



2017 Master Catalog

WIDIA  TM

Precision Hole Finishing •
ROTAFLEX™

ROTAFLEX



The WIDIA™ line of Precision Hole Finishing ensures decreased vibration, increased productivity, and reduced calls for scheduled maintenance. You can count on consistent hole diameters, high speed and feed rates, and good surface quality at a great price.

- Easy adjustments and low initial investment.
- Roughing and precision finishing heads available.
- For roughing and fine finishing operations over a broad diameter range.

The newly developed RFX coupling eases assembly and disassembly and enhances stability

- Increased machine tool productivity and less vibration.
- Standard micro-adjustable cartridges for fine finishing operations.
- Internal coolant and spacious chip flutes.



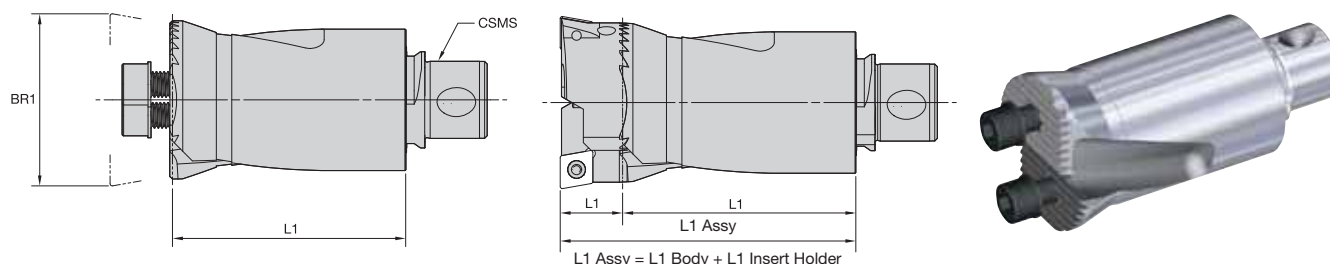
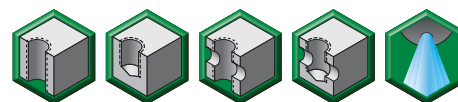
EXTREME CHALLENGES. EXTREME RESULTS.

Advanced system uses the progressive RFX coupling and the latest technology WIDIA™ Victory™ ISO turning inserts

- High feed rates due to the proprietary front serration of the TCHS twin cutters.
- Internal coolant and spacious chip flutes ensure secure chip evacuation.
- High-precision adjustment of FBH and FBHBB Fine-Boring Heads with the axial and radial pre-loaded eccentric bushing instead of a threaded spindle.
- Higher rigidity with the new RFX bayonet-type coupling.
- Achieve unmatched tool life with WIDIA Victory grades.

WIDIA 

- Basic body shipped without insert holders.
- Order insert holder, slides, or micro-adjustable cartridges separately.



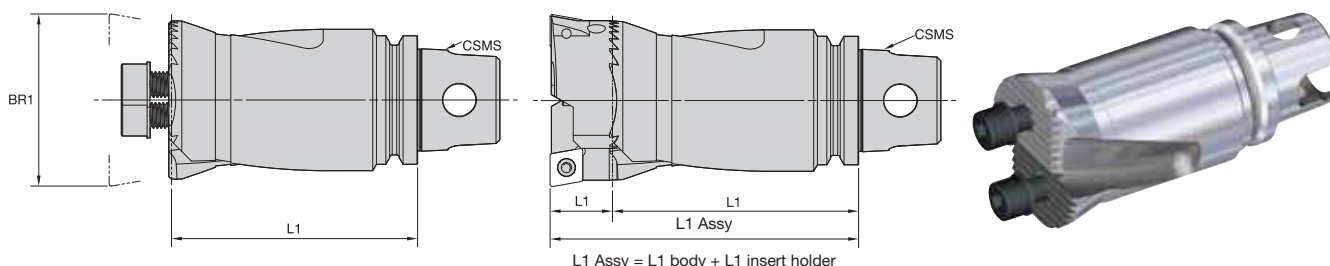
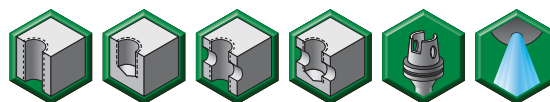
■ TCHS • RFX Shank Series

order number	catalog number	BR1 bore range		L1		CSMS system size	kg	lbs
		mm	in	mm	in			
3861179	RFX185TCHS022030	22,500-30,000	0.8858-1.1811	27,7	1.089	RFX185	0,20	.40
3861180	RFX245TCHS030039	30,000-39,000	1.1811-1.5354	37,7	1.482	RFX245	0,20	.40
3861181	RFX320TCHS039050	39,000-50,000	1.5354-1.9685	48,7	1.917	RFX320	0,50	1.10
3861182	RFX420TCHS050067	50,000-67,000	1.9685-2.6378	68,2	2.685	RFX420	1,00	2.20
3861183	RFX550TCHS067088	67,000-88,000	2.6378-3.4646	90,7	3.571	RFX550	2,00	4.40
3861184	RFX720TCHS088115	88,000-115,000	3.4646-4.5276	113,7	4.476	RFX720	4,00	8.80

■ Spare Parts

catalog number	fixing screw	disc washer
RFX185TCHS022030	12147602700	12147600100
RFX245TCHS030039	12147602300	12147603900
RFX320TCHS039050	12147602400	12147600200
RFX420TCHS050067	12147602500	12147604000
RFX550TCHS067088	12147602600	12147600300
RFX720TCHS088115	12147602800	12147600400

- Basic body shipped without insert holders.
- Order insert holder, slides, or micro-adjustable cartridges separately.



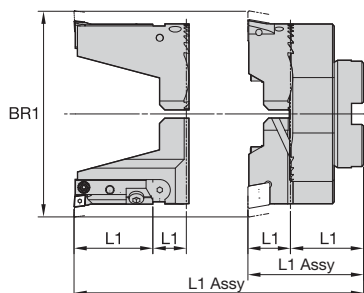
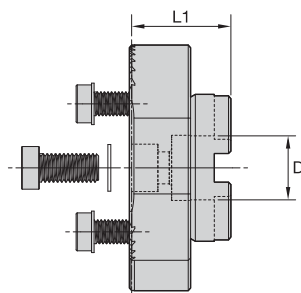
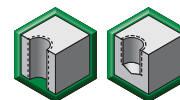
■ TCHS • KM-TS™ Shank Series

order number	catalog number	BR1 bore range		L1		CSMS system size	kg	lbs
		mm	in	mm	in			
3861149	KM32TSTCHS022030	22,000-30,000	0.8661-1.1811	52,7	2.073	KM32TS	0,30	.70
3861150	KM32TSTCHS030039	30,000-39,000	1.1811-1.5354	67,7	2.663	KM32TS	0,50	1.10
3861151	KM32TSTCHS039050	39,000-50,000	1.5354-1.9685	63,7	2.508	KM32TS	0,70	1.50
3861152	KM40TSTCHS030039	30,000-39,000	1.1811-1.5354	87,7	3.451	KM40TS	0,60	1.30
3861173	KM40TSTCHS039050	39,000-50,000	1.5354-1.9685	83,7	3.295	KM40TS	1,00	2.20
3861174	KM40TSTCHS050067	50,000-67,000	1.9685-2.6378	78,2	3.079	KM40TS	1,10	2.40
3861175	KM50TSTCHS050067	50,000-67,000	1.9685-2.6378	88,2	3.472	KM50TS	1,20	2.60
3861176	KM50TSTCHS067088	67,000-88,000	2.6378-3.4646	95,7	3.768	KM50TS	1,40	3.10
3861177	KM63TSTCHS067088	67,000-88,000	2.6378-3.4646	95,7	3.768	KM63TS	1,80	4.00
3861178	KM63TSTCHS088115	88,000-115,000	3.4646-4.5276	93,7	3.689	KM63TS	2,40	5.30

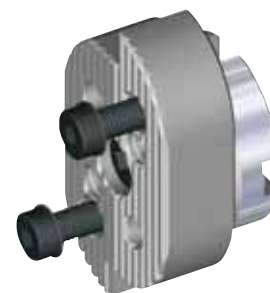
■ Spare Parts

catalog number	fixing screw	disc washer
KM32TSTCHS022030	12147602700	12147600100
KM32TSTCHS030039	12147602300	12147603900
KM32TSTCHS039050	12147602400	12147600200
KM40TSTCHS030039	12147602300	12147603900
KM40TSTCHS039050	12147602400	12147600200
KM40TSTCHS050067	12147602500	12147604000
KM50TSTCHS050067	12147602500	12147604000
KM50TSTCHS067088	12147602600	12147600300
KM63TSTCHS067088	12147602600	12147600300
KM63TSTCHS088115	12147602800	12147600400

- For use with shell mill adapters; please order separately.
- Bridge body shipped without insert holder, slides, or micro-adjustable cartridges.
- Order insert holder separately for rough boring and slides for fine boring.
- Order micro-adjustable cartridges separately for fine boring.



L1 Assy = L1 bridge + L1 insert holder
L1 Assy = L1 bridge + L1 slide + L1 cartridge



■ Bridge Tool • Small

order number	catalog number	BR1 bore range		D		L1		kg	lbs
		mm	in	mm	in	mm	in		
2006019	12600208800	87,000-110,000	3.4252-4.3307	27,0	1.063	40,3	1.587	1,70	3.7
2005500	12600210900	109,000-133,000	4.2913-5.2362	27,0	1.063	40,3	1.587	1,90	4.2
2005553	12600213200	132,000-156,000	5.1969-6.1417	27,0	1.063	40,3	1.587	2,10	4.6
2005556	12600215500	155,000-179,000	6.1024-7.0472	27,0	1.063	40,3	1.587	2,30	5.1
2005560	12600217800	178,000-202,000	7.0079-7.9528	27,0	1.063	40,3	1.587	2,50	5.5

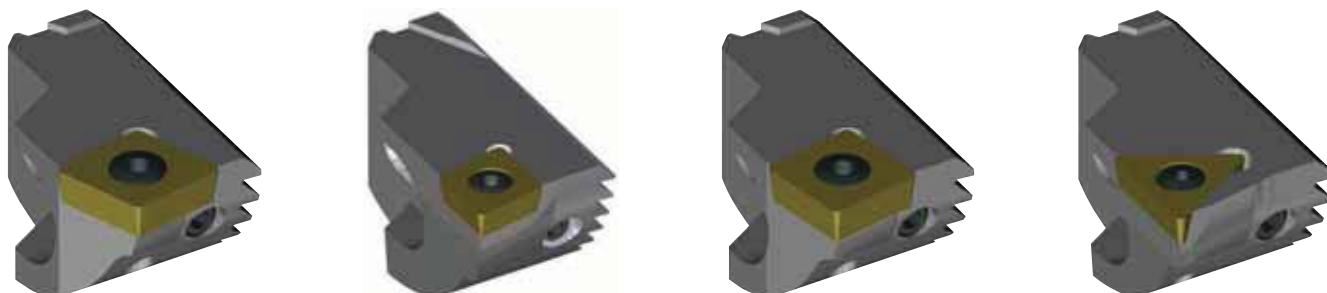
NOTE: Use of ISO cartridges SCLCL12CA12, STGCL12CA16, or SSRCL12CA12 are recommended.

■ Spare Parts

catalog number	fixing screw	fixing screw	fixing screw	disc washer	disc washer
12600208800	—	12346233000	12147519100	12147600300	—
12600210900	12147613500	—	12147519100	12147600300	12147740200
12600213200	12147613500	—	12147519100	12147600300	12147740200
12600215500	12147613500	—	12147519100	12147600300	12147740200
12600217800	12147613500	—	12147519100	12147600300	12147740200

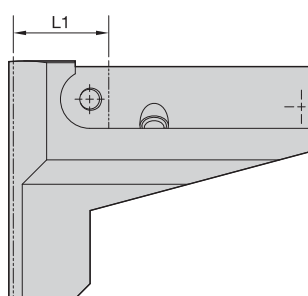
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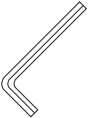


■ **Insert Holder Reference Chart**

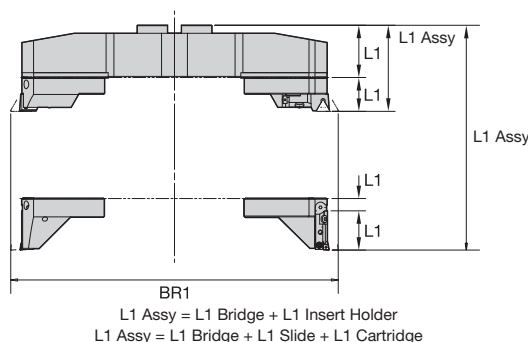
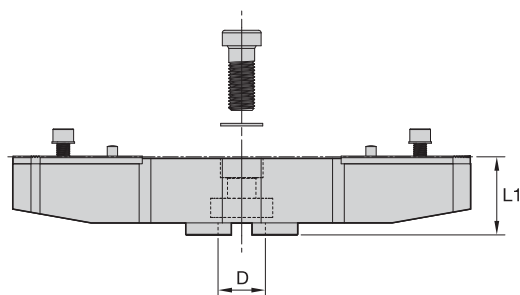
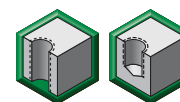
C-Style 70°	C-Style 90°	S-Style 80°	T-Style 90°
12625906700	12625706700	12626006700	12625806800



■ **Slide for Micro-Adjustable Cartridges**

order number	catalog number	L1		 adjusting screw	 fixing screw	 hex wrench
		mm	in			
3864647	SMAC087	19,2	.8	12147665000	12147519100	12148041100

- For use with shell mill adapters; please order separately.
- Bridge body shipped without ISO cartridges, slides, or micro-adjustable cartridges.
- Order ISO cartridges separately for rough boring.
- Order micro-adjustable cartridges separately for fine boring.



■ Bridge Tool • Large

order number	catalog number	BR1 bore range		D		L1		kg	lbs
		mm	in	mm	in	mm	in		
2005574	12600020000	200,000-280,000	7.8740-11.0236	40,0	1.575	50,6	1.992	2,0	4.40
2005602	12600027800	278,000-360,000	10.9449-14.1732	40,0	1.575	50,6	1.992	2,8	6.20
2005656	12600035800	358,000-440,000	14.0945-17.3228	40,0	1.575	61,6	2.425	2,5	5.50
2005722	12600043800	438,000-520,000	17.2441-20.4724	40,0	1.575	61,6	2.425	3,5	7.70

NOTE: Use of ISO cartridges SCLCL12CA12, STGCL12CA16, or SSRCL12CA12 is recommended.

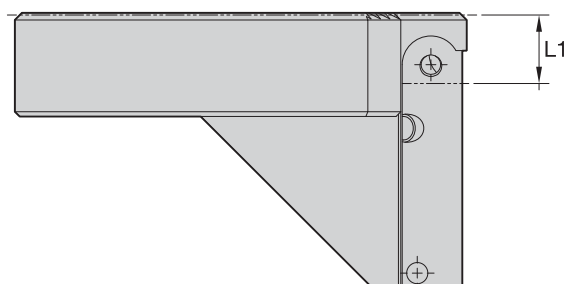
■ Spare Parts

catalog number	fixing screw	fixing screw	disc washer	hex wrench
12600020000	12147739900	12147625400	12147600300	12147666700
12600027800	12147739900	12147625400	12147600300	12147666700
12600035800	12147739900	12147625400	12147600300	12147666700
12600043800	12147739900	12147625400	12147600300	12147666700



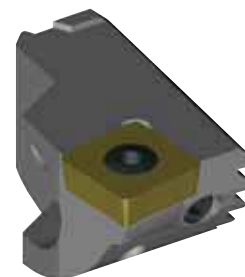
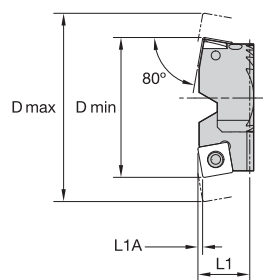
■ Slide for ISO Cartridges

order number	catalog number	L1		 fixing screw	 adjusting screw	 hex wrench	 hex wrench
		mm	in				
2005576	12614020100	19,4	.764	12147625200	12147739800	12148041300	12148041200



■ Slide for Micro-Adjustable Cartridges

order number	catalog number	L1		 fixing screw	 adjusting screw	 hex wrench
		mm	in			
3860905	SMAC200	13,9	.547	12147519100	12147739800	12148041200



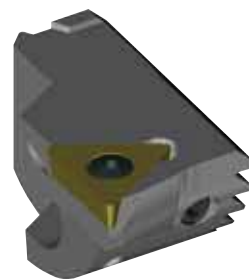
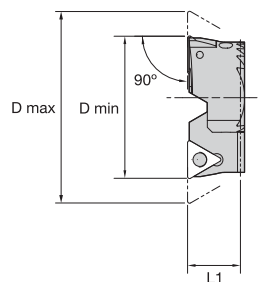
■ 80° Lead Insert Holder • S-Style

order number	catalog number	D min		D max		L1		L1A		gage insert
		mm	in	mm	in	mm	in	mm	in	
2005620	12626003000	30,00	1.181	39,00	1.535	12,4	.486	1,30	.051	SP..0703..
2005676	12626004000	39,00	1.535	50,00	1.969	16,3	.642	1,50	.059	SC../SP..09T3..
2005814	12626005000	50,00	1.969	67,00	2.638	21,8	.858	2,10	.083	SC../SP..1204..
2005941	12626006700	67,00	2.638	88,00	3.465	24,3	.957	2,10	.083	SC../SP..1204..

NOTE: Order two for a complete set.

■ Spare Parts

catalog number							
	clamping screw	adjusting screw	adjusting screw	Nm	ft. lbs.	Torx wrench	hex wrench
12626003000	12148067200	12148069600	—	1,0	.74	12148086600	12148040900
12626004000	12148038800	12148069600	—	3,0	2.20	12148082400	12148040900
12626005000	12148007200	12147602200	—	3,5	2.58	12148099400	12148041000
12626006700	12148007200	—	12147665000	3,5	2.58	12148099400	12148041100



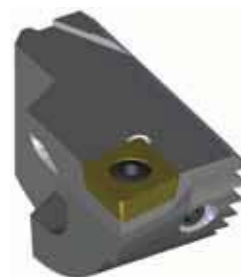
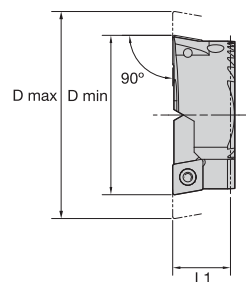
■ 90° Lead Insert Holder • T-Style

order number	catalog number	D min		D max		L1		gage insert
		mm	in	mm	in	mm	in	
2005674	12625804000	39,00	1.535	50,00	1.969	16,3	.642	TC../TP..1102..
2005802	12625805100	50,00	1.969	67,00	2.638	21,8	.858	TC../TP..16T3..
2005939	12625806800	67,00	2.638	88,00	3.465	24,3	.957	TC../TP..16T3..

NOTE: Order two for a complete set.

■ Spare Parts

catalog number	 clamping screw	 adjusting screw	 adjusting screw			 Torx wrench	 hex wrench
				Nm	ft. lbs.		
12625804000	12148068700	12148069600	—	1,0	.74	12148086600	12148040900
12625805100	12148038800	12147602200	—	3,0	2.21	12148099400	12148041000
12625806800	12148038800	—	12147665000	3,5	2.58	12148099400	12148041100



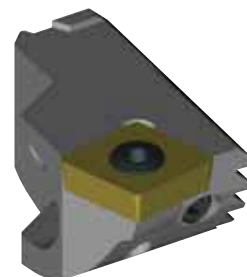
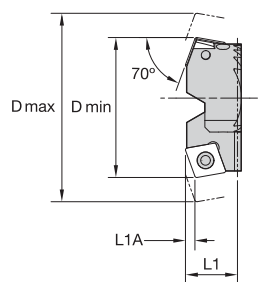
■ 90° Lead Insert Holder • C-Style

order number	catalog number	D min		D max		L1		gage insert
		mm	in	mm	in	mm	in	
2005580	12625702200	22,50	.886	30,00	1.181	12,1	.474	CC../CP..0602..
2005618	12625703000	30,00	1.181	39,00	1.535	12,4	.486	CC../CP..0602..
2005673	12625704000	39,00	1.535	50,00	1.969	16,3	.642	CC../CP..09T3..
2005801	12625705000	50,00	1.969	67,00	2.638	21,8	.858	CC../CP..1204..
2005938	12625706700	67,00	2.638	88,00	3.465	24,3	.957	CC../CP..1204..
2006041	12625708986	88,00	3.465	115,00	4.528	36,3	1.429	CC../CP..1204..

NOTE: Order two for a complete set.

■ Spare Parts

							
catalog number	clamping screw	adjusting screw	adjusting screw	Nm	ft. lbs.	Torx wrench	hex wrench
12625702200	12148086600	12147579300	—	1,0	.74	12148086600	12148046000
12625703000	12148086600	12148069600	—	1,0	.74	12148086600	12148040900
12625704000	12148082400	12148069600	—	3,0	2.21	12148082400	12148040900
12625705000	12148099400	12147602200	—	3,5	2.58	12148099400	12148041000
12625706700	12148099400	—	12147665000	3,5	2.58	12148099400	12148041100
12625708900	12148099400	12148541600	—	3,5	2.58	12148099400	12148041100



70° Lead Insert Holder • C-Style

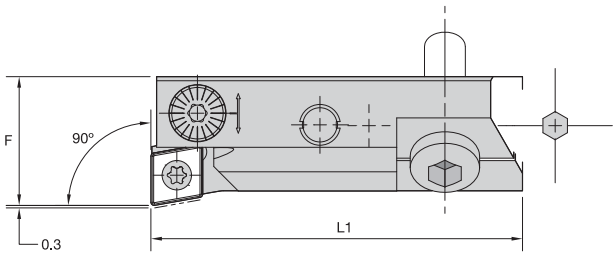
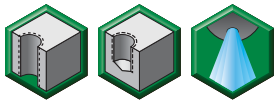
order number	catalog number	D min		D max		L1		L1A		gage insert
		mm	in	mm	in	mm	in	mm	in	
2005581	12625902200	22,50	.886	30,00	1.181	12,4	.486	1,60	.063	CC../CP..0602..
2005619	12625903000	30,00	1.181	39,00	1.535	12,4	.486	1,60	.063	CC../CP..0602..
2005675	12625904000	39,00	1.535	50,00	1.969	16,3	.642	2,30	.091	CC../CP..09T3..
2005813	12625905000	50,00	1.969	67,00	2.638	21,8	.858	3,10	.122	CC../CP..1204..
2005940	12625906700	67,00	2.638	88,00	3.465	24,3	.957	3,10	.122	CC../CP..1204..
2006054	12625908986	88,00	3.465	115,00	4.528	36,3	1.429	3,10	.122	CC../CP..1204..

NOTE: Order two for a complete set.

Spare Parts

catalog number	 clamping screw	 adjusting screw	 adjusting screw			 Torx wrench	 hex wrench
				Nm	ft. lbs.		
12625902200	12148086600	12147579300	—	1,0	.74	12148086600	12148046000
12625903000	12148086600	12148069600	—	1,0	.74	12148086600	12148040900
12625904000	12148082400	12148069600	—	3,0	2.21	12148082400	12148040900
12625905000	12148099400	12147602200	—	3,5	2.58	12148099400	12148041000
12625906700	12148099400	—	12147665000	3,5	2.58	12148099400	12148041100
12625908900	12148099400	12147602200	—	3,5	2.58	12148099400	12148041100

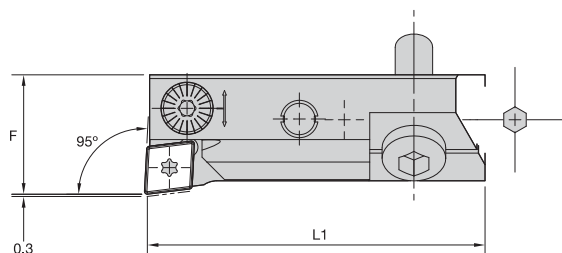
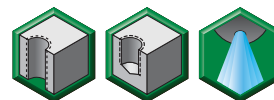
- All cartridges have internal coolant supply directed to the cutting edge.
- .0004" (0,01mm) diameter adjustment within a range of .0118" (0,3mm).
- Radial adjustment without influence on axial position.
- Axial adjustment range of .039" (1mm).



■ 90° Lead Micro-Adjustable Cartridge • C-Style

order number	catalog number	F		L1		gage insert	 insert clamping screw	 Torx wrench	Nm	ft. lbs.
		mm	in	mm	in					
3860908	MASCFCR09CA06F	16,00	.630	45,50	1.791	CC..0602..	12148068700	12148086600	1,0	.74

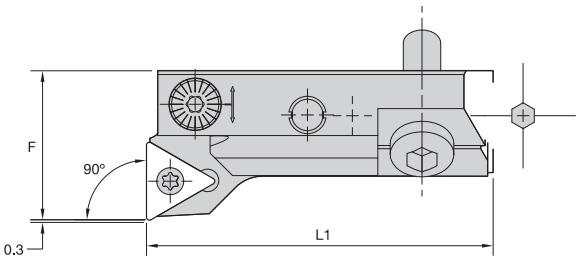
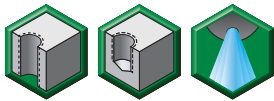
- All cartridges have internal coolant supply directed to the cutting edge.
- .0004" (0,01mm) diameter adjustment within a range of .0118" (0,3mm).
- Radial adjustment without influence on axial position.
- Axial adjustment range of .039" (1mm).



■ 95° Lead Micro-Adjustable Cartridge • C-Style

order number	catalog number	F		L1		gage insert	insert clamping screw	Torx wrench	Nm	ft. lbs.
		mm	in	mm	in					
3860909	MASCLCR09CA06F	16,00	.630	45,50	1.791	CC..0602..	12148068700	12148086600	1,0	.74

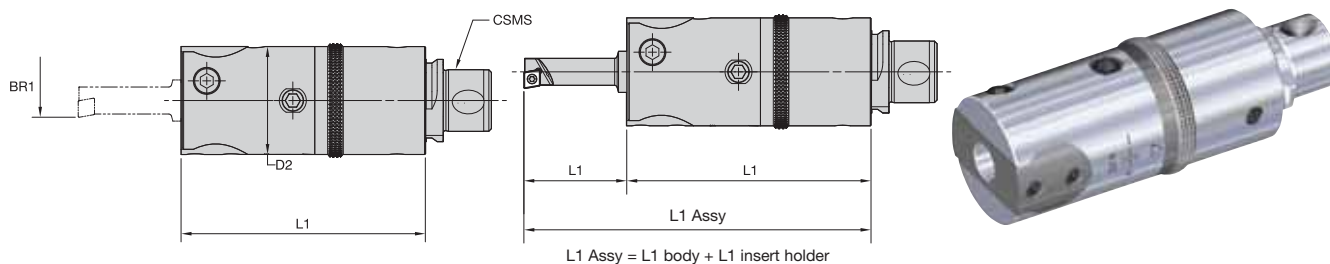
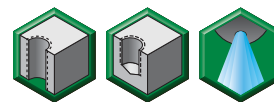
- All cartridges have internal coolant supply directed to the cutting edge.
- .0004" (0,01mm) diameter adjustment within a range of .0118" (0,3mm).
- Radial adjustment without influence on axial position.
- Axial adjustment range of .039" (1mm).



■ 90° Lead Micro-Adjustable Cartridge • T-Style

order number	catalog number	F		L1		gage insert	 insert clamping screw	 Torx wrench	Nm	ft. lbs.
		mm	in	mm	in					
3860910	MASTFCR09CA11F	20,00	.787	45,50	1.791	TC..1102..	12148068700	12148086600	1,0	.74

- .0004" (0,01mm) diameter adjustment.
- Basic body shipped without boring bars.



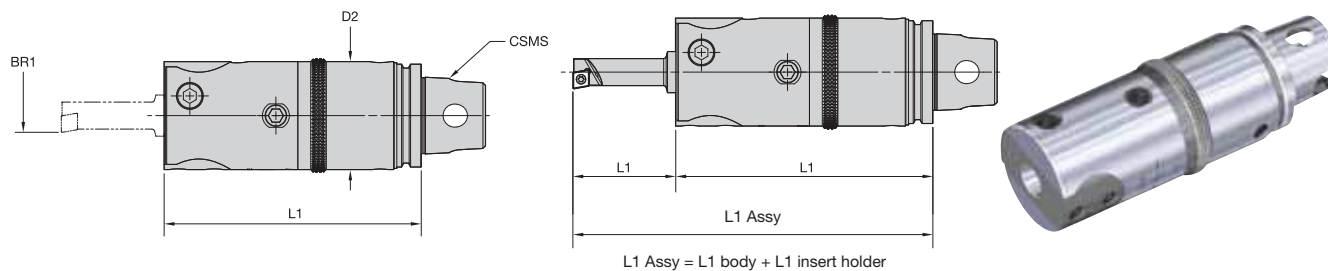
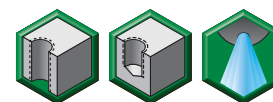
■ FBHBB • RFX Series Shank

order number	catalog number	BR1 bore range		D2		L1		CSMS system size	kg	lbs
		mm	in	mm	in	mm	in			
3860906	RFX420FBHBB006022	6,000-22,000	0.2362-0.8661	42,00	1.654	95,00	3.740	RFX420	1,10	2.40

■ Spare Parts

catalog number	front clamping screw 1	front clamping screw 2	adjustment locking screw	hex wrench	hex wrench
RFX420FBHBB006022	12148068700	12148042400	12147680500	12148041100	12148041300

- .0004" (0,01mm) diameter adjustment.
- Basic body shipped without boring bars.



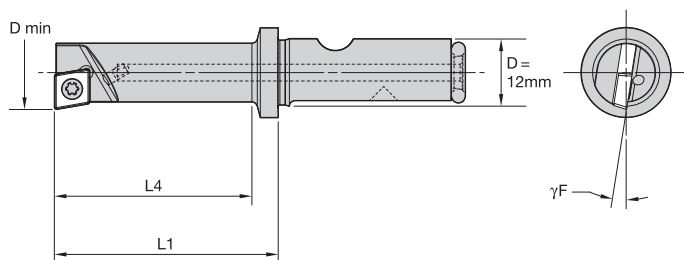
■ FBHBB KM-TS™ Series Shank

order number	catalog number	BR1 bore range		D2		L1		CSMS system size	kg	lbs
		mm	in	mm	in	mm	in			
3860907	KM40TSFBHBB006022	6,000-22,000	0.2362-0.8661	42,00	1.654	105,00	4.134	KM40TS	1,10	2.40

■ Spare Parts

catalog number	front clamping screw 1	front clamping screw 2	adjustment locking screw	hex wrench	hex wrench
KM40TSFBHBB006022	12147617400	12148042400	12147680500	12148041100	12148041300

- All boring bars have internal coolant supply directed to the cutting edge.



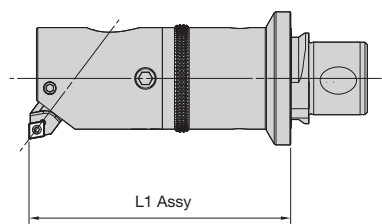
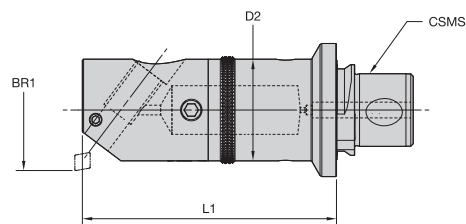
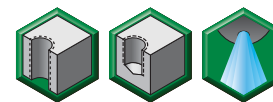
■ Boring Bars for Precision Fine Boring Heads (FBHBB)

order number	catalog number	D min		D max		L1		L4		γF°	kg	lbs
		mm	in	mm	in	mm	in	mm	in			
2005954	12627006200	6,00	.236	8,00	.315	30,00	1.181	24,00	.945	-5.0°	0,1	.22
2006015	12627008200	8,00	.315	10,00	.394	30,00	1.181	25,00	.984	-3.0°	0,1	.22
2005499	12627010200	10,00	.394	13,00	.512	35,00	1.378	30,00	1.181	-11.0°	0,1	.22
2005542	12627013200	13,00	.512	16,00	.630	40,00	1.575	35,00	1.378	-9.0°	0,1	.22
2005558	12627016200	16,00	.630	19,00	.748	45,00	1.772	40,00	1.575	-6.0°	0,1	.22
2005573	12627019300	19,00	.748	22,00	.866	55,00	2.165	55,00	2.165	-6.0°	0,2	.44

■ Spare Parts

catalog number	gage insert	clamping screw	Torx wrench	Nm
12627006200	CP..04T1..	12148005800	12148005900	0,3
12627008200	CP..04T1..	12148005800	12148005900	0,3
12627010200	CC../CP..0602..	12148068700	12148086600	1,0
12627013200	CC../CP..0602..	12148068700	12148086600	1,0
12627016200	CC../CP..0602..	12148068700	12148086600	1,0
12627019300	CC../CP..0602..	12148068700	12148086600	1,0

- .0004" (0,01mm) diameter adjustment.
- Basic body shipped without boring bars.



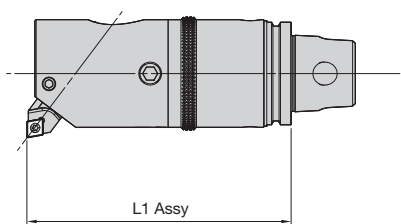
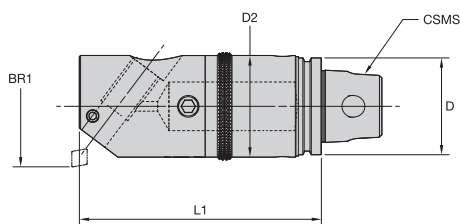
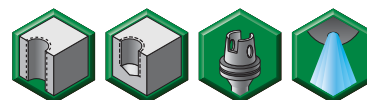
FBH • RFX Series Shank

order number	catalog number	BR1 bore range		D2		L1		L1 Assy		CSMS system size	kg	lbs
		mm	in	mm	in	mm	in	mm	in			
3861143	RFX185FBH022029	22,000-29,000	0.8661-1.1417	18,50	.728	55,00	2.165	56,00	2.200	RFX185	0,20	.40
3861144	RFX245FBH029038	29,000-38,000	1.1417-1.4961	24,50	.965	60,00	2.362	62,00	2.440	RFX245	0,20	.40
3861145	RFX320FBH038050	38,000-50,000	1.4961-1.9385	32,00	1.260	75,00	2.953	77,00	3.030	RFX320	0,50	1.10
3861146	RFX420FBH050065	50,000-65,000	1.9685-2.5591	42,00	1.654	95,00	3.740	98,00	3.860	RFX420	1,10	2.40
3861147	RFX550FBH065088	65,000-88,000	2.5591-3.4646	55,00	2.165	115,00	4.528	120,00	4.720	RFX550	2,10	4.60
3861148	RFX720FBH088115	88,000-115,000	3.4646-4.5276	72,00	2.835	155,00	6.102	160,00	6.300	RFX720	4,90	10.80

Spare Parts

catalog number	adjusting screw	adjustment locking screw	fixing screw	wedge	hex wrench	hex wrench
RFX185FBH022029	12147620000	12147680200	12346292100	12147621100	12148041100	12148040900
RFX245FBH029038	12147620000	12147680300	12346292200	12147621200	12148041100	12148040900
RFX320FBH038050	12147620300	12147680400	12147622300	12147621300	12148041200	12148041000
RFX420FBH050065	12147620400	12147680500	12148575900	12147621400	12148041300	12148041100
RFX550FBH065088	12147620500	12147680600	12148087100	12147621500	12148041400	12148041100
RFX720FBH088115	12147620600	12147680700	12148087100	12147621600	12148079000	—

- .0004" (0,01mm) diameter adjustment.
- Basic body shipped without boring bars.

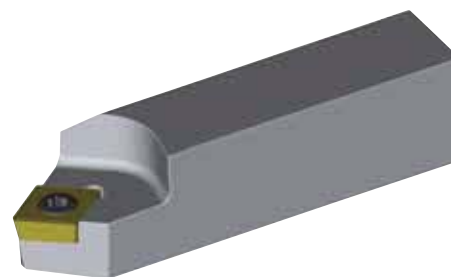
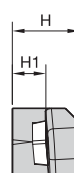
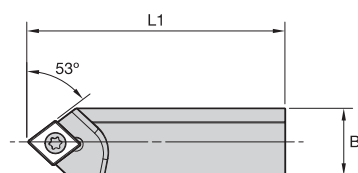


■ FBH • KM™ Series Shank

order number	catalog number	BR1 bore range		D2		L1		L1 assy		CSMS system size	kg	lbs
		mm	in	mm	in	mm	in	mm	in			
3861123	KM32TSFBH022029	22,000-29,000	0.8661-1.1417	18,50	.728	60,00	2.362	62,00	2.440	KM32TS	0,20	.40
3861124	KM32TSFBH029038	29,000-38,000	1.1417-1.4961	24,50	.965	70,00	2.756	72,00	2.830	KM32TS	0,20	.40
3861125	KM32TSFBH038050	38,000-50,000	1.4961-1.9385	32,00	1.260	80,00	3.150	82,00	3.230	KM32TS	0,50	1.10
3861126	KM40TSFBH029038	29,000-38,000	1.1417-1.4961	24,50	.965	90,00	3.543	92,00	3.620	KM40TS	0,50	1.10
3861127	KM40TSFBH038050	38,000-50,000	1.4961-1.9385	32,00	1.260	100,00	3.937	103,00	4.060	KM40TS	0,90	2.00
3861128	KM40TSFBH050065	50,000-65,000	1.9685-2.5591	42,00	1.654	105,00	4.134	108,00	4.252	KM40TS	1,10	2.40
3861129	KM50TSFBH050065	50,000-65,000	1.9685-2.5591	42,00	1.654	110,00	4.331	115,00	4.530	KM50TS	1,20	2.60
3861130	KM50TSFBH065088	65,000-88,000	2.5591-3.4646	55,00	2.165	125,00	4.920	130,00	5.118	KM50TS	1,70	3.70
3861131	KM63TSFBH065088	65,000-88,000	2.5591-3.4646	55,00	2.165	130,00	5.118	135,00	5.310	KM63TS	2,50	5.50
3861132	KM63TSFBH088115	88,000-115,000	3.4646-4.5276	63,00	2.480	130,00	5.118	135,00	5.310	KM63TS	2,00	4.40

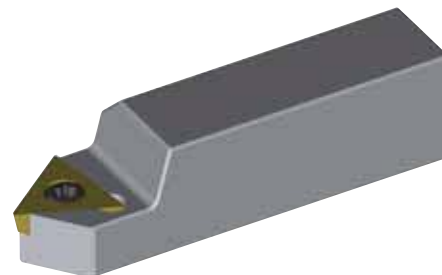
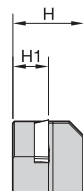
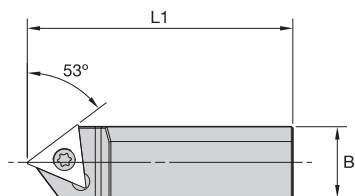
■ Spare Parts

catalog number	adjusting screw	adjustment locking screw	fixing screw	wedge	hex wrench	hex wrench
KM32TSFBH022029	12147620000	12147680200	12346292100	12147621100	12148041100	12148040900
KM32TSFBH029038	12147620000	12147680300	12346292200	12147621200	12148041100	12148040900
KM32TSFBH038050	12147620300	12147680400	12147622300	12147621300	12148041200	12148041000
KM40TSFBH029038	12147620000	12147680300	12346292200	12147621200	12148041100	12148040900
KM40TSFBH038050	12147620300	12147680400	12147622300	12147621300	12148041200	12148041000
KM40TSFBH050065	12147620400	12147680500	12148575900	12147621400	12148041100	12148041300
KM50TSFBH050065	12147620400	12147680500	12148575900	12147621400	12148041100	12148041300
KM50TSFBH065088	12147620500	12147680600	12148087100	12147621500	12148041200	12148041400
KM63TSFBH065088	12147620500	12147680600	12148087100	12147621500	12148041200	12148041400
KM63TSFBH088115	12147620600	12147680700	12148087100	12147621600	12148041200	12148079000



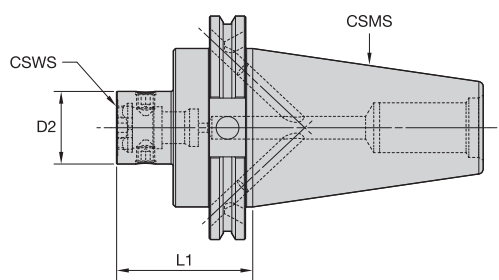
■ Precision Head Insert Holder • C-Style

order number	catalog number	D min		D max		L1	H	H1	B	gage insert	clamping screw	Torx wrench	Nm	ft. lbs.
		mm	in	mm	in									
2004781	12627270300	22,00	.866	29,00	1.142	.748	.315	.177	.315	CC../CP..0602..	12148068700	12148086600	1,0	.74
2004782	12627275300	29,00	1.142	38,00	1.496	1.063	.315	.177	.315	CC../CP..0602..	12148068700	12148086600	1,0	.74
2004133	12627270700	38,00	1.496	50,00	1.969	1.378	.394	.217	.394	CC../CP..0602..	12148068700	12148086600	1,0	.74
2004140	12627276500	50,00	1.969	65,00	2.559	1.811	.472	.256	.472	CC../CP..0602..	12148068700	12148086600	1,0	.74
2004161	12627277700	65,00	2.559	88,00	3.465	2.362	.630	.315	.630	CC../CP..09T3..	12148038800	12148082400	3,0	2.21
2004177	12627278700	88,00	3.465	115,00	4.528	3.307	.630	.315	.630	CC../CP..09T3..	12148038800	12148082400	3,0	2.21



■ Precision Head Insert Holder • T-Style

order number	catalog number	D min		D max		L1	H	H1	B	gage insert	clamping screw	Torx wrench	Nm	ft. lbs.
		mm	in	mm	in									
2004134	12627270800	38,00	1.496	50,00	1.969	1.378	.394	.217	.394	TC../TP../1102..	12148068700	12148086600	1,0	.74
2004141	12627276800	50,00	1.969	65,00	2.559	1.811	.472	.256	.472	TC../TP../1102..	12148068700	12148086600	1,0	.74
2004162	12627277800	65,00	2.559	88,00	3.465	2.362	.630	.315	.630	TC../TP../1102..	12148038800	12148082400	3,0	2.21
2004178	12627278800	86,00	3.386	115,00	4.528	3.307	.630	.315	.630	TC../TP../1102..	12148038800	12148082400	3,0	2.21

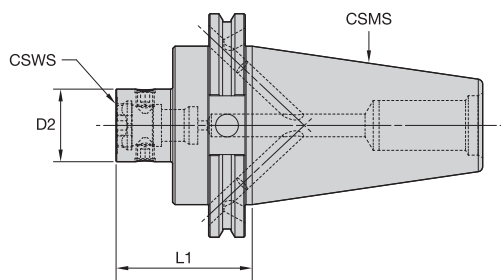


■ RFX • CV40 Taper Shank Form B/AD

order number	catalog number	CSMS system size	CSWS system size	D2		L1		kg	lbs	lock screw	hex wrench	Nm	ft. lbs.
				mm	in	mm	in						
3860896	CV40BRFX185236	CV40	RFX185	18,5	.728	60,0	2.362	1,1	2.40	RFX185LS	12148041100	6,0	4.43
3860897	CV40BRFX245236	CV40	RFX245	24,5	.965	60,0	2.362	1,1	2.40	RFX245LS	12148041100	8,0	5.90
3860898	CV40BRFX320236	CV40	RFX320	32,0	1.260	60,0	2.362	1,1	2.40	RFX320LS	12148041200	14,0	10.33
3860899	CV40BRFX420236	CV40	RFX420	42,0	1.654	60,0	2.362	1,1	2.40	RFX420LS	12148041300	16,0	11.80
3860900	CV40BRFX550256	CV40	RFX550	55,0	2.165	65,0	2.559	1,2	2.60	RFX550LS	12148041400	20,0	14.75

NOTE: Lock screws included. Order retention knobs separately.

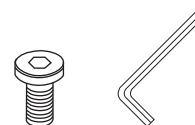
 Form AD					
 Form B			40 50	(2x) MS2221S (2x) MS1296S	2,5mm 3mm



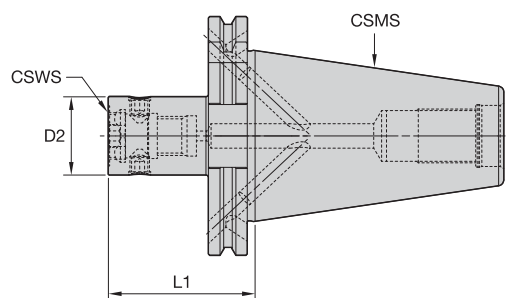
■ RFX • CV50 Taper Shank Form B/AD

order number	catalog number	CSMS system size	CSWS system size	D2		L1		kg	lbs	lock screw	hex wrench	Nm	ft. lbs.
				mm	in	mm	in						
3860901	CV50BRFX320236	CV50	RFX320	32,0	1.260	60,0	2.362	3,1	6.80	RFX320LS	12148041200	12,0	10.33
3860902	CV50BRFX420236	CV50	RFX420	42,0	1.654	60,0	2.362	3,2	7.00	RFX420LS	12148041300	20,0	11.80
3860903	CV50BRFX550236	CV50	RFX550	55,0	2.165	60,0	2.362	3,4	7.50	RFX550LS	12148041400	25,0	14.75
3860904	CV50BRFX720276	CV50	RFX720	72,0	2.835	70,0	2.756	3,6	7.90	RFX720LS	12148041400	25,0	14.75

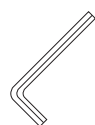
NOTE: Lock screws included. Order retention knobs separately.



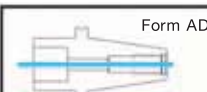
Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

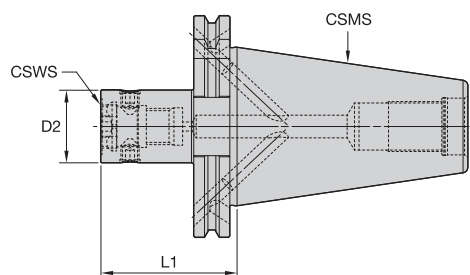


■ **RFX • DV40 Taper Shank Form B/AD**

order number	catalog number	CSMS system size	CSWS system size	D2		L1		kg	lbs	 lock screw	 hex wrench	Nm	ft. lbs.
				mm	in	mm	in						
3860696	DV40BRFX185060M	DV40	RFX185	18,5	.728	60,0	2.362	1,1	2.40	RFX185LS	12148041100	6,0	4.43
3860697	DV40BRFX245060M	DV40	RFX245	24,5	.965	60,0	2.362	1,1	2.40	RFX245LS	12148041100	8,0	5.90
3860698	DV40BRFX320060M	DV40	RFX320	32,0	1.260	60,0	2.362	1,1	2.40	RFX320LS	12148041200	14,0	10.33
3860699	DV40BRFX420060M	DV40	RFX420	42,0	1.654	60,0	2.362	1,1	2.40	RFX420LS	12148041300	16,0	11.80
3860700	DV40BRFX550065M	DV40	RFX550	55,0	2.165	65,0	2.559	1,2	2.60	RFX550LS	12148041400	20,0	14.75

NOTE: Lock screws included. Order retention knobs separately.

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm

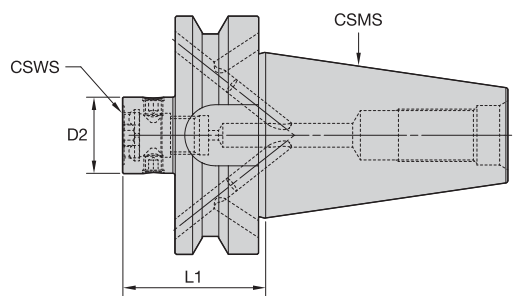


■ RFX • DV50 Taper Shank Form B/AD

order number	catalog number	CSMS system size	CSWS system size	D2		L1		kg	lbs	lock screw	hex wrench	Nm	ft. lbs.
				mm	in	mm	in						
3860701	DV50BRFX320060M	DV50	RFX320	32,0	1.260	60,0	2.362	3,1	6.80	RFX320LS	12148041200	14,0	10.33
3860702	DV50BRFX420060M	DV50	RFX420	42,0	1.654	60,0	2.362	3,2	7.00	RFX420LS	12148041300	16,0	11.80
3860853	DV50BRFX550060M	DV50	RFX550	55,0	2.165	60,0	2.362	3,4	7.50	RFX550LS	12148041400	20,0	14.75
3860854	DV50BRFX720065M	DV50	RFX720	72,0	2.835	65,0	2.559	3,6	7.90	RFX720LS	12148041400	20,0	14.75

NOTE: Lock screws included. Order retention knobs separately.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

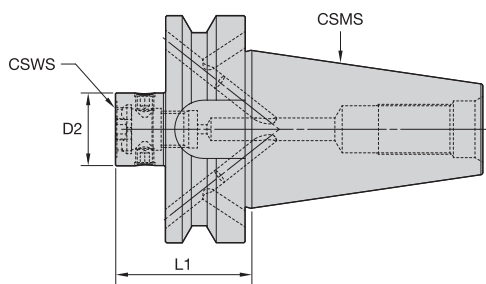


■ RFX • BT40 Taper Shank Form B/AD

order number	catalog number	CSMS system size	CSWS system size	D2		L1		kg	lbs	lock screw	hex wrench	Nm	ft. lbs.
				mm	in	mm	in						
3860676	BT40BRFX185060M	BT40	RFX185	18,5	.728	60,0	2.362	1,0	2.20	RFX185LS	12148041100	8,0	4.43
3860677	BT40BRFX245060M	BT40	RFX245	24,5	.965	60,0	2.362	1,1	2.40	RFX245LS	12148041100	8,0	5.90
3860678	BT40BRFX320060M	BT40	RFX320	32,0	1.260	60,0	2.362	1,1	2.40	RFX320LS	12148041200	12,0	10.33
3860679	BT40BRFX420060M	BT40	RFX420	42,0	1.654	60,0	2.362	1,2	2.60	RFX420LS	12148041300	20,0	11.80
3860680	BT40BRFX550065M	BT40	RFX550	55,0	2.165	65,0	2.559	1,3	2.90	RFX550LS	12148041400	25,0	14.75

NOTE: Lock screws included. Order retention knobs separately.

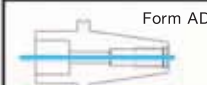
Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

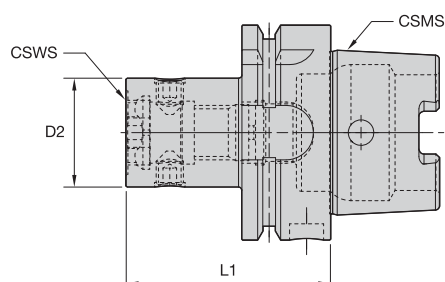


■ RFX • BT50 Taper Shank Form B/AD

order number	catalog number	CSMS system size	CSWS system size	D2		L1		kg	lbs	lock screw	hex wrench	Nm	ft. lbs.
				mm	in	mm	in						
3860681	BT50BRFX320060M	BT50	RFX320	32,0	1.260	60,0	2.362	3,5	7.70	RFX320LS	12148041200	14,0	10.33
3860682	BT50BRFX420060M	BT50	RFX420	42,0	1.654	60,0	2.362	3,9	8.60	RFX420LS	12148041300	16,0	11.80
3860693	BT50BRFX550065M	BT50	RFX550	55,0	2.165	65,0	2.559	4,2	9.50	RFX550LS	12148041400	25,0	18.44
3860694	BT50BRFX720070M	BT50	RFX720	72,0	2.835	70,0	2.756	4,5	9.90	RFX720LS	12148041400	25,0	18.44

NOTE: Lock screws included. Order retention knobs separately.

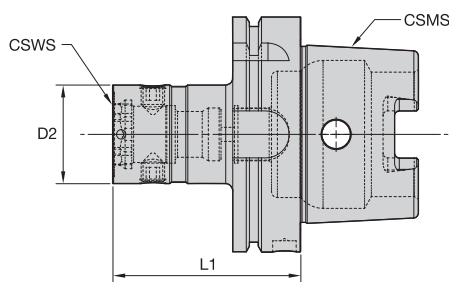
 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



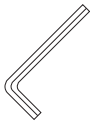
■ RFX • HSK63 Form A

order number	catalog number	CSMS system size	CSWS system size	D2		L1		kg	lbs	lock screw	hex wrench	Nm	ft. lbs.
				mm	in	mm	in						
3860549	HSK63ARFX185060M	HSK63A	RFX185	18,5	.728	60,0	2.362	0,7	1.50	RFX185LS	12148041100	6,0	4.43
3860550	HSK63ARFX245060M	HSK63A	RFX245	24,5	.965	60,0	2.362	0,7	1.50	RFX245LS	12148041100	8,0	5.90
3860551	HSK63ARFX320060M	HSK63A	RFX320	32,0	1.260	60,0	2.362	0,8	1.80	RFX320LS	12148041200	14,0	10.33
3860552	HSK63ARFX420070M	HSK63A	RFX420	42,0	1.654	70,0	2.756	1,0	2.20	RFX420LS	12148041300	16,0	11.80
3860623	HSK63ARFX550080M	HSK63A	RFX550	55,0	2.165	80,0	3.150	1,4	3.10	RFX550LS	12148041400	20,0	14.75
3860624	HSK63ARFX720095M	HSK63A	RFX720	72,0	2.835	95,0	3.740	2,0	4.40	RFX720LS	12148041400	20,0	14.75

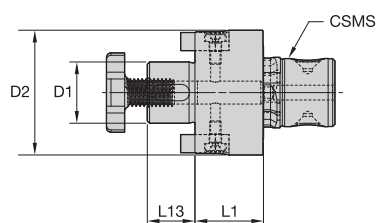
NOTE: Lock screws included. HSK coolant unit and wrench are available but must be ordered separately.



■ RFX • HSK100 Form A

order number	catalog number	CSMS system size	CSWS system size	D2		L1		kg	lbs	 lock screw	 hex wrench	Nm	ft. lbs.
				mm	in	mm	in						
3881208	HSK100ARFX420080M	HSK100A	RFX420	42,0	1.654	80,0	3.150	1,0	2.20	RFX420LS	12148041300	20,0	17.75
3881209	HSK100ARFX550090M	HSK100A	RFX550	55,0	2.165	90,0	3.543	2,2	4.85	RFX550LS	12148041400	25,0	18.44
3881210	HSK100ARFX720105M	HSK100A	RFX720	72,0	2.835	105,0	4.134	2,5	5.51	RFX720LS	12148041400	25,0	18.44

NOTE: Lock screws included. HSK coolant unit and wrench are available but must be ordered separately.



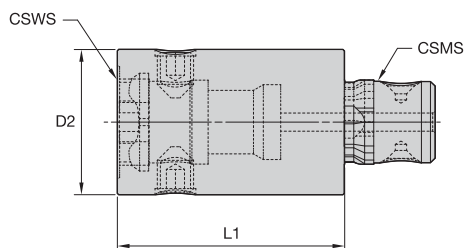
■ CS-RFX Adapter • Lock Screw Design

order number	catalog number	CSMS system size	D1		D2		L1		L13		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3860547	RFX550CS27030M	RFX550	27,0	1.060	55,0	2.165	30,0	1.181	21,0	.827	0,9	2.00
3860548	RFX720CS40035M	RFX720	40,0	1.570	72,0	2.835	35,0	1.378	27,0	1.063	1,8	4.00

■ Spare Parts

catalog number	lock screw
RFX550CS27030M	12147522400
RFX720CS40035M	KLS40M

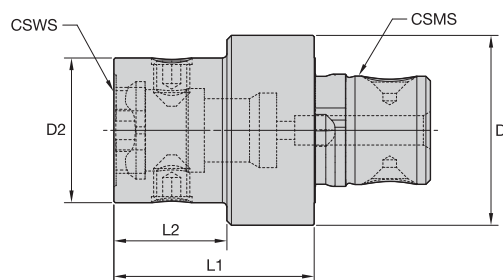




■ RFX Extensions

order number	catalog number	CSMS system size	CSWS system size	D2		L1		kg	lbs	lock screw	hex wrench	Nm	ft. lbs.
				mm	in	mm	in						
3860450	RFX185RFX185030M	RFX185	RFX185	18,5	.728	30,0	1.181	0,1	.20	RFX185LS	12148041100	6,0	4.43
3860451	RFX245RFX245035M	RFX245	RFX245	24,5	.965	35,0	1.378	0,2	.40	RFX245LS	12148041100	8,0	5.90
3860452	RFX320RFX320050M	RFX320	RFX320	32,0	1.260	50,0	1.969	0,3	.70	RFX320LS	12148041200	14,0	10.33
3860473	RFX420RFX420060M	RFX420	RFX420	42,0	1.654	60,0	2.362	0,8	1.80	RFX420LS	12148041300	16,0	11.80
3860474	RFX550RFX550090M	RFX550	RFX550	55,0	2.165	90,0	3.543	1,6	3.50	RFX550LS	12148041400	20,0	14.75
3860475	RFX720RFX720100M	RFX720	RFX720	72,0	2.835	100,0	3.937	3,1	6.80	RFX720LS	12148041400	25,0	18.44

NOTE: Lock screws included. HSK coolant unit and wrench are available but must be ordered separately.



RFX Reducers

order number	catalog number	CSMS system size	CSWS system size	D		D2		L1		L2		kg	lbs	lock screw	hex wrench	Nm	ft. lbs.
				mm	in	mm	in	mm	in	mm	in						
3860419	RFX320RFX185030M	RFX320	RFX185	32,0	1.260	18,5	.728	30,0	1.181	15,0	.591	0,2	.40	RFX185LS	12148041100	6,0	4.43
3860420	RFX320RFX245040M	RFX320	RFX245	32,0	1.260	24,5	.965	40,0	1.575	25,0	.984	0,2	.40	RFX245LS	12148041100	8,0	5.90
3860421	RFX420RFX185035M	RFX420	RFX185	42,0	1.654	18,5	.728	35,0	1.378	15,0	.591	0,4	.90	RFX185LS	12148041100	6,0	4.43
3860422	RFX420RFX245045M	RFX420	RFX245	42,0	1.654	24,5	.965	45,0	1.772	25,0	.984	0,4	.90	RFX245LS	12148041100	8,0	5.90
3860443	RFX420RFX320045M	RFX420	RFX320	42,0	1.654	32,0	1.260	45,0	1.772	25,0	.984	0,6	1.30	RFX320LS	12148041200	14,0	10.33
3860444	RFX550RFX185040M	RFX550	RFX185	55,0	2.165	18,5	.728	40,0	1.575	15,0	.591	0,7	1.50	RFX185LS	12148041100	6,0	4.43
3860445	RFX550RFX245050M	RFX550	RFX245	55,0	2.165	24,5	.965	50,0	1.969	25,0	.984	0,8	1.80	RFX245LS	12148041100	8,0	5.90
3860446	RFX550RFX320050M	RFX550	RFX320	55,0	2.165	32,0	1.260	50,0	1.969	25,0	.984	0,8	1.80	RFX320LS	12148041200	14,0	10.33
3860447	RFX550RFX420055M	RFX550	RFX420	55,0	2.165	42,0	1.654	55,0	2.165	30,0	1.181	0,9	2.00	RFX420LS	12148041300	16,0	11.80
3860448	RFX720RFX420060M	RFX720	RFX420	72,0	2.835	42,0	1.654	60,0	2.362	30,0	1.181	1,6	3.50	RFX420LS	12148041300	16,0	11.80
3860449	RFX720RFX550060M	RFX720	RFX550	72,0	2.835	55,0	2.165	60,0	2.362	30,0	1.181	1,8	4.00	RFX550LS	12148041400	20,0	14.75

NOTE: Lock screws included. HSK coolant unit and wrench are available but must be ordered separately.

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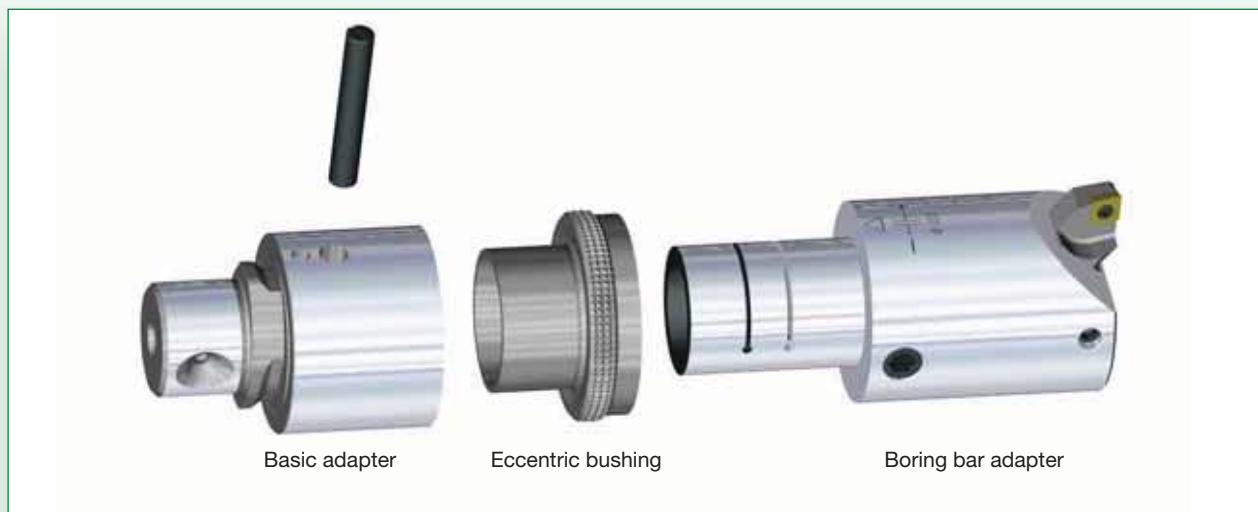
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Design Principle



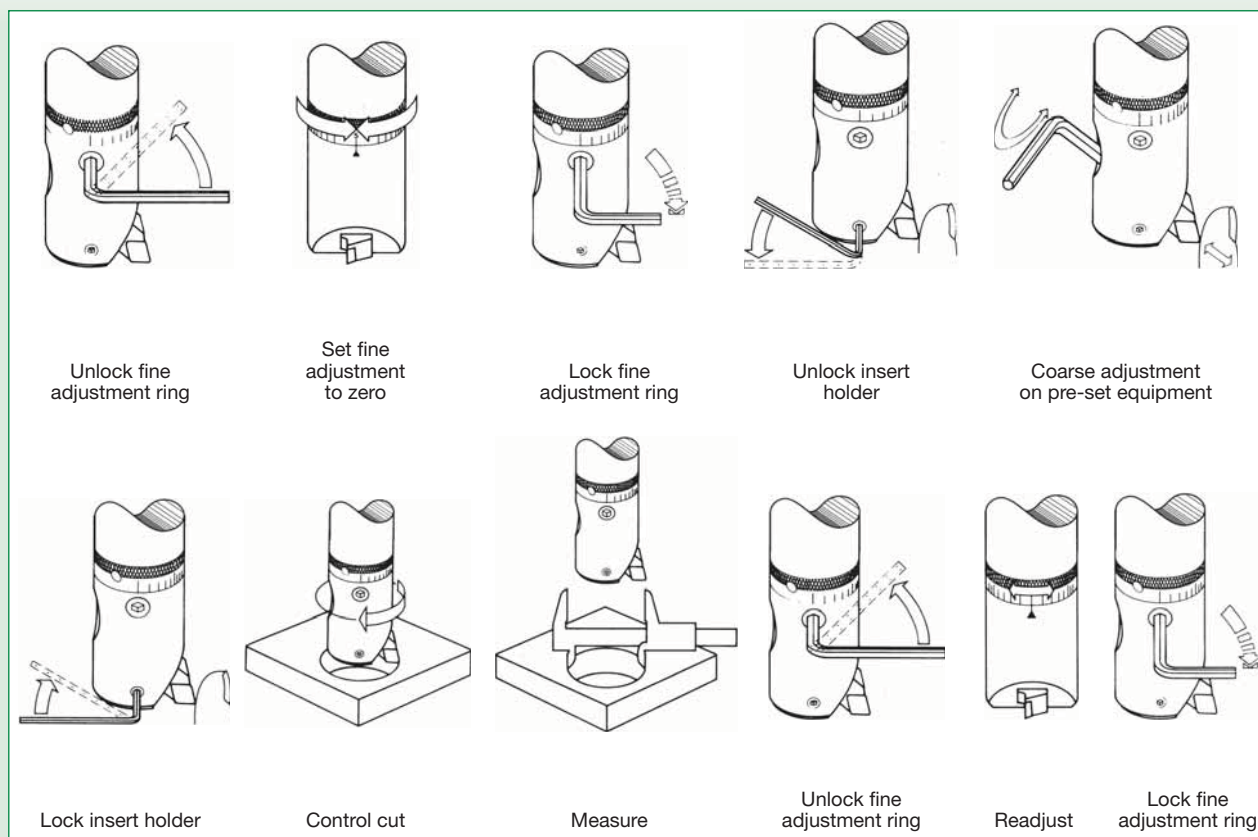
Eccentric bushing for fine adjustment

Regular fine boring heads have a threaded spindle as an adjustment mechanism. In this situation, spindle inaccuracy can cause backlash and require extra effort during setup. The ROTAFLEX eccentric bushing is easy to use, and machining forces are transmitted via a larger surface, ensuring a consistent diameter during machining.

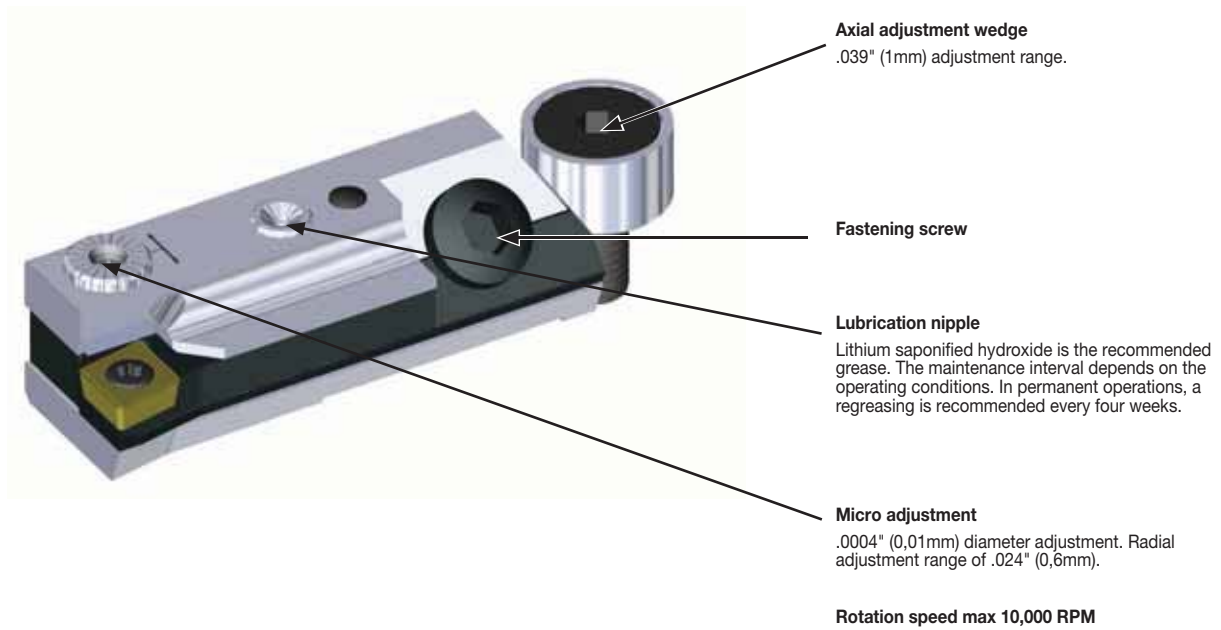


After rough adjustment of the insert holder, the easy-to-read scale enables fine adjustment to reach precisely the diameter needed. Here, no parallax errors occur when reading the scale.

Adjustment

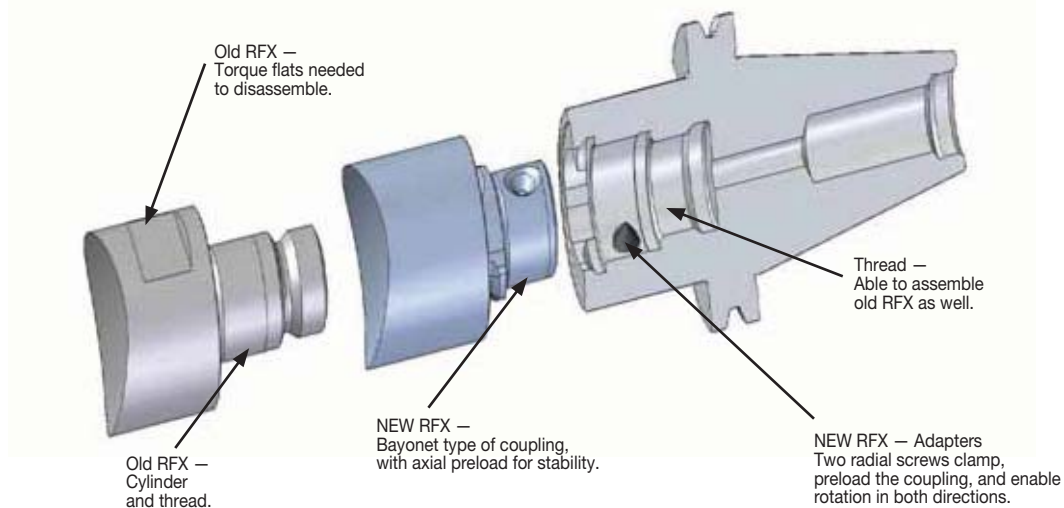


Application Hints • Micro-Adjustable Cartridges



Application Hints • RFX Coupling

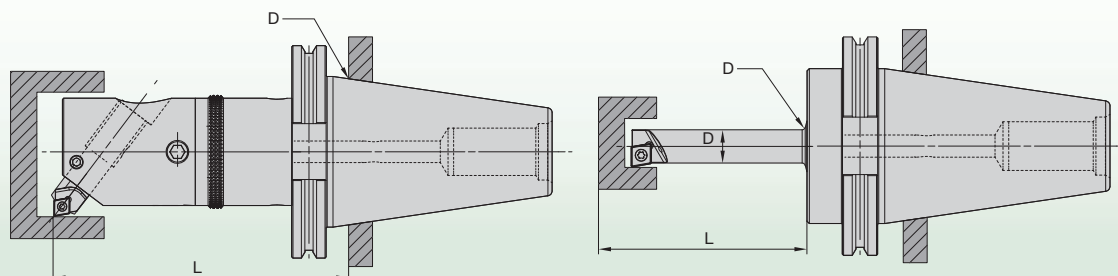
Old RFX screw-type coupling can be mounted into new RFX bayonet-type adapters as well.



General Application Hints

- Identify your critical diameter (D).
- Identify the maximum distance cutting edge (L) to critical diameter.

Here are some examples:



Refer to this table for first investigation of application:

Type of Tooling	Stable	Unstable	Tests Necessary
Twin Cutter Solid Tools	$<3,5 \times D$	$3,5-6,5 \times D$	$>6,5 \times D$
Twin Cutter Bridge Tools	$<3,5 \times D$	$3,5-6,5 \times D$	$>6,5 \times D$
Fine-Boring Heads with Boring Bar (FBHBB)	$<3,5 \times D$	$3,5-5,0 \times D$	$>5,0 \times D$
Fine-Boring Heads (FBH)	$<3,5 \times D$	$3,5-5,0 \times D$	$>5,0 \times D$
Fine-Boring Bridge Tools	$<3,5 \times D$	$3,5-5,0 \times D$	$>5,0 \times D$
	Function of the tool is expected without issues within recommended cutting data.	Application may require reduced feeds and/or speeds compared to stable conditions.	Machining test may be required to identify cutting data.

Causes of and remedies for rough and fine boring problems

It is generally assumed that the tools have been properly mounted as per the technical recommendations in this catalog.

Problem	Cause	Possible Remedy
Vibration tendency	1. Overhang 2. Choice of insert 3. Cutting data	• Adjust L/D ratio • Select 90° lead angle on rough boring tools • Select inserts with positive geometry • Select inserts with smaller corner radius • Reduce depth of cut • Increase feed
Slight chatter marks on surface	1. Choice of insert 2. Cutting data 3. Machining environment	• Select 90° lead angle • Select ground inserts with small edge preparation • Select inserts with smaller corner radius • Increase feed • Increase coolant
Conical bores	1. Choice of insert 2. Cutting data 3. Machining environment	• Select a more wear-resistant insert grade • Increase cutting speed • Check whether all screws have been tightened to recommended torque

Inserts Overview

Geometry	Application	ANSI catalog number	ISO catalog number	P			M		K		S	
				WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WK05CT	WK20CT	WS10PT	WS25PT
	CCMT-FP • Fine Finishing	CCMT2151FP	CCMT060204FP	•	•		•	•		•	•	•
		CCMT3251FP	CCMT09T304FP	•	•		•	•		•	•	•
	CCMT-MU • Medium to Finishing	CCMT2152MU	CCMT060208MU					•		•		
		CCMT3251MU	CCMT09T304MU	•	•			•	•	•	•	•
		CCMT3252MU	CCMT09T308MU	•	•	•		•		•	•	•
		CCMT432MU	CCMT120408MU	•	•			•		•		•
	CCMT-MP • Roughing to Medium	CCMT2151MP	CCMT060204MP	•	•		•	•		•	•	
		CCMT3251MP	CCMT09T304MP	•	•		•	•		•	•	
		CCMT3252MP	CCMT09T308MP	•	•		•	•		•	•	
		CCMT432MP	CCMT120408MP	•	•		•	•		•	•	
		CCMT433MP	CCMT120412MP		•		•	•		•		