

High Performance Drills

Standard programme

MAPAL Replaceable Head Drill TTD



Perfect for you.

MAPAL replaceable head drill TTD

The new MAPAL replaceable head drill TTD makes minimum use of carbide with maximum stability and precision.



MAPAL replaceable head drill TTD

- Performance and quality levels of solid carbide drills
- Minimum use of carbide, reduced tool costs
- Serrated connection for high torques and precision
- Optimum coolant supply for long tool life
- Fast and easy handling
- Good positional accuracy plus best concentricity and diameter tolerances: bore geometry with 4 guide chamfers

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The optimised and focused use of carbide is at the centre of this new development from MAPAL in order to counteract the exorbitant rise in the price of carbide. With the new MAPAL replaceable head drill – the Torque Transfer Drill – this means production processes can be optimised and this in turn leads to increased productivity.

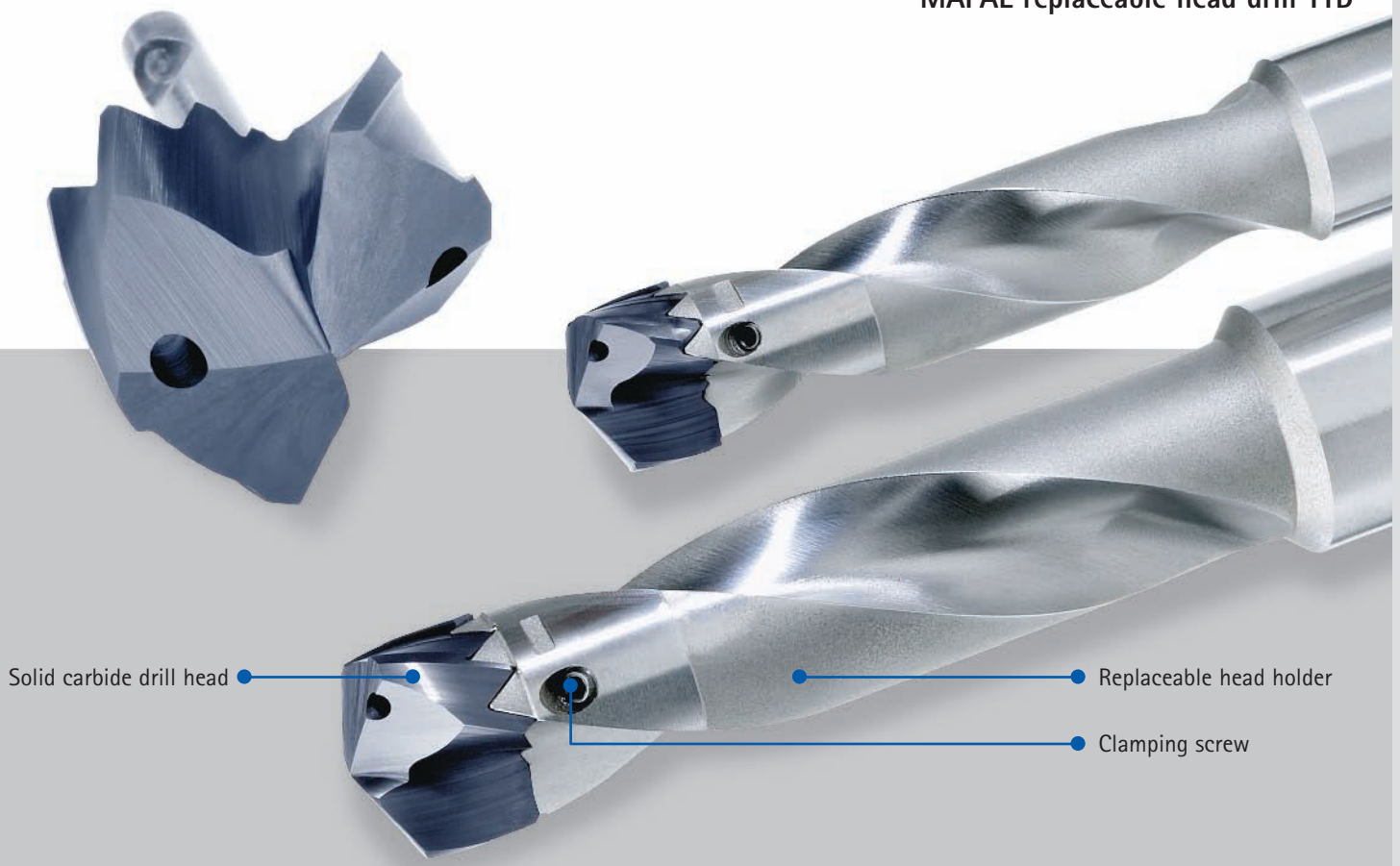
Compared to systems with replaceable blades, the MAPAL replaceable head drill achieves extremely good bore qualities at the same level as solid carbide drills. The optimum cutting edge geometry is provided for the boring process. In addition high cutting values can be applied which result in short machining times. This means the TTD is at the same level as solid carbide drills in quality and performance with tool costs considerably reduced at the same time.

The carbide replaceable heads for the TTD are designed as rapid set heads which can-

not be reground. This ensures the drill has a constant, high degree of efficiency which leads to better production reliability; no adjustments to the machine parameters or settings are required for reground drills. This also eliminates the costs of logistics planning and advance stock.

The focal point of the MAPAL replaceable head drill TTD is a newly developed connection which guarantees an extremely high stability in the connected elements. This new connection is marked by a radial serration with 12 teeth and from \varnothing 24,5 mm with 18 teeth. On the one hand this allows optimum torque transfer and on the other the radial serration also produces high changeover and concentricity.

Two fundamental characteristics for a connection (optimum torque transfer and maximum changeover and concentricity accuracy) are thus combined together in the new MAPAL connection – the Torque Transfer System (TTS).



Solid carbide drill head

Replaceable head holder

Clamping screw

Fast and easy handling

The fast and easy handling of the MAPAL replaceable head drill TTD is another system advantage. For this MAPAL has developed a simple, self-explanatory system. To change the head, the clamping screw on the drill shank is untightened; this releases the serration and the drill head can be quickly and easily removed. This allows the drill head to be changed directly on the machine.

The coolant supply is also an important criterion for tools with connections. On the MAPAL TTD the coolant is passed through internal channels in the drill and flows out directly onto the face side of the drill. This ensures optimum coolant onto the blades and consequently a long tool life.

4 chamfers for high quality

Because of the excellent precision features of the 4-chamfer drill, the MEGA-QUADRO drill geometry from this has also been used for the replaceable head drill TTD. In addition to the two normal guide chamfers on the blades, two further guide chamfers provide maximum alignment accuracy, concentricity and positional accuracy in the bore being machined; this allows roundness and diameter tolerances to be met extremely accurately.

Carbide substrates with coating are available as cutting materials. This coating, which has been specially developed for machining bores, allows optimum chip flow and long tool life.

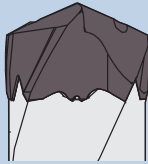
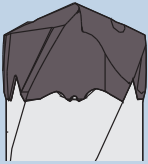
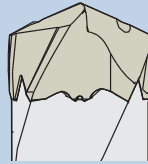
Wear-resistant holders

The replaceable head drills TTD have been designed so that all the drill heads within a diameter range of 1mm can be held in one holder. The sturdy construction of the holder and the appropriate arrangement of the head and holder in relation to one another keep wear on the holder caused by chips very low.

The standard series of the MAPAL replaceable head drill cover diameters from 16-32 mm and drilling depths of 3xD, 5xD and 8xD. There different types of drill heads are available: type 01 for machining steel and cast iron materials, type 02 for stainless steel materials and type 03 for non-ferrous metals.

Programme summary and notes for selection

Replaceable head drill with steel shank and solid carbide drilling head

<input checked="" type="checkbox"/> highly suitable <input type="checkbox"/> suitable			
	Type 01	Type 02	Type 03
Coating	MxF	MxF	MxA
P	<input checked="" type="checkbox"/>		
M		<input checked="" type="checkbox"/>	
K ₁	<input type="checkbox"/>		
K ₂	<input type="checkbox"/>		
N			<input checked="" type="checkbox"/>

Drill diameter in mm	15.7 – 32.0	15.7 – 32.0	15.7 – 32.0
Drilling depth	3xD 5xD 8xD	3xD 5xD 8xD	3xD 5xD 8xD
Achievable bore tolerance	IT8	IT8	IT8
No. of flutes	2	2	2
Cutting material	Micrograin	Micrograin	Micrograin
Guide Chamfers	4	2	4
Internal coolant supply	x	x	x
External coolant supply			
Centre angle	140°	140°	130°
Shank form HA (to DIN6535)	x	x	x
Shank form HB (to DIN6535)	x	x	x
Shank form HE (to DIN6535)	x	x	x



Internal coolant supply



Cylindrical shank form HA



Cylindrical shank form HB



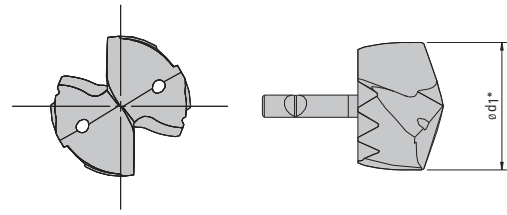
Cylindrical shank form HE



MAPAL TTS – Torque Transfer System

Intermediate sizes of replaceable head drills TTD:

A minimum order quantity of 3 pieces is required.



MAPAL replaceable head drill TTD

MAPAL – replaceable drill head TTD

Solid carbide

Drill ø d ₁	Con- nection	P K₁ K₂ Type 01 code	Order No.		M Typ 02 code	Order No.		N Type 03 code	Order No.		
15,70	TTS12-A	TTD-4F01-1570-MxF	30218065	●	TTD-2F02-1570-MxF	30219115	○	TTD-4F03-1570-MxA	30219138	○	
16,00	TTS12-A	TTD-4F01-1600-MxF	30191394	●	TTD-2F02-1600-MxF	30191427	○	TTD-4F03-1600-MxA	30191460	○	
16,50	TTS12-A	TTD-4F01-1650-MxF	30191395	●	TTD-2F02-1650-MxF	30191428	○	TTD-4F03-1650-MxA	30191461	○	
16,70	TTS12-A	TTD-4F01-1670-MxF	30215299	●	TTD-2F02-1670-MxF	30219122	○	TTD-4F03-1670-MxA	30219139	○	
17,00	TTS12-A	TTD-4F01-1700-MxF	30191396	●	TTD-2F02-1700-MxF	30191429	○	TTD-4F03-1700-MxA	30191462	○	
17,50	TTS12-A	TTD-4F01-1750-MxF	30191397	●	TTD-2F02-1750-MxF	30191430	○	TTD-4F03-1750-MxA	30191463	○	
17,70	TTS12-A	TTD-4F01-1770-MxF	30215300	●	TTD-2F02-1770-MxF	30219123	○	TTD-4F03-1770-MxA	30219140	○	
18,00	TTS12-A	TTD-4F01-1800-MxF	30191398	●	TTD-2F02-1800-MxF	30191431	○	TTD-4F03-1800-MxA	30191464	○	
18,50	TTS12-A	TTD-4F01-1850-MxF	30191399	●	TTD-2F02-1850-MxF	30191432	○	TTD-4F03-1850-MxA	30191465	○	
18,70	TTS12-A	TTD-4F01-1870-MxF	30215302	●	TTD-2F02-1870-MxF	30219124	○	TTD-4F03-1870-MxA	30219141	○	
19,00	TTS12-A	TTD-4F01-1900-MxF	30191400	●	TTD-2F02-1900-MxF	30191433	○	TTD-4F03-1900-MxA	30191466	○	
19,50	TTS12-A	TTD-4F01-1950-MxF	30191401	●	TTD-2F02-1950-MxF	30191434	○	TTD-4F03-1950-MxA	30191467	○	
19,70	TTS12-A	TTD-4F01-1970-MxF	30215303	●	TTD-2F02-1970-MxF	30219125	○	TTD-4F03-1970-MxA	30219142	○	
20,00	TTS12-A	TTD-4F01-2000-MxF	30191402	●	TTD-2F02-2000-MxF	30191435	○	TTD-4F03-2000-MxA	30191468	○	
20,50	TTS12-A	TTD-4F01-2050-MxF	30191403	●	TTD-2F02-2050-MxF	30191436	○	TTD-4F03-2050-MxA	30191469	○	
20,70	TTS12-A	TTD-4F01-2070-MxF	30215304	●	TTD-2F02-2070-MxF	30219126	○	TTD-4F03-2070-MxA	30219143	○	
21,00	TTS12-A	TTD-4F01-2100-MxF	30191404	●	TTD-2F02-2100-MxF	30191437	○	TTD-4F03-2100-MxA	30191470	○	
21,50	TTS12-A	TTD-4F01-2150-MxF	30191405	●	TTD-2F02-2150-MxF	30191438	○	TTD-4F03-2150-MxA	30191471	○	
21,70	TTS12-A	TTD-4F01-2170-MxF	30215305	●	TTD-2F02-2170-MxF	30219127	○	TTD-4F03-2170-MxA	30219144	○	
22,00	TTS12-A	TTD-4F01-2200-MxF	30191406	●	TTD-2F02-2200-MxF	30191439	○	TTD-4F03-2200-MxA	30191472	○	
22,50	TTS12-A	TTD-4F01-2250-MxF	30191407	●	TTD-2F02-2250-MxF	30191440	○	TTD-4F03-2250-MxA	30191473	○	
22,70	TTS12-A	TTD-4F01-2270-MxF	30215306	●	TTD-2F02-2270-MxF	30219128	○	TTD-4F03-2270-MxA	30219145	○	
23,00	TTS12-A	TTD-4F01-2300-MxF	30191408	●	TTD-2F02-2300-MxF	30191441	○	TTD-4F03-2300-MxA	30191474	○	
23,50	TTS12-A	TTD-4F01-2350-MxF	30191409	●	TTD-2F02-2350-MxF	30191442	○	TTD-4F03-2350-MxA	30191475	○	
23,70	TTS12-A	TTD-4F01-2370-MxF	30215307	●	TTD-2F02-2370-MxF	30219129	○	TTD-4F03-2370-MxA	30219146	○	
24,00	TTS12-A	TTD-4F01-2400-MxF	30191410	●	TTD-2F02-2400-MxF	30191443	○	TTD-4F03-2400-MxA	30191476	○	
24,50	TTS18-A	TTD-4F01-2450-MxF	30191411	●	TTD-2F02-2450-MxF	30191444	○	TTD-4F03-2450-MxA	30191477	○	
24,70	TTS18-A	TTD-4F01-2470-MxF	30215135	●	TTD-2F02-2470-MxF	30219130	○	TTD-4F03-2470-MxA	30219147	○	
25,00	TTS18-A	TTD-4F01-2500-MxF	30191412	●	TTD-2F02-2500-MxF	30191445	○	TTD-4F03-2500-MxA	30191478	○	
25,50	TTS18-A	TTD-4F01-2550-MxF	30191413	●	TTD-2F02-2550-MxF	30191446	○	TTD-4F03-2550-MxA	30191479	○	
25,70	TTS18-A	TTD-4F01-2570-MxF	30215309	●	TTD-2F02-2570-MxF	30219131	○	TTD-4F03-2570-MxA	30219148	○	
26,00	TTS18-A	TTD-4F01-2600-MxF	30191414	●	TTD-2F02-2600-MxF	30191447	○	TTD-4F03-2600-MxA	30191480	○	
26,50	TTS18-A	TTD-4F01-2650-MxF	30191415	●	TTD-2F02-2650-MxF	30191448	○	TTD-4F03-2650-MxA	30191481	○	
26,70	TTS18-A	TTD-4F01-2670-MxF	30215310	●	TTD-2F02-2670-MxF	30219132	○	TTD-4F03-2670-MxA	30219149	○	
27,00	TTS18-A	TTD-4F01-2700-MxF	30191416	●	TTD-2F02-2700-MxF	30191449	○	TTD-4F03-2700-MxA	30191482	○	
27,50	TTS18-A	TTD-4F01-2750-MxF	30191417	●	TTD-2F02-2750-MxF	30191450	○	TTD-4F03-2750-MxA	30191483	○	
27,70	TTS18-A	TTD-4F01-2770-MxF	30215311	●	TTD-2F02-2770-MxF	30219133	○	TTD-4F03-2770-MxA	30219150	○	
28,00	TTS18-A	TTD-4F01-2800-MxF	30191418	●	TTD-2F02-2800-MxF	30191451	○	TTD-4F03-2800-MxA	30191484	○	
28,50	TTS18-A	TTD-4F01-2850-MxF	30191419	●	TTD-2F02-2850-MxF	30191452	○	TTD-4F03-2850-MxA	30191485	○	
28,70	TTS18-A	TTD-4F01-2870-MxF	30215313	●	TTD-2F02-2870-MxF	30219134	○	TTD-4F03-2870-MxA	30219151	○	
29,00	TTS18-A	TTD-4F01-2900-MxF	30191420	●	TTD-2F02-2900-MxF	30191453	○	TTD-4F03-2900-MxA	30191486	○	
29,50	TTS18-A	TTD-4F01-2950-MxF	30191421	●	TTD-2F02-2950-MxF	30191454	○	TTD-4F03-2950-MxA	30191487	○	
29,70	TTS18-A	TTD-4F01-2970-MxF	30215315	●	TTD-2F02-2970-MxF	30219135	○	TTD-4F03-2970-MxA	30219152	○	
30,00	TTS18-A	TTD-4F01-3000-MxF	30191422	●	TTD-2F02-3000-MxF	30191455	○	TTD-4F03-3000-MxA	30191488	○	
30,50	TTS18-A	TTD-4F01-3050-MxF	30191423	●	TTD-2F02-3050-MxF	30191456	○	TTD-4F03-3050-MxA	30191489	○	
30,70	TTS18-A	TTD-4F01-3070-MxF	30215317	●	TTD-2F02-3070-MxF	30219136	○	TTD-4F03-3070-MxA	30219153	○	
31,00	TTS18-A	TTD-4F01-3100-MxF	30191424	●	TTD-2F02-3100-MxF	30191457	○	TTD-4F03-3100-MxA	30191490	○	
31,50	TTS18-A	TTD-4F01-3150-MxF	30191425	●	TTD-2F02-3150-MxF	30191458	○	TTD-4F03-3150-MxA	30191491	○	
31,70	TTS18-A	TTD-4F01-3170-MxF	30215319	●	TTD-2F02-3170-MxF	30219137	○	TTD-4F03-3170-MxA	30219154	○	
32,00	TTS18-A	TTD-4F01-3200-MxF	30191426	●	TTD-2F02-3200-MxF	30191459	○	TTD-4F03-3200-MxA	30191492	○	

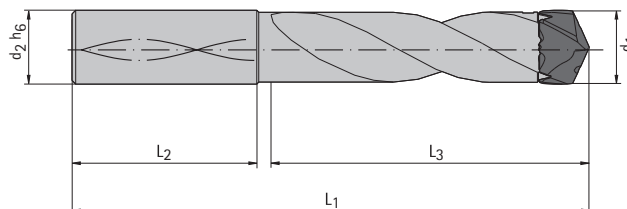
Dimensions in mm. Please see page 4 for notes on intermediate sizes.

● available ex stock Germany ○ available on request

MAPAL replaceable head drill TTD

MAPAL TTS replaceable head holder | 3xD

TTS100 with front clamping system for replaceable head drill TTD



Design:

for drill diameters: 15.7 - 32.0 mm

Shank design: HA (standard), HB,
HE (DIN6535)

Change mechanism: MAPAL front clamping
Head change possible on
machine

Drill ø d ₁	Con- nection	shank-ø d ₂ h ₆	total length L ₁	flute length L ₃	shank length L ₂	Reference code	Order No.		Order No.		Order No.	
							shank HA		shank HB		shank HE	
15,70-16,49	TTS12-S	18,00	120	70	48	TTS100-12-DR3-1570-18	30191550	●	30191496	●	30198891	●
16,50-17,49	TTS12-S	18,00	125	74	48	TTS100-12-DR3-1650-18	30191551	●	30191497	●	30198895	●
17,50-18,49	TTS12-S	18,00	130	78	48	TTS100-12-DR3-1750-18	30191552	●	30191498	●	30198932	●
18,50-19,49	TTS12-S	20,00	135	82	50	TTS100-12-DR3-1850-20	30191553	●	30191499	●	30198933	●
19,50-20,49	TTS12-S	20,00	140	87	50	TTS100-12-DR3-1950-20	30191554	●	30191500	●	30198934	●
20,50-21,49	TTS12-S	25,00	150	91	56	TTS100-12-DR3-2050-25	30191555	●	30191501	●	30198935	●
21,50-22,49	TTS12-S	25,00	155	95	56	TTS100-12-DR3-2150-25	30191556	●	30191502	●	30198936	●
22,50-23,49	TTS12-S	25,00	160	99	56	TTS100-12-DR3-2250-25	30191557	●	30191503	●	30198937	●
23,50-24,49	TTS12-S	25,00	165	103	56	TTS100-12-DR3-2350-25	30191558	●	30191504	●	30198938	●
24,50-25,49	TTS18-S	25,00	165	108	56	TTS100-18-DR3-2450-25	30191559	●	30191505	●	30198939	●
25,50-26,49	TTS18-S	25,00	175	112	56	TTS100-18-DR3-2550-25	30191561	●	30191507	●	30198940	●
26,50-27,49	TTS18-S	25,00	175	116	56	TTS100-18-DR3-2650-25	30191562	●	30191508	●	30198941	●
27,50-28,49	TTS18-S	25,00	180	120	56	TTS100-18-DR3-2750-25	30191563	●	30191509	●	30198942	●
28,50-29,49	TTS18-S	32,00	190	124	60	TTS100-18-DR3-2850-32	30191564	●	30191510	●	30198943	●
29,50-30,49	TTS18-S	32,00	195	129	60	TTS100-18-DR3-2950-32	30191565	●	30191511	●	30198945	●
30,50-31,49	TTS18-S	32,00	195	133	60	TTS100-18-DR3-3050-32	30191566	●	30191512	●	30198946	●
31,50-32,00	TTS18-S	32,00	200	137	60	TTS100-18-DR3-3150-32	30191567	●	30191513	●	30198948	●

- available ex stock Germany
- available ex stock Germany within 1 week

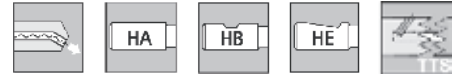
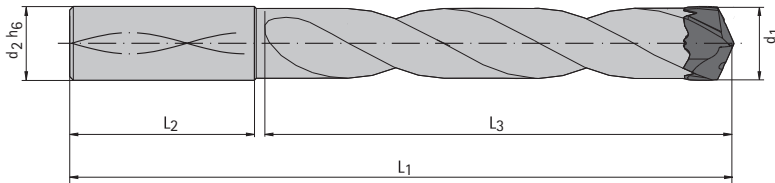
Prices and delivery times for replaceable head holders
with length dimensions other than standard on
request.

Dimensions in mm.

5xD

MAPAL TTS replaceable head holder

TTS100 with front clamping system for replaceable head drill TTD



Design:

for drill diameters: 15.7 - 32.0 mm

Shank design: HA (standard), HB, HE (DIN6535)

Change mechanism: MAPAL front clamping
Head change possible on machine

Drill ø d ₁	Con- nection	shank-ø d ₂ h6	total length L ₁	flute length L ₃	shank length L ₂	Reference Code	Order No. shank HA	Order No. shank HB	Order No. shank HE			
15,70-16,49	TTS12-S	18,00	155	103	48	TTS100-12-DR5-1570-18	30191568	●	30191514	●	30198949	●
16,50-17,49	TTS12-S	18,00	160	109	48	TTS100-12-DR5-1650-18	30191569	●	30191515	●	30198950	●
17,50-18,49	TTS12-S	18,00	165	115	48	TTS100-12-DR5-1750-18	30191570	●	30191516	●	30198951	●
18,50-19,49	TTS12-S	20,00	175	121	50	TTS100-12-DR5-1850-20	30191571	●	30191517	●	30198952	●
19,50-20,49	TTS12-S	20,00	180	128	50	TTS100-12-DR5-1950-20	30191572	●	30191518	●	30198953	●
20,50-21,49	TTS12-S	25,00	195	134	56	TTS100-12-DR5-2050-25	30191573	●	30191519	●	30198954	●
21,50-22,49	TTS12-S	25,00	200	140	56	TTS100-12-DR5-2150-25	30191574	●	30191520	●	30198955	●
22,50-23,49	TTS12-S	25,00	205	146	56	TTS100-12-DR5-2250-25	30191575	●	30191521	●	30198956	●
23,50-24,49	TTS12-S	25,00	210	152	56	TTS100-12-DR5-2350-25	30191576	●	30191522	●	30198957	●
24,50-25,49	TTS18-S	25,00	220	159	56	TTS100-18-DR5-2450-25	30191577	●	30191523	●	30198958	●
25,50-26,49	TTS18-S	25,00	225	165	56	TTS100-18-DR5-2550-25	30191579	●	30191525	●	30198959	●
26,50-27,49	TTS18-S	25,00	230	171	56	TTS100-18-DR5-2650-25	30191580	●	30191526	●	30198960	●
27,50-28,49	TTS18-S	25,00	240	177	56	TTS100-18-DR5-2750-25	30191581	●	30191527	●	30198961	●
28,50-29,49	TTS18-S	32,00	250	183	60	TTS100-18-DR5-2850-32	30191582	●	30191528	●	30198962	●
29,50-30,49	TTS18-S	32,00	255	190	60	TTS100-18-DR5-2950-32	30191583	●	30191529	●	30198963	●
30,50-31,49	TTS18-S	32,00	260	196	60	TTS100-18-DR5-3050-32	30191584	●	30191530	●	30198964	●
31,50-32,00	TTS18-S	32,00	265	202	60	TTS100-18-DR5-3150-32	30191585	●	30191531	●	30198965	●

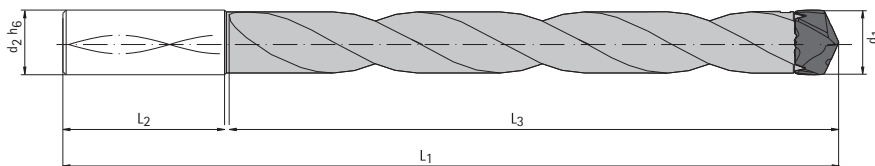
- available ex stock Germany
- available ex stock Germany within 1 week

Dimensions in mm.

Prices and delivery times for replaceable head holders with length dimensions other than standard on request.

MAPAL TTS replaceable head holder | 8xD

TTS100 with front clamping system for replaceable head drill TTD



Design:

for drill diameters: 15.7 - 32.0 mm

Shank design: HA (standard), HB, HE (DIN6535)

Change mechanism: MAPAL front clamping
Head change possible on machine

Drill ø d ₁	Con- nection	shank-ø d ₂ h ₆	total length L ₁	flute length L ₃	shank length L ₂	Reference code	Order No. shank HA	Order No. shank HB	Order No. shank HE		
15,70-16,49	TTS12-S	18,00	205	152	48	TTS100-12-DR8-1570-18	30191586 ●	30191532 ●	30198966 ●		
16,50-17,49	TTS12-S	18,00	215	161	48	TTS100-12-DR8-1650-18	30191587 ●	30191533 ●	30198967 ●		
17,50-18,49	TTS12-S	18,00	220	171	48	TTS100-12-DR8-1750-18	30191588 ●	30191534 ●	30198968 ●		
18,50-19,49	TTS12-S	20,00	235	180	50	TTS100-12-DR8-1850-20	30191589 ●	30191535 ●	30198969 ●		
19,50-20,49	TTS12-S	20,00	240	189	50	TTS100-12-DR8-1950-20	30191590 ●	30191536 ●	30198971 ●		
20,50-21,49	TTS12-S	25,00	260	198	56	TTS100-12-DR8-2050-25	30191591 ●	30191537 ●	30198972 ●		
21,50-22,49	TTS12-S	25,00	270	207	56	TTS100-12-DR8-2150-25	30191592 ●	30191538 ●	30198973 ●		
22,50-23,49	TTS12-S	25,00	275	217	56	TTS100-12-DR8-2250-25	30191593 ●	30191539 ●	30198974 ●		
23,50-24,49	TTS12-S	25,00	285	226	56	TTS100-12-DR8-2350-25	30191594 ●	30191540 ●	30198975 ●		
24,50-25,49	TTS18-S	25,00	295	235	56	TTS100-18-DR8-2450-25	30191595 ●	30191541 ●	30198976 ●		
25,50-26,49	TTS18-S	25,00	305	244	56	TTS100-18-DR8-2550-25	30191597 ●	30191543 ●	30198977 ●		
26,50-27,49	TTS18-S	25,00	315	253	56	TTS100-18-DR8-2650-25	30191598 ●	30191544 ●	30198978 ●		
27,50-28,49	TTS18-S	25,00	325	263	56	TTS100-18-DR8-2750-25	30191599 ●	30191545 ●	30198979 ●		
28,50-29,49	TTS18-S	32,00	340	272	60	TTS100-18-DR8-2850-32	30191600 ●	30191546 ●	30198980 ●		
29,50-30,49	TTS18-S	32,00	345	281	60	TTS100-18-DR8-2950-32	30191601 ●	30191547 ●	30198981 ●		
30,50-31,49	TTS18-S	32,00	355	290	60	TTS100-18-DR8-3050-32	30191602 ●	30191548 ●	30198982 ●		
31,50-32,00	TTS18-S	32,00	360	299	60	TTS100-18-DR8-3150-32	30191603 ●	30191549 ●	30198983 ●		

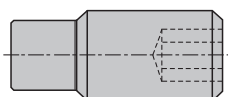
- available ex stock Germany
- available ex stock Germany within 1 week

Prices and delivery times for replaceable head holders with length dimensions other than standard on request.

Dimensions in mm.

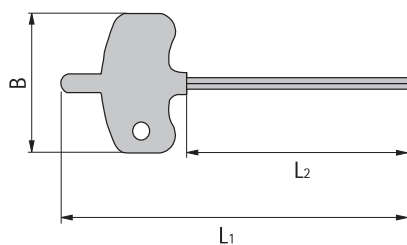
Spares

Adjusting screw



Holder type	Adjusting screw	Order No.		
TTS100-12-DRx-1570-18	M3x0,5x7	30193231	●	
TTS100-12-DRx-1650-18	M4x0,5x7,5	30193232	●	
TTS100-12-DRx-1750-18	M4x0,5x7,5	30193232	●	
TTS100-12-DRx-1850-20	M4x0,5x7,5	30193232	●	
TTS100-12-DRx-1950-20	M4x0,5x7,5	30193232	●	
TTS100-12-DRx-2050-25	M4x0,5x10	30193233	●	
TTS100-12-DRx-2150-25	M4x0,5x10	30193233	●	
TTS100-12-DRx-2250-25	M4x0,5x10	30193233	●	
TTS100-12-DRx-2350-25	M4x0,5x10	30193233	●	
TTS100-18-DRx-2450-25	M5x0,5x11	30193234	●	
TTS100-18-DRx-2550-25	M5x0,5x11	30193234	●	
TTS100-18-DRx-2650-25	M5x0,5x11	30193234	●	
TTS100-18-DRx-2750-25	M5x0,5x11	30193234	●	
TTS100-18-DRx-2850-32	M5x0,5x14	30193235	●	
TTS100-18-DRx-2950-32	M5x0,5x14	30193235	●	
TTS100-18-DRx-3050-32	M5x0,5x14	30193235	●	
TTS100-18-DRx-3150-32	M5x0,5x14	30193235	●	

Hexagon T-key



Holder type	SW (mm)	L ₁	L ₂	B	Order No.		
TTS100-12-DRx-1570-18	SW 1,5	95	60	38	10098108	●	
TTS100-12-DRx-1650-18	SW 2	95	60	38	10098109	●	
TTS100-12-DRx-1750-18	SW 2	95	60	38	10098109	●	
TTS100-12-DRx-1850-20	SW 2	95	60	38	10098109	●	
TTS100-12-DRx-1950-20	SW 2	95	60	38	10098109	●	
TTS100-12-DRx-2050-25	SW 2	95	60	38	10098109	●	
TTS100-12-DRx-2150-25	SW 2	95	60	38	10098109	●	
TTS100-12-DRx-2250-25	SW 2	95	60	38	10098109	●	
TTS100-12-DRx-2350-25	SW 2	95	60	38	10098109	●	
TTS100-18-DRx-2450-25	SW 2,5	95	60	38	10098110	●	
TTS100-18-DRx-2550-25	SW 2,5	95	60	38	10098110	●	
TTS100-18-DRx-2650-25	SW 2,5	95	60	38	10098110	●	
TTS100-18-DRx-2750-25	SW 2,5	95	60	38	10098110	●	
TTS100-18-DRx-2850-32	SW 2,5	95	60	38	10098110	●	
TTS100-18-DRx-2950-32	SW 2,5	95	60	38	10098110	●	
TTS100-18-DRx-3050-32	SW 2,5	95	60	38	10098110	●	
TTS100-18-DRx-3150-32	SW 2,5	95	60	38	10098110	●	

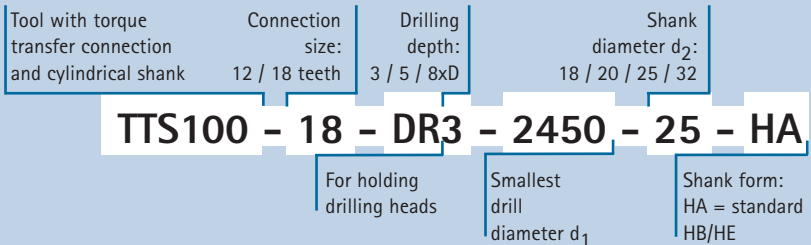
● available ex stock Germany

Dimensions in mm.

Key to reference codes

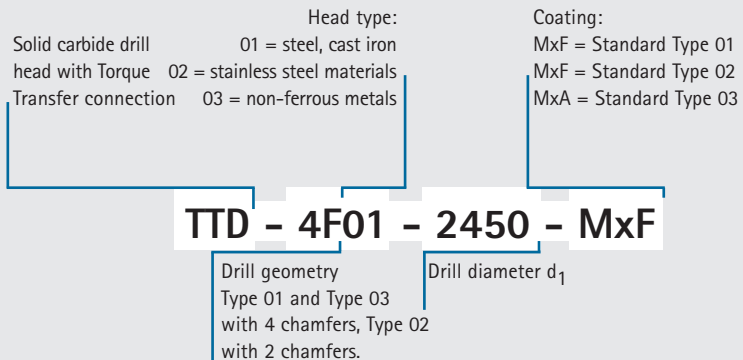
The codes for the MAPAL replaceable head drill TTD are based on the key shown alongside:

Key to reference codes for **standard TTS100** holders:



Holders with length dimensions other than standard lengths – available on request.

Key to reference codes for **replaceable drill head TTD**:



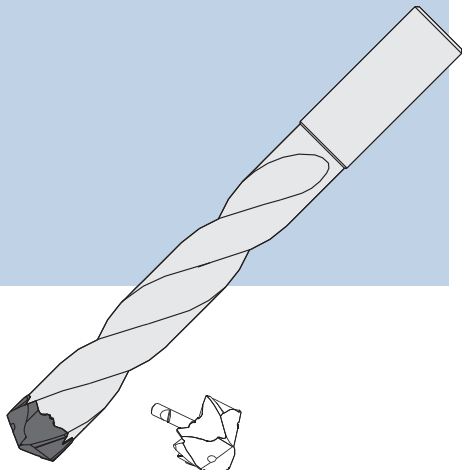
Note:

For a bore which is to be reamed afterwards, choose a drill diameter 0.3 mm smaller than the finished size of the bore.

Drilling diameters other than standard – available on request.

Order example

for drilling in steel with \varnothing 25.0 mm and drilling depth 5xD:



1. Select replaceable head holder for torque transfer drill for the diameters to be machined and the appropriate shank form from table on page 7.

TTS100-12-DR5-2450-25-HB

Order No. 30191523

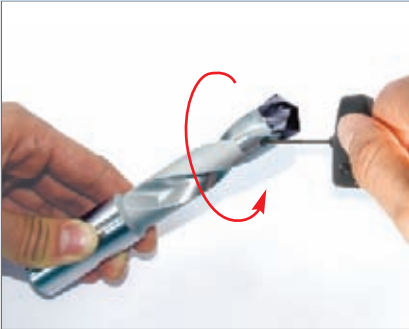
2. Select solid carbide drill head from table on page 5. Select head type 01 for machining steel.

TTD-4F01-2500-MxF

Order No. 30191412

Notes on handling

Releasing the drill head



1. Turn clamping screw anti-clockwise with an Allen key.



2. Pull drill head out of the serration.



3. Remove worn drill head and insert new drill head.

Clamping the drill head



1. Keep attention when fitting the drill head on the holder, clamping groove and serration have to be consistent. When changing the drill head the TTS-coupling should be cleaned (Compressed air).



2. Put the new drill head on the holder, engage serration. Because of the positioning aid the serration can not be completely put together, if the drill head and the holder are positioned in the wrong way.



3. Turn clamping screw clockwise and tighten manually.





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