

BCA BORING BAR



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Redefining Cutting Technology

www.renukatools.in

Company Profile

Renuka Tools® was founded in the year 2000 in Aurangabad, India with its vision to be the preferred special cutting tools provider. We now successfully cater to both domestic and international markets with our wide range of solutions. We ensure that we remain nimble and agile by continually investing in technology & R&D to stay ahead of time & keep pace with the changing technology in the industry.

Renuka Tools® with its state-of-the-art manufacturing unit manufactures high quality special indexable cutting tools with utmost precision using the latest technology and highly skilled and technical manpower. All cutting tools manufactured at our unit come with a Zoller Report, ensuring that the global export quality standards are met, guaranteeing complete customer satisfaction.

At Renuka Tools®, our core expertise is in manufacturing special customized cutting tools. With over 20 years of technical expertise and continual R&D efforts, we manufacture products such as:

- ▶ Micro Bore Unit
- ▶ Adjustable Boring Tools
- ▶ Fine Boring Tools
- ▶ Eccentric Boring Tools
- ▶ Large diameter Boring Tools
- ▶ Anti-vibration Boring Tools
- ▶ Large Diameter Milling Cutters
- ▶ Spot Face Cutters
- ▶ Side & Face Milling Cutters
- ▶ Chamfer Tools

Why Us - What Differentiates us from Competition

- ▶ We use the **best-in-class technology** in our **state-of-the-art manufacturing facility**.
- ▶ We ensure **best quality products** adhering to global standards.
- ▶ We provide a **QC Report** along with our tools to certify the quality of the product, which is accepted world-wide.
- ▶ We ensure **shortest lead times** in manufacturing.
- ▶ All of the above is ensured at **lowest possible price**.

This catalogue will give you further insights and details about our Micro Bore Units. For more details of our other standard offerings, please refer to our website (www.renukatools.in).



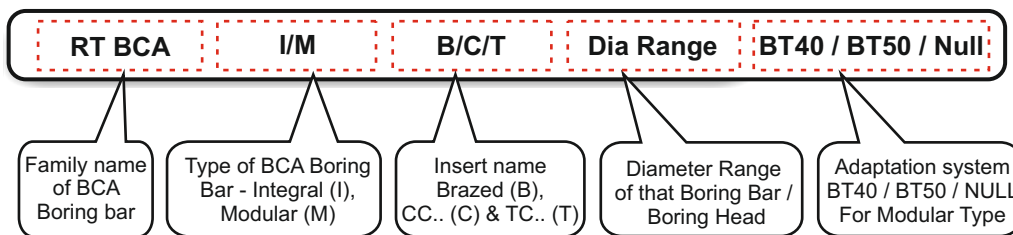
Facts & Advantages

- ▶ Used for finish boring application with a range of diameters from 16mm up to 244mm.
- ▶ Available with fine adjustment option with a Least Count of 10 microns radially.
- ▶ Available with options of selecting either integral or modular type depending on the requirement.
- ▶ User friendly & quick adjustment ensures minimum loss time.
- ▶ Most economic solution for finish boring for a wide range of diameters with precise adjustment in microns.
- ▶ Tailor made tools with similar concept also available on demand for the application of combination boring & OD turning.
- ▶ Apart from standard product range, tailor made Boring Bars & adaptors are also available on demand.



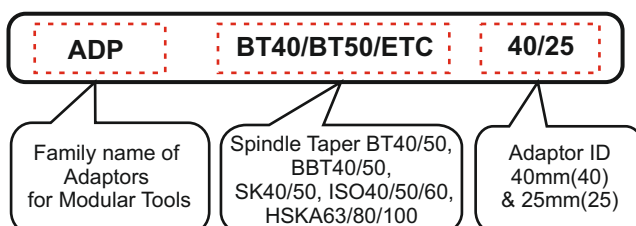
SAMPLE IMAGE

Nomenclature Code Key For Ordering BCA Finish Boring Bar

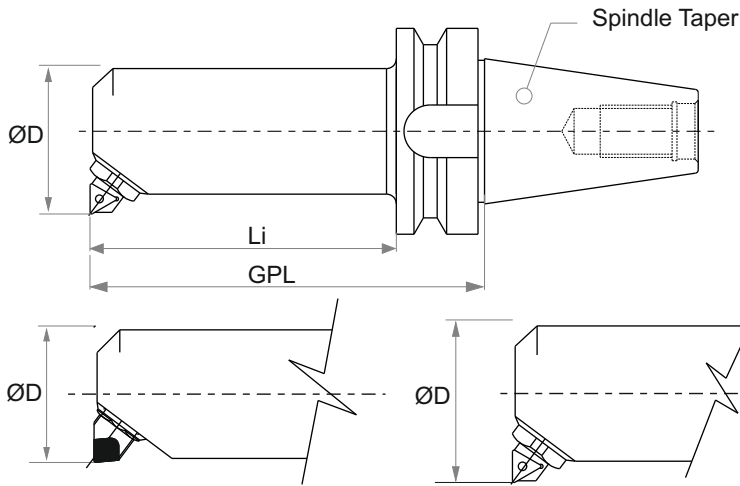


Ordering Example:
1 piece
RT BCA IT 23-29 BT40

Nomenclature Code Key for Ordering Adaptor



Ordering Example:
1 piece
ADP BT 40 25



SAMPLE IMAGE

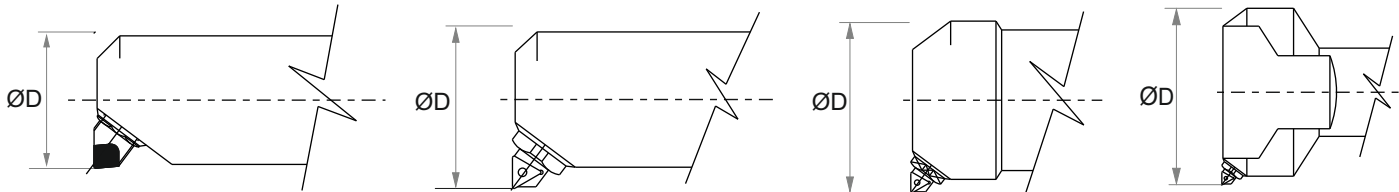


Fig 1

Fig 2

Fig 3

Fig 4

Integral Brazed Type BCA Finish Boring Bar

All dimensions are in mm.

Fig No.	Sr. No	Item Code	Spindle Taper	Cartridge Item Code	D Ømin - Ømax	Li	GPL
Fig 1	1	RT BCA IB 16-22.5 BT40/BT50	BT 40 / BT50	RTBC01AB (BRAZED)	16 - 22.5	73/77	105/120
	2	RT BCA IB 19-23.0 BT40/BT50	BT 40 / BT50	RTBC01BB (BRAZED)	19 - 23.0	88/92	120/135

Integral Type BCA Finish Boring Bar for TC.. Inserts

All dimensions are in mm.

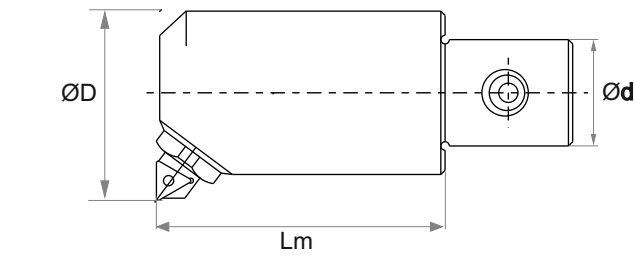
Fig No.	Sr. No	Item Code	Spindle Taper	Cartridge Item Code	Insert	D Ømin - Ømax	Li	GPL
Fig 2	1	RT BCA IT 23-29 BT40 / BT50	BT 40 / BT 50	RTBC03BT	TC..06T1	23-29	103/107	135 / 150
	2	RT BCA IT 29-41 BT40 / BT50	BT 40 / BT 50	RTBC03AT	TC..06T1	29-41	118/122	150 / 165
	3	RT BCA IT 38-49 BT40 / BT50	BT 40 / BT 50	RTBC05BT	TC..1102	38-49	118/122	150 / 165
	4	RT BCA IT 46-66 BT40 / BT50	BT 40 / BT 50	RTBC05AT	TC..1102	46-66	118/122	150 / 165
Fig 3	5	RT BCA IT 62-87 BT40 / BT50	BT 40 / BT 50	RTBC07AT	TC..1102	62-87	133/137	165 / 180
	6	RT BCA IT 83-108 BT40 / BT50	BT 40 / BT 50	RTBC07AT	TC..1102	83-108	133/137	165 / 180
	7	RT BCA IT 98-142 BT40 / BT50	BT 40 / BT 50	RTBC10AT	TC..16T3	98-142	133/137	165 / 180
	8	RT BCA IT 132-176 BT50	BT 50	RTBC10AT	TC..16T3	132-176	167	210
Fig 4	9	RT BCA IT 166-210 BT50	BT 50	RTBC10AT	TC..16T3	166-210	182	225
	10	RT BCA IT 200-244 BT50	BT 50	RTBC10AT	TC..16T3	200-244	167	210

Integral Type BCA Finish Boring Bar for CC.. Inserts

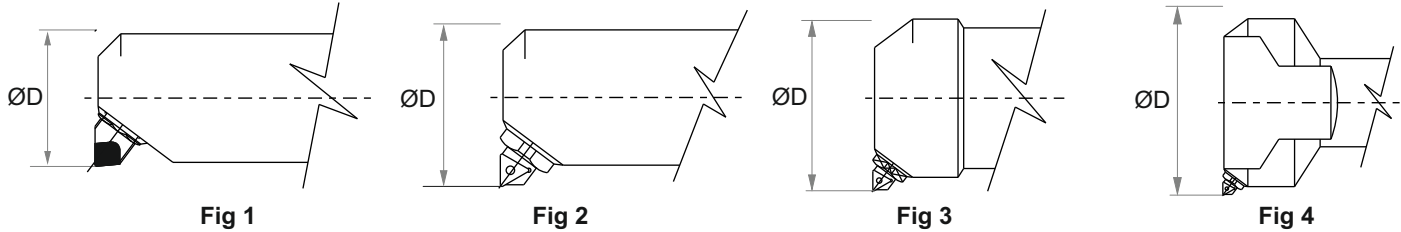
All dimensions are in mm.

Fig No.	Sr. No	Item Code	Spindle Taper	Cartridge Item Code	Insert	D Ømin - Ømax	Li	GPL
Fig 2	1	RT BCA IC 23-29 BT40 / BT50	BT 40 / BT 50	RTBC03BC	CC..0602	23-29	103/107	135 / 150
	2	RT BCA IC 29-41 BT40 / BT50	BT 40 / BT 50	RTBC03AC	CC..0602	29-41	118/122	150 / 165
	3	RT BCA IC 38-49 BT40 / BT50	BT 40 / BT 50	RTBC05BC	CC..0602	38-49	118/122	150 / 165
	4	RT BCA IC 46-66 BT40 / BT50	BT 40 / BT 50	RTBC05AC	CC..0602	46-66	118/122	150 / 165
Fig 3	5	RT BCA IC 62-87 BT40 / BT50	BT 40 / BT 50	RTBC07AC	CC..09T3	62-87	133/137	165 / 180
	6	RT BCA IC 83-108 BT40 / BT50	BT 40 / BT 50	RTBC07AC	CC..09T3	83-108	133/137	165 / 180
	7	RT BCA IC 98-142 BT40 / BT50	BT 40 / BT 50	RTBC10AC	CC..1204	98-142	133/137	165 / 180
	8	RT BCA IC 132-176 BT50	BT 50	RTBC10AC	CC..1204	132-176	167	210
Fig 4	9	RT BCA IC 166-210 BT50	BT 50	RTBC10AC	CC..1204	166-210	182	225
	10	RT BCA IC 200-244 BT50	BT 50	RTBC10AC	CC..1204	200-244	167	210

- Notes:
- Please refer to page no. 6 for insert spare details.
 - All required spares and cartridges are supplied with the tools. If required additionally, can be ordered separately as well. Inserts not included.
 - Lead time of 1-2 weeks for all options.
 - Customized BCA boring bars for other spindle tapers / side lock type can also be provided but will be made to order with lead time of 3-6 weeks.
 - Customized BCA boring bars for special diameters can also be provided but will be made to order with lead time of 3-6 weeks.
 - Diameter range 'D' calculated considering 0.4mm insert nose radius.
 - For additional cutting length requirement, customized BCA boring bars with anti-vibration treatment can be tailor made with a lead time of 3-6 weeks.
 - Maximum recommended material removal is 0.5mm diametrically.



SAMPLE IMAGE



Modular Brazed Type BCA Finish Boring Bar

All dimensions are in mm.

Fig No.	Sr. No	Item Code	Cartridge Item Code	Ød	D Ømin - Ømax	Lm	Lm+ L
Fig 1	1	RT BCA MB 16-22.5	RTBC01AB (BRAZED)	25	16 - 22.5	73	73
	2	RT BCA MB 19-23.0	RTBC01BB (BRAZED)	25	19 - 23.0	88	88

Modular Type BCA Finish Boring Bar for TC.. Inserts

All dimensions are in mm.

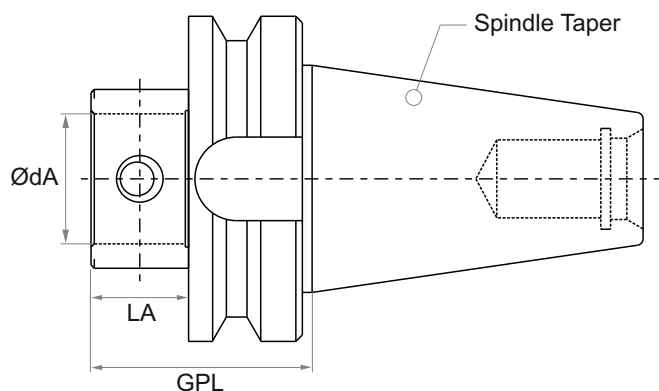
Fig No.	Sr. No	Item Code	Cartridge Item Code	Ød	Insert	D Ømin - Ømax	Lm	Lm + L
Fig 2	1	RT BCA MT 23-29	RTBC03BT	25	TC..06T1	23-29	103	103
	2	RT BCA MT 29-41	RTBC03AT	25	TC..06T1	29-41	118	118
	3	RT BCA MT 38-49	RTBC05BT	25	TC..1102	38-49	118	118
	4	RT BCA MT 46-66	RTBC05AT	25	TC..1102	46-66	88	118
Fig 3	5	RT BCA MT 62-87	RTBC07AT	25	TC..1102	62-87	107	137
	6	RT BCA MT 83-108	RTBC07AT	40	TC..1102	83-108	83	133
	7	RT BCA MT 98-142	RTBC10AT	40	TC..16T3	98-142	83	133
	8	RT BCA MT 132-176	RTBC10AT	40	TC..16T3	132-176	117	167
Fig 4	9	RT BCA MT 166-206	RTBC10AT	40	TC..16T3	166-210	132	182
	10	RT BCA MT 200-244	RTBC10AT	40	TC..16T3	200-244	117	167

Modular Type BCA Finish Boring Bar for CC.. Inserts

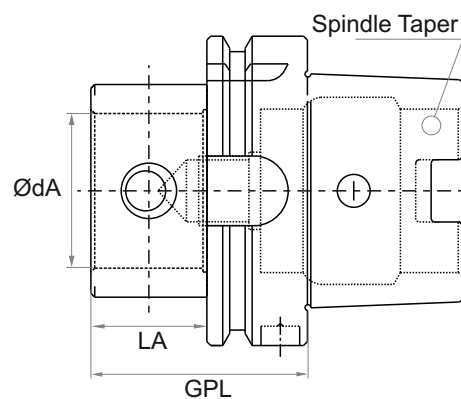
All dimensions are in mm.

Fig No.	Sr. No	Item Code	Cartridge Item Code	Ød	Insert	D Ømin - Ømax	Lm	Lm + L
Fig 2	1	RT BCA MC 23-29	RTBC03BC	25	CC..0602	23-29	103	103
	2	RT BCA MC 29-41	RTBC03AC	25	CC..0602	29-41	118	118
	3	RT BCA MC 38-49	RTBC05BC	25	CC..0602	38-49	118	118
	4	RT BCA MC 46-66	RTBC05AC	25	CC..0602	46-66	88	118
Fig 3	5	RT BCA MC 62-87	RTBC07AC	25	CC..09T3	62-87	107	137
	6	RT BCA MC 83-108	RTBC07AC	40	CC..09T3	83-108	83	133
	7	RT BCA MC 98-142	RTBC10AC	40	CC..1204	98-142	83	133
	8	RT BCA MC 132-176	RTBC10AC	40	CC..1204	132-176	117	167
Fig 4	9	RT BCA MC 166-206	RTBC10AC	40	CC..1204	166-210	132	182
	10	RT BCA MC 200-244	RTBC10AC	40	CC..1204	200-244	117	167

- Notes:
- Please refer to page no. 6 for insert spare details.
 - All required spares and cartridges are supplied with the tools. If required additionally, can be ordered separately as well. Inserts not included.
 - 'Lm+L' is the total effective working length of the BCA boring bar where 'L' is additional working length of adaptor (applicable from range 46-66 onwards).
 - To order the right adaptor, please ensure that the shank diameter of Boring Head 'ØD' should match the diameter of Adaptor ID 'ØdA'.
 - Lead time of 1-2 weeks for all options.
 - Customized BCA boring bars for special diameters can also be provided but will be made to order with lead time of 3-6 weeks.
 - Diameter range 'D' calculated considering 0.4mm insert nose radius.
 - For additional cutting length requirement, customized BCA boring bars with anti-vibration treatment can be tailor made with a lead time of 3-6 weeks.
 - Maximum recommended material removal is 0.5mm diametrically.



Conceptual Drawing for BT / BBT / SK / ISO



Conceptual Drawing for HSK

All dimensions are in mm.

Sr. No	Item Code	Spindle Taper	Adaptor ID ØdA	LA	GPL	Adaptor Bolt Item Code	Stock
1	ADP BT40 25	BT 40	25	30	57.0	RTABM825	★
2	ADP BT40 40	BT 40	40	50	77.0	RTABM840	★
3	ADP BT50 25	BT 50	25	30	68.0	RTABM825	★
4	ADP BT50 40	BT 50	40	50	88.0	RTABM840	★
5	ADP BBT40 25	BBT 40	25	30	55.0	RTABM825	◆
6	ADP BBT40 40	BBT 40	40	50	75.0	RTABM840	◆
7	ADP BBT50 25	BBT 50	25	30	65.0	RTABM825	◆
8	ADP BBT50 40	BBT 50	40	50	85.0	RTABM840	◆
9	ADP SK40 25	SK 40	25	30	49.1	RTABM825	◆
10	ADP SK40 40	SK 40	40	50	69.1	RTABM840	◆
11	ADP SK50 25	SK 50	25	30	49.1	RTABM825	◆
12	ADP SK50 40	SK 50	40	50	69.1	RTABM840	◆
13	ADP ISO40 25	ISO 40	25	30	40.0	RTABM825	◆
14	ADP ISO40 40	ISO 40	40	50	60.0	RTABM840	◆
15	ADP ISO50 25	ISO 50	25	30	42.0	RTABM825	◆
16	ADP ISO50 40	ISO 50	40	50	62.0	RTABM840	◆
17	ADP ISO60 25	ISO 60	25	30	46.0	RTABM825	◆
18	ADP ISO60 40	ISO 60	40	50	66.0	RTABM840	◆
19	ADP HSKA50 25	HSKA 50	25	30	56.0	RTABM825	◆
20	ADP HSKA50 40	HSKA 50	40	50	76.0	RTABM840	◆
21	ADP HSKA63 25	HSKA 60	25	30	56.0	RTABM825	◆
22	ADP HSKA63 40	HSKA 60	40	50	76.0	RTABM840	◆
23	ADP HSKA80 25	HSKA 80	25	30	56.0	RTABM825	◆
24	ADP HSKA80 40	HSKA 80	40	50	76.0	RTABM840	◆
25	ADP HSKA100 25	HSKA 100	25	30	59.0	RTABM825	◆
26	ADP HSKA100 40	HSKA 100	40	50	79.0	RTABM840	◆

Notes:

- To order the right adaptor, kindly ensure that the shank diameter of Modular Boring Head 'Ød' should match the diameter of Adaptor ID 'ØdA'.
- Special Adaptor bolt will be provided along with the Adaptors. Can be ordered separately if required additionally.
- "LA" gets added with the effective cutting length of BCA boring Bar from diameter range "46-66" onwards becoming "Lm + L".
- Customized adaptors of any spindle taper can also be provided but will be made to order with lead time of 3-6 weeks.
- In the table above, ★ denotes ready in stock and ◆ denotes lead time of 2-3 weeks.

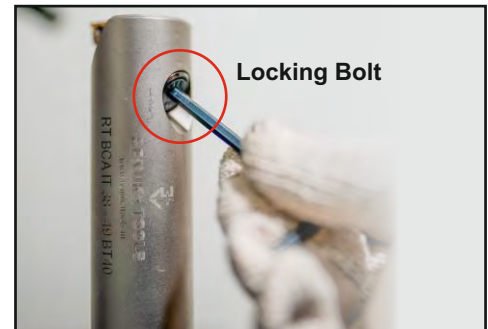
Spare Details

Sr. no.	INSERT ▲ ◆	Insert Screw ⚙	Torx ⚡
1	TC.. 06T1	M2.0	T-6
2	TC.. 1102	M2.5	T-7
3	TC.. 16T3	M3.5	T-15
4	CC.. 0602	M2.5	T-7
5	CC.. 09T3	M3.5	T-15
6	CC..1204	M4.5	T-20

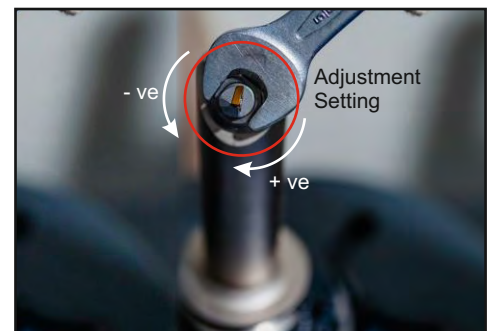
- ▶ Follow instructions below to assemble the modular type BCA Boring Bar:
 - a) Clamp the right adaptor on to the boring head with the adaptor bolts provided with the adaptor.
 - b) Post assembly (if required), measure the exact diameter on the pre-setter or by using a precise dial indicator.
- ▶ The boring bar is initially set on minimum diameter mark. (pic 1)
- ▶ In case you wish to adjust the diameter, loosen the Locking Screw provided on the rear end of the cartridges with the allen key provided and adjust the diameter using spanner on the nut of the cartridge. (pic 2)
- ▶ Use the dial marking to set the required diameter, adjust accordingly and then recheck if the required size is achieved. (pic 1 & 3)
- ▶ If the required diameter is achieved, tighten the locking screws of cartridges with a sufficient torque for precise repeatability. (pic 2)
- ▶ The tool is now ready to use.
- ▶ It is recommended to do some periodic lubrication at your end to avoid damage due to rusting.
- ▶ Please change the locking screw & insert screw ahead in time to avoid accident.



(pic 1)



(pic 2)

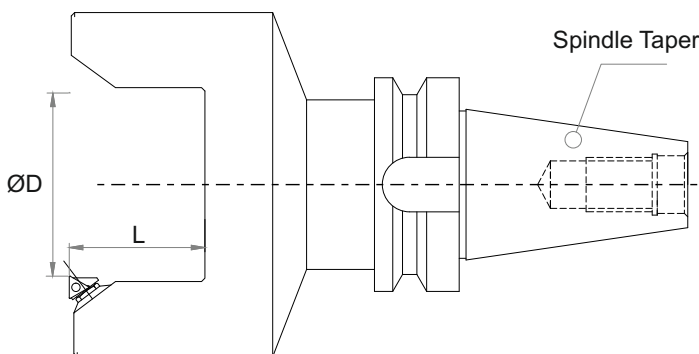


(pic 3)

Other Applications with Similar Tooling Concept

OD Turning Tool

- ▶ Similar concept & cartridges can also be used for OD Turning application as shown below. These can be ordered as per your customized requirements from Renuka Tools®.
- ▶ Lead time of 3-6 weeks.
- ▶ Minimum Diameter $\text{ØD} = \text{Ø}12.0\text{mm}$



SAMPLE IMAGE



OUR OTHER STANDARD PRODUCTS

FINE BORING BARS & MICRO BORE UNITS



ECCENTRIC FINE BORING TOOLS



BORING KIT



DUO BORING BARS



OUR OTHER CUSTOMIZED PRODUCTS

COMBINATION BORING BARS
ANTI-VIBRATION BORING BARS
SPECIAL CARTRIDGES



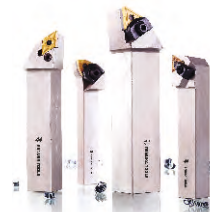
U-DRILLS
TREPANNING TOOLS



MILLING CUTTERS



TURNING TOOLS



SPECIAL ADAPTORS



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