

舍弃式快速U钻

INDEXABLE INSERT DRILL



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快速钻加工相关参数计算方法

Related to the processing parameters of shallow hole drilling method of calculation

切削速度 (Vc)

$$V_c = \frac{D_c \times \pi \times n}{1000}$$

Vc (m/min) : 切削速度
Dc(mm): 钻头直径
n(rev/min): 转速

实例

主轴转速为 1600rev/min, 钻头直径为 φ20mm, 其切削速度为:

$$V_c = \frac{D_c \times \pi \times n}{1000} = \frac{20 \times 3.14 \times 1600}{1000} = 100(\text{m/min})$$

进给速度

$$V_f = f_r \times n$$

Vf (mm/min) : 进给速度
Fr(mm/rev): 每转进给量
n(rev/min): 主轴转速

实例

主轴转速为 1500rev/min, 每转进给量为 0.1mm/rev, 其进给速度为:

$$V_f = f_r \times n = 0.1 \times 1500 = 150(\text{mm/min})$$

孔加工时间

$$T_c = \frac{l_d \times i}{n \times f}$$

Tc (min) : 加工时间 Fr(mm/rev): 每转进给量 i= 孔数量
ld(min): 钻孔深 n(rev/min): 主轴转速

实例

钻一个直径为 φ20mm, 深为 40mm 的孔, 切削速度为 100m/min, 每转进给量为 0.1mm/rev, 求钻削时间。

$$V_c = \frac{V_c \times 1000}{D_c \times \pi} = \frac{100 \times 1000}{20 \times 3.14} = 1600(\text{rev/min})$$

$$T_c = \frac{l_d \times i}{n \times f} = \frac{40 \times 1}{1600 \times 0.1} = 0.25(\text{min})$$

金属去除率

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000}$$

Q (cm³/min) : 金属去除率
Dc(mm): 钻头直径
Vf(mm/min): 进给速度

实例

一个直径为 φ20mm 的钻头, 加工时的进给速度为 160mm/rev, 其金属去除率为:

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000} = \frac{160 \times 3.14 \times 20^2}{20 \times 3.14} = 50.24(\text{cm}^3/\text{min})$$

舍弃式快速钻头技术信息

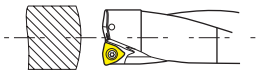
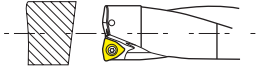
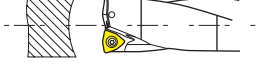
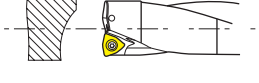
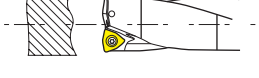
DISCARD-STYLE FAST-BIT TECHNICAL INFORMATION

钻头的钻入

钻头的钻入是钻削成功的重要因素。保证良好的孔质量的方法之一是保证工件的钻入表面与钻头的中心轴垂直。此外，可转位浅孔钻还可以通过调整进给，不加工凸的、凹的、倾斜的或不规则的钻入表面。

Drill drill into

Drill drill into is an important factor in the success of drilling. To ensure good quality of the hole one of the ways is to ensure that the workpiece surface and drill drill into the center of The vertical axis. In addition, indexable drill shallow holes can also adjust the feed, to process convex, concave, and sloping and irregular drill into the surface.

加工表面情况 Surface conditions	应对措施 Response
	对于凸的表面，其加工条件相对较好，并且钻心能理想地首先与工件接触，因而可采用正常进给。
	被钻削的零件表面为倾斜表面，切削刃受到不均匀的负荷会使切削刃过早的磨损。如果倾斜表面的角度超过 2°，进给应减小到推荐值的 1/3。
	在钻入凹的表面时，通常会造成钻头轴心偏离中心，对于这种情况进给应减小到推荐值的 1/3。
	在钻入不对称的曲面时，由于是钻入倾斜表面，所以钻头可能会偏离中心，此时进给的选择比钻入凹表面时应更小。
	在钻入不规则表面时，会出现刀片崩刃的危险，在开始钻削时必须减小进给量，同时在钻头钻通时也可能会出现这种情况，因此也必须减小进给。



※ 一般注意事项：

- ◇ 强烈推荐使用高压中心内冷方式切削，内冷式切削可以最大限度的发挥钻头的切削效能，有效避免切削的堆积、刀片的破损和以及已加工内表面的破坏，保证加工的可靠性。
- ◇ 使用外冷方式钻削，钻深不要超过 1.5D；必须钻深时，推荐采用啄钻方式加工。
- ◇ 为达最佳切削效果；
 - 1 检测刀柄刚性；
 - 2 尽量减少刀具与主轴轴线偏差；
 - 3 采用推荐的切削方式；
- ◇ 外深 2D & 3D 时冷却液压力最小 4kg/cm²，钻深 4D 时冷却液压力最小 5kg/cm² 以上。
- ◇ 加工孔径公差：通常情况下钻深为 2D/3D 时为 0/+0.25，4D 时为 0/+0.40，但会随机床和加工条件不同而变化。
- ◇ 避免在超过 6° 的斜面、中凹面、凹凸不平面上开始钻孔，这样很容易使钻头偏离中心或使钻头崩刃，如果必须这样做则钻削进给量必须减少到推荐值的 1/3 左右。
- ◇ 如果零件上已有预钻孔，则该孔的孔径不得超过成品尺寸的 1/4，否则会引偏钻头。
- ◇ 钻削有相贯孔的零件与或多一层叠加在一起的板材时进给量必须减小到推荐值的 1/3 左右。

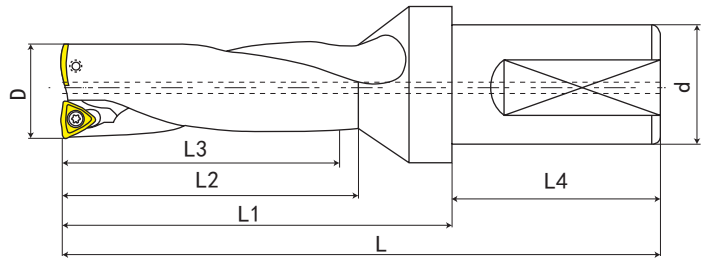
※ 车床使用注意事项（钻头不旋转）：

- ◇ 确保刀具轴线与主轴梅花同心度小于 0.03mm，必要时需要进行适当校正。
- ◇ 钻头的安装应使周边刀片的表面平行于机床 X 轴的运动方向，并使周边刀片靠刀塔外侧安装。
- ◇ 保证上述条件满足，沿机床 X 轴方向移动刀具轴线，可获得不同钻孔直径。
- ◇ 如果加工公差没有达到要求，请按上述项目逐项检查并适当调整切削参数，发送冷却条件。
- ◇ 请注意如果您的 CNC 车床有过撞击的经历，则很难保证刀具轴线与主轴同心的要求。
- ◇ 警告：钻穿工件时，工件底面将高速飞出一团盘状废料，必须采取适当防护措施以保证安全。

舍弃式快速钻头 INDEXABLE INSERT DRILL

WC 舍弃式快速 U 钻 (2 倍径)

WC INDEXABLE INSERT DRILL (2xD)



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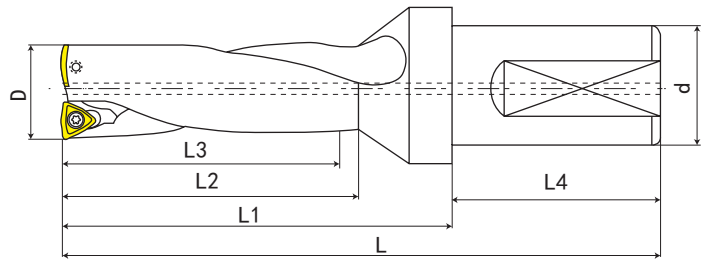
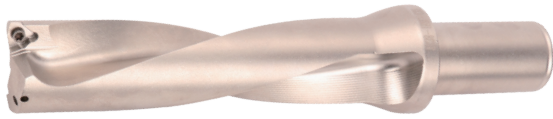
钻孔公差 (Hole tolerance) 0/+0.25mm
 钻头公差 (Tolerance,D) 0/+0.20mm
 最大钻深 (Max hole depth,L1) 2XD

型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp scrwe	扳手 Wrench
WC14-28-C25*2D	14	57	33	28	56	113	25	WCMX030208	M2.5*5	T8
WC14.5-29-C25*2D	14.5	57	34	29	56	113	25	WCMX030208	M2.5*5	T8
WC15-30-C25*2D	15	57	35	30	56	113	25	WCMX030208	M2.5*5	T8
WC15.5-31-C25*2D	15.5	57	36	31	56	113	25	WCMX030208	M2.5*5	T8
WC16-32-C25*2D	16	58	37	32	56	114	25	WCMX030208	M2.5*5	T8
WC16.5-33-C25*2D	16.5	58	38	33	56	114	25	WCMX030208	M2.5*5	T8
WC17-34-C25*2D	17	60	39	34	56	116	25	WCMX030208	M2.5*5	T8
WC17.5-35-C25*2D	17.5	60	40	35	56	116	25	WCMX030208	M2.5*5	T8
WC18-36-C25*2D	18	63	41	36	56	119	25	WCMX030208	M2.5*5	T8
WC18.5-37-C25*2D	18.5	63	42	37	56	119	25	WCMX030208	M2.5*5	T8
WC19-38-C25*2D	19	65	43	38	56	121	25	WCMX030208	M2.5*5	T8
WC19.5-39-C25*2D	19.5	65	44	39	56	121	25	WCMX030208	M2.5*5	T8
WC20-40-C25*2D	20	69	45	40	56	125	25	WCMX040208	M2.5*6	T8
WC20.5-41-C25*2D	20.5	69	46	41	56	125	25	WCMX040208	M2.5*6	T8
WC21-42-C25*2D	21	71	47	42	56	127	25	WCMX040208	M2.5*6	T8
WC21.5-43-C25*2D	21.5	71	48	43	56	127	25	WCMX040208	M2.5*6	T8
WC22-44-C25*2D	22	73	49	44	56	129	25	WCMX040208	M2.5*6	T8
WC22.5-45-C25*2D	22.5	73	50	45	56	129	25	WCMX040208	M2.5*6	T8
WC23-46-C25*2D	23	76	51	46	56	132	25	WCMX040208	M2.5*6	T8
WC23.5-47-C25*2D	23.5	76	52	47	56	132	25	WCMX040208	M2.5*6	T8
WC24-48-C25*2D	24	79	53	48	56	135	25	WCMX050308	M3.0*7	T8
WC24.5-49-C25*2D	24.5	79	54	49	56	135	25	WCMX050308	M3.0*7	T8
WC25-50-C25*2D	25	82	55	50	56	138	25	WCMX050308	M3.0*7	T8
WC25.5-51-C25*2D	25.5	82	56	51	56	138	25	WCMX050308	M3.0*7	T8
WC26-52-C32*2D	26	84	57	52	60	144	32	WCMX050308	M3.0*7	T8
WC26.5-53-C32*2D	26.5	84	58	53	60	144	32	WCMX050308	M3.0*7	T8
WC27-54-C32*2D	27	86	59	54	60	146	32	WCMX050308	M3.0*7	T8
WC27.5-55-C32*2D	27.5	86	60	55	60	146	32	WCMX050308	M3.0*7	T8
WC28-56-C32*2D	28	89	61	56	60	149	32	WCMX050308	M3.0*7	T8
WC28.5-57-C32*2D	28.5	89	62	57	60	149	32	WCMX050308	M3.0*7	T8
WC29-58-C32*2D	29	91	63	58	60	151	32	WCMX050308	M3.0*7	T8
WC29.5-59-C32*2D	29.5	91	64	59	60	151	32	WCMX050308	M3.0*7	T8
WC30-60-C32*2D	30	95	65	60	60	155	32	WCMX050308	M3.0*7	T8
WC30.5-61-C32*2D	30.5	95	66	61	60	155	32	WCMX050308	M3.0*7	T8
WC31-62-C32*2D	31	98	67	62	60	158	32	WCMT06T308	M3.5*8	T15
WC31.5-63-C32*2D	31.5	98	68	63	60	158	32	WCMT06T308	M3.5*8	T15
WC32-64-C32*2D	32	100	69	64	60	160	32	WCMT06T308	M3.5*8	T15
WC32.5-65-C32*2D	32.5	100	70	65	60	160	32	WCMT06T308	M3.5*8	T15
WC33-66-C32*2D	33	103	71	66	60	163	32	WCMT06T308	M3.5*8	T15
WC33.5-67-C32*2D	33.5	103	72	67	60	163	32	WCMT06T308	M3.5*8	T15
WC34-68-C32*2D	34	105	73	68	60	165	32	WCMT06T308	M3.5*8	T15
WC34.5-69-C32*2D	34.5	105	74	69	60	165	32	WCMT06T308	M3.5*8	T15

U 钻
U DRILL

WC 舍弃式快速 U 钻 (2 倍径)

WC INDEXABLE INSERT DRILL (2xD)



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钻孔公差 (Hole tolerance) 0/+0.25mm
 钻头公差 (Tolerance,D) 0/+0.20mm
 最大钻深 (Max hole depth,L1) 2XD

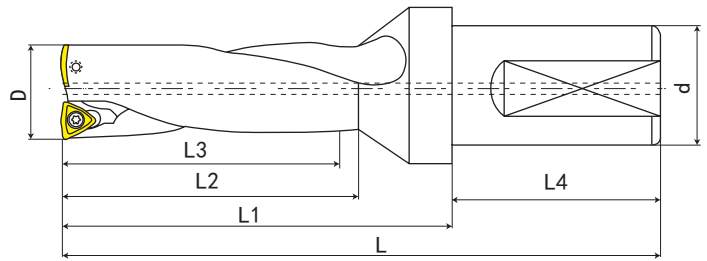
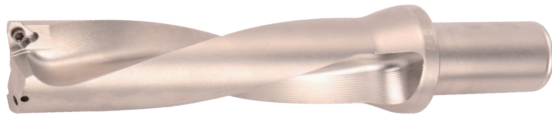
型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp scrwe	扳手 Wrench
WC35-70-C32*2D	35	108	75	70	60	168	32	WCMT06T308	M3.5*8	T15
WC35.5-71-C32*2D	35.5	108	76	71	60	168	32	WCMT06T308	M3.5*8	T15
WC36-72-C32*2D	36	108	77	72	60	168	32	WCMT06T308	M3.5*8	T15
WC36.5-73-C32*2D	36.5	108	78	73	60	168	32	WCMT06T308	M3.5*8	T15
WC37-74-C32*2D	37	113	79	74	60	173	32	WCMT06T308	M3.5*8	T15
WC37.5-75-C32*2D	37.5	113	80	75	60	173	32	WCMT06T308	M3.5*8	T15
WC38-76-C32*2D	38	116	81	76	60	176	32	WCMT06T308	M3.5*8	T15
WC38.5-77-C32*2D	38.5	116	82	77	60	176	32	WCMT06T308	M3.5*8	T15
WC39-78-C32*2D	39	118	83	78	60	178	32	WCMT06T308	M3.5*8	T15
WC39.5-79-C32*2D	39.5	118	84	79	60	178	32	WCMT06T308	M3.5*8	T15
WC40-80-C32*2D	40	121	85	80	60	181	32	WCMT06T308	M3.5*8	T15
WC40.5-81-C32*2D	40.5	121	86	81	60	181	32	WCMT06T308	M3.5*8	T15
WC41-82-C32*2D	41	124	87	82	60	184	32	WCMT06T308	M3.5*8	T15
WC41.5-83-C32*2D	41.5	124	88	83	60	184	32	WCMT06T308	M3.5*8	T15
WC42-84-C40*2D	42	126	89	84	70	196	40	WCMT080412	M4*10	T15
WC43-86-C40*2D	43	128	91	86	70	198	40	WCMT080412	M4*10	T15
WC44-88-C40*2D	44	131	93	88	70	201	40	WCMT080412	M4*10	T15
WC45-90-C40*2D	45	133	95	90	70	203	40	WCMT080412	M4*10	T15
WC46-92-C40*2D	46	136	97	92	70	206	40	WCMT080412	M4*10	T15
WC47-94-C40*2D	47	138	99	94	70	208	40	WCMT080412	M4*10	T15
WC48-96-C40*2D	48	141	101	96	70	211	40	WCMT080412	M4*10	T15
WC49-98-C40*2D	49	143	103	98	70	213	40	WCMT080412	M4*10	T15
WC50-100-C40*2D	50	143	105	100	70	213	40	WCMT080412	M4*10	T15
WC51-102-C40-2D	51	143	107	102	70	213	40	WCMT080412	M4*10	T15
WC52-104-C40*2D	52	143	109	104	70	213	40	WCMT080412	M4*10	T15
WC53-106-C40*2D	53	143	111	106	70	213	40	WCMT080412	M4*10	T15
WC54-108-C40*2D	54	143	113	108	70	213	40	WCMT080412	M4*10	T15
WC55-110-C40*2D	55	143	115	110	70	213	40	WCMT080412	M4*10	T15
WC56-112-C40*2D	56	149	117	112	70	219	40	WCMT080412	M4*10	T15
WC57-114-C40*2D	57	149	119	114	70	219	40	WCMT080412	M4*10	T15
WC58-116-C40*2D	58	149	121	116	70	219	40	WCMT080412	M4*10	T15
WC59-118-C40*2D	59	156	123	118	70	226	40	WCMT080412	M4*10	T15
WC60-120-C40*2D	60	156	125	120	70	226	40	WCMT080412	M4*10	T15
WC61-122-C40*2D	61	159	127	122	70	229	40	WCMT080412	M4*10	T15
WC62-124-C40*2D	62	159	129	124	70	229	40	WCMT080412	M4*10	T15
WC63-126-C40*2D	63	159	131	126	70	229	40	WCMT06T308	M3.5*8	T15
WC64-128-C40*2D	64	159	133	128	70	229	40	WCMT06T308	M3.5*8	T15
WC65-130-C40-2D	65	165	135	130	70	235	40	WCMT06T308	M3.5*8	T15
WC66-132-C40-2D	66	165	137	132	70	235	40	WCMT06T308	M3.5*8	T15
WC67-134-C40-2D	67	168	139	134	70	238	40	WCMT06T308	M3.5*8	T15
WC68-136-C40-2D	68	168	141	136	70	238	40	WCMT06T308	M3.5*8	T15
WC69-138-C40-2D	69	171	143	138	70	241	40	WCMT06T308	M3.5*8	T15
WC70-140-C40-2D	70	171	145	140	70	241	40	WCMT06T308	M3.5*8	T15



舍弃式快速钻头 INDEXABLE INSERT DRILL

WC 舍弃式快速 U 钻 (3 倍径)

WC INDEXABLE INSERT DRILL (3xD)



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P. I30



P. I31

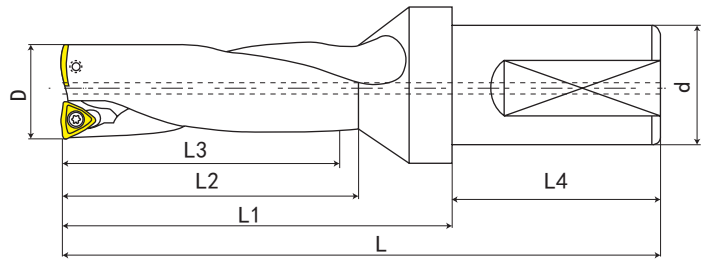
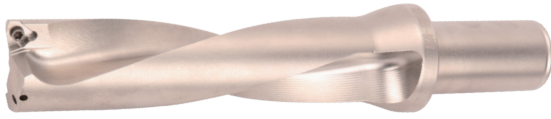
钻孔公差 (Hole tolerance) 0/+0.25mm
 钻头公差 (Tolerance, D) 0/+0.20mm
 最大钻深 (Max hole depth, L1) 3XD

型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
WC14-42-C25*3D	14	71	47	42	56	127	25	WCMX030208	M2.5*5	T8
WC14.5-43.5-C25*3D	14.5	71	48.5	43.5	56	127	25	WCMX030208	M2.5*5	T8
WC15-45-C25*3D	15	71	50	45	56	127	25	WCMX030208	M2.5*5	T8
WC15.5-46.5-C25*3D	15.5	71	51.5	46.5	56	127	25	WCMX030208	M2.5*5	T8
WC16-48-C25*3D	16	74	53	48	56	130	25	WCMX030208	M2.5*5	T8
WC16.5-49.5-C25*3D	16.5	74	54.5	49.5	56	130	25	WCMX030208	M2.5*5	T8
WC17-51-C25*3D	17	77	56	51	56	133	25	WCMX030208	M2.5*5	T8
WC17.5-52.5-C25*3D	17.5	77	57.5	52.5	56	133	25	WCMX030208	M2.5*5	T8
WC18-54-C25*3D	18	81	59	54	56	137	25	WCMX030208	M2.5*5	T8
WC18.5-55.5-C25*3D	18.5	81	60.5	55.5	56	137	25	WCMX030208	M2.5*5	T8
WC19-57-C25*3D	19	84	62	57	56	140	25	WCMX030208	M2.5*5	T8
WC19.5-58.5-C25*3D	19.5	84	63.5	58.5	56	140	25	WCMX030208	M2.5*5	T8
WC20-60-C25*3D	20	89	65	60	56	145	25	WCMX040208	M2.5*6	T8
WC20.5-61.5-C25*3D	20.5	89	66.5	61.5	56	145	25	WCMX040208	M2.5*6	T8
WC21-63-C25*3D	21	92	68	63	56	148	25	WCMX040208	M2.5*6	T8
WC21.5-64.5-C25*3D	21.5	92	69.5	64.5	56	148	25	WCMX040208	M2.5*6	T8
WC22-66-C25*3D	22	95	71	66	56	151	25	WCMX040208	M2.5*6	T8
WC22.5-67.5-C25*3D	22.5	95	72.5	67.5	56	151	25	WCMX040208	M2.5*6	T8
WC23-69-C25*3D	23	99	74	69	56	155	25	WCMX040208	M2.5*6	T8
WC23.5-70.5-C25*3D	23.5	99	75.5	70.5	56	155	25	WCMX040208	M2.5*6	T8
WC24-72-C25*3D	24	103	77	72	56	159	25	WCMX050308	M3.0*7	T8
WC24.5-73.5-C25*3D	24.5	103	78.5	73.5	56	159	25	WCMX050308	M3.0*7	T8
WC25-75-C25*3D	25	107	80	75	56	163	25	WCMX050308	M3.0*7	T8
WC25.5-76.5-C25*3D	25.5	107	81.5	76.5	56	163	25	WCMX050308	M3.0*7	T8
WC26-78-C32*3D	26	110	83	78	60	170	32	WCMX050308	M3.0*7	T8
WC26.5-79.5-C32*3D	26.5	100	84.5	79.5	60	170	32	WCMX050308	M3.0*7	T8
WC27-81-C32*3D	27	113	86	81	60	173	32	WCMX050308	M3.0*7	T8
WC27.5-82.5-C32*3D	27.5	113	87.5	82.5	60	173	32	WCMX050308	M3.0*7	T8
WC28-84-C32*3D	28	117	89	84	60	177	32	WCMX050308	M3.0*7	T8
WC28.5-85.5-C32*3D	28.5	117	90.5	85.5	60	177	32	WCMX050308	M3.0*7	T8
WC29-87-C32*3D	29	120	92	87	60	180	32	WCMX050308	M3.0*7	T8
WC29.5-88.5-C32*3D	29.5	120	93.5	88.5	60	180	32	WCMX050308	M3.0*7	T8
WC30-90-C32*3D	30	125	95	90	60	185	32	WCMX050308	M3.0*7	T8
WC30.5-91.5-C32*3D	30.5	125	96.5	91.5	60	185	32	WCMX050308	M3.0*7	T8
WC31-93-C32*3D	31	129	98	93	60	189	32	WCMT06T308	M3.5*8	T15
WC31.5-94.5-C32*3D	31.5	129	99.5	94.5	60	189	32	WCMT06T308	M3.5*8	T15
WC32-96-C32*3D	32	132	101	96	60	192	32	WCMT06T308	M3.5*8	T15
WC32.5-97.5-C32*3D	32.5	132	102.5	97.5	60	192	32	WCMT06T308	M3.5*8	T15
WC33-99-C32*3D	33	136	104	99	60	196	32	WCMT06T308	M3.5*8	T15
WC33.5-100.5-C32*3D	33.5	136	105.5	100.5	60	196	32	WCMT06T308	M3.5*8	T15
WC34-102-C32*3D	34	139	107	102	60	199	32	WCMT06T308	M3.5*8	T15
WC34.5-103.5-C32*3D	34.5	139	108.5	103.5	60	199	32	WCMT06T308	M3.5*8	T15

U 钻
U DRILL

WC 舍弃式快速 U 钻 (3 倍径)

WC INDEXABLE INSERT DRILL (3xD)



P.E104



P.I30



P.I31

钻孔公差 (Hole tolerance) 0/+0.25mm
 钻头公差 (Tolerance,D) 0/+0.20mm
 最大钻深 (Max hole depth,L1) 3XD

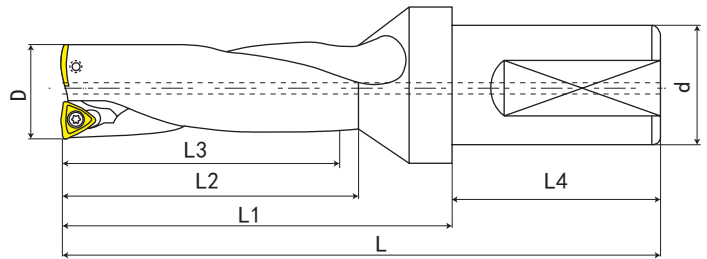
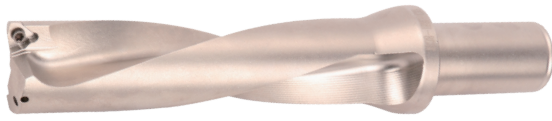
型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp scrwe	扳手 Wrench
WC35-105-C32*3D	35	143	110	105	60	203	32	WCMT06T308	M3.5*8	T15
WC35.5-106.5-C32*3D	35.5	143	111.5	106.5	60	203	32	WCMT06T308	M3.5*8	T15
WC36-108-C32*3D	36	143	113	108	60	203	32	WCMT06T308	M3.5*8	T15
WC36.5-109.5-C32*3D	36.5	143	114.5	109.5	60	203	32	WCMT06T308	M3.5*8	T15
WC37-111-C32*3D	37	150	116	111	60	210	32	WCMT06T308	M3.5*8	T15
WC37.5-112.5-C32*3D	37.5	150	117.5	112.5	60	210	32	WCMT06T308	M3.5*8	T15
WC38-114-C32*3D	38	154	119	114	60	214	32	WCMT06T308	M3.5*8	T15
WC38.5-115.5-C32*3D	38.5	154	120.5	115.5	60	214	32	WCMT06T308	M3.5*8	T15
WC39-117-C32*3D	39	157	122	117	60	217	32	WCMT06T308	M3.5*8	T15
WC39.5-118.5-C32*3D	39.5	157	123.5	118.5	60	217	32	WCMT06T308	M3.5*8	T15
WC40-120-C32*3D	40	161	125	120	60	231	32	WCMT06T308	M3.5*8	T15
WC40.5-121.5-C32*3D	40.5	161	126.5	121.5	60	231	32	WCMT06T308	M3.5*8	T15
WC41-123-C32*3D	41	165	128	123	60	235	32	WCMT06T308	M3.5*8	T15
WC41.5-124.5-C32*3D	41.5	165	129.5	124.5	60	235	32	WCMT06T308	M3.5*8	T15
WC42-126-C40*3D	42	168	131	126	70	238	40	WCMT080412	M4*10	T15
WC43-129-C40*3D	43	171	134	129	70	241	40	WCMT080412	M4*10	T15
WC44-132-C40*3D	44	175	137	132	70	245	40	WCMT080412	M4*10	T15
WC45-135-C40*3D	45	178	140	135	70	248	40	WCMT080412	M4*10	T15
WC46-138-C40*3D	46	182	143	138	70	252	40	WCMT080412	M4*10	T15
WC47-141-C40*3D	47	185	146	141	70	255	40	WCMT080412	M4*10	T15
WC48-144-C40*3D	48	189	149	144	70	259	40	WCMT080412	M4*10	T15
WC49-147-C40*3D	49	192	152	147	70	262	40	WCMT080412	M4*10	T15
WC50-150-C40*3D	50	192	155	150	70	262	40	WCMT080412	M4*10	T15
WC51-153-C40-3D	51	192	158	153	70	262	40	WCMT080412	M4*10	T15
WC52-156-C40*3D	52	192	161	156	70	262	40	WCMT080412	M4*10	T15
WC53-159-C40*3D	53	192	164	159	70	262	40	WCMT080412	M4*10	T15
WC54-162-C40*3D	54	192	167	162	70	262	40	WCMT080412	M4*10	T15
WC55-165-C40*3D	55	192	170	165	70	262	40	WCMT080412	M4*10	T15
WC56-168-C40*3D	56	205	173	168	70	275	40	WCMT080412	M4*10	T15
WC57-171-C40*3D	57	205	176	171	70	275	40	WCMT080412	M4*10	T15
WC58-174-C40*3D	58	205	179	174	70	280	40	WCMT080412	M4*10	T15
WC59-177-C40*3D	59	215	182	177	70	285	40	WCMT080412	M4*10	T15
WC60-180-C40*3D	60	215	185	180	70	285	40	WCMT080412	M4*10	T15
WC61-183-C40*3D	61	220	188	183	70	290	40	WCMT080412	M4*10	T15
WC62-186-C40*3D	62	220	191	186	70	290	40	WCMT080412	M4*10	T15
WC63-189-C40*3D	63	225	194	189	70	295	40	WCMT06T308	M3.5*8	T15
WC64-192-C40*3D	64	225	197	192	70	295	40	WCMT06T308	M3.5*8	T15
WC65-195-C40-3D	65	230	200	195	70	300	40	WCMT06T308	M3.5*8	T15
WC66-198-C40-3D	66	230	203	198	70	300	40	WCMT06T308	M3.5*8	T15
WC67-201-C40-3D	67	235	206	201	70	305	40	WCMT06T308	M3.5*8	T15
WC68-204-C40-3D	68	235	209	204	70	305	40	WCMT06T308	M3.5*8	T15
WC69-207-C40-3D	69	240	212	207	70	315	40	WCMT06T308	M3.5*8	T15
WC70-210-C40-3D	70	240	215	210	70	315	40	WCMT06T308	M3.5*8	T15



舍弃式快速钻头 INDEXABLE INSERT DRILL

WC 舍弃式快速 U 钻 (4 倍径)

WC INDEXABLE INSERT DRILL (4xD)



P.E104



P.I30



P.I31

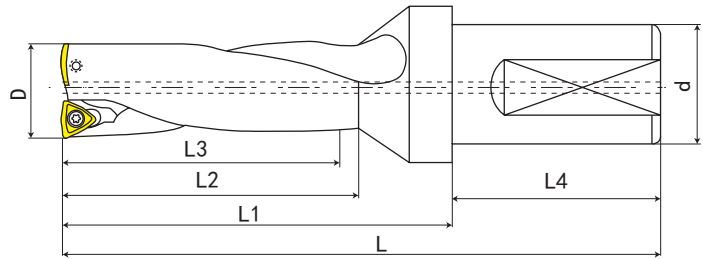
钻孔公差 (Hole tolerance) 0/+0.40mm
 钻头公差 (Tolerance, D) +0.04/+0.24mm
 最大钻深 (Max hole depth, L1) 4XD

型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp scrwe	扳手 Wrench
WC14-56-C25*4D	14	85	61	56	56	141	25	WCMX030208	M2.5*5	T8
WC14.5-57.5-C25*4D	14.5	85.5	62.5	57.5	56	141.5	25	WCMX030208	M2.5*5	T8
WC15-60-C25*4D	15	86	65	60	56	142	25	WCMX030208	M2.5*5	T8
WC15.5-61.5-C25*4D	15.5	86.5	66.5	61.5	56	142.5	25	WCMX030208	M2.5*5	T8
WC16-64-C25*4D	16	90	69	64	56	146	25	WCMX030208	M2.5*5	T8
WC16.5-65.5-C25*4D	16.5	90.5	70.5	65.5	56	146.5	25	WCMX030208	M2.5*5	T8
WC17-68-C25*4D	17	94	73	68	56	150	25	WCMX030208	M2.5*5	T8
WC17.5-69.5-C25*4D	17.5	94.5	74.5	69.5	56	150.5	25	WCMX030208	M2.5*5	T8
WC18-72-C25*4D	18	99	77	72	56	155	25	WCMX030208	M2.5*5	T8
WC18.5-73.5-C25*4D	18.5	99.5	78.5	73.5	56	155.5	25	WCMX030208	M2.5*5	T8
WC19-76-C25*4D	19	103	81	76	56	159	25	WCMX030208	M2.5*5	T8
WC19.5-77.5-C25*4D	19.5	103.5	82.5	77.5	56	159.5	25	WCMX030208	M2.5*5	T8
WC20-80-C25*4D	20	109	85	80	56	165	25	WCMX040208	M2.5*6	T8
WC20.5-81.5-C25*4D	20.5	109.5	86.5	81.5	56	165.5	25	WCMX040208	M2.5*6	T8
WC21-84-C25*4D	21	113	89	84	56	169	25	WCMX040208	M2.5*6	T8
WC21.5-85.5-C25*4D	21.5	113.5	90.5	85.5	56	169.5	25	WCMX040208	M2.5*6	T8
WC22-88-C25*4D	22	117	93	88	56	173	25	WCMX040208	M2.5*6	T8
WC22.5-89.5-C25*4D	22.5	117.5	94.5	89.5	56	173.5	25	WCMX040208	M2.5*6	T8
WC23-92-C25*4D	23	122	97	92	56	178	25	WCMX040208	M2.5*6	T8
WC23.5-93.5-C25*4D	23.5	122.5	98.5	93.5	56	178.5	25	WCMX040208	M2.5*6	T8
WC24-96-C25*4D	24	127	101	96	56	183	25	WCMX050308	M3.0*7	T8
WC24.5-97.5-C25*4D	24.5	127.5	102.5	97.5	56	183.5	25	WCMX050308	M3.0*7	T8
WC25-100-C25*4D	25	132	105	100	56	188	25	WCMX050308	M3.0*7	T8
WC25.5-101.5-C25*4D	25.5	132.5	106.5	101.5	56	188.5	25	WCMX050308	M3.0*7	T8
WC26-104-C32*4D	26	136	109	104	60	196	32	WCMX050308	M3.0*7	T8
WC26.5-105.5-C32*4D	26.5	136.5	110.5	105.5	60	196.5	32	WCMX050308	M3.0*7	T8
WC27-108-C32*4D	27	140	113	108	60	200	32	WCMX050308	M3.0*7	T8
WC27.5-109.5-C32*4D	27.5	140.5	114.5	109.5	60	200.5	32	WCMX050308	M3.0*7	T8
WC28-112-C32*4D	28	145	117	112	60	205	32	WCMX050308	M3.0*7	T8
WC28.5-113.5-C32*4D	28.5	145.5	118.5	113.5	60	205.5	32	WCMX050308	M3.0*7	T8
WC29-116-C32*4D	29	149	121	116	60	209	32	WCMX050308	M3.0*7	T8
WC29.5-117.5-C32*4D	29.5	149.5	122.5	117.5	60	209.5	32	WCMX050308	M3.0*7	T8
WC30-120-C32*4D	30	155	125	120	60	215	32	WCMX050308	M3.0*7	T8
WC30.5-121.5-C32*4D	30.5	155.5	126.5	121.5	60	215.5	32	WCMX050308	M3.0*7	T8
WC31-124-C32*4D	31	160	129	124	60	220	32	WCMT06T308	M3.5*8	T15
WC31.5-125.5-C32*4D	31.5	160.5	130.5	125.5	60	220.5	32	WCMT06T308	M3.5*8	T15
WC32-128-C32*4D	32	164	133	128	60	224	32	WCMT06T308	M3.5*8	T15
WC32.5-129.5-C32*4D	32.5	164.5	134.5	129.5	60	224.5	32	WCMT06T308	M3.5*8	T15
WC33-132-C32*4D	33	169	137	132	60	229	32	WCMT06T308	M3.5*8	T15
WC33.5-133.5-C32*4D	33.5	169.5	138.5	133.5	60	229.5	32	WCMT06T308	M3.5*8	T15
WC34-136-C32*4D	34	173	141	136	60	233	32	WCMT06T308	M3.5*8	T15
WC34.5-137.5-C32*4D	34.5	173.5	142.5	137.5	60	233.5	32	WCMT06T308	M3.5*8	T15

U 钻
U DRILL

WC 舍弃式快速 U 钻 (4 倍径)

WC INDEXABLE INSERT DRILL (4xD)



P.E104



P.I30



P.I31

钻孔公差 (Hole tolerance) 0/+0.40mm
 钻头公差 (Tolerance,D) +0.04/+0.24mm
 最大钻深 (Max hole depth,L1) 4XD

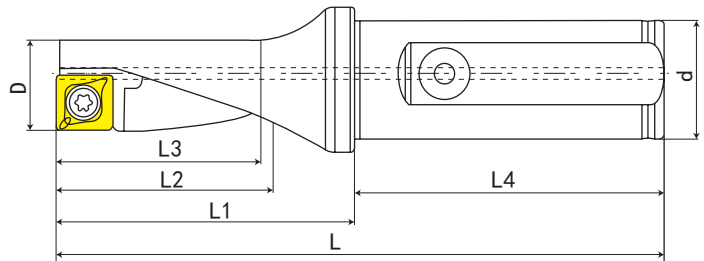
型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp scrwe	扳手 Wrench
WC35-140-C32*4D	35	178	145	140	60	238	32	WCMT06T308	M3.5*8	T15
WC35.5-141.5-C32*4D	35.5	178.5	146.5	141.5	60	238.5	32	WCMT06T308	M3.5*8	T15
WC36-144-C32*4D	36	179	149	144	60	239	32	WCMT06T308	M3.5*8	T15
WC36.5-145.5-C32*4D	36.5	179.5	150.5	145.5	60	239.5	32	WCMT06T308	M3.5*8	T15
WC37-148-C32*4D	37	187	153	148	60	247	32	WCMT06T308	M3.5*8	T15
WC37.5-149.5-C32*4D	37.5	187.5	154	149	60	247.5	32	WCMT06T308	M3.5*8	T15
WC38-152-C32*4D	38	192	157	152	60	252	32	WCMT06T308	M3.5*8	T15
WC38.5-153.5-C32*4D	38.5	192.5	158.5	153.5	60	252.5	32	WCMT06T308	M3.5*8	T15
WC39-156-C32*4D	39	196	161	156	60	256	32	WCMT06T308	M3.5*8	T15
WC39.5-157.5-C32*4D	39.5	196.5	162.6	157.6	60	256.5	32	WCMT06T308	M3.5*8	T15
WC40-160-C32*4D	40	201	165	160	60	261	32	WCMT06T308	M3.5*8	T15
WC40.5-161.5-C32*4D	40.5	201.5	166.5	161.5	60	261.5	32	WCMT06T308	M3.5*8	T15
WC41-164-C32*4D	41	206	169	164	60	266	32	WCMT06T308	M3.5*8	T15
WC41.5-165.5-C32*4D	41.5	206.5	170.5	165.5	60	266.5	32	WCMT06T308	M3.5*8	T15
WC42-168-C40*4D	42	210	173	168	70	280	40	WCMT080412	M4*10	T15
WC43-172-C40*4D	43	214	177	172	70	284	40	WCMT080412	M4*10	T15
WC44-176-C40*4D	44	219	181	176	70	289	40	WCMT080412	M4*10	T15
WC45-180-C40*4D	45	223	185	180	70	293	40	WCMT080412	M4*10	T15
WC46-184-C40*4D	46	228	189	184	70	298	40	WCMT080412	M4*10	T15
WC47-188-C40*4D	47	232	193	188	70	302	40	WCMT080412	M4*10	T15
WC48-192-C40*4D	48	237	197	192	70	307	40	WCMT080412	M4*10	T15
WC49-196-C40*4D	49	241	201	196	70	311	40	WCMT080412	M4*10	T15
WC50-200-C40*4D	50	242	205	200	70	312	40	WCMT080412	M4*10	T15
WC51-204-C40*4D	51	243	209	204	70	313	40	WCMT080412	M4*10	T15
WC52-208-C40*4D	52	244	213	208	70	314	40	WCMT080412	M4*10	T15
WC53-212-C40*4D	53	245	217	212	70	315	40	WCMT080412	M4*10	T15
WC54-216-C40*4D	54	246	221	216	70	316	40	WCMT080412	M4*10	T15
WC55-220-C40*4D	55	247	225	220	70	317	40	WCMT080412	M4*10	T15
WC56-224-C40*4D	56	261	229	224	70	331	40	WCMT080412	M4*10	T15
WC57-228-C40*4D	57	262	233	228	70	332	40	WCMT080412	M4*10	T15
WC58-232-C40*4D	58	263	237	232	70	333	40	WCMT080412	M4*10	T15
WC59-236-C40*4D	59	274	241	236	70	344	40	WCMT080412	M4*10	T15
WC60-240-C40*4D	60	275	245	240	70	345	40	WCMT080412	M4*10	T15
WC61-244-C40*4D	61	281	249	244	70	351	40	WCMT080412	M4*10	T15
WC62-248-C40*4D	62	282	253	248	70	352	40	WCMT080412	M4*10	T15
WC63-252-C40*4D	63	288	257	252	70	358	40	WCMT06T308	M3.5*8	T15
WC64-256-C40*4D	64	289	261	256	70	359	40	WCMT06T308	M3.5*8	T15
WC65-260-C40*4D	65	295	265	260	70	365	40	WCMT06T308	M3.5*8	T15
WC66-264-C40*4D	66	296	269	264	70	366	40	WCMT06T308	M3.5*8	T15
WC67-268-C40*4D	67	302	273	268	70	372	40	WCMT06T308	M3.5*8	T15
WC68-272-C40*4D	68	303	277	272	70	373	40	WCMT06T308	M3.5*8	T15
WC69-276-C40*4D	69	309	281	276	70	379	40	WCMT06T308	M3.5*8	T15
WC70-280-C40*4D	70	310	285	280	70	380	40	WCMT06T308	M3.5*8	T15



舍弃式快速钻头 INDEXABLE INSERT DRILL

SP 舍弃式快速 U 钻 (2 倍径)

SP INDEXABLE INSERT DRILL (2xD)



P.E104



P.I30



P.I31

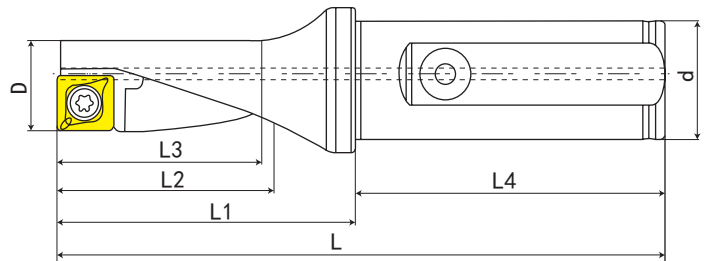
钻孔公差 (Hole tolerance) 0/+0.25mm
 钻头公差 (Tolerance,D) 0/+0.20mm
 最大钻深 (Max hole depth,L1) 2XD

型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
SP14-28-C25-2D	14	47	33	28	56	103	25	SPMG050204	M2.0*4	T6
SP14.5-29-C25-2D	14.5	48.5	34	29	56	104.5	25	SPMG050204	M2.0*4	T6
SP15-30-C25-2D	15	50	35	30	56	106	25	SPMG060204	M2.2*5	T7
SP15.5-31-C25-2D	15.5	51.5	36	31	56	107.5	25	SPMG060204	M2.2*5	T7
SP16-32-C25-2D	16	53	37	32	56	109	25	SPMG060204	M2.2*5	T7
SP16.5-33-C25-2D	16.5	54.5	38	33	56	110.5	25	SPMG060204	M2.2*5	T7
SP17-34-C25-2D	17	56	39	34	56	112	25	SPMG060204	M2.2*5	T7
SP17.5-35-C25-2D	17.5	57.5	40	35	56	113.5	25	SPMG060204	M2.2*5	T7
SP18-36-C25-2D	18	59	41	36	56	115	25	SPMG060204	M2.2*5	T7
SP18.5-37-C25-2D	18.5	60.5	42	37	56	116.5	25	SPMG060204	M2.2*5	T7
SP19-38-C25-2D	19	62	43	38	56	118	25	SPMG060204	M2.2*5	T7
SP19.5-39-C25-2D	19.5	63.5	44	39	56	119.5	25	SPMG060204	M2.2*5	T7
SP20-40-C25-2D	20	65	45	40	56	121	25	SPMG060204	M2.2*5	T7
SP20.5-41-C25-2D	20.5	66.5	46	41	56	122.5	25	SPMG060204	M2.2*5	T7
SP21-42-C25-2D	21	68	47	42	56	124	25	SPMG060204	M2.2*5	T7
SP21.5-43-C25-2D	21.5	69.5	48	43	56	125.5	25	SPMG060204	M2.2*5	T7
SP22-44-C25-2D	22	71	49	44	56	127	25	SPMG07T308	M2.5*6	T8
SP22.5-45-C25-2D	22.5	72.5	50	45	56	128.5	25	SPMG07T308	M2.5*6	T8
SP23-46-C25-2D	23	74	51	46	56	130	25	SPMG07T308	M2.5*6	T8
SP23.5-47-C25-2D	23.5	75.5	52	47	56	131.5	25	SPMG07T308	M2.5*6	T8
SP24-48-C25-2D	24	77	53	48	56	133	25	SPMG07T308	M2.5*6	T8
SP24.5-49-C25-2D	24.5	78.5	54	49	56	134.5	25	SPMG07T308	M2.5*6	T8
SP25-50-C32-2D	25	80	55	50	60	140	32	SPMG07T308	M2.5*6	T8
SP25.5-51-C32-2D	25.5	81.5	56	51	60	141.5	32	SPMG07T308	M2.5*6	T8
SP26-52-C32-2D	26	83	57	52	60	143	32	SPMG07T308	M2.5*6	T8
SP26.5-53-C32-2D	26.5	84.5	58	53	60	144.5	32	SPMG07T308	M2.5*6	T8
SP27-54-C32-2D	27	86	59	54	60	146	32	SPMG07T308	M2.5*6	T8
SP27.5-55-C32-2D	27.5	87.5	60	55	60	147.5	32	SPMG07T308	M2.5*6	T8
SP28-56-C32-2D	28	89	61	56	60	149	32	SPMG090408	M3.5*8	T15
SP28.5-57-C32-2D	28.5	90.5	62	57	60	150.5	32	SPMG090408	M3.5*8	T15
SP29-58-C32-2D	29	92	63	58	60	152	32	SPMG090408	M3.5*8	T15
SP29.5-59-C32-2D	29.5	93.5	64	59	60	153.5	32	SPMG090408	M3.5*8	T15
SP30-60-C32-2D	30	95	65	60	60	155	32	SPMG090408	M3.5*8	T15
SP30.5-61-C32-2D	30.5	96.5	66	61	60	156.5	32	SPMG090408	M3.5*8	T15
SP31-62-C32-2D	31	98	67	62	60	158	32	SPMG090408	M3.5*8	T15
SP31.5-63-C32-2D	31.5	99.5	68	63	60	159.5	32	SPMG090408	M3.5*8	T15
SP32-64-C32-2D	32	101	69	64	60	161	32	SPMG090408	M3.5*8	T15
SP32.5-65-C32-2D	32.5	102.5	70	65	60	162.5	32	SPMG090408	M3.5*8	T15
SP33-66-C32-2D	33	104	71	66	60	164	32	SPMG090408	M3.5*8	T15
SP33.5-67-C32-2D	33.5	105.5	72	67	60	165.5	32	SPMG110408	M4.0*9	T15
SP34-68-C32-2D	34	107	73	68	60	167	32	SPMG110408	M4.0*9	T15
SP34.5-69-C32-2D	34.5	108.5	74	69	60	168.5	32	SPMG110408	M4.0*9	T15

U 钻
U DRILL

SP 舍弃式快速 U 钻 (2 倍径)

SP INDEXABLE INSERT DRILL (2xD)



P.E104



P.I30



P.I31

钻孔公差 (Hole tolerance) 0/+0.25mm

钻头公差 (Tolerance,D) 0/+0.20mm

最大钻深 (Max hole depth,L1) 2XD

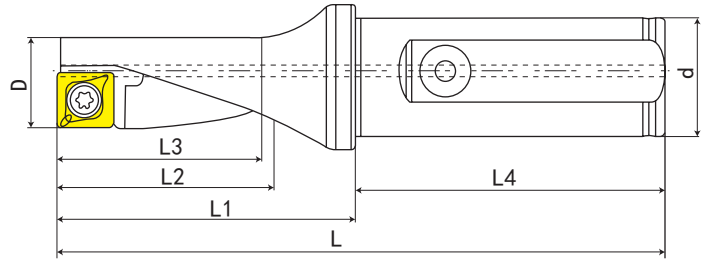
型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp scrwe	扳手 Wrench
SP35-70-C32-2D	35	110	75	70	60	170	32	SPMG110408	M4.0*9	T15
SP35.5-71-C32-2D	35.5	111.5	76	71	60	171.5	32	SPMG110408	M4.0*9	T15
SP36-72-C32-2D	36	113	77	72	60	173	32	SPMG110408	M4.0*9	T15
SP36.5-73-C32-2D	36.5	114.5	78	73	60	174.5	32	SPMG110408	M4.0*9	T15
SP37-74-C32-2D	37	116	79	74	60	176	32	SPMG110408	M4.0*9	T15
SP37.5-75-C32-2D	37.5	117.5	80	75	60	177.5	32	SPMG110408	M4.0*9	T15
SP38-76-C32-2D	38	119	81	76	60	179	32	SPMG110408	M4.0*9	T15
SP38.5-77-C32-2D	38.5	120.5	82	77	60	180.5	32	SPMG110408	M4.0*9	T15
SP39-78-C32-2D	39	122	83	78	60	182	32	SPMG110408	M4.0*9	T15
SP39.5-79-C32-2D	39.5	123.5	84	79	60	183.5	32	SPMG110408	M4.0*9	T15
SP40-80-C32-2D	40	125	85	80	60	185	32	SPMG110408	M4.0*9	T15
SP40.5-81-C32-2D	40.5	126.5	86	81	60	186.5	32	SPMG110408	M4.0*9	T15
SP41-82-C32-2D	41	128	87	82	60	188	32	SPMG110408	M4.0*9	T15
SP41.5-83-C32-2D	41.5	129.5	88	83	60	189.5	32	SPMG110408	M4.0*9	T15
SP42-84-C40-2D	42	131	89	84	70	201	40	SPMG140512	M5.0*10	T20
SP43-86-C40-2D	43	134	91	86	70	204	40	SPMG140512	M5.0*10	T20
SP44-88-C40-2D	44	137	93	88	70	207	40	SPMG140512	M5.0*10	T20
SP45-90-C40-2D	45	140	95	90	70	210	40	SPMG140512	M5.0*10	T20
SP45.5-91-C40-2D	45.5	141.5	96	91	70	211.5	40	SPMG140512	M5.0*10	T20
SP46-92-C40-2D	46	143	97	92	70	213	40	SPMG140512	M5.0*10	T20
SP47-94-C40-2D	47	146	99	94	70	216	40	SPMG140512	M5.0*10	T20
SP48-96-C40-2D	48	149	101	96	70	219	40	SPMG140512	M5.0*10	T20
SP49-98-C40-2D	49	152	103	98	70	222	40	SPMG140512	M5.0*10	T20
SP49.5-99-C40-2D	49.5	153.5	104	99	70	223.5	40	SPMG140512	M5.0*10	T20
SP50-100-C40-2D	50	155	105	100	70	225	40	SPMG140512	M5.0*10	T20
SP51-102-C40-2D	51	158	107	102	70	228	40	SPMG140512	M5.0*10	T20
SP52-104-C40-2D	52	161	109	104	70	231	40	SPMG140512	M5.0*10	T20
SP53-106-C40-2D	53	164	111	106	70	234	40	SPMG140512	M5.0*10	T20
SP54-108-C40-2D	54	167	113	108	70	237	40	SPMG140512	M5.0*10	T20
SP55-110-C40-2D	55	170	115	110	70	240	40	SPMG140512	M5.0*10	T20
SP56-112-C40-2D	56	173	117	112	70	243	40	SPMG140512	M5.0*10	T20
SP57-114-C40-2D	57	176	119	114	70	246	40	SPMG140512	M5.0*10	T20
SP58-116-C40-2D	58	179	121	116	70	249	40	SPMG140512	M5.0*10	T20
SP59-118-C40-2D	59	182	123	118	70	252	40	SPMG140512	M5.0*10	T20
SP60-120-C40-2D	60	185	125	120	70	255	40	SPMG140512	M5.0*10	T20
SP61-122-C40-2D	61	188	127	122	70	258	40	SPMG140512	M5.0*10	T20
SP62-124-C40-2D	62	191	129	124	70	261	40	SPMG140512	M5.0*10	T20
SP63-126-C40-2D	63	194	131	126	70	264	40	SPMG140512	M5.0*10	T20
SP64-128-C40-2D	64	197	133	128	70	267	40	SPMG140512	M5.0*10	T20
SP65-130-C40-2D	65	200	135	130	70	270	40	SPMG140512	M5.0*10	T20
SP66-132-C40-2D	66	203	137	132	70	273	40	SPMG140512	M5.0*10	T20
SP67-134-C40-2D	67	206	139	134	70	276	40	SPMG140512	M5.0*10	T20
SP68-136-C40-2D	68	209	141	136	70	279	40	SPMG140512	M5.0*10	T20



舍弃式快速钻头 INDEXABLE INSERT DRILL

SP 舍弃式快速 U 钻 (3 倍径)

SP INDEXABLE INSERT DRILL (3xD)



P.E104



P.I30



P.I31

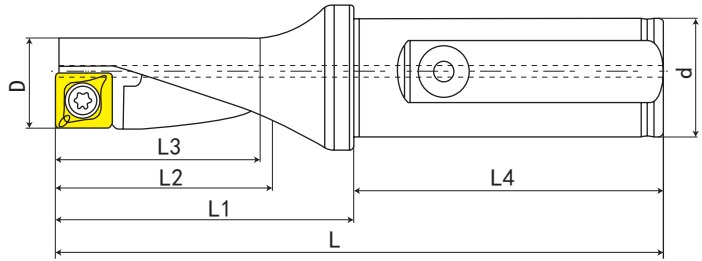
钻孔公差 (Hole tolerance) 0/+0.25mm
 钻头公差 (Tolerance,D) 0/+0.20mm
 最大钻深 (Max hole depth,L1) 3XD

型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
SP14-42-C25-3D	14	61	47	42	56	117	25	SPMG050204	M2.0*4	T6
SP14.5-43.5-C25-3D	14.5	63	48.5	43.5	56	119	25	SPMG050204	M2.0*4	T6
SP15-45-C25-3D	15	65	50	45	56	121	25	SPMG060204	M2.2*5	T7
SP15.5-46.5-C25-3D	15.5	67	51.5	46.5	56	123	25	SPMG060204	M2.2*5	T7
SP16-48-C25-3D	16	69	53	48	56	125	25	SPMG060204	M2.2*5	T7
SP16.5-49.5-C25-3D	16.5	71	54.5	49.5	56	127	25	SPMG060204	M2.2*5	T7
SP17-51-C25-3D	17	73	56	51	56	129	25	SPMG060204	M2.2*5	T7
SP17.5-52.5-C25-3D	17.5	75	57.5	52.5	56	131	25	SPMG060204	M2.2*5	T7
SP18-54-C25-3D	18	77	59	54	56	133	25	SPMG060204	M2.2*5	T7
SP18.5-55.5-C25-3D	18.5	79	60.5	55.5	56	135	25	SPMG060204	M2.2*5	T7
SP19-57-C25-3D	19	81	62	57	56	137	25	SPMG060204	M2.2*5	T7
SP19.5-58.5-C25-3D	19.5	83	63.5	58.5	56	139	25	SPMG060204	M2.2*5	T7
SP20-60-C25-3D	20	85	65	60	56	141	25	SPMG060204	M2.2*5	T7
SP20.5-61.5-C25-3D	20.5	87	66.5	61.5	56	143	25	SPMG060204	M2.2*5	T7
SP21-63-C25-3D	21	89	68	63	56	145	25	SPMG060204	M2.2*5	T7
SP21.5-64.5-C25-3D	21.5	91	69.5	64.5	56	147	25	SPMG060204	M2.2*5	T7
SP22-66-C25-3D	22	93	71	66	56	149	25	SPMG07T308	M2.5*6	T8
SP22.5-67.5-C25-3D	22.5	95	72.5	67.5	56	151	25	SPMG07T308	M2.5*6	T8
SP23-69-C25-3D	23	97	74	69	56	153	25	SPMG07T308	M2.5*6	T8
SP23.5-70.5-C25-3D	23.5	99	75.5	70.5	56	155	25	SPMG07T308	M2.5*6	T8
SP24-72-C25-3D	24	101	77	72	56	157	25	SPMG07T308	M2.5*6	T8
SP24.5-73.5-C25-3D	24.5	103	78.5	73.5	56	159	25	SPMG07T308	M2.5*6	T8
SP25-75-C32-3D	25	105	80	75	60	165	32	SPMG07T308	M2.5*6	T8
SP25.5-76.5-C32-3D	25.5	107	81.5	76.5	60	167	32	SPMG07T308	M2.5*6	T8
SP26-78-C32-3D	26	109	83	78	60	169	32	SPMG07T308	M2.5*6	T8
SP26.5-79.5-C32-3D	26.5	111	84.5	79.5	60	171	32	SPMG07T308	M2.5*6	T8
SP27-81-C32-3D	27	113	86	81	60	173	32	SPMG07T308	M2.5*6	T8
SP27.5-82.5-C32-3D	27.5	115	87.5	82.5	60	175	32	SPMG07T308	M2.5*6	T8
SP28-84-C32-3D	28	117	89	84	60	177	32	SPMG090408	M3.5*8	T15
SP28.5-85.5-C32-3D	28.5	119	90.5	85.5	60	179	32	SPMG090408	M3.5*8	T15
SP29-87-C32-3D	29	121	92	87	60	181	32	SPMG090408	M3.5*8	T15
SP29.5-88.5-C32-3D	29.5	123	93.5	88.5	60	183	32	SPMG090408	M3.5*8	T15
SP30-90-C32-3D	30	125	95	90	60	185	32	SPMG090408	M3.5*8	T15
SP30.5-91.5-C32-3D	30.5	127	96.5	91.5	60	187	32	SPMG090408	M3.5*8	T15
SP31-93-C32-3D	31	129	98	93	60	189	32	SPMG090408	M3.5*8	T15
SP31.5-94.5-C32-3D	31.5	131	99.5	94.5	60	191	32	SPMG090408	M3.5*8	T15
SP32-96-C32-3D	32	133	101	96	60	193	32	SPMG090408	M3.5*8	T15
SP32.5-97.5-C32-3D	32.5	135	102.5	97.5	60	195	32	SPMG090408	M3.5*8	T15
SP33-99-C32-3D	33	137	104	99	60	197	32	SPMG110408	M4*9	T15
SP33.5-100.5-C32-3D	33.5	139	105.5	100.5	60	199	32	SPMG110408	M4.0*9	T15
SP34-102-C32-3D	34	141	107	102	60	201	32	SPMG110408	M4.0*9	T15
SP34.5-103.5-C32-3D	34.5	143	108.5	103.5	60	203	32	SPMG110408	M4.0*9	T15

U 钻
U DRILL

SP 舍弃式快速 U 钻 (3 倍径)

SP INDEXABLE INSERT DRILL (3xD)



P.E104



P.I30



P.I31

钻孔公差 (Hole tolerance) 0/+0.25mm
 钻头公差 (Tolerance,D) 0/+0.20mm
 最大钻深 (Max hole depth,L1) 3XD

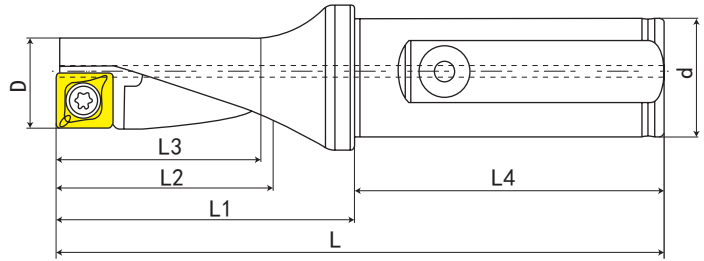
型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp scrwe	扳手 Wrench
SP35-105-C32-3D	35	145	110	105	60	205	32	SPMG110408	M4.0*9	T15
SP35.5-106.5-C32-3D	35.5	147	111.5	106.5	60	207	32	SPMG110408	M4.0*9	T15
SP36-108-C32-3D	36	149	113	108	60	209	32	SPMG110408	M4.0*9	T15
SP36.5-109.5-C32-3D	36.5	151	114.5	109.5	60	211	32	SPMG110408	M4.0*9	T15
SP37-111-C32-3D	37	153	116	111	60	213	32	SPMG110408	M4.0*9	T15
SP37.5-112.5-C32-3D	37.5	155	117.5	112.5	60	215	32	SPMG110408	M4.0*9	T15
SP38-114-C32-3D	38	157	119	114	60	217	32	SPMG110408	M4.0*9	T15
SP38.5-115.5-C32-3D	38.5	159	120.5	115.5	60	219	32	SPMG110408	M4.0*9	T15
SP39-117-C32-3D	39	161	122	117	60	221	32	SPMG110408	M4.0*9	T15
SP39.5-118.5-C32-3D	39.5	163	123.5	118.5	60	223	32	SPMG110408	M4.0*9	T15
SP40-120-C32-3D	40	165	125	120	60	225	32	SPMG110408	M4.0*9	T15
SP40.5-121.5-C32-3D	40.5	167	126.5	121.5	60	227	32	SPMG110408	M4.0*9	T15
SP41-123-C32-3D	41	169	128	123	60	229	32	SPMG110408	M4.0*9	T15
SP41.5-124.5-C32-3D	41.5	171	129.5	124.5	60	231	32	SPMG110408	M4.0*9	T15
SP42-126-C40-3D	42	173	131	126	70	243	40	SPMG140512	M5*10	T20
SP43-129-C40-3D	43	177	134	129	70	247	40	SPMG140512	M5*10	T20
SP44-132-C40-3D	44	181	137	132	70	251	40	SPMG140512	M5*10	T20
SP45-135-C40-3D	45	185	140	135	70	255	40	SPMG140512	M5*10	T20
SP45.5-136.5-C40-3D	45.5	187	141.5	136.5	70	257	40	SPMG140512	M5*10	T20
SP46-138-C40-3D	46	189	143	138	70	259	40	SPMG140512	M5*10	T20
SP47-141-C40-3D	47	193	146	141	70	263	40	SPMG140512	M5*10	T20
SP48-144-C40-3D	48	197	149	144	70	267	40	SPMG140512	M5*10	T20
SP49-147-C40-3D	49	201	152	147	70	271	40	SPMG140512	M5*10	T20
SP50-150-C40-3D	50	205	155	150	70	275	40	SPMG140512	M5*10	T20
SP51-153-C40-3D	51	209	158	153	70	279	40	SPMG140512	M5*10	T20
SP52-156-C40-3D	52	213	161	156	70	283	40	SPMG140512	M5*10	T20
SP53-159-C40-3D	53	217	164	159	70	287	40	SPMG140512	M5*10	T20
SP54-162-C40-3D	54	221	167	162	70	291	40	SPMG140512	M5*10	T20
SP55-165-C40-3D	55	225	170	165	70	295	40	SPMG140512	M5*10	T20
SP56-168-C40-3D	56	229	173	168	70	299	40	SPMG140512	M5*10	T20
SP57-171-C40-3D	57	233	176	171	70	303	40	SPMG140512	M5*10	T20
SP58-174-C40-3D	58	237	179	174	70	307	40	SPMG140512	M5*10	T20
SP59-177-C40-3D	59	241	182	177	70	311	40	SPMG140512	M5*10	T20
SP60-180-C40-3D	60	245	185	180	70	315	40	SPMG140512	M5*10	T20
SP61-183-C40-3D	61	249	188	183	70	319	40	SPMG140512	M5*10	T20
SP62-186-C40-3D	62	253	191	186	70	323	40	SPMG140512	M5*10	T20
SP63-189-C40-3D	63	257	194	189	70	327	40	SPMG140512	M5*10	T20
SP64-192-C40-3D	64	261	197	192	70	331	40	SPMG140512	M5*10	T20
SP65-195-C40-3D	65	265	200	195	70	335	40	SPMG140512	M5*10	T20
SP66-198-C40-3D	66	269	203	198	70	339	40	SPMG140512	M5*10	T20
SP67-201-C40-3D	67	273	206	201	70	343	40	SPMG140512	M5*10	T20
SP68-204-C40-3D	68	277	209	204	70	347	40	SPMG140512	M5*10	T20



舍弃式快速钻头 INDEXABLE INSERT DRILL

SP 舍弃式快速 U 钻 (4 倍径)

SP INDEXABLE INSERT DRILL (4xD)



P.E104



P.I30



P.I31

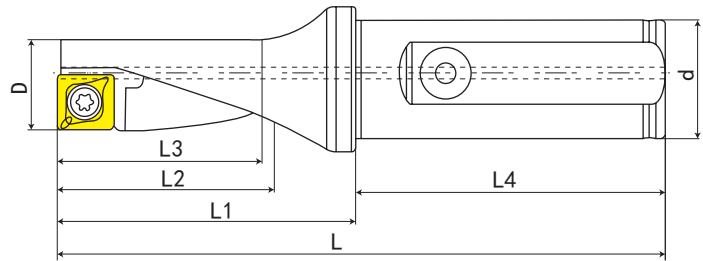
钻孔公差 (Hole tolerance) 0/+0.40mm
 钻头公差 (Tolerance,D) +0.04/+0.24mm
 最大钻深 (Max hole depth,L1) 4XD

型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp scrwe	扳手 Wrench
SP14-56-C25-4D	14	75	61	56	56	131	25	SPMG050204	M2.0*4	T6
SP14.5-58-C25-4D	14.5	77.5	63	58	56	133.5	25	SPMG050204	M2.0*4	T6
SP15-60-C25-4D	15	80	65	60	56	136	25	SPMG060204	M2.2*5	T7
SP15.5-62-C25-4D	15.5	82.5	67	62	56	138.5	25	SPMG060204	M2.2*5	T7
SP16-64-C25-4D	16	85	69	64	56	141	25	SPMG060204	M2.2*5	T7
SP16.5-66-C25-4D	16.5	87.5	71	66	56	143.5	25	SPMG060204	M2.2*5	T7
SP17-68-C25-4D	17	90	73	68	56	146	25	SPMG060204	M2.2*5	T7
SP17.5-70-C25-4D	17.5	92.5	75	70	56	148.5	25	SPMG060204	M2.2*5	T7
SP18-72-C25-4D	18	95	77	72	56	151	25	SPMG060204	M2.2*5	T7
SP18.5-74-C25-4D	18.5	97.5	79	74	56	153.5	25	SPMG060204	M2.2*5	T7
SP19-76-C25-4D	19	100	81	76	56	156	25	SPMG060204	M2.2*5	T7
SP19.5-78-C25-4D	19.5	102.5	83	78	56	158.5	25	SPMG060204	M2.2*5	T7
SP20-80-C25-4D	20	105	85	80	56	161	25	SPMG060204	M2.2*5	T7
SP20.5-82-C25-4D	20.5	107.5	87	82	56	163.5	25	SPMG060204	M2.2*5	T7
SP21-84-C25-4D	21	110	89	84	56	166	25	SPMG060204	M2.2*5	T7
SP21.5-86-C25-4D	21.5	112.5	91	86	56	168.5	25	SPMG060204	M2.2*5	T7
SP22-88-C25-4D	22	115	93	88	56	171	25	SPMG07T308	M2.5*6	T8
SP22.5-90-C25-4D	22.5	117.5	95	90	56	173.5	25	SPMG07T308	M2.5*6	T8
SP23-92-C25-4D	23	120	97	92	56	176	25	SPMG07T308	M2.5*6	T8
SP23.5-94-C25-4D	23.5	122.5	99	94	56	178.5	25	SPMG07T308	M2.5*6	T8
SP24-96-C25-4D	24	125	101	96	56	181	25	SPMG07T308	M2.5*6	T8
SP24.5-98-C25-4D	24.5	127.5	103	98	56	183.5	25	SPMG07T308	M2.5*6	T8
SP25-100-C32-4D	25	130	105	100	60	190	32	SPMG07T308	M2.5*6	T8
SP25.5-102-C32-4D	25.5	132.5	107	102	60	192.5	32	SPMG07T308	M2.5*6	T8
SP26-104-C32-4D	26	135	109	104	60	195	32	SPMG07T308	M2.5*6	T8
SP26.5-106-C32-4D	26.5	137.5	111	106	60	197.5	32	SPMG07T308	M2.5*6	T8
SP27-108-C32-4D	27	140	113	108	60	200	32	SPMG090408	M3.5*8	T15
SP27.5-110-C32-4D	27.5	142.5	115	110	60	202.5	32	SPMG090408	M3.5*8	T15
SP28-112-C32-4D	28	145	117	112	60	205	32	SPMG090408	M3.5*8	T15
SP28.5-114-C32-4D	28.5	147.5	119	114	60	207.5	32	SPMG090408	M3.5*8	T15
SP29-116-C32-4D	29	150	121	116	60	210	32	SPMG090408	M3.5*8	T15
SP29.5-118-C32-4D	29.5	152.5	123	118	60	212.5	32	SPMG090408	M3.5*8	T15
SP30-120-C32-4D	30	155	125	120	60	215	32	SPMG090408	M3.5*8	T15
SP30.5-122-C32-4D	30.5	157.5	127	122	60	217.5	32	SPMG090408	M3.5*8	T15
SP31-124-C32-4D	31	160	129	124	60	220	32	SPMG090408	M3.5*8	T15
SP31.5-126-C32-4D	31.5	162.5	131	126	60	222.5	32	SPMG090408	M3.5*8	T15
SP32-128-C32-4D	32	165	133	128	60	225	32	SPMG090408	M3.5*8	T15
SP32.5-130-C32-4D	32.5	167.5	135	130	60	227.5	32	SPMG090408	M3.5*8	T15
SP33-132-C32-4D	33	170	137	132	60	230	32	SPMG110408	M4.0*9	T15
SP33.5-134-C32-4D	33.5	172.5	139	134	60	232.5	32	SPMG110408	M4.0*9	T15
SP34-136-C32-4D	34	175	141	136	60	235	32	SPMG110408	M4.0*9	T15
SP34.5-138-C32-4D	34.5	177.5	143	138	60	237.5	32	SPMG110408	M4.0*9	T15

U 钻
U DRILL

SP 舍弃式快速 U 钻 (4 倍径)

SP INDEXABLE INSERT DRILL (4xD)



钻孔公差 (Hole tolerance) 0/+0.40mm
 钻头公差 (Tolerance,D) +0.04/+0.24mm
 最大钻深 (Max hole depth,L1) 4XD

型号 Cat.No	D	L1	L2	L3	L4	L	d	刀片 Insert	螺钉 Clamp scrwe	扳手 Wrench
SP35-140-C32-4D	35	180	145	140	60	240	32	SPMG110408	M4.0*9	T15
SP35.5-142-C32-4D	35.5	182.5	147	142	60	242.5	32	SPMG110408	M4.0*9	T15
SP36-144-C32-4D	36	185	149	144	60	245	32	SPMG110408	M4.0*9	T15
SP36.5-146-C32-4D	36.5	187.5	151	146	60	247.5	32	SPMG110408	M4.0*9	T15
SP37-148-C32-4D	37	190	153	148	60	250	32	SPMG110408	M4.0*9	T15
SP37.5-150-C32-4D	37.5	192.5	155	150	60	252.5	32	SPMG110408	M4.0*9	T15
SP38-152-C32-4D	38	195	157	152	60	255	32	SPMG110408	M4.0*9	T15
SP38.5-154-C32-4D	38.5	197.5	159	154	60	257.5	32	SPMG110408	M4.0*9	T15
SP39-156-C32-4D	39	200	161	156	60	260	32	SPMG110408	M4.0*9	T15
SP39.5-158-C32-4D	39.5	202.5	163	158	60	262.5	32	SPMG110408	M4.0*9	T15
SP40-160-C32-4D	40	205	165	160	60	265	32	SPMG110408	M4.0*9	T15
SP40.5-162-C32-4D	40.5	207.5	167	162	60	267.5	32	SPMG110408	M4.0*9	T15
SP41-164-C32-4D	41	210	169	164	60	270	32	SPMG110408	M4.0*9	T15
SP41.5-166-C32-4D	41.5	212.5	171	166	60	272.5	32	SPMG110408	M4.0*9	T15
SP42-168-C40-4D	42	215	173	168	70	285	40	SPMG140512	M5*10	T20
SP43-172-C40-4D	43	220	177	172	70	290	40	SPMG140512	M5*10	T20
SP44-176-C40-4D	44	225	181	176	70	295	40	SPMG140512	M5*10	T20
SP45-180-C40-4D	45	230	185	180	70	300	40	SPMG140512	M5*10	T20
SP45.5-182-C40-4D	45.5	232.5	187	182	70	302.5	40	SPMG140512	M5*10	T20
SP46-184-C40-4D	46	235	189	184	70	305	40	SPMG140512	M5*10	T20
SP47-188-C40-4D	47	240	193	188	70	310	40	SPMG140512	M5*10	T20
SP48-192-C40-4D	48	245	197	192	70	315	40	SPMG140512	M5*10	T20
SP49-196-C40-4D	49	250	201	196	70	320	40	SPMG140512	M5*10	T20
SP50-200-C40-4D	50	255	205	200	70	325	40	SPMG140512	M5*10	T20
SP51-204-C40-4D	51	260	209	204	70	330	40	SPMG140512	M5*10	T20
SP52-208-C40-4D	52	265	213	208	70	335	40	SPMG140512	M5*10	T20
SP53-212-C40-4D	53	270	217	212	70	340	40	SPMG140512	M5*10	T20
SP54-216-C40-4D	54	275	221	216	70	345	40	SPMG140512	M5*10	T20
SP55-220-C40-4D	55	280	225	220	70	350	40	SPMG140512	M5*10	T20
SP56-224-C40-4D	56	285	229	224	70	355	40	SPMG140512	M5*10	T20
SP57-228-C40-4D	57	290	233	228	70	360	40	SPMG140512	M5*10	T20
SP58-232-C40-4D	58	295	237	232	70	365	40	SPMG140512	M5*10	T20
SP59-236-C40-4D	59	300	241	236	70	370	40	SPMG140512	M5*10	T20
SP60-240-C40-4D	60	305	245	240	70	375	40	SPMG140512	M5*10	T20
SP61-244-C40-4D	61	310	249	244	70	380	40	SPMG140512	M5*10	T20
SP62-248-C40-4D	62	315	253	248	70	385	40	SPMG140512	M5*10	T20
SP63-252-C40-4D	63	320	257	252	70	390	40	SPMG140512	M5*10	T20
SP64-256-C40-4D	64	325	261	256	70	395	40	SPMG140512	M5*10	T20
SP65-260-C40-4D	65	330	265	260	70	400	40	SPMG140512	M5*10	T20
SP66-264-C40-4D	66	335	269	264	70	405	40	SPMG140512	M5*10	T20
SP67-268-C40-4D	67	340	273	268	70	410	40	SPMG140512	M5*10	T20
SP68-272-C40-4D	68	345	277	272	70	415	40	SPMG140512	M5*10	T20

