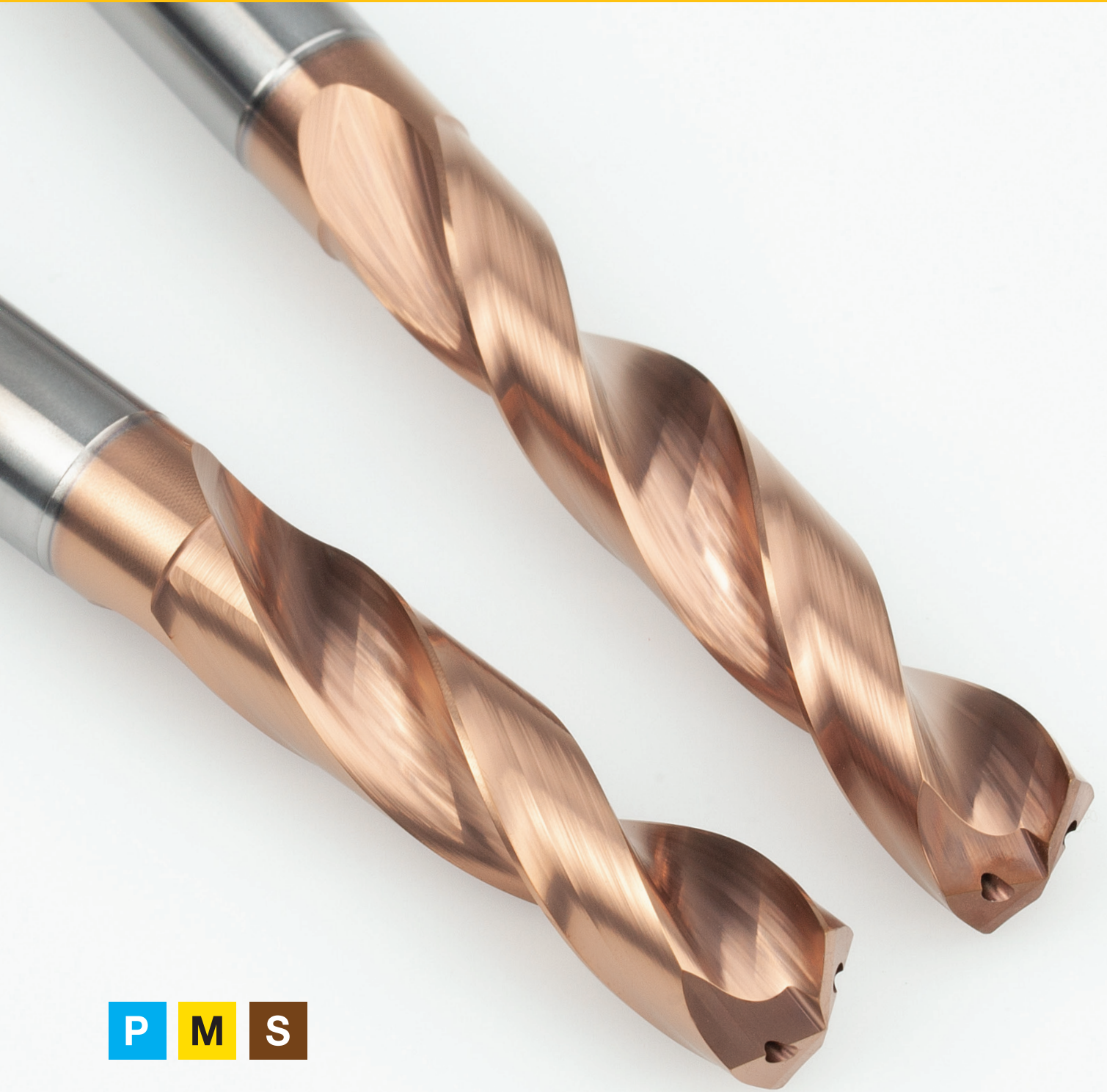




Typhoon HVA

High performance carbide drills for stainless steel



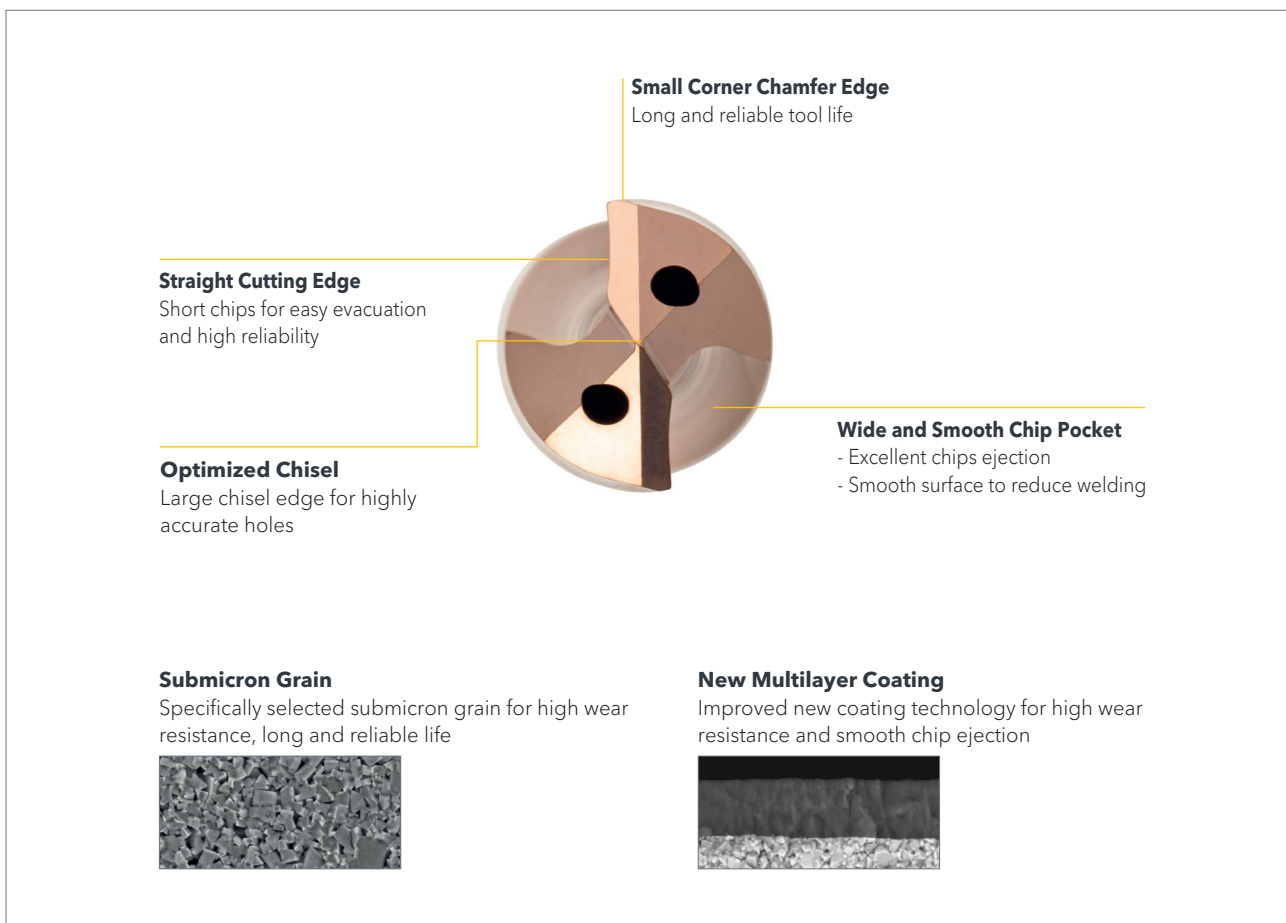
P M S

 **OSAWA**
DRILLS & END MILLS

HVA

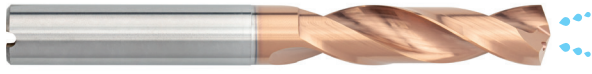
- A new series of solid carbide drill with selected substrate, coating and excellent geometry for high performance on ISO M as well on material groups ISO P, S.
- New submicron grain substrate, new multilayer and smooth coating guarantees long and reliable tool life.
- Special cutting edge design and wide chip pocket allow excellent chip ejection.
- Internal coolant 3xD and 5xD.
- Range D3.0- D16.0.

FEATURES

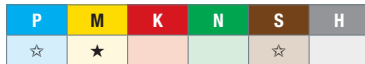


353HVA

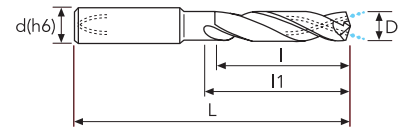
Stainless steel



353HVA replaces 353SUH.
353HVA will be gradually available as soon as 353SUH stock is phased out



★ 1st choice ☆ suitable

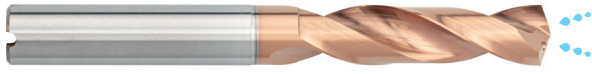


D(m7)	D Tol.	d(h6)	l	l1	L	EDP No.	Stock
3.00	+0.012/+0.002	6	14	20	62	353HVA0300	●
3.10	+0.016/+0.004	6	14	20	62	353HVA0310	●
3.20	+0.016/+0.004	6	14	20	62	353HVA0320	●
3.30	+0.016/+0.004	6	14	20	62	353HVA0330	●
3.40	+0.016/+0.004	6	14	20	62	353HVA0340	●
3.50	+0.016/+0.004	6	14	20	62	353HVA0350	●
3.60	+0.016/+0.004	6	14	20	62	353HVA0360	●
3.70	+0.016/+0.004	6	14	20	62	353HVA0370	●
3.80	+0.016/+0.004	6	17	24	66	353HVA0380	●
3.90	+0.016/+0.004	6	17	24	66	353HVA0390	●
4.00	+0.016/+0.004	6	17	24	66	353HVA0400	●
4.10	+0.016/+0.004	6	17	24	66	353HVA0410	●
4.20	+0.016/+0.004	6	17	24	66	353HVA0420	●
4.30	+0.016/+0.004	6	17	24	66	353HVA0430	●
4.40	+0.016/+0.004	6	17	24	66	353HVA0440	●
4.50	+0.016/+0.004	6	17	24	66	353HVA0450	●
4.60	+0.016/+0.004	6	17	24	66	353HVA0460	●
4.70	+0.016/+0.004	6	17	24	66	353HVA0470	●
4.80	+0.016/+0.004	6	20	28	66	353HVA0480	●
4.90	+0.016/+0.004	6	20	28	66	353HVA0490	●
5.00	+0.016/+0.004	6	20	28	66	353HVA0500	●
5.10	+0.016/+0.004	6	20	28	66	353HVA0510	●
5.20	+0.016/+0.004	6	20	28	66	353HVA0520	●
5.30	+0.016/+0.004	6	20	28	66	353HVA0530	●
5.40	+0.016/+0.004	6	20	28	66	353HVA0540	●
5.50	+0.016/+0.004	6	20	28	66	353HVA0550	●
5.60	+0.016/+0.004	6	20	28	66	353HVA0560	●
5.70	+0.016/+0.004	6	20	28	66	353HVA0570	●
5.80	+0.016/+0.004	6	20	28	66	353HVA0580	●
5.90	+0.016/+0.004	6	20	28	66	353HVA0590	●
6.00	+0.016/+0.004	6	20	28	66	353HVA0600	●
6.10	+0.021/+0.006	8	24	34	79	353HVA0610	●
6.20	+0.021/+0.006	8	24	34	79	353HVA0620	●
6.30	+0.021/+0.006	8	24	34	79	353HVA0630	●
6.40	+0.021/+0.006	8	24	34	79	353HVA0640	●
6.50	+0.021/+0.006	8	24	34	79	353HVA0650	●
6.60	+0.021/+0.006	8	24	34	79	353HVA0660	●
6.70	+0.021/+0.006	8	24	34	79	353HVA0670	●
6.80	+0.021/+0.006	8	24	34	79	353HVA0680	●

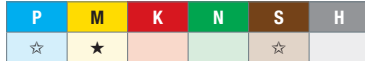
● stock standard ○ non-standard stock ▽ stock exhaustion

353HVA

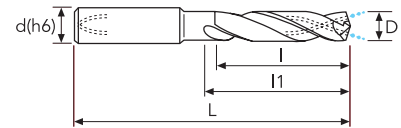
Stainless steel



353HVA replaces 353SUH.
353HVA will be gradually available as soon as 353SUH stock is phased out



★ 1st choice ☆ suitable

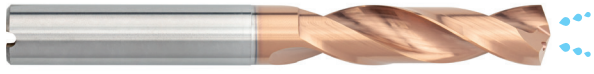


D(m7)	D Tol.	d(h6)	l	l1	L	EDP No.	Stock
6.90	+0.021/+0.006	8	24	34	79	353HVA0690	●
7.00	+0.021/+0.006	8	24	34	79	353HVA0700	●
7.10	+0.021/+0.006	8	29	41	79	353HVA0710	●
7.20	+0.021/+0.006	8	29	41	79	353HVA0720	●
7.30	+0.021/+0.006	8	29	41	79	353HVA0730	●
7.40	+0.021/+0.006	8	29	41	79	353HVA0740	●
7.50	+0.021/+0.006	8	29	41	79	353HVA0750	●
7.60	+0.021/+0.006	8	29	41	79	353HVA0760	●
7.70	+0.021/+0.006	8	29	41	79	353HVA0770	●
7.80	+0.021/+0.006	8	29	41	79	353HVA0780	●
7.90	+0.021/+0.006	8	29	41	79	353HVA0790	●
8.00	+0.021/+0.006	8	29	41	79	353HVA0800	●
8.10	+0.021/+0.006	10	35	47	89	353HVA0810	●
8.20	+0.021/+0.006	10	35	47	89	353HVA0820	●
8.30	+0.021/+0.006	10	35	47	89	353HVA0830	●
8.40	+0.021/+0.006	10	35	47	89	353HVA0840	●
8.50	+0.021/+0.006	10	35	47	89	353HVA0850	●
8.60	+0.021/+0.006	10	35	47	89	353HVA0860	●
8.70	+0.021/+0.006	10	35	47	89	353HVA0870	●
8.80	+0.021/+0.006	10	35	47	89	353HVA0880	●
8.90	+0.021/+0.006	10	35	47	89	353HVA0890	●
9.00	+0.021/+0.006	10	35	47	89	353HVA0900	●
9.10	+0.021/+0.006	10	35	47	89	353HVA0910	●
9.20	+0.021/+0.006	10	35	47	89	353HVA0920	●
9.30	+0.021/+0.006	10	35	47	89	353HVA0930	●
9.40	+0.021/+0.006	10	35	47	89	353HVA0940	●
9.50	+0.021/+0.006	10	35	47	89	353HVA0950	●
9.60	+0.021/+0.006	10	35	47	89	353HVA0960	●
9.70	+0.021/+0.006	10	35	47	89	353HVA0970	●
9.80	+0.021/+0.006	10	35	47	89	353HVA0980	●
9.90	+0.021/+0.006	10	35	47	89	353HVA0990	●
10.00	+0.021/+0.006	10	35	47	89	353HVA1000	●
10.10	+0.025/+0.007	12	40	55	102	353HVA1010	●
10.20	+0.025/+0.007	12	40	55	102	353HVA1020	●
10.30	+0.025/+0.007	12	40	55	102	353HVA1030	●
10.50	+0.025/+0.007	12	40	55	102	353HVA1050	●
10.60	+0.025/+0.007	12	40	55	102	353HVA1060	●
10.80	+0.025/+0.007	12	40	55	102	353HVA1080	●
11.00	+0.025/+0.007	12	40	55	102	353HVA1100	●

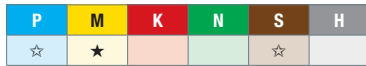
● stock standard ○ non-standard stock ▽ stock exhaustion

353HVA

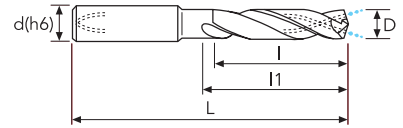
Stainless steel



353HVA replaces 353SUH.
353HVA will be gradually available as soon as 353SUH stock is phased out



★ 1st choice ☆ suitable



D(m7)	D Tol.	d(h6)	l	l1	L	EDP No.	Stock
11.20	+0.025/+0.007	12	40	55	102	353HVA1120	●
11.50	+0.025/+0.007	12	40	55	102	353HVA1150	●
11.80	+0.025/+0.007	12	40	55	102	353HVA1180	●
12.00	+0.025/+0.007	12	40	55	102	353HVA1200	●
12.10	+0.025/+0.007	14	43	60	107	353HVA1210	●
12.20	+0.025/+0.007	14	43	60	107	353HVA1220	●
12.50	+0.025/+0.007	14	43	60	107	353HVA1250	●
12.80	+0.025/+0.007	14	43	60	107	353HVA1280	●
13.00	+0.025/+0.007	14	43	60	107	353HVA1300	●
13.30	+0.025/+0.007	14	43	60	107	353HVA1330	●
13.50	+0.025/+0.007	14	43	60	107	353HVA1350	●
13.80	+0.025/+0.007	14	43	60	107	353HVA1380	●
14.00	+0.025/+0.007	14	43	60	107	353HVA1400	●
14.10	+0.025/+0.007	16	45	65	115	353HVA1410	●
14.20	+0.025/+0.007	16	45	65	115	353HVA1420	●
14.50	+0.025/+0.007	16	45	65	115	353HVA1450	●
15.00	+0.025/+0.007	16	49	65	115	353HVA1500	●
15.30	+0.025/+0.007	16	49	65	115	353HVA1530	●
15.50	+0.025/+0.007	16	49	65	115	353HVA1550	●
15.80	+0.025/+0.007	16	49	65	115	353HVA1580	●
16.00	+0.025/+0.007	16	49	65	115	353HVA1600	●
16.50	+0.025/+0.007	18	52	73	123	353HVA1650	●
17.00	+0.025/+0.007	18	52	73	123	353HVA1700	●
17.50	+0.025/+0.007	18	52	73	123	353HVA1750	●
18.00	+0.025/+0.007	18	52	73	123	353HVA1800	●
18.50	+0.029/+0.008	20	55	79	131	353HVA1850	●
19.00	+0.029/+0.008	20	55	79	131	353HVA1900	●
19.50	+0.029/+0.008	20	55	79	131	353HVA1950	●
20.00	+0.029/+0.008	20	55	79	131	353HVA2000	●


● stock standard ○ non-standard stock ▽ stock exhaustion

353HVA

	Material Group ISO 513	P1 P2	P3 P4	P5	P6	P7	P8
	Hardness/Rm	500÷700 N/mm ²	600÷1000 N/mm ²	900÷1200 N/mm ²	1200÷1400 N/mm ²	<700 N/mm ²	850÷1200 N/mm ²
	Vc (m/min)	100÷140	80÷120	70÷90	50÷70	50÷70	20÷30
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)
3	0.118	0.106	0.095	0.083	0.077	0.046	
4	0.140	0.126	0.112	0.098	0.091	0.055	
5	0.161	0.145	0.129	0.113	0.105	0.063	
6	0.183	0.164	0.146	0.128	0.119	0.071	
7	0.204	0.184	0.163	0.143	0.133	0.080	
8	0.226	0.203	0.181	0.158	0.147	0.088	
9	0.247	0.223	0.198	0.173	0.161	0.096	
10	0.269	0.242	0.215	0.188	0.175	0.105	
11	0.280	0.252	0.224	0.196	0.182	0.109	
12	0.301	0.271	0.241	0.211	0.196	0.117	
13	0.323	0.290	0.258	0.226	0.210	0.126	
14	0.344	0.310	0.275	0.241	0.224	0.134	
15	0.366	0.329	0.292	0.256	0.238	0.143	
16	0.387	0.348	0.310	0.271	0.252	0.151	
17	0.398	0.358	0.318	0.278	0.259	0.155	
18	0.409	0.368	0.327	0.286	0.266	0.159	
19	0.419	0.377	0.335	0.293	0.273	0.164	
20	0.430	0.387	0.344	0.301	0.280	0.168	

	Material Group ISO 513	M1	M2	M3		
	Hardness/Rm	<750 N/mm ²	550÷850 N/mm ²	650÷950 N/mm ²		
	Vc (m/min)	50÷70	45÷65	35÷50		
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)		
3	0.077	0.061	0.054			
4	0.091	0.073	0.064			
5	0.105	0.084	0.073			
6	0.119	0.095	0.083			
7	0.133	0.106	0.093			
8	0.147	0.117	0.103			
9	0.161	0.129	0.112			
10	0.175	0.140	0.122			
11	0.182	0.145	0.127			
12	0.196	0.157	0.137			
13	0.210	0.168	0.147			
14	0.224	0.179	0.157			
15	0.238	0.190	0.166			
16	0.252	0.201	0.176			
17	0.259	0.207	0.181			
18	0.266	0.212	0.186			
19	0.273	0.218	0.191			
20	0.280	0.224	0.196			

353HVA

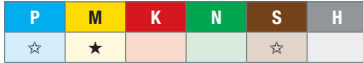
	Material Group ISO 513	S1 S2	S3	S4	S5		
	Hardness/Rm	<35 N/mm ²	35÷45 N/mm ²				
	Vc (m/min)	30÷50	25÷45	30÷45	25÷35		
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)		
	3	0.053	0.037	0.051	0.043		
4	0.063	0.044	0.060	0.050			
5	0.073	0.051	0.069	0.058			
6	0.082	0.058	0.078	0.066			
7	0.092	0.064	0.087	0.074			
8	0.102	0.071	0.097	0.081			
9	0.111	0.078	0.106	0.089			
10	0.121	0.085	0.115	0.097			
11	0.126	0.088	0.119	0.101			
12	0.135	0.095	0.129	0.108			
13	0.145	0.102	0.138	0.116			
14	0.155	0.108	0.147	0.124			
15	0.164	0.115	0.156	0.132			
16	0.174	0.122	0.165	0.139			
17	0.179	0.125	0.170	0.143			
18	0.184	0.129	0.175	0.147			
19	0.189	0.132	0.179	0.151			
20	0.194	0.135	0.185	0.155			

355HVA

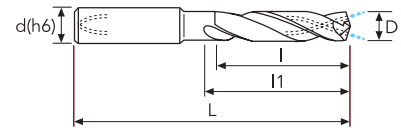
Stainless steel



355HVA replaces 355SUH.
355HVA will be gradually available as soon as 355SUH stock is phased out



★ 1st choice ☆ suitable



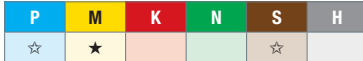
D(m7)	D Tol.	d(h6)	l	l1	L	EDP No.	Stock
3.00	+0.012/+0.002	6	23	28	66	355HVA0300	●
3.10	+0.016/+0.004	6	23	28	66	355HVA0310	●
3.20	+0.016/+0.004	6	23	28	66	355HVA0320	●
3.30	+0.016/+0.004	6	23	28	66	355HVA0330	●
3.40	+0.016/+0.004	6	23	28	66	355HVA0340	●
3.50	+0.016/+0.004	6	23	28	66	355HVA0350	●
3.60	+0.016/+0.004	6	23	28	66	355HVA0360	●
3.70	+0.016/+0.004	6	23	28	66	355HVA0370	●
3.80	+0.016/+0.004	6	29	36	74	355HVA0380	●
3.90	+0.016/+0.004	6	29	36	74	355HVA0390	●
4.00	+0.016/+0.004	6	29	36	74	355HVA0400	●
4.10	+0.016/+0.004	6	29	36	74	355HVA0410	●
4.20	+0.016/+0.004	6	29	36	74	355HVA0420	●
4.30	+0.016/+0.004	6	29	36	74	355HVA0430	●
4.40	+0.016/+0.004	6	29	36	74	355HVA0440	●
4.50	+0.016/+0.004	6	29	36	74	355HVA0450	●
4.60	+0.016/+0.004	6	29	36	74	355HVA0460	●
4.70	+0.016/+0.004	6	29	36	74	355HVA0470	●
4.80	+0.016/+0.004	6	35	44	82	355HVA0480	●
4.90	+0.016/+0.004	6	35	44	82	355HVA0490	●
5.00	+0.016/+0.004	6	35	44	82	355HVA0500	●
5.10	+0.016/+0.004	6	35	44	82	355HVA0510	●
5.20	+0.016/+0.004	6	35	44	82	355HVA0520	●
5.30	+0.016/+0.004	6	35	44	82	355HVA0530	●
5.40	+0.016/+0.004	6	35	44	82	355HVA0540	●
5.50	+0.016/+0.004	6	35	44	82	355HVA0550	●
5.60	+0.016/+0.004	6	35	44	82	355HVA0560	●
5.70	+0.016/+0.004	6	35	44	82	355HVA0570	●
5.80	+0.016/+0.004	6	35	44	82	355HVA0580	●
5.90	+0.016/+0.004	6	35	44	82	355HVA0590	●
6.00	+0.016/+0.004	6	35	44	82	355HVA0600	●
6.10	+0.021/+0.006	8	43	53	91	355HVA0610	●
6.20	+0.021/+0.006	8	43	53	91	355HVA0620	●
6.30	+0.021/+0.006	8	43	53	91	355HVA0630	●
6.40	+0.021/+0.006	8	43	53	91	355HVA0640	●
6.50	+0.021/+0.006	8	43	53	91	355HVA0650	●
6.60	+0.021/+0.006	8	43	53	91	355HVA0660	●
6.70	+0.021/+0.006	8	43	53	91	355HVA0670	●
6.80	+0.021/+0.006	8	43	53	91	355HVA0680	●

355HVA

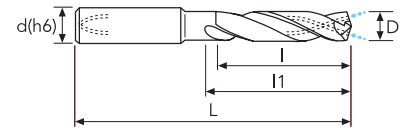
Stainless steel



355HVA replaces 355SUH.
355HVA will be gradually available as soon as 355SUH stock is phased out



★ 1st choice ☆ suitable



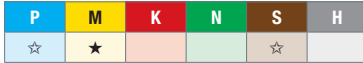
D(m7)	D Tol.	d(h6)	l	l1	L	EDP No.	Stock
6.90	+0.021/+0.006	8	43	53	91	355HVA0690	●
7.00	+0.021/+0.006	8	43	53	91	355HVA0700	●
7.10	+0.021/+0.006	8	43	53	91	355HVA0710	●
7.20	+0.021/+0.006	8	43	53	91	355HVA0720	●
7.30	+0.021/+0.006	8	43	53	91	355HVA0730	●
7.40	+0.021/+0.006	8	43	53	91	355HVA0740	●
7.50	+0.021/+0.006	8	43	53	91	355HVA0750	●
7.60	+0.021/+0.006	8	43	53	91	355HVA0760	●
7.70	+0.021/+0.006	8	43	53	91	355HVA0770	●
7.80	+0.021/+0.006	8	43	53	91	355HVA0780	●
7.90	+0.021/+0.006	8	43	53	91	355HVA0790	●
8.00	+0.021/+0.006	8	43	53	91	355HVA0800	●
8.10	+0.021/+0.006	10	49	61	103	355HVA0810	●
8.20	+0.021/+0.006	10	49	61	103	355HVA0820	●
8.30	+0.021/+0.006	10	49	61	103	355HVA0830	●
8.40	+0.021/+0.006	10	49	61	103	355HVA0840	●
8.50	+0.021/+0.006	10	49	61	103	355HVA0850	●
8.60	+0.021/+0.006	10	49	61	103	355HVA0860	●
8.70	+0.021/+0.006	10	49	61	103	355HVA0870	●
8.80	+0.021/+0.006	10	49	61	103	355HVA0880	●
8.90	+0.021/+0.006	10	49	61	103	355HVA0890	●
9.00	+0.021/+0.006	10	49	61	103	355HVA0900	●
9.10	+0.021/+0.006	10	49	61	103	355HVA0910	●
9.20	+0.021/+0.006	10	49	61	103	355HVA0920	●
9.30	+0.021/+0.006	10	49	61	103	355HVA0930	●
9.40	+0.021/+0.006	10	49	61	103	355HVA0940	●
9.50	+0.021/+0.006	10	49	61	103	355HVA0950	●
9.60	+0.021/+0.006	10	49	61	103	355HVA0960	●
9.70	+0.021/+0.006	10	49	61	103	355HVA0970	●
9.80	+0.021/+0.006	10	49	61	103	355HVA0980	●
9.90	+0.021/+0.006	10	49	61	103	355HVA0990	●
10.00	+0.021/+0.006	10	49	61	103	355HVA1000	●
10.10	+0.025/+0.007	12	52	71	118	355HVA1010	●
10.20	+0.025/+0.007	12	52	71	118	355HVA1020	●
10.30	+0.025/+0.007	12	52	71	118	355HVA1030	●
10.50	+0.025/+0.007	12	52	71	118	355HVA1050	●
10.60	+0.025/+0.007	12	52	71	118	355HVA1060	●
10.80	+0.025/+0.007	12	52	71	118	355HVA1080	●
11.00	+0.025/+0.007	12	52	71	118	355HVA1100	●

355HVA

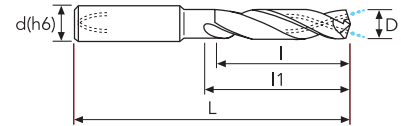
Stainless steel



355HVA replaces 355SUH.
355HVA will be gradually available as soon as 355SUH stock is phased out



★ 1st choice ☆ suitable




D(m7)	D Tol.	d(h6)	l	l1	L	EDP No.	Stock
11,10	+0.025/+0.007	12	52	71	118	355HVA1110	●
11,20	+0.025/+0.007	12	52	71	118	355HVA1120	●
11,30	+0.025/+0.007	12	52	71	118	355HVA1130	●
11,50	+0.025/+0.007	12	52	71	118	355HVA1150	●
11,80	+0.025/+0.007	12	52	71	118	355HVA1180	●
12,00	+0.025/+0.007	12	52	71	118	355HVA1200	●
12,10	+0.025/+0.007	14	63	77	124	355HVA1210	●
12,20	+0.025/+0.007	14	63	77	124	355HVA1220	●
12,50	+0.025/+0.007	14	63	77	124	355HVA1250	●
12,80	+0.025/+0.007	14	63	77	124	355HVA1280	●
13,00	+0.025/+0.007	14	63	77	124	355HVA1300	●
13,30	+0.025/+0.007	14	63	77	124	355HVA1330	●
13,50	+0.025/+0.007	14	63	77	124	355HVA1350	●
13,80	+0.025/+0.007	14	63	77	124	355HVA1380	●
14,00	+0.025/+0.007	14	63	77	124	355HVA1400	●
14,10	+0.025/+0.007	16	67	83	133	355HVA1410	●
14,20	+0.025/+0.007	16	67	83	133	355HVA1420	●
14,50	+0.025/+0.007	16	67	83	133	355HVA1450	●
15,00	+0.025/+0.007	16	67	83	133	355HVA1500	●
15,30	+0.025/+0.007	16	67	83	133	355HVA1530	●
15,50	+0.025/+0.007	16	67	83	133	355HVA1550	●
15,80	+0.025/+0.007	16	67	83	133	355HVA1580	●
16,00	+0.025/+0.007	16	67	83	133	355HVA1600	●
16,50	+0.025/+0.007	18	75	93	143	355HVA1650	●
17,00	+0.025/+0.007	18	75	93	143	355HVA1700	●
17,50	+0.025/+0.007	18	75	93	143	355HVA1750	●
18,00	+0.025/+0.007	18	75	93	143	355HVA1800	●
18,50	+0.029/+0.008	20	81	101	153	355HVA1850	●
19,00	+0.029/+0.008	20	81	101	153	355HVA1900	●
19,50	+0.029/+0.008	20	81	101	153	355HVA1950	●
20,00	+0.029/+0.008	20	81	101	153	355HVA2000	●

355HVA

	Material Group ISO 513	P1 P2	P3 P4	P5	P6	P7	P8
	Hardness/Rm	500÷700 N/mm ²	600÷1000 N/mm ²	900÷1200 N/mm ²	1200÷1400 N/mm ²	<700 N/mm ²	850÷1200 N/mm ²
	Vc (m/min)	100÷140	80÷120	70÷90	50÷70	50÷70	20÷30
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)
3	0.101	0.075	0.060	0.050	0.065	0.039	
4	0.119	0.089	0.071	0.059	0.077	0.046	
5	0.137	0.103	0.082	0.069	0.089	0.053	
6	0.155	0.117	0.093	0.078	0.101	0.061	
7	0.174	0.130	0.104	0.087	0.113	0.068	
8	0.192	0.144	0.115	0.096	0.125	0.075	
9	0.210	0.158	0.126	0.105	0.137	0.082	
10	0.228	0.171	0.137	0.114	0.148	0.089	
11	0.238	0.178	0.143	0.119	0.154	0.093	
12	0.256	0.192	0.154	0.128	0.166	0.100	
13	0.274	0.206	0.164	0.137	0.178	0.107	
14	0.292	0.219	0.175	0.146	0.190	0.114	
15	0.311	0.233	0.186	0.155	0.202	0.121	
16	0.329	0.247	0.197	0.164	0.214	0.128	
17	0.338	0.254	0.203	0.169	0.220	0.132	
18	0.347	0.260	0.208	0.174	0.226	0.135	
19	0.356	0.267	0.214	0.178	0.232	0.139	
20	0.366	0.274	0.219	0.183	0.238	0.143	

	Material Group ISO 513	M1	M2	M3		
	Hardness/Rm	<750 N/mm ²	550÷850 N/mm ²	650÷950 N/mm ²		
	Vc (m/min)	50÷70	45÷65	35÷50		
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)		
3	0.065	0.052	0.046			
4	0.077	0.062	0.054			
5	0.089	0.071	0.062			
6	0.101	0.081	0.071			
7	0.113	0.090	0.079			
8	0.125	0.100	0.087			
9	0.137	0.109	0.096			
10	0.148	0.119	0.104			
11	0.154	0.124	0.108			
12	0.166	0.133	0.116			
13	0.178	0.143	0.125			
14	0.190	0.152	0.133			
15	0.202	0.162	0.141			
16	0.214	0.171	0.150			
17	0.220	0.176	0.154			
18	0.226	0.181	0.158			
19	0.232	0.185	0.162			
20	0.238	0.190	0.166			

355HVA

	Material Group ISO 513	S1 S2	S3	S4	S5		
	Hardness/Rm	<35 N/mm ²	35÷45 N/mm ²				
	Vc (m/min)	30+50	25+45	30+45	25+35		
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)		
	3	0.045	0.032	0.043	0.036		
4	0.053	0.037	0.051	0.043			
5	0.062	0.043	0.059	0.049			
6	0.070	0.049	0.066	0.056			
7	0.078	0.055	0.074	0.063			
8	0.086	0.060	0.082	0.069			
9	0.095	0.066	0.090	0.076			
10	0.103	0.072	0.098	0.082			
11	0.107	0.075	0.102	0.086			
12	0.115	0.081	0.109	0.092			
13	0.123	0.086	0.117	0.099			
14	0.132	0.092	0.125	0.105			
15	0.140	0.098	0.133	0.112			
16	0.148	0.104	0.141	0.118			
17	0.152	0.106	0.145	0.122			
18	0.156	0.109	0.148	0.125			
19	0.160	0.112	0.152	0.128			
20	0.164	0.115	0.156	0.132			

