

Quality measured - through the eye of a needle

Latch Needle Steel

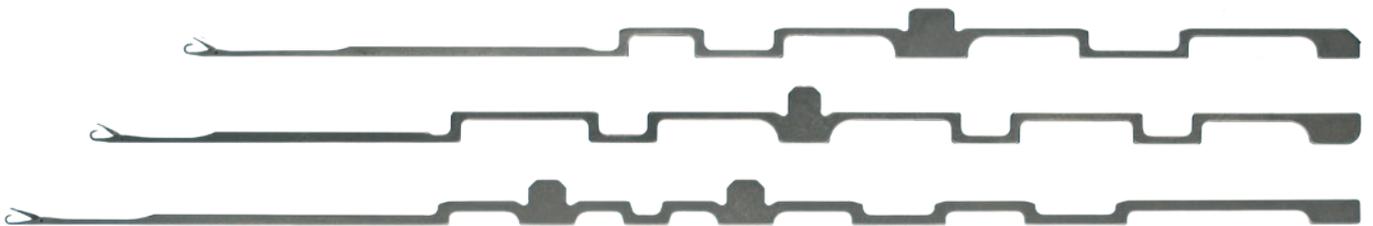
The textile industry requires needles with high fatigue strength and high wear resistance.

UHB 20MC1 latch needle steel has been developed in close cooperation with leading needle manufacturers.

It is characterized by a high degree of purity, a uniform fine grained structure and ensuring reliability in needle manufacture and good durability after hardening.

The needle strip steel has close thickness tolerances to ensure the cross-sectional shape and the needle function.

It has a clean, superior surface finish and precise edges. Consistent quality from batch to batch ensures predictable results for automated needle manufacture.



Description

UHB 20MC1 is a 1% carbon steel specifically developed for latch needles.

Advantages

- Best available wear resistance
- Close thickness tolerances
- High degree of steel purity
- Excellent durability after hardening
- Consistent and uniform quality



Consistent structure

Problems during blanking and milling in needle manufacturing are often connected to insufficient spheroidization and uneven carbide dispersion. UHB 20MC1 has been developed to ensure a material structure with fine grained well dispersed and stable carbides that gives the needles excellent wear resistance.

Mechanical properties

The tensile strength value is chosen by the individual needle manufacturer to fit his process.

Chemical composition

Steel Grade	Chemical composition [% nominal]								
	C	Si	Mn	P max	S max	Cr	Ni	V	Mo
UHB 20MC1*	1.00	0.30	0.70	0.020	0.001	0.35			

* Other steel grades are available on request.

Thickness Tolerance

Nominal strip thickness (mm)	Nominal strip width (mm)	Tolerance (± mm)		
		T2	T3	T4
0.250 < 0.315	6 < 250	0.009	0.007	0.005
	250 ≤ 320	0.011	0.008	0.006
0.315 < 0.400	6 < 250	0.011	0.008	0.006
	250 ≤ 320	0.012	0.009	0.007
0.400 < 0.500	6 < 250	0.012	0.009	0.006
	250 ≤ 320	0.014	0.010	0.007
0.500 < 0.630	6 < 250	0.014	0.010	0.007
	250 ≤ 320	0.017	0.012	0.009
0.630 < 0.800	6 < 250	0.017	0.012	0.008
	250 ≤ 320	0.020	0.014	0.010
0.800 < 1.000	6 < 250	0.019	0.013	0.009
	250 ≤ 320	0.023	0.016	0.012



Range of thickness

0.2 mm to 1.6 mm

Range of width

6 mm to 320 mm

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