

EXCEPTIONAL SPEED REQUIRES EXCEPTIONAL SAFETY



Docol R8 Tube.



As pioneers in advanced high strength steel, we have a proven track record of helping our customers develop the cars of tomorrow through innovative steel solutions.

RACING HAS CHANGED FOREVER

Moving faster is the ultimate goal in the sport of motor racing – a goal that always leaves room for improvement. This is why we developed the Docol R8 Tube in high strength steel that is stronger, safer and more consistent to work with. It allows you to create racing chassis and components that deliver the highest performance. And it will give you an edge on the competition, from the workshop to the racetrack. Racing sure has changed.



FOUR WINNING ADVANTAGES

1

TIGHT TOLERANCES, CONSISTENT PERFORMANCE

Other materials often contain variations that behave differently, even if they have the same design. The uniform properties of Docol R8 tubes makes it possible to develop structures and chassis that deliver the same high performance, over and over again.

2

UNCOMPROMISED SAFETY

Docol R8 Tube features excellent ductility, which leads to reduced risk of fracturing – something not only beneficial during a crash, but also in the event of driver rescue. Tests have shown that cutting through a crashed chassis is easier with Docol R8 tubes. The Docol R8 structure has a greater fatigue cycle and is less likely to stress fracture in the heat affected zone.

3

EASY TO WELD

One of the advantages that Docol R8 Tube can offer racing engineers and mechanics is its weldability. Due to low alloy counts and a clean oxidefree surface, Docol R8 Tube is easily welded to other types of steel. Pre-heating is not necessary and the characteristics of the weld zone are close to the parent material.

4

REVIEWED AND ACCEPTED

The Docol R8 Tube has been extensively tested and reviewed and is SFI approved. The Docol R8 Tube is formally approved by NHRA, SCCA, BMW Car Club, Powri, Can Am Sprint Series, Pikes Peak Hill CLIMB, USAC, World of Outlaws, Lucas Oil Late Models, IHRA and many more. It is used in drag cars, sprint cars, midget cars, motorcycles, sports cars, late models, modifieds and go karts.

DOCOL R8 TUBE HARD FACTS

HOW TO WELD

Docol R8 Tube features excellent weldability and has a low risk of welding defects due to the low CE-value, low amount of impurities and a clean oxide-free surface.

To reduce the width of the HAZ as much as possible, we recommend that you keep the heat input as low as possible.

For both TIG/GTAW and MAG/GMAW the following filler material is recommended: AWS A5.28 ER80X.-X and AWS A5.28 ER110X.-X. Welding parameters might need to be adjusted.

BENDING CIRCULAR TUBES

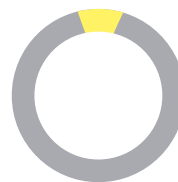
Bending of Docol R8 Tube can be done with commonly used bending tools. Depending on the diameter and thickness of the tube, a mandrel and ball may be needed to avoid buckling or wrinkling.

The minimum bending radius for a 90° bend is $2.5 \times \varnothing$. The maximum allowable diameter reduction in the bend is 5%.

ROLL-FORMED AND WELDED

Docol R8 Tube is roll-formed and welded. Due to the low alloy content, the characteristics of the weld seams are very close to the parent material. On most dimensions the weld beads are removed, leaving the tubes in perfect circular shapes that can be handled regardless of the location of the weld seam. This allows for the tubes to telescope inside each other.

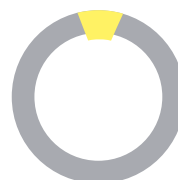
The cross section of Docol R8 Tube provides consistent wall thickness and a well-centered hole.



Cross section of Docol R8 Tube



Cross section of a cold drawn tube with variations in wall thickness



Cross section of a typical welded tube with inner weld bead intact



DIMENSIONAL PROGRAM

Dimensional range

Shape:	Circular
External dimension:	5/8–2 inch diameter 15.9–50.8 mm diameter
Wall thickness:	0.035–0.120 inch 0.89–3.05 mm

Tolerances according to EN 10305-3

Diameter:	As stated in table
Thickness:	+/- 0.15 mm
Straightness:	0.20 %, or max 3 mm/m length

Delivery Conditions according to EN 10305-3

Steel grade:	Chemical composition in data sheet
Delivery condition:	+CR2 (not intended for heat treatment)
Appearance:	Ink marked and oiled



STEEL FROM SSAB

Docol R8 Tubes for racing are only a part of what we do. At SSAB, we produce several steel products, each offering its own unique characteristics and areas of focus and backed by SSAB's expertise, as well as experience, services and support. This cross-industry knowledge gives us the ability to recommend the right high strength steel products with technical support tailored to your specific needs.

Tubes for other applications

- ▶ The greatest high-strength range up to an extraordinary 1200 MPa.
- ▶ Metal coating possibilities for excellent corrosion protection in all conditions.
- ▶ Low alloying for excellent weldability.
- ▶ Customer tailoring in cross sections, coatings, tolerances and steel grades.
- ▶ Large sample stock for prototyping.

SSAB is a Nordic and US-based steel company. SSAB offers value added products and services developed in close cooperation with its customers to create a stronger, lighter and more sustainable world. SSAB has employees in over 50 countries. SSAB has production facilities in Sweden, Finland and the US. SSAB is listed on the Nasdaq OMX Nordic Exchange in Stockholm and has a secondary listing on the Nasdaq OMX in Helsinki. www.ssab.com.

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