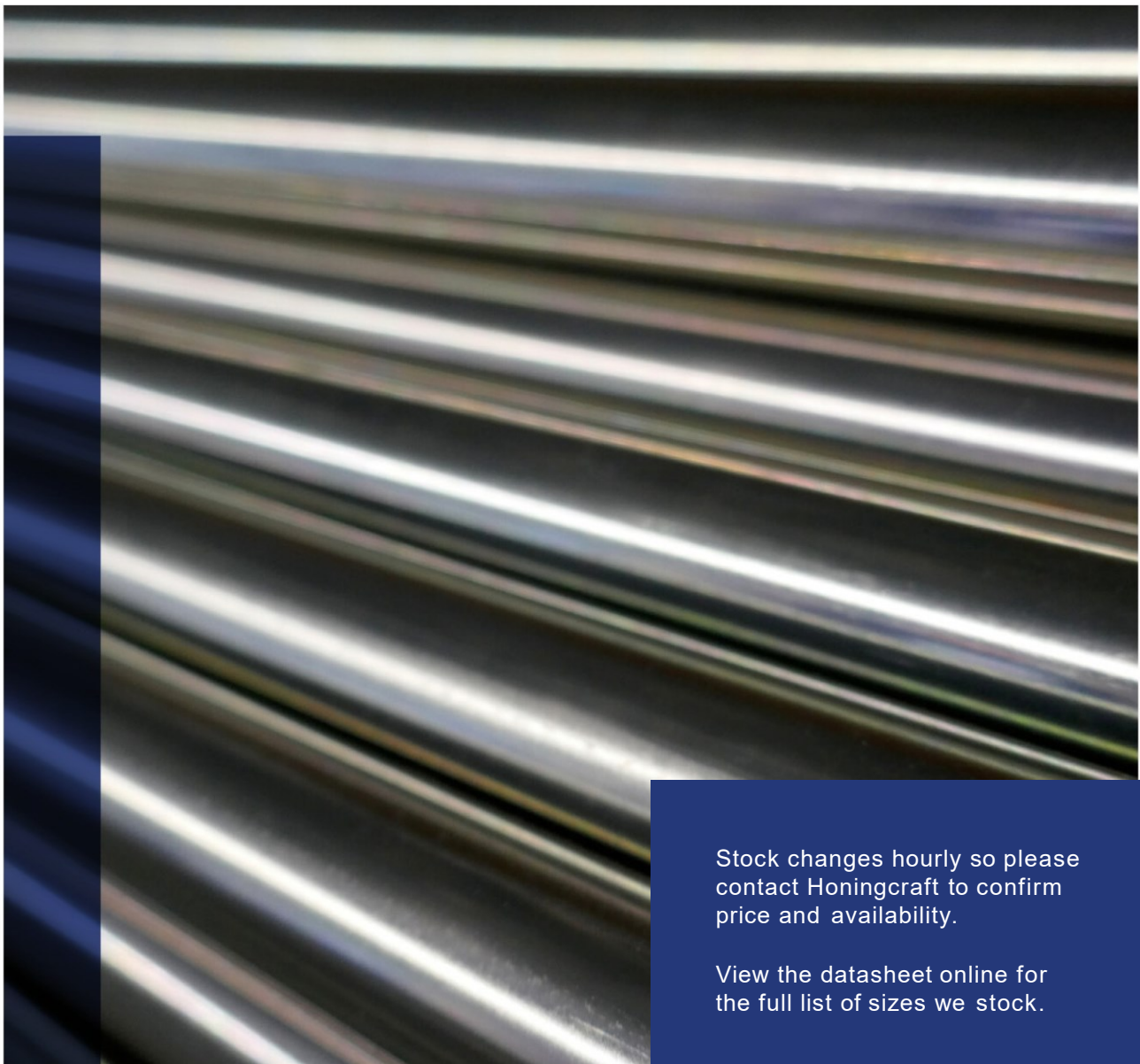




CHROME BAR

Honingcraft sources and manufactures only the best CK45 Chrome Bars. We stock all popular sizes in the metric and imperial ranges. Chrome Bars are wrapped in 1 mm thick plastic to protect against impact during delivery.

Standard Production	Diameter Tolerance	Standard Product Range	Production Range by Request
Ck 45	ISO f7 ovality ISO f7/3	6 mm – 127 mm and up to 6 m in length	130 mm to 350 mm



Stock changes hourly so please contact Honingcraft to confirm price and availability.

View the datasheet online for the full list of sizes we stock.



CHROME BAR

INDUCTION HARDENED AND CHROME PLATED STEEL BARS

STEEL GRADES CORRESPONDENTS

EN	Werkstoff	DIN	B.S.	UNI	JIS	GOST	AISI / SAE / ASTM
C45E	1.1191	Ck45	080M46	C45	S45C	45	1045

CHEMICAL COMPOSITION - IN % BY WEIGHT

Steel grade	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	N
C45E	0.42±0.50	0.10±0.40	0.50±0.80	max. 0.025	max. 0.035	max. 0.40	max. 0.10	max. 0.40	max. 0.30	-	-

* Cr+Mo+Ni = max. 0.63

MECHANICAL PROPERTIES

Steel grade	Diameter Ø, mm	Tensile strength R _m , N/mm ²	Yield point R _{p0.2} , N/mm ²	Elongation A ₅ , %	Impact energy KV ₂ , J	Hardness* Brinell N/mm ²	Norm
C45E	6 < Ø ≤ 10	750 - 1050	min. 565	min. 5	-	225 - 320	EN 10277
	10 < Ø ≤ 16	710 - 1030	min. 500	min. 5		210 - 315	
	16 < Ø ≤ 40	650 - 1000	min. 410	min. 7		200 - 298	
	18 ≤ Ø ≤ 100	min. 580	min. 305	min. 16		172 - 242	EN ISO 683-1
	100 < Ø ≤ 200	min. 560	min. 275	min. 16		172 - 242	

* The hardness values are for information only

Dimensions	12-150mm / 3/4-5"
Diameter tolerance	ISO f7
Roundness	max. 1/2 from diameter tolerance
Standard lengths	6m cut to customer specification
Special lengths	On request we can offer cut to fix lengths pieces and special lengths up to 11.500 mm
Surface roughness	Ra: max. 0.20 µm
Chrome layer thickness	Ø < 20 mm: min. 15 µm Ø ≥ 20 mm: min. 20 µm
Chrome layer microhardness	min. 900 HV0.1
Straightness	Ø > 16 mm: max. 0.2 mm/1000 mm

TABLE OF DIMENSIONS TOLERANCE

Diameter, mm	ISO f7, µm
12 < Ø ≤ 18	-16 / -34
18 < Ø ≤ 30	-20 / -41
30 < Ø ≤ 50	-25 / -50
50 ≤ Ø ≤ 80	-30 / -60
80 < Ø ≤ 120	-36 / -71
120 < Ø ≤ 150	-43 / -83

CORROSION RESISTANCE LEVELS

Production	Diameter, mm	Mild corrosion resistance	
		NSS	AASS
Regular	Ø < 20	rating 9 after 72h	
	Ø < 20	rating 9 after 120h	rating 9 after 48h

Tested according to ISO 9227,
 evaluated according to ISO 10289

CHROME BAR

Chrome Bar is durable and resists corrosion and wear. Use induction hardened Chrome Bar when cylinder rods will be exposed to damage from impact.



CORRESPONDENCE BETWEEN STEEL GRADE AND SURFACE HARDNESS

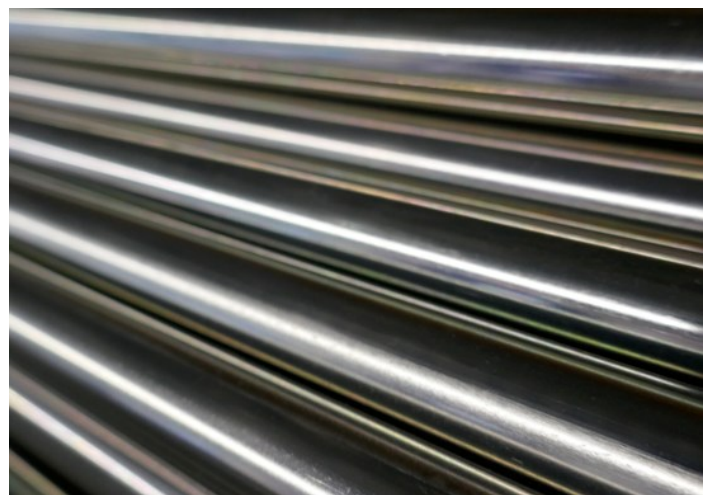
	C45E
Surface hardness beneath the chrome layer	58±3 HRC

HARDENING DEPTH

Diameter, mm	C45E, mm
6	0.5-0.8
6.35 - 12	0.6-1.0
12.7 - 15	0.8-1.4
15.875 - 18	1.1-1.5
19 - 19.05	1.2-1.5
20	1.2-1.5
22 - 25.4	1.4-1.7
28	1.5-1.8
28.575	1.5-1.8
30 - 36	1.5-1.9
38 - 40	1.7-2.3
42.42 - 45	1.7-2.3
50 - 80	2.2-2.6
82 - 101.6	2.2-3.2
105 - 120	2.5-3.5
125 - 140	2.5-3.5
145 - 180	2.8-4.0

STORAGE AND HANDLING RECOMMENDATIONS

- Keep the products stored in dry and covered spaces.
- Do not expose the bars or tubes to the sunlight or to very low temperatures for a long time.
- For storage, preferable to use rubber supports or wood lined supports; direct contact with the floor and steel supports that are not lined with soft materials must be avoided.
- Whenever possible, use the crane to load or unload the bundles; when you use the fork lift avoid direct contact with the forks and the products.
- Always lift the bundles using textile slings. Don't use metal slings while handling the bundles.
- Keep protective plastic or cardboard on the products while they are in storage.





CHROME BAR SIZES

SIZE	SIZE
12mm	57.15mm (2 ¼")
16mm	60mm
18mm	63mm
19mm	63.5mm (2 ½")
19.05mm (¾")	65mm
20mm	69.85mm (2 ¾")
22mm	70mm
22.22mm (7/8")	75mm
25mm	76.2mm (3")
25.4mm (1")	80mm
28mm	82.55mm (3 ¼")
28.575mm (1 1/8")	85mm
30mm	88.9mm (3 ½")
31.75mm (1 ¼")	90mm
32mm	95mm
33mm	95.25mm (3 ¾")
35mm	100mm
36mm	101.6mm (4")
38mm	105mm
38.1mm (1 ½")	110mm
40mm	115mm
44.45mm (1 ¾")	120mm
45mm	125mm
50mm	127mm (5")
50.8mm (2")	130mm
55mm	140mm
56mm	150mm

