



**TiefbohrSysteme**<sup>®</sup> GmbH

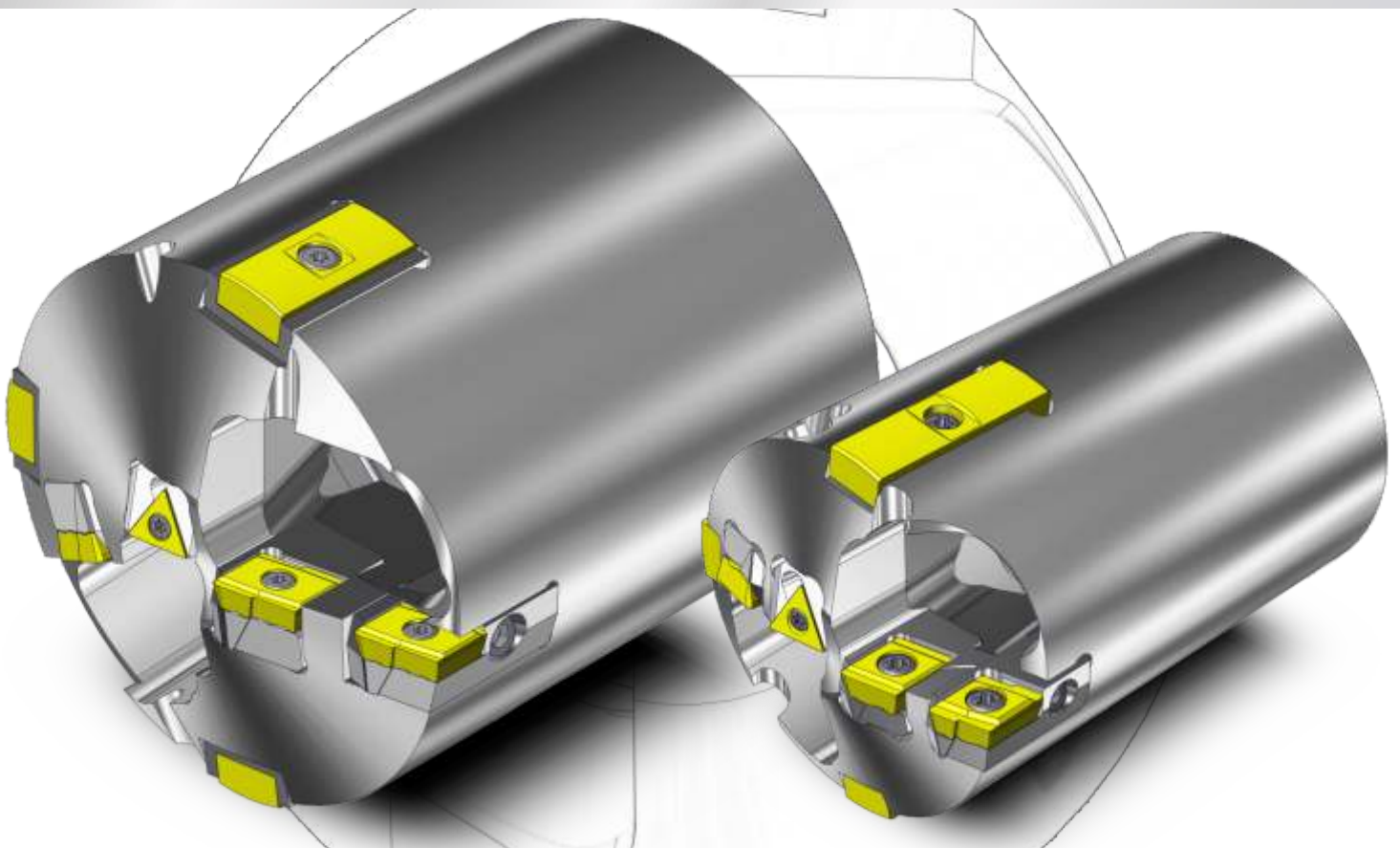
DEEP HOLE BORING TECHNOLOGY | EQUIPMENT

## Solid Drilling Tools

Type 1475 / 1476

DEEP HOLE DRILLING TOOLS

BORING RANGE Ø65,00 - 161,99 mm



## Deep Hole Boring - An Inaccessible World

In today's production world, precision and production strategies are a significant constituent for success. The more complex the production process, the more important are these two factors. deep hole boring our company, BTA-Tiefbohrsysteme GmbH, is the essential partner for implementation even under difficult marginal conditions with high requirements. We are the only company in the world capable of offering our customers everything from inserts to complete, suitable equipment for deep hole boring machines. Our experienced experts are always at your side to ensure proper support from planning your deep hole boring project up to tool services. All this is aimed at your success.

In the company-owned application and research department we can test innovations and special designed tools, customize the tools to user-specific material and train their operators. You will receive tools customized for your application and benefit from our experience.

Our tool systems offer you the following advantages:

- Tools designed for various processes (solid boring, trepanning, counter boring and skiving) with the same effective elements, especially such as inserts and guides. This results in extremely low stocks and simple handling.
- Suitable selection possibilities for tools, corresponding to required boring quality, from simple solid boring to form boring.
- Custom layout of tools for various production requirements to straightness, surface, material and constant wall thickness.
- Equipment matched to the deep hole boring process - from workpiece clamping to vibration damping.
- Production-optimized machinery layout for reducing setup and conversion times.

Here are a few results from production boring with our tools:

- Surface Ra < 0.1 µm e.g. by skiving and roller burnishing
- Mismatch of axes < 0.1mm/m e.g. by pull counter boring
- Hole accuracy < IT8 e.g. by skiving

Benefit from these advantages by cooperating with a strong partner.

BTA-Tiefbohrsysteme GmbH





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### Tool description

- Solid drilling tool with four indexable inserts and three guide pads
- The drill diameter is fixed
- Available as bta-tool

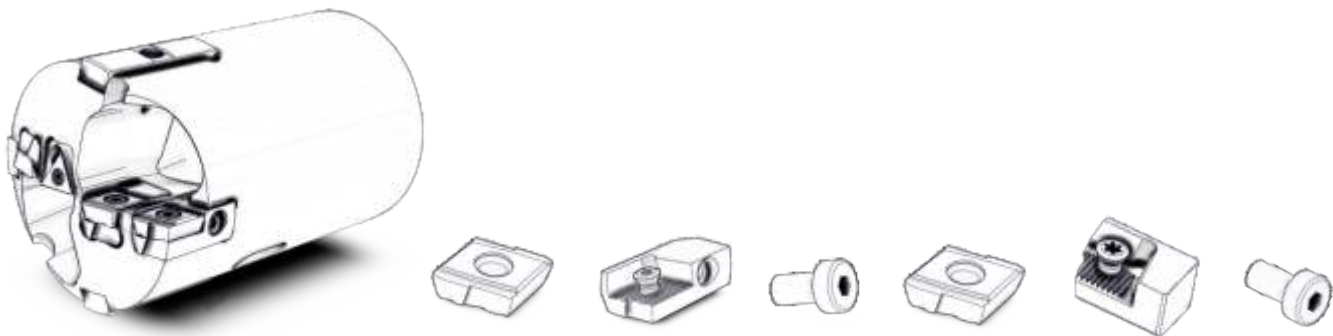
### Tool characteristics

- drilling depth 200 x tool diameter
- surface  $R_a$  1,25  $\mu$ m
- mismatch of axes 0,2 mm/m
- drilling accuracy IT9

## Solid Drilling Tools Type 1475 / 1476

Boring range Ø 65,00 - 161,99 mm

Possible drill tube connection:

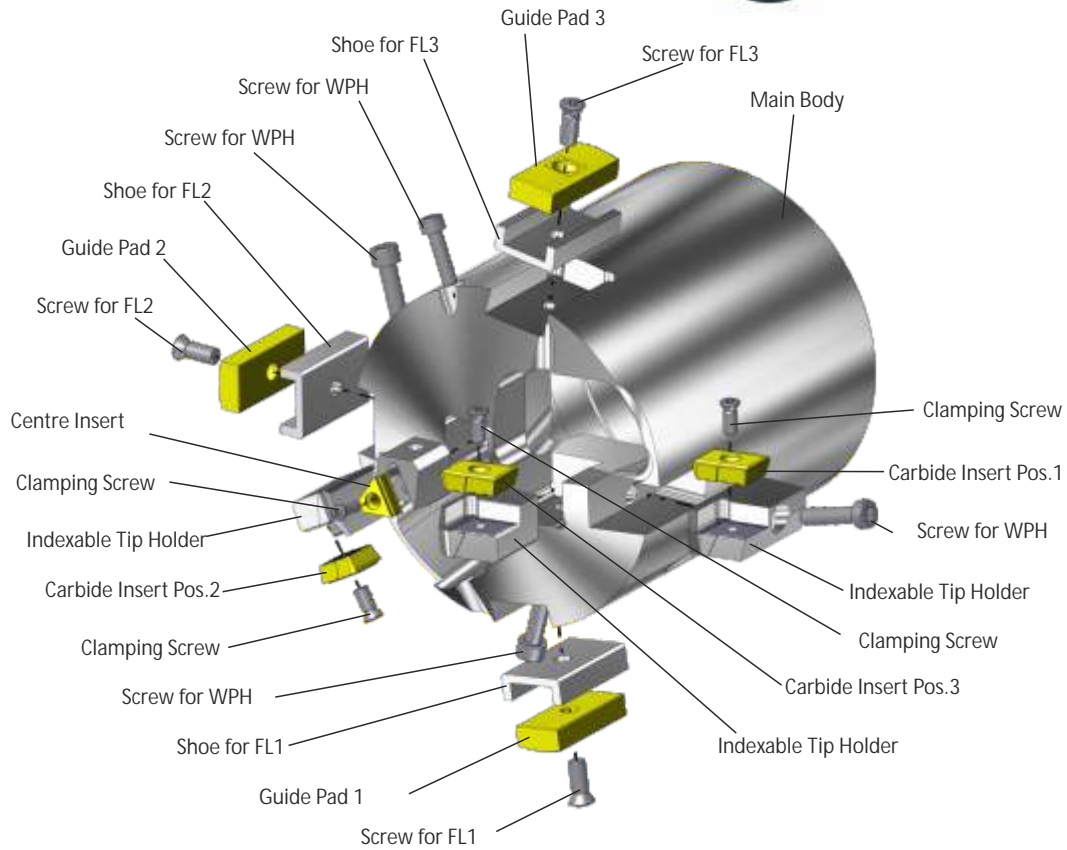


Boring Range	Drill Tube Connection	Carbide Insert Pos. 1	Indexable Tip Holder	Screw for WPH	Carbide Insert Pos. 2	Indexable Tip Holder	Screw for WPH
Ø 65,00 - Ø 67,99	56	A1,5x	020.1434.E	M3x12 DIN 912			M4x8 DIN 7984
Ø 68,00 - Ø 74,99	62	A2a	019.2212.G	M4x16 DIN 6912	A1,5x	020.0874.R	
Ø 75,00 - Ø 80,99	68						
Ø 81,00 - Ø 90,99	75	A2,5a	020.0557.B	M4x20 DIN 6912	A2a	019.9494.S	M4x12 DIN 912
Ø 91,00 - Ø 98,99	82	A3a	019.1749.Z		A2,5a	019.9496.U	
Ø 99,00 - Ø 110,99	94				A3a	019.9498.W	M5x16 DIN 912
Ø 111,00 - Ø 117,99	106	A4a	019.2270.S	M6x25 DIN 6912	A4a	019.9500.Y	M6x20 DIN 912
Ø 118,00 - Ø 122,99							
Ø 123,00 - Ø 125,99	118						
Ø 126,00 - Ø 134,99		A5a	019.2251.X	M6x30 DIN 6912	A5a	019.9502.A	M4x25 DIN 912
Ø 135,00 - Ø 143,99	130						
Ø 144,00 - Ø 148,99							
Ø 149,00 - Ø 153,99							
Ø 154,00 - Ø 161,99	142						

Additional diameters on request

See Page 6/7 for spare and wear parts ordering data

Note: Please activate the two-sided view so that the table is displayed completely.



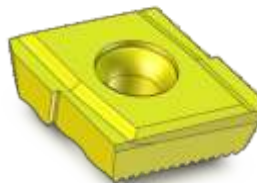
Carbide Insert Pos.3	Indexable Tip Holder	Screw for WPH	Centre-Insert	Indexable Tip Holder	Screw for WPH	Guide Pad 1 and 2	Guide Pad 3	Hook Wrench
A1,5x	020.0874.R	M4x8 DIN 7984	Z1 <sup>3</sup>	019.9488.L	M4x16 DIN 912	FL 10 - R28		006.2292.G
A2a	019.9494.S	M4x12 DIN 912	Z1,5 <sup>3</sup>	019.9490.N		FL 14 - R30	FL 10 - R28	006.2294.C
A2,5a	019.9496.U						FL 14 - R30	006.2296.X
A3a	019.9498.W	M5x16 DIN 912				FL 18 - R40	FL 18 - R40	006.2298.T
A4a	019.9500.Y	M6x20 DIN 912	Z2 <sup>3</sup>	019.9492.Q	M5x20 DIN 912			006.2300.L
A5a	019.9502.A	M4x25 DIN 912				FL 18 - R65	FL 18 - R65	006.2302.G
								006.2304.C

## Spare and wear parts

For Solid Drilling Type 1475 / 1476

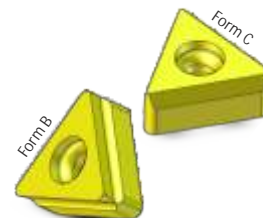
Indexable Inserts Size A1,5a - A5a; Z1<sup>3</sup> - Z2<sup>3</sup>

Description	Chip Breaker	Carbide		
		P25 TiN	P40 TiN	K20 TiN
A1,5x	Size 1 - 2,1x0,5	020.1441.M	-	-
A2a	Size 1 - 2,2x0,5	018.9896.T	019.2603.P	019.2541.Z
	Size 2 - 2,5x0,7	019.2337.M	019.2607.T	019.2545.D
A2,5a	Size 1 - 2,2x0,6	019.5844.Q	019.6621.Z	019.6623.B
	Size 2 - 2,5x0,6	019.6620.Y	019.6622.A	019.6624.C
A3a	Size 1 - 2,5x0,7	018.9897.U	019.2604.Q	019.2542.A
	Size 2 - 2,7x0,8	019.2338.N	019.2608.U	019.2546.E
A4a	Size 1 - 2,5x0,7	018.9898.V	019.2605.R	019.2543.B
	Size 2 - 2,7x0,8	019.2348.Y	019.2609.V	019.2547.F
A5a	Size 1 - 2,7x0,8	018.9899.W	019.2606.S	019.2544.C
	Size 2 - 3,0x1,0	019.2349.Z	019.2610.W	019.2548.G



Chip breaker size 1 for unalloyed steels C > 0.2, alloyed steels, heat- treated steels, tool steel  
 Chip breaker size 2 for unalloyed steels C < 0.2, long chipping special purpose steel, stainless and acid- resistant steel

Description	Chip Breaker	Carbide		Cutting edges	Screw for Carbide Insert
		B TiN	H TiN		
Z1 <sup>3</sup>	2,1x0,5 / form B	019.6501.Z	019.6502.A	3	M2,5x10 T8
	negativ / form C	019.6503.B	019.6504.C		
Z1,5 <sup>3</sup>	2,5x0,8 / form B	019.6711.T	019.6574.A	3	
	negativ / form C	019.6713.V	019.6714.W		
Z2 <sup>3</sup>	2,5x0,8 / form B	019.6497.V	019.6498.W	6	M3,5x12 T15
	negativ / form C	019.6499.X	019.6500.Y		



Carbide „B“ (hard) for struktural steel  
 Carbide „H“ (tough) for alloyed and stainless steels

Additional chip breakers and coatings on request

Guide Pads 1 to 3



Description	Radius	Carbide		Shoe for Guide Pads	Screw for Guide Pads
		TiN coated	ML coated		
FL 10	28	016.9226.A	019.6680.L	-	M4x8,2 T15
FL 14	30	016.9229.T	019.6681.M	-	M6x12 T20
FL 18	40	014.4761.R	019.6682.N	015.2246.N	M6x16 T20
	65	016.9238.S	019.6683.P		





## Spare and wear parts

For Solid Drilling Tools Type 1475 / 1476

### Screws and Wrenches

Size	Length	Ident-No. Clamping Screw	Torx Size	Ident-No. Torx-Screw
M2,5	10	010.8778.C	T8	010.8812.F
M3,5	15	010.8779.A	T15	008.7219.C
M4	8,2	008.1066.J		
M5	9,5	014.4779.V		
	12	008.1067.G		
M6	12	008.1068.E	T20	008.7220.T
	16	010.7708.F		



Size	Length	Ident-No. Clamping Screw	SW Size	Ident-No. Hexagon-Wrench
M3 / DIN 912	12	008.5836.M	SW 2,5	008.5836.M
M4 / DIN 7984	8	008.7044.M	SW 3	008.6741.T
M4 / DIN 912	12	008.5110.M		
	25	T.-Nr. 4396		
M4 / DIN 6912	16	008.5002.Q	SW 4	008.7213.Q
	20	008.5003.N		
M5 / DIN 912	16	008.5116.Z	SW 5	008.5837.K
	20	008.5117.W		
M6 / DIN 912	20	008.5122.E	SW 5	008.5838.H
M6 / DIN 6912	25	008.5023.G		
	30	008.5024.E		





BTA-Tiefbohrsysteme GmbH  
Hainkämpe 12  
28832 ACHIM  
GERMANY

Tel. +49 (0) 4202 / 96 84 - 5  
Fax. +49 (0) 4202 / 96 84 - 70

e-mail [info@bta-tiefbohrsysteme.com](mailto:info@bta-tiefbohrsysteme.com)  
Internet [www.bta-tiefbohrsysteme.com](http://www.bta-tiefbohrsysteme.com)

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