

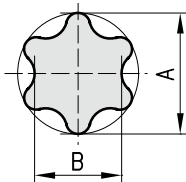
Brocche Standard e con passaggio refrigerante per chiavi TORX® Standard Broaches and with internal flow of coolant for TORX® wrenches

per Brocchiatori Standard serie "BR"
for "BR" Standard Broaching Heads series

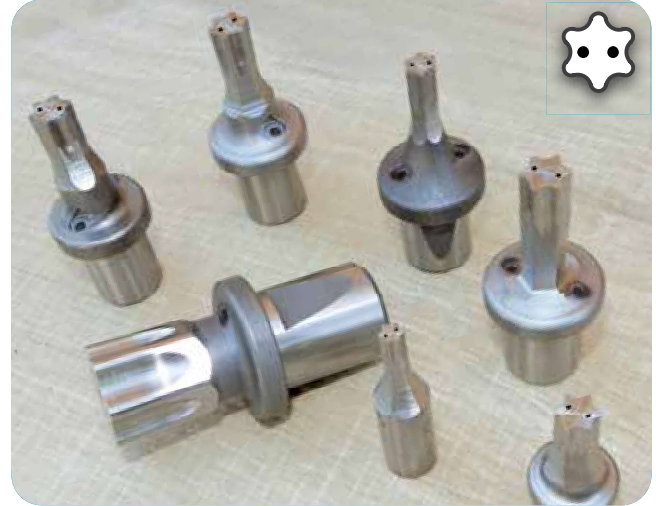


I L'originale disegno delle cave per chiavi TORX® consente, in dimensioni contenute, di esercitare una coppia di serraggio molto elevata senza compromettere l'integrità della cava.

GB The original design of the holes for TORX® wrenches makes it possible to exert a very high torque, despite the limited dimensions, without damaging the hole.

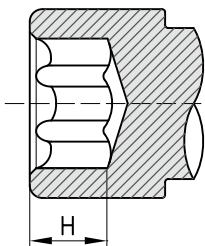
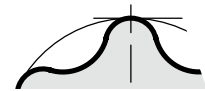
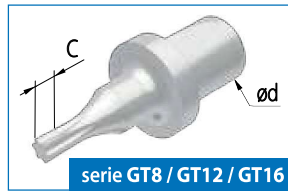
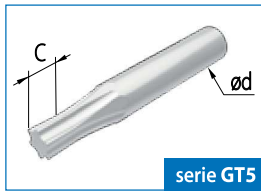
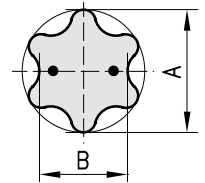


per Brocchiatori serie "BRC"
for Broaching Heads "BRC" series



I Brocche per realizzazione di cave per chiavi TORX® per utilizzo su brocchiatori serie "BRC" con passaggio refrigerante interno per poter avere una maggiore durata della broccia, una minore rugosità e poter lavorare materiali molto tenaci.

GB Broaches for TORX profiles suitable for broaching heads BRC series with internal flow of coolant. The flow of coolant increases the broach productivity, assures a minor roughness on the work-piece and helps to machine harder materials.



					per brocchiatori serie for broaching heads BR-G5		per brocchiatori serie for broaching heads BR-G8S / BR-G8M / BR-G8 / BRC-G8					
					ød = 5		ød = 8					
A	B	C	H max (*)	TORX®	ARTICOLO (materiale) ITEM (material)		ARTICOLO (materiale) ITEM (material)					
					HSS	SINTERIZ.	HSS		SINTERIZZATO / SINTERED			
					Standard	Standard	Standard	Ref. / Cool.	Standard	Ref. / Cool.		
1,214	0,884	1,2	0,40	3	GT5-T3	GT5K-T3	GT8-T3	/	GT8K-T3	/		
1,374	0,996	1,2	0,50	4	GT5-T4	GT5K-T4	GT8-T4		GT8K-T4			
1,499	1,097	1,5	1,00	5	GT5-T5	GT5K-T5	GT8-T5		GT8K-T5			
1,778	1,293	1,7	1,20	6	GT5-T6	GT5K-T6	GT8-T6		GT8K-T6			
2,095	1,521	1,7	1,50	7	GT5-T7	GT5K-T7	GT8-T7		GT8K-T7			
2,418	1,756	2,0	1,70	8	GT5-T8	GT5K-T8	GT8-T8		GT8C-T8		GT8K-T8	GT8KC-T8
2,603	1,889	2,0	1,70	9	GT5-T9	GT5K-T9	GT8-T9		GT8C-T9		GT8K-T9	GT8KC-T9
2,844	2,057	2,0	2,00	10	GT5-T10	GT5K-T10	GT8-T10	GT8C-T10	GT8K-T10	GT8KC-T10		
3,378	2,438	3,0	3,00	15	GT5-T15	GT5K-T15	GT8-T15	GT8C-T15	GT8K-T15	GT8KC-T15		
3,962	2,857	3,5	3,00	20	GT5-T20	GT5K-T20	GT8-T20	GT8C-T20	GT8K-T20	GT8KC-T20		
4,559	3,276	4,0	3,50	25	GT5-T25	GT5K-T25	GT8-T25	GT8C-T25	GT8K-T25	GT8KC-T25		
5,118	3,672	4,0	3,50	27	/	/	GT8-T27	GT8C-T27	GT8K-T27	GT8KC-T27		
5,651	4,064	4,5	3,50	30	/	/	GT8-T30	GT8C-T30	GT8K-T30	GT8KC-T30		
6,807	4,889	5,0	4,00	40	/	/	GT8-T40	GT8C-T40	GT8K-T40	GT8KC-T40		

					per brocciatori serie for broaching heads BR-G12 / BR-G12B / BRC-G12 / BRC-G12B				per brocciatori serie for broaching heads BR-G16			
					ød = 12				ød = 16			
A	B	C	H max (*)	TORX®	ARTICOLO (materiale) ITEM (material)				ARTICOLO (materiale) ITEM (material)			
					HSS		SINTERIZZATO / SINTERED		HSS		SINTERIZ.	
					Standard	Ref. / Cool.	Standard	Ref. / Cool.	Standard	Standard	Standard	Standard
1,214	0,884	1,2	0,40	3	GT12-T3		GT12K-T3					
1,374	0,996	1,2	0,50	4	GT12-T4		GT12K-T4					
1,499	1,097	1,5	1,00	5	GT12-T5	/	GT12K-T5	/				
1,778	1,293	1,7	1,20	6	GT12-T6		GT12K-T6		/	/		
2,095	1,521	1,7	1,50	7	GT12-T7		GT12K-T7					
2,418	1,756	2,0	1,70	8	GT12-T8	GT12C-T8	GT12K-T8	GT12KC-T8				
2,603	1,889	2,0	1,70	9	GT12-T9	GT12C-T9	GT12K-T9	GT12KC-T9				
2,844	2,057	2,0	2,00	10	GT12-T10	GT12C-T10	GT12K-T10	GT12KC-T10	GT16-T10	GT16K-T10		
3,378	2,438	3,0	3,00	15	GT12-T15	GT12C-T15	GT12K-T15	GT12KC-T15	GT16-T15	GT16K-T15		
3,962	2,857	3,5	3,00	20	GT12-T20	GT12C-T20	GT12K-T20	GT12KC-T20	GT16-T20	GT16K-T20		
4,559	3,276	4,0	3,50	25	GT12-T25	GT12C-T25	GT12K-T25	GT12KC-T25	GT16-T25	GT16K-T25		
5,118	3,672	4,0	3,50	27	GT12-T27	GT12C-T27	GT12K-T27	GT12KC-T27	GT16-T27	GT16K-T27		
5,651	4,064	4,5	3,50	30	GT12-T30	GT12C-T30	GT12K-T30	GT12KC-T30	GT16-T30	GT16K-T30		
6,807	4,889	5,0	4,00	40	GT12-T40	GT12C-T40	GT12K-T40	GT12KC-T40	GT16-T40	GT16K-T40		
7,975	5,689	5,5	5,20	45	GT12-T45	GT12C-T45	GT12K-T45	GT12KC-T45	GT16-T45	GT16K-T45		
8,991	6,502	6,0	6,00	50	GT12-T50	GT12C-T50	GT12K-T50	GT12KC-T50	GT16-T50	GT16K-T50		
11,404	8,089	7,0	7,00	55	GT12-T55	GT12C-T55	GT12K-T55	GT12KC-T55	GT16-T55	GT16K-T55		
13,487	9,677	7,5	7,50	60	GT12-T60	GT12C-T60	GT12K-T60	GT12KC-T60	GT16-T60	GT16K-T60		
15,773	11,264	8,0	8,00	70	/	/	/	/	GT16-T70	GT16K-T70		

					per brocciatori serie for broaching heads BR-G16M / BRC-G16M				per brocciatori serie for broaching heads BR-G16L / BRC-G16L			
					ød = 16				ød = 16			
A	B	C	H max (*)	TORX®	ARTICOLO (materiale) ITEM (material)				ARTICOLO (materiale) ITEM (material)			
					HSS		SINTERIZZATO / SINTERED		HSS		SINTERIZZATO / SINTERED	
					Standard	Ref. / Cool.	Standard	Ref. / Cool.	Standard	Ref. / Cool.	Standard	Ref. / Cool.
3,962	2,857	3,5	3,00	20	GT16M-T20	GT16MC-T20	GT16MK-T20	GT16MKC-T20				
4,559	3,276	4,0	3,50	25	GT16M-T25	GT16MC-T25	GT16MK-T25	GT16MKC-T25	/	/	/	/
5,118	3,672	4,0	3,50	27	GT16M-T27	GT16MC-T27	GT16MK-T27	GT16MKC-T27				
5,651	4,064	4,5	3,50	30	GT16M-T30	GT16MC-T30	GT16MK-T30	GT16MKC-T30	GT16L-T30	GT16LC-T30	GT16LK-T30	GT16LKC-T30
6,807	4,889	5,0	4,00	40	GT16M-T40	GT16MC-T40	GT16MK-T40	GT16MKC-T40	GT16L-T40	GT16LC-T40	GT16LK-T40	GT16LKC-T40
7,975	5,689	5,5	5,20	45	GT16M-T45	GT16MC-T45	GT16MK-T45	GT16MKC-T45	GT16L-T45	GT16LC-T45	GT16LK-T45	GT16LKC-T45
8,991	6,502	6,0	6,00	50	GT16M-T50	GT16MC-T50	GT16MK-T50	GT16MKC-T50	GT16L-T50	GT16LC-T50	GT16LK-T50	GT16LKC-T50
11,404	8,089	7,0	7,00	55	GT16M-T55	GT16MC-T55	GT16MK-T55	GT16MKC-T55	GT16L-T55	GT16LC-T55	GT16LK-T55	GT16LKC-T55
13,487	9,677	7,5	7,50	60	GT16M-T60	GT16MC-T60	GT16MK-T60	GT16MKC-T60	GT16L-T60	GT16LC-T60	GT16LK-T60	GT16LKC-T60
15,773	11,264	8,0	8,00	70	GT16M-T70	GT16MC-T70	GT16MK-T70	GT16MKC-T70	GT16L-T70	GT16LC-T70	GT16LK-T70	GT16LKC-T70

(*) = quota di profondità MAX standard su impronta di vite commerciale / Measure of MAX standard depth imprint by commercial screws

In questi articoli possiamo eseguire i seguenti rivestimenti: **HDP RED, WONDER, TiN, INOX PLUS e ZIRINOS** > vedi pag.16
Available coatings for the up above mentioned items: **HDP RED, WONDER, TiN, INOX PLUS and ZIRINOS** > see page 16



Brocche Standard e con passaggio refrigerante per chiavi TORX® PLUS Standard Broaches and with internal flow of coolant for TORX® PLUS wrenches

per Brocchiatori Standard serie "BR"
for "BR" Standard Broaching Heads series

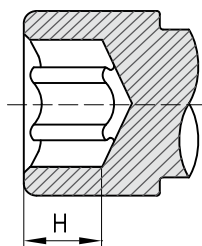
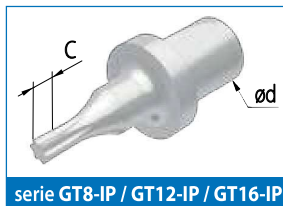
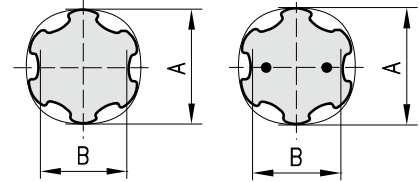


per Brocchiatori serie "BRC"
for Broaching Heads "BRC" series



I Il profilo TORX® PLUS è un'evoluzione della precedente impronta TORX®. La variante TORX® PLUS consente una maggiore forza di presa sul pezzo e conseguentemente una elevata tenuta della coppia di serraggio. Ciò significa che l'impronta esalobata richiede una profondità della cava relativamente inferiore rispetto alla versione TORX® e nello stesso tempo garantisce più a lungo l'integrità della figura stessa. La geometria ellittica del profilo TORX® PLUS amplia la superficie di contatto consentendo un migliore e più efficace accoppiamento della chiave con la cava esalobata. In questo modo si garantisce una riduzione dello stress di torsione e di conseguenza una vita più lunga dell'utensile. Anche per il profilo TORX e TORX PLUS esiste la versione per brocchiatori serie "BRC" che consente di poter lavorare materiali molto tenaci e avere una maggiore durata della broccia e una minore rugosità della cava.

GB TORX® PLUS profile is an enhancement of the older TORX® shape. TORX® PLUS drive system maximizes engagement between driver and fastener and optimizes torque transmission. This means the depth of the profile can be shorter than TORX® old version, even if at the same time TORX® PLUS assures a much longer life of the tools. The elliptically based geometry of the TORX® PLUS profile broadens contact surface guaranteeing a better engagement between driver and fastener than old TORX® shape. This feature virtually eliminates radial stresses and increase tool life. Broaches suitable for broaching heads with internal flow of coolant BRC series are available with TORX PLUS profiles too. The internal flow of coolant helps to machine harder materials and assures a higher broach productivity and a minor roughness on the work-piece.



A	B	C	H max (*)	TORX®	per brocchiatori serie for broaching heads BR-G5		per brocchiatori serie for broaching heads BR-G8S / BR-G8M / BR-G8 / BRC-G8				
					ød = 5		ød = 8				
					ARTICOLO (materiale) ITEM (material)		ARTICOLO (materiale) ITEM (material)		ARTICOLO (materiale) ITEM (material)		ARTICOLO (materiale) ITEM (material)
HSS		SINTERIZ.		HSS		SINTERIZZATO / SINTERED					
Standard		Standard		Standard		Ref. / Cool.		Standard		Ref. / Cool.	
1,778	1,381	1,7	1,20	6	GT5-IP6	GT5K-IP6	GT8-IP6	/	GT8K-IP6	/	/
2,095	1,606	1,7	1,50	7	GT5-IP7	GT5K-IP7	GT8-IP7	/	GT8K-IP7	/	/
2,418	1,860	2,0	1,70	8	GT5-IP8	GT5K-IP8	GT8-IP8	GT8C-IP8	GT8K-IP8	GT8KC-IP8	
2,603	2,014	2,0	1,70	9	GT5-IP9	GT5K-IP9	GT8-IP9	GT8C-IP9	GT8K-IP9	GT8KC-IP9	
2,844	2,174	2,0	2,00	10	GT5-IP10	GT5K-IP10	GT8-IP10	GT8C-IP10	GT8K-IP10	GT8KC-IP10	
3,378	2,606	3,0	3,00	15	GT5-IP15	GT5K-IP15	GT8-IP15	GT8C-IP15	GT8K-IP15	GT8KC-IP15	
3,962	3,088	3,5	3,00	20	GT5-IP20	GT5K-IP20	GT8-IP20	GT8C-IP20	GT8K-IP20	GT8KC-IP20	
4,559	3,492	4,0	3,50	25	GT5-IP25	GT5K-IP25	GT8-IP25	GT8C-IP25	GT8K-IP25	GT8KC-IP25	
5,651	4,391	4,5	3,50	30	/	/	GT8-IP30	GT8C-IP30	GT8K-IP30	GT8KC-IP30	
6,807	5,283	5,0	4,00	40	/	/	GT8-TIP40	GT8C-IP40	GT8K-IP40	GT8KC-IP40	

					per brocciatori serie for broaching heads BR-G12 / BR-G12B / BRC-G12 / BRC-G12B				per brocciatori serie for broaching heads BR-G16	
					$\varnothing d = 12$				$\varnothing d = 16$	
A	B	C	H max (*)	TORX®	ARTICOLO (materiale) ITEM (material)				ARTICOLO (materiale) ITEM (material)	
					HSS		SINTERIZZATO / SINTERED		HSS	SINTERIZ.
					Standard	Ref. / Cool.	Standard	Ref. / Cool.	Standard	Standard
1,778	1,381	1,7	1,20	6	GT12-IP6	/	GT12K-IP6	/	/	/
2,095	1,606	1,7	1,50	7	GT12-IP7	/	GT12K-IP7	/	/	/
2,418	1,860	2,0	1,70	8	GT12-IP8	GT12C-IP8	GT12K-IP8	GT12KC-IP8	/	/
2,603	2,014	2,0	1,70	9	GT12-IP9	GT12C-IP9	GT12K-IP9	GT12KC-IP9	/	/
2,844	2,174	2,0	2,00	10	GT12-IP10	GT12C-IP10	GT12K-IP10	GT12KC-IP10	GT16-IP10	GT16K-IP10
3,378	2,606	3,0	3,00	15	GT12-IP15	GT12C-IP15	GT12K-IP15	GT12KC-IP15	GT16-IP15	GT16K-IP15
3,962	3,088	3,5	3,00	20	GT12-IP20	GT12C-IP20	GT12K-IP20	GT12KC-IP20	GT16-IP20	GT16K-IP20
4,559	3,492	4,0	3,50	25	GT12-IP25	GT12C-IP25	GT12K-IP25	GT12KC-IP25	GT16-IP25	GT16K-IP25
5,651	4,391	4,5	3,50	30	GT12-IP30	GT12C-IP30	GT12K-IP30	GT12KC-IP30	GT16-IP30	GT16K-IP30
6,807	5,283	5,0	4,00	40	GT12-IP40	GT12C-IP40	GT12K-IP40	GT12KC-IP40	GT16-IP40	GT16K-IP40
7,975	6,141	5,5	5,20	45	GT12-IP45	GT12C-IP45	GT12K-IP45	GT12KC-IP45	GT16-IP45	GT16K-IP45
8,991	6,923	6,0	6,00	50	GT12-IP50	GT12C-IP50	GT12K-IP50	GT12KC-IP50	GT16-IP50	GT16K-IP50
11,385	8,766	7,0	7,00	55	GT12-IP55	GT12C-IP55	GT12K-IP55	GT12KC-IP55	GT16-IP55	GT16K-IP55
13,442	10,350	7,5	7,50	60	GT12-IP60	GT12C-IP60	GT12K-IP60	GT12KC-IP60	GT16-IP60	GT16K-IP60
15,773	12,156	8,0	8,00	70	/	/	/	/	GT16-IP70	GT16K-IP70

					per brocciatori serie for broaching heads BR-G16M / BRC-G16M				per brocciatori serie for broaching heads BR-G16L / BRC-G16L			
					$\varnothing d = 16$				$\varnothing d = 16$			
A	B	C	H max (*)	TORX®	ARTICOLO (materiale) ITEM (material)				ARTICOLO (materiale) ITEM (material)			
					HSS		SINTERIZZATO / SINTERED		HSS		SINTERIZZATO / SINTERED	
					Standard	Ref. / Cool.	Standard	Ref. / Cool.	Standard	Ref. / Cool.	Standard	Ref. / Cool.
3,962	3,088	3,5	3,00	20	GT16M-IP20	GT16MC-IP20	GT16MK-IP20	GT16MKC-IP20	/	/	/	/
4,559	3,492	4,0	3,50	25	GT16M-IP25	GT16MC-IP25	GT16MK-IP25	GT16MKC-IP25	/	/	/	/
5,651	4,391	4,5	3,50	30	GT16M-IP30	GT16MC-IP30	GT16MK-IP30	GT16MKC-IP30	GT16L-IP30	GT16LC-IP30	GT16LK-IP30	GT16LKC-IP30
6,807	5,283	5,0	4,00	40	GT16M-IP40	GT16MC-IP40	GT16MK-IP40	GT16MKC-IP40	GT16L-IP40	GT16LC-IP40	GT16LK-IP40	GT16LKC-IP40
7,975	6,141	5,5	5,20	45	GT16M-IP45	GT16MC-IP45	GT16MK-IP45	GT16MKC-IP45	GT16L-IP45	GT16LC-IP45	GT16LK-IP45	GT16LKC-IP45
8,991	6,923	6,0	6,00	50	GT16M-IP50	GT16MC-IP50	GT16MK-IP50	GT16MKC-IP50	GT16L-IP50	GT16LC-IP50	GT16LK-IP50	GT16LKC-IP50
11,385	8,766	7,0	7,00	55	GT16M-IP55	GT16MC-IP55	GT16MK-IP55	GT16MKC-IP55	GT16L-IP55	GT16LC-IP55	GT16LK-IP55	GT16LKC-IP55
13,442	10,350	7,5	7,50	60	GT16M-IP60	GT16MC-IP60	GT16MK-IP60	GT16MKC-IP60	GT16L-IP60	GT16LC-IP60	GT16LK-IP60	GT16LKC-IP60
15,773	12,156	8,0	8,00	70	GT16M-IP70	GT16MC-IP70	GT16MK-IP70	GT16MKC-IP70	GT16L-IP70	GT16LC-IP70	GT16LK-IP70	GT16LKC-IP70

(*) = quota di profondità MAX standard su impronta di vite commerciale / Measure of MAX standard depth imprint by commercial screws

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