

	OSAWA NORM	5XD 355SU 355SUH	8XD 358SUH	12XD 3512SUH
PAGE 246				

(m7)

Ø mm	1~3	3.1~6	6.1~10	10.1~18	18.1~20
tol. D µ	+12 / +2	+16 / +4	+21 / +6	+25 / +7	+29 / +8



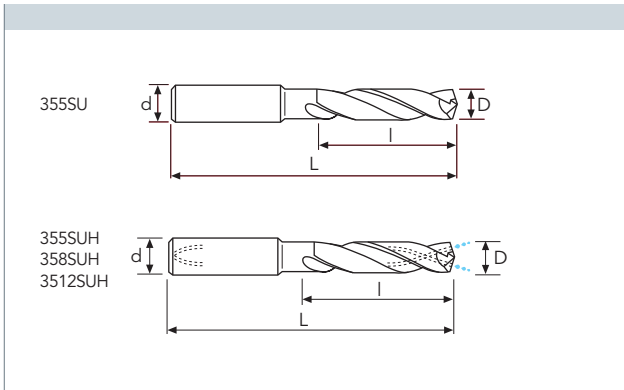
	PV300	PV300	PV300	PV300

D(m7)	d(h6)	l	L	Stock	Stock	Stock	Stock
mm 1.00	3	6.5	50	○	○	●	●
1.00	3	9.5	50				
1.00	3	13.5	55				
1.05	3	6.5	50	○	○	○	
1.05	3	10	50				
1.10	3	7.2	50	○	○	○	
1.10	3	10.5	50			●	
1.10	3	14.9	55				○
1.15	3	7.5	50	○	○		
1.15	3	10.9	50			○	
1.20	3	7.8	50	○	○		
1.20	3	11.4	50			●	
1.20	3	16.2	55				●
1.25	3	8.1	50	○	○		
1.25	3	11.9	50			○	
1.28	3	12.4	50			●	
1.30	3	8.5	50	○	○		
1.30	3	12.4	50			●	
1.30	3	17.6	55				●
1.35	3	8.8	50	○	○		
1.35	3	12.8	50			○	
1.40	3	9.1	50	○	○		
1.40	3	13.3	50			●	
1.40	3	18.9	55				○
1.45	3	9.4	50	○	○		
1.45	3	13.8	50			●	
1.50	3	9.8	50	○	○		
1.50	3	14.3	50			●	
1.50	3	20.3	55				●
1.55	3	10.1	50	○	○		
1.55	3	14.7	50			○	
1.60	3	10.4	50	○	○		
1.60	3	15.2	50			●	
1.60	3	21.6	65				●
1.65	3	10.7	55	○	○		
1.65	3	15.7	60			○	

● stock standard ○ non-standard stock ■ stock exhaustion

	OSAWA NORM	5XD 355SU 355SUH	8XD 358SUH	12XD 3512SUH
PAGE 246				

(m7)					
Ø mm	1~3	3.1~6	6.1~10	10.1~18	18.1~20
tol. D µ	+12 / +2	+16 / +4	+21 / +6	+25 / +7	+29 / +8



PV300	PV300	PV300	PV300

D(m7)	d(h6)	l	L	Stock	Stock	Stock	Stock
mm 1.70	3	11.1	55	○	○	●	○
1.70	3	16.2	60				
1.70	3	23	65				
1.75	3	11.4	55	○	○	○	○
1.75	3	16.6	60				
1.80	3	11.7	55	○	○	●	
1.80	3	17.1	60				●
1.80	3	24.3	65				
1.85	3	12	55	○	○		
1.85	3	17.6	60			●	
1.90	3	12.4	55	○	○		
1.90	3	18.1	60			●	
1.90	3	25.7	65			○	
1.95	3	12.7	55	○	○		
1.95	3	18.5	60				○
2.00	3	13	55	○	○	●	
2.00	3	19	60				●
2.00	3	27	65				●
2.05	3	13.3	55	○	○		
2.05	3	19.5	60			○	
2.10	3	13.7	55	○	○		
2.10	3	20	60			●	
2.10	3	28.4	65				●
2.15	3	14	55	○	○		
2.15	3	20.4	60			○	
2.20	3	14.3	55	○	○	●	
2.20	3	20.9	60				●
2.20	3	29.7	65				●
2.25	3	14.6	55	○	○		
2.25	3	21.4	60			○	
2.30	3	15	55	○	○		
2.30	3	21.9	60			●	
2.30	3	31.1	65				○
2.35	3	15.3	55	○	○		
2.35	3	22.3	60			○	
2.40	3	15.6	55	○	○		

● stock standard ○ non-standard stock ■ stock exhaustion

TYPHOON

C-SD-TA

LFTA

SUTA

HSS-HSS/CO DRILLS

UH RED

MEX ORANGE

HF EVO

MEF ENDLESS

ALU

MDC

G2

MDTA

ULTRA MILLS

HSS/CO

CARBIDE BURRS

PARAMETERS

	OSAWA NORM	5XD 355SU 355SUH	8XD 358SUH	12XD 3512SUH

(m7)

Ø mm	1~3	3.1~6	6.1~10	10.1~18	18.1~20
tol. D µ	+12 / +2	+16 / +4	+21 / +6	+25 / +7	+29 / +8



	PV300	PV300	PV300	PV300

D(m7)	d(h6)	l	L	Stock	Stock	Stock	Stock
mm 2.40	3	22.8	60			●	
2.40	3	32.4	75				○
2.45	3	15.9	55	○	○		
2.45	3	23.3	60			○	
2.50	3	16.3	55	○	○		
2.50	3	23.8	60			●	
2.50	3	33.8	75				●
2.55	3	16.6	55	○	○		
2.55	3	24.2	60			○	
2.60	3	16.9	55	○	○		
2.60	3	24.7	60			●	
2.60	3	35.1	75				●
2.65	3	17.2	55	○	○		
2.65	3	25.2	60			○	
2.70	3	17.4	55	○	○		
2.70	3	25.7	60			●	
2.70	3	36.5	75				○
2.75	3	17.9	55	○	○		
2.75	3	26.1	60			○	
2.80	3	18.2	55	○	○		
2.80	3	26.6	60			●	
2.80	3	37.8	75				●
2.85	3	18.5	55	○	○		
2.85	3	27.1	60			○	
2.90	3	18.9	55	○	○		
2.90	3	27.6	60			●	
2.90	3	39.2	75				○
2.95	3	19.2	55	○	○		
2.95	3	28	60			○	

● stock standard ○ non-standard stock ■ stock exhaustion

TYPHOON DRILLS - CUTTING SPEED TABLE																
MATERIAL GROUPS	ISO	N/mm ²	3XD					5XD					8XD	8XD MINI	12XD MINI	
			343TA*	353TA	353HTA	353SUH	353ALH	353HRC	355TA	355HTA	355SUH**	355ALH	355HRC	3584HTA	358SUH	3512SUH
			Vc (m/min)													
1 2 3 4	P	~700	80~100	90~110	80~120	90~130		70~100	80~110	80~120			70~90	70~90	50~70	
3 4 5		700~1000		75~95	85~105	75~115		75~95	75~105	75~105			65~105	65~105	45~65	
6		1000~1300		70~90	80~100	70~110		70~90	70~100	70~100			60~80	60~80	40~60	
7		40~45HRC		15~25	15~25	15~25		10~20	10~20	10~20			10~15	10~20	10~15	
8	H	45~50HRC					15~25					10~20				
8		50~55HRC					10~16					8~13				
8		55~62HRC					8~14					7~12				
9 10	M			25~50		30~60		20~40		25~55			20~40	20~40	15~35	
11				20~45		25~55		15~35		20~50			20~40	20~40	15~35	
12				20~45		25~55		15~35		20~50			20~40	20~40	15~35	
13	K			70~110	80~120	90~130		60~100	70~110	80~120			40~90	40~90	30~70	
14				60~100	70~110	80~120		50~90	60~100	70~110			30~80	30~80	20~60	
15	N	200~270					220~290	180~250			200~250		150~220	150~220	120~180	
16		180~250					200~270	160~230			180~230		130~200	130~200	100~160	
22	S	<35HRC		20~40	25~45	30~50		20~35	20~40	25~45			15~30	15~30	10~25	
23		>35HRC		10~30	15~35	20~40		10~25	10~30	15~35			10~25	10~25	10~20	
26				20~40	25~45	30~50		20~35	20~40	25~45			15~30	15~30	15~25	

*318N: Vc -30%

**355SU: Vc -10%

TYPHOON DRILLS - FEED TABLE									
MINI 355SUH* - 358SUH - 3512SUH									
MATERIAL GROUPS	ISO	N/mm ²	Ø	1-1.5	1.6-2	2.1-2.5	2.6-2.9	fn (mm/rev)	
1 2 3 4	P	~700	355SUH*	0.062~0.070	0.072~0.079	0.080~0.088	0.090~0.094		
			358SUH	0.036~0.043	0.045~0.050	0.052~0.058	0.059~0.064		
			3512SUH	0.027~0.032	0.034~0.038	0.039~0.044	0.044~0.048		
3 4 5		700~1000	355SUH*	0.048~0.058	0.060~0.067	0.069~0.077	0.079~0.084		
			358SUH	0.036~0.043	0.045~0.050	0.052~0.058	0.059~0.064		
			3512SUH	0.027~0.032	0.034~0.038	0.039~0.044	0.044~0.048		
6	1000~1300	355SUH*	0.037~0.044	0.045~0.051	0.052~0.058	0.059~0.064			
		358SUH	0.030~0.035	0.036~0.039	0.040~0.044	0.045~0.047			
		3512SUH	0.023~0.026	0.027~0.029	0.030~0.033	0.034~0.035			
7	40~45HRC	355SUH*	0.013~0.015	0.015~0.017	0.017~0.019	0.019~0.020			
		358SUH	0.012~0.014	0.014~0.016	0.016~0.017	0.017~0.019			
		3512SUH	0.009~0.011	0.011~0.012	0.012~0.013	0.013~0.014			
9 10	M		355SUH*	0.043~0.048	0.050~0.054	0.055~0.061	0.062~0.065		
			358SUH	0.038~0.043	0.045~0.049	0.050~0.054	0.055~0.058		
			3512SUH	0.029~0.032	0.034~0.037	0.037~0.041	0.041~0.044		
11			355SUH*	0.043~0.048	0.050~0.054	0.055~0.061	0.062~0.065		
			358SUH	0.038~0.043	0.045~0.049	0.050~0.054	0.055~0.058		
			3512SUH	0.029~0.032	0.034~0.037	0.037~0.041	0.041~0.044		
12		355SUH*	0.029~0.035	0.036~0.039	0.041~0.045	0.046~0.049			
		358SUH	0.026~0.031	0.032~0.035	0.037~0.040	0.041~0.044			
		3512SUH	0.020~0.023	0.024~0.026	0.028~0.030	0.031~0.033			
13	K		355SUH*	0.048~0.059	0.062~0.070	0.071~0.080	0.082~0.088		
			358SUH	0.030~0.038	0.039~0.046	0.047~0.054	0.054~0.059		
			3512SUH	0.023~0.028	0.029~0.034	0.035~0.040	0.041~0.044		
14			355SUH*	0.046~0.056	0.058~0.066	0.068~0.076	0.078~0.084		
			358SUH	0.029~0.036	0.038~0.043	0.045~0.050	0.052~0.056		
			3512SUH	0.022~0.027	0.028~0.032	0.034~0.038	0.039~0.042		
15	N		355SUH*	0.074~0.087	0.089~0.099	0.101~0.111	0.113~0.121		
			358SUH	0.062~0.073	0.074~0.082	0.085~0.093	0.095~0.102		
			3512SUH	0.047~0.055	0.056~0.062	0.064~0.070	0.071~0.076		
16			355SUH*	0.071~0.084	0.087~0.098	0.100~0.111	0.115~0.122		
			358SUH	0.057~0.069	0.071~0.081	0.083~0.094	0.096~0.103		
			3512SUH	0.043~0.052	0.053~0.061	0.062~0.070	0.072~0.077		
22	S	<35HRC	355SUH*	0.025~0.029	0.029~0.033	0.034~0.037	0.038~0.040		
			358SUH	0.017~0.021	0.021~0.024	0.025~0.027	0.028~0.030		
			3512SUH	0.013~0.016	0.016~0.018	0.019~0.020	0.021~0.022		
23		>35HRC	355SUH*	0.019~0.023	0.024~0.028	0.029~0.032	0.032~0.035		
			358SUH	0.014~0.017	0.018~0.020	0.021~0.023	0.024~0.026		
			3512SUH	0.010~0.013	0.013~0.015	0.016~0.017	0.018~0.020		
26		355SUH*	0.031~0.036	0.037~0.041	0.042~0.046	0.047~0.050			
		358SUH	0.026~0.030	0.031~0.034	0.035~0.039	0.040~0.042			
		3512SUH	0.020~0.023	0.023~0.026	0.026~0.029	0.030~0.032			

*355SU: fn -10% ~ -20%