HSS

Being the best through innovation

TANK-POWER

- 韧性好，适合难加工材料的加工，像不锈钢，镍合金，钛合金，
也适合一般加工用中的粗，精加工

Very Good Toughness, Good for Exotic Materials like Stainless Steels, Nikel Alloys, Titanium and General Application, Rough & Finish

SELECTION GUIDE

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 最小 MIN	尺寸 最大 MAX	页 PAGE
GAC25		粉末高速钢，4刃 长刃 PREMIUM HSS-PM, 4 FLUTE LONG LENGTH	D3.0	D30.0	912
GAA22		粉末高速钢，多刃 粗加工 - 中等螺距 PREMIUM HSS-PM, MULTI FLUTE ROUGHING-MEDIUM	D6.0	D40.0	913
GAD33		粉末高速钢，多刃 短刃 粗加工 - 细螺纹 PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-FINE	D6.0	D30.0	914
GAB58		粉末高速钢，多刃 中等长 粗加工 - 细螺纹 PREMIUM HSS-PM, MULTI FLUTE MEDIUM LENGTH ROUGHING-FINE	D6.0	D25.0	915
GAD52		粉末高速钢，多刃 长刃 粗加工 - 细螺纹 PREMIUM HSS-PM, MULTI FLUTE LONG LENGTH ROUGHING-FINE	D6.0	D30.0	916
EP931		粉末高速钢，2刃 普通刃 PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH	D1.0	D25.0	917
EP932		粉末高速钢，4刃 普通刃 PREMIUM HSS-PM, 4 FLUTE REGULAR LENGTH	D1.0	D25.0	918
EP933		粉末高速钢，2刃 普通刃 球头 PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH BALL NOSE	R0.5	R12.5	919
EP941		粉末高速钢，多刃 短刃 粗加工 - 细螺纹 PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-FINE	D6.0	D25.0	920
EPA33		粉末高速钢，多刃 短刃 粗加工 - 粗螺纹 PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-COARSE	D6.0	D25.0	921
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			922

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		
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◎	◎	◎						◎		◎		

TANK-POWER END MILLS

GAC25 SERIES PLAIN SHANK

粉末高速钢，4刃 长刃
PREMIUM HSS-PM, 4 FLUTE LONG LENGTH

- ▶ 超粉末高速钢材料使用
- ▶ Tank-power 涂层具有耐磨性

- ▶ Raw materials in Premium HSS- PM.
- ▶ YG-1's tailored Tank-power coating for excellent wear resistance.

YPM 4 30° PLAIN P.925

单位(Unit) : mm

型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
GAC25030N	3.0	6	15	60
GAC25040N	4.0	8	20	70
GAC25050N	5.0	8	25	75
GAC25060N	6.0	8	25	75
GAC25070N	7.0	10	35	90
GAC25080N	8.0	10	35	90
GAC25090N	9.0	10	45	90
GAC25100N	10.0	10	45	100
GAC25120N	12.0	12	55	115
GAC25140N	14.0	16	55	120
GAC25160N	16.0	16	65	130
GAC25180N	18.0	16	65	130
GAC25200N	20.0	20	75	145
GAC25220N	22.0	20	75	145
GAC25250N	25.0	25	90	165
GAC25260N	26.0	25	90	165
GAC25300N	30.0	25	90	165

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~+0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	镍镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

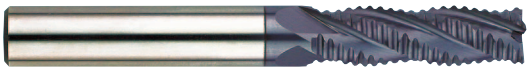
TANK-POWER END MILLS

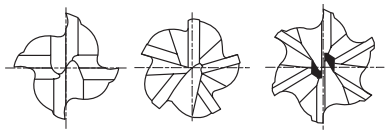
GAA22 SERIES PLAIN SHANK

粉末高速钢, 多刃 粗加工 – 中等螺距
PREMIUM HSS-PM, MULTI FLUTE ROUGHING-MEDIUM

- ▶ 超粉末高速钢材料使用
- ▶ Tank-power 涂层具有耐磨性
- ▶ 由于中心切割式底刃, 可以加工立槽的圆弧形底面

- ▶ Raw materials in Premium HSS- PM.
- ▶ YG-1's tailored Tank-power coating for excellent wear resistance.
- ▶ Designed for milling of bottom surface due to center cut type.





YPM | MEDIUM | 4-6 | 30° | PLAIN

P.924

单位(Unit) : mm

型号 EDP No. TiAlN	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
GAA22060	6.0	6	20	60	4
GAA22070	7.0	10	20	70	4
GAA22080	8.0	10	25	75	4
GAA22090	9.0	10	30	75	4
GAA22100	10.0	10	35	85	4
GAA22120	12.0	12	40	100	4
GAA22140	14.0	16	40	100	4
GAA22160	16.0	16	50	110	4
GAA22180	18.0	20	50	110	4
GAA22200	20.0	20	60	125	4
GAA22220	22.0	20	60	125	5
GAA22250	25.0	25	70	145	5
GAA22280	28.0	25	70	145	5
GAA22300	30.0	25	70	145	6
GAA22320	32.0	32	80	160	6
GAA22350	35.0	32	80	160	6
GAA22400	40.0	32	95	175	6

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛						
公称直径单位 / Nominal-Diameter in ㎜						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 / − 6	0 / − 8	0 / − 9	0 / − 11	0 / − 13	0 / − 16

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~40	硬化钢 Hardened Steels HRc40~45	硬化钢 Hardened Steels HRc45~55	高硬钢 High Hardened Steels HRc55~70	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
◎	◎	◎						◎		◎		

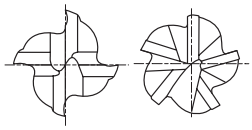
TANK-POWER END MILLS

GAD33 SERIES PLAIN SHANK

粉末高速钢，多刃 短刃 粗加工 – 细螺纹
PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-FINE

- ▶ 超粉末高速钢材料使用
- ▶ Tank-power 涂层具有耐磨性
- ▶ 由于具有细螺纹，用于加工合金钢以及难加工材料
- ▶ 由于中心切割式底刃，可以加工立槽的圆弧形底面

- ▶ Raw materials in Premium HSS- PM.
- ▶ YG-1's tailored Tank-power coating for excellent wear resistance.
- ▶ Designed to alloy steels, difficult-to -cut materials due to fine pitch.
- ▶ Designed for milling of bottom surface due to center cut type.



YPM FINE 4-5 30° PLAIN P.924

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
TiAlN	js12	h6			
GAD33060	6.0	8	.13	57	4
GAD33070	7.0	10	16	66	4
GAD33080	8.0	10	19	69	4
GAD33090	9.0	10	19	69	4
GAD33100	10.0	10	22	72	4
GAD33120	12.0	12	26	83	4
GAD33140	14.0	16	26	83	4
GAD33160	16.0	16	32	92	4
GAD33180	18.0	20	32	92	4
GAD33200	20.0	20	38	104	4
GAD33220	22.0	20	38	104	5
GAD33250	25.0	25	45	121	5
GAD33300	30.0	25	45	121	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm						
公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

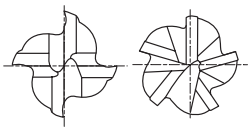
TANK-POWER END MILLS

GAB58 SERIES PLAIN SHANK

粉末高速钢，多刃 中等长 粗加工 – 细螺纹
PREMIUM HSS-PM, MULTI FLUTE MEDIUM LENGTH ROUGHING-FINE

- ▶ 超粉末高速钢材料使用
- ▶ Tank-power 涂层具有耐磨性
- ▶ 由于具有细螺纹，用于加工合金钢以及难加工材料
- ▶ 由于中心切割式底刃，可以加工立槽的圆弧形底面

- ▶ Raw materials in Premium HSS- PM.
- ▶ YG-1's tailored Tank-power coating for excellent wear resistance.
- ▶ Designed to alloy steels, difficult-to -cut materials due to fine pitch.
- ▶ Designed for milling of bottom surface due to center cut type.



YPM | FINE | 4-5 | 30° | PLAIN

P.924

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
TiAlN	js12	h6			
GAB58060	6.0	6	20	60	4
GAB58070	7.0	10	20	70	4
GAB58080	8.0	10	25	75	4
GAB58090	9.0	10	30	75	4
GAB58100	10.0	10	35	85	4
GAB58120	12.0	12	40	100	4
GAB58140	14.0	12	40	100	4
GAB58160	16.0	16	50	110	4
GAB58180	18.0	16	50	110	4
GAB58200	20.0	20	60	125	4
GAB58220	22.0	20	60	125	5
GAB58250	25.0	25	70	145	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛						
公称直径单位 / Nominal-Diameter in ㎜						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	镍镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

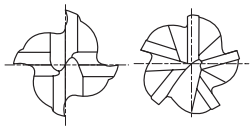
TANK-POWER END MILLS

GAD52 SERIES PLAIN SHANK

粉末高速钢，多刃 长刃 粗加工 – 细螺纹
PREMIUM HSS-PM, MULTI FLUTE LONG LENGTH ROUGHING-FINE

- ▶ 超粉末高速钢材料使用
- ▶ Tank-power 涂层具有耐磨性
- ▶ 由于具有细螺纹，用于加工合金钢以及难加工材料
- ▶ 由于中心切割式底刃，可以加工立槽的圆弧形底面

- ▶ Raw materials in Premium HSS- PM.
- ▶ YG-1's tailored Tank-power coating for excellent wear resistance.
- ▶ Designed to alloy steels, difficult-to -cut materials due to fine pitch.
- ▶ Designed for milling of bottom surface due to center cut type.



YPM FINE 4-5 30° PLAIN P.924

单位(Unit) : mm

型号 EDP No. TiAlN	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
GAD52060	6.0	8	25	70	4
GAD52080	8.0	10	40	90	4
GAD52100	10.0	10	45	100	4
GAD52120	12.0	12	55	110	4
GAD52130	13.0	12	55	110	4
GAD52140	14.0	16	55	110	4
GAD52150	15.0	16	65	125	4
GAD52160	16.0	16	65	125	4
GAD52180	18.0	20	65	125	4
GAD52200	20.0	20	75	140	4
GAD52220	22.0	20	75	140	5
GAD52250	25.0	25	90	170	5
GAD52260	26.0	25	90	170	5
GAD52300	30.0	25	90	170	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~40	硬化钢 Hardened Steels HRc40~45	硬化钢 Hardened Steels HRc45~55	高硬钢 High Hardened Steels HRc55~70	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
◎	◎	◎						◎		◎		

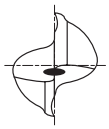
TANK-POWER END MILLS

EP931 SERIES PLAIN SHANK

粉末高速钢，2刃 普通刃
PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH

- ▶ 2刃为槽铣设计
- ▶ 适合于难加工材料，不锈钢，钛，特殊材料的高速切削
- ▶ YG-1新开发的TANK-POWER涂层适于高速切削

- ▶ Two-Flute design for slotting.
- ▶ Suitable for high speed cutting of difficult-to-cut materials, stainless steels, titanium and exotic materials.
- ▶ YG-1's new developed TANK-POWER Coating suitable for high speed cutting.



YPM 2 30° PLAIN P.922

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EP931010	1.0	6	2.5	55
EP931020	2.0	6	6	55
EP931030	3.0	6	10	55
EP931040	4.0	8	12	60
EP931050	5.0	8	15	65
EP931060	6.0	8	15	65
EP931070	7.0	10	20	75
EP931080	8.0	10	20	75
EP931090	9.0	10	25	80
EP931100	10.0	10	25	80
EP931120	12.0	12	30	90
EP931140	14.0	12	35	95
EP931160	16.0	16	40	105
EP931180	18.0	16	40	105
EP931200	20.0	20	45	115
EP931220	22.0	20	45	115
EP931250	25.0	25	50	125

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	镍铬铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

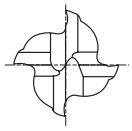
TANK-POWER END MILLS

EP932 SERIES PLAIN SHANK

粉末高速钢，4刃 普通刃
PREMIUM HSS-PM, 4 FLUTE REGULAR LENGTH

- ▶ 推荐用于铣型腔,凸轮加工，加工模腔及开立槽
- ▶ 设计用于难加工材料，不锈钢，钛等特殊材料的高速切削
- ▶ YG-1新开发的TANK-POWER涂层适于高速切削

- ▶ Recommended for pocketing, tracer milling, cam milling, die sinking and slotting.
- ▶ Suitable for high speed cutting of difficult-to-cut materials, stainless steels, titanium and exotic materials.
- ▶ YG-1's new developed TANK-POWER Coating suitable for high speed cutting.



YPM | 4 | 30° | PLAIN P.923

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EP932010	1.0	6	2.5	55
EP932020	2.0	6	6	55
EP932030	3.0	6	10	55
EP932040	4.0	8	12	60
EP932050	5.0	8	15	65
EP932060	6.0	8	15	65
EP932070	7.0	10	20	75
EP932080	8.0	10	20	75
EP932090	9.0	10	25	80
EP932100	10.0	10	25	80
EP932120	12.0	12	30	90
EP932140	14.0	12	35	95
EP932160	16.0	16	40	105
EP932180	18.0	16	40	105
EP932200	20.0	20	45	115
EP932220	22.0	20	45	115
EP932250	25.0	25	50	125

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~+0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~40	硬化钢 Hardened Steels HRc40~45	硬化钢 Hardened Steels HRc45~55	高硬钢 High Hardened Steels HRc55~70	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
◎	◎	◎						◎		◎		

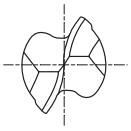
TANK-POWER END MILLS

EP933 SERIES PLAIN SHANK

粉末高速钢，2刃 普通刃 球头
PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH BALL NOSE

- ▶ 从碳素钢，不锈钢到铝等广泛的材料上都有卓越的性能
- ▶ 设计用于加工圆底沟槽，带和特殊轮廓
- ▶ YG-1新开发的TANK-POWER涂层适于高速切削

- ▶ Excellent performance on wide materials from carbon steels and stainless steels to aluminum.
- ▶ Designed for milling of radius bottom slots, fillets and special contours.
- ▶ YG-1's new developed TANK-POWER Coating suitable for high speed cutting.



YPM | 2 | 30° | R ±0.02 | PLAIN P.923

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EP933010	R 0.5	1.0	6	2.5	50
EP933020	R 1.0	2.0	6	5	50
EP933030	R 1.5	3.0	6	8	60
EP933040	R 2.0	4.0	6	8	70
EP933050	R 2.5	5.0	6	10	80
EP933060	R 3.0	6.0	6	12	90
EP933070	R 3.5	7.0	8	14	90
EP933080	R 4.0	8.0	8	14	100
EP933090	R 4.5	9.0	10	18	100
EP933100	R 5.0	10.0	10	18	100
EP933120	R 6.0	12.0	12	22	110
EP933140	R 7.0	14.0	12	26	110
EP933160	R 8.0	16.0	16	30	140
EP933180	R 9.0	18.0	16	34	140
EP933200	R 10.0	20.0	20	38	160
EP933220	R 11.0	22.0	20	45	170
EP933250	R 12.5	25.0	25	50	180

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~40	硬化钢 Hardened Steels HRc40~45	硬化钢 Hardened Steels HRc45~55	高硬钢 High Hardened Steels HRc55~70	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	镍镍铁合金 Inconel
◎	◎	◎						◎		◎		

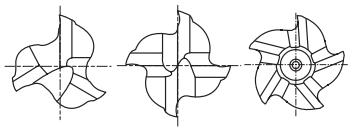
TANK-POWER END MILLS

EP941 SERIES FLAT SHANK

粉末高速钢，多刃 短刃 粗加工 – 细螺纹
PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-FINE

- ▶ 适合于高速粗铣
- ▶ 设计用于加工碳素钢，合金钢，不锈钢
- ▶ 在许多情况下，能够提供卓越的表面粗糙度
- ▶ YG-1新开发的TANK-POWER涂层适于高速切削
- ▶ Ø20以下：中心切割式，Ø20超过：中心孔式

- ▶ Suitable for high-feed rough milling.
- ▶ Designed to machine carbon steels, alloyed steels and stainless steels.
- ▶ Providing excellent finished surface in many case.
- ▶ YG-1's new developed TANK-POWER Coating suitable for high speed cutting.
- ▶ up to Ø20 : center cut, over Ø20 : non center cut



up to Ø9 Ø10 ~ Ø20 over Ø20

YPM FINE 3-5 30° DIN 1835B ~Ø20 Ø22~ P.924

単位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EP941060	6.0	6	13	57	3
EP941070	7.0	10	16	66	3
EP941080	8.0	10	19	69	3
EP941090	9.0	10	19	69	3
EP941100	10.0	10	22	72	4
EP941120	12.0	12	26	83	4
EP941140	14.0	12	26	83	4
EP941160	16.0	16	32	92	4
EP941180	18.0	16	32	92	4
EP941200	20.0	20	38	104	4
EP941220	22.0	20	38	104	5
EP941250	25.0	25	45	121	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

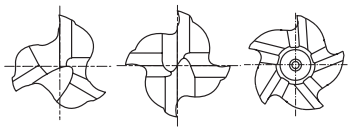
TANK-POWER END MILLS

EPA33 SERIES FLAT SHANK

粉末高速钢，多刃 短刃 粗加工 – 粗螺纹
PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-COARSE

- ▶ 适合于高速粗铣
- ▶ 设计用于加工碳素钢，合金钢，不锈钢
- ▶ YG-1新开发的TANK-POWER涂层适于高速切削
- ▶ Ø20以下：中心切割式，Ø20超过：中心孔式

- ▶ Suitable for high-feed rough milling.
- ▶ Designed to machine carbon steels, alloyed steels and stainless steels.
- ▶ YG-1's new developed TANK-POWER Coating suitable for high speed cutting.
- ▶ up to Ø20 : center cut, over Ø20 : non center cut



up to Ø9 Ø10 ~ Ø20 over Ø20

YPM | COARSE | 3-5 | 30° | DIN 1835B | ~Ø20 | Ø22~ P.924

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EPA33060	6.0	6	13	57	3
EPA33070	7.0	10	16	66	3
EPA33080	8.0	10	19	69	3
EPA33090	9.0	10	19	69	3
EPA33100	10.0	10	22	72	4
EPA33120	12.0	12	26	83	4
EPA33140	14.0	12	26	83	4
EPA33160	16.0	16	32	92	4
EPA33180	18.0	16	32	92	4
EPA33200	20.0	20	38	104	4
EPA33220	22.0	20	38	104	5
EPA33250	25.0	25	45	121	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

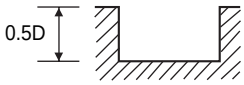
TANK-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

粉末高速钢，2刃 普通刃 – 开槽
PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH - SLOTTING

EP931 SERIES

材质	结构钢，碳钢		结构钢，碳钢，铸铁		碳钢，合金钢，工具钢		预硬钢，合金钢，工具钢		合金钢，工具钢，奥氏体不锈钢	
MATERIAL	STRUCTURAL STEELS, CARBON STEELS		STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		ALLOY STEELS, TOOL STEELS, AUSTENITIC STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc35		HRc35~HRc40	
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1100N/mm²		1100~1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	6700	100	5600	80	4700	85	3000	55	1900	35
3.0	4700	140	3900	120	3200	100	2200	70	1700	55
4.0	4100	200	3400	155	3000	140	1900	80	1500	65
5.0	3700	220	3100	175	2500	160	1600	90	1300	65
6.0	3300	230	2750	185	2200	165	1400	95	1100	75
8.0	2500	240	2100	210	1700	175	1100	100	850	75
10.0	2000	260	1700	230	1400	200	850	110	670	90
12.0	1700	240	1400	210	1100	180	700	100	550	75
14.0	1500	230	1200	200	950	170	600	95	480	70
16.0	1300	230	1100	185	850	155	530	90	420	70
18.0	1100	210	900	170	750	140	480	85	380	65
20.0	900	190	750	145	670	130	420	80	340	60
22.0	800	160	680	130	570	110	380	70	300	50
25.0	720	135	600	120	470	100	340	65	240	45



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

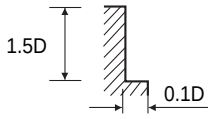
TANK-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

粉末高速钢，2刃 普通刃 – 侧铣
PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH - SIDE CUTTING

EP932 SERIES

材质	结构钢，碳钢		结构钢，碳钢，铸铁		碳钢，合金钢，工具钢		预硬钢，合金钢，工具钢		合金钢，工具钢，不锈钢	
MATERIAL	STRUCTURAL STEELS, CARBON STEELS		STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		ALLOY STEELS, TOOL STEELS, AUSTENITIC, STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc35		HRc35~HRc40	
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1100N/mm²		1100~1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	8800	250	8000	210	5800	150	3900	110	3200	75
3.0	6300	360	5700	300	4200	220	2800	155	2300	110
4.0	5000	420	4500	350	3400	260	2200	175	1900	130
5.0	4200	440	3800	370	2800	275	1900	190	1600	140
6.0	3700	470	3400	390	2500	285	1700	200	1400	155
8.0	3000	500	2500	420	1900	320	1300	210	1100	160
10.0	2200	550	2000	460	1500	330	1000	230	850	175
12.0	1900	500	1700	420	1300	320	850	210	690	160
14.0	1700	480	1500	400	1100	300	750	200	600	150
16.0	1550	440	1300	370	950	290	650	190	520	145
18.0	1400	400	1200	350	850	270	600	170	480	130
20.0	1200	380	1000	320	750	240	500	155	420	120
22.0	1000	360	900	280	650	220	450	140	380	115
25.0	950	320	800	265	600	200	400	130	340	110

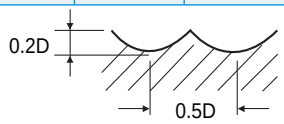


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

粉末高速钢，2刃 球头 – 仿形
PREMIUM HSS-PM, 2 FLUTE BALL NOSE - PROFILING

EP933 SERIES

材质	结构钢，碳钢		结构钢，碳钢，铸铁		碳钢，合金钢，工具钢		预硬钢，合金钢，工具钢		不锈钢	
MATERIAL	STRUCTURAL STEELS CARBON STEELS		STRUCTURAL STEELS CARBON STEELS CAST IRONS		CARBON STEELS ALLOY STEELS TOOL STEELS		PREHARDENED STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc40			
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.5 × 3.0	7000	300	5500	200	3700	110	1900	50	2100	60
R2.0 × 4.0	5700	370	4400	250	2900	140	1500	65	1650	80
R3.0 × 6.0	4200	420	3300	280	2200	155	1150	75	1265	90
R4.0 × 8.0	3200	460	2500	310	1700	175	850	75	935	90
R5.0 × 10.0	2600	520	2000	350	1350	200	650	90	715	105
R6.0 × 12.0	2200	460	1700	310	1150	175	550	75	605	90
R8.0 × 16.0	1600	420	1250	280	850	155	420	70	460	80
R10.0 × 20.0	1300	360	1000	240	650	130	340	60	375	70
R12.5 × 25.0	900	270	700	180	450	100	240	45	265	55



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

TANK-POWER END MILLS

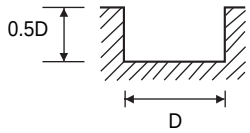
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

CBN END MILLS
i-Xmill END MILLS
X5070 END MILLS
X-POWER END MILLS
JET-POWER END MILLS
V7 Mill INOX END MILLS
V7 Mill STEEL END MILLS
ALU-POWER END MILLS
CRX S
D-POWER END MILLS
K-2 CARBIDE END MILLS
GENERAL CARBIDE END MILLS
TANK-POWER END MILLS
GENERAL HSS END MILLS
MILLING CUTTERS
TECHNICAL DATA

粉末高速钢，多刃 粗加工 – 开槽
PREMIUM HSS-PM, MULTI FLUTE ROUGHING - SLOTTING

EP941, EPA33, GAA22, GAD33, GAB58, GAD52 SERIES

材质 MATERIAL	结构钢，碳钢 STRUCTURAL STEELS, CARBON STEELS		结构钢，碳钢，铸铁 STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		碳钢，合金钢，工具钢 CARBON STEELS, ALLOY STEELS, TOOL STEELS		预硬钢，合金钢，工具钢 PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		不锈钢 STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc40			
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	2700	150	2100	115	1500	75	1250	65	1370	80
8.0	2300	185	1800	150	1300	405	1000	80	1100	95
10.0	1800	270	1400	205	1000	125	850	105	930	125
12.0	1500	270	1150	215	850	150	700	115	770	140
14.0	1300	270	1000	215	720	150	600	115	660	140
16.0	1150	270	900	215	625	150	520	115	570	140
18.0	1000	270	850	215	580	150	470	115	510	140
20.0	920	275	720	215	500	150	420	115	460	140
22.0	850	275	620	215	450	150	380	115	410	140
25.0	750	270	570	205	400	140	340	115	370	140



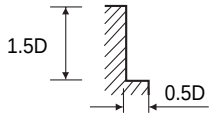
※ 对长和超长型进给应减少约50%.
The FEED, in long & long reach types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

粉末高速钢，多刃 粗加工 – 侧铣
PREMIUM HSS-PM, MULTI FLUTE ROUGHING - SIDE CUTTING

EP941, EPA33, GAA22, GAD33, GAB58, GAD52 SERIES

材质 MATERIAL	结构钢，碳钢 STRUCTURAL STEELS, CARBON STEELS		结构钢，碳钢，铸铁 STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		碳钢，合金钢，工具钢 CARBON STEELS, ALLOY STEELS, TOOL STEELS		预硬钢，合金钢，工具钢 PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		不锈钢 STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc40			
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	2700	200	2100	155	1500	100	1250	90	1370	105
8.0	2300	250	1800	200	1300	140	1000	110	1100	130
10.0	1800	360	1400	275	1000	170	850	140	930	185
12.0	1500	360	1150	290	850	200	700	155	770	185
14.0	1300	360	1000	290	720	200	600	155	660	185
16.0	1150	360	900	290	625	200	520	155	570	185
18.0	1000	360	850	290	580	200	470	155	510	185
20.0	920	370	720	290	500	200	420	155	460	185
22.0	850	370	620	290	450	200	380	155	410	185
25.0	750	360	570	275	400	190	340	155	370	185



※ 对长和超长型进给应减少约50%.
The FEED, in long & long reach types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

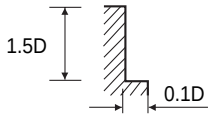
TANK-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

粉末高速钢, 4刃 长刃 - 侧铣
PREMIUM HSS-PM, 4 FLUTE LONG LENGTH - SIDE CUTTING

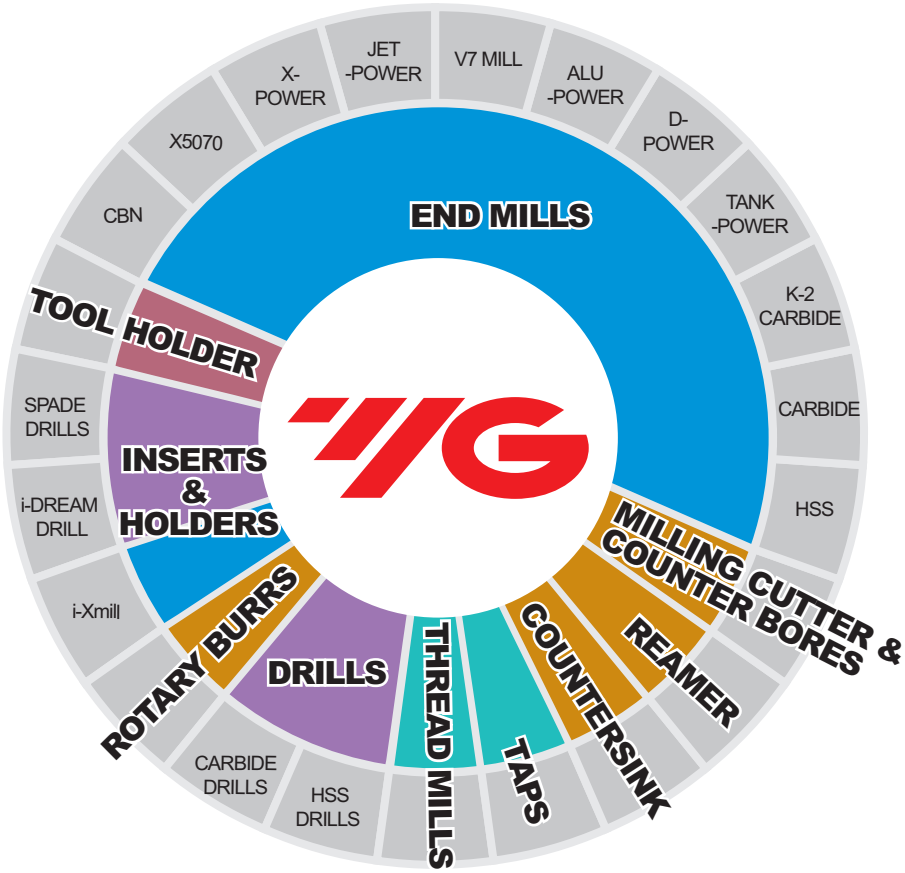
GAC25 SERIES

材质	结构钢, 碳钢		结构钢, 碳钢, 铸铁		碳钢, 合金钢, 工具钢		预硬钢, 合金钢, 工具钢		合金钢, 工具钢, 不锈钢	
MATERIAL	STRUCTURAL STEELS, CARBON STEELS		STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		ALLOY STEELS, TOOL STEELS, AUSTENITIC, STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc35		HRc35~HRc40	
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1100N/mm²		1100~1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6600	210	6000	180	4400	130	2700	95	2400	65
4.0	5300	245	4700	205	3600	155	2300	105	2000	80
5.0	4400	260	4000	215	2900	165	2000	115	1700	85
6.0	3900	275	3600	230	2600	170	1800	120	1450	95
8.0	3100	290	2600	245	2000	190	1400	125	1150	95
10.0	2300	320	2100	270	1600	195	1000	140	890	105
12.0	2000	290	1800	245	1400	190	890	125	720	100
14.0	1800	280	1600	235	1100	180	790	120	630	90
16.0	1600	260	1400	220	1000	175	680	115	550	90
18.0	1500	235	1250	205	890	160	630	105	500	80
20.0	1250	225	1050	190	780	145	530	95	440	75
22.0	1050	210	950	165	680	135	470	85	400	70
25.0	1000	190	840	160	630	120	420	80	360	70
28.0	850	170	700	145	500	105	350	70	319	65
30.0	750	150	600	125	450	95	320	65	319	65



※ 对长和超长型进给应减少约50%.
The FEED, in long & long reach types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)



Challenge Toward a Global Leader-

YG-1 Leads the World Market.