

WEAR

Tungsten Carbide Rolls



EXTREME WEAR RESISTANCE AND TOUGHNESS

————— *Our superior quality tungsten carbide mill rolls are manufactured to customers' needs.*

elementsix[™]
a De Beers Group Company

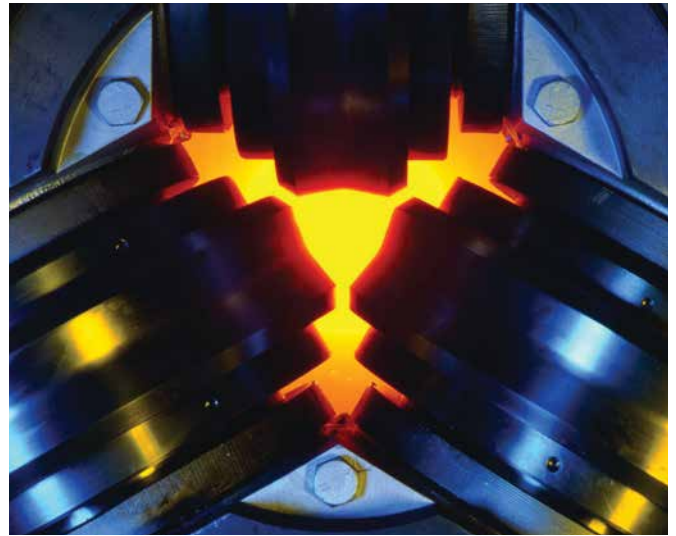
CUSTOMISED, SUPERIOR QUALITY TUNGSTEN CARBIDE ROLLS

For over 60 years, Element Six has been manufacturing and distributing superior quality tungsten carbide and composite rolls. Working in partnership, we develop customised solutions that create long-term advantages for customers worldwide.

Element Six tungsten carbide rolls:

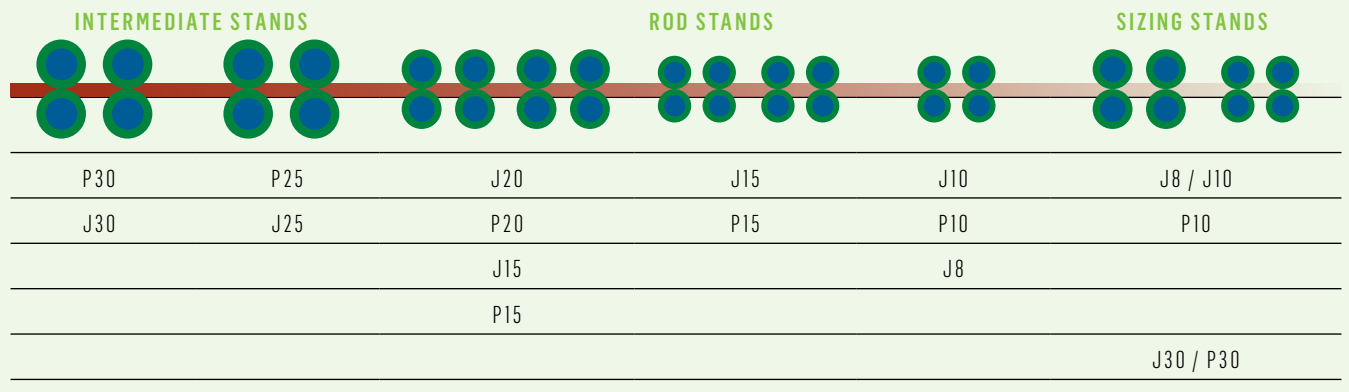
- Developed to customer specification
- Made exclusively from virgin materials
- For hot and cold rolling, with or without pass grooves
- For tube rolling
- Available in various standard grades and in diameters of up to 415mm
- Offer excellent surface finish of the rolled product
- For guide rolls

Element Six designs, develops and produces synthetic diamond and tungsten carbide supermaterials for numerous industries; from construction, mining and tunnelling, to oil and gas, textiles, automotive and agriculture. Our comprehensive, unrivalled quality assurance programme ensures that all our products are certified to ISO 9001:2008 quality standards.



AVAILABLE GRADES

GRADE RECOMMENDATIONS FOR MILL ROLLS



HARD METAL GRADES FOR MILL ROLLS

EG NAME	WC SINTERED GRAIN SIZE	CO IN % ± 0.2	NI IN % ± 0.2	CR IN % ± 0.2	DENSITY G/CM3 ± 0.1	HARDNESS HV ± 50	HARDNESS HRA ± 0.3	TRS ISO B MPA
J6	coarse	6.00	-	-	14.93	1270	89.0	2700
J8	coarse	8.00	-	-	14.70	1220	88.3	2800
J10	coarse	10.00	-	-	14.50	1130	87.2	2800
J13	coarse	13.00	-	-	14.20	1020	85.8	2900
J15	coarse	15.00	-	-	14.00	990	85.7	3100
J20	coarse	20.00	-	-	13.55	850	83.8	3000
J25	coarse	25.00	-	-	13.10	750	82.7	3000
J30	coarse	30.00	-	-	12.70	675	81.7	2900
P8	coarse	3.60	4.00	0.40	14.70	1220	88.5	2750
P10	coarse	4.50	5.00	0.50	14.52	1150	87.7	2900
P12	coarse	5.00	6.50	0.60	14.17	980	85.4	3000
P15	coarse	6.80	7.50	0.80	13.90	875	84.1	3100
P20	coarse	9.20	10.60	1.20	13.45	820	83.4	3100
P25	coarse	11.00	12.60	1.40	13.05	700	81.9	3000
P30	coarse	14.00	15.00	1.50	12.65	605	80.8	2900

ELEMENT SIX

Element Six is a synthetic diamond supermaterials company and a member of the De Beers Group of Companies.

Element Six designs, develops and produces synthetic diamond supermaterials, and operates worldwide with its head office registered in Luxembourg, and primary manufacturing facilities in China, Germany, Ireland, South Africa, US and the UK.

Element Six supermaterial solutions are used in applications such as cutting, grinding, drilling, shearing and polishing, while the extreme properties of synthetic diamond beyond hardness are already opening up new applications in a wide array of industries such as optics, power transmission, water treatment, semiconductors and sensors.

If you would like to know more about Element Six please visit our website at www.e6.com.

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