



X-Power Coated Carbide

X-Power Coated Carbide is YG-1's premier milling cutter for ultra high speed machining of all materials up to 70 Rockwell. X-Power is made from ultra fine micrograin carbide and coated in YG-1's special X-Power coating to give the tools the machining capability for

- High speed machining
 - Dry cutting
- Unsurpassed tool life
- Superior surface finish
- Cutting up to 70 Rockwell steel

Size Range

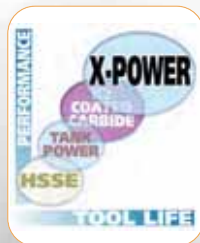
0.4 mm to 25 mm.






















Coatings

X-Power coating.

X-Power is the first choice coated carbide range for the tool making, mould, die and automotive industry. It is also suitable for the aerospace industry.

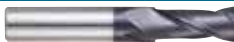
- Dry cutting
 - <HRC70
- Ultra high performance
 - Unsurpassed tool life



EM810	2 Flute Short Length	58	
EM810	2 Flute Miniature	59	
EM816	2 Flute Long Length	59	
EM836	3 Flute Miniature	60	
EM811	4 Flute Short Length	61	
EM817	4 Flute Long Length	62	
EM812	6, 8 Flute 45° Helix Long Length	63	
EM834	6, 8 Flute 45° Helix Extra Long Length	63	
EM835	6, 8 Flute 45° Helix Corner Radius Long Length	63	
EM818	2 Flute Corner Radius Long Length	64	
EM819	4 Flute Corner Radius Long Length	65	
EM839	4 Flute Corner Radius Stub Cut Length	65	
EM865	2 Flute Miniature Ball Nosed	66	
EM876	2 Flute Short Length Ball Nosed	66	
EM813	2 Flute Long Length Ball Nosed	67	
EM838	2 Flute Long Reach Ball Nosed	67	
EM868	2 Flute Ball Nosed Stub Cut Length	68	
EM669 EM673	2 + 4 Flute Long Length Ball Nosed	68	
EM815	4 Flute Long Length Ball Nosed	69	
EM833	3, 4 Flute Roughing Ball Nosed	69	
EM832	Multi Flute Short Length Ripper	70	
EM814	Multi Flute Long Length Ripper	70	



2 Flute, Short Length X-Power



2 FLUTE, SHORT LENGTH X-POWER

EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM810901	1.0	6	2.5	40	2	17.74
EM810902	1.5	6	4	40	2	17.74
EM810020	2.0	4	6	40	2	11.17
EM810903	2.0	6	6	40	2	16.13
EM810025	2.5	4	8	40	2	11.16
EM810030	3.0	6	8	45	2	16.14
EM810035	3.5	6	10	45	2	16.13
EM810040	4.0	6	11	45	2	16.14
EM810045	4.5	6	11	45	2	16.13
EM810050	5.0	6	13	50	2	16.14
EM810055	5.5	6	13	50	2	16.13
EM810060	6.0	6	13	50	2	16.14
EM810065	6.5	8	16	60	2	20.66
EM810070	7.0	8	16	60	2	20.66
EM810075	7.5	8	16	60	2	20.66
EM810080	8.0	8	19	60	2	20.68
EM810085	8.5	10	19	70	2	30.58
EM810090	9.0	10	19	70	2	30.58
EM810095	9.5	10	19	70	2	30.58
EM810100	10.0	10	22	70	2	30.56
EM810105	10.5	12	22	75	2	41.94
EM810110	11.0	12	22	75	2	41.94
EM810115	11.5	12	22	75	2	41.94
EM810120	12.0	12	26	75	2	41.96
EM810906	13.0	12	26	85	2	53.20
EM810140	14.0	14	26	85	2	53.20
EM810908	15.0	16	26	90	2	69.57
EM810160	16.0	16	32	100	2	69.57
EM810909	17.0	16	32	100	2	92.47
EM810180	18.0	18	32	100	2	92.47
EM810911	19.0	20	32	100	2	115.35
EM810200	20.0	20	38	105	2	115.35
EM810220	22.0	20	38	105	2	149.96
EM810240	24.0	25	45	120	2	184.57
EM810250	25.0	25	45	120	2	184.57



why not visit
our website?
www.cutwel.com
E.Mail sales@cutwel.net



X-Power

- Dry cutting
- <HRC70
- Ultimate performance

Jet Power ... for
stainless, exotics,
general steels

See pages 48 - 52

2 Flute, Miniature X-Power

2 FLUTE, MINIATURE X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM810004	0.4	3	0.8	40	2	17.30
EM810005	0.5	3	1.0	40	2	15.07
EM810006	0.6	3	1.2	40	2	14.11
EM810007	0.7	3	1.4	40	2	13.74
EM810008	0.8	3	1.6	40	2	12.83
EM810009	0.9	3	2.0	40	2	12.83
EM810010	1.0	4	2.5	40	2	12.28
EM810011	1.1	4	2.5	40	2	12.28
EM810012	1.2	4	4.0	40	2	12.28
EM810013	1.3	4	4.0	40	2	12.28
EM810014	1.4	4	4.0	40	2	12.28
EM810015	1.5	4	4.0	40	2	12.28

2 Flute, Long Length X-Power

2 FLUTE, LONG LENGTH X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM816020	2.0	4	8	40	2	13.40
EM816030	3.0	6	12	50	2	19.37
EM816040	4.0	6	15	50	2	19.37
EM816050	5.0	6	20	60	2	19.37
EM816060	6.0	6	20	60	2	19.37
EM816080	8.0	8	25	70	2	24.80
EM816100	10.0	10	30	90	2	36.70
EM816120	12.0	12	30	90	2	50.33
EM816140	14.0	16	40	110	2	71.81
EM816160	16.0	16	50	110	2	93.93
EM816180	18.0	20	50	110	2	127.66
EM816200	20.0	20	55	110	2	155.73
EM816250	25.0	25	75	140	2	249.16

X-Power for high speed machining of all materials up to 70 Rockwell



can't find what
you're looking for?
see our index
at the back!



BRIGHT IDEAS!

Want to rough and finish
with one tool?
See our V7 mill range for
ultimate fast metal removal



3 Flute, Miniature X-Power



3 FLUTE, MINIATURE X-POWER

EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM836010	1.0	4	2	35	3	10.01
EM836020	2.0	4	4	35	3	8.92
EM836030	3.0	6	5	36	3	12.90
EM836040	4.0	6	7	38	3	12.90
EM836050	5.0	6	8	39	3	12.90
EM836060	6.0	6	8	39	3	12.90
EM836080	8.0	8	11	43	3	16.53
EM836100	10.0	10	13	50	3	24.46
EM836120	12.0	12	15	55	3	31.46
EM836140	14.0	14	15	58	3	39.89
EM836160	16.0	16	18	62	3	52.19
EM836180	18.0	18	20	70	3	69.35
EM836200	20.0	20	22	75	3	86.52

X-Power for high speed machining of all materials up to 70 Rockwell



why not visit
our website?
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X-Power

- Dry cutting
- <HRC70
- Ultimate performance

K2 Carbide ... for
low cost coated
carbide general
machining
See pages 40 - 47

4 Flute, Short Length X-Power



4 FLUTE, SHORT LENGTH X-POWER

EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM811020	2.0	4	6	40	4	11.17
EM811025	2.5	4	8	40	4	11.17
EM811030	3.0	6	8	45	4	16.14
EM811035	3.5	6	10	45	4	16.14
EM811040	4.0	6	11	45	4	16.14
EM811045	4.5	6	11	45	4	16.14
EM811050	5.0	6	13	50	4	16.14
EM811055	5.5	6	13	50	4	16.14
EM811060	6.0	6	13	50	4	16.14
EM811065	6.5	8	16	60	4	20.67
EM811070	7.0	8	16	60	4	20.67
EM811075	7.5	8	16	60	4	20.67
EM811080	8.0	8	19	60	4	20.68
EM811085	8.5	10	19	70	4	30.59
EM811090	9.0	10	19	70	4	30.60
EM811095	9.5	10	19	70	4	30.59
EM811100	10.0	10	22	70	4	30.60
EM811105	10.5	12	22	75	4	41.96
EM811110	11.0	12	22	75	4	41.96
EM811115	11.5	12	22	75	4	41.96
EM811120	12.0	12	26	75	4	41.96
EM811904	13.0	12	26	85	4	53.21
EM811140	14.0	14	26	85	4	53.21
EM811906	15.0	16	26	90	4	67.24
EM811160	16.0	16	32	100	4	67.24
EM811907	17.0	16	32	100	4	92.50
EM811180	18.0	18	32	100	4	92.50
EM811908	18.0	16	32	100	4	92.50
EM811909	19.0	20	32	100	4	115.40
EM811200	20.0	20	38	105	4	115.40
EM811220	22.0	20	38	105	4	150.04
EM811240	24.0	25	45	120	4	184.65
EM811250	25.0	25	45	120	4	184.65



BRIGHT IDEAS!

Want to rough and finish
with one tool?
See our V7 mill range for
ultimate fast metal removal

Aluminium machining?

See our **Alu Power**
range (pages 72 - 77)

**Indexable Milling ... for carbide
machining above 16 mm**

See pages 78 - 101

- Same day despatch until 6 pm
- Next day delivery
- 10,000 lines ex-stock
- Pre-discounted prices





4 Flute, Long Length X-Power



4 FLUTE, LONG LENGTH X-POWER

EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM817020	2.0	4	8	40	4	13.40
EM817030	3.0	6	12	50	4	19.38
EM817040	4.0	6	15	50	4	19.38
EM817050	5.0	6	20	60	4	19.38
EM817060	6.0	6	20	60	4	19.38
EM817080	8.0	8	25	70	4	24.81
EM817100	10.0	10	30	90	4	36.71
EM817120	12.0	12	30	90	4	50.35
EM817140	14.0	16	40	110	4	71.83
EM817160	16.0	16	50	110	4	93.97
EM817180	18.0	20	50	110	4	127.73
EM817200	20.0	20	55	110	4	155.80
EM817250	25.0	25	75	140	4	249.28

X-Power for high speed machining of all materials up to 70 Rockwell



BRIGHT IDEAS!

Speeds and feeds

Please phone for a technical catalogue ... your tools will last much longer at the optimum cutting conditions



CUTWEL RECOMMENDS

Tank Power on stainless steel and all other steels <HRC45

All tools in X-Power range are centre cutting

X-Power

- Dry cutting
- <HRC70
- Ultimate performance

6,8 Flute, 45° Helix Long Length X-Power

6,8 FLUTE, 45° HELIX LONG LENGTH X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM812060	6.0	6	13	57	6	18.81
EM812070	7.0	8	16	63	6	23.93
EM812080	8.0	8	19	63	6	23.93
EM812090	9.0	10	19	72	6	35.83
EM812100	10.0	10	22	72	6	35.83
EM812120	12.0	12	26	83	6	48.71
EM812140	14.0	14	26	83	6	60.93
EM812160	16.0	16	32	92	6	81.91
EM812180	18.0	18	32	92	8	95.78
EM812200	20.0	20	38	104	8	142.55
EM812250	25.0	25	44	104	8	212.34

6 Flute, 45° Helix Extra Long Length X-Power

6 FLUTE, 45° HELIX EXTRA LONG LENGTH X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM834060	6.0	6	26	70	6	24.57
EM834080	8.0	8	36	90	6	32.30
EM834100	10.0	10	46	100	6	50.25
EM834120	12.0	12	56	110	6	70.63
EM834160	16.0	16	66	130	6	122.86
EM834200	20.0	20	76	140	6	192.54
EM834250	25.0	25	92	180	6	360.99

6 Flute, 45° Helix Corner Radius Long Length X-Power

6 FLUTE, 45° HELIX CORNER RADIUS, LONG LENGTH X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM835060	6 X R0.5	6	13	70	6	25.98
EM835080	8 X R0.5	8	19	90	6	32.91
EM835100	10 X R0.5	10	22	100	6	49.27
EM835901	10 X R1.0	10	22	100	6	49.27
EM835120	12 X R0.5	12	26	110	6	66.98
EM835902	12 X R1.0	12	26	110	6	66.98
EM835160	16 X R1.0	16	32	130	6	112.62
EM835903	16 X R1.5	16	32	130	6	122.86
EM835200	20 X R1.0	20	38	140	6	165.46
EM835904	20 X R1.5	20	38	140	6	180.50
EM835905	20 X R2.0	20	38	140	6	180.50



2 Flute, Corner Radius, Long Length X-Power

2 FLUTE, CORNER RADIUS, LONG LENGTH X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM818030	3 X R0.3	6	12	50	2	21.31
EM818040	4 X R0.3	6	15	50	2	21.31
EM818911	4 X R0.5	6	15	50	2	21.31
EM818050	5 X R0.3	6	20	60	2	21.31
EM818912	5 X R0.5	6	20	60	2	21.31
EM818913	6 X R0.3	6	20	60	2	21.31
EM818060	6 X R0.5	6	20	60	2	21.31
EM818901	6 X R1.0	6	20	70	2	21.31
EM818914	8 X R0.3	8	25	70	2	27.29
EM818080	8 X R0.5	8	25	70	2	27.29
EM818902	8 X R1.0	8	25	70	2	27.29
EM818903	8 X R1.5	8	25	70	2	29.78
EM818904	8 X R2.0	8	25	70	2	29.78
EM818915	10 X R0.3	10	30	90	2	40.38
EM818100	10 X R0.5	10	30	90	2	40.38
EM818905	10 X R1.0	10	30	90	2	40.38
EM818906	10 X R1.5	10	30	90	2	44.06
EM818907	10 X R2.0	10	30	90	2	44.06
EM818120	12 X R0.5	12	30	90	2	55.40
EM818908	12 X R1.0	12	30	90	2	55.40
EM818909	12 X R1.5	12	30	90	2	60.43
EM818910	12 X R2.0	12	30	90	2	60.43

X-Power for high speed machining of all materials up to 70 Rockwell



CUTWEL RECOMMENDS



X-Power ... for ultimate machining of all steels <HRC70. Please browse through this section (pages 56 - 71).

X-Power

- Dry cutting
- <HRC70
- Ultimate performance



4 Flute, Corner Radius, Long Length X-Power

4 FLUTE, CORNER RADIUS, LONG LENGTH X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM819030	3 X R0.3	6	12	50	4	23.44
EM819040	4 X R0.3	6	15	50	4	23.44
EM819911	4 X R0.5	6	15	50	4	23.44
EM819050	5 X R0.3	6	20	60	4	23.44
EM819912	5 X R0.5	6	20	60	4	23.44
EM819913	6 X R0.3	6	20	60	4	23.44
EM819060	6 X R0.5	6	20	60	4	23.44
EM819901	6 X R1.0	6	20	70	4	23.44
EM819914	8 X R0.3	8	25	70	4	30.03
EM819080	8 X R0.5	8	25	70	4	30.03
EM819902	8 X R1.0	8	25	70	4	30.03
EM819903	8 X R1.5	8	25	70	4	32.77
EM819904	8 X R2.0	8	25	70	4	32.77
EM819915	10 X R0.3	10	30	90	4	44.42
EM819100	10 X R0.5	10	30	90	4	44.42
EM819905	10 X R1.0	10	30	90	4	44.42
EM819906	10 X R1.5	10	30	90	4	48.47
EM819907	10 X R2.0	10	30	90	4	48.47
EM819120	12 X R0.5	12	30	90	4	60.93
EM819908	12 X R1.0	12	30	90	4	60.93
EM819909	12 X R1.5	12	30	90	4	66.47
EM819910	12 X R2.0	12	30	90	4	66.47



4 Flute, Corner Radius, Stub Cut Length X-Power

4 FLUTE, CORNER RADIUS, STUB CUT LENGTH X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM839020	2 X R0.2	6	2.5	50	4	17.75
EM839025	2.5 X R0.25	6	3	50	4	17.75
EM839030	3 X R0.3	6	4	50	4	17.75
EM839035	3.5 X R0.35	6	4.5	50	4	17.75
EM839040	4 X R0.4	6	5	50	4	17.75
EM839050	5 X R0.5	6	6	50	4	17.75
EM839060	6 X R0.6	6	7	55	4	17.75
EM839080	8 X R0.8	8	10	60	4	22.73
EM839100	10 X R1	10	12	70	4	33.65
EM839120	12 X R1.2	12	15	80	4	46.17
EM839160	16 X R1.6	16	18	90	4	83.52



BRIGHT IDEAS!

Cutting aluminium? Don't struggle with swarf, use Alu Power tools for rapid metal removal, clean chipping and no clogging of flutes



2 Flute, Miniature Ball Nose X-Power

2 FLUTE, MINIATURE BALL NOSE X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM865006	0.6	3	1.1	40	2	20.68
EM865007	0.7	3	1.5	40	2	18.27
EM865008	0.8	3	2	40	2	16.98
EM865009	0.9	3	2.2	40	2	16.98
EM865010	1.0	3	2.5	40	2	14.51
EM865011	1.1	3	3	40	2	14.51
EM865012	1.2	3	3	40	2	14.51
EM865013	1.3	3	3.5	40	2	14.51
EM865014	1.4	3	3.5	40	2	14.51
EM865015	1.5	3	4	40	2	14.51

2 Flute, Short Length Ball Nose X-Power

2 FLUTE, SHORT LENGTH BALL NOSE X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM876030	3.0	6	4	50	2	14.95
EM876040	4.0	6	5	54	2	15.50
EM876050	5.0	6	6	54	2	15.50
EM876060	6.0	6	7	54	2	15.50
EM876070	7.0	8	8	58	2	24.79
EM876080	8.0	8	9	58	2	24.79
EM876090	9.0	10	10	66	2	38.74
EM876100	10.0	10	11	66	2	38.74
EM876120	12.0	12	12	73	2	48.97
EM876140	14.0	14	14	75	2	59.09
EM876160	16.0	16	16	82	2	76.81
EM876180	18.0	18	18	84	2	82.10
EM876200	20.0	20	20	92	2	110.23



CUTWEL RECOMMENDS

Alu Power for aluminium machining (see pages 72 - 77)



BRIGHT IDEAS!

Tool not performing well
or lasting long enough?

Please phone for technical advice
and let us solve your problem

- Same day despatch until 6 pm
- Next day delivery
- 10,000 lines ex-stock
- Pre-discounted prices

2 Flute, Long Length Ball Nose X-Power

2 FLUTE, LONG LENGTH BALL NOSE X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM813010	1.0	4	2.5	50	2	16.14
EM813012	1.2	4	3	50	2	16.14
EM813015	1.5	4	4	50	2	16.14
EM813020	2.0	6	5	50	2	15.27
EM813030	3.0	6	8	60	2	15.27
EM813040	4.0	6	8	70	2	16.04
EM813050	5.0	6	10	80	2	16.63
EM813060	6.0	6	12	90	2	17.95
EM813070	7.0	8	14	90	2	28.07
EM813080	8.0	8	14	100	2	28.08
EM813090	9.0	10	18	100	2	44.82
EM813100	10.0	10	18	100	2	44.83
EM813120	12.0	12	22	110	2	57.15
EM813140	14.0	14	26	110	2	71.71
EM813160	16.0	16	30	140	2	76.99
EM813180	18.0	18	34	140	2	103.62
EM813200	20.0	20	38	160	2	148.32
EM813250	25.0	25	50	180	2	237.30



2 Flute, Long Reach Ball Nose X-Power

2 FLUTE, LONG REACH BALL NOSE X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM838020	2.0	3	6	80	2	21.60
EM838030	3.0	3	8	100	2	21.60
EM838040	4.0	4	8	100	2	21.60
EM838050	5.0	6	10	120	2	23.33
EM838060	6.0	6	10	120	2	23.33
EM838080	8.0	8	14	140	2	37.89
EM838100	10.0	10	18	180	2	71.70
EM838120	12.0	12	22	200	2	91.44
EM838160	16.0	16	30	250	2	156.85
EM838200	20.0	20	38	250	2	244.74

X-Power for high speed machining of all materials up to 70 Rockwell

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BRIGHT IDEAS!
Increase your tool life
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K2 or TIALN coating

2 Flute, Ball Nose, Stub Cut Length For Over HRC55

2 FLUTE, BALL NOSE, STUB CUT LENGTH FOR OVER HRC55



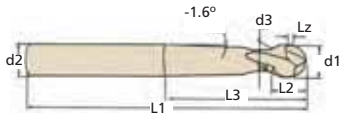
EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM868010	1.0	4	1	50	2	20.00
EM868012	1.2	4	1.2	50	2	20.00
EM868015	1.5	4	1.5	50	2	20.00
EM868020	2.0	6	2	50	2	19.00
EM868030	3.0	6	3	60	2	19.00
EM868040	4.0	6	4	70	2	19.84
EM868050	5.0	6	5	80	2	20.49
EM868060	6.0	6	6	90	2	22.02
EM868070	7.0	8	7	90	2	34.67
EM868080	8.0	8	8	100	2	34.44
EM868090	9.0	10	9	100	2	56.21
EM868100	10.0	10	10	100	2	56.21
EM868120	12.0	12	12	110	2	72.01
EM868140	14.0	14	14	110	2	90.84
EM868160	16.0	16	16	140	2	120.10
EM868180	18.0	18	18	140	2	130.13
EM868200	20.0	20	20	160	2	185.06
EM868250	25.0	25	25	180	2	298.69

2 & 4 Flute, Long Length Ball Nose - Economic Type

2 & 4 FLUTE, LONG LENGTH BALL NOSE ECONOMIC TYPE



2 Flute Plain	4 Flute	d1	r	d3	L2	L3	L1	d2	Lz	2007 £
EM669030		3	1.5	2.5	4	30	80	6	1.5	25.48
EM669040		4	2	3.3	5	30	80	6	1.5	26.00
EM669050	EM673050	5	2.5	4.1	6	43	80	6	2.0	25.50
EM669060	EM673060	6	3	4.7	7	30	100	6	2.0	28.79
EM669080	EM673080	8	4	6.5	9	36	100	8	3.0	42.75
EM669100	EM673100	10	5	8.2	11	43	100	10	3.0	70.81
EM669120	EM673120	12	6	9.8	13	52	100	12	3.0	87.67
EM669160	EM673160	16	8	13.4	15	61	150	16	3.0	158.17



For application, please see page 71

4 Flute, Long Length Ball Nose X-Power

4 FLUTE, LONG LENGTH BALL NOSE X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM815010	1.0	4	2.5	50	4	21.26
EM815015	1.5	4	4	50	4	21.26
EM815020	2.0	6	5	50	4	20.24
EM815030	3.0	6	8	60	4	20.24
EM815040	4.0	6	8	70	4	20.91
EM815050	5.0	6	10	80	4	21.56
EM815060	6.0	6	12	90	4	22.90
EM815070	7.0	8	14	90	4	33.72
EM815080	8.0	8	14	100	4	35.84
EM815090	9.0	10	18	100	4	51.87
EM815100	10.0	10	18	100	4	51.87
EM815120	12.0	12	22	110	4	65.28
EM815140	14.0	14	26	110	4	80.80
EM815160	16.0	16	30	140	4	89.91
EM815180	18.0	18	34	140	4	125.19
EM815200	20.0	20	38	160	4	178.62
EM815250	25.0	25	50	180	4	285.79



3,4 Flute, Roughing Ball Nose, Long Length X-Power

3,4 FLUTE, ROUGHING BALL NOSE, LONG LENGTH X-POWER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM833060	6.0	6	16	57	3	34.35
EM833080	8.0	8	16	63	3	40.20
EM833100	10.0	10	22	72	4	60.03
EM833120	12.0	12	26	83	4	77.09
EM833140	14.0	14	26	83	4	93.55
EM833160	16.0	16	32	92	4	125.63
EM833180	18.0	18	32	92	4	160.96
EM833200	20.0	20	38	104	4	202.19

X-Power for high speed machining of all materials up to 70 Rockwell



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Multi Flute, Short Length Ripper

MULTI FLUTE, SHORT LENGTH RIPPER



EDP No. Plain	Mill Dia	Shank Dia	Length of Cut	Overall Length	No. of Flute	2007 £
EM832060	6.0	6	7	54	3	19.96
EM832070	7.0	8	8	58	3	23.37
EM832080	8.0	8	9	58	3	23.37
EM832090	9.0	10	13	66	4	34.90
EM832100	10.0	10	14	66	4	34.90
EM832120	12.0	12	16	73	4	44.81
EM832140	14.0	14	18	75	4	54.38
EM832160	16.0	16	22	82	4	73.02
EM832180	18.0	18	24	84	4	93.56
EM832200	20.0	20	26	92	4	117.51
EM832250	25.0	25	25	110	5	206.07

Multi Flute, Long Length Ripper

MULTI FLUTE, LONG LENGTH RIPPER



EDP No. Plain	Mill Dia e8	Shank Dia h6	Length of Cut	Overall Length	No. of Flute	2007 £
EM814060	6.0	6	16	57	3	21.47
EM814070	7.0	8	16	63	3	25.11
EM814080	8.0	8	16	63	3	25.13
EM814090	9.0	10	19	72	4	37.53
EM814100	10.0	10	22	72	4	37.53
EM814120	12.0	12	26	83	4	48.20
EM814140	14.0	14	26	83	4	58.47
EM814160	16.0	16	32	92	4	78.53
EM814180	18.0	18	32	92	4	100.60
EM814200	20.0	20	38	104	4	126.38
EM814250	25.0	25	45	121	5	221.57



X-Power for high speed machining of all materials up to 70 Rockwell

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E.Mail sales@cutwel.net



X-Power Ball Nose End Mills - MMC

Applications

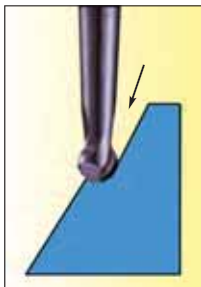
- Die and mould making, turbine manufacturing and aircraft industry etc.
- Difficult 3D forms.
- Profiling of up to HRC 70 high hardened steels and alloy steels, nickelbase alloys, titanium alloys.

Characteristics

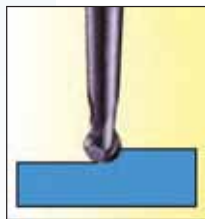
- Ultra micrograin carbide which increases both toughness and hardness.
- YG-1's unique X-Power coating, suitable for dry cutting and high speed cutting.
- Outstanding tool geometry and the sphere shape ball enables increased tool life and higher speed and feed operation.



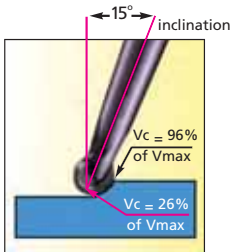
Favourable back milling



Unfavourable drilling



Unfavourable profiling



Favourable profiling

Surpassing Milling Operation

- Operating angle 14° - 16° , higher speeds and feeds are possible by decreased cutting resistance at the cutting edges contacting the workpiece.
- Excellent surface roughness and higher milling process.
- Enables milling with higher speeds and feeds when back milling.
- When 15° inclination milling operation, more productivity and higher speeds and feeds are possible.
- Decreased cutting force.
- Excellent surface roughness and brightness.