

**LIEFERPROGRAMM**  
**DELIVERY PROGRAM**  
***PROGRAMME DE VENTE***  
**PROGRAMMA DI VENDITA**

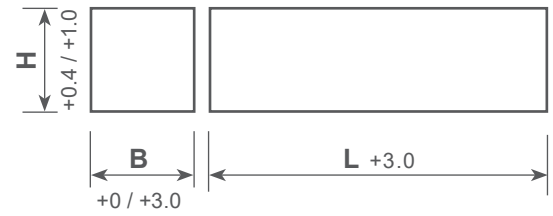
**Schnitt- & Stanztechnik**  
**Cutting & Punching industry**  
***Industrie de Découpage-Emboutissage & Frappe***  
Tranciatura & Stampaggio

# Erodierblöcke | sinterroh | mit Schleifzugabe

Carbide blocks for wire erosion | sintered | with grinding allowance

Blocs pour l'électroérosion par fil | bruts | avec surépaisseurs

Blocchi per elettroerosione | sinterizzati | con sovrametallo



H	B	L	EMT				Artikel Nr.
			210	409	812	815	Item No   Nr. Réf.
3.5	100	100	●	●	○	○	086035100100xxx
3.5	100	150	●	●	○	○	086035100150xxx
4.5	100	100	●	●	○	○	086045100100xxx
4.5	100	150	●	●	○	○	086045100150xxx
6.5	100	100	●	●	○	○	086065100100xxx
6.5	100	150	●	●	○	○	086065100150xxx
8.5	100	100	●	●	○	○	086085100100xxx
8.5	100	150	●	●	○	○	086085100150xxx
10.5	100	100	●	●	●	○	086105100100xxx
10.5	100	150	●	●	●	○	086105100150xxx
12.5	100	100	●	●	●	○	086125100100xxx
12.5	100	150	●	●	●	○	086125100150xxx
13.5	100	100	●	●	●	○	086135100100xxx
13.5	100	150	●	●	●	○	086135100150xxx
15.5	100	100	●	●	●	○	086155100100xxx
15.5	100	150	●	●	●	○	086155100150xxx
16.5	100	100	●	●	●	○	086165100100xxx
16.5	100	150	●	●	●	○	086165100150xxx
18.5	100	100	●	●	●	○	086185100100xxx
18.5	100	150	●	●	●	○	086185100150xxx
20.5	100	100	●	●	●	○	086205100100xxx
20.5	100	150	●	●	●	○	086205100150xxx
22.5	100	100	●	●	●	○	086225100100xxx
22.5	100	150	●	●	●	○	086225100150xxx
25.5	100	100	●	●	●	○	086255100100xxx
25.5	100	150	●	●	●	○	086255100150xxx
30.5	100	100	●	●	●	○	086305100100xxx
30.5	100	150	●	●	●	○	086305100150xxx
35.5	100	150	●	●	●	○	086355100150xxx
40.5	100	150	●	●	●	○	086405100150xxx
45.5	100	150	●	●	●	○	086455100150xxx
55.5	100	150	●	●	●	○	086555100150xxx

● Standard  
○ auf Kundenwunsch  
andere Abmessungen auf Anfrage

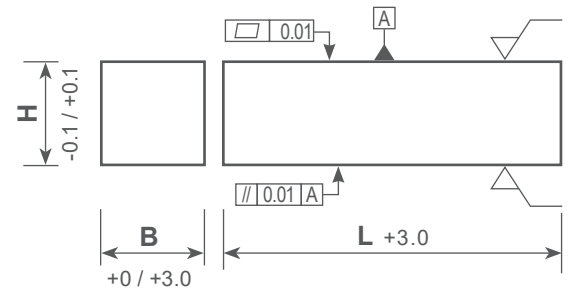
standard  
upon customer request  
other dimensions on demand

standard  
sur demande du client  
autres dimensions sur demande

standard  
su richiesta del cliente  
altre dimensioni su richiesta

## Erodierblöcke | Stärke (H) vorgeschliffen

Carbide blocks for wire erosion | thickness (H) pre-ground  
 Blocs pour l'électroérosion par fil | épaisseur (H) pré-rectifiée  
 Blocchi per elettroerosione | spessore (H) pre-rettificato



H	B	L	EMT				Artikel Nr.	
			210	409	812	815	Item No   Nr. Réf.	
3.5	100	100	●	●	○	○	286035100100xxx	
3.5	100	150	●	●	○	○	286035100150xxx	
4.5	100	100	●	●	○	○	286045100100xxx	
4.5	100	150	●	●	○	○	286045100150xxx	
6.5	100	100	●	●	○	○	286065100100xxx	
6.5	100	150	●	●	○	○	286065100150xxx	
8.5	100	100	●	●	○	○	286085100100xxx	
8.5	100	150	●	●	○	○	286085100150xxx	
10.5	100	100	●	●	●	○	286105100100xxx	
10.5	100	150	●	●	●	○	286105100150xxx	
12.5	100	100	●	●	●	○	286125100100xxx	
12.5	100	150	●	●	●	○	286125100150xxx	
13.5	100	100	●	●	●	○	286135100100xxx	
13.5	100	150	●	●	●	○	286135100150xxx	
15.5	100	100	●	●	●	○	286155100100xxx	
15.5	100	150	●	●	●	○	286155100150xxx	
16.5	100	100	●	●	●	○	286165100100xxx	
16.5	100	150	●	●	●	○	286165100150xxx	
18.5	100	100	●	●	●	○	286185100100xxx	
18.5	100	150	●	●	●	○	286185100150xxx	
20.5	100	100	●	●	●	○	286205100100xxx	
20.5	100	150	●	●	●	○	286205100150xxx	
22.5	100	100	●	●	●	○	286225100100xxx	
22.5	100	150	●	●	●	○	286225100150xxx	
25.5	100	100	●	●	●	○	286255100100xxx	
25.5	100	150	●	●	●	○	286255100150xxx	
30.5	100	100	●	●	●	○	286305100100xxx	
30.5	100	150	●	●	●	○	286305100150xxx	
35.5	100	150	●	●	●	○	286355100150xxx	
40.5	100	150	●	●	●	○	286405100150xxx	
45.5	100	150	●	●	●	○	286455100150xxx	
55.5	100	150	●	●	●	○	286555100150xxx	

### Ihre Sortenauswahl - unsere Artikelreferenz

Ersetzen Sie die Ziffern «xxx» am Ende der Artikelnummer mit der gewünschten HM-Sorte z.B. 010100**100**, 010100**210** oder 010100**409** ...

Your selected grade - our item number

Please replace the «xxx» at the end of the item no. with the grade of your choice e.g. 010100**100**, 010100**210** or 010100**409** ...

Votre choix- notre nr. référence

Veillez remplacer les codes «xxx» à la fin de la référence avec la nuance de votre choix par ex. 010100**100**, 010100**210** ou 010100**409** ...

Vostra scelta - il nostro numero di articolo

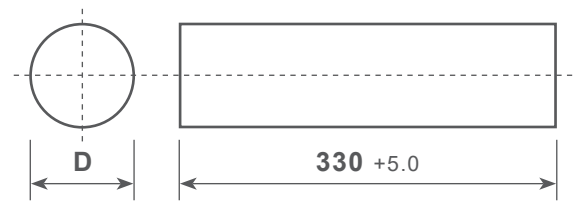
Si prega di sostituire «xxx» alla fine del numero dell'articolo con il grado di vostra scelta es. 010100**100**, 010100**210** ou 010100**409** ...

# Rundstäbe | voll | sinterroh

Round bars | solid | sintered

Barreaux ronds | pleins | bruts

Cilindretti | integrali | sinterizzati



Abmessungen in mm | Dimensions in mm | Dimensioni in mm | Dimensioni in mm

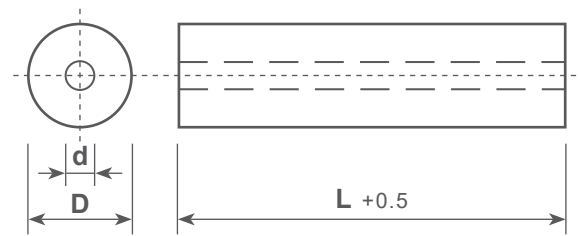
D	Tol.	EMT								Artikel Nr.
		100	210	212	409	412	609	612	812	Item No   Nr. Réf.
1.25	-0.05 / +0.15	●	●				○	●		010020xxx
1.60	-0.05 / +0.15	○	●							010035xxx
1.80	-0.05 / +0.15	●	●				●	●		010040xxx
2.25	-0.05 / +0.15	●	●				●	●		010050xxx
2.50	-0.05 / +0.15	●	●							010055xxx
2.75	-0.05 / +0.15	●	●							010060xxx
3.25	-0.05 / +0.15	●	●	●	●	●	●	●	○	010080xxx
3.45	-0.05 / +0.15	●	●		●	●	●	●		010085xxx
3.75	-0.05 / +0.15	●	●							010090xxx
4.25	-0.05 / +0.15	●	●	●	●	●	●	●	○	010100xxx
4.75	-0.05 / +0.15	●	●							010110xxx
5.25	-0.05 / +0.15	●	●		○	●	●	●		010125xxx
5.80	-0.05 / +0.15	●	●							010140xxx
6.30	-0.05 / +0.20	●	●	●	●	●	●	●	○	010150xxx
6.70	-0.05 / +0.20	●	●	○	○	●	●	●		010160xxx
7.30	-0.05 / +0.20	●	●							010180xxx
8.30	-0.05 / +0.20	●	●	●	●	●	●	●	○	010200xxx
8.80	-0.05 / +0.20	●	●							010210xxx
9.30	-0.05 / +0.20	●	●						○	010230xxx
9.80	-0.05 / +0.20	●	●		○	●	○	●		010240xxx
10.30	-0.05 / +0.20	●	●	●	●	●	●	●	○	010250xxx
10.80	-0.05 / +0.25	●	●							010260xxx
11.35	-0.05 / +0.25	●	●							010280xxx
12.30	-0.05 / +0.25	●	●	●	●	●	●	●	○	010300xxx
13.00	-0.05 / +0.25	●	●		○	●	●	●		010315xxx
13.30	-0.05 / +0.25	●	●							010320xxx
14.30	-0.05 / +0.25	●	●	○	●	●	●	●	○	010350xxx
14.80	-0.05 / +0.25	●	●							010360xxx
15.30	-0.05 / +0.30	●	●							010380xxx
16.30	-0.05 / +0.30	●	●	●	●	●	●	●	○	010400xxx
16.80	-0.05 / +0.30	○	○							010410xxx
17.30	-0.05 / +0.30	○	○							010430xxx
18.30	-0.05 / +0.30	●	●	○	●	●	●	●	○	010450xxx
19.30	-0.05 / +0.30	○	●	○		○		○		010480xxx
20.30	-0.05 / +0.30	●	●	●	●	●	●	●	○	010500xxx
21.30	-0.05 / +0.40	○	●							010520xxx
22.30	-0.05 / +0.40	○	●						○	010550xxx
23.30	-0.05 / +0.40	●	●						○	010570xxx
24.30	-0.05 / +0.40	○	●							010600xxx
25.30	-0.05 / +0.40	●	●	●	○	○	●	●	○	010630xxx
25.80	-0.05 / +0.40	○	●	○						010640xxx

## Rundstäbe | 1 Kühlkanal zentral | sinterroh

Round bars | 1 coolant hole central | sintered

Barreaux ronds | 1 trou central | bruts

Cilindretti | 1 foro centrale di refrigerazione | sinterizzati



D	Tol.	d	Tol.	L	EMT			Artikel Nr.
					210	409	812	Item No   Nr. Réf.
5.25	-0.05 / 0.15	0.50	-0.05	100	●	●	●	031125005xxx
6.30	-0.05 / 0.20	0.50	-0.05	100	●	●	●	031150005xxx
7.30	-0.05 / 0.20	0.50	-0.05	100	●	●	●	031180005xxx
8.30	-0.05 / 0.20	1.00	-0.10	100	●	●	●	031200010xxx
9.30	-0.05 / 0.20	1.00	-0.10	100	●	●	●	031230010xxx
10.30	-0.05 / 0.20	1.00	-0.10	100	●	●	●	031250010xxx
12.30	-0.05 / 0.25	2.00	-0.10	100	●	●	●	031300020xxx
14.30	-0.05 / 0.25	2.00	-0.10	100	●	●	●	031350020xxx
16.30	-0.05 / 0.30	2.00	-0.10	100	●	●	●	031400020xxx
18.30	-0.05 / 0.30	2.00	-0.10	100	●	●	●	031450020xxx
20.30	-0.05 / 0.30	2.00	-0.10	100	●	●	●	031500020xxx
22.30	-0.05 / 0.40	2.00	-0.10	100	●	●	●	031550020xxx
25.30	-0.05 / 0.40	2.00	-0.10	100	●	●	●	031630020xxx
30.30	-0.05 / 0.50	2.00	-0.10	100	●	●	●	031700020xxx
32.60	-0.10 / 0.60	2.00	-0.10	100	●	●	●	0319326020xxx

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Vostra scelta - il nostro numero di articolo

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## UNSERE HARTMETALLSORTEN | OUR TUNGSTEN CARBIDE GRADES | NOS NUANCES DE CARBURE

	Feinstkorn submicron grain micrograin		Feinkorn fine grain grain fin		Ultrafeinkorn ultrafine grain grain ultrafin		Mittelkorn medium grain grain moyen		Feinstkorn submicron grain micrograin	
	EMT100	EMT210	EMT212	EMT409	EMT412	EMT609	EMT612	EMT812	EMT815	EMT909
<b>WC</b>	93 %	89 %	87.2 %	90 %	87 %	89.5 %	86.5 %	86.8 %	85 %	90.5 %
<b>Co</b>	6 %	10 %	12 %	9 %	12 %	9 %	12 %	12 %	15 %	—
<b>Ni</b>	—	—	—	—	—	—	—	—	—	8.5 %
<b>Zusatzkarbide</b> Other carbides Autres carbures	1 %	1 %	0.8 %	1 %	1 %	1.5 %	1.5 %	1.2 %	0 %	1 %
<b>Korngrösse</b> Average grain size Dimension des grains	~0.8	~0.8	~0.8	~1.2	~1.2	~0.5	~0.5	~2.5	~2.5	<1.0
<b>Dichte ISO 3369</b> Density Densité	14.80 ±0.1	14.45 ±0.1	14.20 ±0.1	14.50 ±0.1	14.25 ±0.1	14.40 ±0.1	14.10 ±0.1	14.15 ±0.1	14.10 ±0.1	14.50 ±0.1
<b>Härte ISO3878</b> Hardness Dureté	HV 30 1'800 ±60	HV 30 1'600 ±60	HV 30 1'550 ±50	HV 30 1'550 ±60	HV 30 1'440 ±60	HV 30 1'950 ±80	HV 30 1'720 ±60	HV 30 1'330 ±50	HV 30 1'120 ±50	HV 30 1'600 ±50
<b>Biegefestigkeit</b> Transverse rupture strength Résistance à la flexion	N/mm <sup>2</sup> >3'800	N/mm <sup>2</sup> >4'200	N/mm <sup>2</sup> >4'300	N/mm <sup>2</sup> >3'500	N/mm <sup>2</sup> >4'000	N/mm <sup>2</sup> >4'000	N/mm <sup>2</sup> >4'200	N/mm <sup>2</sup> >3'200	N/mm <sup>2</sup> >3'200	N/mm <sup>2</sup> >3'500
<b>Bruchzähigkeit K<sub>1c</sub></b> Fracture toughness Résistance à la rupture	MPa* <sup>m</sup> <sup>1/2</sup> 9.4	MPa* <sup>m</sup> <sup>1/2</sup> 10.0	MPa* <sup>m</sup> <sup>1/2</sup> 11.5	MPa* <sup>m</sup> <sup>1/2</sup> 10.5	MPa* <sup>m</sup> <sup>1/2</sup> 12.3	MPa* <sup>m</sup> <sup>1/2</sup> 7.7	MPa* <sup>m</sup> <sup>1/2</sup> 7.8	MPa* <sup>m</sup> <sup>1/2</sup> 12.5	MPa* <sup>m</sup> <sup>1/2</sup> 14.0	MPa* <sup>m</sup> <sup>1/2</sup> 9.5

K<sub>1c</sub> \* nach Palmquist

Die Daten in dieser Tabelle sind typische Materialkennwerte. Änderungen der Daten im Rahmen des technischen Fortschritts oder durch betrieblich bedingte Weiterentwicklung behalten wir uns vor. \*K<sub>1c</sub>: Die gemessenen kritischen Spannungszustandsfaktoren (K<sub>1c</sub>) sind in hohem Masse von der Probengeometrie und Probenpräparation abhängig. Ein direkter Vergleich mit Werten, die mit einer anderen Verfahrensweise ermittelt wurden, ist daher nicht zulässig.

The data in this table are typical material parameters. We reserve the right to modify the data due to technical progress or due to further development within our company. \*K<sub>1c</sub>: The measured critical tension intensity factors (K<sub>1c</sub>) depend to a high degree on the sample geometry and sample preparation. A direct comparison with parameters which have been determined by means of a different method is therefore not admissible.

Les données figurant dans ce tableau représentent les paramètres spécifiques matière. Nous nous réservons le droit de modifier ces données en fonction des progrès technologiques ou de nos futurs développements. \*K<sub>1c</sub>: Les facteurs critiques d'intensité de contraintes (K<sub>1c</sub>) dépendent fortement de la géométrie et de la préparation de l'échantillon. Une comparaison directe avec des valeurs obtenues par une autre méthode n'est donc pas possible.