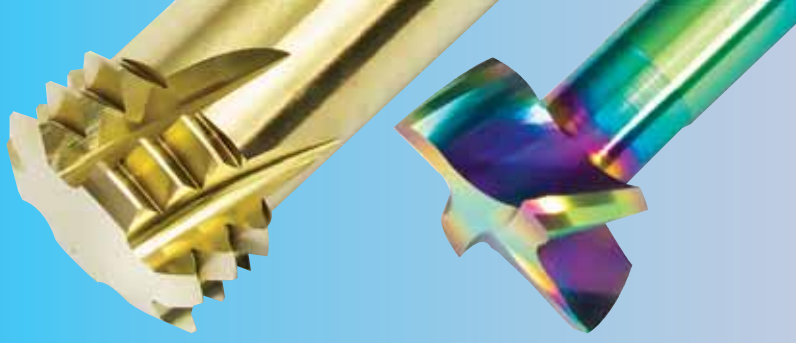
APT
QUALITY TOOLS

ASSOCIATED PRODUCTION TOOLS



Prices valid till 31st December 2024

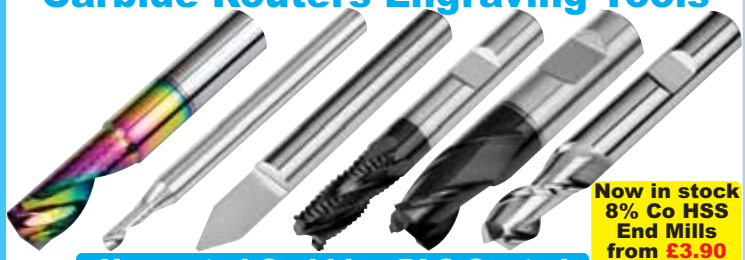
High Quality Solid Carbide Tools

HRC 45 - HRC 55 - HRC 65-68 - DLC

Carbide End Mills from £2.27

General Use, SS, ALU, DLC End Mills pages 1-4

Carbide Routers Engraving Tools



Now in stock 8% Co HSS End Mills from £3.90 See page 3

Un-coated Carbide - DLC Coated

Carbide Router Bits from £2.00

Engraving Tools, Router Bits, 1 Flute Cutters pages 4&5

Solid and Indexable Threading

Solid Carbide Thread Mills From £12.00

Thread Mills, Inserts, Machine Taps pages 6-8

Indexable and solid drilling

Spade drill inserts from £14.50

Udrills from £15.00, inserts from £1.60

Pages 8-11

Indexable Milling Tools

Indexable end mills from £12.00
Indexable face mills from £28.00
Milling inserts from £1.60

See pages 12-14

Parting & Grooving Tools

Coated parting inserts from £1.80
2 edge grooving inserts from £2.20

See pages 15-16

Indexable Turning & Boring Tools

PCD Tips £22 CBN Tips from £19.00

Carbide Inserts Toolholders & Boring Bars pages 16-19

Spindle Tooling - BT30 from £13.90

BT40 12K RPM from only £14.90

Also DIN69871, DIN2080 page 20-21 Burrs page 21

Carbide shank boring bars from £40.00
Carbide shank boring bar set £130.00

Mini carbide boring bars from £9.00 Holders from £18.00 See page 22

Steel & Carbide boring bar sets from £68.00

See page 22

60° Serration soft jaws from £14.90 per set

See back cover

Solid Carbide Tools

2 & 4 flute ball nose carbide end mills AlTiN coated

2 flute ball nose	4 flute ball nose	dia	shank dia	flute length	flute length	2 flute price £	4 flute price £
2BNM-04010050-450	4BNM-04010050-450	1.0	4	2	50	4.00	6.60
2BNM-04015050-450	4BNM-04015050-450	1.5	4	3	50	4.00	6.60
2BNM-04020050-450	4BNM-04020050-450	2.0	4	4	50	4.00	6.60
2BNM-04025050-450	4BNM-04025050-450	2.5	4	5	50	4.00	6.60
2BNM-04030050-450	4BNM-04030050-450	3.0	4	6	50	4.00	6.60
2BNM-04040050-450	4BNM-04040050-450	4.0	4	8	50	4.00	6.60
2BNM-06050050-450	4BNM-06050050-450	5.0	6	10	50	6.80	9.20
2BNM-06060050-450	4BNM-06060050-450	6.0	6	12	50	6.80	9.20
2BNM-08080060-450	4BNM-08080060-450	8.0	8	15	60	10.40	15.60
2BNM-10100075-450	4BNM-10100075-450	10	10	20	75	18.40	23.60
2BNM-12120075-450	4BNM-12120075-450	12	12	25	75	23.60	30.00

2 & 4 flute long series ball nose carbide end mills AlTiN coated

2 flute ball nose	4 flute ball nose	dia	shank dia	flute length	flute length	2 flute price £	4 flute price £
2LSBN-04010075-450	-	1.0	4	2	75	5.60	-
2LSBN-04015075-450	-	1.5	4	3	75	5.60	-
2LSBN-04020075-450	-	2.0	4	4	75	5.60	-
2LSBN-04030075-450	-	3.0	4	6	75	5.60	-
2LSBN-04040075-450	4LSBN-04040075-450	4.0	4	8	75	5.60	6.80
2LSBN-06040100-450	-	4.0	6	8	100	10.40	-
2LSBN-06050075-450	-	5.0	6	10	75	8.20	-
2LSBN-06060075-450	4LSBN-06060075-450	6.0	6	12	75	8.20	11.40
2LSBN-06060100-450	4LSBN-06060100-450	6.0	6	12	100	10.40	13.20
2LSBN-06060150-450	-	6.0	6	20	150	17.00	-
2LSBN-08080075-450	4LSBN-08080075-450	8.0	8	16	75	11.80	17.40
2LSBN-08080100-450	4LSBN-08080100-450	8.0	8	16	100	15.00	20.20
2LSBN-08080150-450	-	8.0	8	30	150	28.20	-
2LSBN-10100100-450	4LSBN-10100100-450	10	10	20	100	22.60	28.20
2LSBN-10100150-450	-	10	10	40	150	37.10	-
2LSBN-12120100-450	4LSBN-12120100-450	12	12	24	100	31.00	37.60
2LSBN-12120150-450	-	12	12	40	150	45.20	-
2LSBN-16160150-450	-	16	16	40	150	79.20	-

2 & 4 flute standard carbide end mills AlTiN coated

2 flute end mills	4 flute end mills	dia	shank dia	flute length	flute length	price £
2SEM-04010050-450	4SEM-04010050-450	1.0	4	3	50	3.80
2SEM-04015050-450	4SEM-04015050-450	1.5	4	4	50	3.80
2SEM-04020050-450	4SEM-04020050-450	2.0	4	6	50	3.80
2SEM-04025050-450	4SEM-04025050-450	2.5	4	7	50	3.80
2SEM-04030050-450	4SEM-04030050-450	3.0	4	8	50	3.80
2SEM-04040050-450	4SEM-04040050-450	4.0	4	11	50	3.80
2SEM-06050050-450	4SEM-06050050-450	5.0	6	13	50	5.40
2SEM-06060050-450	4SEM-06060050-450	6.0	6	15	50	5.40
2SEM-08080060-450	4SEM-08080060-450	8.0	8	20	60	9.00
2SEM-10100075-450	4SEM-10100075-450	10	10	25	75	15.60
2SEM-12120075-450	4SEM-12120075-450	12	12	30	75	20.80
2SEM-14140100-450	4SEM-14140100-450	14	14	45	100	37.40
2SEM-16160100-450	4SEM-16160100-450	16	16	45	100	47.60
-	4SEM-18180100-450	18	18	45	100	58.00
2SEM-20200100-450	4SEM-20200100-450	20	20	45	100	72.00

2 & 4 flute corner radius carbide end mills AlTiN coated

2 flute corner rad end mills	4 flute corner rad end mills	dia	rad	shank dia	flute length	flute length	price £
2CRM-04030R0.2050-450	4CRM-04030R0.2050-450	3	0.2	4	6	50	6.60
2CRM-04030R0.5050-450	4CRM-04030R0.5050-450	3	0.5	4	6	50	6.60
2CRM-04030R1.0050-450	4CRM-04030R1.0050-450	3	1.0	4	6	50	6.60
2CRM-04040R0.2050-450	4CRM-04040R0.2050-450	4	0.2	4	8	50	6.60
2CRM-04040R0.5050-450	4CRM-04040R0.5050-450	4	0.5	4	8	50	6.20
2CRM-04040R1.0050-450	4CRM-04040R1.0050-450	4	1.0	4	8	50	6.20
2CRM-06050R0.5050-450	4CRM-06050R0.5050-450	5	0.5	6	10	50	7.20
2CRM-06050R1.0050-450	4CRM-06050R1.0050-450	5	1.0	6	10	50	7.20
2CRM-06060R0.2050-450	4CRM-06060R0.2050-450	6	0.2	6	12	50	8.40
2CRM-06060R0.5050-450	4CRM-06060R0.5050-450	6	0.5	6	12	50	7.20
2CRM-06060R1.0050-450	4CRM-06060R1.0050-450	6	1.0	6	12	50	7.20
2CRM-06060R1.5050-450	4CRM-06060R1.5050-450	6	1.5	6	12	50	8.40
2CRM-08080R0.5060-450	4CRM-08080R0.5060-450	8	0.5	8	16	60	11.40
2CRM-08080R1.0060-450	4CRM-08080R1.0060-450	8	1.0	8	16	60	11.40
2CRM-08080R1.5060-450	4CRM-08080R1.5060-450	8	1.5	8	16	60	14.00
2CRM-08080R2.0060-450	4CRM-08080R2.0060-450	8	2.0	8	16	60	14.00
2CRM-10100R0.5075-450	4CRM-10100R0.5075-450	10	0.5	10	20	75	19.00
2CRM-10100R1.0075-450	4CRM-10100R1.0075-450	10	1.0	10	20	75	19.00
2CRM-10100R1.5075-450	4CRM-10100R1.5075-450	10	1.5	10	20	75	21.00
2CRM-10100R2.0075-450	4CRM-10100R2.0075-450	10	2.0	10	20	75	21.00
2CRM-10100R2.5075-450	4CRM-10100R2.5075-450	10	2.5	10	20	75	21.00
2CRM-10100R3.0075-450	4CRM-10100R3.0075-450	10	3.0	10	20	75	21.00
2CRM-12120R0.5075-450	4CRM-12120R0.5075-450	12	0.5	12	24	75	26.00
2CRM-12120R1.0075-450	4CRM-12120R1.0075-450	12	1.0	12	24	75	26.00
2CRM-12120R1.5075-450	4CRM-12120R1.5075-450	12	1.5	12	24	75	29.00
2CRM-12120R2.0075-450	4CRM-12120R2.0075-450	12	2.0	12	24	75	29.00
2CRM-12120R2.5075-450	4CRM-12120R2.5075-450	12	2.5	12	24	75	29.00
2CRM-12120R3.0075-450	4CRM-12120R3.0075-450	12	3.0	12	24	75	29.00

-450 = micro-grain carbide with AlTiN coating for use on materials up to 45HRC
-550 = micro-grain carbide with AlTiN coating for use on materials up to 55HRC
-600 = ultra micro-grain carbide with AlTiN-AS coating for use on materials up to 60HRC
-650 = ultra micro-grain carbide with AlTiN-AS coating for use on materials up to 68HRC

All of our carbide end mills are centre cutting

3 flute 45° helix carbide end mills AlTiN coated

3 flute end mills	dia	shank dia	flute length	flute length	price £
3SHH-04010050-450	1.0	4	3	50	4.60
3SHH-04015050-450	1.5	4	4.5	50	4.60
3SHH-04020050-450	2.0	4	6	50	4.60
3SHH-04025050-450	2.5	4	7	50	4.60
3SHH-04030050-450	3.0	4	8	50	4.60
3SHH-04040050-450	4.0	4	11	50	4.60
3SHH-06050050-450	5.0	6	13	50	6.20
3SHH-06060050-450	6.0	6	13	50	6.20
3SHH-08080060-450	8.0	8	20	60	11.00
3SHH-10100075-450	10	10	25	75	16.00
3SHH-12120075-450	12	12	30	75	22.00
3SHH-16160100-450	16	16	40	100	52.00
3SHH-20200100-450	20	20	40	100	72.60

6 flute finishing carbide end mills AlTiN coated

6 flute end mills	dia	shank dia	flute length	flute length	price £
6SEM-06060050-550	6	6	15	50	13.20
6SEM-08080060-550	8	8	20	60	20.20
6SEM-10100075-550	10	10	25	75	28.00
6SEM-12120075-550	12	12	30	75	36.40
6SEM-16160100-550	16	16	40	100	64.40
6SEM-20200100-550	20	20	45	100	102.00

4 flute roughing carbide end mills AlTiN coated

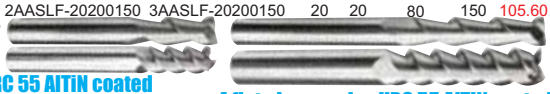
4 flute end mills	dia	shank dia	flute length	flute length	price £
4REM-06060050-450	6	6	15	50	12.80
4REM-08080060-450	8	8	20	60	19.60
4REM-10100075-450	10	10	25	75	28.00
4REM-12120075-450	12	12	30	75	37.00
4REM-16160100-450	16	16	45	100	64.40
4REM-20200100-450	20	20	45	100	93.00

4 flute long series carbide end mills AlTiN coated

4 flute end mills	dia	shank dia	flute length	flute length	price £
4LFS-04010075-450	1.0	4	5	75	6.80
4LFS-04015075-450	1.5	4	6	75	6.80
4LFS-04020075-450	2.0	4	9	75	6.80
4LFS-04025075-450	2.5	4	7	75	6.80
4LFS-04030075-450	3.0	4	15	75	6.80
4LFS-04035075-450	3.5	4	15	75	6.80
4LFS-04040075-450	4.0	4	20	75	6.80
4LFS-06050075-450	5.0	6	25	75	9.00
4LFS-06060075-450	6.0	6	25	75	9.00
4LFS-08080075-450	8.0	8	30	75	13.60
4LFS-06030100-450	3	6	15	100	11.30
4LFS-06040100-450	4	6	25	100	11.30
4LFS-06050100-450	5	6	30	100	11.30
4LFS-06060100-450	6	6	40	100	11.30
4LFS-08080100-450	8	8	40	100	16.60
4LFS-10100100-450	10	10	40	100	23.60
4LFS-12120100-450	12	12	45	100	33.00
4LFS-06060150-450	6	6	40	150	15.80
4LFS-08080150-450	8	8	50	150	26.00
4LFS-10100150-450	10	10	50	150	34.00
4LFS-12120150-450	12	12	50	150	43.80
4LFS-14140150-450	14	14	50	150	62.00
4LFS-16160150-450	16	16	70	150	86.00
4LFS-18180150-450	18	18	80	150	98.00
4LFS-20200150-450	20	20	80	150	116.00

2 flute 45° & 3 flute 55° carbide end mills for aluminium

2 flute end mills	3 flute end mills	dia	shank dia	flute length	flute length	price £
2AAS-04010050	3AAS-04010050	1.0	4	3	50	4.20
2AAS-04015050	3AAS-04015050	1.5	4	4.5	50	4.20
2AAS-04020050	3AAS-04020050	2.0	4	6	50	4.20
2AAS-04025050	3AAS-04025050	2.5	4	7	50	4.20
2AAS-04030050	3AAS-04030050	3.0	4	8	50	4.20
2AAS-04040050	3AAS-04040050	4.0	4	11	50	4.20
2AAS-06050050	3AAS-06050050	5.0	6	13	50	6.00
2AAS-06060050	3AAS-06060050	6.0	6	15	50	6.00
2AAS-08080060	3AAS-08080060	8.0	8	20	60	10.20
2AAS-10100075	3AAS-10100075	10	10	25	75	16.80
2AAS-12120075	3AAS-12120075	12	12	30	75	23.20
2AAS-14140100	3AAS-14140100	14	14	45	100	44.20
2AAS-16160100	3AAS-16160100	16	16	45	100	50.60
2AAS-18180100	3AAS-18180100	18	18	45	100	59.60
2AAS-20200100	3AAS-20200100	20	20	45	100	74.80
2AASLF-04030075	3AASLF-04030075	3	4	12	75	9.20
2AASLF-06040075	3AASLF-06040075	4	6	16	75	9.20
2AASLF-06050075	3AASLF-06050075	5	6	20	75	9.20
2AASLF-06060075	3AASLF-06060075	6	6	25	75	9.20
2AASLF-08080075	3AASLF-08080075	8	8	30	75	12.80
2AASLF-04030100	3AASLF-04030100	3	4	12	100	11.00
2AASLF-06040100	3AASLF-06040100	4	6	16	100	11.00
2AASLF-06050100	3AASLF-06050100	5	6	20	100	11.00
2AASLF-06060100	3AASLF-06060100	6	6	25	100	11.00
2AASLF-08080100	3AASLF-08080100	8	8	30	100	17.40
2AASLF-10100100	3AASLF-10100100	10	10	40	100	23.40
2AASLF-08080150	3AASLF-08080150	8	8	40	150	26.00
2AASLF-10100150	3AASLF-10100150	10	10	50	150	35.00
2AASLF-12120150	3AASLF-12120150	12	12	50	150	45.20
2AASLF-16160150	3AASLF-16160150	16	16	70	150	76.00
2AASLF-20200150	3AASLF-20200150	20	20	80	150	105.60



3 flute aluminium roughing series

3 flute roughing end mills for aluminium	dia	shank dia	flute length	flute length	price £
EA3R-04040050	4.0	4	10	50	5.00
EA3R-06060050	6.0	6	15	50	8.00
EA3R-08080060	8.0	8	20	60	12.00
EA3R-10100075	10	10	25	75	20.00
EA3R-12120075	12	12	35	75	26.00
EA3R-14140100	14	14	40	100	42.00
EA3R-16160100	16	16	42	100	57.00
EA3R-20200100	20	20	42	100	78.00

2 flute ball nose carbide end mills for aluminium

2 flute ball nose for aluminium	dia	shank dia	flute length	flute length	price £
2AABN-04010050	1.0	4	2	50	4.80
2AABN-04015050	1.5	4	3	50	4.80
2AABN-04020050	2.0	4	4	50	4.80
2AABN-04025050	2.5	4	5	50	4.80
2AABN-04030050	3.0	4	6	50	4.80
2AABN-04040050	4.0	4	8	50	4.80
2AABN-06050050	5.0	6	10	50	6.20
2AABN-06060050	6.0	6	12	50	6.20
2AABN-08080060	8.0	8	15	60	11.40
2AABN-10100075	10	10	20	75	17.20
2AABN-12120075	12	12	25	75	22.60
2AABN-16160100	16	16	30	100	51.00

3 flute ball nose carbide end mills for aluminium

3 flute ball nose for aluminium	dia	shank dia	flute length	flute length	price £
3AABN-04010050	1.0	4	2	50	6.00
3AABN-04015050	1.5	4	3	50	6.00
3AABN-04020050	2.0	4	4	50	6.00
3AABN-04025050	2.5	4	5	50	6.00
3AABN-04030050	3.0	4	6	50	6.00
3AABN-04040050	4.0	4	8	50	6.00
3AABN-06050050	5.0	6	10	50	8.00
3AABN-06060050	6.0	6	12	50	8.00
3AABN-08080060	8.0	8	15	60	13.00
3AABN-10100075	10	10	20	75	20.00
3AABN-12120075	12	12	25	75	28.00

2 & 4 flute carbide end mills for steel up to HRC 55 AlTiN coated

2 flute end mills	4 flute end mills	dia	shank dia	flute length	flute length	price £
SC2S-04010050-550	SC4S-04010050-550	1.0	4	3	50	5.00
SC2S-04015050-550	SC4S-04015050-550	1.5	4	4	50	5.00
SC2S-04020050-550	SC4S-04020050-550	2.0	4	6	50	5.00
SC2S-04025050-550	SC4S-04025050-550	2.5	4	7	50	5.00
SC2S-06030050-550	SC4S-06030050-550	3.0	6	8	50	7.00
SC2S-06040050-550	SC4S-06040050-550	4.0	6	11	50	7.00
SC2S-06050050-550	SC4S-06050050-550	5.0	6	13	50	7.00
SC2S-06060050-550	SC4S-06060050-550	6.0	6	15	50	7.00
SC2S-08080060-550	SC4S-08080060-550	8.0	8	20	60	10.00
SC2S-10100075-550	SC4S-10100075-550	10	10	25	75	16.60
SC2S-12120075-550	SC4S-12120075-550	12	12	30	75	24.00
-	SC4S-14140100-550	14	14	45	100	40.60
-	SC4S-16160100-550	16	16	45	100	50.80
-	SC4S-18180100-550	18	18	45	100	62.00
-	SC4S-20200100-550	20	20	45	100	78.60

4 flute long series HRC 55 AlTiN coated

4 flute end mills	dia	shank dia	flute length	flute length	price £
SC4LS-04040075-550	4.0	4	11	75	8.00
SC4LS-04040100-550	4.0	4	11	100	9.00
SC4LS-06050075-550	5.0	6	13	75	10.00
SC4LS-06060075-550	6.0	6	15	75	10.00
SC4LS-06060100-550	6.0	6	30	100	10.40
SC4LS-08080075-550	8.0	8	20	75	12.40
SC4LS-08080100-550	8.0	8	40	100	14.00
SC4LS-10100100-550	10	10	50	100	26.00
SC4LS-12120100-550	12	12	50	100	32.00
SC4LS-14140150-550	14	14	50	150	76.00
SC4LS-16160150-550	16	16	50	150	95.00
SC4LS-20200150-550	20	20	50	150	110.00

4 flute carbide end mills for stainless AlTiN coated

4 flute end mills	dia	shank dia	flute length	flute length	price £
4SSS-04010050-550	1.0	4	3	50	6.40
4SSS-04015050-550	1.5	4	4	50	6.40
4SSS-04020050-550	2.0	4	6	50	6.40
4SSS-04025050-550	2.5	4	7	50	6.40
4SSS-04030050-550	3.0	4	8	50	6.40
4SSS-04040050-550	4.0	4	11	50	6.40
4SSS-06050050-550	5.0	6	13	50	8.80
4SSS-06060050-550	6.0	6	15	50	8.80
4SSS-08080060-550	8.0	8	20	60	14.40
4SSS-10100075-550	10	10	25	75	23.40
4SSS-12120075-550	12	12	30	75	31.60
4SSS-16160100-550	16	16	45	100	73.00
4SSS-20200100-550	20	20	45	100	110.60

SSS Series have variable flute helix for stainless

4 flute end mills TiAlN 45HRC

4 flute end mills	dia	shank dia	flute length	length	price £
EC4S-04010050	1.0	4	3	50	2.60
EC4S-04015050	1.5	4	5	50	2.60
EC4S-04020050	2.0	4	6	50	2.60
EC4S-04025050	2.5	4	7	50	2.60
EC4S-04030050	3.0	4	8	50	2.60
EC4S-04040050	4.0	4	11	50	2.60
EC4S-04040075	4.0	4	16	75	3.60
EC4S-04040100	4.0	4	16	100	4.20
EC4S-05050050	5.0	5	13	50	3.80
EC4S-06060050	6.0	6	15	50	3.80
EC4S-06060075	6.0	6	22	75	6.00
EC4S-06060100	6.0	6	22	100	7.00
EC4S-08080060	8.0	8	20	60	8.00
EC4S-08080075	8.0	8	20	75	9.00
EC4S-08080100	8.0	8	25	100	11.00
EC4S-10100075	10	10	25	75	10.00
EC4S-10100100	10	10	28	100	15.00
EC4S-10100150	10	10	40	150	27.00
EC4S-12120075	12	12	30	75	14.00
EC4S-12120100	12	12	30	100	24.00
EC4S-12120150	12	12	45	150	35.00
EC4S-14140100	14	14	40	100	32.00
EC4S-14140150	14	14	50	150	50.00
EC4S-16160100	16	16	42	100	37.00
EC4S-16160150	16	16	55	150	54.00
EC4S-18180100	18	18	45	100	47.00
EC4S-20200100	20	20	45	100	50.00
EC4S-20200150	20	20	55	150	86.00

4 flute AlTiCrN coated 55HRC

4 flute end mills	dia	shank dia	flute length	length	price £
ED4S-04010050	1.0	4	3	50	3.00
ED4S-04020050	2.0	4	5	50	3.00
ED4S-04030050	3.0	4	8	50	3.00
ED4S-04040050	4.0	4	10	50	3.00
ED4S-04040075	4.0	4	12	75	4.00
ED4S-04040100	4.0	4	16	100	4.80
ED4S-05050050	5.0	5	13	50	5.00
ED4S-05050075	5.0	5	15	75	7.60
ED4S-05050100	5.0	5	20	100	9.00
ED4S-06060050	6.0	6	15	50	5.00
ED4S-06060075	6.0	6	24	75	7.60
ED4S-06060100	6.0	6	30	100	9.00
ED4S-08080060	8.0	8	20	60	9.00
ED4S-08080100	8.0	8	35	100	19.00
ED4S-10100075	10	10	25	75	14.60
ED4S-10100100	10	10	40	100	21.00
ED4S-10100150	10	10	50	150	33.00
ED4S-12120075	12	12	30	75	21.00
ED4S-12120100	12	12	45	100	28.40
ED4S-12120150	12	12	50	150	45.00
ED4S-14140100	14	14	45	100	42.00
ED4S-14140150	14	14	60	150	63.00
ED4S-16160100	16	16	45	100	47.60
ED4S-16160150	16	16	65	150	80.00
ED4S-18180100	18	18	45	100	64.00
ED4S-20200100	20	20	45	100	71.60
ED4S-20200150	20	20	70	150	108.00

4 flute TiAlN F-NaNo coated 65HRC

4 flute end mills	dia	shank dia	flute length	length	price £
EH4S-04010050	1.0	4	3	50	7.00
EH4S-04015050	1.5	4	5	50	7.00
EH4S-04020050	2.0	4	6	50	7.00
EH4S-04025050	2.5	4	7	50	7.00
EH4S-04030050	3.0	4	8	50	7.00
EH4S-04040050	4.0	4	10	50	7.00
EH4S-04040075	4.0	4	14	75	9.00
EH4S-05050050	5.0	5	13	50	10.00
EH4S-06060050	6.0	6	15	50	10.00
EH4S-06060075	6.0	6	22	75	15.00
EH4S-08080060	8.0	8	20	60	17.00
EH4S-10100075	10	10	25	75	27.00
EH4S-10100100	10	10	28	100	39.00
EH4S-12120075	12	12	30	75	40.00
EH4S-12120100	12	12	30	100	51.00

4 flute stainless series AlTiCrN coated

4 flute end mill for stainless	dia	shank dia	flute length	length	price £
ES4S-04010050	1.0	4	3	50	4.30
ES4S-04015050	1.5	4	4	50	4.30
ES4S-04020050	2.0	4	6	50	4.30
ES4S-04030050	3.0	4	8	50	4.30
ES4S-04040050	4.0	4	10	50	4.30
ES4S-06060050	6.0	6	18	50	8.00
ES4S-08080060	8.0	8	20	60	12.40
ES4S-10100075	10	10	25	75	24.00
ES4S-12120075	12	12	30	75	32.00

4 flute 45° corner chamfer end mills for Ti alloys HRSA's and stainless

4 flute corner rad carbide mills 55HRC	dia	CH	shank dia	flute length	length	price £
HRSA-04040050-0.15C	4	0.15	4	11	50	5.00
HRSA-06060050-0.15C	6	0.15	6	15	50	8.00
HRSA-08080060-0.15C	8	0.15	8	20	60	16.00
HRSA-10100075-0.2C	10	0.20	10	25	75	22.00
HRSA-12120100-0.25C	12	0.25	12	30	75	28.00

4 flute corner radius end mills TiAlN 55HRC

4 flute corner rad carbide mills 55HRC	dia	rad	shank dia	flute length	length	price £
ED4SR-04040050-0.2	4	0.2	4	10	50	5.00
ED4SR-04040050-0.5	4	0.5	4	10	50	5.00
ED4SR-05050050-0.5	5	0.5	5	13	50	7.00
ED4SR-06060050-0.5	6	0.5	6	15	50	7.00
ED4SR-06060050-1.0	6	1.0	6	15	50	7.00
ED4SR-08080060-0.5	8	0.5	8	20	60	12.00
ED4SR-08080060-1.0	8	1.0	8	20	60	12.00
ED4SR-10100075-0.5	10	0.5	10	25	75	21.00
ED4SR-10100075-1.0	10	1.0	10	25	75	21.00
ED4SR-10100075-2.0	10	2.0	10	25	75	21.00
ED4SR-12120075-1.0	12	1.0	12	30	75	28.00
ED4SR-12120075-2.0	12	2.0	12	30	75	28.00
ED4SR-16160100-1.0	16	1.0	16	45	100	66.00
ED4SR-16160100-2.0	16	2.0	16	45	100	66.00

2 flute ball nose TiAlN 45HRC

2 flute ball nose end mills 45HRC	dia	shank dia	flute length	length	price £
EC2B-04010050	1.0	4	2	50	2.60
EC2B-04015050	1.5	4	3	50	2.60
EC2B-04020050	2.0	4	4	50	2.60
EC2B-04025050	2.5	4	5	50	2.60
EC2B-04030050	3.0	4	6	50	2.60
EC2B-04040050	4.0	4	8	50	2.60
EC2B-05050050	5.0	5	10	50	4.60
EC2B-06060050	6.0	6	12	50	4.60
EC2B-06060100	6.0	6	12	100	7.00
EC2B-08080060	8.0	8	16	60	8.60
EC2B-08080100	8.0	8	16	100	12.00
EC2B-10100075	10	10	22	75	13.00
EC2B-10100100	10	10	22	100	15.00
EC2B-12120075	12	12	25	75	18.00
EC2B-12120100	12	12	25	100	26.00
EC2B-16160100	16	16	32	100	38.00
EC2B-20200100	20	20	36	100	58.00

2 flute ball nose TiSiN 55HRC

2 flute ball nose end mills 55HRC	dia	shank dia	flute length	length	price £
ED2B-04010050	1.0	4	2	50	4.20
ED2B-04015050	1.5	4	3	50	4.20
ED2B-04020050	2.0	4	4	50	4.20
ED2B-04025050	2.5	4	5	50	4.20
ED2B-04030050	3.0	4	6	50	4.20
ED2B-04040050	4.0	4	8	50	4.20
ED2B-05050050	5.0	5	10	50	6.00
ED2B-06060050	6.0	6	12	50	6.00
ED2B-06060100	6.0	6	16	100	10.00
ED2B-08080060	8.0	8	16	60	10.00
ED2B-08080100	8.0	8	16	100	16.00
ED2B-10100075	10	10	22	75	17.00
ED2B-10100100	10	10	24	100	22.00
ED2B-12120075	12	12	25	75	22.00
ED2B-12120100	12	12	25	100	30.00
ED2B-16160100	16	16	32	100	52.00
ED2B-20200100	20	20	36	100	78.00

2 flute ball F-NaNo coated 65HRC

2 flute ball nose	dia	shank dia	flute length	length	price £
EH2B-04010050	1.0	4	2	50	7.60
EH2B-04015050	1.5	4	3	50	7.60
EH2B-04020050	2.0	4	4	50	7.60
EH2B-04025050	2.5	4	5	50	7.60
EH2B-04030050	3.0	4	6	50	7.60
EH2B-04040050	4.0	4	8	50	7.60
EH2B-05050050	5.0	5	10	50	12.00
EH2B-06060050	6.0	6	12	50	12.00
EH2B-08080060	8.0	8	16	60	19.00
EH2B-10100075	10	10	22	75	29.00
EH2B-12120075	12	12	25	75	40.00

2 fl micro end mills 55HRC TiAlCrN

2 flute micro ball nose end mills	dia	shank dia	flute length	length	price £
EDM2B-04003050	0.3	4	0.6	50	5.60
EDM2B-04004050	0.4	4	0.8	50	5.60
EDM2B-04005050	0.5	4	1.0	50	5.60
EDM2B-04006050	0.6	4	1.2	50	5.60
EDM2B-04007050	0.7	4	1.4	50	5.60
EDM2B-04008050	0.8	4	1.6	50	5.60
EDM2B-04009050	0.9	4	1.8	50	5.60

2 fl micro ball end mills AlTiNs coated 60HRC

2 flute ball nose end mills	dia	shank dia	flute length	length	price £
2MBN-04003050-600	0.3	4	0.6	50	9.00
2MBN-04004050-600	0.4	4	0.8	50	9.00
2MBN-04005050-600	0.5	4	1.0	50	9.00
2MBN-04006050-600	0.6	4	1.2	50	9.00
2MBN-04007050-600	0.7	4	1.4	50	9.00
2MBN-04008050-600	0.8	4	1.6	50	9.00
2MBN-04009050-600	0.9	4	1.8	50	9.00

2 fl micro end mills 55HRC TiAlCrN coated

2 flute micro diameter end mills	dia	shank dia	flute length	length	price £
EDM2S-04003050	0.3	4	0.6	50	5.20
EDM2S-04004050	0.4	4	0.8	50	5.20
EDM2S-04005050	0.5	4	1.0	50	5.20
EDM2S-04006050	0.6	4	1.2	50	5.20
EDM2S-04007050	0.7	4	1.4	50	5.20
EDM2S-04008050	0.8	4	1.6	50	5.20
EDM2S-04009050	0.9	4	1.8	50	5.20

2 fl micro end mills AlTiNs coated 60HRC

2 flute micro end mills	dia	shank dia	flute length	length	price £
WXJ2FD0002-600	0.2	4	0.4	50	7.20
WXJ2FD0003-600	0.3	4	0.6	50	7.20
WXJ2FD0004-600	0.4	4	0.8	50	7.20
WXJ2FD0005-600	0.5	4	1.0	50	7.20
WXJ2FD0006-600	0.6	4	1.2	50	7.20
WXJ2FD0007-600	0.7	4	1.4	50	7.20
WXJ2FD0008-600	0.8	4	1.6	50	7.20
WXJ2FD0009-600	0.9	4	1.8	50	7.20

3 flute aluminium series Polished Flute - HRC55

3 flute end mills for aluminium	dia	shank dia	flute length	length	price £
EPA3-04010050	1.0	4	3	50	2.27
EPA3-04010075	1.0	4	4	75	3.21
EPA3-04015050	1.5	4	4.5	50	2.27
EPA3-04020050	2.0	4	6	50	2.27
EPA3-04020075	2.0	4	8	75	3.21
EPA3-04025050	2.5	4	7.5	50	2.27
EPA3-03030050	3.0	3	9	50	2.27
EPA3-03030075	3.0	3	12	75	3.21
EPA3-03030100	3.0	3	15	100	3.85
EPA3-04035050	3.5	4	11	50	2.27
EPA3-04040050	4.0	4	12	50	2.27
EPA3-04040075	4.0	4	16	75	3.21
EPA3-04040100	4.0	4	20	100	3.85
EPA3-05050050	5.0	5	15	50	4.12
EPA3-05050075	5.0	5	20	75	6.05
EPA3-05050100	5.0	5	25	100	7.47
EPA3-06060050	6.0	6	18	50	4.12
EPA3-06060075	6.0	6	24	75	6.05
EPA3-06060100	6.0	6	30	100	7.47
EPA3-06060150	6.0	6	35	150	12.60
EPA3-08080060	8.0	8	24	60	7.32
EPA3-08080075	8.0	8	30	75	9.20
EPA3-08080100	8.0	8	35	100	11.89
EPA3-08080150	8.0	8	40	150	20.00
EPA3-10100075	10	10	30	75	12.20
EPA3-10100100	10	10	40	100	17.12
EPA3-10100150	10	10	50	150	26.60
EPA3-12120075	12	12	36	75	16.80
EPA3-12120100	12	12	45	100	24.60
EPA3-12120150	12	12	60	150	36.60
EPA3-14140100	14	14	45	100	35.20
EPA3-14140150	14	14	65	150	52.60
EPA3-16160100	16	16	45	100	43.20
EPA3-16160150	16	16	65	150	67.60*
EPA3-18180100	18	18	45	100	54.00
EPA3-18180150	18	18	70	150	86.00*
EPA3-20200100	20	20	45	100	64.80
EPA3-20200150	20	20	70	150	98.00*

3 flute aluminium series Polished Flute DLC coated - HRC55

3 flute end mills for aluminium	dia	shank dia	flute length	length	price £
EPA3-04010050DLC	1.0	4	3	50	2.92
EPA3-04010075DLC	1.0	4	4	75	3.84
EPA3-04015050DLC	1.5	4	4.5	50	2.92
EPA3-04020050DLC	2.0	4	6	50	2.92
EPA3-04020075DLC	2.0	4	8	75	3.84
EPA3-04025050DLC	2.5	4	7.5	50	2.92
EPA3-03030050DLC	3.0	3	9	50	2.92
EPA3-03030075DLC	3.0	3	12	75	3.84
EPA3-03030100DLC	3.0	3	15	100	4.64
EPA3-04035050DLC	3.5	4	11	50	2.92
EPA3-04040050DLC	4.0	4	12	50	2.92
EPA3-04040075DLC	4.0	4	16	75	3.84
EPA3-04040100DLC	4.0	4	20	100	4.64
EPA3-05050050DLC	5.0	5	15	50	5.27
EPA3-05050075DLC	5.0	5	20	75	7.24
EPA3-05050100DLC	5.0	5	25	100	8.76
EPA3-06060050DLC	6.0	6	18	50	5.27
EPA3-06060075DLC	6.0	6	24	75	7.24
EPA3-06060100DLC	6.0	6	30	100	8.76
EPA3-06060150DLC	6.0	6	35	150	13.80
EPA3-08080060DLC	8.0	8	24	60	9.20
EPA3-08080075DLC	8.0	8	30	75	10.84
EPA3-08080100DLC	8.0	8	35	100	13.60
EPA3-08080150DLC	8.0	8	40	150	21.20
EPA3-10100075DLC	10	10	30	75	15.00
EPA3-10100100DLC	10	10	40	100	19.80
EPA3-10100150DLC	10	10	50	150	30.00
EPA3-12120075DLC	12	12	36	75	21.00
EPA3-12120100DLC	12	12	45	100	27.00
EPA3-12120150DLC	12	12	60	150	43.00
EPA3-14140100DLC	14	14	45	100	38.00
EPA3-14140150DLC	14	14	65	150	58.00
EPA3-16160100DLC	16	16	45	100	46.00
EPA3-16160150DLC	16	16	70	150	81.20
EPA3-18180100DLC	18	18	45	100	58.00
EPA3-18180150DLC	18	18	70	150	90.00
EPA3-20200100DLC	20	20	45	100	68.00
EPA3-20200150DLC	20	20	70	150	106.00

16-20mm dia 15mm long are polished on the outer edge only

high performance 3 flute variable helix DLC Coated end mills for aluminium - HRC62

3 flute end mills for aluminium	dia	shank dia	flute length	length	price £
EAV3S-04010050DLC	1.0	4	3	50	3.80
EAV3S-04020050DLC	2.0	4	6	50	3.80
EAV3S-04030050DLC	3.0	4	9	50	3.80
EAV3S-04040050DLC	4.0	4	12	50	3.80
EAV3S-06050050DLC	5.0	6	15	50	9.00
EAV3S-06060050DLC	6.0	6	18	50	9.00
EAV3S-06060075DLC	6.0	6	25	75	12.00
EAV3S-06060100DLC	6.0	6	30	100	16.00
EAV3S-08080060DLC	8.0	8	20	60	12.00
EAV3S-08080075DLC	8.0	8	30	75	18.00
EAV3S-08080100DLC	8.0	8	35	100	22.00
EAV3S-10100075DLC	10	10	25	75	18.00
EAV3S-10100100DLC	10	10	40	100	28.00
EAV3S-12120075DLC	12	12	30	75	24.00
EAV3S-12120100DLC	12	12	45	100	40.00
EAV3S-16160100DLC	16	16	45	100	57.00
EAV3S-20200100DLC	20	20	45	100	78.00

EAV3S variable helix cutters are our best performing end mills for aluminium and high hardness aluminium. Not to be confused with other DLC coated items available in the market

2 flute micro carbide end mills for aluminium

2 flute micro ball nose end mills for aluminium	dia	shank dia	flute length	length	price £
EAM2S-04003050	0.3	4	0.6	50	5.00
EAM2S-04004050	0.4	4	0.8	50	5.00
EAM2S-04005050	0.5	4	1.0	50	5.00
EAM2S-04006050	0.6	4	1.2	50	5.00
EAM2S-04007050	0.7	4	1.4	50	5.00
EAM2S-04008050	0.8	4	1.6	50	5.00
EAM2S-04009050	0.9	4	1.8	50	5.00

micro ball nose carbide end mills for aluminium

2 flute micro ball nose end mills for aluminium	flute length	shank dia	dia	length	price £
EAM2B-04003050	0.6	4	0.3	50	5.40
EAM2B-04004050	0.8	4	0.4	50	5.40
EAM2B-04005050	1.0	4	0.5	50	5.40
EAM2B-04006050	1.2	4	0.6	50	5.40
EAM2B-04007050	1.4	4	0.7	50	5.40
EAM2B-04008050	1.6	4	0.8	50	5.40
EAM2B-04009050	1.8	4	0.9	50	5.40

2 flute lollipop cutters TiSiN Coated 58HRC

2 flute lollipop cutters undercutting end mills	dia	R	shank dia	neck dia	flute length	reach	length	price £
LPC2F-030090050-580	3	1.5	4	2.4	2.5	9	50	12.00
LPC2F-040115050-580	4	2.0	4	3.2	3.5	11.5	50	12.00
LPC2F-050140057-580	5	2.5	6	4.0	4.5	14.0	57	19.00
LPC2F-060166064-580	6	3.0	6	4.8	5.4	16.6	64	19.00
LPC2F-080216063-580	8	4.0	8	6.4	7.4	21.6	63	34.00
LPC2F-100266072-580	10	5.0	10	8.0	9.4	26.6	72	41.00
LPC2F-120316083-580	12	6.0	12	9.6	11.4	31.6	83	54.00

2 flute lollipop cutters TiSiN Coated 55HRC

2 flute lollipop cutters undercutting end mills	dia	R	shank dia	neck dia	flute length	reach	length	price £
ELP2F-04020050R1	2	1.0	4	0.9	1.6	6	50	6.00
ELP2F-04030050R1.5	3	1.5	4	1.5	2.5	9	50	6.00
ELP2F-04040050R2	4	2.0	4	1.9	3.2	12	50	6.00
ELP2F-06050050R2.5	5	2.5	6	2.4	4.0	15	50	10.00
ELP2F-06060050R3	6	3.0	6	2.9	4.8	16	50	10.00
ELP2F-08080060R4	8	4.0	8	3.6	6.4	20	60	15.00
ELP2F-10100060R5	10	5.0	10	4.6	8.0	25	60	20.00
ELP2F-12120060R6	12	6.0	12	5.4	9.6	28	60	28.00

2 flute lollipop cutters DLC Coated for Aluminium

2 flute lollipop cutters undercutting end mills	dia	R	shank dia	neck dia	flute length	reach	length	price £
ELP2F-04020050R1DLC	2	1.0	4	0.9	1.6	6	50	6.00
ELP2F-04030050R1.5DLC	3	1.5	4	1.5	2.5	9	50	6.00
ELP2F-04040050R2DLC	4	2.0	4	1.9	3.2	12	50	6.00
ELP2F-06050050R2.5DLC	5	2.5	6	2.4	4.0	15	50	10.00
ELP2F-06060050R3DLC	6	3.0	6	2.9	4.8	16	50	10.00
ELP2F-08080060R4DLC	8	4.0	8	3.6	6.4	20	60	15.00
ELP2F-10100060R5DLC	10	5.0	10	4.6	8.0	25	60	20.00
ELP2F-12120060R6DLC	12	6.0	12	5.4	9.6	28	60	28.00

3 Solid Carbide Tools - HSS End Mills

4 flute corner rounding TiSiN Coated Carbide

4 flute corner rounding end mills 55HRC	crn rad	shank dia	length	price £
ECR4-04036050R0.2	0.2	4	50	5.00
ECR4-04034050R0.3	0.3	4	50	5.00
ECR4-04032050R0.4	0.4	4	50	5.00
ECR4-04030050R0.5	0.5	4	50	5.00
ECR4-04028050R0.6	0.9	4	50	5.00
ECR4-04026050R0.7	0.7	4	50	5.00
ECR4-04025050R0.75	0.75	4	50	5.00
ECR4-04024050R0.8	0.8	4	50	5.00
ECR4-04020050R1.0	1.0	4	50	5.00
ECR4-06040050R1.0	1.0	6	50	8.00
ECR4-06030050R1.5	1.5	6	50	8.00
ECR4-06020050R2.0	2.0	6	50	8.00
ECR4-08040060R2.0	2.0	8	60	14.00
ECR4-08030060R2.5	2.5	8	60	14.00
ECR4-08020060R3.0	3.0	8	60	14.00
ECR4-10040060R3.0	3.0	10	60	18.00
ECR4-10030060R3.5	3.5	10	60	18.00
ECR4-10020060R4.0	4.0	10	60	18.00
ECR4-12030060R4.5	4.5	12	60	24.00
ECR4-12020060R5.0	5.0	12	60	24.00
ECR4-14030070R5.5	5.5	14	70	42.00
ECR4-16040070R6.0	6	16	70	54.00
ECR4-20040070R8.0	8	20	70	74.00

4 flute corner rounding DLC Coated Carbide

4 flute corner rounding end mills for aluminium	crn rad	shank dia	length	price £
ECR4-04036050R0.2DLC	0.2	4	50	5.00
ECR4-04034050R0.3DLC	0.3	4	50	5.00
ECR4-04032050R0.4DLC	0.4	4	50	5.00
ECR4-04030050R0.5DLC	0.5	4	50	5.00
ECR4-04028050R0.6DLC	0.9	4	50	5.00
ECR4-04026050R0.7DLC	0.7	4	50	5.00
ECR4-04025050R0.75DLC	0.75	4	50	5.00
ECR4-04024050R0.8DLC	0.8	4	50	5.00
ECR4-04020050R1.0DLC	1.0	4	50	5.00
ECR4-06040050R1.0DLC	1.0	6	50	8.00
ECR4-06030050R1.5DLC	1.5	6	50	8.00
ECR4-06020050R2.0DLC	2.0	6	50	8.00
ECR4-08040060R2.0DLC	2.0	8	60	14.00
ECR4-08030060R2.5DLC	2.5	8	60	14.00
ECR4-08020060R3.0DLC	3.0	8	60	14.00
ECR4-10040060R3.0DLC	3.0	10	60	18.00
ECR4-10030060R3.5DLC	3.5	10	60	18.00
ECR4-10020060R4.0DLC	4.0	10	60	18.00
ECR4-12030060R4.5DLC	4.5	12	60	24.00
ECR4-12020060R5.0DLC	5.0	12	60	24.00
ECR4-14030070R5.5DLC	5.5	14	70	42.00
ECR4-16040070R6.0DLC	6	16	70	54.00
ECR4-20040070R8.0DLC	8	20	70	74.00

4 flute corner rounding carbide end mills AlTiN coated

4 flute corner rounding carbide end mills	rad	shank dia	tip dia	outside dia	length	price £
4CRC-04027050-0.5mm	0.5	4	1.5	2.7	50	12.00
4CRC-04037050-1.0mm	1.0	4	1.5	3.7	50	12.00
4CRC-06047050-1.5mm	1.5	6	1.5	4.7	50	18.60
4CRC-06057050-2.0mm	2.0	6	1.5	5.7	50	18.60
4CRC-08067050-2.5mm	2.5	8	1.5	6.7	50	24.00
4CRC-08077050-3.0mm	3.0	8	1.5	7.7	50	24.00
4CRC-12102060-4.0mm	4.0	12	2.0	10.2	60	45.20
4CRC-16132075-5.0mm	5.0	16	3.0	13.2	75	80.00
4CRC-16152075-6.0mm	6.0	16	3.0	15.2	75	80.00

4 flute dove tail cutters TiSiN coated Carbide

4 flute dove tail cutters 30°	cut dia	neck dia	cut depth	shank reach	shank dia	length	price £
EDT4-0402H04-30	2	0.9	0.72	4.72	4	50	5.00
EDT4-0403H06-30	3	1.5	1.00	7.00	4	50	5.00
EDT4-0404H06-30	4	2.0	1.43	7.40	4	50	5.00
EDT4-0605H10-30	5	2.5	1.78	11.78	5	50	8.00
EDT4-0606H10-30	6	3.0	2.14	10.00	6	50	8.00
EDT4-0808H12-30	8	4.0	2.85	14.80	8	50	12.00
EDT4-1010H15-30	10	4.5	3.56	18.50	10	60	18.00
EDT4-1212H18-30	12	5.5	4.27	22.30	12	60	22.00
45°							
EDT4-0402H04-45	2	0.9	0.50	4.50	4	50	5.00
EDT4-0403H06-45	3	1.5	0.75	6.75	4	50	5.00
EDT4-0404H08-45	4	2.0	1.00	9.00	4	50	5.00
EDT4-0605H10-45	5	2.5	1.25	11.25	5	50	8.00
EDT4-0606H10-45	6	3.0	1.50	11.50	6	50	8.00
EDT4-0808H12-45	8	4.0	2.00	14.00	8	50	12.00
EDT4-1010H15-45	10	4.5	2.75	17.75	10	60	18.00
EDT4-1212H18-45	12	5.5	3.25	21.25	12	60	22.00
60°							
EDT4-0402H04-60	2	0.9	0.28	4.28	4	50	5.00
EDT4-0403H06-60	3	1.5	0.43	6.40	4	50	5.00
EDT4-0404H08-60	4	2.0	0.57	8.50	4	50	5.00
EDT4-0605H10-60	5	2.5	0.72	10.70	5	50	8.00
EDT4-0606H08-60	6	3.0	0.86	8.80	6	50	8.00
EDT4-0808H12-60	8	4.0	1.15	13.10	8	50	12.00
EDT4-1010H15-60	10	4.5	1.44	16.40	10	60	18.00
EDT4-1212H18-60	12	5.5	1.73	19.70	12	60	22.00

4 flute t-slot cutters TiSiN Coated Carbide 55HRC

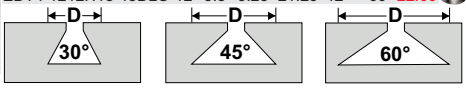
4 flute t-slot cutters	dia	shank dia	neck dia	width	reach	length	price £
ETS-04020050-0.5	2	4	1.0	0.5	4.5	50	5.00
ETS-04020050-1.0	2	4	1.0	1.0	5.0	50	5.00
ETS-04030050-0.5	3	4	1.5	0.5	5.5	50	5.00
ETS-04030050-1.0	3	6	1.5	1.0	6.0	50	5.00
ETS-04030050-1.5	3	4	1.5	1.5	7.0	50	5.00
ETS-04040050-0.5	4	4	2.0	0.5	8.0	50	5.00
ETS-04040050-1.0	4	4	2.0	1.0	8.0	50	5.00
ETS-04040050-1.5	4	4	2.0	1.5	8.0	50	5.00
ETS-04040050-2.0	4	4	2.0	2.0	8.0	50	5.00
ETS-06060050-0.5	6	6	3.0	0.5	10.5	50	8.00
ETS-06060050-1.0	6	6	3.0	1.0	11.0	50	8.00
ETS-06060050-1.5	6	6	3.0	1.5	11.5	50	8.00
ETS-06060050-2.0	6	6	3.0	2.0	12.0	50	8.00
ETS-06060050-2.5	6	6	3.0	2.5	12.5	50	8.00
ETS-06060050-3.0	6	6	3.0	3.0	13.0	50	8.00
ETS-08080060-0.5	8	8	4.0	0.5	12.5	60	12.00
ETS-08080060-1.0	8	8	4.0	1.0	13.0	60	12.00
ETS-08080060-1.5	8	8	4.0	1.5	13.5	60	12.00
ETS-08080060-2.0	8	8	4.0	2.0	14.0	60	12.00
ETS-08080060-2.5	8	8	4.0	2.5	14.5	60	12.00
ETS-08080060-3.0	8	8	4.0	3.0	15.0	60	12.00
ETS-10100060-1.0	10	10	5.0	1.0	16.0	60	18.00
ETS-10100060-2.0	10	10	5.0	2.0	17.0	60	18.00
ETS-10100060-3.0	10	10	5.0	3.0	18.0	60	18.00
ETS-10100060-4.0	10	10	5.0	4.0	19.0	60	18.00
ETS-12120060-1.0	12	12	6.0	1.0	19.0	60	22.00
ETS-12120060-2.0	12	12	6.0	2.0	20.0	60	22.00
ETS-12120060-3.0	12	12	6.0	3.0	21.0	60	22.00
ETS-12120060-4.0	12	12	6.0	4.0	22.0	60	22.00

4 flute t-slot cutters DLC Coated Carbide

4 flute t-slot cutters aluminium series	dia	shank dia	neck dia	width	reach	length	price £
ETS-04020050-0.5DLC	2	4	1.0	0.5	4.5	50	5.00
ETS-04020050-1.0DLC	2	4	1.0	1.0	5.0	50	5.00
ETS-04030050-0.5DLC	3	4	1.5	0.5	5.5	50	5.00
ETS-04030050-1.0DLC	3	6	1.5	1.0	6.0	50	5.00
ETS-04030050-1.5DLC	3	4	1.5	1.5	6.5	50	5.00
ETS-04040050-0.5DLC	4	4	2.0	0.5	8.0	50	5.00
ETS-04040050-1.0DLC	4	4	2.0	1.0	8.5	50	5.00
ETS-04040050-1.5DLC	4	4	2.0	1.5	9.0	50	5.00
ETS-04040050-2.0DLC	4	4	2.0	2.0	9.5	50	5.00
ETS-06060050-0.5DLC	6	6	3.0	0.5	10.5	50	8.00
ETS-06060050-1.0DLC	6	6	3.0	1.0	11.0	50	8.00
ETS-06060050-1.5DLC	6	6	3.0	1.5	11.5	50	8.00
ETS-06060050-2.0DLC	6	6	3.0	2.0	12.0	50	8.00
ETS-06060050-2.5DLC	6	6	3.0	2.5	12.5	50	8.00
ETS-06060050-3.0DLC	6	6	3.0	3.0	13.0	50	8.00
ETS-08080060-0.5DLC	8	8	4.0	0.5	12.5	60	12.00
ETS-08080060-1.0DLC	8	8	4.0	1.0	13.0	60	12.00
ETS-08080060-1.5DLC	8	8	4.0	1.5	13.5	60	12.00
ETS-08080060-2.0DLC	8	8	4.0	2.0	14.0	60	12.00
ETS-08080060-2.5DLC	8	8	4.0	2.5	14.5	60	12.00
ETS-08080060-3.0DLC	8	8	4.0	3.0	11.5	60	12.00
ETS-10100060-1.0DLC	10	10	5.0	1.0	16.0	60	18.00
ETS-10100060-2.0DLC	10	10	5.0	2.0	17.0	60	18.00
ETS-10100060-3.0DLC	10	10	5.0	3.0	18.0	60	18.00
ETS-10100060-4.0DLC	10	10	5.0	4.0	19.0	60	18.00
ETS-12120060-1.0DLC	12	12	6.0	1.0	19.0	60	22.00
ETS-12120060-2.0DLC	12	12	6.0	2.0	20.0	60	22.00
ETS-12120060-3.0DLC	12	12	6.0	3.0	21.0	60	22.00
ETS-12120060-4.0DLC	12	12	6.0	4.0	22.0	60	22.00

4 flute dove tail cutters DLC Coated for Aluminium

4 flute dove tail cutters 45°	cut dia	neck dia	cut depth	shank reach	shank dia	length	price £
EDT4-0402H04-45DLC	2	0.9	0.50	4.50	4	50	5.00
EDT4-0403H06-45DLC	3	1.5	0.75	6.75	4	50	5.00
EDT4-0404H08-45DLC	4	2.0	1.00	9.00	4	50	5.00
EDT4-0605H10-45DLC	5	2.5	1.25	11.25	5	50	8.00
EDT4-0606H10-45DLC	6	3.0	1.50	11.50	6	50	8.00
EDT4-0808H12-45DLC	8	4.0	2.00	14.00	8	50	12.00
EDT4-1010H15-45DLC	10	4.5	2.75	17.75	10	60	18.00
EDT4-1212H18-45DLC	12	5.5	3.25	21.25	12	60	22.00

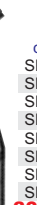


90° (45°+45°) carbide top and bottom chamfering cutters

90° chamfer cutters	cut dia	neck dia	tip dia	shank dia	length	reach	head length	neck length	price £
ETBC4-0402H03-90	2	1.0	1.0	4	50	5.5	1.0	4.5	5.00
ETBC4-0403H04-90	3	1.5	1.5	4	50	7.5	1.5	6.0	5.00
ETBC4-0404H08-90	4	2.0	2.0	4	50	10	2.0	8.0	5.00
ETBC4-0605H10-90	5	2.5	2.5	6	50	12.5	2.5	10	8.00
ETBC4-0606H10-90	6	3.0	3.0	6	50	13	3.0	10	8.00
ETBC4-0808H12-90	8	3.8	3.8	8	60	16	4.0	12	14.00
ETBC4-1010H15-90	10	4.8	4.8	10	60	20	5.0	15	18.00
ETBC4-1212H18-90	12	5.6	5.6	12	60	24	6.0	18	24.00

90° (45°+45°) carbide chamfering cutters

90° chamfer cutters	cut dia	neck dia	shank dia	length	reach	teeth	price £
STCT-040196-90	1.96	1	4	50	8	3	12.00
STCT-040240-90	2.4	1.4	4	50	10	3	12.00
STCT-040300-90	3.0	1.8	4	50	15	3	12.00
STCT-040400-90	4.0	2.4	4	50	16	4	12.00
STCT-060450-90	4.5	2.6	6	50	20	4	16.00
STCT-060500-90	5.0	2.8	6	50	20	4	16.00
STCT-060600-90	6.0	3.0	6	50	25	4	16.00
STCT-080800-90	8.0	4.8	8	60	28	4	24.00
STCT-101000-90	10	6.3	10	75	35	4	32.00
STCT-121200-90	12	7.0	12	75	50	4	54.00



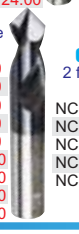
spiral flute carbide chamfer cutters 55HRC

spiral flute chamfer cutters	cut dia	shank dia	tip dia	max depth of cut	length	flutes	price £
SFCT2-04040050	4	4	0.5	1.75	50	2	11.00
SFCT2-06060050	6	6	0.5	2.60	50	2	16.00
SFCT4-04040050	4	4	2.0	1.00	50	4	11.00
SFCT4-06060050	6	6	2.0	2.00	50	4	16.00
SFCT4-08080060	8	8	2.0	2.00	60	4	24.00
SFCT4-10100075	10	10	2.5	3.75	75	4	32.00
SFCT4-12120075	12	12	3.0	4.50	75	4	48.00
SFCT4-16160075	16	16	3.0	6.50	75	4	108.00

300%-800% increase in tool life - spiral flute can cut with full edge length in 1 pass

90° & 120° carbide spot drills AlTiN coated

90° spot drills	120° spot drills	dia	flute length	length	price £
NCSD-02020050-90	NCSD-02020050-120	2	4	50	5.00
NCSD-03030050-90	NCSD-03030050-120	3	6	50	5.00
NCSD-04040050-90	NCSD-04040050-120	4	8	50	6.00
NCSD-05050050-90	NCSD-05050050-120	5	10	50	7.00
NCSD-06060050-90	NCSD-06060050-120	6	12	50	7.00
NCSD-08080060-90	NCSD-08080060-120	8	16	60	14.00
NCSD-10100075-90	NCSD-10100075-120	10	20	75	20.00
NCSD-12120075-90	NCSD-12120075-120	12	20	75	25.00
NCSD-16160100-90	NCSD-16160100-120	16	25	100	58.00

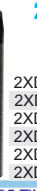


carbide spot drills for aluminium 90°

2 fl carbide spot drills for aluminium	shank dia	dia	flute length	length	price £
NCSD-04040050-90AL	4	4	8	50	4.00
NCSD-06060050-90AL	6	6	12	50	7.00
NCSD-08080060-90AL	8	8	16	60	12.00
NCSD-10100075-90AL	10	10	20	75	18.00
NCSD-12120075-90AL	12	12	25	75	24.00

high performance 4 flute carbide countersink 55HRC

carbide CS	dia	flute length	OAL	price £
CS90-03030050	3	8	50	6.00
CS90-04040050	4	11	50	8.00
CS90-06060050	6	15	50	12.80
CS90-08080060	8	20	60	19.00
CS90-10100075	10	25	75	27.00
CS90-12120075	12	30	75	36.00



2 flute carbide drill mills 90° point AlTiN coated

carbide drill mills	dia	flute length	OAL	price £
2XD039008L55	3	8	55	8.00
2XD049011L55	4	11	55	8.00
2XD069015L55	6	15	55	9.00
2XD089020L60	8	20	60	11.80
2XD109025L75	10	25	75	22.60
2XD129030L75	12	30	75	26.00

HSS 8% Co for materials up to 40HRC

HSS 8% Co TiAlN throw away slot drills

3 flute HSS 8% Co end mills TiAlN Ctd	dia	shank dia	flute length	length	price £
TA3-06010034	1.0	6	2	34	4.20
TA3-06015034	1.5	6	3	34	4.20
TA3-06020035	2.0	6	4	35	4.20
TA3-06025036	2.5	6	5	36	4.20
TA3-06030036	3.0	6	5	36	4.20
TA3-06035037	3.5	6	6.5	37	4.20
TA3-06040038	4.0	6	7	38	4.20
TA3-06045038	4.5	6	7	38	4.20
TA3-06050039	5.0	6	8	39	4.20
TA3-06055039	5.5	6	8	39	4.20
TA3-06060039	6.0	6	8	39	4.20
TA3-08065042	6.5	8	10	42	4.90
TA3-08070042	7.0	8	10	42	4.90
TA3-08075042	7.5	8	10	42	4.90
TA3-08080042	8.0	8	11	42	4.90
TA3-10085048	8.5	10	11	48	5.60
TA3-10090048	9.0	10	11	48	5.60
TA3-10100050	10	10	13	50	5.60

2 fl HSS 8% cobalt end mills TiAlN Ctd	dia	shank dia	flute length	length	price £
GS2-06020051	2.0	6	7	51	4.90
GS2-06030052	3.0	6	8	52	4.90
GS2-06040055	4.0	6	11	55	4.90
GS2-06050057	5.0	6	13	57	4.90
GS2-06060057	6.0	6	13	57	4.90
GS2-10080069	8.0	10	19	69	6.60
GS2-10100072	10	10	22	72	7.00
GS2-12120083	12	12	26	83	9.80

M42 90° Spotting Drills Un-coated

M35 90° Spotting Drills TiN Coated

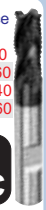
90° NCSD M42 uncoated	90° NCSD M35 TiN coated	dia	flute length	overall length	£ M42 uncoated	£ M35 TiN coated
NCSD-90-030M42	NCSD-90-030M35TIN	3	12	46	3.40	2.20
NCSD-90-040M42	NCSD-90-040M35TIN	4	12	55	3.40	2.20
NCSD-90-050M42	NCSD-90-050M35TIN	5	15	60	3.60	2.60
NCSD-90-060M42	NCSD-90-060M35TIN	6	20	66	3.80	3.00
NCSD-90-080M42	NCSD-90-080M35TIN	8	25	79	4.40	3.60
NCSD-90-100M42	NCSD-90-100M35TIN	10	25	89	6.20	5.40
NCSD-90-120M42	NCSD-90-120M35TIN	12	30	102	8.60	6.60
NCSD-90-160M42	NCSD-90-160M35TIN	16	35	115	15.40	12.00
NCSD-90-200M42	NCSD-90-200M35TIN	20	40	131	26.00	21.00

2 fl HSS 8% Co end mills	dia	shank dia	flute length	length	price £
AS2-06020051	2.0	6	7	51	3.90
AS2-06025052	2.5	6	8	52	3.90
AS2-06030052	3.0	6	8	52	3.90
AS2-06035054	3.5	6	10	54	3.90
AS2-06040055	4.0	6	11	55	3.90
AS2-06050057	5.0	6	13	57	3.90
AS2-06060057	6.0	6	13	57	3.90
AS2-10080069	8.0	10	19	69	6.00
AS2-10100072	10	10	22	72	6.40
AS2-12120083	12	12	26	83	9.20

3 fl HSS 8% Co end mills TiAlN	dia	shank dia	flute length	length	price £
GS3-06020051	2.0	6	7	51	4.90
GS3-06030052	3.0	6	8	52	4.90
GS3-06040055	4.0	6	11	55	4.90
GS3-06050057	5.0	6	13	57	4.90
GS3-06060057	6.0	6	13	57	4.90
GS3-10080069	8.0	10	19	69	7.00
GS3-10100072	10	10	22	72	7.20
GS3-12120083	12	12	26	83	9.00

2 fl HSS 8% Co ball end mills TiAlN cted	dia	shank dia	flute length	length	price £
GB2-06010047	1.0	6	2.5	47	6.60
GB2-06020048	2.0	6	4	48	6.60
GB2-06030049	3.0	6	5	49	6.60
GB2-06040051	4.0	6	7	51	6.60
GB2-06050052	5.0	6	8	52	6.60
GB2-06060052	6.0	6	8	52	6.60
GB2-10080061	8.0	10	11	61	10.00
GB2-10100063	10	10	13	63	10.00
GB2-12120073	12	12	16	73	12.80

4 flute HSS 8% cobalt rippers TiAlN coated	dia	shank dia	flute length	length	price £
GR3-06060057	6.0	6	13	57	9.20
GR3-10080069	8.0	10	19	69	11.60
GR4-10100072	10	10	22	72	12.40
GR4-12120083	12	12	26	83	16.60



HSS 8% Co for materials up to 40HRC

4 flute HSS 8% Co end mills TiAlN Ctd	dia	shank dia	flute length	length	price £
GS4-06020051	2.0	6	7	51	4.90
GS4-06030052	3.0	6	8	52	4.90
GS4-06040055	4.0	6	11	55	4.90
GS4-06050057	5.0	6	13	57	4.90
GS4-06060057	6.0	6	13	57	4.90
GS4-10080069	8.0	10	19	69	6.40
GS4-10100072	10	10	22	72	7.20
GS4-12120083	12	12	26	83	9.60

3 flute HSS 8% cobalt rippers un-coated	dia	shank dia	flute length	length	price £
AR3-06060057	6.0	6	13	57	8.00
AR3-10080069	8.0	10	19	69	10.00
AR3-10100072	10	10	22	72	11.00
AR3-12120083	12	12	26	83	14.40

Solid Carbide Tools

Rib Processing Cutters, Long Neck End Mills & Ball Nose Cutters for Alloy, Tool & Mould Steel up to 68HRC

2 flute long neck end mills

2 flute long neck end mills	dia	shank dia	flute length	neck length	price £
EHLN2S-0405-N2-50	0.5	4	0.7	2	50 12.00
EHLN2S-0405-N4-50	0.5	4	0.7	4	50 12.00
EHLN2S-0405-N6-50	0.5	4	0.7	6	50 12.00
EHLN2S-0405-N8-50	0.5	4	0.7	8	50 12.00
EHLN2S-0406-N2-50	0.6	4	0.9	2	50 12.00
EHLN2S-0406-N4-50	0.6	4	0.9	4	50 12.00
EHLN2S-0406-N8-50	0.6	4	0.9	8	50 12.00
EHLN2S-0408-N2-50	0.8	4	1.2	2	50 12.00
EHLN2S-0408-N6-50	0.8	4	1.2	6	50 12.00
EHLN2S-0408-N10-50	0.8	4	1.2	10	50 12.00
EHLN2S-0408-N12-50	0.8	4	1.2	12	50 12.00
EHLN2S-0410-N6-50	1.0	4	1.5	6	50 12.00
EHLN2S-0410-N8-50	1.0	4	1.5	8	50 12.00
EHLN2S-0410-N10-50	1.0	4	1.5	10	50 12.00
EHLN2S-0410-N12-50	1.0	4	1.5	12	50 12.00
EHLN2S-0410-N16-50	1.0	4	1.5	16	50 12.00
EHLN2S-0410-N20-60	1.0	4	1.5	20	60 12.00
EHLN2S-0412-N8-50	1.2	4	1.8	8	50 12.00
EHLN2S-0412-N12-50	1.2	4	1.8	12	50 12.00
EHLN2S-0415-N6-50	1.5	4	2.3	6	50 12.00
EHLN2S-0415-N8-50	1.5	4	2.3	8	50 12.00
EHLN2S-0415-N10-50	1.5	4	2.3	10	50 12.00
EHLN2S-0415-N12-50	1.5	4	2.3	12	50 12.00
EHLN2S-0415-N14-50	1.5	4	2.3	14	50 12.00
EHLN2S-0415-N16-50	1.5	4	2.3	16	50 12.00
EHLN2S-0415-N18-50	1.5	4	2.3	18	50 12.00
EHLN2S-0415-N20-60	1.5	4	2.3	20	60 12.00
EHLN2S-0420-N6-50	2.0	4	3.0	6	50 12.00
EHLN2S-0420-N8-50	2.0	4	3.0	8	50 12.00
EHLN2S-0420-N10-50	2.0	4	3.0	10	50 12.00
EHLN2S-0420-N12-50	2.0	4	3.0	12	50 12.00
EHLN2S-0420-N14-50	2.0	4	3.0	14	50 12.00
EHLN2S-0420-N16-50	2.0	4	3.0	16	50 12.00
EHLN2S-0420-N18-50	2.0	4	3.0	18	50 12.00
EHLN2S-0420-N20-60	2.0	4	3.0	20	60 12.00
EHLN2S-0420-N25-60	2.0	4	3.0	25	60 15.00
EHLN2S-0420-N30-70	2.0	4	3.0	30	70 15.00
EHLN2S-0630-N10-50	3.0	6	4.5	10	50 15.00
EHLN2S-0630-N12-50	3.0	6	4.5	12	50 15.00
EHLN2S-0630-N14-50	3.0	6	4.5	14	50 15.00
EHLN2S-0630-N16-50	3.0	6	4.5	16	50 15.00
EHLN2S-0630-N18-50	3.0	6	4.5	18	50 15.00

EHLN End Mills for Materials <68HRC

2 flute long neck ball nose end mills

2 flute long neck ball end mills	dia	shank dia	flute length	neck length	price £
EHLN2B-04R0.25-N2-50	0.5	4	0.4	2	50 13.00
EHLN2B-04R0.25-N4-50	0.5	4	0.4	4	50 13.00
EHLN2B-04R0.25-N6-50	0.5	4	0.4	6	50 13.00
EHLN2B-04R0.3-N2-50	0.6	4	0.5	2	50 13.00
EHLN2B-04R0.3-N4-50	0.6	4	0.5	4	50 13.00
EHLN2B-04R0.3-N6-50	0.6	4	0.5	6	50 13.00
EHLN2B-04R0.3-N8-50	0.6	4	0.5	8	50 13.00
EHLN2B-04R0.4-N4-50	0.8	4	0.6	4	50 13.00
EHLN2B-04R0.4-N6-50	0.8	4	0.6	6	50 13.00
EHLN2B-04R0.4-N10-50	0.8	4	0.6	10	50 13.00
EHLN2B-04R0.5-N4-50	1.0	4	0.8	4	50 13.00
EHLN2B-04R0.5-N6-50	1.0	4	0.8	6	50 13.00
EHLN2B-04R0.5-N8-50	1.0	4	0.8	8	50 13.00
EHLN2B-04R0.5-N10-50	1.0	4	0.8	10	50 13.00
EHLN2B-04R0.5-N12-50	1.0	4	0.8	12	50 13.00
EHLN2B-04R0.5-N16-50	1.0	4	0.8	16	50 13.00
EHLN2B-04R0.6-N6-50	1.2	4	1.0	6	50 13.00
EHLN2B-04R0.6-N12-50	1.2	4	1.0	12	50 13.00
EHLN2B-04R0.75-N8-50	1.5	4	1.2	8	50 13.00
EHLN2B-04R0.75-N12-50	1.5	4	1.2	12	50 13.00
EHLN2B-04R0.75-N16-50	1.5	4	1.2	16	50 13.00
EHLN2B-04R0.75-N20-60	1.5	4	1.2	20	60 13.00
EHLN2B-04R1-N6-50	2.0	4	1.6	6	50 13.00
EHLN2B-04R1-N8-50	2.0	4	1.6	8	50 13.00
EHLN2B-04R1-N10-50	2.0	4	1.6	10	50 13.00
EHLN2B-04R1-N12-50	2.0	4	1.6	12	50 13.00
EHLN2B-04R1-N16-50	2.0	4	1.6	16	50 13.00
EHLN2B-04R1-N20-60	2.0	4	1.6	20	60 13.00
EHLN2B-04R1-N25-60	2.0	4	1.6	25	60 13.00
EHLN2B-04R1-N30-70	2.0	4	1.6	30	70 13.00

2 flute long neck end mills with corner radius

2 flute long neck end mills with corner radius	corner rad	shank dia	flute length	neck length	price £
EHLN2R-0610R0.1-N4-50	0.1	1.0	6	1.5	4 50 17.00
EHLN2R-0610R0.1-N6-50	0.1	1.0	6	1.5	6 50 17.00
EHLN2R-0610R0.2-N4-50	0.2	1.0	6	1.5	4 50 17.00
EHLN2R-0610R0.2-N6-50	0.2	1.0	6	1.5	6 50 17.00
EHLN2R-0610R0.2-N8-50	0.2	1.0	6	1.5	8 50 17.00
EHLN2R-0610R0.3-N4-50	0.3	1.0	6	1.5	4 50 17.00
EHLN2R-0610R0.3-N6-50	0.3	1.0	6	1.5	6 50 17.00
EHLN2R-0610R0.3-N8-50	0.3	1.0	6	1.5	8 50 17.00
EHLN2R-0615R0.2-N4-50	0.2	1.5	6	2.5	4 50 17.00
EHLN2R-0615R0.2-N6-50	0.2	1.5	6	2.5	6 50 17.00
EHLN2R-0615R0.2-N8-50	0.2	1.5	6	2.5	8 50 17.00
EHLN2R-0615R0.2-N10-50	0.2	1.5	6	2.5	10 50 17.00
EHLN2R-0615R0.2-N12-50	0.2	1.5	6	2.5	12 50 17.00
EHLN2R-0615R0.3-N4-50	0.3	1.5	6	2.5	4 50 17.00
EHLN2R-0615R0.3-N6-50	0.3	1.5	6	2.5	6 50 17.00
EHLN2R-0615R0.3-N8-50	0.3	1.5	6	2.5	8 50 17.00
EHLN2R-0620R0.2-N6-50	0.2	2.0	6	3.0	6 50 17.00
EHLN2R-0620R0.2-N8-50	0.2	2.0	6	3.0	8 50 17.00
EHLN2R-0620R0.2-N10-50	0.2	2.0	6	3.0	10 50 17.00
EHLN2R-0620R0.2-N12-50	0.2	2.0	6	3.0	12 50 17.00
EHLN2R-0620R0.3-N6-50	0.3	2.0	6	3.0	6 50 17.00
EHLN2R-0620R0.3-N8-50	0.3	2.0	6	3.0	8 50 17.00
EHLN2R-0620R0.3-N10-50	0.3	2.0	6	3.0	10 50 17.00
EHLN2R-0620R0.3-N12-50	0.3	2.0	6	3.0	12 50 17.00
EHLN2R-0620R0.3-N16-50	0.3	2.0	6	3.0	16 50 17.00
EHLN2R-0620R0.5-N6-50	0.5	2.0	6	3.0	6 50 17.00
EHLN2R-0620R0.5-N10-50	0.5	2.0	6	3.0	10 50 17.00
EHLN2R-0620R0.5-N12-50	0.5	2.0	6	3.0	12 50 17.00
EHLN2R-0630R0.2-N8-50	0.2	3.0	6	4.0	8 50 17.00
EHLN2R-0630R0.2-N10-50	0.2	3.0	6	4.0	10 50 17.00
EHLN2R-0630R0.2-N12-50	0.2	3.0	6	4.0	12 50 17.00
EHLN2R-0630R0.2-N16-50	0.2	3.0	6	4.0	16 50 17.00
EHLN2R-0630R0.3-N8-50	0.3	3.0	6	4.0	8 50 17.00
EHLN2R-0630R0.3-N10-50	0.3	3.0	6	4.0	10 50 17.00
EHLN2R-0630R0.3-N12-50	0.3	3.0	6	4.0	12 50 17.00
EHLN2R-0630R0.3-N16-50	0.3	3.0	6	4.0	16 50 17.00
EHLN2R-0630R0.5-N10-50	0.5	3.0	6	4.0	10 50 17.00
EHLN2R-0630R0.5-N12-50	0.5	3.0	6	4.0	12 50 17.00
EHLN2R-0630R0.5-N16-50	0.5	3.0	6	4.0	16 50 17.00
EHLN2R-0630R0.5-N20-60	0.5	3.0	6	4.0	20 60 17.00
EHLN2R-0640R0.2-N12-50	0.2	4.0	6	5.0	12 50 17.00
EHLN2R-0640R0.2-N16-50	0.2	4.0	6	5.0	16 50 17.00
EHLN2R-0640R0.2-N20-60	0.2	4.0	6	5.0	20 60 17.00
EHLN2R-0640R0.3-N10-50	0.3	4.0	6	5.0	10 50 17.00
EHLN2R-0640R0.3-N12-50	0.3	4.0	6	5.0	12 50 17.00
EHLN2R-0640R0.3-N16-50	0.3	4.0	6	5.0	16 50 17.00
EHLN2R-0640R0.3-N20-60	0.3	4.0	6	5.0	20 60 17.00
EHLN2R-0640R0.5-N12-50	0.5	4.0	6	5.0	12 50 17.00
EHLN2R-0640R0.5-N16-50	0.5	4.0	6	5.0	16 50 17.00
EHLN2R-0640R0.5-N20-60	0.5	4.0	6	5.0	20 60 17.00
EHLN2R-0640R1-N12-50	1.0	4.0	6	5.0	12 50 17.00
EHLN2R-0640R1-N16-50	1.0	4.0	6	5.0	16 50 17.00
EHLN2R-0660R0.3-N20-60	0.3	6.0	6	7.0	20 60 17.00
EHLN2R-0660R0.5-N20-60	0.5	6.0	6	7.0	20 60 17.00
EHLN2R-0660R1-N20-60	1.0	6.0	6	7.0	20 60 17.00
EHLN2R-0660R1.5-N20-60	1.5	6.0	6	7.0	20 60 17.00
EHLN2R-0660R2-N20-60	2.0	6.0	6	7.0	20 60 17.00

Rib Processing Cutters, Long Neck End Mills & Ball Nose Cutters for Alloy, Tool & Mould Steel up to 58HRC

2 flute long neck coated end mills

2 flute end mills	dia	shank dia	flute length	neck length	L	price £
LN2S-0400402050-550	0.4	4	0.5	2	50	10.00
LN2S-0400404050-550	0.4	4	0.5	4	50	10.00
LN2S-0400406050-550	0.4	4	0.5	6	50	10.00
LN2S-0400502050-550	0.5	4	0.6	2	50	10.00
LN2S-0400504050-550	0.5	4	0.6	4	50	10.00
LN2S-0400506050-550	0.5	4	0.6	6	50	10.00
LN2S-0400508050-550	0.5	4	0.6	8	50	10.00
LN2S-0400602050-550	0.6	4	0.7	2	50	10.00
LN2S-0400604050-550	0.6	4	0.7	4	50	10.00
LN2S-0400606050-550	0.6	4	0.7	6	50	10.00
LN2S-0400608050-550	0.6	4	0.7	8	50	10.00
LN2S-0400610050-550	0.6	4	0.7	10	50	10.00
LN2S-0400804050-550	0.8	4	1.0	4	50	10.00
LN2S-0400806050-550	0.8	4	1.0	6	50	10.00
LN2S-0400808050-550	0.8	4	1.0	8	50	10.00
LN2S-0400810050-550	0.8	4	1.0	10	50	10.00
LN2S-0401004050-550	1.0	4	1.2	4	50	10.00
LN2S-0401006050-550	1.0	4	1.2	6	50	10.00
LN2S-0401008050-550	1.0	4	1.2	8	50	10.00
LN2S-0401010050-550	1.0	4	1.2	10	50	10.00
LN2S-0401012050-550	1.0	4	1.2	12	50	10.00
LN2S-0401016050-550	1.0	4	1.2	16	50	10.00
LN2S-0401020050-550	1.0	4	1.2	20	50	10.00
LN2S-0401206050-550	1.2	4	1.5	6	50	10.00
LN2S-0401210050-550	1.2	4	1.5	10	50	10.00
LN2S-0401406050-550	1.4	4	1.8	6	50	10.00
LN2S-0401410050-550	1.4	4	1.8	10	50	10.00
LN2S-0401504050-550	1.5	4	1.8	4	50	10.00
LN2S-0401506050-550	1.5	4	1.8	6	50	10.00
LN2S-0401508050-550	1.5	4	1.8	8	50	10.00
LN2S-0401510050-550	1.5	4	1.8	10	50	10.00
LN2S-0401512050-550	1.5	4	1.8	12	50	10.00
LN2S-0401516050-550	1.5	4	1.8	16	50	10.00
LN2S-0401520050-550	1.5	4	1.8	20	50	10.00
LN2S-0401610050-550	1.6	4	1.9	10	50	10.00
LN2S-0401618050-550	1.6	4	1.9	18	50	10.00
LN2S-0401810050-550	1.8	4	2.0	10	50	10.00
LN2S-0401818050-550	1.8	4	2.0	18	50	10.00
LN2S-0402006050-550	2.0	4	2.5	6	50	10.00
LN2S-0402008050-550	2.0	4	2.5	8	50	10.00
LN2S-0402010050-550	2.0	4	2.5	10	50	10.00
LN2S-0402012050-550	2.0	4	2.5	12	50	10.00
LN2S-0402016050-550	2.0	4	2.5	16	50	10.00
LN2S-0402020050-550	2.0	4	2.5	20	50	10.00

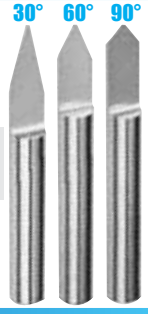
2 flute end mills	dia	shank dia	flute length	neck length	price £
LN2S-0402025050-550	2.0	4	2.5	25	50 10.00
LN2S-0402508050-550	2.5	4	3.0	8	50 10.00
LN2S-0402510050-550	2.5	4	3.0	10	50 10.00
LN2S-0402512050-550	2.5	4	3.0	12	50 10.00
LN2S-0402516050-550	2.5	4	3.0	16	50 10.00
LN2S-0402520050-550	2.5	4	3.0	20	50 10.00
LN2S-0402525050-550	2.5	4	3.0	25	50 11.00
LN2S-0603010050-550	3.0	6	3.5	10	50 13.00
LN2S-0603012050-550	3.0	6	3.5	12	50 13.00
LN2S-0603016050-550	3.0	6	3.5	16	50 13.00
LN2S-0603020060-550	3.0	6	3.5	20	60 13.00
LN2S-0603025060-550	3.0	6	3.5	25	60 13.00
LN2S-0603030060-550	3.0	6	3.5	30	60 13.00
LN2S-0604012050-550	4.0	6	4.5	12	50 13.00
LN2S-0604016050-550	4.0	6	4.5	16	50 13.00
LN2S-0604020060-550	4.0	6	4.5	20	60 13.00
LN2S-0604025060-550	4.0	6	4.5	25	60 13.00
LN2S-0604030060-550	4.0	6	4.5	30	60 13.00
LN2S-0604035075-550	4.0	6	4.5	35	75 14.00
LN2S-0605016050-550	5.0	6	7.0	16	50 13.00
LN2S-0605020060-550	5.0	6	7.0	20	60 13.00
LN2S-0605025060-550	5.0	6	7.0	25	60 13.00
LN2S-0605030060-550	5.0	6	7.0	30	60 13.00
LN2S-0605035075-550	5.0	6	7.0	35	75 14.00
LN2S-0606020060-550	6.0	6	9.0	20	60 13.00
LN2S-0606030075-550	6.0	6	9.0	30	75 14.00

2 flute long neck coated ball nose end mills

2 flute ball end mills	dia	shank dia	flute length	neck length	price £
LN2B-0400402050-550	0.4	4	0.4	2	50 11.20
LN2B-0400404050-550	0.4	4	0.4	4	50 11.20
LN2B-0400406050-550	0.4	4	0.4	6	50 11.20
LN2B-0400502050-550	0.5	4	0.5	2	50 11.20
LN2B-0400504050-550	0.5	4	0.5	4	50 11.20
LN2B-0400506050-550	0.5	4	0.5	6	50 11.20
LN2B-0400508050-550	0.5	4	0.5	8	50 11.20
LN2B-0400604050-550	0.6	4	0.6	4	50 11.20
LN2B-0400606050-550	0.6	4	0.6	6	50 11.20
LN2B-0400608050-550	0.6	4	0.6	8	50 11.20
LN2B-0400610050-550	0.6	4	0.6	10	50 11.20
LN2B-0400804050-550	0.8	4	0.8	4	50 11.20
LN2B-0400806050-550	0.8	4	0.8	6	50 11.20
LN2B-0400808050-550	0.8	4	0.8	8	50 11.20
LN2B-0400810050-550	0.8	4	0.8	10	50 11.20
LN2B-0401004050-550	1.0	4	1.0	4	50 11.20
LN2B-0401006050-550	1.0	4	1.0	6	50 11.20
LN2B-0401008050-550	1.0	4	1.0	8	50 11.20
LN2B-0401010050-550	1.0	4	1.0	10	50 11.20
LN2B-0401012050-550	1.0	4	1.0	12	50 11.20
LN2B-0401016050-550	1.0	4	1.0	16	50 12.00
LN2B-0401020050-550	1.0	4	1.0	20	50 12.00
LN2B-0401206050-550	1.2	4	1.2	6	50 11.20
LN2B-0401210050-550	1.2	4	1.2	10	50 11.20
LN2B-0401406050-550	1.4	4	1.4	6	50 11.20
LN2B-0401412050-550	1.4	4	1.4	12	50 11.20
LN2B-0401504050-550	1.5	4	1.5	4	50 11.20
LN2B-0401506050-550	1.5	4	1.5	6	50 11.20
LN2B-0401508050-550	1.5	4	1.5	8	50 11.20
LN2B-0401510050-550	1.5	4	1.5	10	50 11.20
LN2B-0401512050-550	1.5	4	1.5	12	50 11.20
LN2B-0401516050-550	1.5	4	1.5	16	50 12.00
LN2B-0401520050-550	1.5	4	1.5	20	50 12.00
LN2B-0401608050-550	1.6	4	1.6	8	50 11.20
LN2B-0401612050-550	1.6	4	1.6	12	50 11.20
LN2B-0401808050-550	1.8	4	1.8	8	50 11.20
LN2B-0401812050-550	1.8	4	1.8	12	50 11.20
LN2B-0402006050-550	2.0	4	2.0	6	50 11.20
LN2B-0402008050-550	2.0	4	2.0	8	50 11.20
LN2B-0402010050-550	2.0	4	2.0	10	50 11.20
LN2B-0402012050-550	2.0	4	2.0	12	50 11.20
LN2B-0402016050-550	2.0	4	2.0	16	50 12.00
LN2B-0402020050-550	2.0	4	2.0	20	50 12.00
LN2B-0402025050-550	2.0	4	2.0	25	50 12.00
LN2B-0402510050-550	2.5	4	2.5	10	50 11.20
LN2B-0402516050-550	2.5	4	2.5	12	50 11.20
LN2B-0402516050-550	2.5	4	2.5	16	50 12.00
LN2B-0402520050-550	2.5	4	2.5	20	50 12.00
LN2B-0402525050-550	2.5	4	2.5	25	50 12.00
LN2B-0603010050-550	3.0	6	3.0	10	50 13.00
LN2B-0603016050-550	3.0	6	3.0	16	50 13.00
LN2B-0603020060-550	3.0	6	3.0	20	60 13.00
LN2B-0603025060-550	3.0	6	3.0	25	60 13.00
LN2B-0603030060-550	3.0	6	3.0	30	60 13.00
LN2B-0604012050-550	4.0	6	4.0	12	50 13.00
LN2B-0604016050-550	4.0	6	4.0	16	50 13.00
LN2B-0604020060-550	4.0	6	4.0	20	60 13.00
LN2B-0604025060-550	4.0	6	4.0	25	60 13.00
LN2B-0604030060-550	4.0	6	4.0	30	60 13.00
LN2B-0604035075-550	4.0	6	4.0	35	75 14.00
LN2B-0605030060-550	5.0	6	5.0	30	60 13.00
LN2B-0606030075-550	6.0	6	6.0	30	75 14.00

carbide engraving cutters 30°, 60°, 90°

engraving cutters 30°	engraving cutters 60°	engraving cutters 90°	tip dia	shank dia	length	price £
ENG-1-8013030	ENG-1-8013060	ENG-1-8013090	0.1	3.175(1/8")	30	3.00
ENG-1-8023030	ENG-1-8023060	ENG-1-8023090	0.2	3.175(1/8")	30	3.00
ENG-1-8033030	ENG-1-8033060	ENG-1-8033090	0.3	3.175(1/8")	30	3.00
ENG-1-8043030	ENG-1-8043060	ENG-1-8043090	0.4	3.175(1/8")	30	3.00
ENG-4014530	ENG-4014560	ENG-4014590	0.1	4	45	3.60
ENG-4024530	ENG-4024560	ENG-4024590	0.2	4	45	3.60
ENG-4034530	ENG-4034560	ENG-4034590	0.3	4	45	3.60
ENG-4044530	ENG-4044560	ENG-4044590	0.4	4	45	3.60
ENG-6015030	ENG-6015060	ENG-6015090	0.1	6	50	8.00
ENG-6035030	ENG-6035060	ENG-6035090	0.3	6	50	8.00
ENG-6055030	ENG-6055060	ENG-6055090	0.5	6	50	8.00
ENG-6085030	ENG-6085060	ENG-6085090	0.8	6	50	8.00
ENG-6105030	ENG-6105060	ENG-6105090	1.0	6	50	8.00
ENG-6205030	ENG-6205060	ENG-6205090	2.0	6	50	8.00



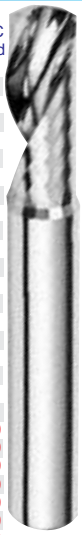
high performance coated carbide engraving cutters 3.175 (1/8") shank 38mm long

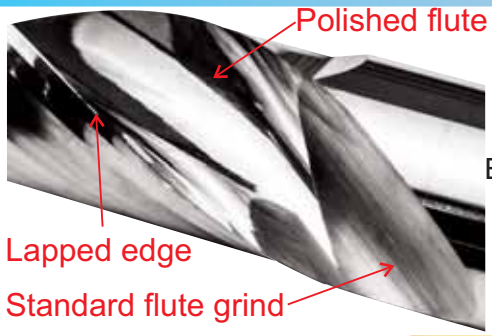
high performance engraving cutters	tip dia	Angle°	high performance engraving cutters	tip dia	Angle°	high performance engraving cutters	tip dia	Angle°	price £
ENGCT-1-8013820	0.1	20	ENGCT-1-8023830	0.2	30	ENGCT-1-8013860	0.1	60	5.00
ENGCT-1-8023820	0.2	20	ENGCT-1-8033830	0.3	30	ENGCT-1-8023860	0.2	60	5.00
ENGCT-1-8033820	0.3	20	ENGCT-1-8043830	0.4	30	ENGCT-1-8033860	0.3	60	5.00
ENGCT-1-8043820	0.4	20	ENGCT-1-8053830	0.5	30	ENGCT-1-8043860	0.4	60	5.00
ENGCT-1-8053820	0.5	20	ENGCT-1-8013845	0.1	45	ENGCT-1-8013890	0.1	90	5.00
ENGCT-1-8013830	0.1	30	ENGCT-1-8023845	0.2	45	ENGCT-1-8023890	0.2	90	5.00
			ENGCT-1-8033845	0.3	45	ENGCT-1-8033890	0.3	90	5.00
			ENGCT-1-8043845	0.4	45	ENGCT-1-8043890	0.4	90	5.00

Carbide End Mills - Router Bits

High performance 1 flute carbide spiral bits for aluminium

single flute end mills for aluminium	single flute end mills for aluminium DLC coated	dia	shank dia	flute length	un-coated £	£ DLC coated
EA1S-1-80100338	EA1S-1-80100338DLC	1	1/8"	3	38	2.70	4.20
EA1S-1-80150538	EA1S-1-80150538DLC	1.5	1/8"	5	38	2.70	4.20
EA1S-1-80200438	EA1S-1-80200438DLC	2	1/8"	4	38	2.70	4.20
EA1S-1-80200638	EA1S-1-80200638DLC	2	1/8"	6	38	2.70	4.20
EA1S-1-80200838	EA1S-1-80200838DLC	2	1/8"	8	38	2.70	4.20
EA1S-1-80250438	EA1S-1-80250438DLC	2.5	1/8"	4	38	2.70	4.20
EA1S-1-80250638	EA1S-1-80250638DLC	2.5	1/8"	6	38	2.70	4.20
EA1S-1-80250838	EA1S-1-80250838DLC	2.5	1/8"	8	38	2.70	4.20
EA1S-1-81-80738	EA1S-1-81-80738DLC	1/8"	1/8"	7	38	2.70	4.20
EA1S-1-81-81238	EA1S-1-81-81238DLC	1/8"	1/8"	12	38	2.70	4.20
EA1S-1-81-81738	EA1S-1-81-81738DLC	1/8"	1/8"	17	38	2.70	4.20
EA1S-04040845	EA1S-04040845DLC	4	4	08	45	4.70	6.40
EA1S-04041045	-	4	4	10	45	4.70	-
EA1S-04041245	EA1S-04041245DLC	4	4	12	45	4.70	6.40
EA1S-04041545	EA1S-04041545DLC	4	4	15	45	4.70	6.40
EA1S-04041745	EA1S-04041745DLC	4	4	17	45	4.70	6.40
EA1S-04042245	EA1S-04042245DLC	4	4	22	45	4.70	6.40
EA1S-06061250	EA1S-06061250DLC	6	6	12	50	9.20	11.40
EA1S-06061750	EA1S-06061750DLC	6	6	17	50	9.20	11.40
EA1S-06062250	EA1S-06062250DLC	6	6	22	50	9.20	11.40
EA1S-08082260	EA1S-08082260DLC	8	8	22	60	17.00	19.60
EA1S-08082560	EA1S-08082560DLC	8	8	25	60	17.00	26.00
EA1S-10102560	EA1S-10102560DLC	10	10	25	60	27.00	36.00
EA1S-10103275	EA1S-10103275DLC	10	10	32	75	34.00	38.00
EA1S-10104285	EA1S-10104285DLC	10	10	42	85	38.00	43.00
EA1S-12123575	EA1S-12123575DLC	12	12	35	75	38.00	43.00
EA1S-12124280	EA1S-12124280DLC	12	12	42	80	44.00	52.00





The following series have polished flutes
EA1S - this page
EP1S - this page
EMD1SL-this page
3AAS - page 1
3AASLF - page 1
2AABN - page1
EAV3S - page 2
EUA3 - page 2

Made from high quality micro-grain carbide with mirror finished micro-polished flutes providing high surface finish with reduced chance of chip welding

DLC-C Diamond Like Carbon Coating Can increase tool life by up to 100% excellent for finishing applications as the DLC coating protects the cutting edge from losing it's sharpness which is needed to cut aluminium and non-ferrous metals

1 flute carbide spiral bits for acrylic, PVC plastic, wood

single flute end mills for plastics	single flute end mills DLC Coated	dia	shank dia	flute length	un-coated £	£ DLC coated
EP1S-1-80100438	EP1S-1-80100438DLC	1	1/8"	4	38	2.70	4.40
EP1S-1-80150438	EP1S-1-80150438DLC	1.5	1/8"	4	38	2.70	4.40
EP1S-1-80150738	EP1S-1-80150738DLC	1.5	1/8"	7	38	2.70	4.40
EP1S-1-80200438	EP1S-1-80200438DLC	2	1/8"	4	38	2.70	4.40
EP1S-1-80200838	-	2	1/8"	8	38	2.70	-
EP1S-1-80201238	EP1S-1-80201238DLC	2	1/8"	12	38	2.70	4.40
EP1S-1-80201738	-	2	1/8"	17	38	2.70	-
EP1S-1-80202245	EP1S-1-80202245DLC	2	1/8"	22	45	3.60	5.00
EP1S-1-80250438	EP1S-1-80250438DLC	2.5	1/8"	4	38	2.70	4.40
EP1S-1-80250838	-	2.5	1/8"	8	38	2.70	-
EP1S-1-80251238	EP1S-1-80251238DLC	2.5	1/8"	12	38	2.70	4.40
EP1S-1-80251738	-	2.5	1/8"	17	38	2.70	-
EP1S-1-80252245	EP1S-1-80252245DLC	2.5	1/8"	22	45	3.60	5.00
EP1S-1-81-80638	EP1S-1-81-80638DLC	1/8"	1/8"	6	38	2.70	4.40
EP1S-1-81-81038	EP1S-1-81-81038DLC	1/8"	1/8"	10	38	2.70	-
EP1S-1-81-81538	EP1S-1-81-81538DLC	1/8"	1/8"	15	38	2.70	4.40
EP1S-1-81-82245	-	1/8"	1/8"	22	45	3.60	-
EP1S-1-81-82850	EP1S-1-81-82850DLC	1/8"	1/8"	28	50	4.20	6.00
EP1S-1-81-84270	EP1S-1-81-84270DLC	1/8"	1/8"	42	70	6.70	9.00
EP1S-1-81-85275	-	1/8"	1/8"	52	75	9.30	-
EP1S-04040845	EP1S-04040845DLC	4	4	8	45	4.70	7.00
EP1S-04041545	-	4	4	15	45	4.70	-
EP1S-04042245	EP1S-04042245DLC	4	4	22	45	4.70	7.00
EP1S-04042850	-	4	4	28	50	6.50	-
EP1S-04044270	EP1S-04044270DLC	4	4	42	70	10.50	13.00

1 flute carbide spiral bits for acrylic, PVC plastic, wood

single flute end mills for plastics	single flute end mills for plastics	dia	shank dia	flute length	un-coated £	£ DLC coated
EP1S-04045280	-	4	4	52	80	12.00	-
EP1S-05052550	EP1S-05052550DLC	5	5	25	50	8.00	11.00
EP1S-05053260	-	5	5	32	60	9.00	-
EP1S-06061250	EP1S-06061250DLC	6	6	12	50	9.20	12.70
EP1S-06062250	-	6	6	22	50	9.20	-
EP1S-06062860	EP1S-06062860DLC	6	6	28	60	12.90	16.50
EP1S-06064270	EP1S-06064270DLC	6	6	42	70	15.90	20.00
EP1S-06065280	-	6	6	52	80	19.00	-
EP1S-060662100	-	6	6	62	100	23.00	-
EP1S-1-41-42550	EP1S-1-41-42550DLC	1/4"	1/4"	25	50	10.90	15.00
EP1S-1-41-43260	EP1S-1-41-43260DLC	1/4"	1/4"	32	60	16.00	21.00
EP1S-08082560	EP1S-08082560DLC	8	8	25	60	22.00	28.00
EP1S-08083260	-	8	8	32	60	25.00	-
EP1S-08084275	EP1S-08084275DLC	8	8	42	75	23.60	29.00
EP1S-08085285	-	8	8	52	85	26.00	-
EP1S-080862100	-	8	8	62	100	33.00	-
EP1S-10103275	-	10	10	32	75	34.00	-
EP1S-10104285	EP1S-10104285DLC	10	10	42	85	38.50	47.00
EP1S-101052100	-	10	10	52	100	40.00	-
EP1S-101062110	-	10	10	62	110	50.00	-
EP1S-12123275	-	12	12	32	75	40.00	-
EP1S-12124290	EP1S-12124290DLC	12	12	42	90	44.00	53.00
EP1S-121252100	-	12	12	52	100	57.00	-
EP1S-121262120	-	12	12	62	120	72.00	-

2 flute up cut carbide router bits

2 flute up cut end mills	dia	shank dia	flute length	L	price £
EUC2-1-810438	1	1/8"	4	38	2.40
EUC2-1-81.50738	1.5	1/8"	7	38	2.40
EUC2-1-81.51238	1.5	1/8"	12	38	2.40
EUC2-1-820838	2	1/8"	8	38	2.40
EUC2-1-821238	2	1/8"	12	38	2.40
EUC2-1-821538	2	1/8"	15	38	2.40
EUC2-1-821738	2	1/8"	17	38	2.40
EUC2-1-822245	2	1/8"	22	45	2.80
EUC2-1-82.50838	2.5	1/8"	8	38	2.40
EUC2-1-82.51238	2.5	1/8"	12	38	2.40
EUC2-1-82.51538	2.5	1/8"	15	38	2.40
EUC2-1-82.51738	2.5	1/8"	17	38	2.40
EUC2-1-82.52245	2.5	1/8"	22	45	2.80
EUC2-1-81-80838	1/8"	1/8"	8	38	2.00
EUC2-1-81-81238	1/8"	1/8"	12	38	2.00
EUC2-1-81-81538	1/8"	1/8"	15	38	2.00
EUC2-1-81-81738	1/8"	1/8"	17	38	2.00
EUC2-1-81-82238	1/8"	1/8"	22	38	2.00
EUC2-1-81-82545	1/8"	1/8"	25	45	2.40
EUC2-1-81-82845	1/8"	1/8"	28	45	2.80
EUC2-1-81-83250	1/8"	1/8"	32	50	2.80
EUC2-1-81-84265	1/8"	1/8"	42	65	3.20
EUC2-441245	4	4	12	45	3.20
EUC2-441745	4	4	17	45	3.20
EUC2-442245	4	4	22	45	3.20
EUC2-442545	4	4	25	45	3.20

2 flute up cut carbide router bits

2 flute up cut end mills	dia	shank dia	flute length	L	price £
EUC2-442850	4	4	28	50	3.60
EUC2-443255	4	4	32	55	3.60
EUC2-444265	4	4	42	65	4.00
EUC2-445275	4	4	52	75	4.40
EUC2-551750	5	5	17	50	4.40
EUC2-552250	5	5	22	50	4.40
EUC2-552550	5	5	25	50	4.40
EUC2-552855	5	5	28	55	5.00
EUC2-553255	5	5	32	55	5.00
EUC2-661250	6	6	12	50	4.80
EUC2-661750	6	6	17	50	4.80
EUC2-662250	6	6	22	50	4.80
EUC2-662550	6	6	25	50	4.80
EUC2-662860	6	6	28	60	5.60
EUC2-663260	6	6	32	60	5.60
EUC2-664270	6	6	42	70	8.00
EUC2-665280	6	6	52	80	9.90
EUC2-6662100	6	6	62	100	12.00
EUC2-882560	8	8	25	60	12.00
EUC2-883260	8	8	32	60	12.00
EUC2-884275	8	8	42	75	16.00
EUC2-885290	8	8	52	90	22.00
EUC2-10103275	10	10	32	75	25.00
EUC2-10104280	10	10	42	80	30.00
EUC2-10105210010	10	10	52	100	37.00
EUC2-10106211010	10	10	62	110	46.00

2 fl carbide ball nose router bits

2 flute up cut ball nose end mills	dia	shank dia	flute length	L	price £
EUC2B-1-810438	1	1/8"	4	38	2.60
EUC2B-1-81.50738	1.5	1/8"	7	38	2.60
EUC2B-1-820838	2	1/8"	8	38	2.60
EUC2B-1-821238	2	1/8"	12	38	2.60
EUC2B-1-821738	2	1/8"	17	38	2.60
EUC2B-1-822245	2	1/8"	22	45	3.20
EUC2B-1-82.50838	2.5	1/8"	8	38	2.60
EUC2B-1-82.51238	2.5	1/8"	12	38	2.60
EUC2B-1-82.51738	2.5	1/8"	17	38	2.60
EUC2B-1-82.52238	2.5	1/8"	22	38	3.20
EUC2B-1-81-80838	1/8"	1/8"	8	38	2.40
EUC2B-1-81-81238	1/8"	1/8"	12	38	2.40
EUC2B-1-81-81538	1/8"	1/8"	15	38	2.40
EUC2B-1-81-81738	1/8"	1/8"	17	38	2.40
EUC2B-1-81-82238	1/8"	1/8"	22	38	2.40
EUC2B-1-81-82545	1/8"	1/8"	25	45	3.60
EUC2B-1-81-82845	1/8"	1/8"	28	45	3.60
EUC2B-1-81-83250	1/8"	1/8"	32	50	3.60
EUC2B-441245	4	4	12	45	3.60
EUC2B-441745	4	4	17	45	3.60
EUC2B-442245	4	4	22	45	3.60
EUC2B-442545	4	4	25	45	3.60
EUC2B-442850	4	4	28	50	4.00
EUC2B-443255	4	4	32	55	4.00
EUC2B-444265	4	4	42	65	4.40
EUC2B-445275	4	4	52	75	4.80

2 fl carbide ball nose router bits

2 flute up cut ball nose end mills	dia	shank dia	flute length	L	price £
EUC2B-661250	6	6	12	50	5.60
EUC2B-661750	6	6	17	50	5.60
EUC2B-662250	6	6	22	50	5.60
EUC2B-662550	6	6	25	50	5.60
EUC2B-662855	6	6	28	55	6.60
EUC2B-663260	6	6	32	60	6.60
EUC2B-664270	6	6	42	70	9.00
EUC2B-665280	6	6	52	80	11.00
EUC2B-882560	8	8	25	60	13.00
EUC2B-883260	8	8	32	60	13.00
EUC2B-884275	8	8	42	75	17.00
EUC2B-885290	8	8	52	90	21.00
EUC2B-10103275	10	10	32	75	25.00
EUC2B-10104285	10	10	42	85	31.00
EUC2B-10105210010	10	10	52	100	39.00
EUC2B-10106211010	10	10	62	110	46.00

1 flute router bits for wood, MDF

1 flute end mills for MDF	shank dia	shank dia	length	L	£
EMD1SL-1-81-81538	1/8"	1/8"	15	38	3.40
EMD1SL-1-81-81738	1/8"	1/8"	17	38	3.40
EMD1SL-1-81-82245	1/8"	1/8"	22	45	4.00
EMD1SL-1-81-82550	1/8"	1/8"	25	50	4.80
EMD1SL-04042245	4	4	22	45	5.80
EMD1SL-04042545	4	4	25	45	8.00
EMD1SL-06062250	6	6	22	50	11.60
EMD1SL-06062550	6	6	25	50	11.60
EMD1SL-06063258	6	6	32	58	15.00

economy 1 flute carbide routers

single flute end mills	dia	shank dia	flute length	L	£
ECO1-444252	4	4	42	52	4.00
ECO1-445275	4	4	52	75	4.40
ECO1-551750	5	5	17	50	4.40
ECO1-552250	5	5	22	50	4.40
ECO1-552550	5	5	25	50	4.00
ECO1-552855	5	5	28	55	5.00
ECO1-553255	5	5	32	55	5.00
ECO1-661250	6	6	12	50	4.80
ECO1-662550	6	6	25	50	4.80
ECO1-665280	6	6	52	80	9.90
ECO1-6662100	6	6	62	100	12.00
ECO1-882560	8	8	25	60	12.00
ECO1-883260	8	8	32	60	12.00
ECO1-884275	8	8	42	75	16.00
ECO1-885290	8	8	52	90	22.00
ECO1-10103275	10	10	32	75	25.00
ECO1-10104280	10	10	42	80	30.00
ECO1-10105210010	10	10	52	100	37.00
ECO1-10106211010	10	10	62	110	46.00

2 flute carbide down cut router bits

2 flute down cut end mills	dia	shank dia	flute length	length	price £
EDC2-1-810338	1	1/8"	3	38	4.00
EDC2-1-81.5738	1.5	1/8"	7	38	4.00
EDC2-1-820838	2	1/8"	8	38	4.00
EDC2-1-821238	2	1/8"	12	38	4.00
EDC2-1-82.51238	2.5	1/8"	12	38	4.00
EDC2-1-81-81238	1/8"	1/8"	12	38	4.00
EDC2-1-81-81538	1/8"	1/8"	15	38	4.00
EDC2-1-81-81738	1/8"	1/8"	17	38	4.00
EDC2-1-81-82245	1/8"	1/8"	22	45	4.80
EDC2-441745	4	4	17	45	8.00
EDC2-442245	4	4	22	45	8.00
EDC2-442550	4	4	25	50	8.70
EDC2-443260	4	4	32	60	10.00

2 flute carbide down cut router bits

2 flute down cut end mills	dia	shank dia	flute length	length	price £
EDC2-661750	6	6	17	50	11.60
EDC2-662250	6	6	22	50	11.60
EDC2-662550	6	6	25	50	11.60
EDC2-663260	6	6	32	60	14.00
EDC2-882560	8	8	25	60	18.00
EDC2-883575	8	8	35	75	21.00
EDC2-884575	8	8	45	75	25.00
EDC2-10103575	10	10	35	75	36.00
EDC2-10104585	10	10	45	85	43.00
EDC2-101055100	10	10	55	100	50.00
EDC2-12124590	12	12	45	90	60.00
EDC2-121255100	12	12	55	100	72.00

2 flute up & down cut carbide routers

2 flute up and down cut end mills	dia	shank dia	flute length	length	price £
EUD2-1-81-81238	1/8"	1/8"	12	40	8.00
EUD2-1-81-81538	1/8"	1/8"	15	40	8.00
EUD2-1-81-81738	1/8"	1/8"	17	40	8.00
EUD2-1-81-82245	1/8"	1/8"	22	45	10.00
EUD2-441745	4	4	17	45	11.60
EUD2-442245	4	4	22	45	11.60
EUD2-442550	4	4	25	50	13.00
EUD2-443260	4	4	32	60	16.00
EUD2-551750	5	5	17	50	16.00
EUD2-552250	5	5	22	50	16.00
EUD2-661750	6	6	17	50	20.00
EUD2-662250	6	6	22	50	20.00
EUD2-662550	6	6	25	50	20.00
EUD2-663260	6	6	32	60	24.00
EUD2-882560	8	8	25	60	26.00
EUD2-883570	8	8	35	70	30.00
EUD2-884580	8	8	45	80	36.00
EUD2-10103575	10	10	35	75	47.00
EUD2-10104585	10	10	45	85	57.00
EUD2-101052100	10	10	52	100	67.00

ACME - STACME - TRAPEZOIDAL

ACME external	Trapezoidal external	ACME internal	Trapezoidal internal
16ER 12 ACME T350	16ER 2.0 TR T350	16NR 12 ACME T350	16NR 2.0 TR T350
16ER 10 ACME T350	16ER 3.0 TR T350	16NR 10 ACME T350	16NR 3.0 TR T350
16ER 8 ACME T350	22ER 4.0 TR T350	16NR 8 ACME T350	22NR 4.0 TR T350
22ER 6 ACME T350	22ER 5.0 TR T350	22NR 6 ACME T350	22NR 5.0 TR T350
22ER 5 ACME T350		22NR 5 ACME T350	
27ER 4 ACME T350		27NR 4 ACME T350	
STACME external		STACME internal	
16ER 12 STACME T350		16NR 12 STACME T350	
16ER 10 STACME T350		16NR 10 STACME T350	
16ER 8 STACME T350		16NR 8 STACME T350	
16ER 6 STACME T350		16NR 6 STACME T350	
22ER 5 STACME T300		22NR 5 STACME T350	
27ER 4 STACME T300		27NR 4 STACME T350	

ACME STACME TR inserts grade T350 16mm £5.00
22mm £7.20 27mm £18.00

External and internal threading inserts in grade T250

60° ISO metric	60° ISO metric	60° ISO metric	60° ISO metric
16ER 0.50 ISO T250	16ER 1.75 ISO T250	16NR 0.50 ISO T250	16NR 1.75 ISO T250
16ER 0.75 ISO T250	16ER 2.00 ISO T250	16NR 0.75 ISO T250	16NR 2.00 ISO T250
16ER 1.00 ISO T250	16ER 2.50 ISO T250	16NR 1.00 ISO T250	16NR 2.50 ISO T250
16ER 1.25 ISO T250	16ER 3.00 ISO T250	16NR 1.25 ISO T250	16NR 3.00 ISO T250
16ER 1.50 ISO T250	16ER AG60 T250	16NR 1.50 ISO T250	16NR AG60 T250

Threading inserts in grade T250 16mm £3.60

Threading inserts in grade AK10 16mm £5.00
APT threading inserts in grade T350

16EL 0.50 ISO T350	16ER 28 UN T350	11NR A55 T350	16ER 28 UN T350
16EL 0.75 ISO T350	16ER 24 UN T350	11NR A60 T350	16ER 24 UN T350
16EL 1.00 ISO T350	16ER 20 UN T350	11NR 0.75 ISO T350	16ER 20 UN T350
16EL 1.25 ISO T350	16ER 18 UN T350	11NR 1.00 ISO T350	16ER 18 UN T350
16EL 1.50 ISO T350	16ER 16 UN T350	11NR 1.50 ISO T350	16ER 16 UN T350
16EL 1.75 ISO T350	16ER 14 UN T350	11NR 1.75 ISO T350	16ER 14 UN T350
16EL 2.00 ISO T350	16ER 12 UN T350	11NR 2.00 ISO T350	16ER 12 UN T350
16EL 2.50 ISO T350	16ER 11 UN T350	16NR AG60 T350	16ER 11 UN T350
16EL 3.00 ISO T350	16ER 10 UN T350	16NR AG55 T350	16ER 10 UN T350
16ER AG60 T350	16ER 9 UN T350	16NR 1.00 ISO T350	16ER 9 UN T350
16ER AG55 T350	16ER 8 UN T350	16NR 1.25 ISO T350	16ER 8 UN T350
16ER 1.00 ISO T350		16NR 1.75 ISO T350	
16ER 1.25 ISO T350	16ER 19 W T350	16NR 1.50 ISO T350	16ER 19 W T350
16ER 1.50 ISO T350	16ER 18 W T350	16NR 2.00 ISO T350	16ER 18 W T350
16ER 1.75 ISO T350	16ER 16 W T350	16NR 2.50 ISO T350	16ER 16 W T350
16ER 2.00 ISO T350	16ER 14 W T350	16NR 3.00 ISO T350	16ER 14 W T350
16ER 2.50 ISO T350	16ER 12 W T350	22NR 3.50 ISO T350	16ER 12 W T350
16ER 3.00 ISO T350	16ER 11 W T350	22NR 4.00 ISO T350	16ER 11 W T350
22ER 3.50 ISO T350	16ER 10 W T350	22NR 4.50 ISO T350	16ER 10 W T350
22ER 4.00 ISO T350	16ER 9 W T350	22NR 5.00 ISO T350	16ER 9 W T350
22ER 4.50 ISO T350	16ER 8 W T350	22NR 5.50 ISO T350	16ER 8 W T350
22ER 5.00 ISO T350		22NR 6.00 ISO T350	
22ER 5.50 ISO T350			
22ER 6.00 ISO T350			

16mm inserts in grade T350 £4.00 22mm £6.40

T250 = P25/M20 micro grain carbide with PVD bronze colour coating for harder materials and general use can also be used in stainless applications

T350 = M30 micro grain carbide + PVD TiAlN coating first choice for stainless also for general use

APT external threading tools

external left hand threading holder	insert	external right hand threading holder	insert	shank h x w	length	qualified width	price £
SEL 1212 F16	16EL	SER 1212 F16	16ER	12x12	80	16	24.00
SEL 1616 H16	16EL	SER 1616 H16	16ER	16x16	100	20	24.00
SEL 2020 K16	16EL	SER 2020 K16	16ER	20x20	125	25	26.00
SEL 2525 M16	16EL	SER 2525 M16	16ER	25x25	150	32	30.00
Note: 12x12 section holders have no seat		SER 2525 M22	22ER	25x25	150	32	32.00
		SER 3232 P22	22ER	32x32	170	40	39.00
		SER 4040 R22	22ER	40x40	200	50	74.00

SER

APT internal threading tools

internal left hand threading bar	insert	internal right hand threading bar	insert	shank dia	length	min bore	price £
-	-	SNR 0010 K11	11NR	10	125	13	18.00
-	-	SNR 0012 K11	11NR	12	125	15	19.00
SNL 0016 M16	16NL	SNR 0016 M16	16NR	16	150	20	22.00
SNL 0020 Q16	16NL	SNR 0020 Q16	16NR	20	180	24	24.00
SNL 0025 R16	16NL	SNR 0025 R16	16NR	25	200	29	26.00
-	-	SNR 0020 Q22	22NR	20	180	27	30.00
-	-	SNR 0025 R22	22NR	25	200	32	28.00
		SNR 0032 S22	22NR	32	250	39	40.00
		SNR 0040 T22	22NR	40	300	47	62.00

SNR

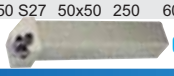
Carbide shank threading bars

carbide shank threading bar	shank dia	length	min bore	insert	price £
C10PSNR-11-APT	10	170	13	11NR	59.00
C12QSNR-11-APT	12	180	15	11NR	79.00
C16RSNR-16-APT	16	200	21	16NR	124.00
C20SSNR-16-APT	20	250	24	16NR	220.00

C---SNR

Canela external threading tools

external top-clamp threading holder	shank h x w	length	qualified width	insert	price £
CTXNR 2020 K16	20x20	125	25	16ER	72.66
CTXNR 2525 M16	25x25	150	32	16ER	77.08
CTXNR 3232 P16	32x32	170	40	16ER	97.86
CTXNR 2525 M22	25x25	150	32	22ER	77.08
CTXNR 3232 P22	32x32	170	40	22ER	97.86
CTXNR 4040 R22	40x40	200	50	22ER	128.95
CTXNR 2525 M27	25x25	150	32	27ER	77.08
CTXNR 3232 P27	32x32	170	40	27ER	97.86
CTXNR 4040 R27	40x40	200	50	27ER	128.95
CTXNR 5050 S27	50x50	250	60	27ER	209.03



CTXNR

external screw fixing threading holder	shank h x w	length	qualified width	insert	price £
STXNR 1212 F16	12x12	80	16	16ER	55.97
STXNR 1616 H16	16x16	100	20	16ER	55.97
STXNR 2020 K16	20x20	125	25	16ER	61.13
STXNR 2525 M16	25x25	150	32	16ER	77.08
STXNR 3232 P16	32x32	170	40	16ER	84.42
STXNR 2525 M22	25x25	150	32	22ER	77.08
STXNR 3232 P22	32x32	170	40	22ER	97.86

STXNR

Canela internal threading tools

internal top-clamp threading bar	shank dia	length	min bore	insert	price £
S32S CTXNR 27	32	250	42	27NR	138.96
S40T CTXNR 27	40	300	48	27NR	179.59
S50U CTXNR 27	50	350	58	27NR	216.10
S60V CTXNR 27	60	400	69	27NR	258.50

CTXNR

internal screw fixing threading bar	shank dia	length	min bore	insert	price £
S10K STXNR 11	10	125	13	11NR	66.54
S16M STXNR 11	16	150	20	11NR	71.84
S16M STXNR 16	16	150	20	16NR	60.86
S20Q STXNR 16	20	180	24	16NR	72.30
S25R STXNR 16	25	200	29	16NR	95.06
S32S STXNR 16	32	250	36	16NR	134.00
S40T STXNR 16	40	300	44	16NR	145.71
S20Q STXNR 22	20	180	27	22NR	85.97
S25R STXNR 22	25	200	32	22NR	113.06
S32S STXNR 22	32	250	39	22NR	138.96
S40T STXNR 22	40	300	47	22NR	179.59

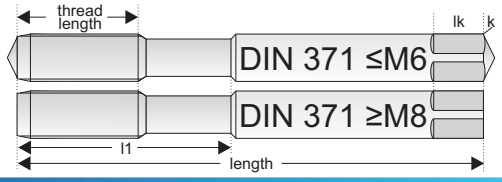
SXFNR

Spiral point HSSE 5% Cobalt Metal metric coarse machine taps

size	pitch	length	thread length	shank dia	(k) square	lk	drill dia	l1	DIN	thread class	HSSE 5% Cobalt Un-Coated	price £	HSSE 5% Cobalt Steam Tempered	price £	HSSE 5% Cobalt TiN Coated	price £	HSSE 5% Cobalt TiAlN Coated	price £
M2.5	0.45	50	9	2.8	2.1	5	2.05	12.5	371	6H	MSP-MC2.5-371	2.80	MSP-MC2.5-371ST	3.50	MSP-MC2.5-371TIN	4.00	MSP-MC2.5-371TA	4.60
M3	0.5	56	11	3.5	2.7	6	2.5	18	371	6H	MSP-MC3-371	2.80	MSP-MC3-371ST	3.50	MSP-MC3-371TIN	4.00	MSP-MC3-371TA	4.60
M3.5	0.6	56	12	4.0	3.0	6	2.9	20	371	6H	MSP-MC3.5-371	3.00	MSP-MC3.5-371ST	3.60	MSP-MC3.5-371TIN	4.60	MSP-MC3.5-371TA	5.00
M4	0.7	63	13	4.5	3.4	6	3.3	21	371	6H	MSP-MC4-371	3.00	MSP-MC4-371ST	3.60	MSP-MC4-371TIN	4.60	MSP-MC4-371TA	5.00
M5	0.8	70	19	6.0	4.9	8	4.2	25	371	6H	MSP-MC5-371	3.20	MSP-MC5-371ST	3.90	MSP-MC5-371TIN	4.80	MSP-MC5-371TA	5.80
M6	1.0	80	10	6.0	4.9	8	5.0	30	371	6H	MSP-MC6-371	3.40	MSP-MC6-371ST	4.00	MSP-MC6-371TIN	4.80	MSP-MC6-371TA	5.80
M8	1.25	90	19	8.0	6.2	9	6.8	34	371	6H	MSP-MC8-371	4.40	MSP-MC8-371ST	5.00	MSP-MC8-371TIN	6.00	MSP-MC8-371TA	7.20
M10	1.5	100	17	10.0	8.0	11	8.5	38	371	6H	MSP-MC10-371	5.40	MSP-MC10-371ST	6.00	MSP-MC10-371TIN	8.00	MSP-MC10-371TA	9.30
M12	1.75	110	24	9.0	7.0	10	10.3	-	376	6H	MSP-MC12-376	6.60	MSP-MC12-376ST	8.00	MSP-MC12-376TIN	10.00	MSP-MC12-376TA	11.60
M14	2.0	110	25	11.0	9.0	12	12.0	-	376	6H	MSP-MC14-376	7.80	MSP-MC14-376ST	9.00	MSP-MC14-376TIN	11.00	MSP-MC14-376TA	13.00
M16	2.0	110	25	12.0	9.0	12	14.0	-	376	6H	MSP-MC16-376	9.20	MSP-MC16-376ST	12.00	MSP-MC16-376TIN	14.00	MSP-MC16-376TA	16.00

Spiral flute HSSE 5% Cobalt Metal metric coarse machine taps

size	pitch	length	thread length	shank dia	(k) square	lk	drill dia	l1	DIN	thread class	HSSE 5% Cobalt Un-Coated	price £	HSSE 5% Cobalt Steam Tempered	price £	HSSE 5% Cobalt TiN Coated	price £	HSSE 5% Cobalt TiAlN Coated	price £
M3	0.5	56	6	3.5	2.7	6	2.5	18	371	6H	MSF-MC3-371	2.80	MSF-MC3-371ST	3.50	MSF-MC3-371TIN	4.00	MSF-MC3-371TA	4.60
M4	0.7	63	7	4.5	3.4	6	3.3	20	371	6H	MSF-MC4-371	3.00	MSF-MC4-371ST	3.60	MSF-MC4-371TIN	4.60	MSF-MC4-371TA	5.00
M5	0.8	70	8	6.0	4.9	8	4.2	25	371	6H	MSF-MC5-371	3.20	MSF-MC5-371ST	3.90	MSF-MC5-371TIN	4.80	MSF-MC5-371TA	5.80
M6	1.0	80	10	6.0	4.9	8	5.0	30	371	6H	MSF-MC6-371	3.40	MSF-MC6-371ST	4.00	MSF-MC6-371TIN	4.80	MSF-MC6-371TA	5.80
M8	1.25	90	13	8.0	6.2	9	6.8	34	371	6H	MSF-MC8-371	4.40	MSF-MC8-371ST	5.00	MSF-MC8-371TIN	6.00	MSF-MC8-371TA	7.20
M10	1.5	100	15	10.0	8.0	11	8.5	38	371	6H	MSF-MC10-371	5.40	MSF-MC10-371ST	6.00	MSF-MC10-371TIN	8.00	MSF-MC10-371TA	9.30
M12	1.75	110	18	9.0	7.0	10	10.3	-	376	6H	MSF-MC12-376	6.60	MSF-MC12-376ST	8.00	MSF-MC12-376TIN	10.00	MSF-MC12-376TA	11.60



Solid Carbide Thread Milling

Internal Mini Type Thread Milling Cutters Metric 60° 2xD
MT2D for general use, HRMT2D for Titanium alloys, Inconel etc., and Stainless

Mini type thread milling cutter 60° General Use	Mini type thread milling cutter 60° HRSA's	Thread Form	Pitch mm	head dia	reach	shank dia	length	flutes	price £
MT2D040073M1.0	HRMT2D040073M1.0	M1.0	0.25	0.73	2.0	4	50	3	17.00
MT2D040092M1.2	HRMT2D040092M1.2	M1.2	0.25	0.92	2.4	4	50	3	17.00
MT2D040105M1.4	HRMT2D040105M1.4	M1.4	0.3	1.05	2.8	4	50	3	17.00
MT2D040120M1.6	HRMT2D040120M1.6	M1.6	0.35	1.20	3.2	4	50	3	17.00
MT2D040140M1.8	HRMT2D040140M1.8	M1.8	0.35	1.4	3.6	4	50	3	17.00
MT2D040155M2.0	HRMT2D040155M2.0	M2.0	0.4	1.55	4.0	4	50	3	17.00
MT2D040170M2.2	HRMT2D040170M2.2	M2.2	0.45	1.7	4.0	4	50	3	17.00
MT2D040200M2.5	HRMT2D040200M2.5	M2.5	0.45	2.0	5.0	4	50	3	17.00
MT2D040240M3.0	HRMT2D040240M3.0	M3.0	0.5	2.4	6.0	4	50	3	17.00
MT2D040275M3.5	HRMT2D040275M3.5	M3.5	0.6	2.75	8.0	4	50	3	17.00
MT2D040315M4.0	HRMT2D040315M4.0	M4.0	0.7	3.15	8.0	4	50	3	17.00
MT2D040350M4.5	HRMT2D040350M4.5	M4.5	0.75	3.5	9.0	4	50	3	17.00
MT2D040400M5.0	HRMT2D040400M5.0	M5.0	0.8	4.0	10	4	50	3	17.00
MT2D060480M6.0	HRMT2D060480M6.0	M6.0	1.0	4.8	12	6	50	3	24.00
MT2D060600M8.0X1F	HRMT2D060600M8.0X1F	MF8.0	1.0	6.0	16	6	50	4	24.00
MT2D060600M8.0	HRMT2D060600M8.0	M8.0	1.25	6.0	16	6	50	4	24.00
MT2D080800M10X1F	HRMT2D080800M10X1F	MF10	1.0	8.0	20	8	60	4	32.00
MT2D080800M10	HRMT2D080800M10	M10	1.5	8.0	20	8	60	4	32.00
MT2D101000M12X1.0	HRMT2D101000M12X1.0	MF12	1.0	10	24	10	75	4	45.00
MT2D101000M12X1.5	HRMT2D101000M12X1.5	MF12	1.5	10	24	10	75	4	45.00
MT2D101000M12	HRMT2D101000M12	M12	1.75	10	24	10	75	4	45.00
MT2D121200M14X1.5	HRMT2D121200M14X1.5	MF14	1.5	12	28	12	75	4	60.00
MT2D101000M14	HRMT2D101000M14	M14	2.0	10	28	10	75	4	48.00
MT2D141400M16X1.5	HRMT2D141400M16X1.5	MF16	1.5	14	32	14	100	4	80.00
MT2D121200M16	HRMT2D121200M16	M16	2.0	12	32	12	75	4	60.00
MT2D141350M16	HRMT2D141350M16	M16	2.0	13.5	32	14	100	4	80.00
MT2D161600M20X1.5	HRMT2D161600M20X1.5	MF20	1.5	16	40	16	100	4	92.00
MT2D161600M20	HRMT2D161600M20	M20	2.5	16	40	16	100	6	92.00
MT2D161600M24	HRMT2D161600M24	M24	3.0	16	48	16	100	6	92.00

Internal Mini Type Thread Milling Cutters Metric 60° 3xD
MT2D for general use, HRMT2D for Titanium alloys, Inconel etc., & Stainless

Mini type thread milling cutter 60°	Mini type thread milling cutter 60°	Thread Form	Pitch mm	head dia	reach	shank dia	length	flutes	price £
MT3D040073M1.0	HRMT3D040073M1.0	M1.0	0.25	0.73	3.0	4	50	3	17.00
MT3D040092M1.2	HRMT3D040092M1.2	M1.2	0.25	0.92	3.6	4	50	3	17.00
MT3D040105M1.4	HRMT3D040105M1.4	M1.4	0.3	1.05	4.2	4	50	3	17.00
MT3D040120M1.6	HRMT3D040120M1.6	M1.6	0.35	1.20	4.8	4	50	3	17.00
MT3D040155M2.0	HRMT3D040155M2.0	M2.0	0.4	1.55	6.0	4	50	3	17.00
MT3D040200M2.5	HRMT3D040200M2.5	M2.5	0.45	2.0	7.5	4	50	3	17.00
MT3D040240M3.0	HRMT3D040240M3.0	M3.0	0.5	2.4	9.0	4	50	3	17.00
MT3D040315M4.0	HRMT3D040315M4.0	M4.0	0.7	3.15	12	4	50	3	17.00
MT3D040400M5.0	HRMT3D040400M5.0	M5.0	0.8	4.0	15	4	50	3	17.00
MT3D060480M6.0	HRMT3D060480M6.0	M6.0	1.0	4.8	18	6	50	3	24.00
MT3D060600M8.0	HRMT3D060600M8.0	M8.0	1.25	6.0	24	6	50	4	24.00
MT3D080800M10	HRMT3D080800M10	M10	1.5	8.0	30	8	60	4	32.00
MT3D101000M12	HRMT3D101000M12	M12	1.75	10	36	10	75	4	48.00

Internal Mini Type Thread Milling Cutters Metric 60° 4xD

Mini type thread milling cutter 60°	Thread Form	Pitch mm	head dia	reach	shank dia	length	flutes	price £
MT4D040155M2.0	M2.0	0.4	1.55	8	4	50	3	17.00
MT4D040200M2.5	M2.5	0.45	2.0	10	4	50	3	17.00
MT4D040240M3.0	M3.0	0.5	2.4	12	4	50	3	17.00
MT4D040315M4.0	M4.0	0.7	3.15	16	4	50	3	17.00
MT4D040400M5.0	M5.0	0.8	4.0	20	4	50	3	17.00

Ext Reach Int Mini Thread Milling Cutters Metric 60° 2xD

Mini type thread milling cutter 60°	Thread Form	Pitch mm	head dia	reach	shank dia	length	flutes	price £
MT2DXL060240M3.0	M3.0	0.5	2.4	6	6	100	3	30.00
MT2DXL060315M4.0	M4.0	0.7	3.15	8	6	100	3	30.00
MT2DXL060405M5.0	M5.0	0.8	4.05	10	6	100	3	30.00
MT2DXL060480M6.0	M6.0	1.0	4.8	12	6	100	3	30.00
MT2DXL060600M8.0	M8.0	1.25	6.0	16	6	100	3	30.00
MT2DXL080800M10	M10	1.5	8.0	20	8	100	4	40.00
MT2DXL101000M12	M12	1.75	10	24	10	100	4	48.00
MT2DXL101000M14	M14	2.0	10	37	10	100	4	48.00

Int. Mini Thread Milling Metric 60° DLC CTD for aluminium

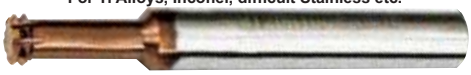
Mini type thread milling cutter 60°	Thread Form	Pitch mm	head dia	reach	shank dia	length	flutes	price £
MT3D040073M1.0DLC	M1.0	0.25	0.73	3.0	4	50	3	12.00
MT3D040092M1.2DLC	M1.2	0.25	0.92	3.6	4	50	3	12.00
MT3D040105M1.4DLC	M1.4	0.3	1.05	4.2	4	50	3	12.00
MT3D040120M1.6DLC	M1.6	0.35	1.20	4.8	4	50	3	12.00
MT3D040155M2.0DLC	M2.0	0.4	1.55	6.0	4	50	3	12.00
MT3D040200M2.5DLC	M2.5	0.45	2.0	7.5	4	50	3	12.00
MT3D040240M3.0DLC	M3.0	0.5	2.4	9.0	4	50	3	12.00
MT3D040315M4.0DLC	M4.0	0.7	3.15	12	4	50	3	12.00
MT3D040400M5.0DLC	M5.0	0.8	4.0	15	4	50	3	12.00
MT3D060480M6.0DLC	M6.0	1.0	4.8	18	6	50	3	17.00
MT3D060600M8.0DLC	M8.0	1.25	6.0	24	6	50	4	17.00
MT3D080800M10DLC	M10	1.5	8.0	30	8	60	4	27.00
MT3D101000M12DLC	M12	1.75	10	36	10	75	4	36.00
MT2D101000M14DLC	M14	2.0	10	28	10	75	4	36.00

Internal Mini Type Thread Milling Cutters Metric 60° 2xD
for Ti Alloys, Inconel, difficult Stainless etc. TiSiN

Mini type thread milling cutter 60°	Thread Form	Pitch mm	head dia	reach	shank dia	length	flutes	price £
MT2DH060120M1.6	M1.6	0.35	1.2	3.2	6	50	3	46.00
MT2DH060155M2.0	M2.0	0.4	1.55	4.0	6	50	4	46.00
MT2DH060196M2.5	M2.5	0.45	1.96	5.0	6	50	4	46.00
MT2DH060240M3.0	M3.0	0.5	2.4	6.0	6	50	4	46.00
MT2DH060315M4.0	M4.0	0.7	3.15	8.0	6	50	4	46.00
MT2DH060405M5.0	M5.0	0.8	4.05	10	6	50	4	46.00
MT2DH060480M6.0	M6.0	1.0	4.8	12	6	50	5	46.00
MT2DH080650M8.0	M8.0	1.25	6.5	16	6	60	6	66.00
MT2DH080820M10	M10	1.5	8.2	20	8	60	6	94.00
MT2DH100920M12	M12	1.75	9.2	24	10	75	6	94.00

MT2DH are left hand use code M04 to produce right hand thread

For Ti Alloys, Inconel, difficult Stainless etc.



Helical Thread Mills Metric 60° 2xD General Use

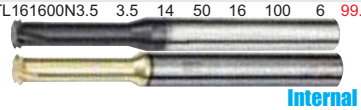
Multi tooth thread milling cutter 60°	Thread Form	Pitch mm	head dia	reach	shank dia	length	flutes	price £
H040155N0.4	M2	0.4	1.55	4	4	50	3	23.00
H040200N0.45	M2.5	0.45	2.00	4	4	50	3	23.00
H040235N0.5	M3	0.5	2.35	6	4	50	3	20.60
H040315N0.7	M4	0.7	3.15	8	4	50	3	20.60
H040400N0.5	M5x0.5	0.5	4.0	10	4	50	3	34.00
H040400N0.75	M5x0.75	0.75	4.0	10	4	50	3	30.00
H040400N0.8	M5	0.8	4.0	10	4	50	3	20.60
H060480N0.75	M6x0.75	0.75	4.8	12	6	50	3	46.00
H060480N1.0	M6	1.0	4.8	12	6	60	3	24.40
H060600N0.5	M8x0.5	0.5	6.0	16	6	60	3	40.00
H060600N0.75	M8x0.75	0.75	6.0	16	6	60	3	36.00
H060600N1.0	M8x1	1.0	6.0	16	6	60	3	28.00
H060600N1.25	M8	1.25	6.0	16	6	60	3	24.40
H080800N1.0	M10x1.0	1.0	8.0	21	8	60	4	56.00
H080800N1.25	M10x1.25	1.25	8.0	21	8	60	4	46.00
H080800N1.5	M10	1.5	8.0	21	8	60	4	41.00
H101000N0.5	M12x0.5	0.5	10	24	10	75	4	72.00
H101000N0.75	M12x0.75	0.75	10	24	10	75	4	68.00
H101000N1.0	M12x1.0	1.0	10	24	10	75	4	64.00
H101000N1.25	M12x1.25	1.25	10	24	10	75	4	62.00
H101000N1.5	M12x1.5	1.5	10	24	10	75	4	62.00
H101000N1.75	M12	1.75	10	24	10	75	4	48.00
H121200N1.0	M14x1	1.0	12	28	12	75	4	88.00
H121200N1.5	M14x1.5	1.5	12	28	12	75	4	83.00
H121160N2.0	M14	2.0	11.6	28	12	75	4	83.00
H141400N1.5	M16x1.5	1.5	14	32	14	100	4	104.00
H141300N2.0	M16	2.0	13	32	14	100	4	104.00
H161480N2.5	M18	2.5	14.8	38	16	100	4	150.00
H161600N1.5	M20x1.5	1.5	16	38	16	100	4	145.00
H161600N2.5	N20x2.5	2.5	16	40	16	100	4	120.00
H161600N3.0	M24x3.0	3.0	16	42	16	100	4	120.00

Internal Single Tooth Thread Milling Cutters 60°
ST general use, HRST for Titanium alloys, Inconel etc, Stainless

Single tooth thread milling cutter 60°	Single tooth thread milling cutter 60°	Pitch mm	head dia	reach	shank dia	length	flutes	price £
ST040055N0.2	-	0.2	0.55	1.5	4	50	2	35.00
ST0400625N0.225	-	0.225	0.625	1.8	4	50	2	35.00
ST040070N0.25	-	0.25	0.7	3.0	4	50	2	16.00
ST040090N0.25	-	0.25	0.9	3.6	4	50	2	16.00
ST040105N0.3	-	0.3	1.05	4.0	4	50	3	16.00
ST040120N0.35	HRST040120N0.35	0.35	1.2	4.5	4	50	3	16.00
ST040155N0.4	HRST040155N0.4	0.4	1.55	6.0	4	50	3	16.00
ST040196N0.45	HRST040196N0.45	0.45	1.96	6.5	4	50	4	16.00
ST040235N0.5	HRST040235N0.5	0.5	2.35	8.0	4	50	4	16.00
ST040315N0.7	HRST040315N0.7	0.7	3.15	10	4	50	4	16.00
ST040390N0.8	HRST040390N0.8	0.8	3.9	12	4	50	4	16.00
ST060480N1.0	HRST060480N1.0	1.0	4.8	15	6	50	4	21.00
ST060600N1.25	HRST060600N1.25	1.25	6.0	20	6	60	4	24.00
ST080770N1.5	HRST080770N1.5	1.5	7.7	25	8	60	4	28.00
ST100960N1.75	HRST100960N1.75	1.75	9.6	30	10	75	4	44.00
ST101000N2.0	HRST101000N2.0	2.0	10	36	10	75	4	44.00
ST121200N2.5	HRST121200N2.5	2.5	12	38	12	75	4	65.00
ST141400N3.0	HRST141400N3.0	3.0	14	48	14	100	6	91.00
ST161600N3.5	HRST161600N3.5	3.5	16	50	16	100	6	116.00

Internal Single Tooth Thread Milling Cutters 60°
Long Shank

Single tooth thread milling cutter 60°	Pitch mm	head dia	reach	shank dia	length	flutes	price £
STL040105N0.3	0.3	1.05	4.0	4	100	3	19.00
STL040120N0.35	0.35	1.2	4.5	4	100	3	19.00
STL040155N0.4	0.4	1.55	5.0	4	100	3	19.00
STL040196N0.45	0.45	1.96	6.0	4	100	4	19.00
STL040235N0.5	0.5	2.35	8.0	4	100	4	19.00
STL040315N0.7	0.7	3.15	10	4	100	4	19.00
STL040390N0.8	0.8	3.9	12	4	100	4	19.00
STL060480N1.0	1.0	4.8	15	6	100	4	26.00
STL060600N1.25	1.25	6.0	20	6	100	4	26.00
STL080770N1.5	1.5	7.7	25	8	100	4	36.00
STL100960N1.75	1.75	9.6	30	10	100	4	58.00
STL101000N2.0	2.0	10	36	10	100	4	58.00
STL121200N2.5	2.5	12	38	12	100	4	86.00
STL141400N3.0	3.0	14	48	14	100	6	88.00
STL161600N3.5	3.5	14	50	16	100	6	99.00

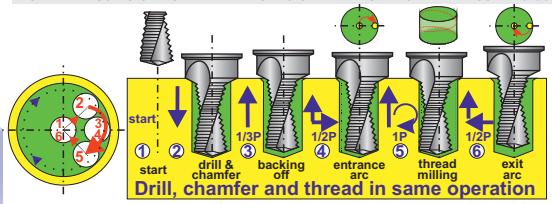


Internal Single Tooth Thread Mills 60° Partial Profile

Single tooth thread milling cutter 60°	Single tooth thread milling cutter 60°	Pitch mm	Pitch TPI	head dia	reach	shank dia	length	flutes	price £
ST040390X0.5-0.8	HRST040390X0.5-0.8	0.5-0.8	32-56	3.9	16	4	50	4	16.00
ST060485X0.5-1.0	HRST060485X0.5-1.0	0.5-1.0	24-56	4.85	20	6	60	5	24.00
ST060590X0.5-1.25	HRST060590X0.5-1.25	0.5-1.25	20-48	5.9	25	6	60	5	24.00
ST100980X0.5-1.0	HRST100980X0.5-1.0	0.5-1.0	24-56	9.8	35	10	75	6	36.00
ST080790X1.0-1.5	HRST080790X1.0-1.5	1.0-1.5	13-24	7.9	32	8	75	6	33.00
ST100990X1.0-1.75	HRST100990X1.0-1.75	1.0-1.75	14-24	9.9	38	10	75	6	45.00
ST121190X1.0-2.0	HRST121190X1.0-2.0	1.0-2.0	14-24	11.9	40	12	75	6	50.00
ST141400X2.0-3.0	HRST141400X2.0-3.0	2.0-3.0	9-12	14	48	14	100	6	70.00
ST161600X2.0-3.5	HRST161600X2.0-3.5	2.0-3.5	8-12	16	50	16	100	6	83.00

Internal Thriller DCT Drill Chamfer & Thread Metric 60° 3xD
DLC Coated for Aluminium - New - Drill, Chamfer, Thread

Mini type DCT2D milling cutter 60°	Thread Form	Pitch mm	head dia	reach	chamfer	shank dia	length	price £
DCT2D08050M6.0DLC	M6	1.0	5.0	12	45°x1	8	60	72.00
DCT2D10068M8.0DLC	M8	1.25	6.8	15	45°x1.3	10	75	90.00
DCT2D12085M8.0DLC	M10	1.5	8.5	20	45°x1.5	12	75	120.00
DCT2D14103M8.0DLC	M12	1.75	10.3	24	45°x1.8	14	100	140.00



Drill, chamfer and thread in same operation

Internal Single Tooth Thread Milling Cutters 60°
DLC coated for aluminium

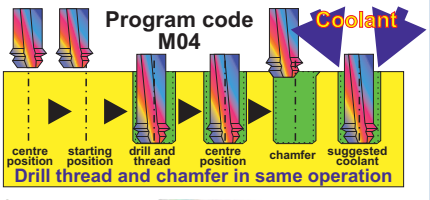
Single tooth thread milling cutter 60°	Pitch mm	head dia	reach	shank dia	length	flutes	price £
ST040070N0.25DLC	0.25	0.7	3.0	4	50	2	12.00
ST040090N0.25DLC	0.25	0.9	3.6	4	50	2	12.00
ST040105N0.3DLC	0.3	1.05	4.0	4	50	3	12.00
ST040120N0.35DLC	0.35	1.2	4.5	4	50	3	12.00
ST040155N0.4-0.5DLC	0.4-0.5	1.55	6.0	4	50	3	12.00
ST040196N0.45-0.6DLC	0.45-0.6	1.96	6.5	4	50	4	12.00
ST040235N0.5-0.7DLC	0.5-0.7	2.35	8.0	4	50	4	12.00
ST040315N0.5-1.0DLC	0.5-1.0	3.15	10	4	50	4	12.00
ST040390N0.5-1.0DLC	0.5-1.0	3.9	12	4	50	4	12.00
ST060480N0.5-1.5DLC	0.5-1.5	4.8	15	6	50	4	16.00
ST060600N0.5-1.5DLC	0.5-1.5	6.0	20	6	50	4	18.00
ST080770N0.8-2.0DLC	0.8-2.0	7.7	25	8	60	4	21.00
ST100960N1.0-2.5DLC	1.0-2.5	9.6	30	10	75	4	31.00
ST101000N1.0-2.5DLC	1.0-2.5	10	36	10	75	4	31.00
ST121200N1.25-3.0DLC	1.25-3.0	12	38	12	75	4	43.00

DLC-C Diamond Like Carbon Coating Can increase tool life by up to 100% excellent for finishing applications as the DLC coating protects the cutting edge from losing it's sharpness which is needed to cut aluminium and non-ferrous metals

Internal - Drill, Thread, Chamfer - for Aluminium

Mini type thread milling cutter 60°	Thread Form	Pitch mm	head dia	reach	cham fer	shank dia	length	flutes	price £
MDTC3D040115M1.6DLC	M1.6	0.35	1.15	5	45°	4	50	3	30.00
MDTC3D040150M2.0DLC	M2	0.4	1.50	6.5	45°	4	50	3	30.00
MDTC3D040190M2.5DLC	M2.5	0.45	1.9	7	45°	4	50	3	30.00
MDTC3D060240M3.0DLC	M3	0.5	2.4	9	45°	6	50	3	43.00
MDTC3D060320M4.0DLC	M4	0.7	3.2	11	45°	6	50	3	43.00
MDTC3D060390M5.0DLC	M5	0.8	3.9	12	45°	6	50	3	43.00
MDTC3D060470M6.0DLC	M6	1.0	4.7	14	45°	6	50	3	43.00
MDTC3D080650M8.0DLC	M8	1.25	6.5	18	45°	8	60	4	62.00
MDTC3D080780M10DLC	M10	1.5	7.8	23	45°	8	60	4	62.00
MDTC3D100960M12DLC	M12	1.75	9.6	26	45°	10	75	4	82.00

MT3D-DLC are left hand use code M04 to produce right hand thread



Drill thread and chamfer in same operation

Internal Mini Type Thread Milling Cutters UN 60° 2xD

Mini type thread milling cutter 60°	Thread Form	Pitch TPI	head dia	head reach	shank dia	shank length	flutes	price £
MT2D040140UN64	NO.1-64	64	1.4	4	4	50	3	18.00
MT2D040145UNF72	NO.1-72	72	1.45	3.9	4	50	3	18.00
MT2D040165UN56	NO.2-56	56	1.65	5	4	50	3	18.00
MT2D040195UN56	NO.3-56	56	1.95	5.3	4	50	3	18.00
MT2D040195UN48	NO.3-48	48	1.95	5	4	50	3	18.00
MT2D040215UN40	NO.4-40	40	2.15	6	4	50	3	18.00
MT2D040225UNF48	NO.4-48	48	2.25	6	4	50	3	18.00
MT2D040245UN40	NO.5-40	40	2.45	7.2	4	50	3	18.00
MT2D040255UN32	NO.6-32	32	2.55	7.2	4	50	3	18.00
MT2D040275UNF40	NO.6-40	40	2.75	7.2	4	50	3	18.00
MT2D040320UN32	NO.8-32	32	3.2	9	4	50	3	18.00
MT2D040330UNF36	NO.8-36	36	3.3	8.7	4	50	3	18.00
MT2D040370UN24	NO.10-24	24	3.7	10	4	50	3	18.00
MT2D040390UNF32	NO.10-32	32	3.9	10	4	50	3	18.00
MT2D060490UN20	1/4-20	20	4.9	12	6	50	3	24.00
MT2D060530UNF28	1/4-28	28	5.3	12	6	50	3	24.00
MT2D080640UN18	5/16-18	18	6.4	18	8	60	4	32.00
MT2D080780UN16	3/8-16	16	7.8	20	8	60	4	32.00
MT2D100920UN14	7/16-14	14	9.2	24	10	75	4	48.00
MT2D100950UNF20	7/16-20	20	9.5	24	10	75	4	48.00
MT2D101000UN13	1/2-13	13	10.0	24	10	75	4	48.00

Internal Single Tooth Thread Milling Cutters 55° Partial Profile

Single tooth thread milling cutter 55°	Thread Form	Pitch TPI	head dia	head reach	shank dia	shank length	flutes	price £
ST040310X32W	W5/32x32	32	3.1	-	4	50	4	12.00
ST040350X24W	W3/16x24	24	3.5	10	4	50	4	12.00
ST040400X20W	W1/4x20	20	4	12	4	50	4	12.00
ST060600X18-28W	W5/16x18, G1/16x28, G1/8x28	18-28	6	14	6	50	4	21.00
ST080800X14-19W	W7/16x14, G1/4x19, G3/8x19	14-19	8	18	8	60	4	30.00
ST101000X14-19W	W7/16x14, G1/2X14, G1/4x19, G3/4x14, G3/8x19	14-19	10	30	10	75	4	45.00
ST121200X10-14W	W5/8x11, W3/4x10, 1/2x14 3/4x14, 1x11	10-14	12	38	12	75	4	66.00

PG Single Tooth Thread Mills Internal / External

Helical flute thread milling cutter	thread	head dia	head reach	shank dia	shank length	flutes	price £
ST080800ENPG7-16	PG7-16	8	15	8	60	4	40.00
ST101000ENPG9-16	PG9-16	10	20	10	75	4	70.00
ST121200ENPG21-48	PG21-48	12	20	12	75	4	80.00

TiAlN-X Coating is used for General Use
ZrN is used for our HRSA Thread Mills
Thread Mills for Aluminium are DLC Coated

Internal Single Tooth Thread Milling Cutters 29° Acme

Single tooth thread milling cutter 29°	Thread Form	Pitch TPI	head dia	head reach	shank dia	shank length	flutes	price £
ST060470N16ACME	1/4x16	16	4.7	15	6	50	4	33.00
ST060600N14ACME	5/15x14	14	6.0	20	6	50	4	33.00
ST080720N12ACME	3/8x12, 7/16x12	12	7.2	25	8	60	4	45.00
ST101000N10ACME	1/2x10	10	10	35	10	75	4	76.00
ST121200N8ACME	5/8x8	8	12	35	12	75	4	90.00
ST121200N6ACME	3/4x6, 7/8x6	6	12	35	12	75	4	90.00

Internal Single Tooth Thread Milling Cutters 30° Trapezoidal

Single tooth thread milling cutter 30°	Thread Form	Pitch mm	head dia	head reach	shank dia	shank length	flutes	price £
ST060550N1.0TR	TR7x1.0	1.0	5.5	20	6	50	4	33.00
ST060600N1.5TR	TR8x1.5, TR9x1.5	1.5	6	20	6	50	4	33.00
ST080640N2.0TR	TR9x2, TR10x2, TR11x2	2.0	6.4	20	8	50	4	45.00
ST100940N2.0TR	TR12x2, TR14x2, TR16x2, TR18x2, TR20x2	2.0	9.4	35	10	75	4	76.00
ST080740N3.0TR	TR11x3, TR12x3, TR14x3	3.0	7.4	25	8	60	4	45.00
ST101000N3.0TR	TR14x3, TR22x3, TR24x3, TR26x3, TR28x3, TR30x3	3.0	10	35	10	75	4	76.00
ST121100N4.0TR	TR16x4, TR18x4, TR20x4	4.0	11	38	12	75	4	83.00
ST141400N5.0TR	TR22x5, TR24x5, TR26x5, TR28x5	5.0	14	50	14	100	4	99.00
ST161600N6.0TR	TR30x6, TR32x6, TR34x6 TR36x6, TR38x6, TR40x6, TR42x6	6.0	16	50	16	100	4	120.00

Helical Flute Thread Milling Cutters Unified 60° 2xD

Multi tooth thread milling cutter 60°	Thread UNC	Thread UNF	Thread UNEF	Pitch TPI	head dia	head reach	shank dia	shank length	flutes	price £
H04033N32UNF	-	No.10-32	No.12-3/8x32	32	3.3	11	4	50	3	34.00
H040390N32	-	No.10-32	-	32	3.9	10	4	50	3	23.00
H080680N32	-	-	5/16-32	32	6.8	18	8	60	4	58.00
H060530N28	-	1/4-28	-	28	5.3	12	6	60	4	30.00
H080680N24	-	5/16-24	-	24	6.8	18	8	60	4	30.00
H060480N20	1/4-20	-	-	20	4.8	12	6	60	4	46.00
H100950N20	-	7/16-20	-	20	9.5	24	10	75	4	66.00
H080640N18	5/16-18	-	-	18	6.4	18	8	60	4	46.00
H101000N18	-	9/16-18	-	18	10	24	10	75	4	66.00
H080780N16	3/8-16	-	-	16	7.8	21	8	60	4	46.00
H121200N16	-	3/4-16	-	16	12	28	12	75	4	89.00
H100880N14	7/16-14	7/8-14	-	14	8.8	24	10	75	4	66.00
H101000N13	1/2-13	-	-	13	10	24	10	75	4	66.00
H121200N12	9/16-12	-	-	12	12	28	12	75	4	89.00
H121200N11	5/8-11	-	-	11	12	38	12	75	4	89.00
H161600N10	3/4-10	-	-	10	16	38	16	100	4	120.00

Taper End Mill for Pre Condition Threading 1°47'

Helical taper milling cutter	for thread	head dia	flute length	shank dia	shank length	flutes	price £
HP06052	1/16"-1/8"	5.2	12	6	50	4	24.00
HP10085	1/8"-1"	8.5	24	10	75	4	36.00
HP12100	1/4"-3"	10	32	12	75	4	50.00

NPT Helical Flute Internal / External 1°47'

Helical flute thread milling cutter	thread	TPI	head dia	head length	shank dia	shank length	flutes	price £
H06054EN27NPT	1/16"x27	27	5.4	9.4	6	60	4	30.00
H08074EN27NPT	1/8"x27	27	7.4	9.4	8	60	4	46.00
H08071EN18NPT	1/4"x18	18	7.1	14.1	8	60	4	48.00
H10091EN18NPT	1/4"x18	18	9.1	14.1	10	75	4	66.00
H12111EN18NPT	3/8"x18	18	11.1	14.1	12	75	4	89.00
H12108EN14NPT	½"x14	14	10.8	18.1	12	75	4	89.00
H16148EN14NPT	3/4"x14	14	14.8	18.1	16	100	4	145.00
H16146EN11.5NPT	1"x11.5	11.5	14.6	22	16	100	4	145.00
H201768EN11.5NPT	2"x11.5	11.5	17.68	45	20	100	4	200.00

NPTF Helical Flute Internal / External 1°47'

Helical flute thread milling cutter	thread	TPI	head dia	head length	shank dia	shank length	flutes	price £
H06054EN27NPTF	1/16"x27	27	5.4	9.4	6	60	4	30.00
H08074EN27NPTF	1/8"x27	27	7.4	9.4	8	60	4	46.00
H08071EN18NPTF	1/4"x18	18	7.1	14.1	8	60	4	48.00
H10091EN18NPTF	1/4"x18	18	9.1	14.1	10	75	4	66.00
H12111EN18NPTF	3/8"x18	18	11.1	14.1	12	75	4	89.00
H12108EN14NPTF	½"x14	14	10.8	18.1	12	75	4	89.00
H16148EN14NPTF	3/4"x14	14	14.8	18.1	16	100	4	145.00
H16146EN11.5NPTF	1"x11.5	11.5	14.6	22	16	100	4	145.00

BSP Helical Flute Internal / External

Helical flute thread milling cutter	thread	TPI	head dia	head length	shank dia	shank length	flutes	price £
H06060EN28BSP	1/16"x 28	28	6	14	6	60	4	30.00
H08080EN28BSP	1/8"x28	28	8	14	8	60	4	46.00
H08080EN19BSP	1/4"x19	19	8	18	8	60	4	46.00
H10100EN19BSP	1/4"x19	19	10	20	10	75	4	48.00
H12120EN19BSP	3/8"x19	19	12	25	12	75	4	89.00
H12120EN14BSP	½"x14	14	12	20	12	75	4	89.00
H16160EN14BSP	3/4x14	14	16	30	16	100	4	145.00
H16160EN11BSP	1"x11	11	16	32	16	100	4	145.00
H20200EN11BSP	2"x11	11	20	45	20	100	4	200.00

BSPT Helical Flute Internal / External 1°47'

Helical flute thread milling cutter	thread	TPI	head dia	head length	shank dia	shank length	flutes	price £
H06053EN28BSPT	1/16"x 28	28	5.3	9.9	6	60	4	30.00
H08073EN28BSPT	1/8"x28	28	7.3	9.9	8	60	4	46.00
H08070EN19BSPT	1/4"x19	19	7.0	14	8	60	4	45.00
H10090EN19BSPT	1/4"x19	19	9.0	15	10	75	4	46.00
H12110EN19BSPT	3/8"x19	19	11.0	14	12	75	4	89.00
H12110EN14BSPT	½"x14	14	11.0	19	12	75	4	89.00
H16146EN14BSPT	3/4x14	14	14.6	21	16	100	4	145.00
H16143EN11BSPT	1"x11	11	14.3	27	16	100	4	145.00
H201738EN11BSPT	1"x11	11	17.38	42	20	100	4	200.00

High Performance Flat Bottom 180° Point Carbide Drills

Ideal for inclined entry and exit, counter boring, thin plate and other applications.
Up to 3 times faster that drilling with a slot drill, can be used for reaming.

general use part number	shank dia	shank dia	depth	length	£ price
FBD2S-0300504050	0.5	3	4	50	10.00
FBD2S-0300604050	0.6	3	4	50	10.00
FBD2S-0300704050	0.7	3	4	50	10.00
FBD2S-0300804050	0.8	3	4	50	10.00
FBD2S-0300904050	0.9	3	4	50	10.00
FBD2S-0301004050	1.0	3	4	50	10.00
FBD2S-0301106050	1.1	3	6	50	10.00
FBD2S-0301206050	1.2	3	6	50	10.00
FBD2S-0301306050	1.3	3	6	50	10.00
FBD2S-0301406050	1.4	3	6	50	10.00
FBD2S-0301506050	1.5	3	6	50	10.00
FBD2S-0301610050	1.6	3	10	50	10.00
FBD2S-0301710050	1.7	3	10	50	10.00
FBD2S-0301810050	1.8	3	10	50	10.00
FBD2S-0301910050	1.9	3	10	50	10.00
FBD2S-0402014050	2.0	4	14	50	10.00
FBD2S-0402114050	2.1	4	14	50	10.00
FBD2S-0402214050	2.2	4	14	50	10.00
FBD2S-0402314050	2.3	4	14	50	10.00
FBD2S-0402414050	2.4	4	14	50	10.00
FBD2S-0402514050	2.5	4	14	50	10.00
FBD2S-0402614050	2.6	4	14	50	10.00
FBD2S-0402714050	2.7	4	14	50	10.00
FBD2S-0402814050	2.8	4	14	50	10.00
FBD2S-0402914050	2.9	4	14	50	10.00
FBD2S-0403017050	3.0	4	17	50	10.00
FBD2S-0403117050	3.1	4	17	50	10.00
FBD2S-0403217050	3.2	4	17	50	10.00
FBD2S-0403317050	3.3	4	17	50	10.00
FBD2S-0403417050	3.4	4	17	50	10.00
FBD2S-0403517050	3.5	4	17	50	10.00
FBD2S-0403617050	3.6	4	17	50	10.00
FBD2S-0403717050	3.7	4	17	50	10.00
FBD2S-0403817050	3.8	4	17	50	10.00
FBD2S-0403917050	3.9	4	17	50	10.00
FBD2S-0404017050	4.0	4	23	50	10.00
FBD2S-0604123065	4.1	6	23	65	17.40
FBD2S-0604223065	4.2	6	23	65	17.40
FBD2S-0604323065	4.3	6	23	65	17.40
FBD2S-0604423065	4.4	6	23	65	17.40

general use part number	shank dia	shank dia	depth	length	£ price
FBD2S-0604523065	4.5	6	23	65	17.40
FBD2S-0604623065	4.6	6	23	65	17.40
FBD2S-0604723065	4.7	6	23	65	17.40
FBD2S-0604823065	4.8	6	23	65	17.40
FBD2S-0604923065	4.9	6	23	65	17.40
FBD2S-0605023065	5.0	6	23	65	17.40
FBD2S-0605127065	5.1	6	27	65	17.40
FBD2S-0605227065	5.2	6	27	65	17.40
FBD2S-0605327065	5.3	6	27	65	17.40
FBD2S-0605427065	5.4	6	27	65	17.40
FBD2S-0605527065	5.5	6	27	65	17.40
FBD2S-0605627065	5.6	6	27	65	17.40
FBD2S-0605727065	5.7	6	27	65	17.40
FBD2S-0605827065	5.8	6	27	65	17.40
FBD2S-0605927065	5.9	6	27	65	17.40
FBD2S-0606027065	6.0	6	27	65	17.40
FBD2S-0806132075	6.1	8	32	75	27.00
FBD2S-0806232075	6.2	8	32	75	SPO
FBD2S-0806332075	6.3	8	32	75	27.00
FBD2S-0806432075	6.4	8	32	75	27.00
FBD2S-0806532075	6.5	8	32	75	27.00
FBD2S-0806632075	6.6	8	32	75	SPO
FBD2S-0806732075	6.7	8	32	75	27.00
FBD2S-0806832075	6.8	8	32	75	27.00
FBD2S-0806932075	6.9	8	32	75	SPO
FBD2S-0807032075	7.0	8	32	75	27.00
FBD2S-0807136075	7.1	8	36	75	27.00
FBD2S-0807236075	7.2	8	36	75	SPO
FBD2S-0807336075	7.3	8	36	75	SPO
FBD2S-0807436075	7.4	8	36	75	SPO
FBD2S-0807536075	7.5	8	36	75	SPO
FBD2S-0807636075	7.6	8	36	75	SPO
FBD2S-0807736075	7.7	8	36	75	SPO
FBD2S-0807836075	7.8	8	36	75	SPO
FBD2S-0807936075	7.9	8	36	75	27.00
FBD2S-0808036075	8.0	8	36	75	27.00
FBD2S-1008141085	8.1	10	41	85	SPO
FBD2S-1008241085	8.2	10	41	85	SPO
FBD2S-1008341085	8.3	10	41	85	SPO
FBD2S-1008441085	8.4	10	41	85	SPO

aluminium non ferrous part number	shank dia	shank dia	depth	length	£ price
FBD2S-1008541085	8.5	10	41	85	38.00
FBD2S-1008641085	8.6	10	41	85	38.00
FBD2S-1008741085	8.7	10	41	85	SPO
FBD2S-1008841085	8.8	10	41	85	SPO
FBD2S-1008941085	8.9	10	41	85	SPO
FBD2S-1009041085	9.0	10	41	85	38.00
FBD2S-1009145085	9.1	10	45	85	38.00
FBD2S-1009245085	9.2	10	45	85	SPO
FBD2S-1009345085	9.3	10	45	85	SPO
FBD2S-1009445085	9.4	10	45	85	SPO
FBD2S-1009545085	9.5	10	45	85	38.00
FBD2S-1009645085	9.6	10	45	85	SPO
FBD2S-1009745085	9.7	10	45	85	SPO
FBD2S-1009845085	9.8	10	45	85	SPO
FBD2S-1009945085	9.9	10	45	85	SPO
FBD2S-1010045085	10.0	10	45	85	38.00
FBD2S-1210250095	10.2	12	50	95	55.60
FBD2S-1210550095	10.5	12	50	95	55.60
FBD2S-1210850095	10.8	12	50	95	55.60
FBD2S-1211050095	11.0	12	50	95	55.60
FBD2S-1211554095	11.5	12	54	65	55.60
FBD2S-1211854095	11.8	12	54	95	55.60
FBD2S-1212054095	12.0	12	54	95	55.60
FBD2S-1412557100	12.5	14	57	100	84.60
FBD2S-1413059100	13.0	14	59	100	84.60
FBD2S-1413561105	13.5	14	61	105	84.60
FBD2S-1414063105	14.0	14	63	105	84.60
FBD2S-1614565110	14.5	16	65	110	107.00
FBD2S-1615068110	15.0	16	68	110	107.00
FBD2S-1615570120	15.5	16	70	120	109.00
FBD2S-1616072120	16.0	16	72	120	109.00
FBD2S-1616575125	16.5	16	75	125	129.00
FBD2S-1617077125	17.0	16	77	125	129.00
FBD2S-1617579130	17.5	16	79	130	129.00
FBD2S-1618081130	18.0	16	81	130	129.00
FBD2S-1618584135	18.5	16	84	135	144.00
FBD2S-1619086135	19.0	16	86	135	144.00
FBD2S-1619588145	19.5	16	88	145	144.00
FBD2S-2020090145	20.0	20	90	145	144.00

precision machine reamers

precision machine reamers	dia	shank dia	flute length	flutes	length	price £
PMR-03020-049	2.0	3	11	4	49	6.60
PMR-03025-057	2.5	3	14	4	57	6.60
PMR-03030-061	3.0	4	15	4	61	6.60
PMR-04035-070	3.5	4	18	4	70	8.70
PMR-04040-075	4.0	4	19	4	75	9.90
PMR-06045-080	4.5	6	21	4	80	17.20
PMR-06050-086	5.0	6	23	4	86	18.80
PMR-06055-093	5.5	6	26	4	93	21.60
PMR-06060-093	6.0	6	26	4	93	21.60
PMR-08065-101	6.5	8	28	4	101	24.40
PMR-08070-109	7.0	8	31	4	109	28.00
PMR-08080-117	8.0	8	33	4	117	32.20
PMR-10090-125	9.0	10	36	4	125	40.80
PMR-10100-133	10.0	10	38	4	133	43.00

High Performance Carbide Drills Solid & Coolant Hole TiSiN Coated

3xd solid carbide 55HRC

carbide drills AlCrTiN coated	length dia	flute	shank	L	price £
EDSD3D-04010	1.0	4	4	50	4.80
EDSD3D-04011	1.1	4	4	50	4.80
EDSD3D-04012	1.2	4	4	50	4.80
EDSD3D-04013	1.3	5	4	50	4.80
EDSD3D-04014	1.4	5	4	50	4.80
EDSD3D-04015	1.5	6	4	50	4.80
EDSD3D-04016	1.6	6	4	50	4.80
EDSD3D-04017	1.7	7	4	50	4.80
EDSD3D-04018	1.8	7	4	50	4.80
EDSD3D-04019	1.9	8	4	50	4.80
EDSD3D-04020	2.0	8	4	50	4.80
EDSD3D-04021	2.1	9	4	50	4.80
EDSD3D-04022	2.2	9	4	50	4.80
EDSD3D-04023	2.3	9	4	50	4.80
EDSD3D-04024	2.4	10	4	50	4.80
EDSD3D-04025	2.5	10	4	50	4.80
EDSD3D-04026	2.6	11	4	50	4.80
EDSD3D-04027	2.7	11	4	50	4.80
EDSD3D-04028	2.8	11	4	50	4.80
EDSD3D-04029	2.9	20	4	50	4.80
EDSD3D-04030	3.0	20	4	62	5.80
EDSD3D-04031	3.1	20	4	62	5.80
EDSD3D-04032	3.2	20	4	62	5.80
EDSD3D-04033	3.3	20	4	62	5.80
EDSD3D-04034	3.4	20	4	62	5.80
EDSD3D-04035	3.5	20	4	62	5.80
EDSD3D-04036	3.6	20	4	62	5.80
EDSD3D-04037	3.7	20	4	62	5.80
EDSD3D-04038	3.8	24	4	62	5.80
EDSD3D-04039	3.9	24	4	62	5.80
EDSD3D-04040	4.0	24	4	62	5.80
EDSD3D-06041	4.1	24	6	62	10.00
EDSD3D-06042	4.2	24	6	62	10.00
EDSD3D-06043	4.3	24	6	66	10.00
EDSD3D-06044	4.4	24	6	66	10.00
EDSD3D-06045	4.5	24	6	66	10.00
EDSD3D-06046	4.6	24	6	66	10.00
EDSD3D-06047	4.7	24	6	66	10.00
EDSD3D-06048	4.8	28	6	66	10.00
EDSD3D-06049	4.9	28	6	66	10.00
EDSD3D-06050	5.0	28	6	66	10.00
EDSD3D-06051	5.1	28	6	66	10.00
EDSD3D-06052	5.2	28	6	66	10.00
EDSD3D-06053	5.3	28	6	66	10.00
EDSD3D-06054	5.4	28	6	66	10.00
EDSD3D-06055	5.5	28	6	66	10.00
EDSD3D-06056	5.6	28	6	66	10.00
EDSD3D-06057	5.7	28	6	66	10.00
EDSD3D-06058	5.8	28	6	66	10.00
EDSD3D-06059	5.9	28	6	66	10.00
EDSD3D-06060	6.0	28	6	66	10.00
EDSD3D-08061	6.1	34	8	79	16.00
EDSD3D-08063	6.3	34	8	79	16.00
EDSD3D-08064	6.4	34	8	79	16.00
EDSD3D-08065	6.5	34	8	79	16.00
EDSD3D-08067	6.7	34	8	79	16.00
EDSD3D-08068	6.8	34	8	79	16.00
EDSD3D-08070	7.0	34	8	79	16.00
EDSD3D-08071	7.1	41	8	79	16.00
EDSD3D-08079	7.9	41	8	79	16.00
EDSD3D-08080	8.0	41	8	79	16.00
EDSD3D-10085	8.5	47	10	89	23.00
EDSD3D-10086	8.6	47	10	89	23.00
EDSD3D-10087	8.7	47	10	89	23.00
EDSD3D-10088	8.8	47	10	89	23.00
EDSD3D-10089	8.9	47	10	89	23.00
EDSD3D-10090	9.0	47	10	89	23.00
EDSD3D-10091	9.1	47	10	89	23.00
EDSD3D-10095	9.5	47	10	89	23.00
EDSD3D-10100	10.0	47	10	89	23.00
EDSD3D-12102	10.2	55	12	102	32.00
EDSD3D-12105	10.5	55	12	102	32.00
EDSD3D-12108	10.8	55	12	102	32.00
EDSD3D-12110	11.0	55	12	102	32.00
EDSD3D-12115	11.5	55	12	102	32.00
EDSD3D-12118	11.8	55	12	102	32.00
EDSD3D-12120	12.0	55	12	102	32.00
EDSD3D-14125	12.5	60	14	107	46.00
EDSD3D-14130	13.0	60	14	107	46.00
EDSD3D-14135	13.5	60	14	107	46.00
EDSD3D-14140	14.0	60	14	107	46.00
EDSD3D-16145	14.5	65	16	115	60.00
EDSD3D-16150	15.0	65	16	115	60.00
EDSD3D-16155	15.5	65	16	115	60.00
EDSD3D-16160	16.0	65	16	115	60.00

5xd solid carbide 55HRC

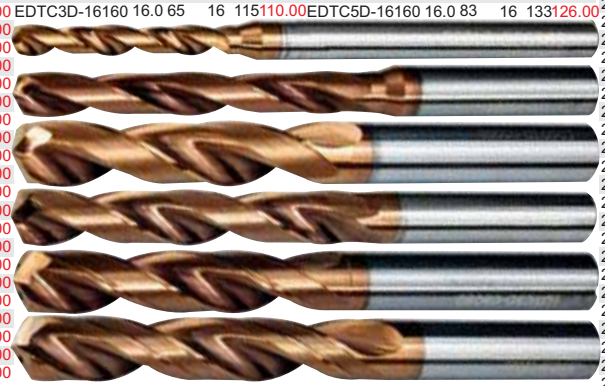
carbide drills AlCrTiN coated	length dia	flute	shank	L	price £
EDSD5D-04010	1.0	6	4	50	5.60
EDSD5D-04011	1.1	6	4	50	5.60
EDSD5D-04012	1.2	7	4	50	5.60
EDSD5D-04013	1.3	8	4	50	5.60
EDSD5D-04014	1.4	9	4	50	5.60
EDSD5D-04015	1.5	9	4	50	5.60
EDSD5D-04016	1.6	10	4	50	5.60
EDSD5D-04017	1.7	10	4	50	5.60
EDSD5D-04018	1.8	11	4	50	5.60
EDSD5D-04019	1.9	12	4	50	5.60
EDSD5D-04020	2.0	12	4	50	5.60
EDSD5D-04021	2.1	13	4	50	5.60
EDSD5D-04022	2.2	13	4	50	5.60
EDSD5D-04023	2.3	14	4	50	5.60
EDSD5D-04024	2.4	14	4	50	5.60
EDSD5D-04025	2.5	15	4	50	5.60
EDSD5D-04026	2.6	16	4	50	5.60
EDSD5D-04027	2.7	16	4	50	5.60
EDSD5D-04028	2.8	17	4	50	5.60
EDSD5D-04029	2.9	17	4	50	5.60
EDSD5D-04030	3.0	28	4	66	6.40
EDSD5D-04031	3.1	28	4	66	6.40
EDSD5D-04032	3.2	28	4	66	6.40
EDSD5D-04033	3.3	28	4	66	6.40
EDSD5D-04034	3.4	28	4	66	6.40
EDSD5D-04035	3.5	28	4	66	6.40
EDSD5D-04036	3.6	28	4	66	6.40
EDSD5D-04037	3.7	28	4	66	6.40
EDSD5D-04038	3.8	36	4	66	6.40
EDSD5D-04039	3.9	36	4	66	6.40
EDSD5D-04040	4.0	36	4	66	6.40
EDSD5D-06041	4.1	36	6	74	12.00
EDSD5D-06042	4.2	36	6	74	12.00
EDSD5D-06043	4.3	36	6	74	12.00
EDSD5D-06044	4.4	36	6	74	12.00
EDSD5D-06045	4.5	36	6	74	12.00
EDSD5D-06046	4.6	36	6	74	12.00
EDSD5D-06047	4.7	36	6	74	12.00
EDSD5D-06048	4.8	44	6	82	12.00
EDSD5D-06049	4.9	44	6	82	12.00
EDSD5D-06050	5.0	44	6	82	12.00
EDSD5D-06051	5.1	44	6	82	13.60
EDSD5D-06052	5.2	44	6	82	13.60
EDSD5D-06053	5.3	44	6	82	13.60
EDSD5D-06054	5.4	44	6	82	13.60
EDSD5D-06055	5.5	44	6	82	13.60
EDSD5D-06056	5.6	44	6	82	13.60
EDSD5D-06057	5.7	44	6	82	13.60
EDSD5D-06058	5.8	44	6	82	13.60
EDSD5D-06059	5.9	44	6	82	13.60
EDSD5D-06060	6.0	44	6	82	13.60
EDSD5D-08061	6.1	53	8	91	18.00
EDSD5D-08063	6.3	53	8	91	18.00
EDSD5D-08064	6.4	53	8	91	18.00
EDSD5D-08065	6.5	53	8	91	18.00
EDSD5D-08067	6.7	53	8	91	18.00
EDSD5D-08068	6.8	53	8	91	18.00
EDSD5D-08070	7.0	53	8	91	18.00
EDSD5D-08071	7.1	53	8	91	18.00
EDSD5D-08079	7.9	53	8	91	18.00
EDSD5D-08080	8.0	53	8	91	18.00
EDSD5D-10085	8.5	61	10	103	28.00
EDSD5D-10086	8.6	61	10	103	28.00
EDSD5D-10087	8.7	61	10	103	28.00
EDSD5D-10088	8.8	61	10	103	28.00
EDSD5D-10089	8.9	61	10	103	28.00
EDSD5D-10090	9.0	61	10	103	28.00
EDSD5D-10091	9.1	61	10	103	28.00
EDSD5D-10095	9.5	61	10	103	28.00
EDSD5D-10100	10.0	61	10	103	28.00
EDSD5D-12102	10.2	71	12	118	38.00
EDSD5D-12105	10.5	71	12	118	38.00
EDSD5D-12108	10.8	71	12	118	38.00
EDSD5D-12110	11.0	71	12	118	38.00
EDSD5D-12115	11.5	71	12	118	38.00
EDSD5D-12118	11.8	71	12	118	38.00
EDSD5D-12120	12.0	71	12	118	38.00
EDSD5D-14125	12.5	77	14	124	54.00
EDSD5D-14130	13.0	77	14	124	54.00
EDSD5D-14135	13.5	77	14	124	54.00
EDSD5D-14140	14.0	77	14	124	54.00
EDSD5D-16145	14.5	77	16	133	69.00
EDSD5D-16150	15.0	83	16	133	69.00
EDSD5D-16155	15.5	83	16	133	69.00
EDSD5D-16160	16.0	83	16	133	69.00

3xd thru' coolant 55HRC

carbide drills AlCrTiN coated	length dia	flute	shank	L	price £
EDTC3D-06030	3.0	20	6	62	17.00
EDTC3D-06031	3.1	20	6	62	17.00
EDTC3D-06032	3.2	20	6	62	17.00
EDTC3D-06033	3.3	20	6	62	17.00
EDTC3D-06034	3.4	20	6	62	17.00
EDTC3D-06035	3.5	20	6	62	17.00
EDTC3D-06036	3.6	20	6	62	17.00
EDTC3D-06037	3.7	20	6	62	17.00
EDTC3D-06038	3.8	24	6	62	17.00
EDTC3D-06039	3.9	24	6	62	17.00
EDTC3D-06040	4.0	24	6	62	17.00
EDTC3D-06041	4.1	24	6	62	18.00
EDTC3D-06042	4.2	24	6	62	18.00
EDTC3D-06043	4.3	24	6	66	18.00
EDTC3D-06044	4.4	24	6	66	18.00
EDTC3D-06045	4.5	24	6	66	18.00
EDTC3D-06046	4.6	24	6	66	18.00
EDTC3D-06047	4.7	24	6	66	18.00
EDTC3D-06048	4.8	28	6	66	18.00
EDTC3D-06049	4.9	28	6	66	18.00
EDTC3D-06050	5.0	28	6	66	18.00
EDTC3D-06051	5.1	28	6	66	18.00
EDTC3D-06052	5.2	28	6	66	18.00
EDTC3D-06053	5.3	28	6	66	18.00
EDTC3D-06054	5.4	28	6	66	18.00
EDTC3D-06055	5.5	28	6	66	18.00
EDTC3D-06056	5.6	28	6	66	18.00
EDTC3D-06057	5.7	28	6	66	18.00
EDTC3D-06058	5.8	28	6	66	18.00
EDTC3D-06059	5.9	28	6	66	18.00
EDTC3D-06060	6.0	28	6	66	18.00
EDTC3D-08061	6.1	34	8	79	28.00
EDTC3D-08063	6.3	34	8	79	28.00
EDTC3D-08064	6.4	34	8	79	28.00
EDTC3D-08065	6.5	34	8	79	28.00
EDTC3D-08067	6.7	34	8	79	28.00
EDTC3D-08068	6.8	34	8	79	28.00
EDTC3D-08070	7.0	34	8	79	28.00
EDTC3D-08071	7.1	41	8	79	28.00
EDTC3D-08079	7.9	41	8	79	28.00
EDTC3D-08080	8.0	41	8	79	28.00
EDTC3D-10085	8.5	47	10	89	42.00
EDTC3D-10086	8.6	47	10	89	42.00
EDTC3D-10087	8.7	47	10	89	42.00
EDTC3D-10088	8.8	47	10	89	42.00
EDTC3D-10089	8.9	47	10	89	42.00
EDTC3D-10090	9.0	47	10	89	42.00
EDTC3D-10091	9.1	47	10	89	42.00
EDTC3D-10095	9.5	47	10	89	42.00
EDTC3D-10100	10.0	47	10	89	42.00
EDTC3D-12102	10.2	55	12	102	62.00
EDTC3D-12105	10.5	55	12	102	62.00
EDTC3D-12108	10.8	55	12	102	62.00
EDTC3D-12110	11.0	55	12	102	62.00
EDTC3D-12115	11.5	55	12	102	62.00
EDTC3D-12118	11.8	55	12	102	62.00
EDTC3D-12120	12.0	55	12	102	62.00
EDTC3D-14125	12.5	60	14	107	82.00
EDTC3D-14130	13.0	60	14	107	82.00
EDTC3D-14135	13.5	60	14	107	82.00
EDTC3D-14140	14.0	60	14	107	82.00
EDTC3D-16145	14.5	65	16	115	110.00
EDTC3D-16150	15.0	65	16	115	110.00
EDTC3D-16155	15.5	65	16	115	110.00
EDTC3D-16160	16.0	65	16	115	110.00

5xd thru' coolant 55HRC

carbide drills AlCrTiN coated	length dia	flute	shank	L	price £
EDTC5D-06030	3.0	28	6	66	18.00
EDTC5D-06031	3.1	28	6	66	18.00
EDTC5D-06032	3.2	28	6	66	18.00
EDTC5D-06033	3.3	28	6	66	18.00
EDTC5D-06034	3.4	28	6	66	18.00
EDTC5D-06035	3.5	28	6	66	18.00
EDTC5D-06036	3.6	28	6	66	18.00
EDTC5D-06037	3.7	28	6	66	18.00
EDTC5D-06038	3.8	36	6	66	18.00
EDTC5D-06039	3.9	36	6	66	18.00
EDTC5D-06040	4.0	36	6	66	18.00
EDTC5D-06041	4.1	36	6	74	21.00
EDTC5D-06042	4.2	36	6	74	21.00
EDTC5D-06043	4.3	36	6	74	21.00
EDTC5D-06044	4.4	36	6	74	21.00
EDTC5D-06045	4.5	36	6	74	21.00
EDTC5D-06046	4.6	36	6	74	21.00
EDTC5D-06047	4.7	36	6	74	21.00
EDTC5D-06048	4.8	44	6	82	22.00
EDTC5D-06049	4.9	44	6	82	22.00
EDTC5D-06050	5.0	44	6	82	22.00
EDTC5D-06051	5.1	44	6	82	22.00
EDTC5D-06052	5.2	44	6	82	22.00
EDTC5D-06053	5.3	44	6	82	22.00
EDTC5D-06054	5.4	44	6	82	22.00
EDTC5D-06055	5.5	44	6	82	22.00
EDTC5D-06056	5.6	44	6	82	22.00
EDTC5D-06057	5.7	44	6	82	22.00
EDTC5D-06058	5.8	44	6	82	22.00
EDTC5D-06059	5.9	44	6	82	22.00
EDTC5D-06060	6.0	44	6	82	22.00
EDTC5D-08061	6.1	53	8	91	34.00
EDTC5D-08063	6.3	53	8	91	34.00
EDTC5D-08064	6.4	53	8	91	34.00
EDTC5D-08065	6.5	53	8	91	34.00
EDTC5D-08067	6.7	53	8	91	34.00
EDTC5D-08068	6.8	53	8	91	34.00
EDTC5D-08070	7.0	53	8	91	34.00
EDTC5D-08071	7.1	53	8	91	34.00
EDTC5D-08079	7.9	53	8	91	34.00
EDTC5D-08080	8.0	53	8	91	34.00
EDTC5D-10085	8.5	61	10	103	50.00
EDTC5D-10086	8.6	61	10	103	50.00
EDTC5D-10087	8.7	61	10	103	50.00
EDTC5D-10088	8.8	61	10	103	50.00
EDTC5D-10089	8.9	61	10	103	50.00
EDTC5D-10090	9.0	61	10	103	50.00
EDTC5D-10091	9.1	61	10	103	50.00
EDTC5D-10095	9.5	61	10	103	50.00
EDTC5D-10100	10.0	61	10	103	50.00
EDTC5D-12102	10.2	71	12	118	72.00
EDTC5D-12105	10.5	71	12	118	72.00
EDTC5D-12108	10.8	71	12	118	72.00
EDTC5D-12110	11.0	71	12	118	72.00
EDTC5D-12115	11.5	71	12	118	72.00
EDTC5D-12118	11.8	71	12	118	72.00
EDTC5D-12120	12.0	71	12	118	72.00
EDTC5D-14125	12.5	77	14	124	98.00
EDTC5D-14130	13.0	77	14	124	98.00
EDTC5D-14135	13.5	77	14	124	98.00
EDTC5D-14140	14.0	77	14	124	98.00
EDTC5D-16145	14.5	77	16	133	126.00
EDTC5D-16150	15.0	83	16	133	126.00
EDTC5D-16155	15.5	83	16	133	126.00
EDTC5D-16160	16.0	83	16	133	126.00



Micro diameter carbide drills AlTiN coated for materials <55HRC

micro diameter carbide drills	dia	shank dia	flute length	L	price £
2MDD-030040-38	0.40	1/8"	3.5	38	5.00
2MDD-030045-38	0.45	1/8"	3.5	38	5.00
2MDD-030050-38	0.50	1/8"	3.5	38	5.00
2MDD-030060-38	0.60	1/8"	4.0	38	4.00
2MDD-030070-38	0.70	1/8"	5.0	38	4.00
2MDD-030080-38	0.80	1/8"	6.0	38	4.00
2MDD-030090-38	0.90	1/8"	6.0	38	4.00
2MDD-030100-38	1.00	1/8"	7.0	38	4.00
2MDD-030110-38	1.10	1/8"	8.0	38	4.00
2MDD-030120-38	1.20	1/8"	8.0	38	4.00
2MDD-030130-38	1.30	1/8"	9.0	38	4.00
2MDD-030140-38	1.40	1/8"	10.0	38	4.00
2MDD-030150-38	1.50	1/8"	11.0	38	4.00
2MDD-030160-38	1.60	1/8"	11.0	38	4.00
2MDD-030170-38	1.70	1/8"	12.0	38	4.00
2MDD-030180-38	1.80	1/8"	12.0	38	4.00
2MDD-030190-38	1.90	1/8"	12.0	38	4.00
2MDD-030200-45	2.00	1/8"	12.0	45	4.00
2MDD-030210-45	2.10	1/8"	12.0	45	4.00
2MDD-030220-45	2.20	1/8"	12.0	45	5.00
2MDD-030230-45	2.30	1/8"	12.0	45	5.00
2MDD-030240-45	2.40	1/8"	12.0	45	5.00
2MDD-030250-45	2.50	1/8"	12.0	45	5.00
2MDD-030260-45	2.60	1/8"	12.0	45	5.00
2MDD-030270-45	2.70	1/8"	12.0	45	5.00
2MDD-030280-45	2.80	1/8"	12.0	45	5.00
2MDD-030290-45	2.90	1/8"	12.0	45	5.00

High performance carbide drills AlTiN coated for materials <55HRC

carbide drills AlTiN coated	shank dia	dia	flute	L	price £
2SFHSD-03030-050	3.0	3	16	50	5.86
2SFHSD-04031-055	3.1	4	18	55	7.33
2SFHSD-04032-055	3.2	4	18	55	7.33
2SFHSD-04033-055	3.3	4	18	55	7.33
2SFHSD-04034-055	3.4	4	20	55	7.33
2SFHSD-04035-055	3.5	4	20	55	7.33
2SFHSD-04036-055	3.6	4	20	55	7.33
2SFHSD-04037-055	3.7	4	20	55	7.33
2SFHSD-04038-055	3.8	4	22	55	7.33
2SFHSD-04039-055	3.9	4	22	55	7.33
2SFHSD-04040-055	4.0	4	22	55	7.33
2SFHSD-06041-075	4.1	6	22	75	13.68
2SFHSD-06042-075	4.2	6	22	75	13.68
2SFHSD-06043-075	4.3	6	24	75	13.68
2SFHSD-06044-075	4.4	6	24	75	13.68
2SFHSD-06045-075	4.5	6	24	75	13.68
2SFHSD-06046-075	4.6	6	24	75	13.68
2SFHSD-06047-075	4.7	6	24	75	13.68
2SFHSD-06048-075	4.8	6	26	75	13.68
2SFHSD-06049-075	4.9	6	26	75	13.68
2SFHSD-06050-075	5.0	6	26	75	13.68
2SFHSD-06051-075	5.1	6	26	75	13.68
2SFHSD-06052-075	5.2	6	26	75	13.68
2SFHSD-06053-075	5.3	6	26	75	13.68
2SFHSD-06054-075	5.4	6	28	75	13.68
2SFHSD-06055-075	5.5	6	28	75	13.68
2SFHSD-06056-075	5.6	6	28	75	13.68
2SFHSD-06057-075	5.7	6	28	75	13.68
2SFHSD-06058-075	5.8	6	28	75	13.68
2SFHSD-06059-075	5.9	6	28	75	13.68
2SFHSD-06060-075	6.0	6	28	75	13.68
2SFHSD-08061-080	6.1	8	31	80	24.42
2SFHSD-08062-080	6.2	8	31	80	24.42
2SFHSD-08063-080	6.3	8	31	80	24.42
2SFHSD-08064-080	6.4	8	31	80	24.42
2SFHSD-08065-080	6.5	8	31	80	24.42
2SFHSD-08066-080	6.6	8	31	80	24.42
2SFHSD-08067-080	6.7	8	31	80	24.42
2SFHSD-08068-080	6.8	8	34	80	24.42
2SFHSD-08069-080	6.9	8	34	80	24.42
2SFHSD-08070-080	7.0	8	34	80	24.42
2SFHSD-08071-080	7.1	8	34	80	24.42
2SFHSD-08072-080	7.2	8	34	80	24.42
2SFHSD-08073-080	7.3	8	34	80	24.42
2SFHSD-08074-080	7.4	8	34	80	24.42
2SFHSD-08075-080	7.5	8	34	80	24.42
2SFHSD-08076-080	7.6	8	37	80	24.42
2SFHSD-08077-080	7.7	8	37	80	24.42
2SFHSD-08078-080	7.8	8	37	80	24.42
2SFHSD-08079-080	7.9	8	37	80	24.42
2SFHSD-08080-080	8.0	8	37	80	24.42
2SFHSD-10081-090	8.1	10	37	90	32.25
2SFHSD-10082-090	8.2	10	37	90	32.25
2SFHSD-10083-090	8.3	10	37	90	32.25
2SFHSD-10084-090	8.4	10	37	90	32.25
2SFHSD-10085-090	8.5	10	37	90	32.25
2SFHSD-10086-090	8.6	10	40	90	32.25
2SFHSD-10087-090	8.7	10	40	90	32.25
2SFHSD-10088-090	8.8	10	40	90	32.25
2SFHSD-10089-090	8.9	10	40	90	32.25
2SFHSD-10090-090	9.0	10	40	90	32.25
2SFHSD-10091-090	9.1	10	40	90	32.25
2SFHSD-10092-090	9.2	10	40	90	32.25
2SFHSD-10093-090	9.3	10	40	90	32.25
2SFHSD-10094-090	9.4	10	40	90	32.25
2SFHSD-10095-090	9.5	10	40	90	32.25
2SFHSD-10096-090	9.6	10	43	90	32.25
2SFHSD-10097-090	9.7	10	43	90	32.25
2SFHSD-10098-090	9.8	10	43	90	32.25
2SFHSD-10099-090	9.9	10	43	90	32.25
2SFHSD-10100-090	10.0	10	43	90	32.25
2SFHSD-12102-100	10.2	12	43	100	41.05
2SFHSD-12105-100	10.5	12	43	100	41.05
2SFHSD-12110-100	11.0	12	47	100	41.05
2SFHSD-12120-100	12.0	12	51	100	41.05
2SFHSD-14130-100	13.0	14	51	100	64.00
2SFHSD-14140-100	14.0	14	51	100	64.00

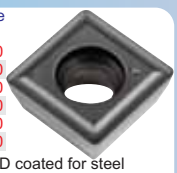
60° carbide centre drills AlTiN coated

60° centre drill	point dia	shank dia	length	price £
60CD-03005050	0.50

APT 2xD, 3xD, 4xD & 5xD u-drills for SPMG inserts

2xD u-drills	3xD u-drills	4xD u-drills	5xD u-drills	dia.	shank dia.	insert	2xD price £	3xD price £	4xD price £	5xD price £
-	C20-3D13-42SP05	C20-4D13-55SP05	-	13	20	SPMG 050204	-	20.00	24.00	-
-	C20-3D13.5-44SP05	C20-4D13.5-57SP05	-	13.5	20	SPMG 050204	-	20.00	24.00	-
-	C20-3D14-45SP05	C20-4D14-59SP05	-	14	20	SPMG 050204	-	20.00	24.00	-
-	C20-3D14.5-47SP05	C20-4D14.5-61SP05	-	14.5	20	SPMG 050204	-	20.00	24.00	-
C20-2D15-33SP05	C20-3D15-48SP05	C20-4D15-63SP05	-	15	20	SPMG 050204	15.00	20.00	24.00	-
C20-2D15.5-34SP05	C20-3D15.5-50SP05	C20-4D15.5-65SP05	-	15.5	20	SPMG 050204	15.50	20.00	24.00	-
C20-2D16-35SP06	C20-3D16-51SP06	C20-4D16-67SP06	C20-5D16-83SP06	16	20	SPMG 060204	16.00	20.00	24.00	62.00
C20-2D16.5-36SP06	C20-3D16.5-53SP06	C20-4D16.5-69SP06	-	16.5	20	SPMG 060204	16.50	20.00	24.00	-
C20-2D17-37SP06	C20-3D17-54SP06	C20-4D17-71SP06	C20-5D17-88SP06	17	20	SPMG 060204	17.00	20.00	24.00	62.00
C25-2D17.5-38SP06	C25-3D17.5-56SP06	C25-4D17.5-73SP06	-	17.5	25	SPMG 060204	17.50	20.00	24.00	-
C25-2D18-39SP06	C25-3D18-57SP06	C25-4D18-75SP06	C25-5D18-93SP06	18	25	SPMG 060204	18.00	20.00	24.00	63.00
C25-2D18.5-40SP06	C25-3D18.5-59SP06	C25-4D18.5-77SP06	-	18.5	25	SPMG 060204	18.50	20.00	24.00	-
C25-2D19-41SP06	C25-3D19-60SP06	C25-4D19-79SP06	C25-5D19-98SP06	19	25	SPMG 060204	19.00	20.00	24.00	63.00
C25-2D19.5-42SP06	C25-3D19.5-62SP06	C25-4D19.5-81SP06	-	19.5	25	SPMG 060204	19.50	20.00	24.00	-
C25-2D20-43SP06	C25-3D20-63SP06	C25-4D20-83SP06	C25-5D20-103SP06	20	25	SPMG 060204	20.00	20.00	24.00	66.00
C25-2D20.5-44SP06	C25-3D20.5-65SP06	C25-4D20.5-85SP06	-	20.5	25	SPMG 060204	20.50	24.00	30.00	-
C25-2D21-45SP06	C25-3D21-66SP06	C25-4D21-87SP06	C25-5D21-108SP06	21	25	SPMG 060204	21.00	24.00	30.00	70.00
C25-2D21.5-46SP06	C25-3D21.5-68SP06	C25-4D21.5-89SP06	-	21.5	25	SPMG 060204	21.50	24.00	30.00	-
C25-2D22-47SP07	C25-3D22-69SP07	C25-4D22-91SP07	C25-5D22-113SP07	22	25	SPMG 07T308	22.00	24.00	30.00	70.00
C25-2D22.5-48SP07	C25-3D22.5-71SP07	C25-4D22.5-93SP07	-	22.5	25	SPMG 07T308	22.50	24.00	30.00	-
C25-2D23-49SP07	C25-3D23-72SP07	C25-4D23-95SP07	C25-5D23-118SP07	23	25	SPMG 07T308	23.00	24.00	30.00	70.00
C25-2D23.5-50SP07	C25-3D23.5-74SP07	C25-4D23.5-97SP07	-	23.5	25	SPMG 07T308	23.50	24.00	30.00	-
C25-2D24-51SP07	C25-3D24-75SP07	C25-4D24-99SP07	C25-5D24-123SP07	24	25	SPMG 07T308	24.00	24.00	30.00	71.00
C25-2D24.5-52SP07	C25-3D24.5-77SP07	C25-4D24.5-101SP07	-	24.5	25	SPMG 07T308	24.50	24.00	30.00	-
C25-2D25-53SP07	C25-3D25-78SP07	C25-4D25-103SP07	C25-5D25-128SP07	25	25	SPMG 07T308	25.00	24.00	34.00	78.00
C32-2D25.5-54SP07	C32-3D25.5-80SP07	C32-4D25.5-105SP07	-	25.5	32	SPMG 07T308	25.50	28.00	34.00	-
C32-2D26-55SP07	C32-3D26-81SP07	C32-4D26-107SP07	C32-5D26-133SP07	26	32	SPMG 07T308	26.00	28.00	34.00	79.00
C32-2D26.5-56SP07	C32-3D26.5-83SP07	C32-4D26.5-109SP07	-	26.5	32	SPMG 07T308	26.50	32.00	34.00	-
C32-2D27-57SP07	C32-3D27-84SP07	C32-4D27-111SP07	C32-5D27-138SP07	27	32	SPMG 07T308	27.00	32.00	34.00	79.00
C32-2D27.5-58SP07	C32-3D27.5-86SP07	C32-4D27.5-113SP07	-	27.5	32	SPMG 07T308	27.50	32.00	34.00	-
C32-2D28-59SP09	C32-3D28-87SP09	C32-4D28-115SP09	C32-5D28-143SP09	28	32	SPMG 090408	28.00	32.00	34.00	79.00
C32-2D28.5-60SP09	C32-3D28.5-89SP09	C32-4D28.5-117SP09	-	28.5	32	SPMG 090408	28.50	32.00	34.00	-
C32-2D29-62SP09	C32-3D29-91SP09	C32-4D29-120SP09	C32-5D29-149SP09	29	32	SPMG 090408	29.00	32.00	34.00	79.00
C32-2D29.5-63SP09	C32-3D29.5-93SP09	C32-4D29.5-122SP09	-	29.5	32	SPMG 090408	29.50	32.00	34.00	-
C32-2D30-64SP09	C32-3D30-94SP09	C32-4D30-124SP09	C32-5D30-154SP09	30	32	SPMG 090408	30.00	32.00	34.00	81.00
C32-2D30.5-65SP09	C32-3D30.5-96SP09	C32-4D30.5-126SP09	-	30.5	32	SPMG 090408	30.50	40.00	42.00	-
C32-2D31-66SP09	C32-3D31-97SP09	C32-4D31-128SP09	C32-5D31-159SP09	31	32	SPMG 090408	31.00	40.00	42.00	84.00
C32-2D31.5-67SP09	C32-3D31.5-99SP09	C32-4D31.5-130SP09	-	31.5	32	SPMG 090408	31.50	40.00	42.00	-
C32-2D32-68SP09	C32-3D32-100SP09	C32-4D32-132P09	C32-5D32-164SP09	32	32	SPMG 090408	32.00	40.00	42.00	84.00
C32-2D32.5-69SP09	C32-3D32.5-102SP09	C32-4D32.5-134SP09	-	32.5	32	SPMG 090408	32.50	40.00	42.00	-
C32-2D33-70SP09	C32-3D33-103SP09	C32-4D33-136SP09	C32-5D33-169SP09	33	32	SPMG 090408	33.00	40.00	42.00	84.00
C32-2D33.5-71SP09	C32-3D33.5-105SP09	C32-4D33.5-138SP09	-	33.5	32	SPMG 090408	33.50	40.00	42.00	-
C32-2D34-72SP11	C32-3D34-106SP11	C32-4D34-140SP11	C32-5D34-174SP11	34	32	SPMG 110408	34.00	34.00	42.00	87.00
C32-2D34.5-73SP11	C32-3D34.5-108SP11	C32-4D34.5-142SP11	-	34.5	32	SPMG 110408	34.50	40.00	42.00	-
C32-2D35-74SP11	C32-3D35-109SP11	C32-4D35-144SP11	C32-5D35-179SP11	35	32	SPMG 110408	35.00	35.00	42.00	87.00
C32-2D36-76SP11	C32-3D36-112SP11	C32-4D36-148SP11	C32-5D36-184SP11	36	32	SPMG 110408	36.00	36.00	44.00	98.00
-	C32-3D37-116SP11	C32-4D37-153SP11	C32-5D37-190SP11	37	32	SPMG 110408	-	40.00	44.00	98.00
-	C32-3D38-119SP11	C32-4D38-157SP11	C32-5D38-195SP11	38	32	SPMG 110408	-	40.00	44.00	98.00
-	C32-3D39-122SP11	C32-4D39-161SP11	C32-5D39-200SP11	39	32	SPMG 110408	-	54.00	44.00	98.00
C40-2D40-85SP11	C40-3D40-125SP11	C40-4D40-165SP11	C40-5D40-205SP11	40	40	SPMG 110408	52.00	54.00	44.00	110.00
-	C40-3D41-128SP11	C40-4D41-169SP11	-	41	40	SPMG 110408	-	68.00	46.00	-
-	C40-3D42-131SP14	C40-4D42-173SP14	-	42	40	SPMG 140512	-	68.00	80.00	-
-	C40-3D43-134SP14	C40-4D43-177SP14	-	43	40	SPMG 140512	-	68.00	82.00	-
-	C40-3D44-137SP14	C40-4D44-181SP14	-	44	40	SPMG 140512	-	68.00	86.00	-
C40-2D45-95SP14	C40-3D45-140SP14	C40-4D45-185SP14	C40-5D45-230SP14	45	40	SPMG 140512	65.00	70.00	86.00	132.00
-	C40-3D46-143SP14	-	-	46	40	SPMG 140512	-	70.00	-	-
C40-2D47-99SP14	C40-3D47-146SP14	-	-	47	40	SPMG 140512	68.00	72.00	-	-
-	C40-3D48-149SP14	-	-	48	40	SPMG 140512	-	74.00	-	-
-	C40-3D49-152SP14	C40-4D49-201SP14	-	49	40	SPMG 140512	-	74.00	86.00	-
C40-2D50-105SP14	C40-3D50-155SP14	C40-4D50-205SP14	-	50	40	SPMG 140512	68.00	75.00	86.00	-

inserts	price £
SPMG 050204 UD UM25	1.90
SPMG 060204 UD UM25	1.90
SPMG 07T308 UD UM25	2.20
SPMG 090408 UD UM25	2.40
SPMG 110408 UD UM25	2.80
SPMG 140512 UD UM25	4.00



Grade UM25 = P35, M25 PVD coated for steel stainless & general use

inserts	price £
SPGT 050204 AL AK101	2.20
SPGT 060204 AL AK101	2.20
SPGT 07T308 AL AK101	2.60
SPGT 090408 AL AK101	2.80
SPGT 110408 AL AK101	3.20
SPGT 140512 AL AK101	3.40

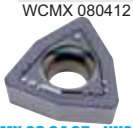
Grade AK101 = K10 ground and polished for aluminium

coolant connector	shank	air pipe	external thread	price £
PC10-M10	C20	10	M10x1.5	1.80
PC10-M12	C25	10	M12x1.75	1.80
PC12-M16	C32	12	M16x2	2.16
PC12-M20	C40	12	M20x2.5	2.16

APT 2xD, 3xD, 4xD & 5xD u-drills for WCMX inserts

2xD u-drills	3xD u-drills	4xD u-drills	5xD u-drills	dia.	shank dia.	insert	2xD price £	3xD price £	4xD price £	5xD price £
C20-2D15-33WC03	C20-3D15-48WC03	C20-4D15-63WC03	-	15	20	WCMX 030208	26.00	28.00	34.00	-
C20-2D16-35WC03	C20-3D16-51WC03	C20-4D16-67WC03	C20-5D16-83WC03	16	20	WCMX 030208	26.00	28.00	34.00	62.00
C20-2D17-37WC03	C20-3D17-54WC03	C20-4D17-71WC03	C20-5D17-88WC03	17	20	WCMX 030208	26.00	28.00	36.00	62.00
C25-2D18-39WC03	C25-3D18-57WC03	C25-4D18-75WC03	C25-5D18-93WC03	18	25	WCMX 030208	26.00	28.00	36.00	64.00
C25-2D19-41WC03	C25-3D19-60WC03	C25-4D19-79WC03	C25-5D19-98WC03	19	25	WCMX 030208	26.00	28.00	37.00	66.00
C25-2D20-43WC03	C25-3D20-63WC03	C25-4D20-83WC03	C25-5D20-103WC03	20	25	WCMX 030208	26.00	28.00	37.00	66.00
C25-2D21-45WC04	C25-3D21-66WC04	C25-4D21-87WC04	-	21	25	WCMX 040208	30.00	34.00	40.00	-
C25-2D22-47WC04	C25-3D22-69WC04	C25-4D22-91WC04	C25-5D22-113WC04	22	25	WCMX 040208	30.00	34.00	40.00	70.00
C25-2D23-49WC04	C25-3D23-72WC04	C25-4D23-95WC04	C25-5D23-118WC04	23	25	WCMX 040208	30.00	34.00	42.00	70.00
C25-2D24-51WC04	C25-3D24-75WC04	C25-4D24-99WC04	C25-5D24-123WC04	24	25	WCMX 040308	30.00	34.00	42.00	72.00
C25-2D25-53WC05	C25-3D25-78WC05	C25-4D25-103WC05	C25-5D25-128WC05	25	32	WCMX 050308	30.00	34.00	44.00	78.00
C32-2D26-55WC05	C32-3D26-81WC05	C32-4D26-107WC05	C32-5D26-133WC05	26	32	WCMX 050308	36.00	40.00	44.00	79.00
C32-2D27-57WC05	C32-3D27-84WC05	C32-4D27-111WC05	C32-5D27-138WC05	27	32	WCMX 050308	36.00	40.00	44.00	79.00
C32-2D28-59WC05	C32-3D28-87WC05	C32-4D28-115WC05	C32-5D28-143WC05	28	32	WCMX 050308	36.00	40.00	44.00	79.00
C32-2D29-62WC05	C32-3D29-91WC05	C32-4D29-120WC05	C32-5D29-149WC05	29	32	WCMX 050308	36.00	40.00	44.00	79.00
C32-2D30-64WC05	C32-3D30-94WC05	C32-4D30-124WC05	C32-5D30-154WC05	30	32	WCMX 050308	36.00	40.00	44.00	81.00
C32-2D31-66WC06	C32-3D31-97WC06	C32-4D31-128WC06	C32-5D31-159WC06	31	32	WCMX 06T308	42.00	50.00	54.00	84.00
C32-2D32-68WC06	C32-3D32-100WC06	C32-4D32-132WC06	C32-5D32-164WC06	32	32	WCMX 06T308	42.00	50.00	54.00	84.00
C32-2D33-70WC06	C32-3D33-103WC06	C32-4D33-136WC06	C32-5D33-169WC06	33	32	WCMX 06T308	42.00	50.00	54.00	84.00
C32-2D34-72WC06	C32-3D34-106WC06	C32-4D34-140WC06	C32-5D34-174WC06	34	32	WCMX 06T308	42.00	50.00	58.00	87.00
C32-2D35-74WC06	C32-3D35-109WC06	C32-4D35-144WC06	C32-5D35-179WC06	35	32	WCMX 06T308	42.00	50.00	58.00	87.00
C32-2D36-76WC06	C32-3D36-112WC06	C32-4D36-148WC06	C32-5D36-184WC06	36	32	WCMX 06T308	48.00	55.00	62.00	98.00
C32-2D37-79WC06	C32-3D37-116WC06	C32-4D37-153WC06	-	37	32	WCMX 06T308	50.00	58.00	64.00	-
C32-2D38-81WC06	C32-3D38-119WC06	C32-4D38-157WC06	-	38	32	WCMX 06T308	54.00	60.00	66.00	-
C32-2D39-83WC06	C32-3D39-122WC06	C32-4D39-161WC06	-	39	32	WCMX 06T308	54.00	60.00	66.00	-
C40-2D40-85WC06	C40-3D40-125WC06	C40-4D40-165WC06	C40-5D40-165WC06	40	40	WCMX 06T308	58.00	62.00	70.00	110.00
C40-2D41-87WC06	C40-3D41-128WC06	C40-4D41-169WC06	-	41	40	WCMX 06T308	68.00	72.00	88.00	-
C40-2D42-89WC08	C40-3D42-131WC08	C40-4D42-173WC08	-	42	40	WCMX 080412	68.00	72.00	88.00	-
C40-2D43-91WC08	C40-3D43-134WC08	C40-4D43-177WC08	-	43	40	WCMX 080412	70.00	74.00	90.00	-
C40-2D44-93WC08	C40-3D44-137WC08	C40-4D44-181WC08	-	44	40	WCMX 080412	70.00	74.00	92.00	-
C40-2D45-95WC08	C40-3D45-140WC08	C40-4D45-185WC08	C40-5D45-185WC08	45	40	WCMX 080412	70.00	74.00	92.00	132.00
C40-2D46-97WC08	C40-3D46-143WC08	C40-4D46-189WC08	-	46	40	WCMX 080412	80.00	84.00	110.00	-
C40-2D47-99WC08	C40-3D47-146WC08	C40-4D47-193WC08	-	47	40	WCMX 080412	80.00	84.00	110.00	-
C40-2D48-101WC08	C40-3D48-149WC08	C40-4D48-197WC08	-	48	40	WCMX 080412	80.00	84.00	110.00	-
C40-2D49-103WC08	C40-3D49-152WC08	C40-4D49-201WC08	-	49	40	WCMX 080412	80.00	84.00	110.00	-
C40-2D50-105WC08	C40-3D50-155WC08	C40-4D50-205WC08	-	50	40	WCMX 080412	80.00	84.00	112.00	-
-	C40-3D51-158WC08	C40-4D51-209WC08	-	51	40	WCMX 080412	-	105.00	135.00	-
-	C40-3D52-161WC08	C40-4D52-213WC08	-	52	40	WCMX 080412	-	106.00	135.00	-
-	C40-3D53-164WC08	C40-4D53-217WC08	-	53	40	WCMX 080412	-	107.00	140.00	-
-	C40-3D54-167WC08	C40-4D54-221WC08	-	54	40	WCMX 080412	-	109.00	140.00	-
C40-2D55-115WC08	C40-3D55-170WC08	C40-4D55-225WC08	-	55	40	WCMX 080412	90.00	110.00	140.00	-
-	C40-3D56-176WC08	-	-	56	40	WCMX 080412	-	120.00	-	-
-	C40-3D57-179WC08	-	-	57	40	WCMX 080412	-	130.00	-	-
-	C40-3D58-182WC08	-	-	58	40	WCMX 080412	-	133.00	-	-
-	C40-3D59-185WC08	-	-	59	40	WCMX 080412	-	133.00	-	-
-	C40-3D60-188WC08	-	-	60	40	WCMX 080412	-	133.00	-	-

APT drilling inserts	price £
WCMX 030208 DX NK240	4.53
WCMX 040208 DX NK240	4.12
WCMX 050308 DX NK240	4.78
WCMX 06T308 DX NK240	5.47
WCMX 080412 DX NK240	7.00



WCMX 03,04,05 - NK240

WCMX 06,08 - NK240

Grade NK240 = P40, M30 K40 with surface treatment + PVD TiAlN multi coating suitable for steel, stainless high temp alloys & grey cast iron

Uni-tip drilling inserts	price £
WCMX 030208R-FN XM25	1.60
WCMX 040208R-FN XM25	1.60
WCMX 050308R-FN XM25	2.00
WCMX 06T308R-FN XM25	2.30
WCMX 080412R-FN XM25	3.20

WCMX 03,04,05 R-FN

WCMX 06,08 R-FN

Grade XM25 = P25, M20 K25 with PVD TiSiN coating suitable for steel, stainless high temp alloys & grey cast iron

Uni-tip drilling inserts	price £
WCGT 030208 ALU AK10	2.80
WCGT 040208 ALU AK10	2.80
WCGT 050308 ALU AK10	3.00
WCGT 06T308 ALU AK10	3.40
WCGT 080408 ALU AK10	3.60

WCGT 03,04,05

WCGT 06,08

Grade AK10 - K10-K15 ground and polished for aluminium and non-ferrous metals

Please note radius called for on the inserts as smaller radius will cut oversize and larger radius undersize. Udrills can be off-set to cut undersize or oversize pay attention to centre height when used on a lathe

Spade Drills & Inserts

spade drill inserts

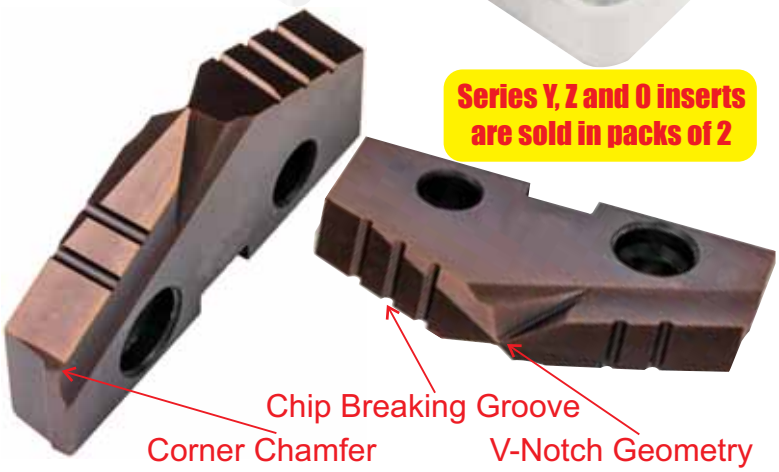
Series	dia.	X15A part number	X15A price £	X25A part number	X25A price £	X25H part number	X25H price £
Y	9.5	-	-	SDIY-00950-X25A	14.50	SDIY-00950-X25H	16.00
Y	3/8" (9.53)	-	-	-	-	SDIY-00953-X25H	16.00
Y	9.8	-	-	-	-	SDIY-00980-X25H	16.00
Y	10	-	-	SDIY-01000-X25A	14.50	SDIY-01000-X25H	16.00
Y	10.2	-	-	-	-	SDIY-01020-X25H	16.00
Y	10.5	-	-	SDIY-01050-X25A	14.50	SDIY-01050-X25H	16.00
Y	10.8	-	-	-	-	SDIY-01080-X25H	16.00
Y	11	-	-	SDIY-01100-X25A	14.50	SDIY-01100-X25H	16.00
			-				
Z	11.5	-	-	SDIZ-01150-X25A	14.50	SDIZ-01150-X25H	16.00
Z	12	-	-	SDIZ-01200-X25A	14.50	SDIZ-01200-X25H	16.00
Z	12.5	-	-	SDIZ-01250-X25A	14.50	SDIZ-01250-X25H	16.00
Z	1/2" (12.7)	-	-	-	-	SDIZ-01270-X25H	16.00
			-				
0	13	-	-	SDI0-01300-X25A	16.50	SDI0-01300-X25H	18.50
0	13.5	-	-	SDI0-01350-X25A	16.50	SDI0-01350-X25H	18.50
0	14	-	-	SDI0-01400-X25A	16.50	SDI0-01400-X25H	18.50
0	14.5	-	-	SDI0-01450-X25A	16.50	SDI0-01450-X25H	18.50
0	15	-	-	SDI0-01500-X25A	16.50	SDI0-01500-X25H	18.50
0	15.5	-	-	SDI0-01550-X25A	16.50	SDI0-01550-X25H	18.50
0	5/8" (15.88)	-	-	-	-	SDI0-01588-X25H	18.50
0	16	-	-	SDI0-01600-X25A	16.50	SDI0-01600-X25H	18.50
0	16.5	-	-	SDI0-01650-X25A	16.50	SDI0-01650-X25H	18.50
0	17	-	-	SDI0-01700-X25A	16.50	SDI0-01700-X25H	18.50
0	17.5	-	-	SDI0-01750-X25A	16.50	SDI0-01750-X25H	18.50
1	18	SDI1-01800-X15A	17.50	SDI1-01800-X25A	19.50	SDI1-01800-X25H	21.50
1	18.5	SDI1-01850-X15A	17.50	SDI1-01850-X25A	19.50	SDI1-01850-X25H	21.50
1	19	SDI1-01900-X15A	17.50	SDI1-01900-X25A	19.50	SDI1-01900-X25H	21.50
1	3/4" (19.05)	-	-	-	-	SDI1-01905-X25H	21.50
1	19.5	SDI1-01950-X15A	17.50	SDI1-01950-X25A	19.50	SDI1-01950-X25H	21.50
1	20	SDI1-02000-X15A	17.50	SDI1-02000-X25A	19.50	SDI1-02000-X25H	21.50
1	20.5	SDI1-02050-X15A	17.50	SDI1-02050-X25A	19.50	SDI1-02050-X25H	21.50
1	21	SDI1-02100-X15A	17.50	SDI1-02100-X25A	19.50	SDI1-02100-X25H	21.50
1	22	SDI1-02200-X15A	17.50	SDI1-02200-X25A	19.50	SDI1-02200-X25H	21.50
1	7/8" (22.23)	-	-	-	-	SDI1-02230-X25H	21.50
1	23	SDI1-02300-X15A	17.50	SDI1-02300-X25A	19.50	SDI1-02300-X25H	21.50
1	24	SDI1-02400-X15A	17.50	SDI1-02400-X25A	19.50	SDI1-02400-X25H	21.50
2	25	SDI2-02500-X15A	21.00	SDI2-02500-X25A	23.50	SDI2-02500-X25H	26.00
2	1" (25.4)	-	-	-	-	SDI2-02540-X25H	26.00
2	26	SDI2-02600-X15A	21.00	SDI2-02600-X25A	23.50	SDI2-02600-X25H	26.00
2	27	SDI2-02700-X15A	21.00	SDI2-02700-X25A	23.50	SDI2-02700-X25H	26.00
2	28	SDI2-02800-X15A	21.00	SDI2-02800-X25A	23.50	SDI2-02800-X25H	26.00
2	1-1/8" (28.58)	-	-	-	-	SDI2-02858-X25H	26.00
2	29	SDI2-02900-X15A	21.00	SDI2-02900-X25A	23.50	SDI2-02900-X25H	26.00
2	30	SDI2-03000-X15A	21.00	SDI2-03000-X25A	23.50	SDI2-03000-X25H	26.00
2	31	SDI2-03100-X15A	21.00	SDI2-03100-X25A	23.50	SDI2-03100-X25H	26.00
2	1-1/4" (31.75)	-	-	-	-	SDI2-03175-X25H	26.00
2	32	SDI2-03200-X15A	21.00	SDI2-03200-X25A	23.50	SDI2-03200-X25H	26.00
2	33	SDI2-03300-X15A	21.00	SDI2-03300-X25A	23.50	SDI2-03300-X25H	26.00
2	34	SDI2-03400-X15A	21.00	SDI2-03400-X25A	23.50	SDI2-03400-X25H	26.00
2	1-3/8" (34.93)	-	-	-	-	SDI2-03493-X25H	26.00
2	35	SDI2-03500-X15A	21.00	SDI2-03500-X25A	23.50	SDI2-03500-X25H	26.00
3	36	SDI3-03600-X15A	29.00	-	-	SDI3-03600-X25H	35.50
3	37	SDI3-03700-X15A	29.00	-	-	SDI3-03700-X25H	35.50
3	38	SDI3-03800-X15A	29.00	-	-	SDI3-03800-X25H	35.50
3	1-1/2 (38.1)	-	-	-	-	SDI3-03810-X25H	35.50
3	39	SDI3-03900-X15A	29.00	-	-	SDI3-03900-X25H	35.50
3	40	SDI3-04000-X15A	29.00	-	-	SDI3-04000-X25H	35.50
3	41	SDI3-04100-X15A	29.00	-	-	SDI3-04100-X25H	35.50
3	1-5/8" (41.28)	-	-	-	-	SDI3-04128-X25H	35.50
3	42	SDI3-04200-X15A	29.00	-	-	SDI3-04200-X25H	35.50
3	43	SDI3-04300-X15A	29.00	-	-	SDI3-04300-X25H	35.50
3	44	SDI3-04400-X15A	29.00	-	-	SDI3-04400-X25H	35.50
3	1-3/4" (44.45)	-	-	-	-	SDI3-04445-X25H	35.50
3	45	SDI3-04500-X15A	29.00	-	-	SDI3-04500-X25H	35.50
3	46	SDI3-04600-X15A	29.00	-	-	SDI3-04600-X25H	35.50
3	47	SDI3-04700-X15A	29.00	-	-	SDI3-04700-X25H	35.50
4	48	SDI4-04800-X15A	40.00	-	-	SDI4-04800-X25H	49.00
4	49	SDI4-04900-X15A	40.00	-	-	SDI4-04900-X25H	49.00
4	50	SDI4-05000-X15A	40.00	-	-	SDI4-05000-X25H	49.00
4	2" (50.8)	-	-	-	-	SDI4-05080-X25H	49.00
4	51	SDI4-05100-X15A	40.00	-	-	SDI4-05100-X25H	49.00
4	52	SDI4-05200-X15A	40.00	-	-	SDI4-05200-X25H	49.00
4	53	SDI4-05300-X15A	40.00	-	-	SDI4-05300-X25H	49.00
4	54	SDI4-05400-X15A	40.00	-	-	SDI4-05400-X25H	49.00
4	55	SDI4-05500-X15A	40.00	-	-	SDI4-05500-X25H	49.00
4	56	SDI4-05600-X15A	40.00	-	-	SDI4-05600-X25H	49.00
4	57	SDI4-05700-X15A	40.00	-	-	SDI4-05700-X25H	49.00
4	2-1/4" (57.15)	-	-	-	-	SDI4-05715-X25H	49.00
4	58	SDI4-05800-X15A	40.00	-	-	SDI4-05800-X25H	49.00
4	59	SDI4-05900-X15A	40.00	-	-	SDI4-05900-X25H	49.00
4	60	SDI4-06000-X15A	40.00	-	-	SDI4-06000-X25H	49.00
4	2-3/8" (60.33)	-	-	-	-	SDI4-06033-X25H	49.00
4	61	SDI4-06100-X15A	40.00	-	-	SDI4-06100-X25H	49.00
4	62	SDI4-06200-X15A	40.00	-	-	SDI4-06200-X25H	49.00
4	63	SDI4-06300-X15A	40.00	-	-	SDI4-06300-X25H	49.00
4	2-1/2" (63.5)	-	-	-	-	SDI4-06350-X25H	49.00
4	64	SDI4-06400-X15A	40.00	-	-	SDI4-06400-X25H	49.00
4	65	SDI4-06500-X15A	40.00	-	-	SDI4-06500-X25H	49.00

weldon shank spade drill bodies

drill bodies	Series	max depth	body length	ref. length	overall length	shank dia.	shank length	pipe tap	price £
SDIHS-Y0-SH016-10N	Y	19.1	47.6	50	95.6	16	48	1/8"	65.00
SDIHS-Y0-SH020-20N	Y	31.8	61.1	50	111.1	20	50	1/8"	70.00
SDIHH-Y0-SH020-40N	Y	60.3	89.7	92.1	139.7	20	50	1/8"	76.00
SDIHH-Y0-SH020-50N	Y	111.1	140.5	142.9	190.5	20	50	1/8"	90.00
SDIHS-Y0-SH020-70N	Y	222.0	251.7	254.1	309.8	20	50	1/8"	121.00
SDIHS-Y0-SH020-90N	Y	290.0	319.9	322.3	369.9	20	50	1/8"	151.00
SDIHS-Z0-SH016-10N	Z	19.1	47.6	50	95.6	16	48	1/8"	65.00
SDIHS-Z0-SH020-20N	Z	31.8	61.1	50	111.1	20	50	1/8"	70.00
SDIHH-Z0-SH020-40N	Z	60.3	89.7	92.1	139.7	20	50	1/8"	76.00
SDIHH-Z0-SH020-50N	Z	111.1	140.5	142.9	190.5	20	50	1/8"	90.00
SDIHS-Z0-SH020-70N	Z	222.0	251.7	254.1	309.8	20	50	1/8"	121.00
SDIHS-Z0-SH020-90N	Z	290.0	319.9	322.3	369.9	20	50	1/8"	151.00
SDIHS-00-SH020-10N	0	22.2	47.6	50.4	97.6	20	50	1/8"	70.00
SDIHS-00-SH020-20N	0	34.9	63.5	63.3	113.5	20	50	1/8"	76.00
SDIHH-00-SH020-40N	0	63.5	92.1	94.9	142.1	20	50	1/8"	80.00
SDIHH-00-SH020-50N	0	114.3	142.9	145.7	192.9	20	50	1/8"	96.00
SDIHH-00-SH020-60N	0	177.8	206.4	209.1	256.4	20	50	1/8"	130.00
SDIHS-00-SH020-70N	0	295.0	323.9	326.7	373.9	20	50	1/8"	151.00
SDIHS-00-SH020-90N	0	387.0	416.0	418.8	466.0	20	50	1/8"	188.00
SDIHS-10-SH025-10N	1	47.6	75.8	79.4	131.8	25	56	1/8"	77.00
SDIHS-10-SH025-20N	1	66.7	107.2	110.7	163.2	25	56	1/8"	84.00
SDIHH-10-SH025-30N	1	117.5	154.8	158.4	210.8	25	56	1/8"	96.00
SDIHH-10-SH025-40N	1	168.3	205.6	209.2	261.6	25	56	1/8"	110.00
SDIHH-10-SH025-50N	1	269.9	307.2	310.8	363.2	25	56	1/8"	138.00
SDIHS-10-SH025-70N	1	457.0	494.5	498.1	550.5	25	56	1/8"	208.00
SDIHS-10-SH025-90N	1	569.0	602.5	606.1	658.5	25	56	1/8"	268.00
SDIHS-20-SH032-10N	2	57.2	88.5	92.1	148.5	32	60	1/4"	98.00
SDIHS-20-SH032-20N	2	85.7	128.6	132.2	188.6	32	60	1/4"	102.00
SDIHH-20-SH032-30N	2	136.5	179.4	183.0	239.4	32	60	1/4"	125.00
SDIHH-20-SH032-40N	2	187.3	230.2	233.8	290.2	32	60	1/4"	141.00
SDIHH-20-SH032-50N	2	288.9	331.8	335.4	391.8	32	60	1/4"	169.00
SDIHS-20-SH032-70N	2	511.0	554.1	557.7	614.1	32	60	1/4"	250.00
SDIHS-20-SH032-90N	2	692.0	735.1	738.7	795.1	32	60	1/4"	339.00
SDIHS-30-SH040-10N	3	76.2	125.0	129.8	195.0	40	70	1/4"	107.00
SDIHS-30-SH040-20N	3	120.7	173.0	177.8	243.0	40	70	1/4"	137.00
SDIHH-30-SH040-30N	3	165.1	217.5	222.3	287.5	40	70	1/4"	177.00
SDIHH-30-SH040-40N	3	209.6	261.9	266.7	331.9	40	70	1/4"	191.00
SDIHS-30-SH040-50N	3	349.3	401.6	406.4	471.6	40	70	1/4"	261.00
SDIHS-30-SH040-70N	3	558.8	611.1	615.9	681.1	40	70	1/4"	367.00
SDIHS-30-SH040-90N	3	787.4	839.7	844.5	909.7	40	70	1/4"	490.00
SDIHS-40-SH040-20N	4	130.2	179.4	184.2	249.4	40	70	1/4"	147.00
SDIHH-40-SH040-40N	4	231.8	281.0	285.8	351.0	40	70	1/4"	205.00
SDIHS-40-SH040-50N	4	422.3	471.5	476.3	541.5	40	70	1/4"	295.00
SDIHS-40-SH040-70N	4	625.0	674.7	679.5	744.7	40	70	1/4"	447.00
SDIHS-40-SH040-90N	4	879.0	928.7	933.5	998.7	40	70	1/4"	599.00

SDIHS = straight flute - SDIHH = helical flute

Series Y, Z and 0 inserts are sold in packs of 2



Interchangeable with other popular brands

All of our HSS grades for spade drill inserts are high quality Powder Metal with high quality PVD Coating

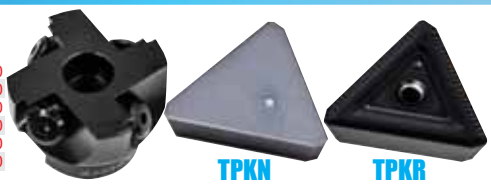
X15A - (T15) Powder Metal Super HSS + TiAlN Coated Works well for free machining, plain carbon, low alloy, structural steel, cast iron and copper alloys. Also suitable for high strength materials and nickel alloy..

X25A - (M48) Powder Metal Premium HSS + TiAlN Coated Excellent for all types of steel, tool steel etc. Suitable for cast iron, stainless, high strength materials and high nickel alloy.

X25H - (M48) Powder Metal Premium HSS + Premium Hard Coating, these are our best performing inserts. Excellent for all types of steel, tool steel etc. Suitable for cast iron, stainless, high strength materials, high nickel alloy, high temperature alloys.

* APT 90° face mills for TPKN/TPKR inserts *

face mill	dia.	height	bore	teeth	insert	price £
TPKN1603-40-16-3T	40	40	16	3	TPKN/TPKR 1603	40.00
TPKN1603-50-22-4T	50	40	22	4	TPKN/TPKR 1603	47.00
TPKN1603-63-22-4T	63	45	22	4	TPKN/TPKR 1603	48.00
TPKN2204-63-22-3T	63	48	22	3	TPKN/TPKR 2204	45.00
TPKN2204-80-27-4T	32	50	27	4	TPKN/TPKR 2204	54.00
TPKN2204-100-32-5T	40	63	32	5	TPKN/TPKR 2204	68.00



* APT 90° end mills for TOKT 0703 inserts *
Thru' coolant

end mill	dia.	length	shank	reach	teeth	insert	price £
TOKT0703-20-77-3TB	20	77	20	25	3	TOKT 0703*	29.00
TOKT0703-25-90-4TB	25	90	25	34	4	TOKT 0703*	36.00
TOKT0703-32-102-5TB	32	102	32	40	5	TOKT 0703*	45.00

* APT 90° face mills for TOKT 09T3 inserts *
Thru' coolant

face mill	dia.	height	bore	teeth	insert	price £
TOKT09T3-40-16-4T	40	40	16	4	TOKT 09T3*	44.00
TOKT09T3-50-22-5T	50	40	22	5	TOKT 09T3*	52.00
TOKT09T3-63-22-6T	63	40	22	6	TOKT 09T3*	60.00

* APT 90° face mills for SDKT 1205 inserts *
Thru' coolant

face mill	dia.	height	bore	teeth	insert	price £
SDKT1205-40-16-4T	40	40	thread	4	SDKT 1205	37.00
SDKT1205-50-22-5T	50	40	22	5	SDKT 1205	42.00
SDKT1205-63-22-6T	63	40	22	6	SDKT 1205	50.00
SDKT1205-80-27-7T	80	50	27	7	SDKT 1205	60.00

* APT 90° end mills for LNMX inserts - Thru' coolant *

end mill	dia.	length	shank	reach	teeth	insert	price £
LNMX1006-20-100-2T	20	100	20	30	2	LNMX 1006	25.00
LNMX1006-25-115-3T	25	115	25	30	3	LNMX 1006	32.00
LNMX1006-32-125-4T	32	110	32	30	4	LNMX 1006	42.50

* APT 90° face mills for LNMX inserts - Thru' coolant *

face mill	dia.	height	bore	teeth	insert	price £
LNMX1006-32-16-4T	32	40	16	4	LNMX 1006	42.50
LNMX1006-40-16-5T	40	40	16	5	LNMX 1006	50.00
LNMX1006-50-22-7T	50	40	22	7	LNMX 1006	63.00
LNMX1006-63-22-9T	63	40	22	9	LNMX 1006	80.00

* APT 90° face mills for VCGT 220530 inserts *

face mill	dia.	height	bore	teeth	insert	price £
VCGT22-50-22-3T	50	-	22	3	VCGT 220530	50.00
VCGT22-63-22-4T	63	-	22	4	VCGT 220530	60.00
VCGT22-80-27-5T	80	-	27	5	VCGT 220530	80.00
VCGT22-100-32-6T	100	-	32	6	VCGT 220530	100.00
VCGT22-125-40-7T	125	-	40	7	VCGT 220530	125.00
VCGT22-160-40-8T	160	-	40	8	VCGT 220530	160.00

* 45° Face mills for HPKT inserts *

face mill	dia.	height	bore	teeth	insert	price £
HPKT06-50-22-4T	50	40	22	4	HPKT 0604	42.00
HPKT06-63-22-5T	63	40	22	5	HPKT 0604	51.00
HPKT06-80-27-6T	80	50	27	6	HPKT 0604	64.00

* 45° Face mills for SNMX inserts *

face mill	dia.	height	bore	teeth	insert	price £
SNMX12-50-22-4T	50	40	22	4	SNMX 1206	40.00
SNMX12-63-22-5T	63	50	22	5	SNMX 1206	48.00
SNMX12-80-27-6T	80	50	27	6	SNMX 1206	65.00
SNMX12-100-32-8T	100	50	32	8	SNMX 1206	87.00

* End mills for RPMX - RPHT inserts *

end mill	dia.	length	shank	reach	teeth	insert	price £
RPMX10T3-20-100-2T	20	100	20	50	2	RPMX, RPHX, RDHX 10T3	22.00
RPMX10T3-20-165-2T	20	165	20	50	2	RPMX, RPHX, RDHX 10T3	25.00
RPMX10T3-25-115-3T	25	115	25	60	3	RPMX, RPHX, RDHX 10T3	24.00
RPMX10T3-25-165-3T	25	165	25	60	3	RPMX, RPHX, RDHX 10T3	32.00
RPMX10T3-32-130-4T	32	130	32	70	4	RPMX, RPHX, RDHX 10T3	35.00
RPMX10T3-32-165-4T	32	165	32	70	4	RPMX, RPHX, RDHX 10T3	39.00
RPMX1204-25-85-2T	25	85	25	30	2	RPMX, RPHX, RDHX 1204	23.00
RPMX1204-25-115-2T	25	115	25	60	2	RPMX, RPHX, RDHX 1204	26.00
RPMX1204-32-100-3T	32	100	32	40	3	RPMX, RPHX, RDHX 1204	30.00
RPMX1204-32-130-3T	32	130	32	70	3	RPMX, RPHX, RDHX 1204	33.00

* Face mills for RPMX - RPHT inserts *

face mill	dia.	height	bore	teeth	insert	price £
RPMX10T3-40-16-4T	40	40	16	4	RPMX, RPHX, RDHX 10T3	39.00
RPMX10T3-50-22-5T	50	40	22	5	RPMX, RPHX, RDHX 10T3	44.00
RPMX1204-40-16-4T	40	40	16	4	RPMX, RPHX, RDHX 1204	39.00
RPMX1204-50-22-5T	50	40	22	5	RPMX, RPHX, RDHX 1204	44.00
RPMX1204-63-22-6T	63	40	22	6	RPMX, RPHX, RDHX 1204	51.00
RPMX1204-80-27-8T	80	50	27	8	RPMX, RPHX, RDHX 1204	66.00
RPMX1204-100-32-10T	100	50	32	10	RPMX, RPHX, RDHX 1204	84.00

* High Feed End mills for XPLT - XDLT - XOLT inserts *

end mill	dia.	length	shank	reach	teeth	insert	price £
XPLT0703-16-200-2T	16	200	16	50	2	XPLT 070305	27.00
XPLT0703-20-200-3T	20	200	20	50	3	XPLT 070305	35.00
XPLT0703-25-200-4T	25	200	25	50	4	XPLT 070305	44.00
XDLT10T3-25-225-3T	25	225	25	50	3	XDLT 10T308	39.00
XOLT1304-35-250-3T	35	250	32	63	3	XOLT 130410	47.00

* High Feed Face mills for XDLT - XOLT inserts *

face mill	dia.	height	bore	teeth	insert	price £
XDLT10T3-40-16-4T	40	40	16	4	XDLT 10T308	41.00
XDLT10T3-50-22-5T	50	40	22	5	XDLT 10T308	48.00
XDLT10T3-63-22-6T	63	40	22	6	XDLT 10T308	55.00
XOLT1304-50-22-4T	50	40	22	4	XOLT 130410	42.00
XOLT1304-63-22-5T	63	40	22	5	XOLT 130410	51.00
XOLT1304-80-27-7T	80	50	27	7	XOLT 130410	68.00

High feed cutters - feed per tooth
XPLT 070305 fz(mm) = 0.15-1.5
XPLT 10T308 fz(mm) = 0.10-2.5
XPLT 130410 fz(mm) = 0.10-3.0

items marked * del = 1 week

milling inserts	Price £
HPCT 0604 AZR-A AK10	8.01
HPKT 0604 AZR-H NK315	8.01
HPKT 0604 AZR-S NK135	8.01
HPKT 0604 AZR-S NK235	8.01
HPKT 0604 AZR-S NK535	10.84
LNMX 100605 PNR-MM UM25	3.60
RDHX 10T3MO-ALU AK10	7.55
RPHX 10T3MO-X NK535*	9.19
RPMX 10T3MO-H NK135	6.64
RPMX 10T3MO-H NK315*	6.64
RPMX 10T3MO-S NK235	6.64
RDHX 1204MO-ALU AK10	8.08
RPHX 1204MO-X NK535*	9.42
RPMT 1204MOE-JS XM25	2.00
RPMX 1204MO-H NK135	6.79
RPMX 1204MO-H NK315*	6.79
RPMX 1204MO-S NK235	6.79
SDHT 120508R-A AK10	9.38
SDKT 120508R-C NK315	7.55
SDKT 120508R-H NK230	7.55
SDKT 120508R-H NK235	7.55
SDKT 120508R-S NK535	9.61
SNMX 1206 ANN-MM UM25	3.60
SNMX 1206 ANN-MM XM25	3.60
TOKT 070305 PDR-H NK230	4.58
TOKT 070305 PDR-H NK235	4.58
TOKT 070305 PDR-SHP NK235	5.72
TOKT 070305 PDR-S NK535	5.72
TOKT 070308 PDR-H NK230	4.58
TOKT 070308 PDR-H NK235	4.58
TOKT 070308 PDR-SHP NK235	5.72
TOKT 070308 PDR-S NK535	5.72
TOKT 09T308 PDR-H NK230	5.03
TOKT 09T308 PDR-H NK235	5.03
TOKT 09T308 PDR-SHP NK235	6.17
TOKT 09T308 PDR-S NK535	6.17
TOKT 09T312 PDR-H NK230	5.03
TOKT 09T312 PDR-H NK235	5.03
TOKT 09T312 PDR-SHP NK235	6.17
TOKT 09T312 PDR-S NK535	6.17
TOKT 09T316 PDR-H NK230	5.03
TOKT 09T316 PDR-H NK235	5.03
TOKT 09T316 PDR-SHP NK235	6.17
TOKT 09T316 PDR-S NK535	6.17
TPKN 1603 PDSR UM25	2.20
TPKN 2204 PDSR UM25	2.96
TPKR 1603 PDTR UM25	2.20
TPKR 2204 PDTR UM25	3.20
VCGT 220530 AK101	4.80
VCGT 220530 ALC AK10	5.92
VCGT 220530 ALU AK10	5.92
XDLT 10T308SR-H NK230	6.17
XDLT 10T308SR-H NK235	6.17
XDLT 10T308SR-S NK535	7.78
XOLT 130410SR-H NK230	7.55
XOLT 130410SR-H NK235	7.55
XOLT 130410SR-S NK535	8.46
XPLT 070305SR-H NK230	6.06
XPLT 070305SR-H NK235	6.06
XPLT 070305SR-S NK535	7.55

Indexable Milling Cutters

SOKU 1505 inserts and face milling cutters

* 45° Face mills for SOKU inserts *

face mill	dia.	height	bore	teeth	insert	price £
A-SOKU15-40-R04	40	45	16	4	SOKU 1505	132.25
A-SOKU15-50-R04	50	45	22	4	SOKU 1505	139.67
A-SOKU15-63-R05	63	45	22	5	SOKU 1505	161.92
A-SOKU15-80-R06	80	50	27	6	SOKU 1505	195.29
A-SOKU15-100-R07	100	50	32	7	SOKU 1505	216.30
A-SOKU15-125-R08	125	63	40	8	SOKU 1505	260.80

items marked * del = 1 week

Face mills for SOKU inserts are thru' coolant

A-SOKU15

inserts	price £
SOKU 1505 AZR-H NK315	12.39
SOKU 1505 AZR-S NK135	12.39
SOKU 1505 AZR-S NK235	12.39
SOKU 1505 AZR-S NK535	16.50

items marked * del = 1 week

Cutters marked * are only available at prices shown if purchased with 10 or more inserts

SOKU - H NK315

SOKU - S NK135

SOKU - S NK235

SOKU - S NK535

SDKT 09T308 inserts with a great range of cutters

* 90° End mills for SDKT inserts *

end mill	dia.	length	shank	teeth	insert	price £
SB90-20R2SD09-B16	20	74	16	2	SDKT 09T308	25.00
SB90-20R2SD09-B20	20	76	20	2	SDKT 09T308	25.00
SB90-25R2SD09-B20	25	83	20	2	SDKT 09T308	28.50
SB90-25R3SD09-B25	25	88	25	3	SDKT 09T308	37.00
SB90-32R4SD09-B25	32	98	25	4	SDKT 09T308	38.00
SB90-32R4SD09-B32	32	100	32	4	SDKT 09T308	45.00
SB90-40R5SD09-B32	40	112	32	5	SDKT 09T308	50.00
SB90-20R2SD09-A16L100	20	100	16	2	SDKT 09T308	27.00
SB90-20R2SD09-A20L100	20	100	20	2	SDKT 09T308	30.00
SB90-22R2SD09-A20L170	22	170	20	2	SDKT 09T308	33.00
SB90-25R3SD09-A20L110	25	110	20	3	SDKT 09T308	31.00
SB90-25R3SD09-A25L120	25	120	25	3	SDKT 09T308	38.00
SB90-28R2SD09-A25L210	28	210	25	2	SDKT 09T308	32.00
SB90-32R4SD09-A25L120	32	120	25	4	SDKT 09T308	49.00
SB90-32R4SD09-A32L130	32	130	32	4	SDKT 09T308	50.00
SB90-40R6SD09-A32L170	40	170	32	6	SDKT 09T308	72.00

SB90-SD

SB90-SD-L

* 45° chamfer cutters for SDKT inserts *

chamfer cutter	small dia.	large dia.	length	shank	teeth	insert	price £
SB45-6R1SD09T3-B16	6	17.9	83	16	1	SDKT 09T308	16.00
SB45-8R1SD09T3-B16	8	19.9	83	16	1	SDKT 09T308	16.00
SB45-10R1SD09T3-B16	10	21.9	83	16	1	SDKT 09T308	16.00
SB45-12R1SD09T3-B20	12	24	90	20	1	SDKT 09T308	17.00
SB45-16R2SD09T3-B20	16	28	90	20	2	SDKT 09T308	19.00
SB45-20R2SD09T3-B25	20	32	101	25	2	SDKT 09T308	20.00
SB45-25R3SD09T3-B25	25	37.1	101	25	3	SDKT 09T308	28.00
SB45-32R3SD09T3-B32	32	44.1	110	32	3	SDKT 09T308	32.00
SB45-40R4SD09T3-B32	40	52.1	110	32	4	SDKT 09T308	47.00

SB45-SD

SDHT - ALU AK10

SDKT - R-C NK315

SDKT - R-H NK135

SDKT - R-S NK235

SDKT - R-S NK535

Alternative over APKT 1003 inserts at only £1.18 per edge

inserts	price £
SDHT 09T308R-A AK10	6.41
SDKT 09T308R-C NK315	4.72
SDKT 09T308R-H NK135	4.72
SDKT 09T308R-S NK235	4.72
SDKT 09T308R-S NK535	6.50

AK10 = K10 un-coated suitable for aluminium, non-ferrous metals & plastics

NK135 = P35 + PVD (Ti-Al-Si)N coating for carbon & alloy steel, 1st choice for general milling

NK235 = M35, S15, P40 + PVD TiAlN coating for all types of stainless steel also for hi-temp alloy, high alloy steel

NK315 = K15 + MT-CVD multi-layer coating for all types of cast iron

NK535 = S35 for hi-temp alloys including inconel, hastalloy, waspaloy, nimonic also for stainless under difficult conditions for trouble free machining

End mills and 40-80 diameter face mills for SDKT & HOKU inserts are thru' coolant chamfer cutters are solid without coolant

* 90° face mills for SDKT inserts *

face mill	dia.	height	bore	teeth	insert	price £
SA90-40R6SD09-P16	40	40	16	6	SDKT 09T308	60.00
SA90-50R7SD09-P22	50	40	22	7	SDKT 09T308	65.00
SA90-63R8SD09-P22	63	40	22	8	SDKT 09T308	70.00
SA90-80R10SD09-P27	80	50	27	10	SDKT 09T308	85.00
SA90-100R10SD09-S32	100	50	32	10	SDKT 09T308	94.00
SA90-125R12SD09-S40	125	63	40	12	SDKT 09T308	125.00

Face mills for SDKT inserts are thru' coolant

SA90-SD09

HNKU 0806 inserts - 45° face milling & 18° high feed milling with the same insert - low cost per edge

* 45° end mills for HNKU inserts *

end mill	small dia.	length	shank	teeth	insert	price £
SB45-25R2HO08-B25	25	88	25	2	HNKU 0806	35.00
SB45-32R3HO08-B32	32	100	32	3	HNKU 0806	47.00
SB45-40R4HO08-B32	40	110	32	4	HNKU 0806	63.00
SB45-25R2HO08-A25L120	25	120	25	2	HNKU 0806	35.00
SB45-32R3HO08-A32L130	32	130	32	3	HNKU 0806	47.00
SB45-40R4HO08-A32L150	40	150	32	4	HNKU 0806	63.00

End mills for HNKU inserts are thru' coolant

SB45-HO-B

SB45-HO-A

* 18° high feed end mills for HNKU inserts *

high feed end mill	small dia.	length	shank	teeth	insert	price £
SB18-25R2HO08-A25L120	25	120	25	2	HNKU 0806	34.00
SB18-32R3HO08-A32L130	32	130	32	3	HNKU 0806	45.00
SB18-40R4HO08-A32L150	40	150	32	4	HNKU 0806	54.00

SB18-HO-L

* 45° face mills for HNKU inserts *

face mill	dia.	height	bore	teeth	insert	price £
SA45-40R4HO08-P16*	40	40	16	4	HNKU 0806	53.00
SA45-50R5HO08-P22	50	40	22	5	HNKU 0806	67.00
SA45-63R6HO08-P22	63	40	22	6	HNKU 0806	78.00
SA45-80R7HO08-P27	80	50	27	7	HNKU 0806	86.00
SA45-100R8HO08-S32	100	50	32	8	HNKU 0806	103.00
SA45-125R12HO08-S40	125	63	40	12	HNKU 0806	POA

Face mills for HNKU inserts are thru' coolant

SA45-HO08

* 18° high feed face mills for HNKU inserts *

face mill	dia.	height	bore	teeth	insert	price £
SA18-50R5HO08-P22	50	40	22	5	HNKU 0806	51.00
SA18-63R6HO08-P22	63	40	22	6	HNKU 0806	77.00
SA18-80R7HO08-P27	80	50	27	7	HNKU 0806	80.00
SA18-100R10HO08-S32	100	50	32	10	HNKU 0806	POA
SA18-125R12HO08-S40	125	63	40	12	HNKU 0806	POA

SA18-HO08

Strong negative inserts for high material removal rates - maximise with 18° cutters

HNKU - H NK315

HNKU - S NK135

HNKU - S NK235

HNKU - S NK535

Cutters marked * are only available at prices shown if purchased with 10 or more inserts

inserts	price £
HNKU 0806 AZR-H NK315	12.36
HNKU 0806 AZR-S NK135	12.36
HNKU 0806 AZR-S NK235	12.36
HNKU 0806 AZR-S NK535	15.49

Recommended feed per tooth fz(mm) for 18° high feed cutters

HNKU 0806 AZR-H **1.20** (0.65-2.50)

HNKU 0806 AZR-S **0.85** (0.50-1.80)

HNKU inserts have 12 effective cutting edges from £1.03 per edge!

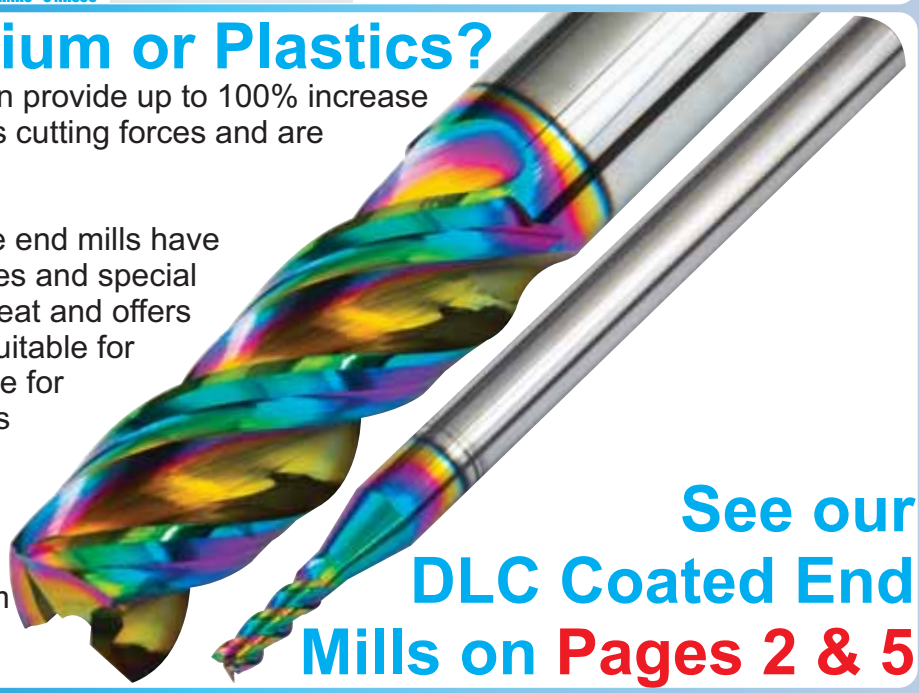
Machining Aluminium or Plastics?

DLC Diamond Like Carbon Coating can provide up to 100% increase in tool life, lapped flute edge decreases cutting forces and are excellent for finishing operations.

Our 3 Flute (EAV3S) High performance end mills have variable, unequal helix with lapped flutes and special U-groove design which helps reduce heat and offers high chip removal. These cutters are suitable for High Hardness Aluminium. Also suitable for Copper Brass other Non-ferrous Metals and Plastics.

Can be used for dry cutting.

We also have single flute for Aluminium (EA1S) and single flute for Plastics (EP1S) with DLC Coating.



See our DLC Coated End Mills on Pages 2 & 5

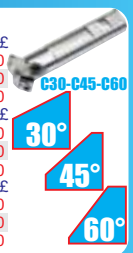
Indexable Milling Cutters

Canela 30° & 45° chamfer cutters

30° cutters	small dia.	large dia.	length	shank dia.	teeth	insert	price £
072407016	5.4	16	70	12	1	TCMT 1102*	65.95
072407026	15.8	26	90	20	2	TCMT 1102*	80.08
45° cutters	**small dia.**	**large dia.**	**length**	**shank dia.**	**teeth**	**insert**	**price £**
062407016	1.2	16	70	12	1	TCMT 1102*	65.95
062407021	8.5	21	90	20	2	TCMT 1102*	80.08
074007020	20.0	37	110	25	2	SPMT 1204*	174.88

APT 30° - 45° - 60° chamfer cutters

30° cutters	small dia	large dia	length	shank dia	teeth	insert	price £
C30-12XP20SP12-01	12	24	100	20	1	SPMT 120408	26.00
C30-25XP25SP12-02	25	37	120	25	2	SPMT 120408	36.00
C30-32XP32SP12-03	32	44	180	32	3	SPMT 120408	56.00
45° cutters	**small dia**	**large dia**	**length**	**shank dia**	**teeth**	**insert**	**price £**
C45-12XP20SP12-01	12	23	100	20	1	SPMT 120408	26.00
C45-25XP25SP12-02	25	36	120	25	2	SPMT 120408	36.00
C45-32XP32SP12-03	32	43	180	32	3	SPMT 120408	56.00
60° cutters	**small dia**	**large dia**	**length**	**shank dia**	**teeth**	**insert**	**price £**
C60-12XP20SP12-01	12	20	100	20	1	SPMT 120408	26.00
C60-25XP25SP12-02	25	33	120	25	2	SPMT 120408	36.00
C60-32XP32SP12-03	32	40	180	32	3	SPMT 120408	56.00



APT milling inserts

APT milling inserts	Price £	APT milling inserts	Price £
ADKT 1505 PDR-H NK135	7.99	APKT 1604 PDR-H NK225	6.95
ADKT 1505 PDR-S NK235	7.99	APKT 1604 PDR-H NK235	8.04
APKT 1003 PDR-H NK135	6.02	APKT 1604 PDR-S NK135	8.04
APKT 1003 PDR-H NK225	5.32	APKT 1604 PDR-S NK235	8.04
APKT 1003 PDR-H NK235	6.02	APKT 1604 PDR-S NK535	9.73
APKT 1003 PDR-S NK135	6.02	SEKT 1204 AFER NK135	6.46
APKT 1003 PDR-S NK235	6.02		
APKT 1003 PDR-S NK535	7.42		

AK15 = K15 un-coated suitable for aluminium, non-ferrous metals & plastics

NK135 = P35 + PVD (Ti-Al-Si)N coating for carbon & alloy steel, 1st choice for general milling

NK225 = P25, K25 + MT-CVD coated for plain carbon steel & grey cast iron

NK235 = M35, S15, P40 + PVD TiAlN coating for all types of stainless steel also for hi-temp alloy, high alloy steel

NK535 = S35 for all types of hi-temp alloy, inconel, hastalloy, waspaloy, nimonic

Uni-tip milling inserts

Uni-tip milling inserts	Price £	Uni-tip milling inserts	Price £
ADKT 1505 PDR-HM90 UM25	3.20	CPMT 080204 P25C	3.60
APKT 100304 ALU AK10	3.20	LNMX 100605 PNR-MM UM25	3.60
APKT 1003 PDFR AK10	2.00	RPMT 1204MOE-JS XM25	2.00
APKT 1003 PDR UM25	2.00	SNMX 1206 ANN-MM UM25	3.60
APKT 1003 PDR UM30	2.40	SEHT 1204 ALU AK10	2.80
APKT 1003 PDR-HM90 UM25	1.60	SEHT 1204 AESN UM25	2.60
APKT 113502 PDFR AK10	2.20	SEKN 1203 AFTN UM25	3.00
APKT 113504 PDFR AK10	2.20	SEKN 1504 AFTN UM25	4.20
APKT 113508 PDFR AK10	2.20	SEKR 1203 AFTN UM25	2.00
APKT 160402 ALU AK10	2.80	SPKN 1203 EDSR UM25	3.00
APKT 160404 ALU AK10	2.80	SPKN 1504 EDSR UM25	4.80
APKT 160408 ALU AK10	2.80	SPMT 120408 UM25	3.00
APKT 160416 ALU AK10	3.72	TPKN 1603 PDSR UM25	2.20
APKT 1604 PDFR AK10	2.80	TPKN 2204 PDSR UM25	3.20
APKT 1604 PDR UM25	2.60	TPKR 1603 PDTR UM25	2.20
APKT 1604 PDR UM30	3.80	TPKR 2204 PDTR UM25	3.20
APKT 1604 PDTR-76 UM25	2.00		
APMT 113512 UM25	2.20		
APMT 113516 UM25	2.20		
APMT 113520 UM25	2.20		
APMT 1135 PDER-E UM30	2.80		
APMT 1135 PDER-H UM25	1.60		
APMT 1135 PDER-M UM25	1.60		
APMT 160404 UM25	3.40		
APMT 160412 UM25	2.80		
APMT 160416 UM25	2.80		
APMT 160424 UM25	2.80		
APMT 160430 UM25	2.80		
APMT 1604 PDER-E UM30	3.80		
APMT 1604 PDER-H UM25	2.40		
APMT 1604 PDER-M UM25	2.40		

UM25 = M25, P35 + PVD coating for universal grade for steel, stainless and cast

UM30 = M30 + PVD coating for stainless

AK10 = K10 ground & polished for aluminium, non-ferrous metals & plastics

APT 45° face mills for SEHT/SEKT inserts

face mill	dia.	height	bore	teeth	insert	price £
KM12-50-22-4T	50	50	22	4	SEKT/SEHT 1204*	33.00
KM12-63-22-4T	63	50	22	4	SEKT/SEHT 1204*	39.00
KM12-80-27-5T	80	50	27	5	SEKT/SEHT 1204*	50.00
KM12-100-32-5T	100	50	32	5	SEKT/SEHT 1204*	80.00
KM12-125-40-6T	125	60	40	6	SEKT/SEHT 1204*	100.00

APT T-slot cutters

t-slot cutters	dia	width	shank	length	neck D	neck length	teeth	insert	price £
ATS-25-11-110L	25	11	25	110	12.5	21	2	CCMT 0602	56.00
ATS-32-14-120L	32	14	32	120	16	30	4	CPMT 0802	62.00
ATS-40-18-130L	40	18	32	130	20	32	4	CCMT 09T3	70.00
ATS-50-22-140L	50	22	32	140	26	39	4	CCMT 1204	78.00

Canela 90° end mills for APKT inserts

end mill	dia.	length	shank	teeth	insert	price £
122002016	16	175	20	2	APKT 1003*	104.22
122002020	20	200	20	3	APKT 1003*	127.78
122007012	12	90	16	1	APKT 1003*	87.15
122007016	16	90	20	2	APKT 1003*	74.83
122007020	20	95	20	3	APKT 1003*	84.44
122007025	25	95	25	4	APKT 1003*	96.57
123002025	25	200	25	2	APKT 1604*	147.21
123002032	32	250	32	3	APKT 1604*	153.10
123002040	40	250	32	4	APKT 1604*	167.23
123007020	20	100	20	1	APKT 1604*	84.44
123007025	25	100	25	2	APKT 1604*	94.55
123007032	32	110	32	3	APKT 1604*	99.61
123007040	40	110	32	4	APKT 1604*	107.70
thru' coolant	**dia.**	**length**	**shank**	**teeth**	**insert**	**price £**
122003012	12	110	16	1	APKT 1003*	91.27
122003016	16	110	20	2	APKT 1003*	76.86
122003020	20	125	20	3	APKT 1003*	89.50

APT 90° end mills for APKT 1003 inserts

end mill	dia.	length	shank	reach	teeth	insert	price £
APKT1003-16-90-2T	16	90	16	28	2	APKT 1003*	30.00
APKT1003-20-110-3T	20	110	20	28	3	APKT 1003*	35.00
APKT1003-25-125-4T	25	125	25	28	4	APKT 1003*	40.00
APKT1003-32-125-5T	32	125	32	28	5	APKT 1003*	50.00

Canela 90° face mills for APKT inserts - 12--93 are thru' coolant

face mill	dia.	height	bore	teeth	insert	price £
122093040	40	40	16	6	AP-- 1003*	167.82
122090050	50	40	22	7	AP-- 1003*	178.42
123093040	40	40	16	4	AP-- 1604*	122.87
123093050	50	40	22	5	AP-- 1604*	118.08
123093063	63	50	27	6	AP-- 1604*	145.62
123093080	80	50	27	7	AP-- 1604*	187.59

APT 90° face mills for APKT - APMT inserts

face mill	dia.	height	bore	teeth	insert	price £
APKT1003-32-16-5T	32	40	16	5	AP-- 1003*	43.00
APKT1003-40-16-6T	40	40	16	6	AP-- 1003*	46.00
APKT1003-50-22-6T	50	40	22	6	AP-- 1003*	54.00
APKT1003-63-22-7T	63	40	22	7	AP-- 1003*	60.00
BAP300R-40-16-4T	40	45	16	4	APMT 1135	34.00
BAP300R-50-22-6T	50	50	22	6	APMT 1135	36.00
BAP300R-63-22-7T	63	45	27	7	APMT 1135	39.00
BAP400R-50-22-4T	50	50	22	4	AP-- 1604*	28.00
BAP400R-63-22-4T	63	50	22	4	AP-- 1604*	30.00
BAP400R-80-27-6T	80	50	27	6	AP-- 1604*	42.00
BAP400R-100-32-6T	100	-	32	6	AP-- 1604*	64.00
BAP400R-125-40-7T	125	-	40	7	AP-- 1604*	90.00
BAP400R-160-40-8T	160	-	40	8	AP-- 1604*	120.00

Low cost 90° end mills for APMT inserts

end mill	dia.	length	shank	teeth	insert	price £
BAP300R-10-100-C10	10	100	10	1	APMT 1135	12.00
BAP300R-12-120-C12	12	120	12	1	APMT 1135	12.00
BAP300R-12-130-C12	12	130	12	1	APMT 1135	12.00
BAP300R-16-120-C16	16	120	16	2	APMT 1135	14.00
BAP300R-16-150-C16	16	150	16	2	APMT 1135	16.00
BAP300R-16-200-C16	16	200	16	2	APMT 1135	18.00
BAP300R-20-120-C20	20	120	20	2	APMT 1135	18.00
BAP300R-20-150-C20	20	150	20	2	APMT 1135	20.00
BAP300R-20-200-C20	20	200	20	2	APMT 1135	22.00
BAP300R-25-150-C25	25	150	25	3	APMT 1135	22.00
BAP300R-25-200-C25	25	200	25	3	APMT 1135	26.00
BAP400R-25-150-C25	25	150	25	2	APMT 1604	22.00
BAP400R-25-200-C25	25	200	25	2	APMT 1604	24.00
BAP400R-25-250-C25	25	250	25	2	APMT 1604	28.00
BAP400R-32-250-C32	32	250	32	3	APMT 1604	36.00
BAP400R-32-300-C32	32	300	32	3	APMT 1604	44.00

* High Feed End Mills for LNMU 0303 inserts *

end mill	dia.	length	reach	shank	teeth	insert	price £
LNMU03-C16-16-160L-2T	16	160	40	16	2	LNMU 0303	24.00
LNMU03-C20-20-160L-3T	20	160	40	20	3	LNMU 0303	29.00
LNMU03-C25-25-160L-4T	25	160	40	25	4	LNMU 0303	33.00
LNMU03-C32-32-160L-5T	32	160	40	32	5	LNMU 0303	40.00
LNMU03-C32-32-200L-5T	32	200	45	32	5	LNMU 0303	46.00
LNMU03-C32-35-160L-5T	35	160	45	32	5	LNMU 0303	46.00
LNMU03-C32-35-200L-5T	35	200	45	32	5	LNMU 0303	49.00

* High Feed Face Mills for LNMU 0303 inserts *

face mill	dia.	height	bore	teeth	insert	price £
LNMU03-40-22-6T	40	40	22	6	LNMU 0303	52.00
LNMU03-50-22-8T	50	45	22	8	LNMU 0303	52.00
LNMU03-63-22-8T	63	45	22	8	LNMU 0303	55.00

* 90° Face Mills for WNMU 0806 inserts *

face mill	dia.	height	bore	teeth	insert	price £
WN90-5T63R-22-08	63	40	22	5	WNMU 080608	50.00
WN90-5T80R-27-08	80	45	27	5	WNMU 080608	65.00
WN90-7T100R-32-08	100	50	32	7	WNMU 080608	92.00

insert	price £
LNMU 0303ZER-MP XM25	2.80
WNMU 080608EN-GM XM25	4.60

* Copy End Mills for P320- inserts *

end mill	dia.	length	L1	shank	insert	price £
P320-C10-4R-100	8	100	25	10	P320*-D08	20.00
P320-C12-4R-130	8	130	40	12	P320*-D08	20.00
P320-C16-4R-150	8	150	40	16	P320*-D08	26.00
P320-C10-5R-120	10	120	30	10	P320*-D10	20.00
P320-C12-5R-150	10	150	40	12	P320*-D10	20.00
P320-C16-5R-150	10	150	40	16	P320*-D10	26.00
P320-C12-6R-130	12	130	40	12	P320*-D12	20.00
P320-C12-6R-150	12	150	50	12	P320*-D12	26.00
P320-C16-6R-200	12	200	50	16	P320*-D12	30.00
P320-C16-8R-150	16	150	50	16	P320*-D16	28.00
P320-C16-8R-200	16	200	60	16	P320*-D16	32.00
P320-C20-8R-200	16	200	60	20	P320*-D16	40.00
P320-C25-8R-250	16	250	60	25	P320*-D16	45.00
P320-C20-10R-150	20	150	40	20	P320*-D20	32.00
P320-C20-10R-200	20	200	60	20	P320*-D20	40.00
P320-C25-10R-250	20	250	60	25	P320*-D20	45.00
P320-C32-10R-300	20	300	60	32	P320*-D20	50.00
P320-C25-12.5R-150	25	150	45	25	P320*-D25	40.00
P320-C25-12.5R-200	25	200	55	25	P320*-D25	45.00
P320-C25-12.5R-250	25	250	60	25	P320*-D25	50.00
P320-C25-12.5R-300	25	300	60	25	P320*-D25	54.00
P320-C32-15R-150	30	150	45	32	P320*-D30	40.00
P320-C32-15R-200	30	200	55	32	P320*-D30	48.00
P320-C32-15R-250	30	250	60	32	P320*-D30	52.00
P320-C32-15R-300	30	300	60	32	P320*-D30	60.00
P320-C32-15R-350	30	350	60	32	P320*-D30	75.00
P320-C32-16R-150	32	150	45	32	P320*-D32	40.00
P320-C32-16R-200	32	200	55	32	P320*-D32	48.00
P320-C32-16R-250	32	250	60	32	P320*-D32	52.00
P320-C32-16R-300	32	300	60	32	P320*-D32	60.00
P320-C32-16R-350	32	350	60	32	P320*-D32	75.00

* P320- inserts

insert	price £
P3200-D08 XM25	11.50
P3200-D10 XM25	11.50
P3200-D12 XM25	11.50
P3200-D16 XM25	12.90
P3200-D20 XM25	15.80
P3200-D25 XM25	21.50
P3200-D30 XM25	32.60
P3200-D32 XM25	38.90
P3204-D08 XM25	12.60
P3204-D10 XM25	12.60
P3204-D12 XM25	12.60
P3204-D16 XM25	14.00
P3204-D20 XM25	18.30
P3204-D25 XM25	26.40
P3204-D30 XM25	37.90
P3204-D32 XM25	39.40

P320- inserts 8-16mm sold in 5's
P320- inserts 20-32mm sold in 2's

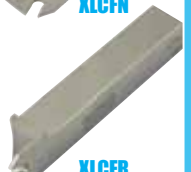
Part-off & Grooving Tools

Canela part-off blades - tools - blade holders

part-off blade	blade height	length	insert	price £
XLCFN 1901 X02	19	86	PTNT 20 - GTN 2	42.28
XLCFN 2601 J02	26	110	PTNT 20 - GTN 2	44.85
XLCFN 2602 J03	26	110	PTNT 30 - GTN 3	44.85
XLCFN 2603 J04	26	110	PTNT 40 - GTN 4	44.85
XLCFN 3201 M02	32	150	PTNT 20 - GTN 2	44.85
XLCFN 3202 M03	32	150	PTNT 30 - GTN 3	44.85
XLCFN 3203 M04	32	150	PTNT 40 - GTN 4	44.85
XLCFN 3204 M05	32	150	PTNT 50 - GTN 5	44.85
XLCFN 3205 M06	32	150	PTNT 60 - GTN 6	44.85

XLCFN

toolholder	shank	length	max dia	insert	price £
XLCFR 1010 J02	10x10	110	28	PTNT 20 - GTN 2	42.98
XLCFR 1212 J02	12x12	110	28	PTNT 20 - GTN 2	45.75
XLCFR 1616 J03	16x16	110	36	PTNT 30 - GTN 3	47.34
XLCFR 2020 K03	20x20	125	36	PTNT 30 - GTN 3	50.76
XLCFR 2525 M03	25x25	150	40	PTNT 30 - GTN 3	55.59


XLCFR

shank	length	blade	blade holder solid type	price £	blade holder split type	price £
16x16	76	XLCFN 19	CPTS 1916	83.20		-
16x16	87	XLCFN 26	CPTS 2616	99.28		-
20x20	87	XLCFN 26	CPTS 2620	83.58	DPTS 2620	99.28
25x25	87	XLCFN 26	CPTS 2625	83.58	DPTS 2625	99.28
20x20	100	XLCFN 32	CPTS 3220	86.21	DPTS 3220	102.34
25x25	110	XLCFN 32	CPTS 3225	86.21	DPTS 3225	102.34
32x32	120	XLCFN 32	CPTS 3232	86.21	DPTS 3232	102.34

CPTS

APT & Uni-tip GTN style part-off inserts & blades

APT part-off inserts	width	price £
PTNT 20 P30C	2.1	4.05
PTNT 20 NK240	2.1	4.05
PTNT 30 P30C	3.1	4.24
PTNT 30 NK240	3.1	4.24
PTNT 40 NK240	4.1	5.98
PTNT 50 P30C	5.1	7.08

part-off blades	height	length	insert	price £
SGIH 19-2-APT	19	86	AP200-PTNT 20	15.00
SGIH 26-3-APT	26	110	AP300-PTNT 30	16.00
SGIH 26-4-APT	32	110	AP400-PTNT 40	16.00
SGIH 32-3-APT	32	150	AP300-PTNT 30	16.00
SGIH 32-4-APT	32	150	AP400-PTNT 40	16.00

P30C = P30 + MT-CVD multi layer coating suitable for steel & stainless

NK240 = M30, P40, K40 + PVD multi layer coating first choice for stainless

APT blades, blade holders and inserts

part-off blades	height	length	insert	price £
SPB 226-S	26	110	AP200	19.20
SPB 326-S	26	110	AP300	19.20
SPB 426-S	26	110	AP400	19.20
SPB 232-S	32	150	AP200	19.20
SPB 332-S	32	150	AP300	19.20
SPB 432-S	32	150	AP400	19.20
SPB-EXT	Insert extractor SPB blade			2.51

SPB

SGTBN

blade holder	shank	blade	price £
SLTBN06	6x6	19	22.00
SLTBN08	8x8	19	22.00
SLTBN10	10x10	19	22.00
SLTBN12	12x12	19	24.00
SLTBN1602-APT	16x16	19	24.00
SGTBN 1626	16x16	26	24.00
SGTBN 2026	20x20	26	24.00
SGTBN 2526	25x25	26	30.00
SGTBN 2032	20x20	32	30.00
SGTBN 2532	25x25	32	30.00
SGTBN 3232	32x32	32	40.00

SPB-EXT ZQ AP

Grade P30C for general steel Grade UM25 & XM25 PVD coated carbide suitable for steel, stainless and cast Grade AK10 uncoated for aluminium

toolholder	shank	length	max dia	insert	price £
ZQ 1616R-02	16x16	100	-	AP200	17.00
ZQ 2020R-02	20x20	125	-	AP200	18.00
ZQ 1616R-03	16x16	100	30	AP300	17.00
ZQ 2020R-03	20x20	125	38	AP300	18.00
ZQ 2525R-03	25x25	150	38	AP300	20.00
ZQ 2020R-04	20x20	125	38	AP400	18.00
ZQ 2525R-04	25x25	150	38	AP400	20.00

inserts	width	price £	inserts	price £
AP200 P30C	2.2	1.80	AP200 AK10	1.80
AP200 UM25	2.2	1.80	AP300 AK10	1.80
AP300 P30C	3.1	1.90	AP200R XM25	1.90
AP300 UM25	3.1	1.90	AP300L XM25	1.90
AP400 P30C	4.1	2.20	AP300R XM25	2.20
AP400 UM25	4.1	2.20	AP400R XM25	2.20

modular grooving for WDN inserts

shank for grooving parting and turning

shank	length	cartridge	£
CZGDL 2020 K26	20x20	125	CZFDL 95.80
CZGDL 2525 M26	25x25	150	CZFDL 102.34
CZGDL 3232 P26	32x32	175	CZFDL 114.23
CZGDR 2020 K26	20x20	125	CZFDR 95.80
CZGDR 2525 M26	25x25	150	CZFDR 102.34
CZGDR 3232 P26	32x32	175	CZFDR 114.23

shank for grooving and face grooving

note tools below CZFD left hand tools use right hand cartridge left hand tools use right hand cartridge

shank	length	cartridge	£
CZFDL 2020 K26	20x20	125	CZFDR 95.80
CZFDL 2525 M26	25x25	150	CZFDR 102.34
CZFDL 3232 P26	32x32	175	CZFDR 114.23
CZFDR 2020 K26	20x20	125	CZFDL 95.80
CZFDR 2525 M26	25x25	150	CZFDL 102.34
CZFDR 3232 P26	32x32	175	CZFDL 114.23

turning parting cartridge	max depth	inserts used	£
CZFDR 0012-03*	12	WDN-WDR 30	54.88
CZFDR 0020-03*	20	WDN-WDR 30	54.88

face grooving cartridge	max depth	min-max dia	inserts used	£
CZFDR 4055-03*	12	40-55	WDN-WDR 30	54.88
CZFDR 5570-03*	15	55-70	WDN-WDR 30	54.88
CZFDR 7098-03*	18	70-98	WDN-WDR 30	54.88
CZFDR 90140-03*	18	90-140	WDN-WDR 30	54.88
CZFDR 130300-03*	18	130-300	WDN-WDR 30	54.88
CZFDR 300999-03*	18	300-999	WDN-WDR 30	54.88

* = Available in left hand

note: CZFDL left hand shank tools use right hand cartridge left hand tools use right hand cartridge

shank CZGDR grooving - turning CZFDR shank CZFDR face grooving CZFDR CZDPN 26 CZDPN 32

CZDPN includes extraction key

APT multi-directional grooving tools & inserts

external deep grooving	shank	length	max depth	max dia	insert	price £
TER10-28-WD22-2	10x10	125	14	28	WDN 20	41.00
TER12-24-WD22-2	12x12	125	12	24	WDN 20	42.00
TER16-28-WD22-2	16x16	125	14	28	WDN 20	42.00
TER16-32-WD22-2	16x16	125	16	32	WDN 20	42.00
TER20-32-WD22-2	20x20	150	16	32	WDN 20	42.00
TER25-32-WD22-2	25x25	150	16	32	WDN 20	47.00
TER16-40-WD22-3	16x16	125	20	40	WDN 30	42.00
TER20-40-WD22-3	20x20	150	20	40	WDN 30	42.00
TER25-40-WD22-3	25x25	150	20	40	WDN 30	47.00
TER32-40-WD22-3	32x32	170	20	40	WDN 30	72.00
TER20-45-WD25-4	20x20	150	22.5	45	WDN 40	42.00
TER25-45-WD25-4	25x25	150	22.5	45	WDN 40	47.00
TER32-45-WD25-4	32x32	170	22.5	45	WDN 40	72.00
TER25-48-WD25-5	25x25	150	24	48	WDN 50	47.00
TER32-48-WD25-5	32x32	170	24	48	WDN 50	72.00
TER40-48-WD25-5	40x40	200	24	48	WDN 50	90.00
TER25-48-WD25-6	25x25	150	24	48	WDN 60	47.00
TER32-45-WD25-6	32x32	170	24	45	WDN 60	72.00
TER40-48-WD25-6	40x40	200	24	48	WDN 60	90.00

external shallow grooving	shank	length	max depth	max dia	insert	price £
TER16-6-WD22-2	16x16	125	6	12	WDN 20	42.00
TER16-9-WD22-3	16x16	125	9	18	WDN 30	42.00
TER20-9-WD22-3	20x20	125	9	18	WDN 30	42.00
TER25-9-WD22-3	25x25	150	9	18	WDN 30	47.00
TER20-10-WD25-4	20x20	125	10	20	WDN 40	42.00
TER25-10-WD25-4	25x25	150	10	20	WDN 40	47.00
TER32-10-WD25-4	32x32	170	10	20	WDN 40	72.00
TER25-12-WD25-5	25x25	150	12	24	WDN 50	47.00
TER32-12-WD25-5	32x32	170	12	24	WDN 50	72.00
TER25-12-WD25-6	25x25	150	12	24	WDN 60	47.00
TER32-12-WD25-6	32x32	170	12	24	WDN 60	72.00
TER40-12-WD25-6	40x40	200	12	24	WDN 60	90.00

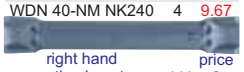
deep face grooving	shank	length	max depth	min-max dia	insert	price £
TFR20-40-WD25-4	20x20	125	10	40-50	WDN 40	94.00
TFR20-50-WD25-4	20x20	125	12	50-60	WDN 40	94.00
TFR20-60-WD25-4	20x20	125	12	60-85	WDN 40	94.00
TFR25-30-WD25-4	25x25	150	12	30-40	WDN 40	94.00
TFR25-40-WD25-4	25x25	150	12	40-50	WDN 40	94.00
TFR25-50-WD25-4	25x25	150	15	50-60	WDN 40	94.00
TFR25-60-WD25-4	25x25	150	15	60-85	WDN 40	94.00
TFR25-60-WD25-6	25x25	150	20	60-85	WDN 60	94.00
TFR25-85-WD25-6	25x25	150	20	85-150	WDN 60	94.00
TFR25-150-WD25-6	25x25	150	20	150-250	WDN 60	94.00

shallow face grooving	shank	length	max depth	min dia	insert	price £
TGFL16-30-WD25-4	16x16	100	4.5	30	WDN 40	90.00
TGFL20-30-WD25-4	20x20	125	4.5	30	WDN 40	90.00
TGFL25-30-WD25-4	25x25	150	4.5	30	WDN 40	90.00
TGFL32-30-WD25-4	32x32	170	4.5	30	WDN 40	100.00

internal grooving	shank dia	length	min bore	max depth	insert	price £
TIR20-WD22-2	20	160	25	3.0	WDN 20	60.00
TIR20-WD22-3	20	160	25	4.5	WDN 30	60.00
TIR20-WD25-4	20	160	25	3.0	WDN 40	60.00
TIR25-WD22-2	25	200	28	3.0	WDN 20	68.00
TIR25-WD22-3	25	200	28	4.5	WDN 30	68.00
TIR25-WD25-4	25	200	30	5.8	WDN 40	68.00
TIR25-WD25-6	25	200	32	6.5	WDN 60	68.00
TIR32-WD22-3	32	250	38	4.5	WDN 30	80.00
TIR32-WD25-4	32	250	39	6.5	WDN 40	80.00
TIR32-WD25-6	32	250	40	6.5	WDN 60	80.00
TIR40-WD25-4	40	300	48	6.5	WDN 40	105.00
TIR40-WD25-5	40	300	49	6.0	WDN 50	105.00
TIR40-WD25-6	40	300	50	6.5	WDN 60	105.00

parting blade	height	length	height to insert	extraction key	insert	price £
CZDPN 2601 J02	26	110	21.4	5735	WDN 20	60.71
CZDPN 2602 J03	26	110	21.4	5735	WDN 30	60.71
CZDPN 3201 M02	32	150	25	5735	WDN 20	66.83
CZDPN 3202 M03	32	150	25	5735	WDN 30	66.83
CZDPN 3203 M04	32	150	25	5735	WDN 40	66.83

parting & grooving neutral inserts	width	price £
WDN 20-NM NK240	2	8.72
WDN 30-NM NK240	3	9.19
WDN 40-NM NK240	4	9.67



right hand parting inserts	width	price £
WDN 30-RM NK240	3	9.19
WDN 40-RM NK240	4	9.67

left hand parting inserts	width	price £
WDN 20-LM NK240	2	8.72
WDN 30-LM NK240	3	9.19
WDN 40-LM NK240	4	9.67

turning, grooving & parting inserts	width	price £
WDN 20-NT NK240	2	8.72
WDN 30-NT NK240	3	9.19
WDN 40-NT NK240	4	9.67
WDN 50-NT NK240	5	11.07
WDN 60-NT NK240	6	11.55

grooving & parting inserts for stainless	width	price £
WDN 20-SS NK240	2	8.72
WDN 30-SS NK240	3	9.19
WDN 40-SS NK240	4	9.67

grooving & parting high temp alloys	width	price £
WDN 20-SS NK345	2	8.72
WDN 30-SS NK345	3	9.19
WDN 40-SS NK345	4	9.67

radius inserts	width	price £
WDR 30 NK240	3	9.19
WDR 40 NK240	4	9.67
WDR 50 NK240	5	11.55

Grade NK240 for steel, stainless, high temp alloys & grey cast iron

TER10 & 12 TER20 TFR25 TGFL25 TIR25

MGMN external grooving tools

External grooving tools	shank HxW	groove width	groove depth	inserts used	price £
MGEHR 1616-1.5	16x16	1.5	14.5	MGMN 150	28.00
MGEHR 2020-1.5	20x20	1.5	14.5	MGMN 150	30.80
MGEHR 0610-2	6x10	2.0	11.5	MGMN 200	15.00
MGEHR 0810-2	8x10	2.0	11.5	MGMN 200	15.00
MGEHR 1010-2	10x10	2.0	14.5	MGMN 200	15.00
MGEHR 1212-2*	12x12	2.0	14.5	MGMN 200	25.20
MGEHR 1616-2*	16x16	2.0	14.5	MGMN 200	28.00
MGEHR 2020-2*	20x20	2.0	14.5	MGMN 200	30.80
MGEHR 2525-2	25x25	2.0	14.5	MGMN 200	34.84
MGEHR 1616-2.5	16x16	2.5	16.5	MGMN 250	28.00
MGEHR 2020-2.5	20x20	2.5	16.5	MGMN 250	30.80
MGEHR 2525-2.5	25x25	2.5	16.5	MGMN 250	34.84
MGEHR 1616-3*	16x16	3.0	18.0	MGMN 300	28.00
MGEHR 2020-3*	20x20	3.0	18.0	MGMN 300	30.80
MGEHR 2525-3*	25x25	3.0	18.0	MGMN 300	34.84
MGEHR 2020-4	20x20	4.0	18.0	MGMN 400	30.80
MGEHR 2525-4*	25x25	4.0	18.0	MGMN 400	34.84
MGEHR 3232-4	32x32	4.0	18.0	MGMN 400	48.84
MGEHR 2020-5	20X20	5.0	19.0	MGMN 500	30.80
MGEHR 2525-5	25x25	5.0	23.0	MGMN 500	34.84
MGEHR 3232-5	32x32	5.0	23.0	MGMN 500	48.84
MGEHR 2020-6	20x20	6.0	19.0	MGMN 600	30.80
MGEHR 2525-6	25x25	6.0	23.0	MGMN 600	34.84
MGEHR 3232-6	32x32	6.0	23.0	MGMN 600	48.84

* = Available in left hand

New Grade GS20 and chip geometry FS for stainless Steel

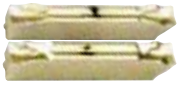
MGMN internal tools

Internal grooving tools	shank dia	min bore	groove width	groove depth	inserts used	price £
MGIVR 2016-1.5	16	20	1.5	4	MGMN 150	36.40
MGIVR 2520-1.5	20	25	1.5	4	MGMN 150	42.00
MGIVR 2016-2*	16	20	2.0	5	MGMN 200	36.40
MGIVR 2520-2*	20	25	2.0	5	MGMN 200	42.00
MGIVR 2016-2.5	16	20	2.5	6	MGMN 250	36.40
MGIVR 2520-2.5	20	25	2.5	6	MGMN 250	42.00
MGIVR 2520-3*	20	25	3.0	6	MGMN 300	42.00
MGIVR 2520-4	20	25	4.0	6	MGMN 400	42.00

* = Available in left hand

inserts	price £
MGMN 150-G UM25	2.80
MGMN 200-G UM25	2.20
MGMN 250-M UM25	2.20
MGMN 300-M UM25	2.20
MGMN 400-M UM25	2.60
MGMN 500-M UM25	3.00
MGMN 600-M UM25	4.20

inserts	price £
MGMN 150-FS GS20	2.80
MGMN 200-FS GS20	2.80
MGMN 300-FS GS20	2.80



UM25 = M25, P35 + PVD coating for steel & stainless.

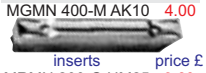
UM32 = M30, P40 + PVD coating for steel & stainless.

AK10 = K10 for aluminium non-ferrous metals & plastics.

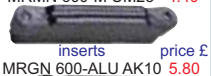
inserts	price £
MGMN 200-T UM32	2.20
MGMN 300-T UM32	2.20
MGMN 400-T UM32	2.60

New Chip Groove 'T' for Turning

inserts	price £
MGMN 150-G AK10	2.80
MGMN 200-G AK10	2.80
MGMN 250-M AK10	2.80
MGMN 300-M AK10	3.60
MGMN 400-M AK10	4.00



inserts	price £
MRMN 200-G UM25	3.60
MRMN 300-M UM25	3.20
MRMN 400-M UM25	3.40
MRMN 500-M UM25	3.80
MRMN 600-M UM25	4.40



inserts	price £
MRGN 600-ALU AK10	5.80

TD grooving sets - 1 tool + 10 inserts

TD External Grooving sets	shank HxW	groove width	groove depth	inserts included (x10)	price £
SET-TTER-1616-2	16x16	2	12	TDC2 UM25	45.00
SET-TTER-1616-3	16x16	3	12	TDC3 UM25	47.00
SET-TTER-2020-2	20x20	2	12	TDC2 UM25	52.00
SET-TTER-2020-3	20x20	3	12	TDC3 UM25	52.00
SET-TTER-2525-2	25x25	2	12	TDC2 UM25	55.00
SET-TTER-2525-3	25x25	3	12	TDC3 UM25	55.00
SET-TTER-2525-4	25x25	4	15	TDC4 UM25	57.40

TD Internal Grooving sets	shank dia	min bore	groove width	groove depth	inserts included (x10)	price £
SET-TTIR-16-2C	16	25	2	8.5	TDC2 UM25	52.00
SET-TTIR-20-2C	20	25	2	6.0	TDC2 UM25	56.00
SET-TTIR-20-3C	20	25	3	6.0	TDC3 UM25	56.00
SET-TTIR-20-4C	20	25	4	6.0	TDC4 UM25	59.00
SET-TTIR-25-3C	25	32	3	5.1	TDC3 UM25	58.00
SET-TTIR-25-4C	25	32	4	5.2	TDC4 UM25	61.00

	replacement inserts	price £
TDC General use	TDC2 UM22	2.20
	TDC3 UM22	2.20
TDJ Stainless High-temp alloys	TDC4 UM22	2.60
	TDJ2 UM22	2.20
	TDJ3 UM22	2.20
	TDJ4 UM22	2.60
TDT Turning	TDT3 UM22	2.20
	TDT4 UM22	2.60

Low Cost Ground & polished inserts for aluminium

Also suitable for other non-ferrous metals & plastics

turning inserts	Price £	turning inserts	Price £
CCGT 060202 ALU AK101	1.40	TCGT 110204 ALU AK101	1.40
CCGT 060204 ALU AK101	1.40	TCGT 110208 ALU AK101	1.40
CCGT 060204 ALU AK101	1.40	TCGT 16T304 ALU AK101	1.60
CCGT 09T302 ALU AK101	1.60	TCGT 16T308 ALU AK101	1.60
CCGT 09T304 ALU AK101	1.60		
CCGT 09T308 ALU AK101	1.60	VBGT 160402 ALU AK101	2.40
		VBGT 160404 ALU AK101	2.40
DCGT 070204 ALU AK101	1.50		
DCGT 11T302 ALU AK101	1.60	VCGT 110304 ALU AK101	1.80
DCGT 11T304 ALU AK101	1.60	VCGT 110308 ALU AK101	1.80
DCGT 11T308 ALU AK101	1.60	VCGT 160404 ALU AK101	2.40

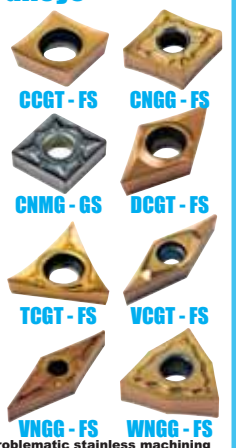
High Performance Ground & polished inserts for aluminium

Also suitable for other non-ferrous metals & plastics

turning inserts	Price £	turning inserts	Price £
CCGT 060202 ALU AK10	1.80	SNMG 120408 ALU AK10	3.72
CCGT 060204 ALU AK10	1.80		
CCGT 09T302 ALU AK10	2.00	TCGT 090202 ALU AK10	1.80
CCGT 09T304 ALU AK10	2.00	TCGT 090204 ALU AK10	1.80
CCGT 09T308 ALU AK10	2.80	TCGT 110202 ALU AK10	2.10
CCGT 120402 ALU AK10	2.80	TCGT 110204 ALU AK10	2.10
CCGT 120404 ALU AK10	2.80	TCGT 16T302 ALU AK10	3.00
CCGT 120408 ALU AK10	2.80	TCGT 16T304 ALU AK10	3.00
		TCGT 16T308 ALU AK10	3.00
CNMG 120402 ALU AK10	2.40		
CNMG 120404 ALU AK10	2.40	TNMG 160404 ALU AK10	2.60
CNMG 120408 ALU AK10	2.40	TNMG 160408 ALU AK10	3.20
DCGT 070202 ALU AK10	1.80	VCGT 110302 ALU AK10	2.20
DCGT 070204 ALU AK10	1.80	VCGT 110304 ALU AK10	2.20
DCGT 070208 ALU AK10	2.68	VCGT 110308 ALU AK10	2.56
DCGT 11T302 ALC AK10	2.00	VCGT 160402 ALU AK10	3.00
DCGT 11T302 ALU AK10	2.00	VCGT 160404 ALC AK10	4.00
DCGT 11T304 ALC AK10	2.40	VCGT 160404 ALU AK10	3.00
DCGT 11T304 ALU AK10	2.00	VCGT 160408 ALC AK10	4.00
DCGT 11T308 ALC AK10	2.40	VCGT 160408 ALU AK10	3.00
DCGT 11T308 ALU AK10	2.00	VCGT 160412 ALU AK10	4.00
DNMG 150604 ALU AK10	4.12	VCGT 220530 ALC AK10	5.92
DNMG 150608 ALU AK10	4.12	VCGT 220530 ALU AK10	5.92
RCGT 0602MOALU AK10	2.60	VNMG 160404 ALU AK10	2.80
RCGT 0803MOALU AK10	3.84	VNMG 160408 ALU AK10	2.80
RCGT 1003MOALU AK10	3.80		
RCGT 1204MOALU AK10	4.40	WNMG 060404 ALU AK10	2.92
		WNMG 080404 ALU AK10	2.40
SCGT 09T304 ALU AK10	2.80	WNMG 080408 ALU AK10	3.00
SCGT 09T308 ALU AK10	2.80		
SCGT 120408 ALU AK10	3.80		

Uni-tip inserts for hi-temp alloys

Turning inserts	Price £	Turning inserts	Price £
CCGT 060202 FS US05A	4.60	TCGT 110202 FS US05	4.92
CCGT 060204 FS US05A	4.60	TCGT 110204 FS US05	4.92
CCGT 09T302 FS US05A	5.00		
CCGT 09T304 FS US05A	5.00	TNGG 160404 FS US05	6.20
		TNGG 160408 FS US05	6.20
CNGG 120402 FS US05	6.00		
CNGG 120404 FS US05	6.00	TNMG 220408 GS US15	4.80
CNGG 120408 FS US05A	6.80		
		VCGT 110302 FS US05	5.00
CNMG 120408 GS US15A	4.40	VCGT 110304 FS US05A	6.20
		VCGT 160402 FS US05A	8.00
DCGT 070202 FS US05A	5.20	VCGT 160404 FS US05	6.80
DCGT 070204 FS US05	4.72		
DCGT 11T302 FS US05A	5.40	VNGG 160401 FS US05	8.00
DCGT 11T304 FS US05A	5.40	VNGG 160402 FS US05	8.00
		VNGG 160404 FS US05	8.00
DNMG 150608 GS US15	6.00		
		WNGG 080404 FS US05	6.00
SNGG 120408 FS US05	6.00	WNGG 080408 FS US05	6.00
SNMG 120408 GS US15	4.84		
		WNMG 080408 GS US15	4.00



GS For medium to roughing inconel, titanium alloys etc, general & problematic stainless machining
FS For fine finishing to finishing inconel, titanium alloys etc, general & problematic stainless machining

Low cost KNUX turning inserts for general use on steel

Grade UH30 low cost for steel. Grade DP25 high quality for steel Grade XM20 for stainless

Turning inserts	Price £	Turning inserts	Price £
KNUX 160405 L11 UH30	3.00	KNUX 160405 R11 UH30	3.00
KNUX 160405 L11 XM25	3.60	KNUX 160405 R11 XM25	3.60
KNUX 160410 L11 UH30	3.00	KNUX 160410 R11 UH30	3.00

Uni-tip PVD coated inserts for stainless & general use

Turning inserts	Price £	Turning inserts	Price £
CCMT 060202 FX UM25	2.60	SCMT 120408 MX UM25	3.80
CCMT 060204 MX UM25A	2.00		
CCMT 09T302 MX UM25A	3.08	SNMG 120404 MA XM20	2.80
CCMT 09T304 MX UM25A	2.20	SNMG 120408 GM UM25A	3.80
CCMT 09T308 MX UM25	2.20	SNMG 120404 MA XM20	2.80
CCMT 120404 MX UM25A	4.60		
CCMT 120408 MX UM25A	4.60	TCMT 090204 MX UM25	2.36
		TCMT 110204 TF XM20	2.20
CNMG 120404 GM UM25A	3.60	TCMT 16T304 TF XM20	2.60
CNMG 120404 MA XM20	2.80	TCMT 16T308 TF XM20	2.60
CNMG 120408 GM UM25A	3.60		
CNMG 120408 MA XM20	2.80	TNMG 160404 GM UM25	3.40
		TNMG 160404 MA XM20	2.40
DCMT 070202 FX UM25	3.28	TNMG 160408 GM UM25A	3.40
DCMT 070204 MX UM25A	3.60	TNMG 160404 MA XM20	2.40
DCMT 070204 TF XM20	2.00		
DCMT 11T302 MV UM25A	3.80	VBMT 160404 MV UM25A	4.60
DCMT 11T304 MV UM25A	3.80	VBMT 160408 MV XM20	3.40
DCMT 11T304 TF XM20	2.40	VBMT 160408 MV XM20	3.40
DCMT 11T308 MX UM25A	3.80	VCMT 110304 MX UM25	3.56
DCMT 11T308 TF XM20	2.40	VCMT 160404 MX UM25A	5.20
DNMG 110404 GM UM25A	3.80		
DNMG 150604 GM UM25A	5.36	VNMG 160404 GM XM20	3.20
DNMG 150608 GM UM25A	5.36	VNMG 160408 GM XM20	3.20
RCGT 0602MOE-G UM25	2.76	WNMG 080404 GM UM25A	3.80
RCMT 0803MOE-M UM25	2.88	WNMG 080408 MA XM20	2.80
RCMT 10T3MOE-M UM25	2.88	WNMG 080408 GM UM25A	3.80
SCMT 120404 MX UM25	4.24	WNMG 080408 MA XM20	2.80

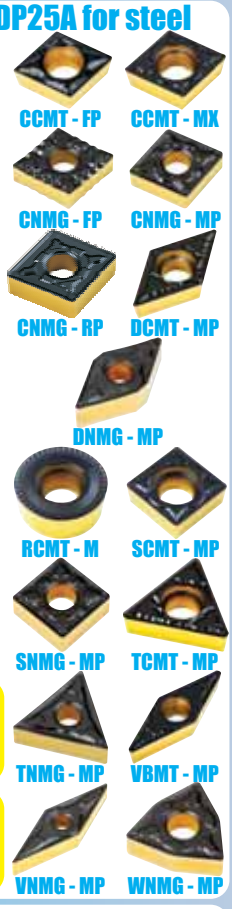
Turning inserts in Grades DP15A & DP25A for steel

Turning inserts	Price £	Turning inserts	Price £
CCMT 060202 FP DP15A	2.00	SCMT 09T304 MP DP25A	2.80
CCMT 060204 MP DP25A	2.00	SCMT 120408 MP DP25A	3.60
CCMT 060208 MP DP25A	2.60		
		SNMG 120404 MP DP25A	3.00
CCMT 09T304 MP DP25A	2.20	SNMG 120408 MP DP25A	3.00
CCMT 09T308 MP DP25A	2.20		
CCMT 120404 MP DP25A	4.20	TCMT 110204 MP DP25A	2.20
CCMT 120408 MP DP25A	3.60	TCMT 16T304 MP DP25A	3.00
		TCMT 16T308 MP DP25A	3.00
CNMG 120404 FP DP25A	2.60		
CNMG 120404 MP DP25A	2.60	TNMG 160404 MP DP25A	2.60
CNMG 120408 MP DP15A	2.60	TNMG 160408 MP DP15A	2.60
CNMG 120408 MP DP25A	2.60	TNMG 160408 MP DP25A	2.60
CNMG 120408 RP DP25A	2.60		
CNMG 120412 MP DP25A	2.60	TNMG 220404 MP DP25A	3.60
		TNMG 220408 MP DP25A	3.60
CNMG 190608 MP DP25A	7.80		
		VBMT 160404 MP DP25A	3.80
DCMT 070204 MP DP25A	2.20	VBMT 160408 MP DP25A	3.80
DCMT 11T304 MP DP25A	2.80		
DCMT 11T308 MP DP25A	2.80	VCMT 110304 MP DP25A	3.00
		VCMT 160404 MP DP25A	3.80
DNMG 110404 MP DP25A	2.40	VCMT 160408 MP DP25A	3.80
DNMG 110408 MP DP25A	2.40		
		VNMG 160404 MP DP15A	4.00
DNMG 150604 MP DP25A	4.80	VNMG 160404 MP DP25A	4.00
DNMG 150608 MP DP25A	4.80	VNMG 160408 MP DP25A	4.00
DNMG 150612 MP DP25A	4.80		
		WNMG 060404 MP DP25A	2.40
RCMT 1204MOE-M DP25A	3.20	WNMG 080404 MP DP25A	2.60
		WNMG 080408 MP DP25A	2.60

DP15A for stable continuous cutting on steel
DP25A 1st choice for general use on steel

Grades DP15A & DP25A feature gradient hardness with the core of the insert harder than the outer edge providing stability when high speed machining

Grades DP15A & DP25A have MT-CVD multi layer coating TiN TiCN Al2O3 TiN with visual dual layer and high quality surface finish



Low cost cermet inserts

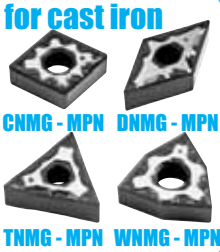
Grade CM20 wear resistant for stable conditions with continuous cut fine finishing, finish cutting

Turning inserts	Price £	Turning inserts	Price £
CCMT 060204 HQ CM20	1.50	VNMG 160404 MT CM20	2.30
		VNMG 160408 HQ CM20	2.30
CCMT 09T302 FA CM20	1.50		
CCMT 09T304 HQ CM20	1.50	WNMG 080404 HQ CM20	1.90
CCMT 09T308 MT CM20	1.50	WNMG 080408 HQ CM20	1.90
CNMG 120404 HQ CM20	1.90		
CNMG 120408 HQ CM20	1.90		
DCMT 11T302 FA CM20	1.50		
DCMT 11T304 HQ CM20	1.50		
TCMT 090204 MT CM20	1.50		
TCMT 110204 FG CM20	1.50		
TCMT 16T304 MT CM20	1.60		
TCMT 16T308 MT CM20	1.60		
TNMG 160404 HQ CM20	1.60		
TNMG 160404R-FS CM20	1.60		
TNMG 160408 HQ CM20	1.60		
TNMG 160404L-VF CM20	1.60		
TNMG 160404R-VF CM20	1.60		
VBMT 160404 FG CM20	2.30		
VBMT 160408 HQ CM20	2.30		

Turning Inserts

APT turning inserts in Grade KC20 for cast iron

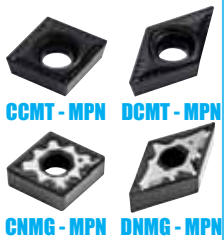
Turning inserts	Price £	Turning inserts	Price £
CCMT 060204 MPN KC20	4.24	DNMG 150608 MPN KC20	8.62
CCMT 09T304 MPN KC20	4.44		
		TNMG 160408 MPN KC20	5.79
CNMG 120408 MPN KC20	5.54		
		WNMG 080408 MPN KC20	5.77
DCMT 070204 MPN KC20	4.36		
DCMT 11T304 MPN KC20	4.93		


CNMG - MPN DNMG - MPN
TNMG - MPN WNMG - MPN

APT turning inserts in Grade PC15 for steel

Grade PC15 new grade for increased productivity in steel turning applications increased tool life over PC25 when used in stable conditions with continuous cuts

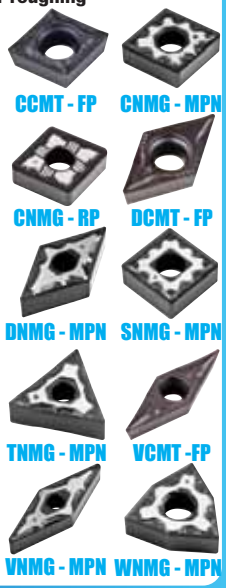
turning inserts	Price £	turning inserts	Price £
CCMT 060204 MPN PC15	4.24	SNMG 120408 MPN PC15	6.84
CCMT 09T304 MPN PC15	4.44		
CCMT 09T308 MPN PC15	4.44	TNMG 160404 MPN PC15	5.79
		TNMG 160408 MPN PC15	5.79
CNMG 120404 MPN PC15	5.54		
CNMG 120408 MPN PC15	5.54	VNMG 160404 MPN PC15	7.40
DCMT 11T304 MPN PC15	4.93	WNMG 060404 MPN PC15	5.58
DCMT 11T308 MPN PC15	4.93	WNMG 060408 MPN PC15	5.58
DNMG 150604 MPN PC15	8.62	WNMG 080404 MPN PC15	5.77
DNMG 150608 MPN PC15	8.62	WNMG 080408 MPN PC15	5.77


CCMT - MPN DCMT - MPN
CNMG - MPN DNMG - MPN

APT turning inserts in Grade PC25 for general steel

Grade PC25 is our most advanced CVD coated grade it's smooth surface helps to increase tool life & application possibilities MPN optimized chip breaker for better chip evacuation & lower cutting forces reducing temperature at the cutting edge New chip breakers FP for finishing - RP for roughing

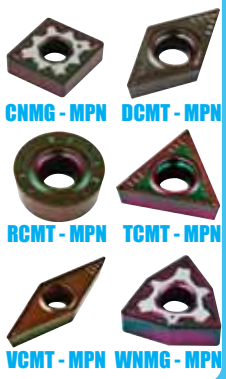
turning inserts	Price £	turning inserts	Price £
CCMT 060202 FP PC25	4.24	RCMT 0602MO-MPN PC25	3.98
CCMT 060204 FP PC25	4.24	SNMG 120408 MPN PC25	6.84
CCMT 060204 MPN PC25	4.24	TCMT 090204 MPN PC25	4.46
CCMT 09T302 FP PC25	4.44	TCMT 110204 MPN PC25	4.46
CCMT 09T304 FP PC25	4.44	TCMT 16T304 MPN PC25	4.88
CCMT 09T304 MPN PC25	4.44	TCMT 16T308 MPN PC25	4.88
CCMT 09T308 MPN PC25	4.44		
CCMT 120404 MPN PC25	6.17	TNMG 160404 MPN PC25	5.79
CCMT 120408 MPN PC25	6.17	TNMG 160408 MPN PC25	5.79
		TNMG 220404 MPN PC25	9.28
CNMG 120404 MPN PC25	5.54	TNMG 220408 MPN PC25	9.28
CNMG 120408 MPN PC25	5.54		
CNMG 120412 RP PC25	5.54	VCMT 110302 FP PC25	4.83
CNMG 190612 PR PC25	13.95	VCMT 110304 FP PC25	4.83
DCMT 070202 FP PC25	4.36	VCMT 110304 MPN PC25	4.83
DCMT 070204 FP PC25	4.36	VCMT 160404 FP PC25	5.54
DCMT 070204 MPN PC25	4.36	VCMT 160404 MPN PC25	5.54
DCMT 11T302 FP PC25	4.93	VCMT 160408 MPN PC25	5.54
DCMT 11T304 FP PC25	4.93		
DCMT 11T304 MPN PC25	4.93	VNMG 160404 MPN PC25	7.40
DCMT 11T308 MPN PC25	4.93	VNMG 160408 MPN PC25	7.40
DNMG 110404 MPN PC25	5.87	WNMG 060404 MPN PC25	5.58
DNMG 110408 MPN PC25	5.87	WNMG 060408 MPN PC25	5.58
DNMG 150408 MPN PC25	8.25	WNMG 080404 MPN PC25	5.77
DNMG 150604 MPN PC25	8.62	WNMG 080408 MPN PC25	5.77
DNMG 150608 MPN PC25	8.62	WNMG 080412 RP PC25	5.77


CCMT - FP CNMG - MPN
CNMG - RP DCMT - FP
DNMG - MPN SNMG - MPN
TNMG - MPN VCMT -FP
VNMG - MPN WNMG - MPN

APT turning inserts in Grade PC35 for steel

Grade PC35 new grade for steel turning applications, tougher than grade PC25 performs well at lower cutting speeds intermittent cuts and difficult conditions

turning inserts	Price £	turning inserts	Price £
CCMT 060204 MPN PC35	4.24	SCMT 120408 MPN PC35	6.25
CCMT 09T304 MPN PC35	4.44		
CCMT 09T308 MPN PC35	4.44	SNMG 120408 MPN PC35	6.84
CNMG 120408 MPN PC35	5.54	TCMT 110204 MPN PC35	4.46
		TCMT 110208 MPN PC35	4.46
DCMT 070204 MPN PC35	4.36	TCMT 16T304 MPN PC35	4.88
DCMT 11T304 MPN PC35	4.93	TCMT 16T308 MPN PC35	4.88
DCMT 11T308 MPN PC35	4.93		
		TNMG 160408 MPN PC35	5.79
DNMG 150608 MPN PC35	8.62		
		VCMT 110304 MPN PC35	4.83
RCMT 0803MO-MPN PC35	4.00	VCMT 110308 MPN PC35	4.83
RCMT 1003MO-MPN PC35	5.38	VCMT 160404 MPN PC35	5.54
RCMT 1204MO-MPN PC35	5.51	VCMT 160408 MPN PC35	5.54
RCMT 2006MO-MPN PC35	12.07		
SCMT 09T308 MPN PC35	4.46	WNMG 080408 MPN PC35	5.77


CNMG - MPN DCMT - MPN
RCMT - MPN TCMT - MPN
VCMT - MPN WNMG - MPN

APT Inserts for inconel - hastalloy - other hi-temp alloys

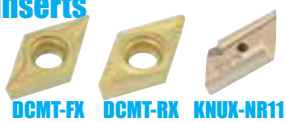
Grade 5115 = S15 + TiAlN+TiN PVD coating

turning inserts	Price £
CNMG 120408 MS 5115	5.54
DNMG 150608 MS 5115	9.71
SNMG 120408 MS 5115	7.47

CNMG - MS DNMG - MS SNMG - MS

Other APT turning inserts

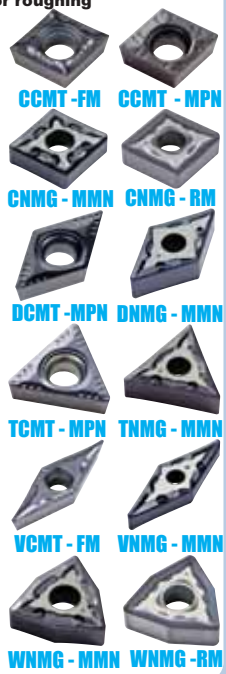
APT turning inserts	Price £	APT turning inserts	Price £
CNMG 090308 MP 1125	4.26	SPMR 120308 1135	6.82
KNUX 160405LN11 PC25	7.14	TPMR 110304 1135	3.69
KNUX 160405RN11 PC25	7.14	TPMR 160304 1135	5.13
		TPMR 160308 1135	5.13


DCMT-FX DCMT-RX KNUX-NR11

APT Grade M250 TiN+TiAlN PVD coating for Stainless

Our most advanced PVD grade it incorporates TiN+TiAlN coating increasing tool life MMN chip breaker offers a wider range of feeds & cutting depths New chip breakers FM for finishing - RM for roughing

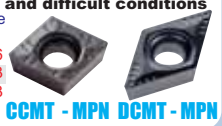
turning inserts	Price £	turning inserts	Price £
CCMT 060202 FM M250	4.24	DNMG 150604 MMN M250	8.62
CCMT 060204 FM M250	4.24	DNMG 150608 MMN M250	8.62
CCMT 060204 MPN M250	4.24		
CCMT 060208 MPN M250	4.24	SNMG 120408 MMN M250	6.84
CCMT 09T302 FM M250	4.44	TCMT 090204 MPN M250	4.46
CCMT 09T304 FM M250	4.44		
CCMT 09T304 MPN M250	4.44	TCMT 110202 FM M250	4.46
CCMT 09T308 MPN M250	4.44	TCMT 110204 MPN M250	4.46
CCMT 120404 MPN M250	6.17	TCMT 16T304 MPN M250	4.88
CCMT 120408 MPN M250	6.17	TCMT 16T308 MPN M250	4.88
CNMG 090304 MMN M250	4.26	TNMG 160404 MMN M250	5.79
CNMG 090308 MMN M250	4.26	TNMG 160408 MMN M250	5.79
CNMG 120404 MMN M250	5.54	VCMT 110302 FM M250	4.83
CNMG 120408 MMN M250	5.54	VCMT 110304 FM M250	4.83
CNMG 120412 RM M250	5.54	VCMT 110304 MPN M250	4.83
DCMT 070202 FM M250	4.36	VCMT 160404 FM M250	5.54
DCMT 070204 FM M250	4.36	VCMT 160404 MPN M250	5.54
DCMT 070204 MPN M250	4.36	VCMT 160408 MPN M250	5.54
DCMT 11T302 FM M250	4.93	VNMG 160408 MMN M250	7.40
DCMT 11T304 FM M250	4.93		
DCMT 11T304 MPN M250	4.93	WNMG 060404 MMN M250	5.58
DCMT 11T308 MPN M250	4.93	WNMG 060408 MMN M250	5.58
DNMG 110404 MMN M250	5.87	WNMG 080404 MMN M250	5.77
DNMG 110408 MMN M250	5.87	WNMG 080408 MMN M250	5.77
DNMG 150408 MMN M250	8.25	WNMG 080412 RM M250	5.77


CCMT -FM CCMT - MPN
CNMG - MMN CNMG - RM
DCMT -MPN DNMG - MMN
TCMT - MPN TNMG - MMN
VCMT - FM VNMG - MMN
WNMG - MMN WNMG -RM

APT Grade M350 TiN+TiAlN PVD coating for Stainless

Grade M350 new grade for stainless turning applications tougher than grade M250 performs well at lower cutting speeds intermittent cuts and difficult conditions

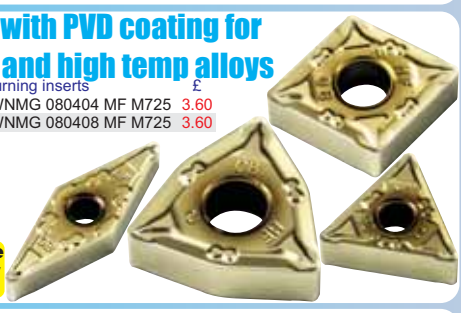
turning inserts	Price £	turning inserts	Price £
CCMT 09T304 MPN M350	4.44	TCMT 110204 MPN M350	4.46
CCMT 09T308 MPN M350	4.44	VCMT 110304 MPN M350	4.83
DCMT 11T304 MPN M350	4.93	VCMT 110308 MPN M350	4.83
DCMT 11T308 MPN M350	4.93		


CCMT - MPN DCMT - MPN

MF chip breaker + with PVD coating for finishing stainless and high temp alloys

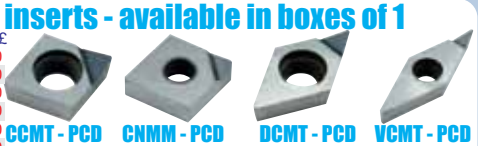
turning inserts	£	turning inserts	£
CNMG 120404 MF M725	3.40	WNMG 080404 MF M725	3.60
CNMG 120408 MF M725	3.40	WNMG 080408 MF M725	3.60
DNMG 150604 MF M725	5.20		
DNMG 150608 MF M725	5.20		
TNMG 160404 MF M725	3.10		
TNMG 160408 MF M725	3.10		
VNMG 160404 MF M725	4.20		
VNMG 160408 MF M725	4.20		

Fully ground cutting edge with optimised geometry for stainless & HRSA



PCD diamond inserts - available in boxes of 1

PCD turning inserts	Price £
CNMM 120408 PCD*	22.00
CCMT 060204 PCD*	22.00
CCMT 09T304 PCD*	22.00
DCMT 070202 PCD*	22.00
DCMT 070204 PCD*	22.00
DCMT 11T304 PCD*	22.00
SNMM 120408 PCD1300	22.00
VCMT 110304 PCD*	22.00
VCMT 160402 PCD1300	22.00
VCMT 160404 PCD*	22.00
VCMT 160408 PCD*	22.00
VCMT 160412 PCD1300	22.00
PCD milling inserts	**Price £**
APGW 113504 PCD1300	22.00
APGW 160408 PCD1300	22.00
APKT 100304 PCD1300	24.00
APKT 160404 PCD1300	22.00
SEHT 1204AFFN PCD1300	26.00
PCD grooving inserts	**Price £**
MGMN 150 PCD1300	24.00
MGMN 200 PCD1300	24.00
MGMN 250 PCD1300	24.00
MGMN 300 PCD1300	24.00
MGMN 400 PCD1300	24.00
MRMN 200 PCD1300	26.00
MRMN 300 PCD1300	26.00
MRMN 400 PCD1300	26.00


CCMT - PCD CNMM - PCD DCMT - PCD VCMT - PCD

*choose grade PCD1300 or PCD1500

Grade PCD1300 (Grain size=5µ) for General use on Aluminium with Silicon content (Si<12%), also suitable for Graphite, Carbon Plastic Composites, Rubber, Wood, Copper and Bronze Alloys, Zinc. Main properties, good edge quality providing a good surface finish excellent wear resistance, medium impact strength.

Grade PCD1500 (Grain size=25µ) for Roughing and Finish Turning of Aluminium with high Silicon content (Si>12%) Interrupted cutting of Aluminium with Si<12%, Rough Turning of highly abrasive Composite Plastics, Cemented Tungsten Carbide <16% Cobalt, Ceramics. Main properties, high wear resistance and impact strength average surface finish.

APGW APKT APKT 10 SEHT MGMN MRMN

CBN inserts available in boxes of 1

CBN turning inserts
CCMW 060204 CBN*
CCMW 09T304 CBN*
CCMW 09T308 CBN*
CNMA 120404 CBN*
CNMA 120408 CBN*
DCMW 070204 CBN*
DCMW 11T304 CBN*
DCMW 11T308 CBN*
DNMA 150604 CBN*
DNMA 150608 CBN*
SNMA 120408 CBN*
VCMW 160404 CBN*
VCMW 160408 CBN*
VNMA 160404 CBN*
VNMA 160408 CBN*

CNMA DCMW

*Choose from Grade CBN2100 £19.00 or CBN300 £20.00 each

Grade CBN2100 for hardened steel 45-65HRC with continuous turning on medium to finishing applications can be used on stable milling applications. Grade CBN300 for machining hard steel 45-65HRC with interrupted cuts.

CBN milling inserts	Price £
APGW 113504 CBN2100	24.00
APGW 160408 CBN2100	24.00
CBN grooving inserts	**Price £**
MGMN 150 CBN2100	26.00
MGMN 200 CBN2100	26.00
MGMN 250 CBN2100	26.00
MGMN 300 CBN2100	26.00
MGMN 400 CBN2100	26.00

APGW MGMN

Canela toolholders

turning tools	shank	insert	£ Price
CKJNR 2020 K16	20x20	KNUX 1604	78.12
CKJNR 2525 M16	25x25	KNUX 1604	78.12
CTGPR 2020 K16	20x20	TPMR 1603	53.23
CTGPR 2525 M16	25x25	TPMR 1603	58.29
DCLNR 2020 K12-N	20x20	CNMG 1204	47.68
DCLNR 2525 M12-N	25x25	CNMG 1204	50.26
DDJNR 2020 K15-N	20x20	DNMG 1506	47.68
DDJNR 2525 M15-N	25x25	DNMG 1506	50.26
DSSNR 2020 K12-N	20x20	SNMG 1204	47.68
DSSNR 2525 M12-N	25x25	SNMG 1204	50.26
DWLNR 2020 K08-N	20x20	WNMG 0804	47.68
DWLNR 2525 M08-N	25x25	WNMG 0804	50.26
MTENN 2020 K16	20x20	TNMG 1604	46.21
MTENN 2525 M16	25x25	TNMG 1604	49.05
MTENN 2525 M22	25x25	TNMG 2204	49.05
MTJNR 2020 K16	20x20	TNMG 1604	46.21
MTJNR 2525 M16	25x25	TNMG 1604	49.05
MTJNR 2525 M22	25x25	TNMG 2204	49.05
MVJNR 2020 K16-K	20x20	VNMG 1604	62.77
MVJNR 2525 M16-K	25x25	VNMG 1604	67.54
MVVNN 2020 K16-K	20x20	VNMG 1604	62.77
MVVNN 2525 M16-K	25x25	VNMG 1604	67.54
MWLNR 2020 K08	20x20	WNMG 0804	46.21
MWLNR 2525 M08	25x25	WNMG 0804	49.05
PCLNR 1616 H12	16x16	CNMG 1204	42.47
PCLNR 2020 K12	25x25	CNMG 1204	46.21
PCLNR 2525 M12	25x25	CNMG 1204	49.05
PCLNR 3232 P12	32x32	CNMG 1204	63.71
PCLNR 3232 P16	32x32	CNMG 1606	63.71
PCLNR 3232 P19	32x32	CNMG 1906	63.71
PDJNR 1616 H11	16x16	DNMG 1104	42.47
PDJNR 2020 K11	20x20	DNMG 1104	46.21
PDJNR 2020 K15	20x20	DNMG 1506	46.21
PDJNR 2525 M11	25x25	DNMG 1104	49.05
PDJNR 2525 M15	25x25	DNMG 1506	49.05
PDJNR 3225 P15	32x25	DNMG 1506	63.71
PDJNR 3232 P15	32x32	DNMG 1506	63.76

turning tools	shank	insert	£ Price
PRDCN 2020 K12	20x20	RCMT 1204	54.88
PRDCN 2525 M12	25x25	RCMT 1204	58.29
PRDCN 3225 P12	32x25	RCMT 1204	63.71
PRDCN 3225 P16	32x25	RCMT 1606	63.71
PRDCN 3232 P20	32x32	RCMT 2006	75.72
PSBNR 2020 K12	20x20	SNMG 1204	46.21
PSBNR 2525 M12	25x25	SNMG 1204	49.05
PSBNR 3232 P19	32x32	SNMG 1906	63.76
PSBNR 4040 S19	40x40	SNMG 1906	87.52
PWLNR 1616 H06	16x16	WNMG 0604	42.47
PWLNR 2020 K06	20x20	WNMG 0604	46.21
PWLNR 2020 K08	20x20	WNMG 0804	46.21
PWLNR 2525 M08	25x25	WNMG 0804	49.05
PWLNR 3232 P08	32x32	WNMG 0804	63.76
SCLCR 1010 E06	10x10	CCMT 0602	37.87
SCLCR 1212 F09	12x12	CCMT 09T3	40.45
SCLCR 1616 H09	16x16	CCMT 09T3	41.97
SCLCR 2020 K09	20x20	CCMT 09T3	44.85
SCLCR 2020 K12	20x20	CCMT 1204	44.85
SCLCR 2525 M12	25x25	CCMT 1204	48.89
SDJCR 1212 F11	12x12	DCMT 11T3	40.45
SDJCR 1616 H11	16x16	DCMT 11T3	41.97
SDJCR 2020 K11	20x20	DCMT 11T3	44.85
SDJCR 2525 M11	25x25	DCMT 11T3	48.89
SDNCN 1616 H11	16x16	DCMT 11T3	41.97
SDNCN 2020 K11	20x20	DCMT 11T3	44.85
SRDCN 1616 H06	16x16	RCMT 0602	41.97
SRDCN 1616 H08	16x16	RCMT 0803	41.97
SRDCN 2020 K06	20x20	RCMT 0602	44.85
SRDCN 2020 H08	20x20	RCMT 0803	44.85
SRDCN 2020 K10	20x20	RCMT 10T3	44.85
SRDCN 2525 M06	25x25	RCMT 0602	58.29
SRDCN 2525 M08	25x25	RCMT 0803	49.05
SRDCN 2525 M10	25x25	RCMT 10T3	49.05
SRDCN 2525 M12	25x25	RCMT 1204	49.05
SVJBR 2020 K16	20x20	VBMT 1604	52.28
SVJBR 2525 M16	25x25	VBMT 1604	56.28
SVJCR 2020 K11	20x20	VCMT 1103	52.28
SVJCR 2020 K16	20x20	VCMT 1604	52.28
SVJCR 2525 M16	25x25	VCMT 1604	56.28
SVVBN 2020 K16	20x20	VBMT 1604	52.28
SVVBN 2525 M16	25x25	VBMT 1604	56.28
SVVCN 2020 K16	20x20	VCMT 1604	52.28
SVVCN 2525 M16	25x25	VCMT 1604	56.28

Most tools available in left hand

Canela boring bars

boring bars	dia	length	insert	£ Price
S12M CTFPR 11	12	150	TPMR 1103	64.77
S16R CTFPR 11	16	200	TPMR 1103	67.72
S16R CTFPR 16	16	200	TPMR 1603	67.72
S20S CTFPR 11	20	250	TPMR 1103	84.79
S20S CTFPR 16	20	250	TPMR 1603	84.79
S25T CTFPR 16	25	300	TPMR 1603	93.04
S32U CTFPR 16	32	350	TPMR 1603	118.94
S40V CTFPR 16	40	400	TPMR 1603	153.68
S25T DCLNR 12	25	300	CNMG 1204	102.14
S32U DDUNR 15	32	350	DNMG 1506	132.98
S25T MTFNR 16	25	300	TNMG 1604	102.14
S32U MTFNR 16	32	350	TNMG 1604	132.98
S40V MTFNR 16	40	400	TNMG 1604	178.42
S25T MVUNR 16-K	25	300	VNMG 1604	127.78
S25T MWLNR 08	25	300	WNMG 0804	102.14
S32U MWLNR 08	32	350	WNMG 0804	132.98
S40V MWLNR 08	40	400	WNMG 0804	178.42
S50W MWLNR 08	50	450	WNMG 0804	216.69
S16R PCLNR 09	16	200	CNMG 0903	94.55
S20S PCLNR 09	20	250	CNMG 0903	97.08
S25T PCLNR 12	25	300	CNMG 1204	102.14
S32U PCLNR 12	32	350	CNMG 1204	132.98
S40V PCLNR 12	40	400	CNMG 1204	150.17
S50W PCLNR 12	50	450	CNMG 1204	182.53
S50W PCLNR 16	50	450	CNMG 1606	182.53
S50W PCLNR 19	50	450	CNMG 1906	182.53
S32U PDUNR 15	32	350	DNMG 1506	132.98
S40V PDUNR 15	40	400	DNMG 1506	150.17
S50W PDUNR 15	50	450	DNMG 1506	182.53
S25T PTFNR 16	25	300	TNMG 1604	102.14
S32U PTFNR 16	32	350	TNMG 1604	132.98
S40V PTFNR 22	40	400	TNMG 2204	178.42
S50W PTFNR 22	50	450	TNMG 2204	216.69

boring bars	dia	length	insert	£ Price
S25T PWLNR 08	25	300	WNMG 0804	102.14
S32U PWLNR 08	32	350	WNMG 0804	132.98
S40V PWLNR 08	40	400	WNMG 0804	150.17
S08K SCLCR 06	8	125	CCMT 0602	54.61
S10M SCLCR 06	10	150	CCMT 0602	54.61
S12M SCLCR 06	12	150	CCMT 0602	54.61
S12M SCLCR 09	12	150	CCMT 09T3	54.61
S16R SCLCR 09	16	200	CCMT 09T3	57.14
S20S SCLCR 09	20	250	CCMT 09T3	71.80
S20S SCLCR 12	20	250	CCMT 09T3	84.79
S25T SCLCR 12	25	300	CCMT 1204	78.38
S32U SCLCR 12	32	350	CCMT 1204	102.04
S16R SDQCR 07	16	200	DCMT 0702	57.14
S20S SDQCR 11	20	250	DCMT 11T3	71.80
S25T SDQCR 11	25	300	DCMT 11T3	78.38
S32U SDQCR 11	32	350	DCMT 11T3	102.04
S10M SDUCR 07	10	150	DCMT 0702	54.61
S12M SDUCR 07	12	150	DCMT 0702	54.61
S16R SDUCR 07	16	200	DCMT 0702	57.14
S20S SDUCR 11	20	250	DCMT 11T3	71.80
S25T SDUCR 11	25	300	DCMT 11T3	78.38
S32U SDUCR 11	32	350	DCMT 11T3	102.04
S40V SDUCR 11	40	400	DCMT 11T3	129.44
S10M STFCR 09	10	150	TCMT 0902	54.61
S12M STFCR 09	12	150	TCMT 0902	64.77
S12M STFCR 11	12	150	TCMT 1102	54.61
S16R STFCR 11	16	200	TCMT 1102	57.14
S20S STFCR 11	20	250	TCMT 1102	71.80
S20S STFCR 16	20	250	TCMT 16T3	71.80
S25T STFCR 16	25	300	TCMT 16T3	78.38
S32U STFCR 16	32	350	TCMT 16T3	102.04
S25T SVUBR 16	25	300	VBMT 1604	85.96
S32U SVUBR 16	32	350	VBMT 1604	112.25
S40V SVUBR 16	40	400	VBMT 1604	142.59
S25T SVUCR 16	25	300	VCMT 1604	85.96

We also stock a full range of thru' coolant bars

Popular turning tool sets

steel, general purpose turning tool set 1 holder + 10 CNMG 120408 MP DP25A	£ price
MCLNR 1616 H12-DP25A	42.40
MCLNR 2020 K12-DP25A	43.00
MCLNR 2525 M12-DP25A	44.60

1 holder + 10 WNMG 080408 MP DP25A	£ price
MWLNR 1616 H08-DP25A	42.40
MWLNR 2020 K08-DP25A	43.00
MWLNR 2525 M08-DP25A	44.60

New APT branded 'T' top clamp holders

turning tools	shank	insert	£ Price
TCLNR 2020 K12-APT*	20x20	CNMG 1204	22.00
TCLNR 2525 M12-APT*	25x25	CNMG 1204	24.00
TDJNR 1616 H11-APT	16x16	DNMG 1104	20.00
TDJNR 2020 K11-APT	16x16	DNMG 1104	22.00
TDJNR 2020 K1506-APT*	20x20	DNMG 1506	22.00
TDJNR 2525 M1506-APT*	25x25	DNMG 1506	24.00
TDPNN 1616 H11-APT	16x16	DNMG 1104	20.00
TDPNN 2020 K11-APT	16x16	DNMG 1104	22.00
TDPNN 2020 K1506-APT	20x20	DNMG 1506	22.00
TDPNN 2525 M1506-APT	25x25	DNMG 1506	24.00
TSDNN 2020 K12-APT	20x20	SNMG 1204	22.00
TSDNN 2525 M12-APT	25x25	SNMG 1204	24.00
TSSNR 2020 K12-APT	20x20	SNMG 1204	22.00
TSSNR 2525 M12-APT	25x25	SNMG 1204	24.00
TTJNR 2020 K16-APT*	20x20	TNMG 1604	22.00
TTJNR 2525 M16-APT*	25x25	TNMG 1604	24.00
TTJNR 2525 M22-APT	25x25	TNMG 2204	24.00
TTJNR 3232 P22-APT	32x32	TNMG 2204	30.00
TVJNR 2020 K16-APT	20x20	VNMG 1604	22.00
TVJNR 2525 M16-APT	25x25	VNMG 1604	24.00
TVJNR 3232 P16-APT	32x32	VNMG 1604	30.00
TVVNN 2020 K16-APT	20x20	VNMG 1604	30.00
TVVNN 2525 M16-APT	25x25	VNMG 1604	22.00
TWLNR 1616 H06-APT	16x16	WNMG 0604	20.00
TWLNR 2020 K06-APT*	20x20	WNMG 0604	22.00
TWLNR 2020 K08-APT*	20x20	WNMG 0804	22.00
TWLNR 2525 M08-APT*	25x25	WNMG 0804	24.00
TWLNR 3232 P08-APT	32x32	WMNG 0804	30.00

* Also available in left hand

Boring bar sleeves - APT

boring bar sleeve	outside dia	bore dia	length	price £
BBS-D16-06*	16	6	37	7.80
BBS-D16-08*	16	8	37	7.80
BBS-D16-10*	16	10	37	7.80
BBS-D16-12	16	12	37	7.80
BBS-D20-06*	20	6	50	7.80
BBS-D20-08*	20	8	50	7.80
BBS-D20-10*	20	10	50	7.80
BBS-D20-12*	20	12	50	7.80
BBS-D20-16	20	16	50	7.80
BBS-D25-06*	25	6	50	8.80
BBS-D25-08*	25	8	50	8.80
BBS-D25-10*	25	10	50	8.80
BBS-D25-12*	25	12	50	8.80
BBS-D25-16	25	16	50	8.80
BBS-D25-20	25	20	50	8.80
BBS-D32-08*	32	8	60	10.60
BBS-D32-10*	32	10	60	10.60
BBS-D32-12*	32	12	60	10.60

boring bar sleeve	outside dia	bore dia	length	price £
BBS-D32-16	32	16	60	10.60
BBS-D32-20	32	20	60	10.60
BBS-D32-25	32	25	60	10.60
BBS-D40-08*	40	8	75	11.00
BBS-D40-10*	40	10	75	11.00
BBS-D40-12*	40	12	75	11.00
BBS-D40-16	40	16	75	11.00
BBS-D40-20	40	20	75	11.00
BBS-D40-25	40	25	75	11.00
BBS-D40-32	40	32	75	11.00
BBS-D50-16	50	16	75	20.40
BBS-D50-20	50	20	75	20.40
BBS-D50-25	50	25	75	20.40
BBS-D50-32	50	32	75	20.40
BBS-D50-40	50	40	75	20.40

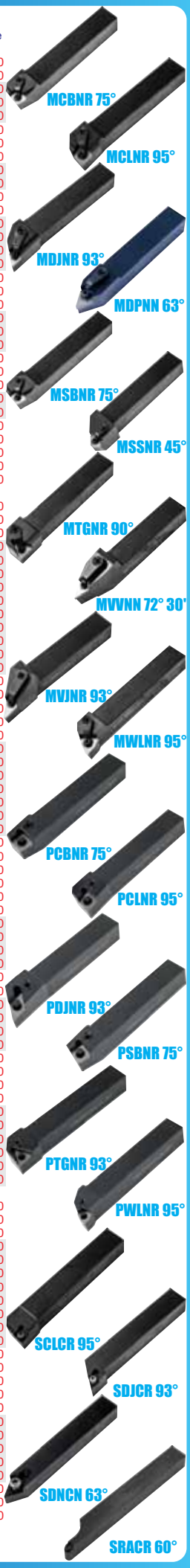
★ =screw Clamp - all others are slot type

APT Tool-holders & Boring Bars

APT toolholders

turning toolholder	shank	length	qualified width	insert	price £
MCBNR 2020 K12-APT*	20x20	125	17	CNMG 1204	18.00
MCBNR 2525 M12-APT*	25x25	150	22	CNMG 1204	19.00
MCLNR 1616 H12-APT*	16x16	100	20	CNMG 1204	17.00
MCLNR 2020 K12-APT*	20x20	125	25	CNMG 1204	18.00
MCLNR 2525 M12-APT*	25x25	150	32	CNMG 1204	19.00
MDJNR 1616 H11-APT	16x16	100	20	DNMG 1104	17.00
MDJNR 2020 K11-APT	20x20	125	25	DNMG 1104	18.00
MDJNR 2525 M11-APT	25x25	150	32	DNMG 1104	19.00
MDJNR 2020 K1506-APT*	20x20	125	25	DNMG 1506	18.00
MDJNR 2525 M1506-APT*	25x25	150	32	DNMG 1506	19.00
MDPNN 2020 K1506-APT	20x20	125	10	DNMG 1506	18.00
MDPNN 2525 M1506-APT	25x25	150	12.5	DNMG 1506	19.00
MSBNR 2020 K12-APT*	20x20	125	25	SNMG 1204	18.00
MSBNR 2525 M12-APT*	25x25	150	32	SNMG 1204	19.00
MSSNR 2020 K12-APT*	20x20	125	25	SNMG 1204	18.00
MSSNR 2525 M12-APT*	25x25	150	32	SNMG 1204	19.00
MTGNR 1616 H16-APT*	16x16	100	20	TNMG 1604	17.00
MTGNR 2020 K16-APT*	20x20	125	25	TNMG 1604	18.00
MTGNR 2525 M16-APT*	25x25	150	32	TNMG 1604	19.00
MTJNR 1616 H16-APT*	16x16	100	20	TNMG 1604	17.00
MTJNR 2020 K16-APT*	20x20	125	25	TNMG 1604	18.00
MTJNR 2525 M16-APT*	25x25	150	32	TNMG 1604	19.00
MVJNR 1616 H16-APT*	16x16	100	20	VNMG 1604	17.00
MVJNR 2020 K16-APT*	20x20	125	25	VNMG 1604	18.00
MVJNR 2525 M16-APT*	25x25	150	32	VNMG 1604	19.00
MVVNN 2020 K16-APT	20x20	125	10	VNMG 1604	18.00
MVVNN 2525 M16-APT	25x25	150	12.5	VNMG 1604	19.00
MWLNR 1616 H06-APT*	16x16	100	20	WNMG 0604	17.00
MWLNR 2020 K06-APT*	20x20	125	25	WNMG 0604	18.00
MWLNR 1616 H08-APT*	16x16	100	20	WNMG 0804	17.00
MWLNR 2020 K08-APT*	20x20	125	25	WNMG 0804	18.00
MWLNR 2525 M08-APT*	25x25	150	32	WNMG 0804	19.00
PCBNR 2020 K12-APT*	20x20	100	17	CNMG 1204	20.00
PCBNR 2525 M12-APT*	25x25	125	22	CNMG 1204	22.00
PCBNR 3232 P19-APT*	32x32	150	27	CNMG 1906	33.00
PCLNR 1616 H09-APT*	16x16	100	20	CNMG 0903	19.80
PCLNR 2020 K09-APT*	20x20	125	25	CNMG 0903	20.00
PCLNR 1616 H12-APT*	16x16	100	20	CNMG 1204	19.80
PCLNR 2020 K12-APT*	20x20	125	25	CNMG 1204	20.00
PCLNR 2525 M12-APT*	25x25	150	32	CNMG 1204	22.00
PCLNR 2525 M16-APT*	25x25	150	32	CNMG 1606	22.00
PCLNR 3232 P12-APT*	32x32	170	40	CNMG 1204	33.00
PCLNR 3232 P16-APT*	32x32	170	40	CNMG 1606	33.00
PCLNR 3232 P19-APT*	32x32	170	40	CNMG 1906	33.00
PCLNR 4040 S19-APT*	40x40	250	50	CNMG 1906	54.00
PDJNR 1616 H11-APT*	16x16	100	20	DNMG 1104	19.80
PDJNR 2020 K11-APT*	20x20	125	25	DNMG 1104	20.00
PDJNR 2525 M11-APT*	25x25	150	32	DNMG 1104	22.00
PDJNR 2020 K1506-APT*	20x20	125	25	DNMG 1506	20.00
PDJNR 2525 M1506-APT*	25x25	150	32	DNMG 1506	22.00
PRDCN 2020 K10-APT*	20x20	125	15	RCMT 1003MO	24.00
PRDCN 2525 M10-APT*	25x25	150	17.5	RCMT 1003MO	28.00
PRDCN 2020 K12-APT*	20x20	125	16	RCMT 1204MO	24.00
PRDCN 2525 M12-APT*	25x25	150	18.5	RCMT 1204MO	28.00
PRDCN 3225 P12-APT*	32x25	170	18.5	RCMT 1204MO	40.00
PRDCN 3225 P16-APT*	32x25	170	20.5	RCMT 1606MO	40.00
PRDCN 3232 P20-APT*	32x32	170	26	RCMT 2006MO	40.00
PSBNR 2020 K12-APT*	20x20	125	17	SNMG 1204	20.00
PSBNR 2525 M12-APT*	25x25	150	22	SNMG 1204	22.00
PSBNR 2525 M15-APT*	25x25	150	22	SNMG 1506	22.00
PSBNR 3232 P15-APT*	32x32	170	27	SNMG 1506	33.00
PSBNR 3232 P19-APT*	32x32	170	27	SNMG 1906	33.00
PSBNR 4040 S19-APT*	40x40	250	35	SNMG 1906	54.00
PSDNN 2020 K12-APT*	20x20	125	10	SNMG 1204	20.00
PSDNN 2525 M12-APT*	25x25	150	12.5	SNMG 1204	22.00
PSDNN 3232 P19-APT*	32x32	170	16	SNMG 1906	33.00
PSDNN 4040 S19-APT*	40x40	250	20	SNMG 1906	54.00
PSKNR 2020 K12-APT*	20x20	125	25	SNMG 1204	20.00
PSKNR 2525 M12-APT*	25x25	150	32	SNMG 1204	22.00
PSSNR 2020 K12-APT*	20x20	125	25	SNMG 1204	20.00
PSSNR 2525 M12-APT*	25x25	150	32	SNMG 1204	22.00
PSSNR 3232 P19-APT*	32x32	170	40	SNMG 1906	33.00
PSSNR 4040 S19-APT*	40x40	250	50	SNMG 1906	54.00
PTGNR 1616 H16-APT*	16x16	100	20	TNMG 1604	19.80
PTGNR 2020 K16-APT*	20x20	125	25	TNMG 1604	20.00
PTGNR 2525 M16-APT*	25x25	150	32	TNMG 1604	22.00
PTGNR 2525 M22-APT*	25x25	150	32	TNMG 2204	22.00
PWLNR 1616 H06-APT*	16x16	100	20	WNMG 0604	19.80
PWLNR 2020 K06-APT*	20x20	125	25	WNMG 0604	20.00
PWLNR 2525 M06-APT*	25x25	150	32	WNMG 0604	22.00
PWLNR 2020 K08-APT*	20x20	125	25	WNMG 0804	20.00
PWLNR 2525 M08-APT*	25x25	150	32	WNMG 0804	22.00
PWLNR 3232 P08-APT*	32x32	170	40	WNMG 0804	33.00
SCBCR 1212 F09-APT	12x12	80	11	CCMT 09T3	19.00
SCBCR 1616 H09-APT	16x16	100	13	CCMT 09T3	21.80
SCBCR 2020 K09-APT	20x20	125	17	CCMT 09T3	22.80
SCLCR 0606 D06-APT	6x6	60	9	CCMT 0602	12.00
SCLCR 0808 D06-APT	8x8	60	10	CCMT 0602	12.00
SCLCR 1010 H06-APT*	10x10	100	12	CCMT 0602	15.00
SCLCR 1212 F09-APT*	12x12	80	16	CCMT 09T3	15.00
SCLCR 1616 H09-APT*	16x16	100	20	CCMT 09T3	17.00
SCLCR 2020 K09-APT*	20x20	125	25	CCMT 09T3	20.40
SCLCR 2020 K12-APT*	20x20	125	25	CCMT 1204	20.40
SCLCR 2525 M12-APT*	25x25	150	32	CCMT 1204	23.00
SDJCR 1010 H07-APT*	10x10	100	12	DCMT 0702	15.00
SDJCR 1212 F11-APT*	12x12	80	16	DCMT 11T3	15.00
SDJCR 1616 H11-APT*	16x16	100	20	DCMT 11T3	17.00
SDJCR 2020 K11-APT*	20x20	125	25	DCMT 11T3	20.40
SDJCR 2525 M11-APT*	25x25	150	32	DCMT 11T3	23.00
SDNCN 1010 H07-APT	10x10	100	5	DCMT 0702	15.00
SDNCN 1212 F11-APT	12x12	80	6	DCMT 11T3	15.00
SDNCN 1616 H11-APT	16x16	100	8	DCMT 11T3	17.00
SDNCN 2020 K11-APT	20x20	125	10	DCMT 11T3	20.40
SDNCN 2525 M11-APT	25x25	150	12.5	DCMT 11T3	23.00
SRACR 1616 H08-APT	16x16	100	16.5	RCMT 0803	21.80
SRACR 2020 K08-APT	20x20	125	20.5	RCMT 0803	22.80
SRACR 2020 K10-APT	20x20	125	20.5	RCMT 1003	22.80

Items marked * are also available in left hand



APT toolholders

turning toolholder	shank	length	qualified width	insert	price £
SRDCN 1010 H06-APT	10x10	100	5	RCMT 0602	19.00
SRDCN 1212 F06-APT	12x12	80	6	RCMT 0602	19.00
SRDCN 1212 F08-APT	12x12	80	6	RCMT 0803	19.00
SRDCN 1616 H06-APT	16x16	100	8	RCMT 0602	21.80
SRDCN 1616 H08-APT	16x16	100	8	RCMT 0803	21.80
SRDCN 2020 K06-APT	20x20	125	10	RCMT 0602	22.80
SRDCN 2020 K08-APT	20x20	125	10	RCMT 0803	22.80
SRDCN 2020 K10-APT	20x20	125	10	RCMT 1003	22.80
SSDCN 1212 F09-APT	12x12	80	6	SCMT 09T3	15.00
SSDCN 1616 H09-APT	16x16	100	8	SCMT 09T3	17.00
SSDCN 2020 K12-APT	20x20	125	10	SCMT 1204	18.50
SSDCN 2525 M12-APT	25x25	150	12.5	SCMT 1204	20.00
STFCR 1212 F11-APT	12x12	80	16	TCMT 1102	15.00
STFCR 1616 H11-APT	16x16	100	20	TCMT 1102	17.00
STFCR 2020 K16-APT	20x20	125	25	TCMT 1604	20.40
STGCR 1212 F11-APT*	12x12	80	6	TCMT 1102	15.00
STGCR 1616 H16-APT*	16x16	100	8	TCMT 16T3	17.00
STGCR 2020 K16-APT*	20x20	125	10	TCMT 16T3	20.40
STJCR 1010 E09-APT	10x10	70	12	TCMT 0902	12.00
STJCR1212 F11-APT	12x12	80	16	TCMT 1102	15.00
SVJBR 1616 H16-APT*	16x16	100	20	VBMT 1604	17.00
SVJBR 2020 K16-APT*	20x20	125	25	VBMT 1604	20.40
SVJBR 2525 M16-APT*	25x25	150	32	VBMT 1604	23.00
SVJCR 1212 F11-APT*	12x12	80	16	VCMT 1103	15.00
SVJCR 1616 H11-APT*	16x16	100	20	VCMT 1103	17.00
SVJCR 1616 H16-APT*	16x16	100	20	VCMT 1604	17.00
SVJCR 2020 K16-APT*	20x20	125	25	VCMT 1604	20.40
SVJCR 2525 M16-APT*	25x25	150	32	VCMT 1604	23.00
SVVBN 1616 H16-APT	16x16	100	8	VBMT 1604	17.00
SVVBN 2020 K16-APT	20x20	125	10	VBMT 1604	20.40
SVVBN 2525 K16-APT	25x25	150	12.5	VBMT 1604	23.00
SVVCN 1212 H11-APT	12x12	80	6	VCMT 1103	15.00
SVVCN 1616 H11-APT	16x16	100	8	VCMT 1103	17.00
SVVCN 2020 K16-APT	20x20	125	20	VCMT 1604	20.40
SVVCN 2525 K16-APT	25x25	150	12.5	VCMT 1604	23.00

Items marked * are also available in left hand

APT boring bars

boring bars	dia.	length	min bore	insert	price £
S20Q MCLNR 12-APT*	20	180	25	CNMG 1204	21.00
S25R MCLNR 12-APT*	25	200	32	CNMG 1204	26.00
S32S MCLNR 12-APT*	32	250	40	CNMG 1204	46.00
S20Q MTFNR 16-APT	20	180	25	TNMG 1604	21.00
S25R MTFNR 16-APT	25	200	32	TNMG 1604	26.00
S32S MTFNR 16-APT	32	250	40	TNMG 1604	46.00
S25R MVUNR 16-APT	25	200	36	VNMG 1604	26.00
S32S MVUNR 16-APT	32	250	42	VNMG 1604	36.00
S40T MVUNR 16-APT	40	300	50	VNMG 1604	58.00
S16N MWLNR 06-APT	16	170	20	WNMG 0604	20.00
S20Q MWLNR 06-APT	20	180	25	WNMG 0604	21.00
S25R MWLNR 06-APT	25	200	32	WNMG 0604	26.00
S20Q MWLNR 08-APT*	20	180	25	WNMG 0804	21.00
S25R MWLNR 08-APT*	25	200	32	WNMG 0804	26.00
S32S MWLNR 08-APT*	32	250	40	WNMG 0804	46.00
S16Q PCLNR 09-APT	16	180	20	CNMG 0903	22.00
S20Q PCLNR 09-APT	20	180	25	CNMG 0903	26.00
S25R PCLNR 12-APT*	25	200	31	CNMG 1204	28.00
S32S PCLNR 12-APT*	32	250	39	CNMG 1204	38.00
S40U PCLNR 12-APT*	40	350	48	CNMG 1204	58.00
S50V PCLNR 12-APT*	50	400	61	CNMG 1204	96.00
S50V PCLNR 16-APT*	50	400	61	CNMG 1606	96.00
S50V PCLNR 19-APT*	50	400	61	CNMG 1906	96.00
S25R PDUNR 11-APT	25	200	32	DNMG 1104	26.00
S32S PDUNR 1506-APT*	32	250	39	DNMG 1506	38.00
S40U PDUNR 1506-APT*	40	350	48	DNMG 1506	58.00
S50V PDUNR 1506-APT*	50	400	61	DNMG 1506	96.00
S25R PSKNR 12-APT	25	200	31	SNMG 1204	28.00
S25R PTFNR 16-APT	25	200	31	TNMG 1604	28.00
S32S PTFNR 16-APT	32	250	39	TNMG 1604	38.00
S40U PTFNR 16-APT	40	350	48	TNMG 1604	58.00
S40U PTFNR 22-APT	40	350	48	TNMG 2204	58.00
S50V PTFNR 22-APT	50	400	61	TNMG 2204	96.00
S16Q PWLNR 06-APT	16	180	20	WNMG 0604	22.00
S20Q PWLNR 06-APT	20	180	27	WNMG 0604	26.00
S25R PWLNR 06-APT	25	200	31	WNMG 0604	28.00
S25R PWLNR 08-APT	25	200	31	WNMG 0804	28.00
S32S PWLNR 08-APT	32	250	39	WNMG 0804	38.00
S40U PWLNR 08-APT	40	350	48	WNMG 0804	58.00
S08K SCLCR 06-APT*	8	125	10	CCMT 0602	9.80
S10K SCLCR 06-APT*	10	125	13	CCMT 0602	9.80
S12M SCLCR 06-APT*	12	150	16	CCMT 0602	11.80
S12M SCLCR 09-APT*	12	150	16	CCMT 09T3	11.80
S16N SCLCR 09-APT*	16	160	20	CCMT 09T3	14.80
S20Q SCLCR 09-APT*	20	180	25	CCMT 09T3	16.00
S25R SCLCR 09-APT*	25	200	31	CCMT 09T3	18.80
S20Q SCZCR 09-APT	20	180	25	DCMT 11T3	30.08
S25S SCZCR 09-APT	25	250	32	DCMT 11T3	38.40
S10K SDQCR 07-APT	10	125	13	DCMT 0702	9.80
S12M SDQCR 07-APT	12	150	16	DCMT 0702	11.80
S16N SDQCR 07-APT	16	160	20	DCMT 0702	14.80
S20Q SDQCR 11-APT	20	180	25	DCMT 11T3	16.00
S25R SDQCR 11-APT	25	200	32	DCMT 11T3	18.80
S10K SDUCR 07-APT	10	125	14	DCMT 0702	9.80
S12M SDUCR 07-APT	12	150	16	DCMT 0702	11.80
S16N SDUCR 07-APT	16	160	20	DCMT 0702	14.80
S16N SDUCR 11-APT	16	160	20	DCMT 11T3	14.80
S20Q SDUCR 11-APT	20	180	25	DCMT 11T3	16.00
S25R SDUCR 11-APT	25	200	32	DCMT 11T3	18.80
S08K STFCR 09-APT	8	125	11	TCMT 0902	9.80
S10K STFCR 09-APT	10	125	13	TCMT 0902	9.80
S12M STFCR 09-APT	12	150	16	TCMT 0902	11.80
S12M STFCR 11-APT	12	150	16	TCMT 1102	11.80
S16N STFCR 11-APT	16	160	20	TCMT 1102	14.80
S20Q STFCR 11-APT	20	180	25	TCMT 1102	16.00
S20Q STFCR 16-APT	20	180	25	TCMT 16T3	16.00
S25R STFCR 16-APT	25	200	32	TCMT 16T3	18.80
S20Q SVUBR 16-APT	20	180	31	VBMT 1604	16.00
S25R SVUBR 16-APT	25	200	35	VBMT 1604	18.80
S16N SVUCR 11-APT	16	170	22	VCMT 1103	14.80
S20Q SVUCR 11-APT	20	180	27	VCMT 1103	16.00
S20Q SVUCR 16-APT	20	180	31	VCMT 1604	16.00
S25R SVUCR 16-APT	25	200	35	VCMT 1604	18.80

S32S MCLNR 12, S32S MTFNR 16 S32S MWLNR 08 these tools have shim/seat the rest are without
Items marked * are also available in left hand

BT30 & BT40 MAS ER Collet Chucks

*A type - Hexagon Nut Others are UM type

BT ER collet chucks	gauge length	collet	Price £
BT30-ER11M-70-12K	70	ER11	18.00
BT30-ER16-60-12K*	60	ER16	14.90
BT30-ER25-60-12K	60	ER25	14.90
BT30-ER32-60-12K	60	ER32	14.90
BT30-ER16-100-12K*	100	ER16	15.50
BT30-ER25-100-12K	100	ER25	15.50
BT30-ER32-100-12K	100	ER32	15.50
BT40-ER16-70-12K*	70	ER16	14.90
BT40-ER20-70-12K*	70	ER20	14.90
BT40-ER25-70-12K	70	ER25	14.90
BT40-ER32-70-12K	70	ER32	14.90
BT40-ER40-70-12K	70	ER40	17.00
BT40-ER16-100-12K*	100	ER16	15.50
BT40-ER20-100-12K*	100	ER20	15.50
BT40-ER25-100-12K	100	ER25	15.50
BT40-ER32-100-12K	100	ER32	15.50
BT40-ER40-100-12K	100	ER40	17.50
BT40-ER16-160-12K*	160	ER16	35.00
BT40-ER25-160-12K	160	ER25	35.00
BT40-ER32-160-12K	160	ER32	35.00
BT40-ER40-160-12K	160	ER40	38.00

12K RPM Tools are balanced 12000 RPM G6.3

BT40 MAS End Mill Holders

BT ER end mill holders	gauge length	bore	Price £
BT40-EMH06-50-12K	50	6	16.50
BT40-EMH08-50-12K	50	8	16.50
BT40-EMH10-63-12K	63	10	16.50
BT40-EMH12-63-12K	63	12	16.50
BT40-EMH16-63-12K	63	16	16.50
BT40-EMH20-63-12K	63	20	16.50
BT40-EMH25-90-12K	90	25	16.50
BT40-EMH32-100-12K	100	32	16.50
BT40-EMH40-120-12K	120	40	17.50

BT40 MAS Face Mill Arbors

BT face mill arbors	gauge length	spigot	Price £
BT30-FMB16-50-12K	50	16	17.50
BT30-FMB22-50-12K	50	22	17.50
BT30-FMB27-50-12K	50	27	17.50
BT40-FMB16-45-12K	45	16	18.50
BT40-FMB22-45-12K	45	22	18.50
BT40-FMB27-45-12K	45	27	18.50
BT40-FMB32-45-12K	45	32	18.50
BT40-FMB40-60-12K	60	40	18.50
BT40-FMB16-120-12K	120	16	23.00
BT40-FMB22-120-12K	120	22	23.00
BT40-FMB27-120-12K	120	27	23.00

BT40 Drill Chucks

BT drill chucks	gauge length	range	Price £
BT30-APU13-12K	105	1-13	34.00
BT40-APU13-12K	105	1-13	36.00
BT40-APU16-12K	110	1-16	38.00

BT Morse Taper Adaptors

BT morse taper adaptors	gauge length	MT	Price £	Price £ 12K RPM
BT40-MTA1-45	45	1	15.90	-
BT40-MTA2-45	45	2	15.90	-
BT40-MTA3-70	70	3	-	16.90
BT40-MTA4-90	90	4	15.90	-

Straight Shank ER Collet Chucks with Mini Clamping Nut

collet chuck mini type	shank dia	head dia	gauge length	length	collet	Price £
C10-ER8-95M	10	12	17	112	ER8	16.00
C10-ER8-120M	10	12	17	137	ER8	16.00
C10-ER11-100M	10	16	29	129	ER11	14.00
C12-ER11-100M	12	16	29	129	ER11	14.00
C12-ER11-150M	12	16	29	129	ER11	14.00
C12-ER16-50M	12	22	36	86	ER16	14.00
C12-ER16-100M	12	22	36	136	ER16	14.00
C16-ER8-100M	16	12	15	115	ER8	16.00
C16-ER11-100M	16	16	25	125	ER11	14.00
C16-ER11-150M	16	16	25	175	ER11	14.00
C16-ER16-80M	16	22	36	116	ER16	14.00
C16-ER16-100M	16	22	36	136	ER16	14.00
C16-ER16-150M	16	22	36	186	ER16	14.00
C16-ER16-200M	16	22	36	236	ER16	16.00
C16-ER20-60M	16	28	41	101	ER20	10.00
C16-ER20-100M	16	28	41	141	ER20	10.00
C16-ER20-150M	16	28	41	191	ER20	10.00
C20-ER16-50M	20	22	36	86	ER16	16.00
C20-ER16-100M	20	22	36	136	ER16	16.00
C20-ER16-150M	20	22	36	186	ER16	16.00
C20-ER16-200M	20	22	36	236	ER16	16.00
C20-ER20-80M	20	28	41	121	ER20	11.00
C20-ER20-100M	20	28	41	141	ER20	12.00
C20-ER20-150M	20	28	41	191	ER20	16.00
C20-ER20-200M	20	28	41	241	ER20	18.00

Straight Shank ER Collet Chucks with UM Clamping Nut

collet chuck standard type	shank dia	head dia	gauge length	length	collet	Price £
C25-ER25-100UM	25	42	50	150	ER25	20.00
C25-ER25-150UM	25	42	50	200	ER25	20.00
C32-ER25-100UM	32	42	50	150	ER25	17.00
C32-ER25-150UM	32	42	50	200	ER25	20.00
C32-ER32-100UM	32	50	55	155	ER32	17.00
C32-ER32-150UM	32	50	55	205	ER32	20.00
C32-ER32-200UM	32	50	55	255	ER32	23.00
C40-ER32-100UM	40	50	55	155	ER32	18.00
C40-ER32-150UM	40	50	55	205	ER32	22.00
C40-ER40-100UM	40	63	60	160	ER40	22.00

Straight Shank ER Collet Chucks A Type with Hexagon Nut

collet chuck with hexagon nut	shank dia	head dia	gauge length	length	collet	Price £
C10-ER11-100A	10	19	21.6	121.6	ER11	10.00
C12-ER11-100A	12	19	25	125	ER11	10.00
C16-ER11-100A	16	19	15	115	ER11	14.00
C16-ER11-150A	16	19	15	165	ER11	10.00
C16-ER16-100A	16	28	35	135	ER16	14.00
C16-ER16-150A	16	28	35	185	ER16	10.00
C20-ER16-100A	20	28	35	135	ER16	11.00
C20-ER16-150A	20	28	35	185	ER16	11.00
C20-ER20-100A	20	34	42	142	ER20	11.00

ISO30 ER Collet Chucks for Engraving/Routing Machine G2.5 30,000 RPM

ISO 30 collet chuck	Price £
ISO30-ER32-45-30K	19.00

ISO 30 HSD Pull Stud	
PS-ISO30-HSD	6.00

DIN69871-A ER Collet Chucks

*A type - Hexagon Nut Others are UM type

DV=CAT

DV40 collet chucks	gauge length	collet	Price £
DV40-ER16-70-12K*	70	ER16	16.40
DV40-ER20-70-12K*	70	ER20	16.40
DV40-ER25-70-12K	70	ER25	16.40
DV40-ER32-70-12K	70	ER32	16.40
DV40-ER40-70-12K	70	ER40	18.00
DV40-ER16-100-12K*	100	ER16	17.00
DV40-ER20-100-12K*	100	ER20	17.00
DV40-ER25-100-12K	100	ER25	17.00
DV40-ER32-100-12K	100	ER32	17.00
DV40-ER40-100-12K	100	ER40	19.00

12K RPM Tools are balanced 12000 RPM G6.3

DIN69871-A End Mill Holders

DV40 end mill holders	gauge length	bore	Price £
DV40-EMH06-50-12K	50	6	18.00
DV40-EMH08-50-12K	50	8	18.00
DV40-EMH10-63-12K	63	10	18.00
DV40-EMH12-63-12K	63	12	18.00
DV40-EMH16-63-12K	63	16	18.00
DV40-EMH20-63-12K	63	20	18.00
DV40-EMH25-90-12K	90	25	18.00
DV40-EMH32-100-12K	100	32	18.00
DV40-EMH40-120-12K	120	40	19.00

DIN69871-A Face Mill Arbors

DV40 face mill arbors	gauge length	spigot	Price £
DV40-FMB16-45-12K	45	16	18.50
DV40-FMB22-45-12K	45	22	18.50
DV40-FMB27-45-12K	45	27	18.50
DV40-FMB32-45-12K	45	32	18.50
DV40-FMB40-60-12K	60	40	18.50
DV40-FMB16-120-12K	120	16	23.00
DV40-FMB22-120-12K	120	22	23.00

DIN69871-A Drill Chucks

DV40 drill chucks	gauge length	range	Price £
DV40-APU13-12K	105	1-13	41.00
DV40-APU16-12K	110	1-16	46.00

DIN69871-A Morse Taper

SK40 morse taper adaptors	gauge length	MT	Price £
DV40-MTA1-45-12K	45	1	18.00
DV40-MTA2-50-12K	50	2	18.00
DV40-MTA3-70-12K	70	3	18.00
DV40-MTA4-90-12K	90	4	18.00

DIN 2080 Collet Chucks

DIN2080 collet chucks	gauge length	collet	Price £
DIN2080-40-ER16-70*	70	ER16	16.50
DIN2080-40-ER20-70*	70	ER20	16.50
DIN2080-40-ER25-70	70	ER25	16.50
DIN2080-40-ER32-70	70	ER32	16.50
DIN2080-40-ER40-70	70	ER40	16.50

*A type - Hexagon Nut Others are UM type

DIN 2080 End Mill Holders

DIN2080 end mill holders	gauge length	bore	Price £
DIN2080-40-EMH06-50	50	6	16.50
DIN2080-40-EMH08-50	50	8	16.50
DIN2080-40-EMH10-63	63	10	16.50
DIN2080-40-EMH12-63	63	12	16.50
DIN2080-40-EMH16-63	63	16	16.50
DIN2080-40-EMH20-63	63	20	16.50
DIN2080-40-EMH25-90	90	25	18.00
DIN2080-40-EMH32-100	100	32	18.00
DIN2080-40-EMH40-120	120	40	23.00

DIN 2080 Face Mill Arbors

DIN2080 face mill arbors	gauge length	spigot	Price £
DIN2080-40-FMB16-45	45	16	18.00
DIN2080-40-FMB22-45	45	22	18.00
DIN2080-40-FMB27-45	45	27	18.00
DIN2080-40-FMB32-45	45	32	18.00
DIN2080-40-FMB40-60	60	40	22.00

DIN 2080 Drill Chucks

DIN2080 drill chucks	gauge length	range	Price £
DIN2080-APU13	105	1-13	34.00
DIN2080-APU16	110	1-16	37.00

DIN2080-40 MTA 1,2,3 & 4 adaptors £18.00

clamping nut	£	ER spanner	£
ER11A-NUT	3.80	ER11A-SPAN	4.00
ER16A-NUT	3.80	ER16A-SPAN	4.00
ER20A-NUT	4.00	ER20A-SPAN	4.20
ER8M-NUT	3.80	ER8M-SPAN	4.20
ER11M-NUT	3.80	ER11M-SPAN	4.20
ER16M-NUT	3.80	ER16M-SPAN	4.40
ER20M-NUT	4.00	ER20M-SPAN	4.40
ER25UM-NUT	4.60	ER25UM-SPAN	5.40
ER32UM-NUT	4.80	ER32UM-SPAN	5.40
ER40UM-NUT	5.20	ER40UM-SPAN	5.40

imperial collets 0.008mm runout 4xd	dia.	£ Price
ER11-1-8-HP	1/8"	3.40
ER11-1-4-HP	1/4"	3.40
ER16-1-8-HP	1/8"	3.40
ER16-1-4-HP	1/4"	3.40
ER20-1-8-HP	1/8"	3.40
ER20-1-4-HP	1/4"	3.40
ER20-1-2-HP	1/2"	3.40
ER25-1-8-HP	1/8"	3.80
ER25-1-4-HP	1/4"	3.80
ER25-1-2-HP	1/2"	3.80
ER32-1-8-HP	1/8"	4.60
ER32-1-4-HP	1/4"	4.60
ER32-1-2-HP	1/2"	4.60

high precision collets 0.008mm runout 4xd	£ Price
ER11 1-2.5mm*	4.00
ER11 3-7mm*	3.40
ER16 1-2.5mm	4.00
ER16 3-10mm	3.40
ER20 2mm	4.00
ER20 3-13mm	3.40
ER25 2mm	4.20
ER25 3-16mm	3.80
ER32 3-20mm	4.60
collets 0.010mm runout 4xD	£ Price
ER40 3-26mm	5.40

*ER8 & ER11 Collets are in 0.5mm increments others <2.5mm in 0.5mm increments >3.0mm in 1mm increments

super precision collets 0.005mm runout 4xd	£ Price
ER11 1-2.5mm*	8.40
ER11 3-7mm*	5.60
ER16 1-2.5mm	8.40
ER16 3-10mm	5.60
ER20 2mm	8.40
ER20 3-13mm	5.60
ER25 1-2mm	9.20
ER25 3-16mm	6.00
ER32 3-20mm	6.80
ER40 3-26mm	11.00
standard ER collets 0.015mm runout 4xd	Price £
ER8 1-2.5mm*	4.60
ER8 3-5mm*	3.00

0.005mm runout collets should only be used to grip the nominal diameter

sealed collets 0.008mm runout 4xd	Price £
ER16S-3.0-HP	9.00
ER16S-4.0-HP	9.00
ER16S-5.0-HP	9.00
ER16S-6.0-HP	9.00
ER16S-8.0-HP	9.00
ER16S-10.0-HP	9.00
ER25S-3.0-HP	9.00
ER25S-4.0-HP	9.00
ER25S-5.0-HP	9.00

sealed collets 0.008mm runout 4xd	Price £
ER25S-6.0-HP	9.00
ER25S-8.0-HP	9.00
ER25S-10.0-HP	9.00
ER25S-12.0-HP	9.00
ER25S-16.0-HP	9.00
ER32S-3.0-HP	10.00
ER32S-4.0-HP	10.00
ER32S-5.0-HP	10.00
ER32S-6.0-HP	10.00

sealed collets 0.008mm runout 4xd	Price £
ER32S-8.0-HP	10.00
ER32S-10.0-HP	10.00
ER32S-12.0-HP	10.00
ER32S-14.0-HP	10.00
ER32S-16.0-HP	10.00
ER32S-20.0-HP	10.00

Precision collets are now 0.008mm runout @4xD

sealed collets can only be used to grip the nominal diameter

Spindle Tooling - Carbide Burrs

ER collet sets

ER collet sets 0.015 Runout at 4xd	Price £
SET-ER8HP-9PCS	36.00

QTY - range	ER collet sets 0.008 Runout at 4xd	Price £
9pcs 1-5mm	-	-
13pcs 1-7mm	SET-ER11-13PCS-HP	50.00
10pcs 1-10mm	SET-ER16-10PCS-HP	41.00
12pcs 2-13mm	SET-ER20-12PCS-HP	48.00
15pcs 2-16mm	SET-ER25-15PCS-HP	58.00
18pcs 3-20mm	SET-ER32-18PCS-HP	72.00
24pcs 3-26mm	SET-ER40-24PCS-HP	127.99

R8 collet chucks

R8 collet chucks	collet	Price £
R8-ER16A	ER16	17.00
R8-ER25UM	ER25	17.00
R8-ER32UM	ER32	17.00
R8-ER40UM	ER40	17.00

R8 drill chucks

R8 drill chucks	run out	Price £
R8-APU13-RO-15	0.15mm	30.50
R8-APU16-RO-15	0.15mm	35.50

BT Pull studs

BT pull studs	Price £
PS-BT30-45-T1	2.73
PS-BT40-45-T1	2.73
PS-BT40-60-T2	2.73
PS-BT40-90-T3	2.73
PS-BT40-45C-T1*	3.08
PS-BT40-60C-T2*	3.08
PS-BT40-90C-T3*	3.08

DIN 69872 Pull studs

DIN 69872 pull studs	Price £
PS-DV40A*	3.80
PS-DV40B	3.20

* = thru coolant

Mazak Pull studs

Mazak pull studs	Price £
PS-Mazak-40-1*	6.00
PS-Mazak-40-2*	6.00

-1= 41.25mm long
-2= 44.10mm long
* = thru coolant

ISO7388 Pull studs

ISO7388 pull studs	Price £
PS-ISO40-7388/2-B	3.06
PS-ISO40-7388/2-BC*	3.64
PS-ISO40-7388/2-A	3.08
PS-ISO40-7388/2-AC*	3.64

* = thru coolant

Doosan - Matsura

Doosan pull studs	Price £
PS-DOOSAN40-C*	4.00

Type B6339 LDJ-40P
thru coolant

ISO30

ISO30 studs	Price £
PS-ISO30-HSD	6.00

TRUMAX - CNC Revolving Centres - Heavy Duty and Slim Line typical bearing life 1800 operating hours

Stub point heavy duty revolving centre	Point dia	Point ext dia	Body dia	Body width	Conc. error	Max RPM	Price £
2MT-CNC-RC-STB	20	-	46	46.5	0.008	6300	96.80
3MT-CNC-RC-STB	28	-	62	60.5	0.008	4500	99.20
4MT-CNC-RC-STB	32	-	68	61.0	0.008	3450	116.00
5MT-CNC-RC-STB	38	-	87	79.0	0.008	2700	164.00
Extended point heavy duty revolving centre							
2MT-CNC-RC-EXT	20	10	46	46.5	0.008	6300	96.80
3MT-CNC-RC-EXT	28	12	62	60.5	0.008	4500	99.20
4MT-CNC-RC-EXT	32	14	68	61.0	0.008	3450	116.00
5MT-CNC-RC-EXT	38	16	87	79.0	0.008	2700	164.00
Slimline stub point revolving centre	Point dia	Point ext dia	Body dia	Body width	Conc. error	Max RPM	Price £
3MT-CNC-RC-SLM-STB	15	-	34	44.5	0.008	6300	104.00
4MT-CNC-RC-SLM-STB	20	-	42	52.0	0.008	5600	118.00
5MT-CNC-RC-SLM-STB	32	-	68	75.0	0.015	3300	148.00
Slimline extended point revolving centre							
3MT-CNC-RC-SLM-EXT	15	11	34	44.5	0.008	6300	104.00
4MT-CNC-RC-SLM-EXT	20	13	42	52.0	0.008	5600	118.00
5MT-CNC-RC-SLM-EXT	32	14	68	75.0	0.015	3300	148.00

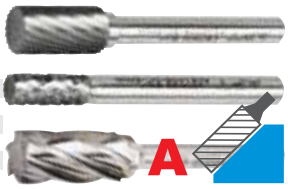
Profiled Point heavy duty revolving centre	Point dia	Point ext dia	Body dia	Body width	Conc. error	Max RPM	Price £
2MT-CNC-RC-PRO-PNT	20	8	46	46.5	0.008	6300	112.00
3MT-CNC-RC-PRO-PNT	28	10	62	60.5	0.008	4500	116.00
4MT-CNC-RC-PRO-PNT	32	12	68	61.0	0.008	3450	140.00
5MT-CNC-RC-PRO-PNT	38	14	87	79.0	0.008	2700	188.00

Typical Service Life of Brearings for TRUMAX centres = 1800 operating hours under normal conditions

HEAVY DUTY STUB POINT | HEAVY DUTY EXTENDED POINT | SLIMLINE STUB POINT | SLIMLINE EXTENDED POINT | HEAVY DUTY PROFILED POINT

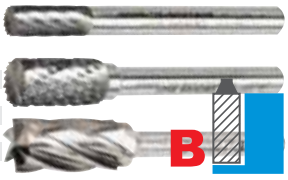
Type A - cylinder without end cut

type A burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
A031403-*	3	3	14	38	3.40	3.40	-
A041403-*	4	3	14	38	-	3.40	-
A061606-*	6	6	16	61	4.00	4.00	-
A082006-*	8	6	20	65	5.00	5.00	-
A102006-*	10	6	20	65	6.00	6.00	8.00
A122506-*	12	6	25	70	8.00	8.00	12.00
A162506-*	16	6	25	70	11.70	11.70	15.00



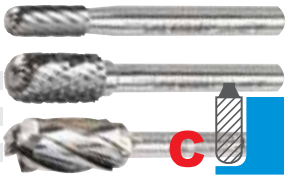
Type B - cylinder with end cut

type B burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
B031403-*	3	3	14	38	3.60	3.60	-
B041403-*	4	3	14	38	-	3.60	-
B061606-*	6	6	16	61	4.40	4.40	6.80
B082006-*	8	6	20	65	5.20	5.20	-
B102006-*	10	6	20	65	6.40	6.40	8.40
B122506-*	12	6	25	70	-	8.60	12.40
B162506-*	16	6	25	70	12.20	12.20	15.60



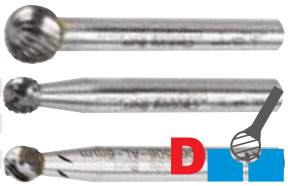
Type C - ball nose cylinder

type C burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
C031403-*	3	3	14	38	-	3.40	-
C061606-*	6	6	16	61	4.00	4.00	6.60
C082006-*	8	6	20	65	-	4.60	-
C102006-*	10	6	20	65	-	5.80	8.00
C122506-*	12	6	25	70	-	7.40	11.20
C162506-*	16	6	25	70	10.60	10.60	14.20



Type D - ball nose

type D burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
D030203-*	3	3	2	38	3.40	3.40	-
D040303-*	4	3	3	38	-	3.40	-
D060506-*	6	6	5	50	3.80	3.80	-
D080706-*	8	6	7	52	4.00	4.00	-
D100906-*	10	6	9	54	4.60	4.60	7.00
D121006-*	12	6	10	55	5.40	5.40	9.60
D161406-*	16	6	14	60	8.80	8.80	12.40

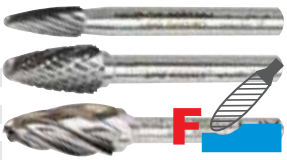


Type E - oval

type E burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
E030703-*	3	3	7	38	3.40	3.40	-
E061006-*	6	6	10	55	-	3.80	-
E081306-*	8	6	13	58	4.20	4.20	-
E101606-*	10	6	16	61	5.40	5.40	-
E122006-*	12	6	20	65	6.60	6.60	-
E162506-*	16	6	25	70	10.40	10.40	-

Type F - ball nose tree

type F burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
F031203-*	3	3	12	38	3.40	3.40	-
F061606-*	6	6	16	61	4.00	4.00	6.60
F082006-*	8	6	20	65	4.40	4.40	-
F102006-*	10	6	20	65	-	5.40	7.60
F122506-*	12	6	25	70	6.60	6.60	10.60
F162506-*	16	6	25	70	8.80	8.80	12.80

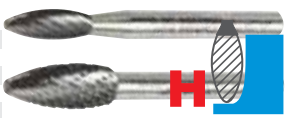


Type G - pointed tree

type G burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
G031203-*	3	3	12	38	-	3.40	-
G061806-*	6	6	18	63	3.80	3.80	-
G082006-*	8	6	20	65	4.20	4.20	-
G102006-*	10	6	20	65	-	5.40	-
G122506-*	12	6	25	70	6.60	6.60	-
G162506-*	16	6	25	70	9.00	9.00	-

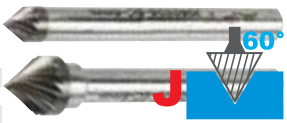
Type H - flame

type H burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
H031303-*	3	3	13	38	-	3.40	-
H061806-*	6	6	18	63	4.00	4.00	-
H082006-*	8	6	20	65	4.40	4.40	-
H102506-*	10	6	25	70	6.00	6.00	-
H123206-*	12	6	32	77	7.80	7.80	-
H163606-*	16	6	36	81	11.80	11.80	-



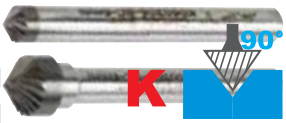
Type J - 60° countersink

type J burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
J060506-*	6	6	5	61	3.60	-	-
J100806-*	10	6	8	64	4.60	-	-
J121006-*	12	6	10	66	5.00	-	-
J161306-*	16	6	13	69	7.00	-	-



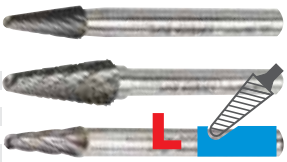
Type K - 90° countersink

type K burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
K060306-*	6	6	3	58	3.60	-	-
K100506-*	10	6	5	61	4.60	-	-
K120606-*	12	6	6	62	5.00	-	-
K160806-*	16	6	8	64	7.00	-	-



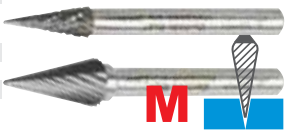
Type L - ball nose cone

type L burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
L031303-*	3	3	13	38	3.40	3.40	-
L061606-*	6	6	16	61	3.80	3.80	6.40
L082206-*	8	6	22	67	-	4.20	-
L102506-*	10	6	25	70	5.60	5.60	7.80
L122806-*	12	6	28	73	6.80	6.80	10.60
L163306-*	16	6	33	78	-	10.20	14.00



Type M - cone

type M burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
M031103-*	3	3	11	38	3.40	3.40	-
M061806-*	6	6	18	63	3.80	3.80	-
M102006-*	10	6	20	65	5.00	5.00	-
M122506-*	12	6	25	70	6.00	6.00	-
M162506-*	16	6	25	70	7.40	7.40	-



Type N - inverted cone

type N burr	dia	shank dia	head length	overall length	single cut £	double cut £	ALU cut £
N030503-*	3	3	5	38	3.40	3.40	-
N060806-*	6	6	8	53	3.80	3.80	-
N101106-*	10	6	11	56	4.80	4.80	-
N121306-*	12	6	13	58	5.60	5.60	-
N161606-*	16	6	16	61	7.40	7.40	-

*** when ordering carbide burrs**
-SC = single cut-DC = double cut -AL = aluminium cut

APT branded carbide shank boring bars

mini indexable carbide boring bars for CCGT 0301--L inserts

carbide boring bar	dia	bore	L	min bar price £	individual price with 10 inserts £	inserts	£ price
C04G SCLCR 03-APT	4	5	90	40.00	87.00	CCGT 030101L XM25	5.60
C05H SCLCR 03-APT	5	6	100	40.00	87.00	CCGT 030102L XM25	5.60
C06J SCLCR 03-APT	6	7	110	40.00	87.00		
E05H SCLCR 03-APT	5	6	100	48.00	93.00		
E06J SCLCR 03-APT	6	7	110	48.00	93.00		

Grade XM25
PVD coated
General use

C = Carbide shank - E = Thru' coolant Carbide Shank

carbide boring bars	dia	length	insert	£ price
C08K SCLCR 06-APT*	8	125	CCMT 0602*	44.00
C10P SCLCR 06-APT*	10	170	CCMT 0602*	59.00
C12Q SCLCR 06-APT*	12	180	CCMT 0602*	79.00
C16R SCLCR 09-APT*	16	200	CCMT 09T3*	124.00
C20S SCLCR 09-APT*	20	250	CCMT 09T3*	200.00
C25T SCLCR 09-APT	25	300	CCMT 09T3*	435.00
E08K SCLCR 06-APT	8	125	CCMT 0602*	46.00
E10P SCLCR 06-APT	10	170	CCMT 0602*	66.00
E12Q SCLCR 06-APT	12	180	CCMT 0602*	85.00
E12Q SCLCR 09-APT	12	180	CCMT 09T3*	85.00
E16R SCLCR 09-APT	16	200	CCMT 09T3*	132.00
E16S SCLCR 09-APT	16	250	CCMT 09T3*	150.00
E20S SCLCR 09-APT	20	250	CCMT 09T3*	220.00
E20T SCLCR 09-APT	20	300	CCMT 09T3*	400.00
E25T SCLCR 09-APT	25	300	CCMT 09T3*	495.00
E08K SDQCR 07-APT	8	125	DCMT 0702*	59.00
E10P SDQCR 07-APT	10	170	DCMT 0702*	66.00
E12Q SDQCR 07-APT	12	180	DCMT 0702*	85.00
E16R SDQCR 07-APT	16	200	DCMT 0702*	132.00
E20S SDQCR 11-APT	20	250	DCMT 11T3*	220.00
E10P SDUCR 07-APT	10	170	DCMT 0702*	66.00
E12Q SDUCR 07-APT	12	180	DCMT 0702*	85.00
E16R SDUCR 07-APT	16	200	DCMT 0702*	132.00
E20S SDUCR 11-APT	20	250	DCMT 11T3*	220.00
E25T SDUCR 11-APT	25	300	DCMT 11T3*	495.00
E10P STFCR 09-APT	10	170	TCMT 0902*	66.00
E12Q STFCR 11-APT	12	180	TCMT 1102*	85.00
E16R STFCR 11-APT	16	200	TCMT 1102*	132.00
E20S STFCR 11-APT	20	250	TCMT 1102*	220.00

carbide shank threading bar	insert	price £
C10PSNR-11-APT	11NR	59.00
C12QSNR-11-APT	11NR	79.00
C16RSNR-16-APT	16NR	124.00
C20SSNR-16-APT	16NR	220.00

Items marked* are also available in left hand thru coolant carbide shank bars available in right hand only

C = Carbide shank
E = Thru' coolant Carbide Shank

Carbide shank boring bar set - thru' coolant

carbide shank boring bar set
SET E-SCLCR 06-APT **Only £130.00**
set includes 3 bars

dia	length	insert
E08K SCLCR 06-APT	8	125	CCMT 0602*
E10K SCLCR 06-APT	10	125	CCMT 0602*
E12M SCLCR 06-APT	12	150	CCMT 0602*

Set of 3 carbide shank bars + 10 CCGT 060204 ALU AK10 or 10 CCMT 060204 MP DP25A £148.00

Steel shank boring bar sets - thru' coolant reduced neck for smaller min bore

steel shank boring bar set
SET A-SCLCR 06 **Only £79.00** Individual
set includes 4 bars

dia	length	min bore	insert	bar price £
A0608H SCLCR 06-APT	8	100	8	CCMT 0602*	21.00
A0810J SCLCR 06-APT	10	110	12	CCMT 0602*	22.00
A1012K SCLCR 06-APT	12	125	14	CCMT 0602*	23.00
A1216M SCLCR 06-APT	16	150	18	CCMT 0602*	26.00

Set of 4 steel shank bars + 10 CCGT 060204 ALU AK10 or 10 CCMT 060204 MP DP25A £94.50

steel shank boring bar set
SET A-SDUCR 07 **Only £68.00** Individual
set includes 3 bars

dia	length	min bore	insert	bar price £
A0810J SDUCR 07-APT	8	125	12.5	DCMT 0702*	22.00
A1012K SDUCR 07-APT	10	125	15.5	DCMT 0702*	23.00
A1216M SDUCR 07-APT	12	150	19.5	DCMT 0702*	28.00

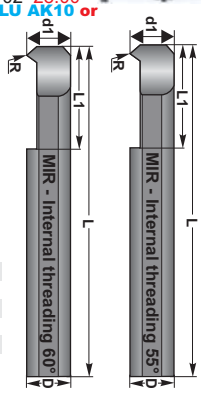
Set of 3 carbide shank bars + 10 DCGT 070204 ALU AK10 or 10 DCMT 070204 MP DP25A £85.50

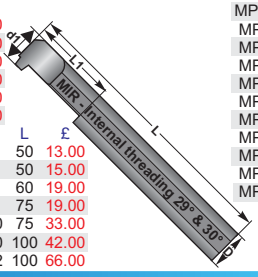
carbide 60° threading bar	d1	R	Pitch mm	Pitch TPI	L1	D	L	price £
MIR 1.4 A60 L4 XMP	1.4	0.03	0.3-0.4	84-64	4	4	50	9.00
MIR 1.9 A60 L6 XMP	1.9	0.03	0.3-0.5	84-52	6	4	50	9.00
MIR 2.4 A60 L7 XMP	2.4	0.03	0.3-0.6	84-44	7	4	50	9.00
MIR 2.9 A60 L10 XMP	2.9	0.05	0.5-0.8	52-32	10	4	50	9.00
MIR 3.9 A60 L12 XMP	3.9	0.05	0.5-1.0	52-26	12	4	50	9.00
MIR 4.9 A60 L15 XMP	4.9	0.1	0.8-1.25	32-22	15	5	50	11.00
MIR 5.9 A60 L22 XMP	5.9	0.1	0.8-1.5	32-18	22	6	50	11.00
MIR 7.9 A60 L22 XMP	7.9	0.1	1.0-2.0	26-13	22	8	60	18.00

carbide 55° threading bar	d1	R	Pitch TPI	L1	D	L	price £
MIR 2.9 R0.05 A55 L10 XMP	2.9	0.05	48-32	10	4	50	9.00
MIR 3.9 R0.05 A55 L12 XMP	3.9	0.05	48-24	12	4	50	9.00
MIR 3.9 R0.1 A55 L12 XMP	3.9	0.10	32-24	12	4	50	9.00
MIR 4.9 R0.05 A55 L15 XMP	4.9	0.05	48-20	15	5	50	11.00
MIR 4.9 R0.1 A55 L15 XMP	4.9	0.10	32-20	15	5	50	11.00
MIR 5.9 R0.05 A55 L22 XMP	5.9	0.05	48-16	22	6	50	11.00
MIR 5.9 R 0.1 A55 L22 XMP	5.9	0.10	32-16	22	6	50	11.00

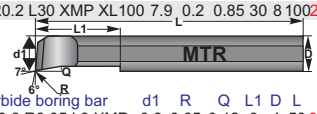
carbide 30° trapez threading bar	d1	Thread mm	Pitch	L1	D	L	£
MIR5.6-1.5TR-L20XMP	5.6	TR8x1.5	1.5	20	6	50	15.00
MIR6.4-2.0TR-L25XMP	6.4	TR9x2.0	2.0	25	8	60	19.00
MIR6.8-3.0TR-L35XMP	6.8	TR11x3.0	3.0	35	8	75	19.00
MIR9.6-2.0TR-L35XMP	9.6	TR12x2.0	2.0	35	10	75	33.00
MIR9.9-4.0TR-L45XMP	9.9	TR16x4.0	4.0	45	10	100	42.00
MIR11.9-5.0TR-L50XMP	11.9	TR22x5.0	5.0	50	12	100	66.00

carbide 29° ACME	d1	ACME	TPI	R	L1	D	L	£
MIR3.9-16ACME-L15XMP	3.9	1/4x16	16	0.05	15	4	50	13.00
MIR5.6-14ACME-L20XMP	5.6	5/15x14	14	0.05	20	6	50	15.00
MIR6.6-12ACME-L25XMP	6.6	3/8,7/16x12	12	0.1	25	8	60	19.00
MIR7.9-10ACME-L30XMP	7.9	1/2x10	10	0.1	30	8	75	19.00
MIR9.9-8ACME-L35XMP	9.9	5/8x8	8	0.1	35	10	75	33.00
MIR9.9-6ACME-L45XMP	9.9	3/4,7/8x6	6	0.1	45	10	100	42.00
MIR11.9-5ACME-L50XMP	11.9	1x5	5	0.1	50	12	100	66.00

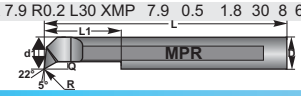




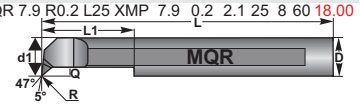
carbide boring bar	d1	R	Q	L1	D	L	£
MTR 0.9 R0.05 L3 XMP	0.8	0.05	0.1	3	4	50	9.00
MTR 1.0 R0.05 L3 XMP	0.9	0.05	0.1	3	4	50	9.00
MTR 1.2 R0.05 L4 XMP	1.1	0.05	0.15	4	4	50	9.00
MTR 1.4 R0.05 L5 XMP	1.3	0.05	0.15	5	4	50	9.00
MTR 1.6 R0.05 L6 XMP	1.5	0.05	0.2	6	4	50	9.00
MTR 1.8 R0.05 L7 XMP	1.7	0.05	0.2	7	4	50	9.00
MTR 1.8 R0.1 L7 XMP	1.7	0.1	0.2	7	4	50	9.00
MTR 2.0 R0.05 L8 XMP	1.9	0.05	0.25	8	4	50	9.00
MTR 2.0 R0.1 L8 XMP	1.9	0.1	0.25	8	4	50	9.00
MTR 2.5 R0.05 L10 XMP	2.4	0.05	0.3	10	4	50	9.00
MTR 2.5 R0.1 L10 XMP	2.4	0.1	0.3	10	4	50	9.00
MTR 3.0 R0.05 L8 XMP	2.8	0.05	0.3	8	4	50	9.00
MTR 3.0 R0.05 L12 XMP	2.8	0.05	0.3	12	4	50	9.00
MTR 3.0 R0.05 L15 XMP	2.8	0.05	0.3	15	4	50	9.00
MTR 3.0 R0.1 L8 XMP	2.8	0.1	0.3	8	4	50	9.00
MTR 3.0 R0.1 L12 XMP	2.8	0.1	0.3	12	4	50	9.00
MTR 3.0 R0.1 L15 XMP	2.8	0.1	0.3	15	4	50	9.00
MTR 3.0 R0.15 L8 XMP	2.8	0.15	0.3	8	4	50	9.00
MTR 3.0 R0.15 L12 XMP	2.8	0.15	0.3	12	4	50	9.00
MTR 3.0 R0.15 L15 XMP	2.8	0.15	0.3	15	4	50	9.00
MTR 3.5 R0.05 L15 XMP	3.4	0.05	0.35	15	4	50	9.00
MTR 3.5 R0.1 L15 XMP	3.4	0.1	0.35	15	4	50	9.00
MTR 3.5 R0.15 L15 XMP	3.4	0.15	0.35	15	4	50	9.00
MTR 3.5 R0.2 L15 XMP	3.4	0.2	0.35	15	4	50	9.00
MTR 3.5 R0.2 L22 XMP	3.4	0.2	0.35	22	4	50	9.00
MTR 4.0 R0.05 L10 XMP	3.9	0.05	0.45	10	4	50	9.00
MTR 4.0 R0.05 L15 XMP	3.9	0.05	0.45	15	4	50	9.00
MTR 4.0 R0.05 L22 XMP	3.9	0.05	0.45	22	4	50	9.00
MTR 4.0 R0.1 L10 XMP	3.9	0.1	0.45	10	4	50	9.00
MTR 4.0 R0.1 L15 XMP	3.9	0.1	0.45	15	4	50	9.00
MTR 4.0 R0.1 L22 XMP	3.9	0.1	0.45	22	4	50	9.00
MTR 4.0 R0.15 L10 XMP	3.9	0.15	0.45	10	4	50	9.00
MTR 4.0 R0.15 L15 XMP	3.9	0.15	0.45	15	4	50	9.00
MTR 4.0 R0.15 L22 XMP	3.9	0.15	0.45	22	4	50	9.00
MTR 4.0 R0.2 L10 XMP	3.9	0.2	0.45	10	4	50	9.00
MTR 4.0 R0.2 L15 XMP	3.9	0.2	0.45	15	4	50	9.00
MTR 4.0 R0.2 L22 XMP	3.9	0.2	0.45	22	4	50	9.00
MTR 4.0 R0.2 L20 XMP XL75	3.9	0.2	0.45	20	4	75	12.00
MTR 4.0 R0.2 L25 XMP XL100	3.9	0.2	0.45	25	4	100	14.00
MTR 4.6 R0.2 L15 XMP	4.5	0.2	0.5	15	5	50	11.00
MTR 4.6 R0.2 L22 XMP	4.5	0.2	0.5	22	5	50	11.00
MTR 5.0 R0.05 L15 XMP	4.9	0.05	0.55	15	5	50	11.00
MTR 5.0 R0.05 L22 XMP	4.9	0.05	0.55	22	5	50	11.00
MTR 5.0 R0.1 L15 XMP	4.9	0.1	0.55	15	5	50	11.00
MTR 5.0 R0.1 L22 XMP	4.9	0.1	0.55	22	5	50	11.00
MTR 5.0 R0.2 L15 XMP	4.9	0.2	0.55	15	5	50	11.00
MTR 5.0 R0.2 L22 XMP	4.9	0.2	0.55	22	5	50	11.00
MTR 5.0 R0.2 L30 XMP	4.9	0.2	0.55	30	5	60	11.00
MTR 5.0 R0.2 L20 XMP XL75	4.9	0.2	0.55	20	5	75	16.00
MTR 5.0 R0.2 L20 XMP XL100	4.9	0.2	0.55	20	5	100	18.00
MTR 6.0 R0.05 L15 XMP	5.9	0.05	0.65	15	6	50	11.00
MTR 6.0 R0.05 L22 XMP	5.9	0.05	0.65	22	6	50	11.00
MTR 6.0 R0.1 L15 XMP	5.9	0.1	0.65	15	6	50	11.00
MTR 6.0 R0.1 L22 XMP	5.9	0.1	0.65	22	6	50	11.00
MTR 6.0 R0.2 L15 XMP	5.9	0.2	0.65	15	6	50	11.00
MTR 6.0 R0.2 L22 XMP	5.9	0.2	0.65	22	6	50	11.00
MTR 6.0 R0.2 L30 XMP	5.9	0.2	0.65	30	6	60	11.00
MTR 6.0 R0.2 L22 XMP XL75	5.9	0.2	0.65	22	6	75	16.00
MTR 6.0 R0.2 L22 XMP XL100	5.9	0.2	0.65	22	6	100	18.00
MTR 7.0 R0.2 L22 XMP	6.9	0.2	0.75	22	8	60	18.00
MTR 7.0 R0.2 L30 XMP	6.9	0.2	0.75	30	8	60	18.00
MTR 8.0 R0.1 L30 XMP	7.9	0.1	0.85	30	8	60	18.00
MTR 8.0 R0.2 L30 XMP	7.9	0.2	0.85	30	8	60	18.00
MTR 8.0 R0.2 L30 XMP XL100	7.9	0.2	0.85	30	8	100	24.00



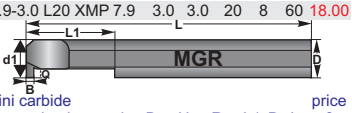
carbide boring bar	d1	R	Q	L1	D	L	£
MPR 0.8 R0.05 L3 XMP	0.8	0.05	0.12	3	4	50	9.00
MPR 1.0 R0.05 L3 XMP	1.0	0.05	0.15	3	4	50	9.00
MPR 1.2 R0.05 L4.5 XMP	1.2	0.05	0.15	4.5	4	50	9.00
MPR 1.4 R0.05 L5 XMP	1.4	0.05	0.2	5	4	50	9.00
MPR 1.6 R0.05 L6 XMP	1.6	0.05	0.3	6	4	50	9.00
MPR 1.8 R0.05 L7 XMP	1.8	0.05	0.3	7	4	50	9.00
MPR 1.9 R0.05 L8 XMP	1.9	0.05	0.4	8	4	50	9.00
MPR 1.9 R0.1 L8 XMP	1.9	0.1	0.4	8	4	50	9.00
MPR 2.4 R0.05 L10 XMP	2.4	0.05	0.5	10	4	50	9.00
MPR 2.4 R0.1 L10 XMP	2.4	0.1	0.5	10	4	50	9.00
MPR 2.9 R0.05 L8 XMP	2.9	0.05	0.6	8	4	50	9.00
MPR 2.9 R0.1 L8 XMP	2.9	0.1	0.6	8	4	50	9.00
MPR 2.9 R0.15 L8 XMP	2.9	0.15	0.6	8	4	50	9.00
MPR 2.9 R0.05 L12 XMP	2.9	0.05	0.6	12	4	50	9.00
MPR 2.9 R0.1 L12 XMP	2.9	0.1	0.6	12	4	50	9.00
MPR 2.9 R0.15 L12 XMP	2.9	0.15	0.6	12	4	50	9.00
MPR 3.9 R0.05 L10 XMP	3.9	0.05	0.8	10	4	50	9.00
MPR 3.9 R0.1 L10 XMP	3.9	0.1	0.8	10	4	50	9.00
MPR 3.9 R0.15 L10 XMP	3.9	0.15	0.8	10	4	50	9.00
MPR 3.9 R0.05 L15 XMP	3.9	0.05	0.8	15	4	50	9.00
MPR 3.9 R0.1 L15 XMP	3.9	0.1	0.8	15	4	50	9.00
MPR 3.9 R0.15 L15 XMP	3.9	0.15	0.8	15	4	50	9.00
MPR 4.9 R0.05 L15 XMP	4.9	0.05	1.0	15	5	50	11.00
MPR 4.9 R0.1 L15 XMP	4.9	0.1	1.0	15	5	50	11.00
MPR 4.9 R0.2 L15 XMP	4.9	0.2	1.0	15	5	50	11.00
MPR 4.9 R0.05 L22 XMP	4.9	0.05	1.0	22	5	50	11.00
MPR 4.9 R0.1 L22 XMP	4.9	0.1	1.0	22	5	50	11.00
MPR 4.9 R0.2 L22 XMP	4.9	0.2	1.0	22	5	50	11.00
MPR 5.9 R0.05 L15 XMP	5.9	0.05	1.2	15	6	50	11.00
MPR 5.9 R0.1 L15 XMP	5.9	0.1	1.2	15	6	50	11.00
MPR 5.9 R0.2 L15 XMP	5.9	0.2	1.2	15	6	50	11.00
MPR 5.9 R0.05 L22 XMP	5.9	0.05	1.2	22	6	50	11.00
MPR 5.9 R0.1 L22 XMP	5.9	0.1	1.2	22	6	50	11.00
MPR 5.9 R0.2 L22 XMP	5.9	0.2	1.2	22	6	50	11.00
MPR 6.9 R0.1 L22 XMP	6.9	0.1	1.5	22	8	60	18.00
MPR 6.9 R0.2 L22 XMP	6.9	0.2	1.5	22	8	60	18.00
MPR 6.9 R0.1 L30 XMP	6.9	0.1	1.5	30	8	60	18.00
MPR 6.9 R0.2 L30 XMP	6.9	0.5	1.5	30	8	60	18.00
MPR 7.9 R0.1 L22 XMP	7.9	0.1	1.8	22	8	60	18.00
MPR 7.9 R0.2 L22 XMP	7.9	0.2	1.8	22	8	60	18.00
MPR 7.9 R0.1 L30 XMP	7.9	0.1	1.8	30	8	60	18.00
MPR 7.9 R0.2 L30 XMP	7.9	0.5	1.8	30	8	60	18.00



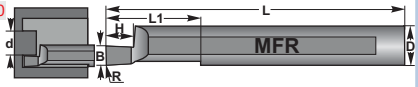
carbide boring bar	d1	R	Q	L1	D	L	£
MQR 2.9 R0.05 L9 XMP	2.9	0.05	0.7	9	4	50	9.00
MQR 2.9 R0.1 L9 XMP	2.9	0.1	0.7	9	4	50	9.00
MQR 2.9 R0.15 L9 XMP	2.9	1.5	0.7	9	4	50	9.00
MQR 3.9 R0.05 L10 XMP	3.9	0.05	1.0	10	4	50	9.00
MQR 3.9 R0.1 L10 XMP	3.9	0.1	1.0	10	4	50	9.00
MQR 3.9 R0.2L10 XMP	3.9	0.2	1.0	10	4	50	9.00
MQR 3.9 R0.2L15 XMP	3.9	0.2	1.0	15	4	50	9.00
MQR 4.9 R0.05 L15 XMP	4.9	0.05	1.2	15	5	50	11.00
MQR 4.9 R0.1 L15 XMP	4.9	0.1	1.2	15	5	50	11.00
MQR 4.9 R0.2 L15 XMP	4.9	0.2	1.2	15	5	50	11.00
MQR 4.9 R0.2 L20 XMP	4.9	0.2	1.2	20	5	50	11.00
MQR 5.9 R0.05 L15 XMP	5.9	0.05	1.6	15	6	50	11.00
MQR 5.9 R0.1 L15 XMP	5.9	0.1	1.6	15	6	50	11.00
MQR 5.9 R0.2 L15 XMP	5.9	0.2	1.6	15	6	50	11.00
MQR 5.9 R0.2 L22 XMP	5.9	0.2	1.6	22	6	50	11.00
MQR 7.9 R0.1 L25 XMP	7.9	0.1	2.1	25	8	60	18.00
MQR 7.9 R0.2 L25 XMP	7.9	0.2	2.1	25	8	60	18.00



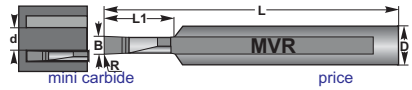
mini carbide grooving bar	d1	B	Q	L1	D	L	price £
MGR 2.9-0.5 L10 XMP	2.9	0.5	0.8	10	4	50	9.00
MGR 2.9-0.75 L10 XMP	2.9	0.75	0.8	10	4	50	9.00
MGR 2.9-1.0 L10 XMP	2.9	1.0	0.8	10	4	50	9.00
MGR 2.9-1.5 L10 XMP	2.9	1.5	0.8	10	4	50	9.00
MGR 3.9-0.5 L10 XMP	3.9	0.5	1.0	10	4	50	9.00
MGR 3.9-0.8 L10 XMP	3.9	0.8	1.0	10	4	50	9.00
MGR 3.9-1.0 L10 XMP	3.9	1.0	1.0	10	4	50	9.00
MGR 3.9-1.5 L10 XMP	3.9	1.5	1.0	10	4	50	9.00
MGR 4.9-1.0 L10 XMP	4.9	1.0	1.5	10	5	50	11.00
MGR 4.9-1.2 L10 XMP	4.9	1.2	1.5	10	5	50	11.00
MGR 4.9-1.5 L10 XMP	4.9	1.5	1.5	10	5	50	11.00
MGR 4.9-2.0 L10 XMP	4.9	2.0	2.0	10	5	50	11.00
MGR 5.9-1.0 L15 XMP	5.9	1.0	2.0	15	6	50	11.00
MGR 5.9-1.5 L15 XMP	5.9	1.5	2.0	15	6	50	11.00
MGR 5.9-2.0 L15 XMP	5.9	2.0	2.5	15	6	50	11.00
MGR 5.9-2.5 L15 XMP	5.9	2.5	2.5	15	6	50	11.00
MGR 7.9-1.5 L20 XMP	5.9	1.5	2.0	20	8	60	18.00
MGR 7.9-2.0 L20 XMP	7.9	2.0	2.5	20	8	60	18.00
MGR 7.9-2.5 L20 XMP	7.9	2.5	3.0	20	8	60	18.00
MGR 7.9-3.0 L20 XMP	7.9	3.0	3.0	20	8	60	18.00



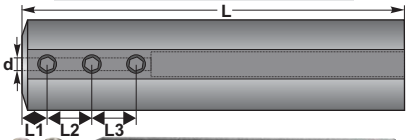
mini carbide face grooving bar	d	B	H	R	L1	D	L	price £
MFR 0.5-D4 L15 XMP	5	0.5	1	0.05	15	4	50	9.00
MFR 0.75-D4 L15 XMP	5	0.75	1.2	0.05	15	4	50	9.00
MFR 1.0-D4 L15 XMP	5	1.0	1.5	0.05	15	4	50	9.00
MFR 1.0-D5 L22 XMP	6	1.0	2	0.05	22	5	50	11.00
MFR 1.5-D5 L22 XMP	6	1.5	2.5	0.05	22	5	50	11.00
MFR 2.0-D5 L22 XMP	6	2.0	3	0.05	22	5	50	11.00
MFR 0.5-D6 L20 XMP	8	0.5	1	0.05	20	6	50	11.00
MFR 1.0-D6 L20 XMP	8	1.0	2	0.05	20	6	50	11.00
MFR 1.5-D6 L20 XMP	8	1.5	3	0.05	20	6	50	11.00
MFR 2.0-D6 L20 XMP	8	2.0	4	0.05	20	6	50	11.00
MFR 1.0-D8 L25 XMP	10	1.0	2	0.05	25	8	60	18.00
MFR 1.5-D8 L25 XMP	10	1.5	3	0.05	25	8	60	18.00
MFR 2.0-D8 L25 XMP	10	2.0	4	0.05	25	8	60	18.00



mini carbide face grooving bar	d	B	R	L1	D	L	price £
MVR 2.0-D6 R0.05 L10 XMP	10	2.0	0.05	10	6	50	15.00
MVR 2.0-D6 R0.05 L15 XMP	10	2.0	0.05	15	6	50	15.00
MVR 2.5-D6 R0.05 L10 XMP	10	2.5	0.05	10	6	50	15.00
MVR 2.5-D6 R0.05 L15 XMP	10	2.5	0.05	15	6	50	15.00
MVR 2.5-D8 R0.1 L22 XMP	15	2.5	0.1	22	8	60	24.00
MVR 3.0-D8 R0.1 L22 XMP	15	3.0	0.1	22	8	60	24.00
MVR 4.0-D8 R0.1 L22 XMP	15	4.0	0.1	22	8	60	24.00

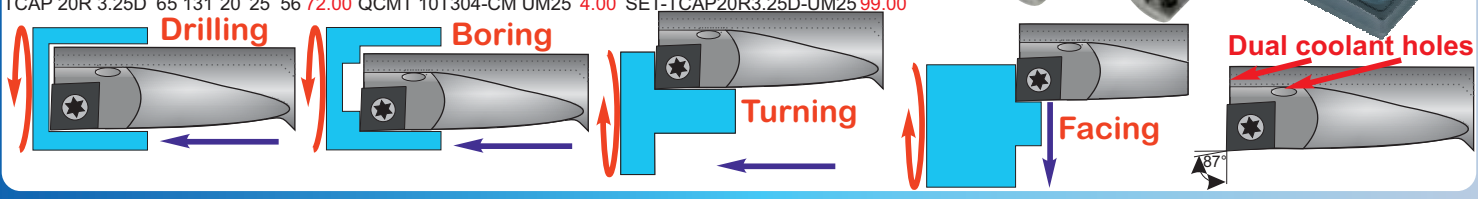


mini carbide boring bar holder	D	d	L1=L2	H	L	price £
SL1604	16	4	6	15	100	18.00
SL1605	16	5	6	15	100	18.00
SL1606	16	6	6	15	100	18.00
SL1608	16	8	6	15	100	18.00
SL2004	20	4	6	19	100	20.00
SL2005	20	5	6	19	100	20.00
SL2006	20	6	6	19	100	20.00
SL2008	20	8	6	19	100	20.00



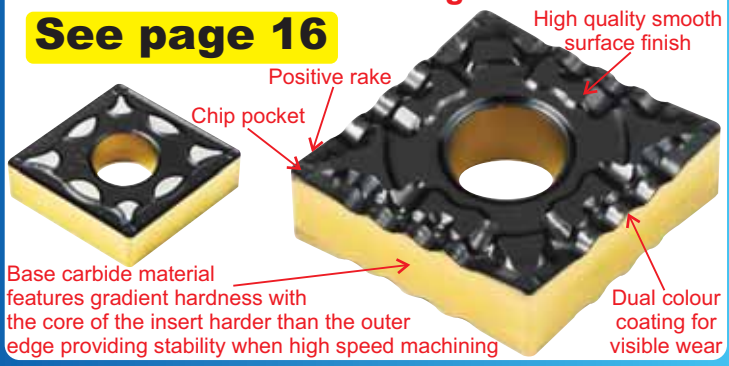
QCMT Multi-Turn
Turn - Face - Drill - Bore

QCMT tool	L1	L	D	D1	L2	price £	inserts	price £	Set 1 tool +10 Inserts	price £
TCAP 10R 2.25D	23	70	10	12	42	33.00	QCMT 050204-CM UM25	3.20	SET-TCAP10R2.25D-UM25	58.00
TCAP 12R 2.25D	27	77	12	16	45	36.00	QCMT 060204-CM UM25	3.20	SET-TCAP12R2.25D-UM25	61.00
TCAP 14R 2.25D	32	81	14	16	45	38.00	QCMT 070304-CM UM25	3.40	SET-TCAP14R2.25D-UM25	63.00
TCAP 16R 2.25D	36	91	16	20	50	40.00	QCMT 080304-CM UM25	3.40	SET-TCAP16R2.25D-UM25	68.00
TCAP 20R 2.25D	45	106	20	25	56	56.00	QCMT 10T304-CM UM25	4.00	SET-TCAP20R2.25D-UM25	92.00
TCAP 10R 3.25D	33	79	10	12	42	36.00	QCMT 050204-CM UM25	3.20	SET-TCAP10R3.25D-UM25	61.00
TCAP 12R 3.25D	39	90	12	16	45	38.00	QCMT 060204-CM UM25	3.20	SET-TCAP12R3.25D-UM25	64.00
TCAP 14R 3.25D	46	97	14	16	45	40.00	QCMT 070304-CM UM25	3.40	SET-TCAP14R3.25D-UM25	66.00
TCAP 16R 3.25D	52	110	16	20	50	45.00	QCMT 080304-CM UM25	3.40	SET-TCAP16R3.25D-UM25	72.00
TCAP 20R 3.25D	65	131	20	25	56	72.00	QCMT 10T304-CM UM25	4.00	SET-TCAP20R3.25D-UM25	99.00



New Grades for Steel Turning DP15A & DP25A

See page 16

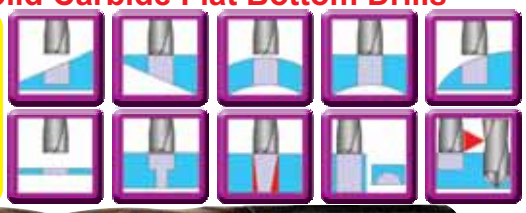


New Grades for Stainless & High Temp Alloys

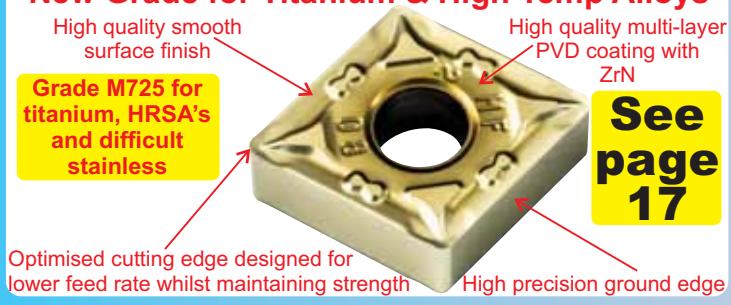
See page 16

New Solid Carbide Flat Bottom Drills

See page 8



New Grade for Titanium & High Temp Alloys



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New Solid & Through Coolant Carbide Drills

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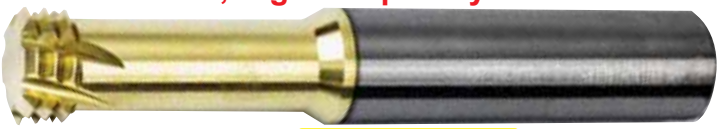
New Thread Milling Cutters With ZrN Coating for Titanium, High Temp Alloys & Stainless



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New Low Cost Polished Flute Mills for Aluminium

See page 2

New T-slot & Dove Tail Cutters

See page 3

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Soft Jaws sets of 3 for Kitagawa compatible Power Chucks

standard jaws	chuck dia.	jaw width	jaw heigth	jaw length	slot size	hole centres	serration	price £
CKSJ06	6"/165mm	31	36	73	12	15+20	1.5x60°	14.90
CKSJ08	8"/210mm	35	38	95	14	24+25	1.5x60°	17.50
CKSJ10	10"/254mm	40	42	110	16	30+30	1.5x60°	21.00
CKSJ12-18	12"304mm	50	50	129	18	39+30	1.5x60°	32.00
CKSJ12-21	12"304mm	50	50	129	21	39+30	1.5x60°	32.00