

BASS
TECHNIK FÜR GEWINDE




internal thread machining for
the **die and mold-making**
industry and **difficult to**
machine materials



	AVANT H15	AVANT HVA15	AVANT TIH13	AVANT NI13
Model	TICN KA TICN	KA BT	TICN	TICN
Tool material	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
Chamfer	C / 2-3 E / 1.5-2	C / 2-3 E / 1.5-2	C / 2-3	C / 2-3
Thread type	M, MF	M	M, MF MJ, UNJC, UNJF	M MJ, UNJC, UNJF
Thread tolerance	ISO2/6H ISO3/6G	6HX	4HX, 6HX, 3BX	4HX, 6HX, 3BX
Shank tolerance	h9	h9	h6	h6

Application

	vc m/min			
Alloyed steel up to 1,250 N/mm ²	10-20			
Alloyed steel from 1,000 N/mm ² to 1,400 N/mm ²	4-10		3-10	
Alloyed steel from 1,200 N/mm ² to 1,550 N/mm ²				2-4
Stainless steel		3-15		
Cast iron	10-25		15-25	
Copper alloy	15-35		10-20	
Magnesium & magnesium alloy	25-35	20-30	25-35	
Titanium and titanium alloy			2-10	
Nickel alloyed			2-3	2-3
Tungsten alloyed				2-3

	DOMINANT HZ38	DOMINANT MHST45	DOMINANT HVA45
			
Model	TICN HL, KA HL	HL KA HL	BT
Tool material	HSSE-PM	HSSE-PM	HSSE-PM
Chamfer	C / 2-3 E / 1.5-2	C / 2-3 E / 1.5-2	C / 2-3 E / 1.5-2
Thread type	M, MF, UNC, UNF, G	M	M
Thread tolerance	ISO2/6H 2B	6HX	6HX
Shank tolerance	h9	h6	h9




Application

	vc m/min		
Alloyed steel up to 1,250 N/mm ²	4-10	8-12	
Alloyed steel from 1,000 N/mm ² to 1,400 N/mm ²	2-4	2-8	
Alloyed steel from 1,200 N/mm ² to 1,550 N/mm ²		2-8	
Stainless steel	6-12	8-15	3-15
Cast iron	10-15	15-25	
Copper alloy			
Magnesium & magnesium alloy			
Titanium and titanium alloy			5-12
Nickel alloyed			
Tungsten alloyed			

	VARIO SH	VARIO SH
		
Model	TICN SR	TICN SR
Tool material	HSSE-PM	VHM
Chamfer	C / 2-3	C / 2-3
Thread type	M, MF, G	M
Thread tolerance	6HX	6HX
Shank tolerance	h9	h6




Application

		vc m/min
Hardened steel 45-55 HRC	2-4	
Hardened steel 52-63 HRC		1-3

	VARIANT H	VARIANT HVA	VARIANT TIH	VARIANT NI
				
Model	TICN	BT	TICN	TICN
Tool material	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
Chamfer	B / 3-5.5	B / 3-5.5	B / 3-5.5	B / 3-5.5
Thread type	M, MF	M	M, MF MJ, UNJC, UNJF	M MJ, UNJC, UNJF
Thread tolerance	ISO2/6H	6HX	4HX, 6HX, 3BX	4HX, 6HX, 3BX
Shank tolerance	h9	h9	h6	h6

Application

	vc m/min			
Alloyed steel up to 1,250 N/mm ²	10-20		10-25	
Alloyed steel from 1,000 N/mm ² to 1,400 N/mm ²	3-12		3-8	
Alloyed steel from 1,200 N/mm ² to 1,550 N/mm ²			3-10	2-4
Stainless steel		3-15		
Cast iron	10-25		15-25	
Copper alloy			10-25	
Magnesium & magnesium alloy				
Titanium and titanium alloy		5-12	2-12	
Nickel alloyed			4-8	2-3
Tungsten alloyed				2-3

	GFS N	GFD HZP	GFD SH	ZBGF SH
				
Model	KA KA TICN	BA KA BA	BA	LH BA
Tool material	VHM	VHM	VHM	VHM
Thread type	M, MF	M, UNC, UNF	M	M, MF
Advantage	for countersinking and thread milling of one thread size	for thread milling of one thread size up to 3xD	for thread milling of one thread size up to 3xD	for countersinking and thread milling of different thread sizes

Application

Alloyed steel up to 1,250 N/mm ²		✓		✓
Alloyed steel from 1,000 N/mm ² to 1,400 N/mm ²	✓	✓		✓
Alloyed steel from 1,200 N/mm ² to 1,550 N/mm ²	✓	✓		✓
Hardened steel 48-63 HRC			✓	✓
Stainless steel	✓	✓		✓
Cast iron	✓	✓		✓
Copper alloy	✓	✓		
Magnesium & magnesium alloy	✓	✓		
Titanium and titanium alloy	✓	✓		✓
Nickel alloyed	✓	✓		
Tungsten alloyed	✓			

For detailed information and cutting speed please refer to our application table.

✓ well suitable ✓ suitable

Thread milling systems with inserts are the optimum choice for large thread dimensions.

BFW

- › holder with solid carbide thread milling inserts for fine threads starting with M20x1.5 and standard threads starting with M24
- › pitch 0.75 - 6.0 mm or 32-4 TPI
- › flank χ 60°/ 55°
- › applicable for all working materials, with internal coolant, with straight shank acc. DIN 1835 B



GFK

- › thread milling head with solid carbide thread milling inserts for fine threads starting with M24x1.5 and standard threads starting with M27
- › pitch 1.5-6.0 mm or 32-4 TPI
- › flank χ 60°/ 55°
- › applicable for all working materials, with internal coolant and tightening thread



AFK

- › shell milling head with solid carbide thread milling inserts for fine threads starting with M54x1.5 and standard threads starting with M60x5.5
- › pitch 0.75-6.0 mm or 16-4 TPI
- › flank χ 60°/ 55°
- › applicable for all working materials, with internal coolant



TAP HOLDERS

HST SYNCHRO

This tap holder compensates synchronization errors between the machine and the feed spindle which in turn minimizes the high frictional forces that would otherwise have to be absorbed by the tap's thread flanks. The micro-compensation of ± 0.5 mm is ensured by a patented steel spring element which — in contrast to competitors' tap holders — guarantees a long tool life.

The HST SYNCHRO tap holder for standard applications is available with straight or HSK shank. The tapping chuck is available in different sizes and with compatible accessories.

The properties at one glance

- › reduction of axial forces by up to 96%
- › torque reduction before and after reversion of rotation by up to 78 %
- › tool life increase by min. 30 % through lower friction
- › better surface quality of the thread flanks
- › reduced risk of tool breakage
- › very good accuracy to gauge





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