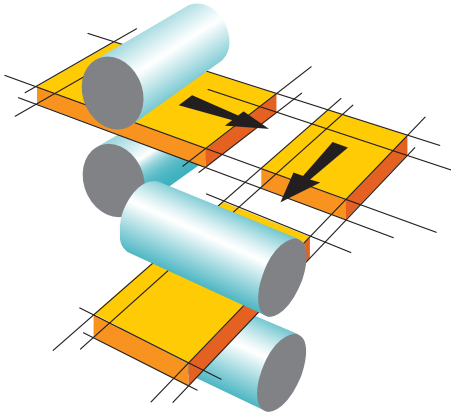


# HIGH PERFORMANCE STEEL FOR KNIVES

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Bohler-Uddeholm offers four grades of stainless knife steel: BOHLER M390 MICROCLEAR and UDDEHOLM ELMAX SUPERCLEAR are powder metallurgical steel. BOHLER N690 and BOHLER N680 are conventionally produced steel. All are made using our unique cross-rolling technology, which provides an exceptionally homogeneous sheet. All are domestically stocked.



## BOHLER M390 MICROCLEAR

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Third generation powder metal technology. Developed for knife blades requiring good corrosion resistance and very high hardness for excellent wear resistance. Chromium, molybdenum, vanadium, and tungsten are added for excellent sharpness and edge retention. Can be polished to an extremely high finish. Hardens and tempers to 60-62 HRC.

## UDDEHOLM ELMAX

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Third generation powder metal technology. Noted for its fine carbide distribution with extremely low inclusion content for virtually no chip-out. An excellent balance between corrosion resistance and edge retention. Can be polished to an extremely high finish. Hardens and tempers to 57-59 HRC.



Image courtesy of  
Benchmade Knife Company Inc.

## BOHLER N690

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Our best conventional knife steel. Great value in a corrosion resistant knife steel with excellent edge holding capabilities. Additions of chromium and vanadium enhance edge holding capability, while cobalt and carbon help to retain high hardness. Hardens and tempers to 58-60 HRC.

## BOHLER N680

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A conventional corrosion resistant steel with added chromium, molybdenum, and nitrogen for corrosion and pitting resistance, especially in salt water. Fine structure with a very good sharpness, edge retention, and grindability. Will accept a fine polish. Hardens and tempers to 56-58 HRC.

# HIGH PERFORMANCE STEEL FOR KNIVES

Third Generation Powder Metallurgy technology is the most advanced PM steel making method today. The process results in a cleaner steel (a reduction of non-metallic inclusions). This in turn increases ductility and results in better chipping resistance.

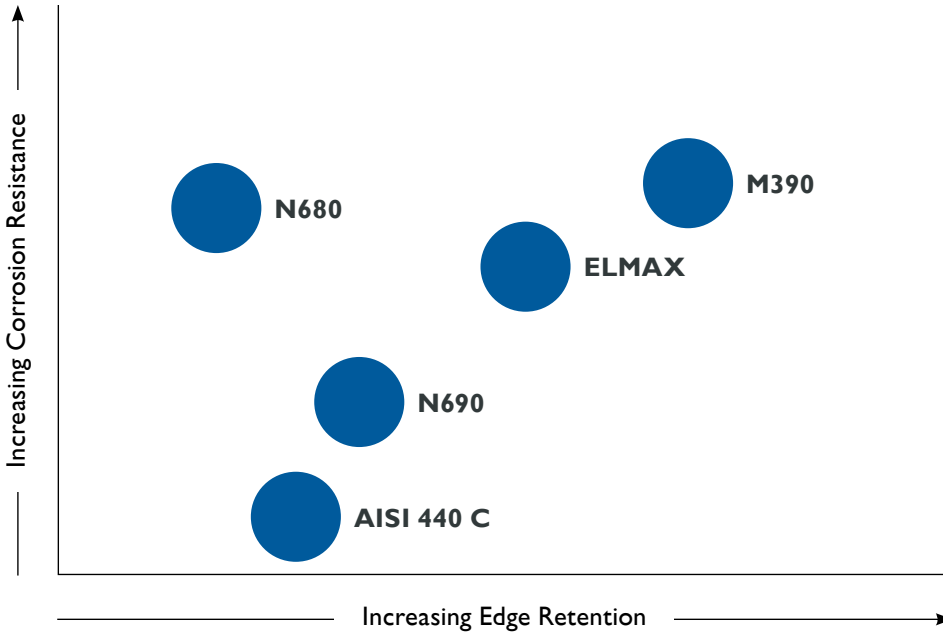


Image courtesy of Kershaw Knives.

GRADE (typical analysis, %)	C	Si	Mn	Cr	Mo	V	Co	W	N
Bohler M390 Microclean	1.90	0.70	0.30	20.00	1.00	4.00		0.60	
Uddeholm Elmax Superclean	1.70	0.80	0.30	18.00	1.10	3.00			
Bohler N690	1.05	0.40	0.40	17.00	1.10	0.10	1.50		
Bohler N680	0.55	0.45	0.40	17.30	1.10	0.10			PLUS
AISI 440 C <sup>†</sup>	1.00	1.00*	1.00*	17.30	0.75*				

\* % Maximum  
† for Reference

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