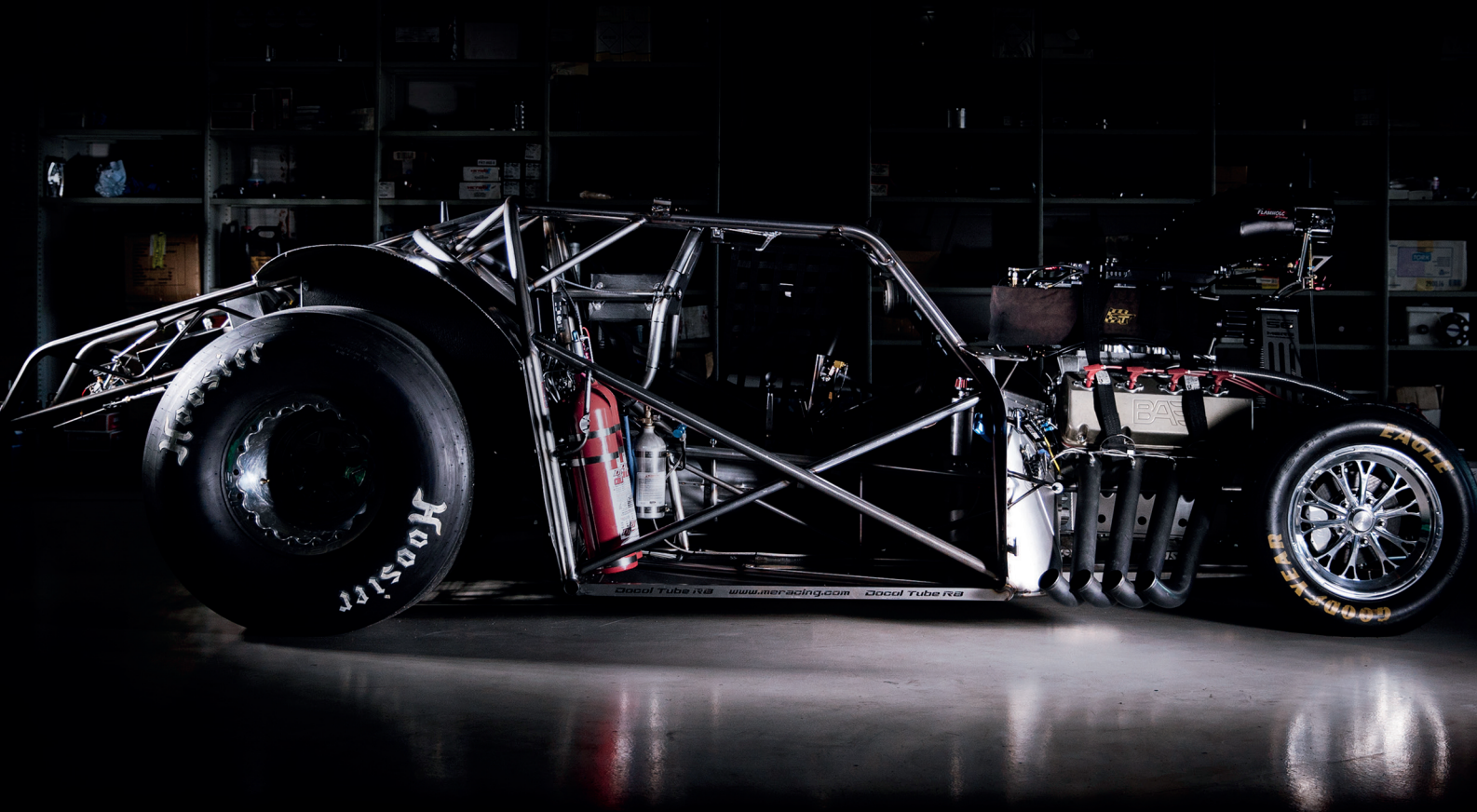



DOCOL[®]
THE AUTOMOTIVE STEEL

EXCEPTIONAL SPEED REQUIRES EXCEPTIONAL SAFETY

Docol Tube R8





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

For us, safety 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 Tube R8 in advanced 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 into the future.



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 Tube R8 makes it possible to develop structures and chassis that deliver the same high performance, over and over again.

2

UNCOMPROMISED SAFETY

Docol Tube R8 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 Tube R8 as its structure has a greater fatigue cycle and is less likely to stress fracture in the heat affected zone.

3

EASY TO WELD

Some of the advantages that Docol Tube R8 can offer racing engineers and mechanics is its weldability and resistance to fatigue. Due to low alloy counts and a clean oxidefree surface, Docol Tube R8 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 Tube R8 has been extensively tested and reviewed and is SFI approved. The Docol Tube R8 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, World Rally Car, Porsche Club of America, Trans Am, IMSA, and many more who follow larger governing bodies' rules and guidelines.

DOCOL TUBE R8 HARD FACTS

HOW TO WELD

Docol Tube R8 features excellent weldability and has a low risk of welding defects due to the low CE-value, the 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 (MIG) 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

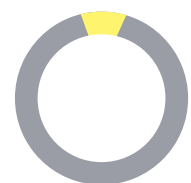
Bending of Docol Tube R8 can be done with commonly used bending tools. Depending on the diameter and thickness of the tube, a mandrel and ball may be needed to avoid buckling or wrinkling.

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

ROLL-FORMED AND WELDED

Docol Tube R8 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 inner weld beads are removed, leaving the tubes in perfect circular shapes that can be handled regardless of the location of the weld seam.

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



Cross section of Docol Tube R8



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

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

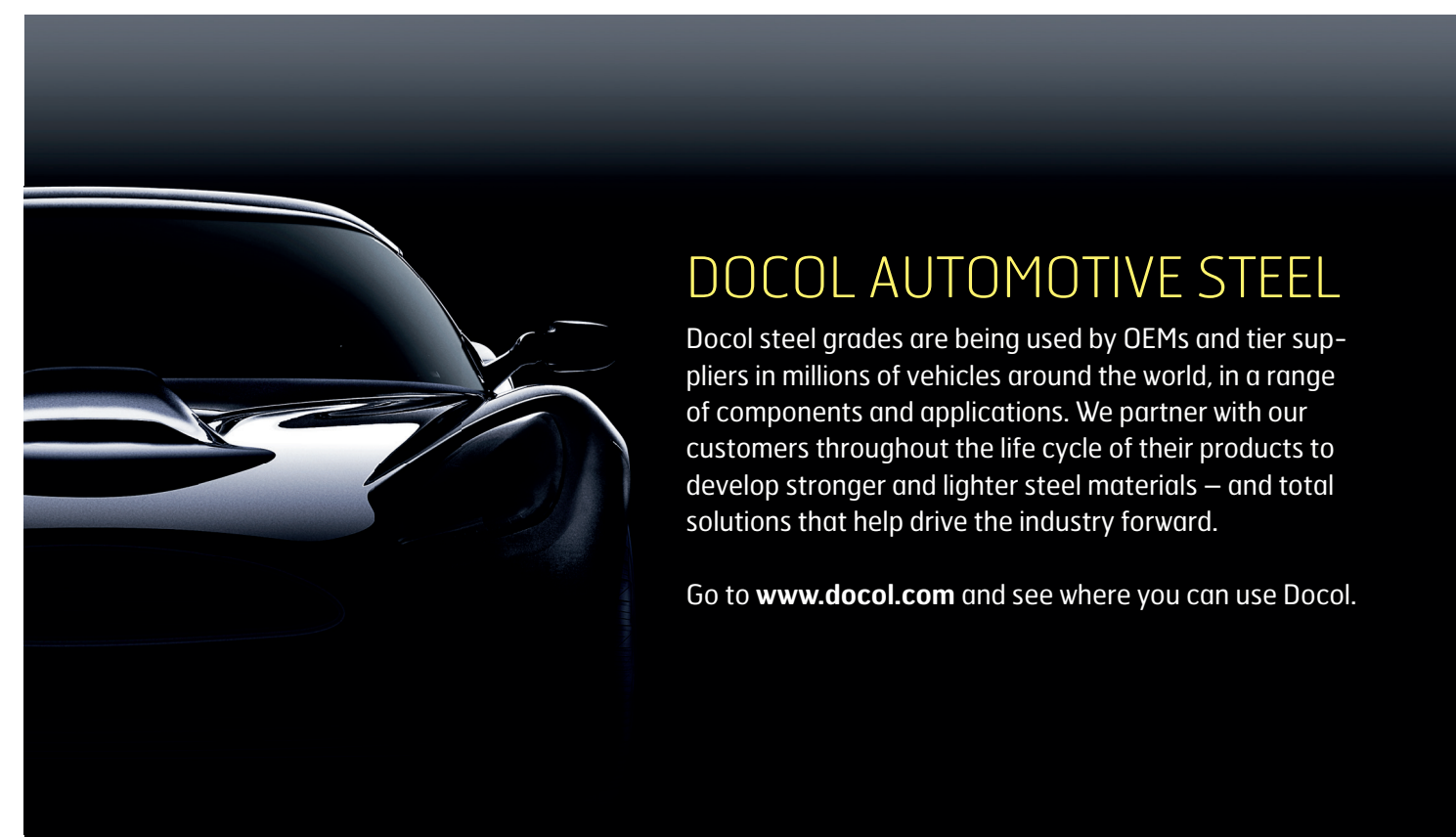
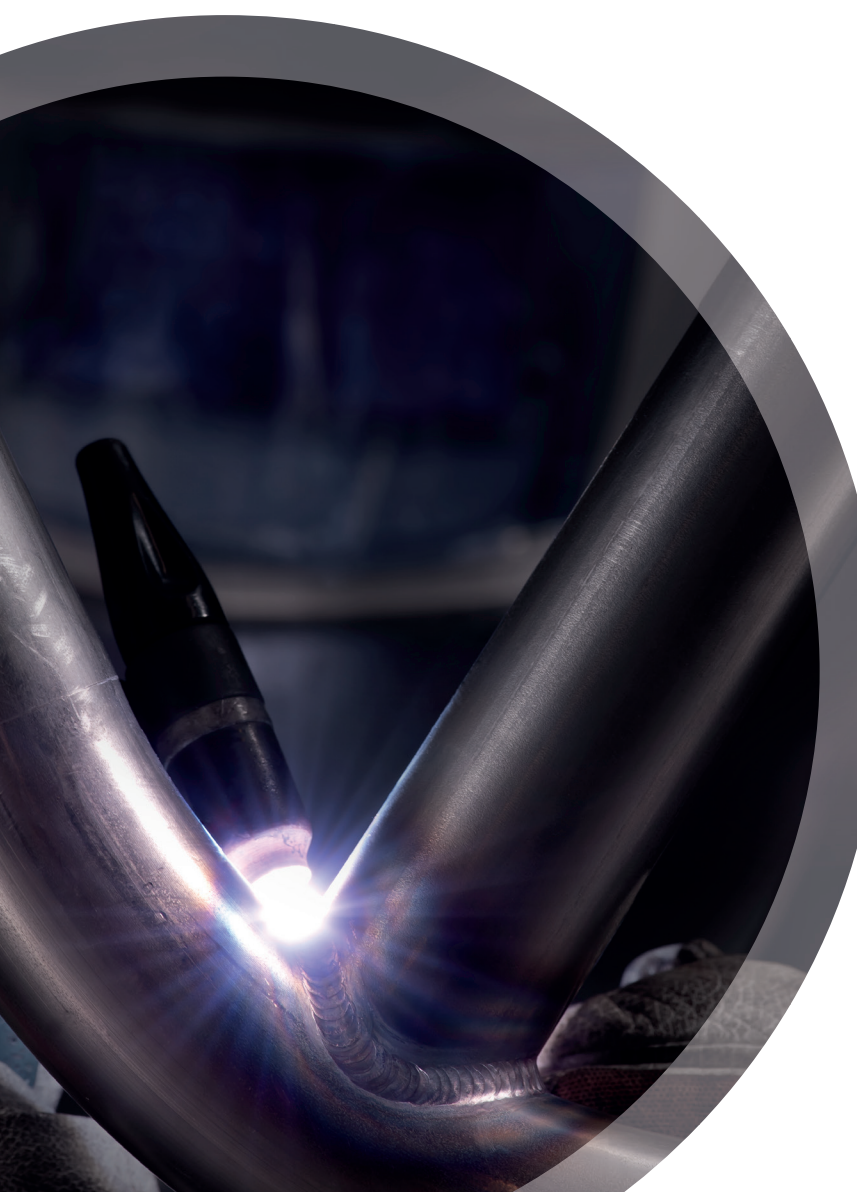
Tolerances according to EN 10305-3

Diameter: As stated in table below
Thickness: +/- 0.15 mm
Straightness: 0.20 % of measured length

	OD		Tolerances	
	(mm)	(inch)	(mm)	(inch)
< 20	< 0,79		± 0.12	± 0.0047
20 ≤ D < 32	0,79 ≤ D < 1,26		± 0.15	± 0.0059
32 ≤ D < 44	1,26 ≤ D < 1,73		± 0.20	± 0.0079
44 ≤ D < 55	1,73 ≤ D < 2,17		± 0.25	± 0.9842

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



DOCOL AUTOMOTIVE STEEL

Docol steel grades are being used by OEMs and tier suppliers in millions of vehicles around the world, in a range of components and applications. We partner with our customers throughout the life cycle of their products to develop stronger and lighter steel materials – and total solutions that help drive the industry forward.

Go to www.docol.com and see where you can use Docol.

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.

DISTRIBUTOR

The information contained in this brochure is provided only as general information. SSAB AB accepts no responsibility for the suitability or appropriateness of any recommendation herein for any specific application.

As such, the user is responsible for any and all necessary adaptations and/or modifications required for specific applications.

SSAB

SE-781 84 Borlänge
Sweden

T +46 243 700 00

F +46 243 720 00

tubular.tcs@ssab.com

www.docol.com

SSAB