



**Tools cut better
with TIGRA**



-  **Rods**
-  **Rundstäbe**
-  **Barreaux cylindriques**
-  **Cilindri**
-  **Barras redondas**

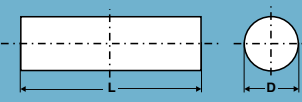
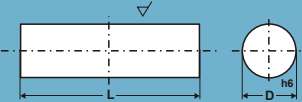
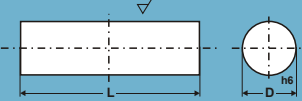


-  **Rods - TIGRA carbide grades and their applications – Technical Data**
-  **Rundstäbe - TIGRA Hartmetallsorten und ihre Anwendungen – Technische Daten**
-  **Barreaux cylindriques - Les nuances de carbures TIGRA et leurs applications – Caractéristiques techniques**
-  **Cilindri - I tipi di metallo duro TIGRA e le loro applicazioni – Dati tecnici**
-  **Barras redondas - Calidades de metal duro TIGRA y sus aplicaciones – Datos técnicos**

 TIGRA grade  TIGRA - Sorte  Nuance TIGRA  Tipo TIGRA  Calidad TIGRA	Binder	Hardness		Bending strength		Toughness
	Binder	Härte		Biegebruchfestigkeit		Zähigkeit
	Liant	Dureté		Resistance à la flexion		Ténacité
Legante	Durezza		Resistenza flessionale		Tenacità	
Composicion	Dureza		Resistencia a la flexión		Tenacidad	
	%	HV 10	HRA ± 0.2	N/mm²	psi	K _{1C} / MPa.m ^{-1/2}
T06CR ISO: K01 USA: C4 +	3.0	1950	94.0	2300	334.000	8.2
T06MG ISO: K01-K20 USA: C3 ++	6.0	1800	93.3	2700	392.000	8.2
StandardT10MG ISO: K10-K40 USA: C3 +	10.0	1650	92.3	3600	522.000	9.4
T12SMG USA: C1 ++	12.0	1700	92.7	4000	580.000	9.2

 TIGRA grade  TIGRA - Sorte  Nuance TIGRA  Tipo TIGRA  Calidad TIGRA	Main usage Hauptanwendung Principal usage Main uso Uso principal
T06CR	Highly abrasive materials like chipboard, for drilling and milling Stark abrasive Materialien wie Spanplatte, zum Bohren und Fräsen Materiaux très abrasifs comme panneau, pour forer et fraiser Materiali abrasivi come il truciolare, da forare e fresare Superabrasivo madera como aglomerados, para taladrado y fresado
T06MG	Hard wood-based materials, plastics, graphite, aluminum Harte Materialien auf Holz-Basis, Kunststoffe, Graphit, Aluminium Matériaux à la base de bois, matériaux plastiques, graphite, aluminium Materiali duri legnosi, plastici, graffite, alluminio Materiales derivados de madera, plasticos, graphito, aluminio
T10MG	Universal grade for wood and metal working Universalsorte für die Holz- und Metallbearbeitung Nuance universelle pour le travail du bois et des métaux Qualità universale per la lavorazione del legno e del metallo Grado universal para trabajos de madera y mecanica
T12SMG	Very hard grade with high wear resistance for long lifetime Sehr harte und verschleißfeste Sorte für lange Standwege Nuance très dur résistant à l'usure pour une longue durée de vie Qualità molto dura con elevata resistenza all'usura per una lunga durata Calidad ultradura y resistente al desgaste para una prolongada vida útil

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	 Rods - as sintered mm  Rundstäbe - roh mm  Barreaux cylindriques - brut mm  Cilindri - grezzo mm  Barras redondas - en bruto mm	152
	 Rods - ground mm  Rundstäbe - geschliffen mm  Barreaux cylindriques - affutée mm  Cilindri - rettificato mm  Barras redondas - afilado mm	153-156
	 Rods - ground inch  Rundstäbe - geschliffen inch  Barreaux cylindriques - affutée inch  Cilindri - rettificato inch  Barras redondas - afilado inch	157



Rods



Rundstäbe



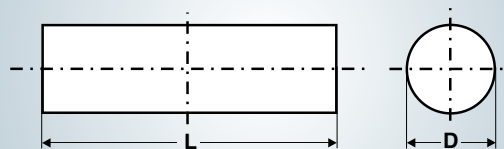
Barreaux cylindriques



Cilindri



Barras redondas



as sintered
roh
brut
grezzo
en bruto

D mm	L mm	T10MG	T06MG	T06CR	T12SMG
1.2	330	035472			
1.7	330	035473			
2.2	330	035474	036478	114889	
2.7	330	035475	036479	114890	
3.2	330	029686	032541	114891	053791
3.7	330	035476	036480	114892	
4.2	330	029688	032542	114893	053792
4.7	330	035477			
5.2	330	034420	036482	114894	053793
5.7	330	035478			
6.2	330	029690	032543	114895	053794
6.7	330	035479			
7.2	330	035480	036485	114896	053795
7.7	330	035481			
8.2	330	029692	032544	114897	053796
8.7	330	035482			
9.3	330	035483			
9.8	330	035484			
10.3	330	029694	053093	113457	053797
10.8	330	035485			
11.3	330	035486			
11.8	330	035488			
12.3	330	029696	053094	113456	053798
12.8	330	035490			
13.3	330	035492			102418

D mm	L mm	T10MG	T06MG	T06CR	T12SMG
14.3	330	029698	053095	114908	053799
14.8	330	035494			
15.3	330	035495			
16.3	330	029700	053096	113455	053800
16.8	330	035497			
17.3	330	035498			
18.3	330	029702	053097	114898	053801
18.8	330	036514			
19.3	330	035500			
20.3	330	029704	053098	114899	053802
22.3	330	035503	036503	114900	109909
23.3	330	035504	036504	114901	
24.3	330	035505			
25.3	330	029706	032551	114902	053803
25.8	330	036525			
26.3	330	035506	036506	114903	
27.3	330	036527			
28.3	330	035507	036507	114904	109910
29.3	330	036529			
30.3	330	035508	036508	114905	
31.3	330	036531			
32.3	330	035509	036509	114906	
35.5	330	036533	036532	114907	

Other grades and dimensions upon request.
Andere Sorten und Abmessungen auf Anfrage.
D'autres nuances et dimensions sur demande.
Altri tipi e dimensioni a richiesta.
Otras calidades y dimensiones bajo demanda.



Rods



Rundstäbe



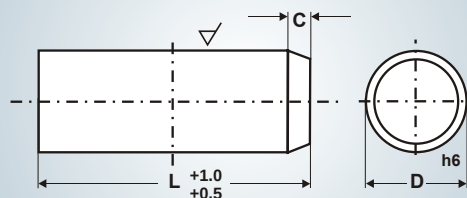
Barreaux cylindriques



Cilindri



Barras redondas



ground
geschliffen
affutée
rettificato
afilado

D mm	L mm	C mm	T10MG h6	T06MG h6	T06CR h6	T12SMG h6
1.0	330		035517			
1.5	100 330		036366 035518			
2.0	100 330		036368 035519			
2.5	50 100 330		049983 036370 035520			
3.0	38 43 50 330		053363 039162 034177 029708	100980 055446 055445 029707	114916 114915 114914 114910	109912
3.5	330		035521			
4.0	43 50 55 330		039161 034178 039104 029710	106821 034158 101012 029709	114917 114918 114919 114911	109913
4.5	330		035522			
5.0	43 50 330		052459 034179 034802	106780 034159 036541	114920 114921 114912	104207
5.5	330		035523			
6.0	46 50 55 60 70 330	0.4 0.4 0.4 0.4 0.4	102374 043244 039107 034180 043527 029712	106785 106787 101016 034160 106399 029711	114922 114923 114924 114925 114926 114913	101390
6.5	330		035524			
7.0	330		035525	036544	114927	109914
7.5	330		035526			



Rods



Rundstäbe



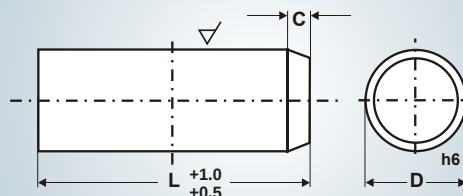
Barreaux cylindriques



Cilindri



Barras redondas

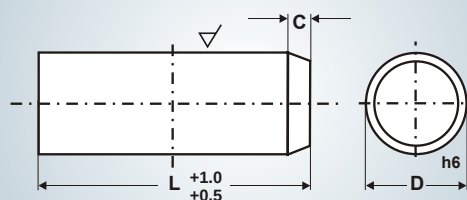


ground
geschliffen
affutée
rettificato
afilado

D mm	L mm	C mm	T10MG h6	T06MG h6	T06CR h6	T12SMG h6
8.0	50	0.6	045419	106788	114941	
	55	0.6	041602	106789	114942	
	56	0.6	102197	106790	114943	
	60	0.6	046522	102018	114944	
	70	0.6	038349	101017	114945	
	75	0.6	041481	101018	114946	
	80	0.6	034181	034161	114947	
	100	0.6	036392	036391	114948	
	330		029714	029713	114928	100702
8.5	330		035527			
9.0	330		035528			
9.5	330		035529			
10.0	65	0.6	102514	106791	114951	
	70	0.6	038350	101019	114953	
	75	0.6	038351	055813	114954	
	80	0.6	034182	106402	114955	
	90	0.6	052421	106792	114956	
	100	0.6	034183	036399	114957	
	110	0.6	111134			
	330		029716	029715	114929	100701
10.5	330		035530			
11.0	330		035531			
11.5	330		035532			
12.0	80	0.8	034184	053694	114958	
	90	0.8	038352	101020	114959	
	100	0.8	034185	034165	114960	
	110	0.8	052744	106794	114961	
	120	0.8	051331	106795	114962	
	155	0.8	106797	106796	114963	
	330		029718	029717	114930	100698
12.5	330		035533			
13.0	330		035534			

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-  Rods
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ground
 geschliffen
 affutée
 rettificato
 afilado

D mm	L mm	C mm	T10MG h6	T06MG h6	T06CR h6	T12SMG h6
14.0	90	0.8	041482	101022	114964	109915
	100	0.8	034186	034166	114965	
	110	0.8	038353	101023	114966	
	120	0.8	053659	106801	114967	
	330		029720	029719	114931	
14.5	330		035536			
15.0	330		035537			
16.0	80	0.8	052553	106412	114972	103950
	90	0.8	038354	101024	114973	
	93	0.8	106803	106802	114974	
	100	0.8	034187	034167	114975	
	110	0.8	038355	101025	114976	
	120	0.8	034188	034168	114977	
	130	0.8	053858	106805	114978	
	140	0.8	038356	101026	114979	
	150	0.8	043662	103951	114980	
	155	0.8	041603	106806	114981	
	170	0.8	052410	106807	114982	
	175	0.8	053515	106808	114983	
	180	0.8	111133			
	330		029722	029721	114932	
16.5	330		035539			
17.0	330		035540			
18.0	93	0.8	106809	106810	114984	109916
	100	0.8	034189	034169	114985	
	110	0.8	102817	106811	114986	
	115	0.8	038357	101027	114987	
	120	0.8	034190	034170	114988	
	330		029724	029723	114933	
18.5	330		036573			
19.0	330		035541			
20.0	100	1.0	034192	034172	114989	
	110	1.0	044472	106403	114990	
	115	1.0	038358	101028	114991	
	120	1.0	034193	034173	114992	
	125	1.0	100241	106812	114993	



Rods



Rundstäbe



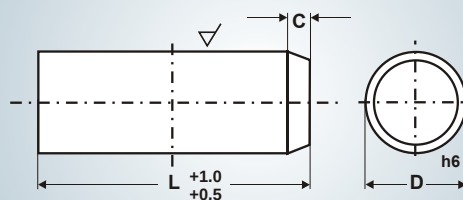
Barreaux cylindriques



Cilindri



Barras redondas



ground
geschliffen
affûtée
rettificato
afilado

D mm	L mm	C mm	T10MG h6	T06MG h6	T06CR h6	T12SMG h6
20.0	130	1.0	106044	106813	114994	
	135	1.0	039115	054819	114995	
	140	1.0	038359	101029	114996	
	145	1.0	105702	106814	114997	
	150	1.0	034194	034174	114998	
	155	1.0	100073	106815	114999	
	170	1.0	055570	106816	115000	
	330		029726	029725	114934	109917
20.5	330		036577			
21.0	330		035542			
22.0	330		035543	036562	114935	109918
23.0	330		035544			
23.5	330		036583			
24.0	330		035545			
25.0	110	1.0	102424	104306	115005	
	125	1.0	106818	106817	115006	
	155	1.0	102765	106819	115007	
	330		029728	029727	114936	109919
26.0	330		035546			
27.0	330		036587			
28.0	330		035547	036566	114937	109920
29.0	330		036589			
30.0	330		035548	036567	114938	
31.0	330		036591			
32.0	330		035549	036568	114939	
35.0	330		035552	036569	114940	

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Rods



Rundstäbe



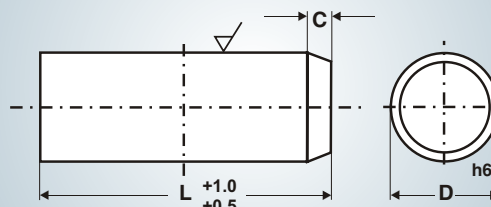
Barreaux cylindriques



Cilindri



Barras redondas

US style
inch

Dia inch	L inch	T10MG h6	T06MG h6	T06CR h6
1/8	1 1/2	049465	054851	115022
	2	049466	054852	115023
	2 1/2	049467	054853	115024
	3	050160	054854	115025
	4	049632	054855	115026
	6	049469	054856	115027
	12 1/4	050139	054926	115008
5/32	3	049470	054857	115052
	12 1/4	050140	054927	115009
3/16	1 1/2	049471	054858	115028
	2	049472	054859	115029
	2 1/2	050165	054860	115030
	3	100251		
	12 1/4	050147	054929	115010
7/32	12 1/4	050148	054930	115011
15/64	12 1/4	050149	054931	115012
1/4	1 1/2	049474	054873	115031
	2	049475	054861	115032
	2 1/2	049476	053113	115033
	3	050169	053114	115034
	4	050170	054862	115035
	12 1/4	050150	054821	115013
5/16	2 1/2	054350		
	3 1/2	100287		
	4	100646		
	12 1/4	050151	054933	115014
3/8	2 1/2	049477	054863	115036
	3	049478	053115	115037
	4	049633	054864	115038
	6	049480	054865	115039
	12 1/4	050152	054934	115015
7/16	3	101122		
	6	101668		
	12 1/4	050153	054935	115016

Dia inch	L inch	T10MG h6	T06MG h6	T06CR h6
1/2	2	050175	054866	115040
	2 1/2	050176	054867	115041
	3	049481	053116	115042
	3 1/2	045137	053117	115043
	4	049482	054868	115044
	6	101183		
	12 1/4	050154	054936	115017
9/16	12 1/4	050155	054937	115018
5/8	3	049483	054869	115045
	3 1/2	050180	054870	115046
	4	049484	053118	115047
	5	050182	054871	115048
	12 1/4	050156	054939	115019
3/4	4	050183	053119	115049
	5	054148		
	6	055232		
	12 1/4	050157	054822	115020
1	5	050184	054872	115050
	6	100224		
	12 1/4	050158	054824	115021