

The high grade steel chrome bar offering good strength and excellent wear resistance at competitive price.

38MnVS6

Steel grade correspondence

EN 10267	Werkstoff Nr.	DIN
39MnVS6	1.1303	39MnVS6/38MnVS6

Standard parameters

Steel grade	38MnVS6 (W1.1303)
Diameter range (metric)	19.05 - 101.60 mm
Diameter range (imperial)	3/4" - 4"
Tolerance	ISO f7 (upon request: h7) (EN ISO 286-2)
Roundness	IT / 2
Standard length	- for $\varnothing < 60$ mm: 5600 - 6200 mm - for $\varnothing \geq 60$ mm: 6000 - 7200 mm Upon request: special lengths on all diameters
Surface roughness	Ra max. 0.20 μm (statistic average: 0.05 - 0.15 μm) (EN ISO 4287)
Surface hardness	min. 55 HRC
Hardened layer depth	from 0.5 to 3.5 mm
Chrome layer thickness	< $\varnothing 20$ mm: min. 15 μm $\geq \varnothing 20$ mm: min. 20 μm
Chrome layer hardness	min. 900 HV(0.1)
Straightness	$\leq \varnothing 16$ mm: max. 0.3 mm : 1000 mm $> \varnothing 16$ mm: max. 0.2 mm : 1000 mm

Chemical composition acc. to W1.1303 (% of weight)

C	Si	Mn	P	S
0.34 - 0.41	0.15 - 0.80	1.20 - 1.60	0.025	0.020 - 0.060
Cr max	Mo max	V	N	
0.30	0.08	0.08 - 0.20	0.01 - 0.02	

Corrosion resistance properties NSS

BATCV in standard execution
For $\varnothing < 20$ mm: Rating 9 after 120 h
For $\varnothing \geq 20$ mm: Rating 9 after 200 h
BATCV with "Cromsteel-500" corrosion protection enhancement
Rating 9 after 500 h

The corrosion resistance is tested in our own internal salt spray laboratory according to ISO 10289 / ISO 9227.

By request we can guarantee material with impact test

ISO tolerances for diameter range

\varnothing	> 3 mm ≤ 6 mm	> 6 mm ≤ 10 mm	> 10 mm ≤ 18 mm	> 18 mm ≤ 30 mm	> 30 mm ≤ 50 mm	> 50 mm ≤ 80 mm	> 80 mm ≤ 120 mm	> 120 mm ≤ 180 mm	> 180 mm ≤ 200 mm
f7	-10 μm -22 μm	-13 μm -28 μm	-16 μm -34 μm	-20 μm -41 μm	-25 μm -50 μm	-30 μm -60 μm	-36 μm -71 μm	-43 μm -83 μm	-50 μm -96 μm
h7	0 μm -12 μm	0 μm -15 μm	0 μm -18 μm	0 μm -21 μm	0 μm -25 μm	0 μm -30 μm	0 μm -35 μm	0 μm -40 μm	0 μm -46 μm

Mechanical properties acc. to W1.1303 (HR)

\varnothing (mm)	Rm Tensile strength (N/mm ²)	Rp0.2 Yield point (N/mm ²)	A5 Elongation (%)
$\varnothing \leq 100$	800 - 950	min 520	min 12
100 < $\varnothing \leq 200$	800 - 1000	min 520	min 12

1 MPa = 1 N/mm²
1 KSI = 6.8947 N/mm²

Diameter range

\varnothing (mm)	\varnothing (inch)	weight (Kg/m)	\varnothing (mm)	\varnothing (inch)	weight (Kg/m)	\varnothing (mm)	\varnothing (inch)	weight (Kg/m)
19.05	3/4"	2.24	36		7.99	63.5	2" 1/2	24.85
20		2.46	38		8.90	65		26.03
22		2.98	38.1	1" 1/2	8.94	69.85	2" 3/4	30.06
22.225	7/8"	3.04	40		9.86	70		30.19
24		3.55	42		10.87	75		34.66
25		3.85	44.45	1" 3/4	12.17	76.2	3"	35.78
25.4	1"	3.98	45		12.48	80		39.44
28		4.93	50		15.41	82.55	3" 1/4	41.99
28.575	1" 1/8	5.03	50.8	2"	15.90	85		44.52
30		5.55	55		18.64	88.9	3" 1/2	48.70
31.75	1" 1/4	6.21	56		19.32	90		49.91
32		6.31	57.15	2" 1/4	20.13	95		55.61
34.925	1" 3/8	7.52	60		22.18	100		61.62
35		7.55	63		24.46	101.6	4"	63.61

More diameters can be supplied upon request.

Packaging options

Each bar is individually packed in high-quality plastic extrusion sleeve (food industry grade polyethylene). The plastic sleeve is marked for full traceability with the following information:

- Cromsteel trademark
- product code
- outside diameter
- tolerance
- heat number
- date of production
- shift and operator code

The bars are then packed together in bundles and/or in wooden boxes.

Other packaging options are available, like:

- pallets for cut and machined parts
- plastic rings (instead of plastic extrusion sleeve)
- cardboard tubes (instead of plastic extrusion sleeve)
- aluminium vacuum bags (for sea freight)
- special protection oiling