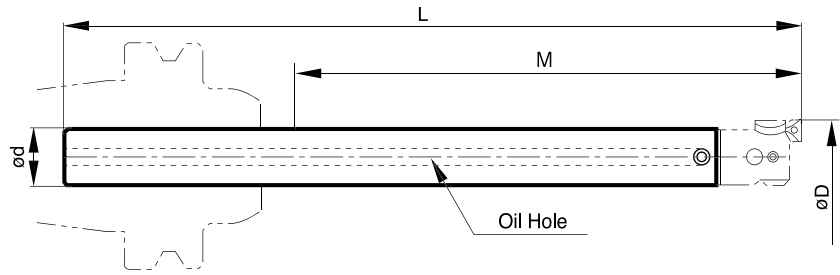




# MICRO BORING BAR Straight Shank (MD-FBH)

Precision Micro Boring Systems For the Ultimate In Precision & Accuracy from ØD26-ØD50mm



## Standard Micro Boring Bar (MD-FBH Series, Steel or Carbide Shank)

Order Code (Shank & Head)	£	Ød	Boring Range ØD		L	Max Boring Depth	Basic Shank	Micro Boring Head	Bite	Shank
			Min	Max						
S25W-FBH26N-150	£794.00	25	26	34	235	150	S25W-MD25F-197.5	FBH2526N	FBB26N	Carbide
S25W-FBH26N-175	£820.00	25	26	34	260	175	S25W-MD25F-222.5	FBH2526N	FBB26N	Carbide
S25W-FBH26N-200	£845.00	25	26	34	285	200	S25W-MD25F-247.5	FBH2526N	FBB26N	Carbide
S32W-FBH33N-180	£996.00	32	33	43	280	180	S32W-MD32F-239	FBH3233N	FBB33N	Carbide
S32W-FBH33N-240	£1,122.00	32	33	43	340	240	S32W-MD32F-299	FBH3233N	FBB33N	Carbide
S19-FBH20N-40	£415.00	19	20	26	110	40	S19-MD19F-77	FBH1920N	FBB20N	Steel
S19-FBH20N-80	£424.00	19	20	26	150	80	S19-MD19F-117	FBH1920N	FBB20N	Steel
S25-FBH26N-50	£443.00	25	26	34	135	50	S25-MD25F-97.5	FBH2526N	FBB26N	Steel
S25-FBH26N-75	£447.00	25	26	34	160	75	S25-MD25F-122.5	FBH2526N	FBB26N	Steel
S25-FBH26N-100	£451.00	25	26	34	185	100	S25-MD25F-147.5	FBH2526N	FBB26N	Steel
S32-FBH33N-90	£473.00	32	33	43	190	90	S32-MD32F-149	FBH3233N	FBB33N	Steel
S32-FBH33N-120	£478.00	32	33	43	220	120	S32-MD32F-179	FBH3233N	FBB33N	Steel

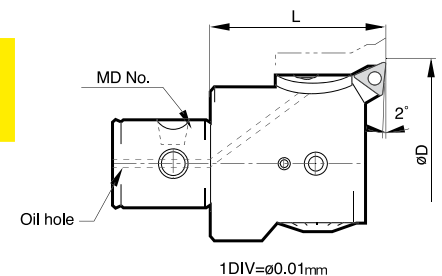
\*Bite not included



- Fine adjusting system - 0.01mm graduations.
- Compact design and intensive functions can achieve H6/H7 tolerances.
- Wide boring ranges: ØD15mm-50mm.
- Through coolant as standard.
- Carbide shank holders for rigidity in long reach applications.

## (MD-FBH Series) Micro Boring Heads

Order Code	£	Boring Range ØD		L	Scale Ring 1Rev. Adjustable range	MD No	kg
		Min	Max				
FBH1920N	£341.00	20	26	33	Ø0.4mm	MD1911	0.06
FBH2526N	£365.00	26	34	37.5	Ø0.4mm	MD2514	0.12
FBH3233N	£388.00	33	43	41	Ø0.5mm	MD3218	0.24



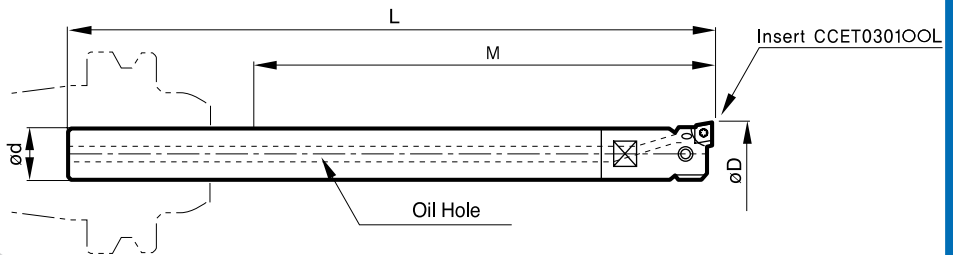
## FBB Bites

Order Code	£	Insert
FBB20N	£46.00	TPGT0802 $\circ\circ$ L, TPGW0802 $\circ\circ$
FBB26N	£46.00	TPGT0802 $\circ\circ$ L, TPGW0802 $\circ\circ$
FBB33N	£46.00	TPGT0802 $\circ\circ$ L, TPGW0802 $\circ\circ$

# Straight Shank (MD-FBH Mini) MICRO BORING BAR



Precision Micro Boring Systems For the Ultimate In Precision & Accuracy from  $\varnothing$ D15- $\varnothing$ D22mm



## Mini Micro Boring Bar (MD-FBH Series, Steel or Carbide Shank)

Order Code (Shank & Head)	£	$\varnothing d$	Boring Range $\varnothing D$		L	Max Boring Depth	Basic Shank	Micro Boring Head	Bite	Shank
			Min	Max						
S14W-FBH15-85	£442.00	14	15	18	155	85	S14W-M6-123	FBH15	FBB15-C	Carbide
S14W-FBH15-110	£459.00	14	15	18	180	110	S14W-M6-148	FBH15	FBB15-C	Carbide
S16W-FBH18-95	£484.00	16	18	22	165	95	S16W-M8-128	FBH18	FBB15-C	Carbide
S16W-FBH18-125	£509.00	16	18	22	195	125	S16W-M8-158	FBH18	FBB15-C	Carbide
S14-FBH15-40	£380.00	14	15	18	110	40	S14-M6-78	FBH15	FBB15-C	Steel
S16-FBH18-45	£380.00	16	18	22	115	45	S16-M8-78	FBH18	FBB15-C	Steel

\*Bite not included



## (MD-FBH Series) Micro Boring Heads

Order Code	£	Boring Range $\varnothing D$		Scale Ring 1Rev. Adjustable range
		Min	Max	
FBH15	£294.00	15	18	$\varnothing$ 0.4mm
FBH18	£300.00	18	22	$\varnothing$ 0.4mm

- Fine adjusting system - 0.01mm graduations.
- Compact design and intensive functions can achieve H6/H7 tolerances.
- Wide boring ranges:  $\varnothing$ D15mm-50mm.
- Through coolant as standard.
- Carbide shank holders for rigidity in long reach applications.

## FBB Bites

Order Code	£	Insert
FBB15-C	£51.00	CCET0301L



## Tech Box...

For best performance, rigidity, accuracy and minimal vibration, always clamp in a hydraulic expansion chuck. Available in section A.



Spindle Tooling

Dinox Modular

Angle Heads

VDI Tooling

Driven Tooling

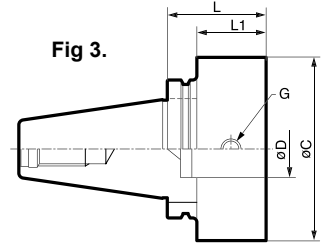
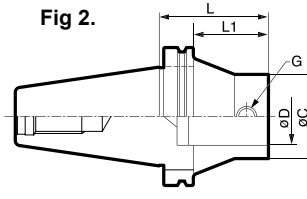
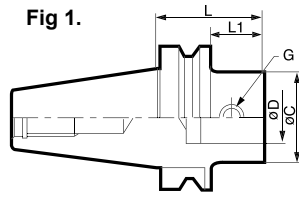
Vices & Clamps

HSK ICTM



# MODULAR BT MAS Basic Holders (MD Series)

For Use With Micro boring Systems (FBH Series) & Twin Cut Balanced Tools (DBC Series)



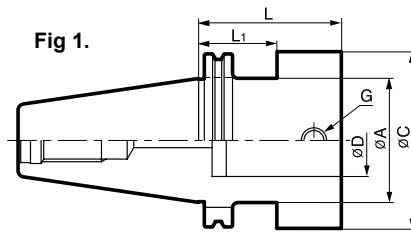
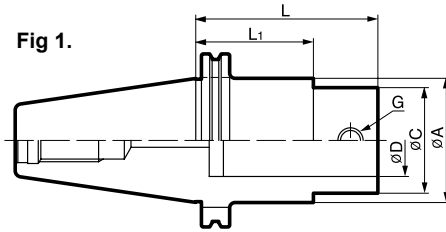
## BT MAS - Basic Holder (MD Series)

Order Code (Basic Body)	£	MD No	ØC	ØD	L	L1	G	KG	Fig
BT40-MD19F-70	£89.00	MD1911	19	11	70	43	M5	1.8	1
BT40-MD25F-95	£89.00	MD2514	25	14	95	68	M6	1.9	1
BT40-MD25F-105R	£90.00	MD2514	25	14	105	78	M6	1.9	1
BT40-MD32F-100	£92.00	MD3218	32	18	100	73	M8	2.3	1
BT40-MD32F-115R	£94.00	MD3218	32	18	115	88	M8	2.4	1
BT40-MD40F-60	£94.00	MD4022	40	22	60	33	M10	2.7	2
BT40-MD40F-110R	£107.00	MD4022	40	22	110	83	M10	2.7	2
BT40-MD40F-115	£110.00	MD4022	40	22	115	88	M10	2.7	1
BT40-MD50F-100R	£110.00	MD5028	50	28	100	73	M12	2.7	2
BT40-MD50F-105	£110.00	MD5028	50	28	105	78	M12	2.7	1
BT40-MD63F-64	£122.00	MD6336	63	36	64	37	M16	3.3	3
BT40-MD63F-90	£125.00	MD6336	63	36	90	63	M16	3.6	3
BT40-MD63F-110	£129.00	MD6336	63	36	110	83	M16	4.6	3
BT40-MD63F-135	£132.00	MD6336	63	36	135	108	M16	4.7	3
BT40-MD80F-100	£132.00	MD8045	80	45	100	73	M16	4.8	3
BT50-MD19F-85	£92.00	MD1911	19	11	85	47	M5	4.3	1
BT50-MD19F-100	£92.00	MD1911	19	11	100	62	M5	4.3	1
BT50-MD25F-55	£99.00	MD2514	25	14	55	17	M6	4.3	1
BT50-MD25F-105	£101.00	MD2514	25	14	105	67	M6	4.5	1
BT50-MD25F-120R	£103.00	MD2514	25	14	120	82	M6	4.7	2
BT50-MD32F-110	£107.00	MD3218	32	18	110	72	M8	5.1	1
BT50-MD32F-115R	£107.00	MD3218	32	18	115	77	M8	5.1	2
BT50-MD32F-235R	£138.00	MD3218	32	18	235	148	M8	5.1	2
BT50-MD40F-60	£120.00	MD4022	40	22	60	22	M10	5	1
BT50-MD40F-125R	£121.00	MD4022	40	22	125	87	M10	5.1	1
BT50-MD40F-145	£129.00	MD4022	40	22	230	107	M10	5.1	1
BT50-MD50F-70	£125.00	MD5028	50	28	70	22	M12	5.6	1
BT50-MD50F-125	£125.00	MD5028	50	28	125	87	M12	6	1
BT50-MD50F-160R	£124.00	MD5028	50	28	160	122	M12	6.2	1
BT50-MD50F-225	£147.00	MD5028	50	28	225	187	M12	8.4	1
BT50-MD50F-250R	£156.00	MD5028	50	28	250	212	M12	6.5	2
BT50-MD63F-75	£131.00	MD6336	63	36	75	37	M12	6.8	1
BT50-MD63F-130	£138.00	MD6336	63	36	130	92	M16	6	1
BT50-MD63F-140	£139.00	MD6336	63	36	140	92	M16	6	1
BT50-MD63F-140R	£139.00	MD6336	63	36	140	102	M16	6	2
BT50-MD63F-195	£156.00	MD6336	63	36	195	157	M16	8	1
BT50-MD63F-230	£165.00	MD6336	63	36	230	192	M16	8.4	1
BT50-MD63F-240R	£151.00	MD6336	63	36	240	202	M16	8.4	2
BT50-MD80F-75	£139.00	MD8045	80	45	75	37	M16	9.1	1
BT50-MD80F-110	£146.00	MD8045	80	45	110	72	M16	9.4	1
BT50-MD80F-175	£165.00	MD8045	80	45	175	137	M16	9.5	1
BT50-MD90F-75	£147.00	MD9045	90	45	75	37	M16	9.8	1
BT50-MD90F-145	£161.00	MD9045	90	45	145	107	M16	10.2	1
BT50-MD90F-195	£175.00	MD9045	90	45	195	157	M16	10.4	1

# DIN69871 Basic Holders (MD Series) MODULAR



For Use With Micro boring Systems (FBH Series) & Twin Cut Balanced Tools (DBC Series)



## SK DIN69871 - Basic Holder (MD Series)

Order Code (Basic Body)	£	MD No	ØC	ØD	ØA	L	L1	G	KG	Fig
SK40-MD19F-80	£89.00	MD1911	19	11	50	80	35	M5	1.8	1
SK40-MD25F-80	£89.00	MD2514	25	14	50	80	36	M6	1.8	1
SK40-MD25F-105	£90.00	MD2514	25	14	50	105	36	M6	1.9	1
SK40-MD32F-85	£90.00	MD3218	32	18	50	85	36	M8	2	1
SK40-MD32F-115	£92.00	MD3218	32	18	50	115	36	M8	2.3	1
SK40-MD40F-60	£94.00	MD4022	40	22	50	60	36	M10	2.4	1
SK40-MD40F-100	£107.00	MD4022	40	22	50	100	36	M10	2.4	1
SK40-MD40F-125	£108.00	MD4022	40	22	50	125	36	M10	2.7	1
SK40-MD50F-75	£109.00	MD5028	50	28	50	75	36	M12	2.2	2
SK40-MD50F-100	£107.00	MD5028	50	28	50	100	36	M12	2.2	2
SK40-MD63F-70	£124.00	MD6336	63	36	50	70	36	M16	3.3	2
SK50-MD19F-85	£92.00	MD1911	19	11	80	85	36	M5	4.2	1
SK50-MD25F-80	£99.00	MD2514	25	14	80	80	36	M6	4.3	1
SK50-MD25F-105	£101.00	MD2514	25	14	80	105	36	M6	4.7	1
SK50-MD32F-85	£105.00	MD3218	32	18	80	85	36	M8	4.8	1
SK50-MD32F-110	£107.00	MD3218	32	18	80	110	36	M8	5.1	1
SK50-MD32F-155	£110.00	MD3218	32	18	80	155	36	M8	5.3	1
SK50-MD40F-100	£122.00	MD4022	40	22	80	100	36	M10	5.2	1
SK50-MD40F-145	£129.00	MD4022	40	22	80	145	36	M10	5.3	1
SK50-MD40F-195	£138.00	MD4022	40	22	80	195	36	M10	5.4	1
SK50-MD40F-220	£144.00	MD4022	40	22	80	220	36	M10	5.5	1
SK50-MD50F-100	£123.00	MD5028	50	28	80	100	36	M12	5.8	1
SK50-MD50F-125	£125.00	MD5028	50	28	80	125	36	M12	6.1	1
SK50-MD50F-225	£147.00	MD5028	50	28	80	225	36	M12	6.6	1
SK50-MD50F-240	£154.00	MD5028	50	28	80	240	36	M12	6.8	1
SK50-MD63F-75	£131.00	MD6336	63	36	80	75	36	M16	5.6	1
SK50-MD63F-110	£135.00	MD6336	63	36	80	110	36	M16	5.8	1
SK50-MD63F-130	£138.00	MD6336	63	36	80	130	36	M16	5.8	1
SK50-MD63F-140	£139.00	MD6336	63	36	80	140	36	M16	6	1
SK50-MD63F-195	£156.00	MD6336	63	36	80	195	36	M16	8	1
SK50-MD63F-230	£165.00	MD6336	63	36	80	230	36	M16	8.3	1
SK50-MD80F-95	£143.00	MD8045	80	45	80	95	36	M16	9.2	2
SK50-MD80F-150	£162.00	MD8045	80	45	80	150	36	M16	9.5	2
SK50-MD90F-75	£147.00	MD9045	90	45	80	75	36	M16	9.3	2
SK50-MD90F-115	£158.00	MD9045	90	45	80	115	36	M16	10.1	2
SK50-MD90F-165	£171.00	MD9045	90	45	80	165	36	M16	10.3	2

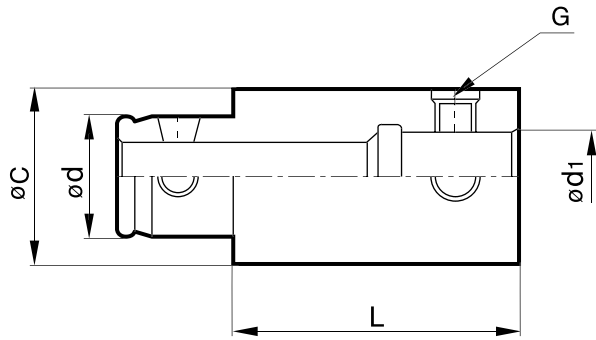
MD Series Holders - Suitable for all the heads below.....





# MODULAR Extension Bar (MD-EXT Series)

For Use With Micro boring Systems (FBH Series) & Twin Cut Balanced Tools (DBC Series) & MD Series (BT MAS or DIN69871) Basic Toolholders



- For extending reach length on MD Modular systems
- Special design cone locking screw for fast and accurate setting
- High accuracy assembly (error less than 5µm)

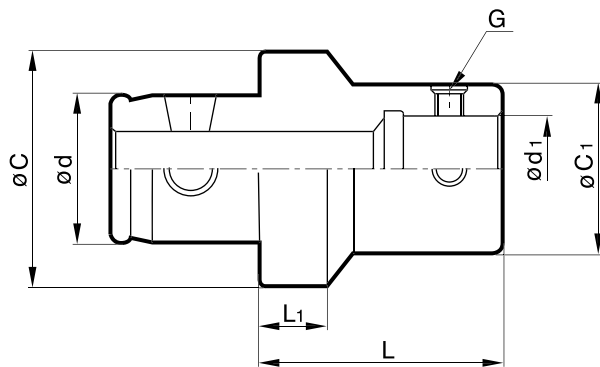
## Extension Bar (EXT Series)

Order Code	£	MD No.	ØC	Ød	L	Ød1	G
EXT1930F	£44.00	MD1911	19	11	30	11	M5
EXT1950F	£44.00	MD1911	19	11	50	11	M5
EXT2530F	£46.00	MD2514	25	14	30	14	M6
EXT2550F	£52.00	MD2514	25	14	50	14	M6
EXT3235F	£52.00	MD3218	32	18	35	18	M8
EXT3260F	£52.00	MD3218	32	18	60	18	M8
EXT4040F	£52.00	MD4022	40	22	40	22	M10
EXT4090F	£55.00	MD4022	40	22	90	22	M12
EXT5050F	£55.00	MD5028	50	28	50	28	M12
EXT50100F	£61.00	MD5028	50	28	100	28	M12
EXT6360F	£55.00	MD6336	63	36	60	36	M16
EXT63120F	£61.00	MD6336	63	36	120	36	M16
EXT8070F	£78.00	MD8045	80	45	70	45	M16
EXT80120F	£84.00	MD8045	80	45	120	45	M16
EXT9080F	£95.00	MD9045	90	45	80	45	M16
EXT90130F	£95.00	MD9045	90	45	130	45	M16

# Reduction Bar (MD-RDC Series) MODULAR



For Use With Micro boring Systems (FBH Series) & Twin Cut Balanced Tools (DBC Series)  
& MD Series (BT MAS or DIN69871) Basic Toolholders



## DINE Inc.

- For extending reach length on MD Modular systems.
- For reducing from a larger tool holder to a smaller head
- Special design cone locking screw for fast and accurate setting
- High accuracy assembly (error less than 5µm)

### Reduction Bar (RDC Series)

Order Code	£	Ød	MD No. Back	MD No. Front	ØC1	Ød1	ØC	L	L1	G
RDC3225F	£66.00	18	MD3218	MD2514	25	14	32	30	9	M6
RDC4025F	£66.00	22	MD4022	MD2514	25	14	40	30	9	M6
RDC4032F	£66.00	22	MD4022	MD3218	32	18	40	30	9	M8
RDC5025F	£66.00	28	MD5028	MD2514	25	14	50	30	9	M6
RDC5032F	£66.00	28	MD5028	MD3218	32	18	50	30	9	M8
RDC5040F	£66.00	28	MD5028	MD4022	40	22	50	40	10	M10
RDC6325F	£77.00	36	MD6336	MD2514	25	14	63	30	9	M6
RDC6332F	£77.00	36	MD6336	MD3218	32	18	63	30	9	M8
RDC6340F	£77.00	36	MD6336	MD4022	40	22	63	40	10	M10
RDC6350F	£77.00	36	MD6336	MD5028	50	28	63	45	10	M12
RDC8032F	£88.00	45	MD8045	MD3218	32	18	80	30	9	M6
RDC8040F	£88.00	45	MD8045	MD4022	40	22	80	40	10	M10
RDC8050F	£88.00	45	MD8045	MD5028	50	28	80	45	10	M12
RDC8063F	£88.00	45	MD8045	MD6336	63	36	80	50	13	M16

Spindle Tooling

Dinox Modular

Angle Heads

VDI Tooling

Driven Tooling

Vices & Clamps

HSK ICTM