

Steel  
Precision Steel

# precidur<sup>®</sup> Bainitic steels

Cold forming steels with high strain  
hardening and greater hole  
expansion capacity.



thyssenkrupp



precidur<sup>®</sup>

is our thyssenkrupp Hohenlimburg trademark for premium-quality precision strip. And it epitomizes the way our service and support are systematically focused on the individual and highly exacting requirements of our customers.

# precidur<sup>®</sup> — our brand for precision strip

precidur<sup>®</sup> stands for extremely close thickness and profile tolerances in widths up to 720mm and thicknesses of 1.5 to 16mm; optimum surface properties, whether black or pickled; homogeneous material properties, full hard and annealed; a wide variety of grades, from unalloyed to high ductility and high strength to high-alloy; rounded mill edges without burrs or microcracks that ensure no embrittlement due to work hardening. All in all, precidur<sup>®</sup> offers the ideal prerequisites for optimum direct forming and excellent cold rolling process properties. precidur<sup>®</sup> stands for our qualitative edge, built up over more than

150 years, extended through ongoing modernization measures and proof of our customer focus and our all-round reliability. Full process automation, unparalleled speed of production, short-term availability, maximum flexibility in putting together even small, tailored batch sizes, constant transparency and data availability, rapid response to short-notice change requests – in fact we're ideally prepared for every eventuality.

Or to put it another way: We are your premium partner for premium precision steel. Today, tomorrow and beyond. Together with precidur<sup>®</sup> we look forward to your challenge.

## The advantages of precidur<sup>®</sup> at a glance:



Extremely close thickness and  
profile tolerances



Wide variety  
of grades



Homogeneous material properties,  
optimum surface quality



Tailored batch sizes



Ideal for processing and forming



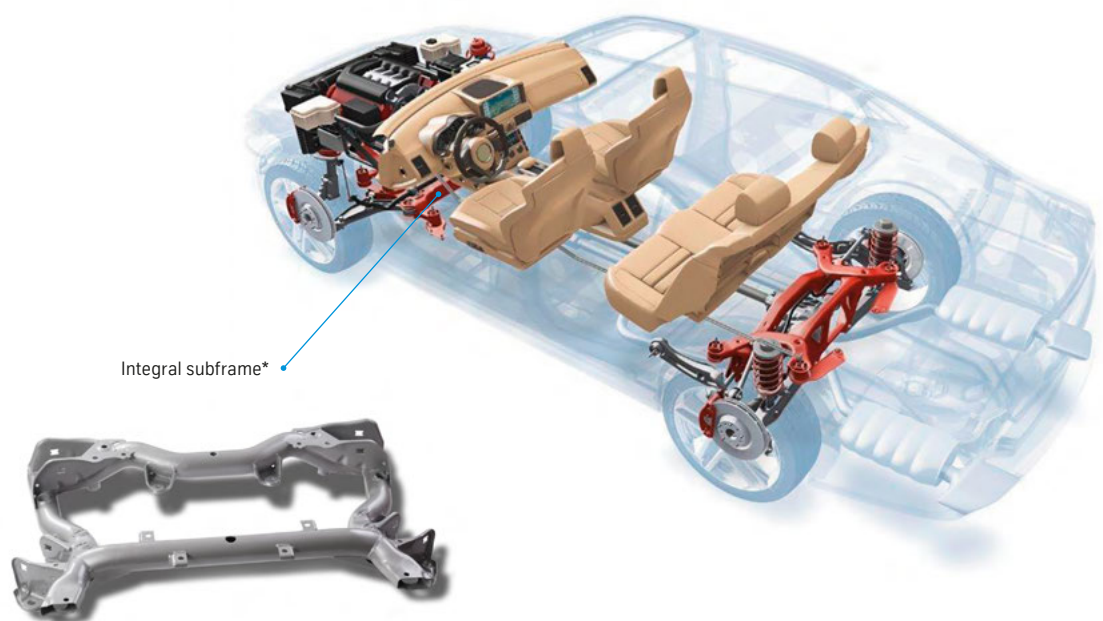
Quick, flexible and competent  
support and service

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# Bainitic steels

precidur® HBS grades are steels with a quasi-single-phase bainitic microstructure.

They are highly suitable for critical forming operations due to their favorable yield-to-tensile ratio. These steels are optimized in particular for the forming of punched or cut edges.



The new solution for  
complex chassis and  
structural parts.

\*possible application

Technical features

Mechanical properties

	Tensile strength	Yield strength	Elongation		Hole expansion	Material number
	R <sub>m</sub> [MPa]	R <sub>p0,2</sub> [MPa]	A <sub>5</sub> min. [%]	A <sub>80</sub> min. [%]	Longitudinal and transverse specimens	
precidur® HBS 600	600 - 760	500 - 700	Ø 14*		min. 60 %	1.0988
precidur® HBS 800	760 - 910	660 - 820	min. 13*	min. 10*	min. 50 %	1.0998
precidur® HBS 900	850 - 1050	650 - 850	min. 12*	min. 9*	min. 20 %	1.0999
precidur® HBS 1000	950 - 1130	700 - 900	min. 12	min. 9	–	1.0958**
precidur® HBS 1000 HE	950 - 1130	680 - 900	min. 12	min. 9	min. 20 %	1.0958**

\* Elongation is only an inadequate representation of the good forming behavior. \*\* according to

Possible delivery options for HBS grades

Options	Mill edge Cut edge	pickled	black	slit	trimmed	cut to length
precidur® HBS	Mill edge or cut edge	✓	✓	✓	✓	✓

General thickness tolerances for precidur®

Strip thickness [mm]	1.5 - 2.54	2.55 - 4.03	4.04 - 6.03	6.04 - 8.03	8.04 - 9.03	9.04 - 11.03	11.04 - 14.03	14.04 - 16.00
Standard tolerances [mm]	± 0.04	± 0.04	± 0.05	± 0.055	± 0.06	± 0.07	± 0.08	± 0.10
Special tolerances [mm]	± 0.03	± 0.035	± 0.04	± 0.045	± 0.05	± 0.055	± 0.06	± 0.07

General delivery options for precidur®

Coil inside diameter – Ø:	Standard 508mm / optional 610mm
Coil outside diameter – Ø:	max. 1,890mm
Coil weight:	max. 20.5 kg/mm strip width
Strip width:	max. 720mm
Strip thickness:	1.5 – 16mm