the first to address the issue, prompting a trend towards recyclable products, chlorine-free pulping, improved effluent control and more responsible environmental management. As a leading P&P supplier, BTG is committed to playing its own key role in protecting our environment . . .

It's well-known among paper manufacturers that using BTG's Duroblade high-performance blades allows for substantial increases in coating color solids content. What's less well-known is that increased solids content also translates into substantial savings on energy consumption. For example, increasing coating color solids content by just 2% on a 4-meter machine running at 1,200 m/min on a grammage of 100 gsm cuts steam consumption by 2.2 tonnes/hour. And that lower drying energy requirement means considerably less CO₂ released into the atmosphere.

Long-life Duroblade blades not only help save money – they help save our environment too.

But that's not all. Higher coating solids content also allows manufacturers to get the same quality results using lighter base paper, which means using less fiber. With the focus now firmly on sustainable production and business practices, that doesn't just mean important cost savings on expensive fibers, it means saving trees as well. Fiber supply is not inexhaustible – indeed, it's already becoming a problem in some areas. So Duroblade offers the chance of saving not only money, but Mother Nature's resources too.

Lower environmental impact than steel blades

When running with steel blades, production is less stable and blade lifetimes are relatively short. That means that quality variations over time are much more important, requiring more handling – for example, rewinding and cutting out of non-specification paper from the reels; paper that will then have to be put into the recycling process. All these actions require energy which could easily be saved by stabilizing the process using more reliable high-performance blades.

What's more, that doesn't even take into account the huge energy requirements inherent in steel manufacturing. While the implications of a performance comparison between traditional standard steel blades and high-performance blades may not be immediately apparent, from an ecological standpoint there's a huge difference.

Take, for example, a 2-head, 4-meter wide coater machine running with 0.457 caliper steel blades. At an average blade lifetime of six hours, this machine will consume around 4.3 tonnes of steel per year.

Running the same machine using high-performance Duroblade long-life blades with an average lifetime of 24 hours, this same machine will consume only around 1 tonne of steel per year – a 75% reduction.

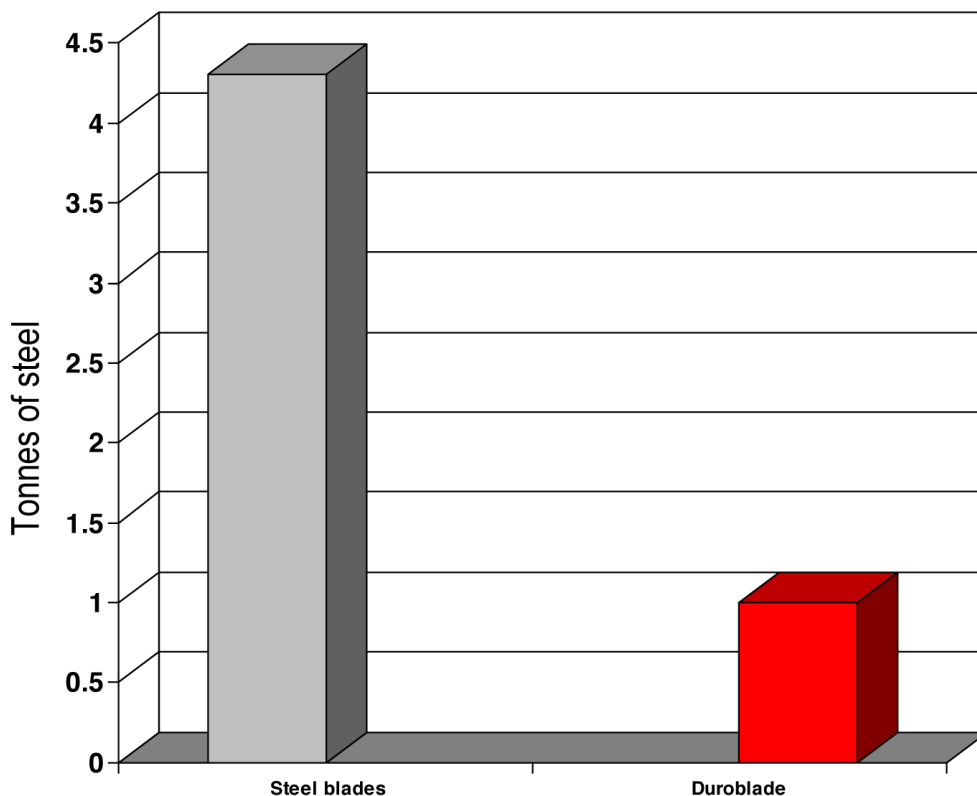


Figure 1 Yearly steel consumption – steel blades vs. Duroblade

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Bearing in mind that every tonne of steel manufactured generates somewhere between 750 - 1,200 kg of CO₂, and that producing one meter of high-performance blade generates an additional 0.5 kg of CO₂, the blade consumption of this machine generates around 3.7 tonnes of CO₂ if run with steel blades, but only 1.5 tonnes of CO₂ if run with high-performance blades. That amounts to a saving of 2.2 tonnes of CO₂ per year. *

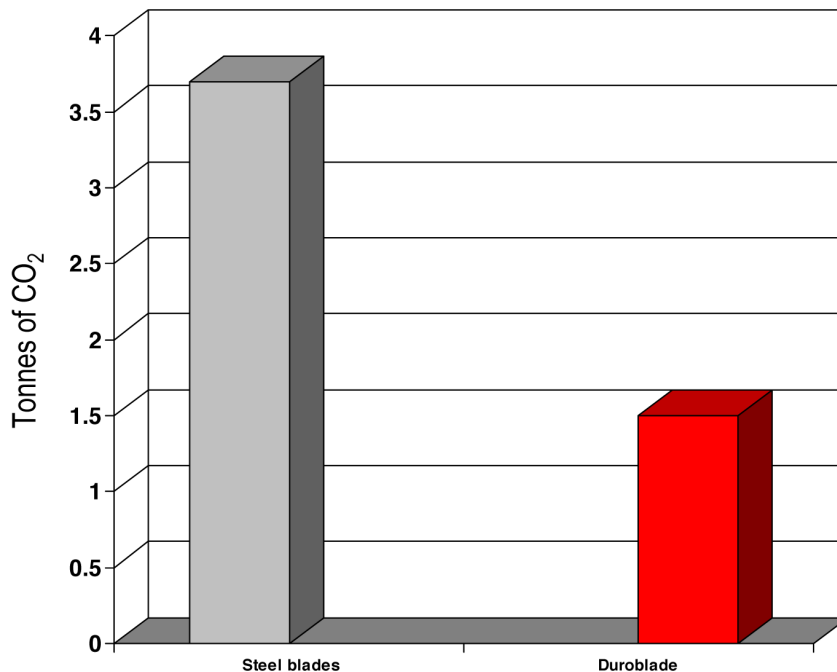


Figure 2 Yearly CO₂ consumption for the manufacturing of steel blades vs. manufacturing of Duroblade

Based on this calculation, manufacturers already using high-performance BTG Duroblade in mills around the world are helping save some 750 tonnes of CO₂ from being released into the atmosphere.

* Source: "Situation environnementale des industries"

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