



Leading Through Innovation



HSS-E & HSS-PM

COMBO TAPS

COMBO GEWINDEBOHRER

- For Multi Purpose Tapping
- Für Mehrbereichs-Gewindebohren



HSS-E & HSS-PM COMBO TAPS

For Multi Purpose Tapping

Please visit globallyg1.com/mat for material search

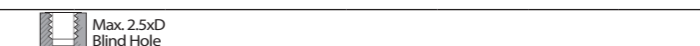
◎ : Excellent ○ : Good

Recommended cutting conditions : p.B110

Table with columns: ISO, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB, HRC, and 6 columns of performance indicators (Bright, TiN, VAP, Bright, TiN, VAP) for various materials and hole types.

Table with columns: HOLE TYPE, TOOL MATERIAL, CHAMFER LEAD ACC. TO DIN2197, FLUTE TYPE, SPIRAL FLUTE ANGLE, and SERIES (M, MF, UNC, UNF, BSW, G(BSP), EG-M, EG-UNC, EG-UNF).

Table with columns: SURFACE TREATMENT, MODEL, and 6 columns of performance indicators (Bright, TiN, VAP, Bright, TiN, VAP) for various models.



Large table with columns: HSS-E, HSS-PM, and 14 columns of performance indicators (Bright, TiN, VAP, Bright, TiN, VAP, Bright, TiN, VAP, Bright, Bright, Bright, VAP, VAP) for various materials and hole types.



Vap **TB804** SERIES
Bright **TC804** SERIES
TiN **TD804** SERIES

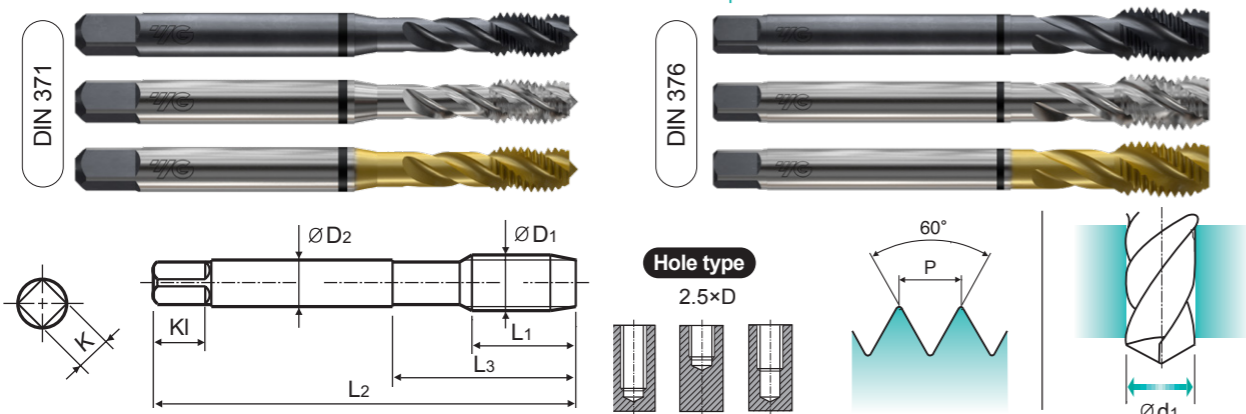
M ISO Metric coarse threads DIN 13

- Metrisches ISO-Gewinde DIN 13
- ISO MÉTRIQUE DIN13
- ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

► Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups: **MU** HSS-E DIN 371/376 6H 60° C R40 Vap Bright TiN p.B124

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2 × 0.4		TB804136	TC804136	TD804136	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		TB804156	TC804156	TD804156	8	45	13	2.8	2.1	5	3	1.75
M2.3 × 0.4		TB804196	TC804196	TD804196	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		TB804176	TC804176	TD804176	9	50	15	2.8	2.1	5	3	2.05
M2.6 × 0.45		TB804496	TC804496	TD804496	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		TB804206	TC804206	TD804206	6	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		TB804226	TC804226	TD804226	7	56	20	4	3	6	3	2.9
M4 × 0.7		TB804246	TC804246	TD804246	7	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		TB804266	TC804266	TD804266	8	70	25	6	4.9	8	3	3.7
M5 × 0.8		TB804286	TC804286	TD804286	8	70	25	6	4.9	8	3	4.2
M6 × 1.0		TB804316	TC804316	TD804316	10	80	30	6	4.9	8	3	5
M7 × 1.0		TB804346	TC804346	TD804346	10	80	30	7	5.5	8	3	6
M8 × 1.25		TB804366	TC804366	TD804366	13	90	35	8	6.2	9	3	6.8
M9 × 1.25		TB804396	TC804396	TD804396	13	90	35	9	7	10	3	7.8
M10 × 1.5		TB804426	TC804426	TD804426	15	100	39	10	8	11	3	8.5
M11 × 1.5		TB804466	TC804466	TD804466	17	100	40	8	6.2	9	3	9.5
M12 × 1.75		TB804506	TC804506	TD804506	18	110	44	9	7	10	3	10.2
M14 × 2.0		TB804546	TC804546	TD804546	20	110	44	11	9	12	3	12
M16 × 2.0		TB804606	TC804606	TD804606	20	110	44	12	9	12	3	14
M18 × 2.5		TB804656	TC804656	TD804656	25	125	50	14	11	14	4	15.5
M20 × 2.5		TB804706	TC804706	TD804706	25	140	54	16	12	15	4	17.5
M22 × 2.5		TB804746	TC804746	TD804746	25	140	54	18	14.5	17	4	19.5
M24 × 3.0		TB804786	TC804786	TD804786	30	160	60	18	14.5	17	4	21
M27 × 3.0		TB804866	TC804866	TD804866	30	160	60	20	16	19	4	24

► DIN 371(M2~M10) and DIN 376(M11~M52)
* The other coating(TiCN or TiAlN) is available on your request.

► NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron			
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



Vap **TB804** SERIES
Bright **TC804** SERIES
TiN **TD804** SERIES

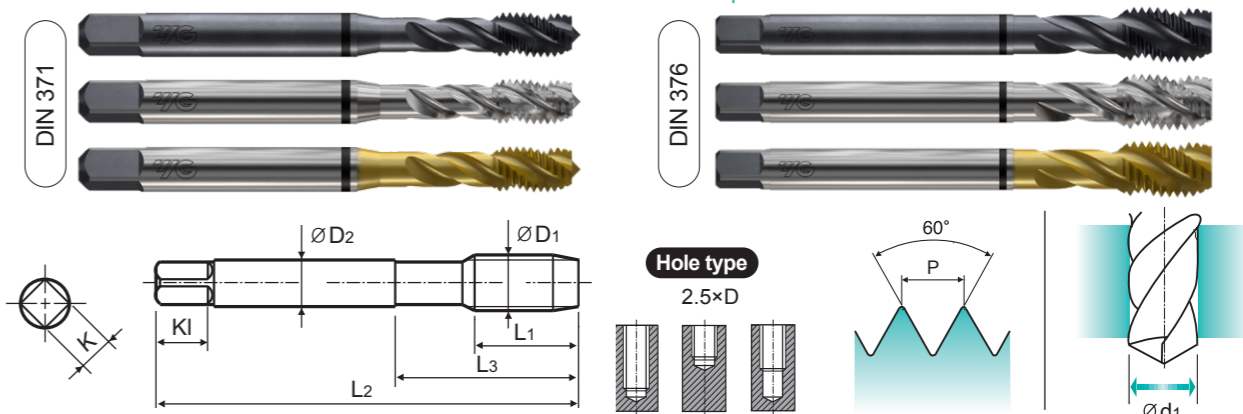
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► Für vielfältigen Einsatz, genaue Gewindeprofile und lange Standzeitendank einer besonderen Schneidengeometrie. Von YG-1 patentiert.



Material groups: **MU** HSS-E DIN 371/376 6H 60° C R40 Vap Bright TiN p.B124

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

Unit : mm

SIZE	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M30 × 3.5		TB804946	TC804946	TD804946	35	180	70	22	18	21	4	26.5
M33 × 3.5		-	TC804A46	TD804A46	35	180	70	25	20	23	4	29.5
M36 × 4.0		-	TC804B36	TD804B36	40	200	80	28	22	25	4	32.0
M39 × 4.0		-	TC804C06	TD804C06	40	200	80	32	24	27	4	35.0
M42 × 4.5		-	TC804C86	TD804C86	45	200	85	32	24	27	4	37.5
M45 × 4.5		-	TC804D56	TD804D56	45	220	85	36	29	32	4	40.5
M48 × 5.0		-	TC804E26	TD804E26	50	250	90	36	29	32	4	43.0
M52 × 5.0		-	TC804F36	TD804F36	50	250	90	40	32	35	4	47.0

► DIN 371(M2~M10) and DIN 376(M11~M30)
* The other coating(TiCN or TiAlN) is available on your request.

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► DIN 371(M2~M10) and DIN 376(M11~M30)
* The other coating(TiCN or TiAlN) is available on your request.

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron			
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min)								
					TC804 TC844 TC824 TC864	TD804 TD844 TD824 TD864	TB804 TB844 TB824 TB864	TCE05 TCE09 TCE01 TCE02	TDE05 TDE09 TDE01 TDE02	TBE05	TCE06	TDE06	TBE06
P	1	Non-alloy steel	125		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	2		190	13	15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	3		250	25	12-18	18-24	12-18	12-18	18-24	12-18	12-18	18-24	12-18
	4		270	28	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	5		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	6	Low alloy steel	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	7		275	29	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	8		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	9		350	38	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7	3-5
	10		High alloyed steel, and tool steel	200	15	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7
M	12	Stainless steel	200	15	7-10	10-15	7-10	7-10	10-15	7-10	7-10	10-15	7-10
	13		240	23	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	14		180	10	4-6	6-8	4-6	4-6	6-8	4-6	4-6	6-8	4-6
K	15	Grey cast iron	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	16		260	26	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	17	Nodular cast iron	160	3	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	18		250	25	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
N	23	Aluminum-cast, alloyed	75		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	35-40	25-35	25-35	35-40	25-35	25-35	35-40	25-35
	27		90		8-12	12-17	8-12	8-12	12-17	8-12	8-12	12-17	8-12
	28		100		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20

ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min)								
					TCE07	TDE07	TBE07	TCE08	TDE08	TBE08	TC804-IC	TC633	TC807
P	1	Non-alloy steel	125		15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20	15-20
	2		190	13	15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20	15-20
	3		250	25	12-18	18-24	12-18	12-18	18-24	12-18	12-18	18-24	12-18
	4		270	28	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	5		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	6	Low alloy steel	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	7		275	29	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	8		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	9		350	38	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7	3-5
	10		High alloyed steel, and tool steel	200	15	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7
M	12	Stainless steel	200	15	7-10	10-15	7-10	7-10	10-15	7-10	7-10	10-15	7-10
	13		240	23	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	14		180	10	4-6	6-8	4-6	4-6	6-8	4-6	4-6	6-8	4-6
K	15	Grey cast iron	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	16		260	26	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	17	Nodular cast iron	160	3	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	18		250	25	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
N	23	Aluminum-cast, alloyed	75		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	35-40	25-35	25-35	35-40	25-35	25-35	35-40	25-35
	27		90		8-12	12-17	8-12	8-12	12-17	8-12	8-12	12-17	8-12
	28		100		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20

ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min)									
					TB744 TB754 TQ744 TQ754	TC814 TC854 TC834 TC874	TD814 TD854 TD834 TD874	TB814 TB854 TB834 TB874	TCJ05 TCJ09 TCJ01 TCJ02	TDJ05 TDJ09 TDJ01 TDJ02	TBJ05	TCJ06	TDJ06	TBJ06
P	1	Non-alloy steel	125			15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	2		190	13	15-20	15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	3		250	25		12-18	18-24	12-18	12-18	18-24	12-18	12-18	18-24	12-18
	4		270	28	10-15	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	5		300	32		6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	6	Low alloy steel	180	10	10-15	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	7		275	29	10-15	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	8		300	32		6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10
	9		350	38		3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7	3-5
	10		High alloyed steel, and tool steel	200	15		3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7
M	12	Stainless steel	200	15	7-10	7-10	10-15	7-10	7-10	10-15	7-10	7-10	10-15	7-10
	13		240	23	5-8	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	14		180	10	4-6	4-6	6-8	4-6	4-6	6-8	4-6	4-6	6-8	4-6
K	15	Grey cast iron	180	10		10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	16		260	26		5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
	17	Nodular cast iron	160	3		10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15
	18		250	25		5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8
N	23	Aluminum-cast, alloyed	75			15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20
	26	Copper and Copper Alloys (Bronze / Brass)	110			25-35	35-40	25-35	25-35	35-40	25-35	25-35	35-40	25-35
	27		90			8-12	12-17	8-12	8-12	12-17	8-12	8-12	12-17	8-12
	28		100			15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20

ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min)									
					TCJ07	TDJ07	TBJ07	TCJ08	TDJ08	TBJ08	TC814-IC	TC445	TB428 TB438	TQ428 TQ438
P	1	Non-alloy steel	125		15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20	15-20	15-20
	2		190	13	15-20	20-25	15-20	15-20	20-25	15-20	15-20	15-20	15-20	15-20
	3		250	25	12-18	18-24	12-18	12-18	18-24	12-18	12-18	18-24	12-18	12-18
	4		270	28	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15	10-15
	5		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10	6-10
	6	Low alloy steel	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15	10-15
	7		275	29	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15	10-15
	8		300	32	6-10	10-14	6-10	6-10	10-14	6-10	6-10	10-14	6-10	6-10
	9		350	38	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7	3-5	3-5
	10		High alloyed steel, and tool steel	200	15	3-5	5-7	3-5	3-5	5-7	3-5	3-5	5-7	3-5
M	12	Stainless steel	200	15	7-10	10-15	7-10	7-10	10-15	7-10	7-10	10-15	7-10	
	13		240	23	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8	
	14		180	10	4-6	6-8	4-6	4-6	6-8	4-6	4-6	6-8	4-6	
K	15	Grey cast iron	180	10	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15	
	16		260	26	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8	
	17	Nodular cast iron	160	3	10-15	15-20	10-15	10-15	15-20	10-15	10-15	15-20	10-15	
	18		250	25	5-8	8-11	5-8	5-8	8-11	5-8	5-8	8-11	5-8	
N	23	Aluminum-cast, alloyed	75		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20	
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	35-40	25-35	25-35	35-40	25-35	25-35	35-40	25-35	
	27		90		8-12	12-17	8-12	8-12	12-17	8-12	8-12	12-17	8-12	
	28		100		15-20	20-25	15-20	15-20	20-25	15-20	15-20	20-25	15-20	