



Variotool

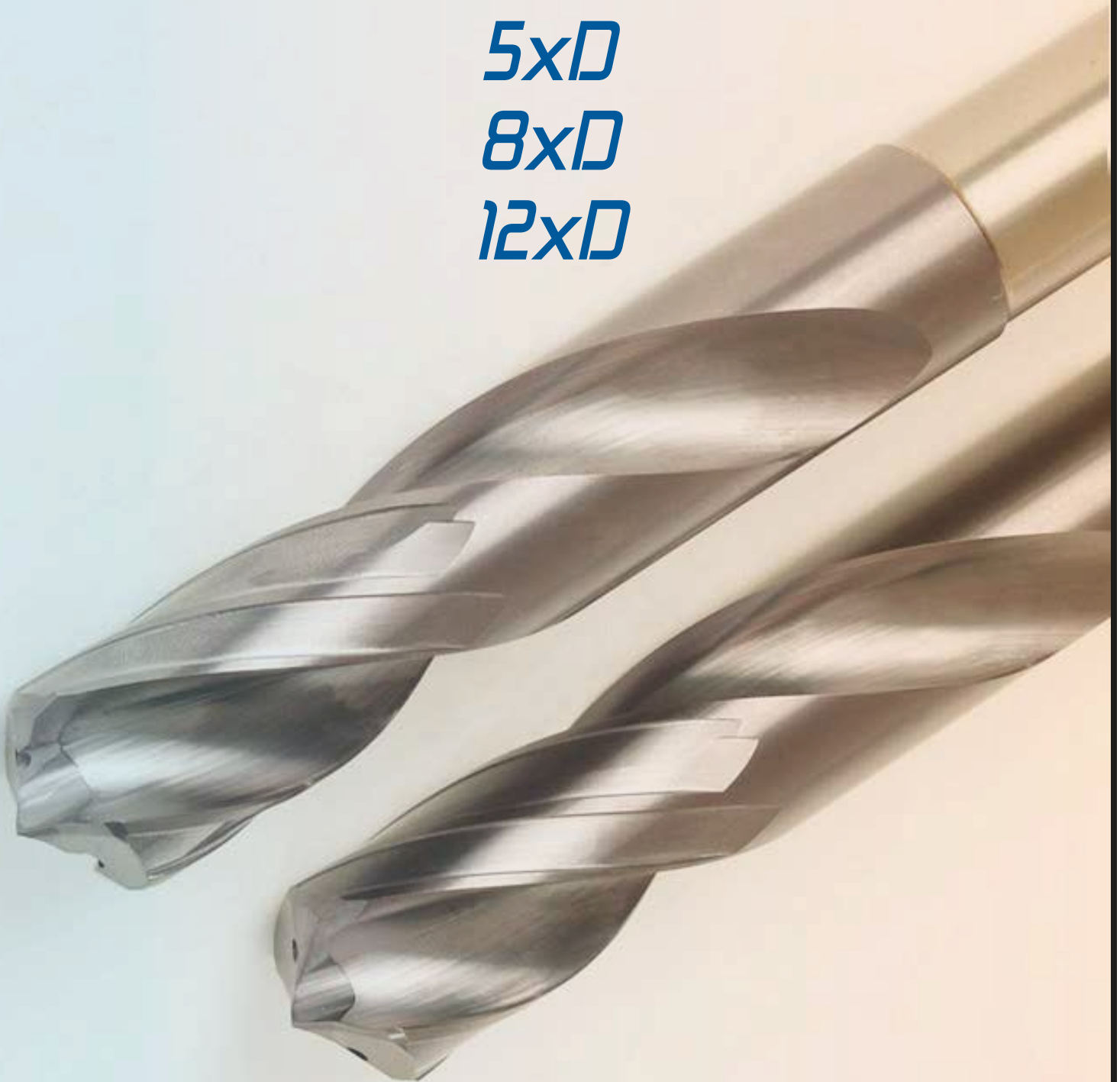
Tvrdokovové vrtáky

3xD

5xD

8xD

12xD



Přehled:

typ	délka	název	vnitřní chlazení	strana
VV200	3xD	Speed-Drill S2	-	3 - 4
VV200	5xD	Speed-Drill S2	-	5 - 6
VV210	3xD	Speed-Drill S2	ano	7 - 8
VV210	5xD	Speed-Drill S2	ano	9 - 10
VV217	5xD	Speed-Drill S4	ano	11 - 12
VV217	8xD	Speed-Drill S4	ano	13 - 14
VV170	3xD	Speed-Drill X2	-	15 - 16
VV180	3xD	Speed-Drill X2	ano	17 - 18
VV180	5xD	Speed-Drill X2	ano	19 - 21
VV187	8xD	Speed-Drill X4	ano	22 - 23
VV187	12xD	Speed-Drill X4	ano	24 - 25
VV287	5xD	Speed-Drill A4	ano	26 - 27
VV287	8xD	Speed-Drill A4	ano	28 - 29
VV300	5xD	Highspeed-Drill 300	ano	30
VV300	8xD	Highspeed-Drill 300	ano	31- 32

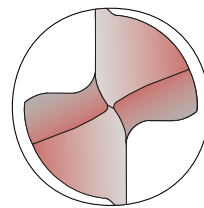
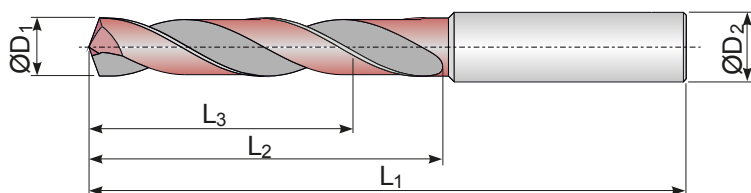
Použití

Materiál		Pevnost	Označení	Speed-Drill VV200, VV210 VV217	Speed-Drill VV170, VV180 VV187	Speed-Drill VV287	High SpeedDrill VV300
P	Nelegovaná ocel, ocelolitina	< 600 N/mm ²	St37, C22, GS38	●	○		●
		< 700 N/mm ²	St52, C35, GS52	●	○		●
		> 700 N/mm ²	St70, C45, GS62	●	○		●
	Legovaná ocel	< 900 N/mm ²	16MnCr5, 42CrMo4	●	○		●
		< 1000 N/mm ²	90MnCrV8, 100Cr6	●	○		●
		> 1000 N/mm ²	X210CM2, 34CrAJNi7	○	●		○
M	Nerezová ocel		X5CrNi 18 9(V2A) X10CrNiMoTM810		●		○
K	Šedá litina, legovaná litina	< 200 HB	GG20, GG25, GTS45	●	○		●
		< 250 HB	GG30, GTW40	●	○		●
		> 250 HB	GG40, GTS70	●	○		●
	Tvárná litina, spec. litiny CGI	< 600 N/mm ²	GGG40, GGG50	●	○		●
> 600 N/mm ²		GGG60, GGV (CGI)	●	○		●	
N	Slitiny hliníku		AlCuMgPb, AlMgSi0.5		○	●	
	Slitiny hliníku (Si < 10%)		AlSi9Cu3, AlSi7Mg0.6		○	●	
	Slitiny hliníku (Si > 10%)		GB.AISI12(Cu)		○	●	
	Med', mosaz, bronz				○	●	
S	Titanem legované slitiny		Ti6Al4V		●		
	Niklem legované slitiny		Inconel, Monel, Hasteloy		●		

Speed-Drill S2

VV200-3D

3xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdkov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: vnější
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)

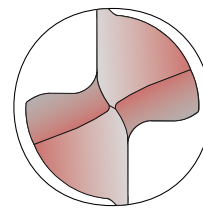
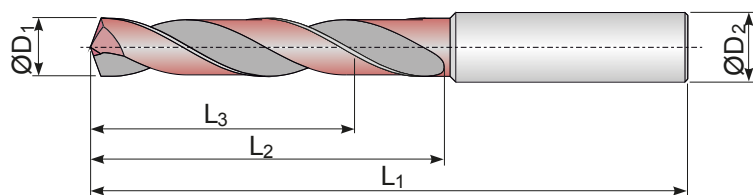


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV200-3D-0300	3,0	6,0	62	20	14	VV200-3D-0690	6,9	8,0	79	34	24
VV200-3D-0310	3,1	6,0	62	20	14	VV200-3D-0700	7,0	8,0	79	34	24
VV200-3D-0320	3,2	6,0	62	20	14	VV200-3D-0710	7,1	8,0	79	41	29
VV200-3D-0330	3,3	6,0	62	20	14	VV200-3D-0720	7,2	8,0	79	41	29
VV200-3D-0340	3,4	6,0	62	20	14	VV200-3D-0730	7,3	8,0	79	41	29
VV200-3D-0350	3,5	6,0	62	20	14	VV200-3D-0740	7,4	8,0	79	41	29
VV200-3D-0360	3,6	6,0	62	20	14	VV200-3D-0750	7,5	8,0	79	41	29
VV200-3D-0370	3,7	6,0	62	20	14	VV200-3D-0760	7,6	8,0	79	41	29
VV200-3D-0380	3,8	6,0	66	24	17	VV200-3D-0770	7,7	8,0	79	41	29
VV200-3D-0390	3,9	6,0	66	24	17	VV200-3D-0780	7,8	8,0	79	41	29
VV200-3D-0400	4,0	6,0	66	24	17	VV200-3D-0790	7,9	8,0	79	41	29
VV200-3D-0410	4,1	6,0	66	24	17	VV200-3D-0800	8,0	8,0	79	41	29
VV200-3D-0420	4,2	6,0	66	24	17	VV200-3D-0810	8,1	10,0	89	47	35
VV200-3D-0430	4,3	6,0	66	24	17	VV200-3D-0820	8,2	10,0	89	47	35
VV200-3D-0440	4,4	6,0	66	24	17	VV200-3D-0830	8,3	10,0	89	47	35
VV200-3D-0450	4,5	6,0	66	24	17	VV200-3D-0840	8,4	10,0	89	47	35
VV200-3D-0460	4,6	6,0	66	24	17	VV200-3D-0850	8,5	10,0	89	47	35
VV200-3D-0465	4,65	6,0	66	24	17	VV200-3D-0860	8,6	10,0	89	47	35
VV200-3D-0470	4,7	6,0	66	24	17	VV200-3D-0870	8,7	10,0	89	47	35
VV200-3D-0480	4,8	6,0	66	28	20	VV200-3D-0880	8,8	10,0	89	47	35
VV200-3D-0490	4,9	6,0	66	28	20	VV200-3D-0890	8,9	10,0	89	47	35
VV200-3D-0500	5,0	6,0	66	28	20	VV200-3D-0900	9,0	10,0	89	47	35
VV200-3D-0510	5,1	6,0	66	28	20	VV200-3D-0910	9,1	10,0	89	47	35
VV200-3D-0520	5,2	6,0	66	28	20	VV200-3D-0920	9,2	10,0	89	47	35
VV200-3D-0530	5,3	6,0	66	28	20	VV200-3D-0925	9,25	10,0	89	47	35
VV200-3D-0540	5,4	6,0	66	28	20	VV200-3D-0930	9,3	10,0	89	47	35
VV200-3D-0550	5,5	6,0	66	28	20	VV200-3D-0940	9,4	10,0	89	47	35
VV200-3D-0555	5,55	6,0	66	28	20	VV200-3D-0950	9,5	10,0	89	47	35
VV200-3D-0560	5,6	6,0	66	28	20	VV200-3D-0960	9,6	10,0	89	47	35
VV200-3D-0570	5,7	6,0	66	28	20	VV200-3D-0970	9,7	10,0	89	47	35
VV200-3D-0580	5,8	6,0	66	28	20	VV200-3D-0980	9,8	10,0	89	47	35
VV200-3D-0590	5,9	6,0	66	28	20	VV200-3D-0990	9,9	10,0	89	47	35
VV200-3D-0600	6,0	6,0	66	28	20	VV200-3D-1000	10,0	10,0	89	47	35
VV200-3D-0610	6,1	8,0	79	34	24	VV200-3D-1020	10,2	12,0	102	55	40
VV200-3D-0620	6,2	8,0	79	34	24	VV200-3D-1050	10,5	12,0	102	55	40
VV200-3D-0630	6,3	8,0	79	34	24	VV200-3D-1080	10,8	12,0	102	55	40
VV200-3D-0640	6,4	8,0	79	34	24	VV200-3D-1100	11,0	12,0	102	55	40
VV200-3D-0650	6,5	8,0	79	34	24	VV200-3D-1150	11,5	12,0	102	55	40
VV200-3D-0660	6,6	8,0	79	34	24	VV200-3D-1180	11,8	12,0	102	55	40
VV200-3D-0670	6,7	8,0	79	34	24	VV200-3D-1200	12,0	12,0	102	55	40
VV200-3D-0680	6,8	8,0	79	34	24	VV200-3D-1250	12,5	14,0	107	60	43

Speed-Drill S2

VV200-3D

3xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdokov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: Vnější
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)

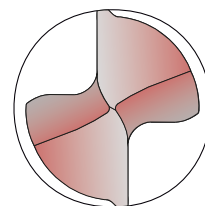
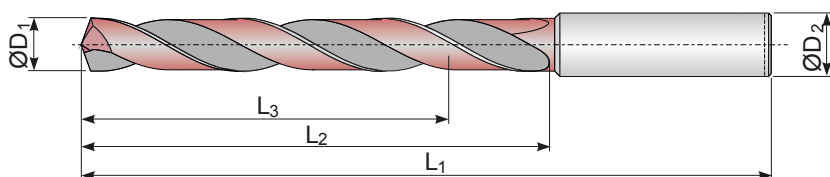


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV200-3D-1280	12,8	14,0	107	60	43
VV200-3D-1300	13,0	14,0	107	60	43
VV200-3D-1350	13,5	14,0	107	60	43
VV200-3D-1380	13,8	14,0	107	60	43
VV200-3D-1400	14,0	14,0	107	60	43
VV200-3D-1450	14,5	16,0	115	65	45
VV200-3D-1480	14,8	16,0	115	65	45
VV200-3D-1500	15,0	16,0	115	65	45
VV200-3D-1550	15,5	16,0	115	65	45
VV200-3D-1580	15,8	16,0	115	65	45
VV200-3D-1600	16,0	16,0	115	65	45
VV200-3D-1650	16,5	18,0	123	73	51
VV200-3D-1680	16,8	18,0	123	73	51
VV200-3D-1700	17,0	18,0	123	73	51
VV200-3D-1750	17,5	18,0	123	73	51
VV200-3D-1780	17,8	18,0	123	73	51
VV200-3D-1800	18,0	18,0	123	73	51
VV200-3D-1850	18,5	20,0	131	79	55
VV200-3D-1880	18,8	20,0	131	79	55
VV200-3D-1900	19,0	20,0	131	79	55
VV200-3D-1950	19,5	20,0	131	79	55
VV200-3D-1980	19,8	20,0	131	79	55
VV200-3D-2000	20,0	20,0	131	79	55

Speed-Drill S2

VV200-5D

5xD

**Provedení:**

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 Na vyžádání: Whistle-Notch-(HE)

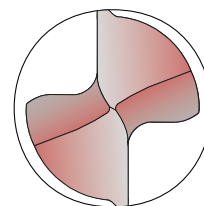
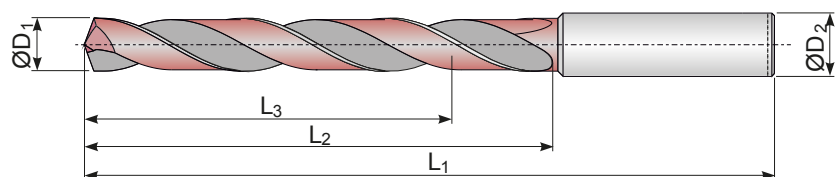


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV200-5D-0300	3,0	6,0	66	28	23	VV200-5D-0710	7,1	8,0	91	53	43
VV200-5D-0310	3,1	6,0	66	28	23	VV200-5D-0720	7,2	8,0	91	53	43
VV200-5D-0320	3,2	6,0	66	28	23	VV200-5D-0730	7,3	8,0	91	53	43
VV200-5D-0330	3,3	6,0	66	28	23	VV200-5D-0740	7,4	8,0	91	53	43
VV200-5D-0340	3,4	6,0	66	28	23	VV200-5D-0750	7,5	8,0	91	53	43
VV200-5D-0350	3,5	6,0	66	28	23	VV200-5D-0760	7,6	8,0	91	53	43
VV200-5D-0360	3,6	6,0	66	28	23	VV200-5D-0770	7,7	8,0	91	53	43
VV200-5D-0370	3,7	6,0	66	28	23	VV200-5D-0780	7,8	8,0	91	53	43
VV200-5D-0380	3,8	6,0	74	36	29	VV200-5D-0790	7,9	8,0	91	53	43
VV200-5D-0390	3,9	6,0	74	36	29	VV200-5D-0800	8,0	8,0	91	53	43
VV200-5D-0400	4,0	6,0	74	36	29	VV200-5D-0810	8,1	10,0	103	61	49
VV200-5D-0410	4,1	6,0	74	36	29	VV200-5D-0820	8,2	10,0	103	61	49
VV200-5D-0420	4,2	6,0	74	36	29	VV200-5D-0830	8,3	10,0	103	61	49
VV200-5D-0430	4,3	6,0	74	36	29	VV200-5D-0840	8,4	10,0	103	61	49
VV200-5D-0440	4,4	6,0	74	36	29	VV200-5D-0850	8,5	10,0	103	61	49
VV200-5D-0450	4,5	6,0	74	36	29	VV200-5D-0860	8,6	10,0	103	61	49
VV200-5D-0460	4,6	6,0	74	36	29	VV200-5D-0870	8,7	10,0	103	61	49
VV200-5D-0470	4,7	6,0	74	36	29	VV200-5D-0880	8,8	10,0	103	61	49
VV200-5D-0480	4,8	6,0	82	44	35	VV200-5D-0890	8,9	10,0	103	61	49
VV200-5D-0490	4,9	6,0	82	44	35	VV200-5D-0900	9,0	10,0	103	61	49
VV200-5D-0500	5,0	6,0	82	44	35	VV200-5D-0910	9,1	10,0	103	61	49
VV200-5D-0510	5,1	6,0	82	44	35	VV200-5D-0920	9,2	10,0	103	61	49
VV200-5D-0520	5,2	6,0	82	44	35	VV200-5D-0930	9,3	10,0	103	61	49
VV200-5D-0530	5,3	6,0	82	44	35	VV200-5D-0940	9,4	10,0	103	61	49
VV200-5D-0540	5,4	6,0	82	44	35	VV200-5D-0950	9,5	10,0	103	61	49
VV200-5D-0550	5,5	6,0	82	44	35	VV200-5D-0960	9,6	10,0	103	61	49
VV200-5D-0560	5,6	6,0	82	44	35	VV200-5D-0970	9,7	10,0	103	61	49
VV200-5D-0570	5,7	6,0	82	44	35	VV200-5D-0980	9,8	10,0	103	61	49
VV200-5D-0580	5,8	6,0	82	44	35	VV200-5D-0990	9,9	10,0	103	61	49
VV200-5D-0590	5,9	6,0	82	44	35	VV200-5D-1000	10,0	10,0	103	61	49
VV200-5D-0600	6,0	6,0	82	44	35	VV200-5D-1020	10,2	12,0	118	71	56
VV200-5D-0610	6,1	8,0	91	53	43	VV200-5D-1050	10,5	12,0	118	71	56
VV200-5D-0620	6,2	8,0	91	53	43	VV200-5D-1080	10,8	12,0	118	71	56
VV200-5D-0630	6,3	8,0	91	53	43	VV200-5D-1100	11,0	12,0	118	71	56
VV200-5D-0640	6,4	8,0	91	53	43	VV200-5D-1150	11,5	12,0	118	71	56
VV200-5D-0650	6,5	8,0	91	53	43	VV200-5D-1180	11,8	12,0	118	71	56
VV200-5D-0660	6,6	8,0	91	53	43	VV200-5D-1200	12,0	12,0	118	71	56
VV200-5D-0670	6,7	8,0	91	53	43	VV200-5D-1250	12,5	14,0	124	77	60
VV200-5D-0680	6,8	8,0	91	53	43	VV200-5D-1280	12,8	14,0	124	77	60
VV200-5D-0690	6,9	8,0	91	53	43	VV200-5D-1300	13,0	14,0	124	77	60
VV200-5D-0700	7,0	8,0	91	53	43	VV200-5D-1350	13,5	14,0	124	77	60

Speed-Drill S2

VV200-5D

5xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdkov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: vnější
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)



Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV200-5D-1380	13,8	14,0	124	77	60	VV200-5D-1700	17,0	18,0	143	93	71
VV200-5D-1400	14,0	14,0	124	77	60	VV200-5D-1750	17,5	18,0	143	93	71
VV200-5D-1450	14,5	16,0	133	83	63	VV200-5D-1780	17,8	18,0	143	93	71
VV200-5D-1480	14,8	16,0	133	83	63	VV200-5D-1800	18,0	18,0	143	93	71
VV200-5D-1500	15,0	16,0	133	83	63	VV200-5D-1850	18,5	20,0	153	101	77
VV200-5D-1550	15,5	16,0	133	83	63	VV200-5D-1880	18,8	20,0	153	101	77
VV200-5D-1580	15,8	16,0	133	83	63	VV200-5D-1900	19,0	20,0	153	101	77
VV200-5D-1600	16,0	16,0	133	83	63	VV200-5D-1950	19,5	20,0	153	101	77
VV200-5D-1650	16,5	18,0	143	93	71	VV200-5D-1980	19,8	20,0	153	101	77
VV200-5D-1680	16,8	18,0	143	93	71	VV200-5D-2000	20,0	20,0	153	101	77

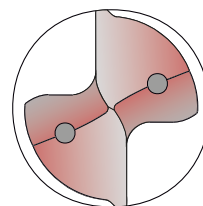
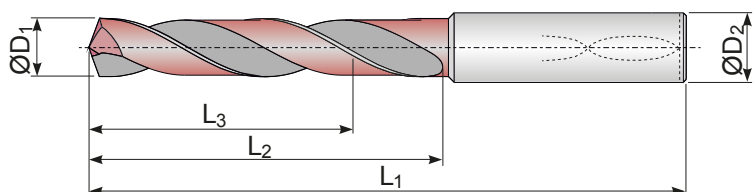
Doporučené řezné podmínky pro vrtáky: S2 VV200

Materiál	Pevnost	Označení	Řezná rychlost [m/min]	Posuv [mm/ot]					
				Ø6	Ø8	Ø10	Ø12	Ø16	Ø20
P Nelegovaná ocel, ocelolitina	< 600 N/mm ²	St37, C22, GS38	85-100	0,15	0,20	0,25	0,30	0,36	0,40
	< 700 N/mm ²	St52, C35, GS52	75-90	0,15	0,20	0,25	0,30	0,36	0,40
	> 700 N/mm ²	St70, C45, GS62	70-85	0,15	0,20	0,25	0,30	0,36	0,40
P Legovaná ocel	< 900 N/mm ²	16MnCr5,42CrMo4	70-80	0,15	0,20	0,25	0,30	0,36	0,40
	< 1000 N/mm ²	90MnCrV8,100Cr6	55-70	0,14	0,18	0,22	0,26	0,30	0,35
	> 1000 N/mm ²	X210CM2, 34CrAJNi7	40-55	0,12	0,16	0,20	0,24	0,30	0,35
K Šedá litina, legovaná litina	< 200 HB	GG20, GG25, GTS45	85-110	0,22	0,28	0,34	0,38	0,44	0,50
	< 250 HB	GG30, GTW40	75-100	0,20	0,25	0,30	0,35	0,40	0,45
	> 250 HB	GG40, GTS70	70-85	0,20	0,25	0,30	0,35	0,40	0,45
K Tvárná litina, spec. litiny CGI	< 600 N/mm ²	GGG40, GGG50	75-100	0,20	0,25	0,30	0,35	0,40	0,45
	> 600 N/mm ²	GGG60, GGV (CGI)	60-75	0,18	0,22	0,25	0,30	0,35	0,40

Speed-Drill S2

VV210-3D

3xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdkov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)

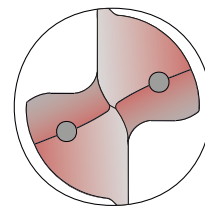
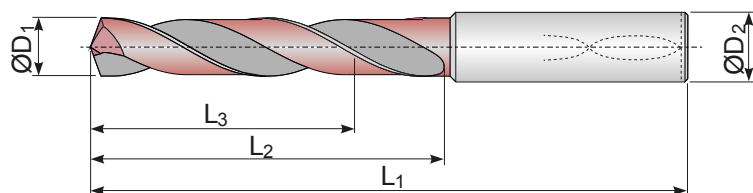

VarioTool

Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV210-3D-0300	3,0	6,0	62	20	14	VV210-3D-0690	6,9	8,0	79	34	24
VV210-3D-0310	3,1	6,0	62	20	14	VV210-3D-0700	7,0	8,0	79	34	24
VV210-3D-0320	3,2	6,0	62	20	14	VV210-3D-0710	7,1	8,0	79	41	29
VV210-3D-0330	3,3	6,0	62	20	14	VV210-3D-0720	7,2	8,0	79	41	29
VV210-3D-0340	3,4	6,0	62	20	14	VV210-3D-0730	7,3	8,0	79	41	29
VV210-3D-0350	3,5	6,0	62	20	14	VV210-3D-0740	7,4	8,0	79	41	29
VV210-3D-0360	3,6	6,0	62	20	14	VV210-3D-0750	7,5	8,0	79	41	29
VV210-3D-0370	3,7	6,0	62	20	14	VV210-3D-0760	7,6	8,0	79	41	29
VV210-3D-0380	3,8	6,0	66	24	17	VV210-3D-0770	7,7	8,0	79	41	29
VV210-3D-0390	3,9	6,0	66	24	17	VV210-3D-0780	7,8	8,0	79	41	29
VV210-3D-0400	4,0	6,0	66	24	17	VV210-3D-0790	7,9	8,0	79	41	29
VV210-3D-0410	4,1	6,0	66	24	17	VV210-3D-0800	8,0	8,0	79	41	29
VV210-3D-0420	4,2	6,0	66	24	17	VV210-3D-0810	8,1	10,0	89	47	35
VV210-3D-0430	4,3	6,0	66	24	17	VV210-3D-0820	8,2	10,0	89	47	35
VV210-3D-0440	4,4	6,0	66	24	17	VV210-3D-0830	8,3	10,0	89	47	35
VV210-3D-0450	4,5	6,0	66	24	17	VV210-3D-0840	8,4	10,0	89	47	35
VV210-3D-0460	4,6	6,0	66	24	17	VV210-3D-0850	8,5	10,0	89	47	35
VV210-3D-0465	4,65	6,0	66	24	17	VV210-3D-0860	8,6	10,0	89	47	35
VV210-3D-0470	4,7	6,0	66	24	17	VV210-3D-0870	8,7	10,0	89	47	35
VV210-3D-0480	4,8	6,0	66	28	20	VV210-3D-0880	8,8	10,0	89	47	35
VV210-3D-0490	4,9	6,0	66	28	20	VV210-3D-0890	8,9	10,0	89	47	35
VV210-3D-0500	5,0	6,0	66	28	20	VV210-3D-0900	9,0	10,0	89	47	35
VV210-3D-0510	5,1	6,0	66	28	20	VV210-3D-0910	9,1	10,0	89	47	35
VV210-3D-0520	5,2	6,0	66	28	20	VV210-3D-0920	9,2	10,0	89	47	35
VV210-3D-0530	5,3	6,0	66	28	20	VV210-3D-0925	9,25	10,0	89	47	35
VV210-3D-0540	5,4	6,0	66	28	20	VV210-3D-0930	9,3	10,0	89	47	35
VV210-3D-0550	5,5	6,0	66	28	20	VV210-3D-0940	9,4	10,0	89	47	35
VV210-3D-0555	5,55	6,0	66	28	20	VV210-3D-0950	9,5	10,0	89	47	35
VV210-3D-0560	5,6	6,0	66	28	20	VV210-3D-0960	9,6	10,0	89	47	35
VV210-3D-0570	5,7	6,0	66	28	20	VV210-3D-0970	9,7	10,0	89	47	35
VV210-3D-0580	5,8	6,0	66	28	20	VV210-3D-0980	9,8	10,0	89	47	35
VV210-3D-0590	5,9	6,0	66	28	20	VV210-3D-0990	9,9	10,0	89	47	35
VV210-3D-0600	6,0	6,0	66	28	20	VV210-3D-1000	10,0	10,0	89	47	35
VV210-3D-0610	6,1	8,0	79	34	24	VV210-3D-1020	10,2	12,0	102	55	40
VV210-3D-0620	6,2	8,0	79	34	24	VV210-3D-1050	10,5	12,0	102	55	40
VV210-3D-0630	6,3	8,0	79	34	24	VV210-3D-1080	10,8	12,0	102	55	40
VV210-3D-0640	6,4	8,0	79	34	24	VV210-3D-1100	11,0	12,0	102	55	40
VV210-3D-0650	6,5	8,0	79	34	24	VV210-3D-1150	11,5	12,0	102	55	40
VV210-3D-0660	6,6	8,0	79	34	24	VV210-3D-1180	11,8	12,0	102	55	40
VV210-3D-0670	6,7	8,0	79	34	24	VV210-3D-1200	12,0	12,0	102	55	40
VV210-3D-0680	6,8	8,0	79	34	24	VV210-3D-1250	12,5	14,0	107	60	43

Speed-Drill S2

VV210-3D

3xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdokov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)

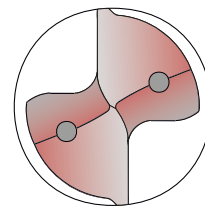
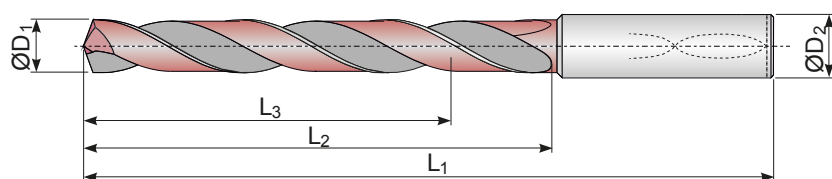


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV210-3D-1280	12,8	14,0	107	60	43
VV210-3D-1300	13,0	14,0	107	60	43
VV210-3D-1350	13,5	14,0	107	60	43
VV210-3D-1380	13,8	14,0	107	60	43
VV210-3D-1400	14,0	14,0	107	60	43
VV210-3D-1450	14,5	16,0	115	65	45
VV210-3D-1480	14,8	16,0	115	65	45
VV210-3D-1500	15,0	16,0	115	65	45
VV210-3D-1550	15,5	16,0	115	65	45
VV210-3D-1580	15,8	16,0	115	65	45
VV210-3D-1600	16,0	16,0	115	65	45
VV210-3D-1650	16,5	18,0	123	73	51
VV210-3D-1680	16,8	18,0	123	73	51
VV210-3D-1700	17,0	18,0	123	73	51
VV210-3D-1750	17,5	18,0	123	73	51
VV210-3D-1780	17,8	18,0	123	73	51
VV210-3D-1800	18,0	18,0	123	73	51
VV210-3D-1850	18,5	20,0	131	79	55
VV210-3D-1880	18,8	20,0	131	79	55
VV210-3D-1900	19,0	20,0	131	79	55
VV210-3D-1950	19,5	20,0	131	79	55
VV210-3D-1980	19,8	20,0	131	79	55
VV210-3D-2000	20,0	20,0	131	79	55

Speed-Drill S2

VV210-5D

5xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdokov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)

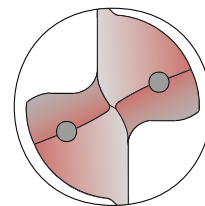
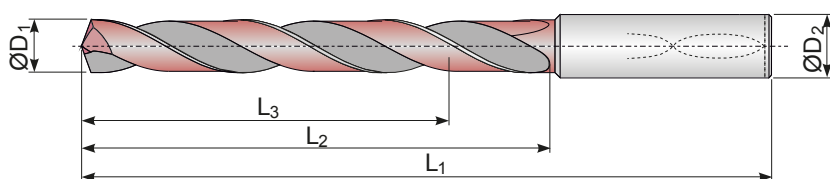


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV210-5D-0300	3,0	6,0	66	28	23	VV210-5D-0710	7,1	8,0	91	53	43
VV210-5D-0310	3,1	6,0	66	28	23	VV210-5D-0720	7,2	8,0	91	53	43
VV210-5D-0320	3,2	6,0	66	28	23	VV210-5D-0730	7,3	8,0	91	53	43
VV210-5D-0330	3,3	6,0	66	28	23	VV210-5D-0740	7,4	8,0	91	53	43
VV210-5D-0340	3,4	6,0	66	28	23	VV210-5D-0750	7,5	8,0	91	53	43
VV210-5D-0350	3,5	6,0	66	28	23	VV210-5D-0760	7,6	8,0	91	53	43
VV210-5D-0360	3,6	6,0	66	28	23	VV210-5D-0770	7,7	8,0	91	53	43
VV210-5D-0370	3,7	6,0	66	28	23	VV210-5D-0780	7,8	8,0	91	53	43
VV210-5D-0380	3,8	6,0	74	36	29	VV210-5D-0790	7,9	8,0	91	53	43
VV210-5D-0390	3,9	6,0	74	36	29	VV210-5D-0800	8,0	8,0	91	53	43
VV210-5D-0400	4,0	6,0	74	36	29	VV210-5D-0810	8,1	10,0	103	61	49
VV210-5D-0410	4,1	6,0	74	36	29	VV210-5D-0820	8,2	10,0	103	61	49
VV210-5D-0420	4,2	6,0	74	36	29	VV210-5D-0830	8,3	10,0	103	61	49
VV210-5D-0430	4,3	6,0	74	36	29	VV210-5D-0840	8,4	10,0	103	61	49
VV210-5D-0440	4,4	6,0	74	36	29	VV210-5D-0850	8,5	10,0	103	61	49
VV210-5D-0450	4,5	6,0	74	36	29	VV210-5D-0860	8,6	10,0	103	61	49
VV210-5D-0460	4,6	6,0	74	36	29	VV210-5D-0870	8,7	10,0	103	61	49
VV210-5D-0470	4,7	6,0	74	36	29	VV210-5D-0880	8,8	10,0	103	61	49
VV210-5D-0480	4,8	6,0	82	44	35	VV210-5D-0890	8,9	10,0	103	61	49
VV210-5D-0490	4,9	6,0	82	44	35	VV210-5D-0900	9,0	10,0	103	61	49
VV210-5D-0500	5,0	6,0	82	44	35	VV210-5D-0910	9,1	10,0	103	61	49
VV210-5D-0510	5,1	6,0	82	44	35	VV210-5D-0920	9,2	10,0	103	61	49
VV210-5D-0520	5,2	6,0	82	44	35	VV210-5D-0930	9,3	10,0	103	61	49
VV210-5D-0530	5,3	6,0	82	44	35	VV210-5D-0940	9,4	10,0	103	61	49
VV210-5D-0540	5,4	6,0	82	44	35	VV210-5D-0950	9,5	10,0	103	61	49
VV210-5D-0550	5,5	6,0	82	44	35	VV210-5D-0960	9,6	10,0	103	61	49
VV210-5D-0560	5,6	6,0	82	44	35	VV210-5D-0970	9,7	10,0	103	61	49
VV210-5D-0570	5,7	6,0	82	44	35	VV210-5D-0980	9,8	10,0	103	61	49
VV210-5D-0580	5,8	6,0	82	44	35	VV210-5D-0990	9,9	10,0	103	61	49
VV210-5D-0590	5,9	6,0	82	44	35	VV210-5D-1000	10,0	10,0	103	61	49
VV210-5D-0600	6,0	6,0	82	44	35	VV210-5D-1020	10,2	12,0	118	71	56
VV210-5D-0610	6,1	8,0	91	53	43	VV210-5D-1050	10,5	12,0	118	71	56
VV210-5D-0620	6,2	8,0	91	53	43	VV210-5D-1080	10,8	12,0	118	71	56
VV210-5D-0630	6,3	8,0	91	53	43	VV210-5D-1100	11,0	12,0	118	71	56
VV210-5D-0640	6,4	8,0	91	53	43	VV210-5D-1150	11,5	12,0	118	71	56
VV210-5D-0650	6,5	8,0	91	53	43	VV210-5D-1180	11,8	12,0	118	71	56
VV210-5D-0660	6,6	8,0	91	53	43	VV210-5D-1200	12,0	12,0	118	71	56
VV210-5D-0670	6,7	8,0	91	53	43	VV210-5D-1250	12,5	14,0	124	77	60
VV210-5D-0680	6,8	8,0	91	53	43	VV210-5D-1280	12,8	14,0	124	77	60
VV210-5D-0690	6,9	8,0	91	53	43	VV210-5D-1300	13,0	14,0	124	77	60
VV210-5D-0700	7,0	8,0	91	53	43	VV210-5D-1350	13,5	14,0	124	77	60

Speed-Drill S2

VV210-5D

5xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdokov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)



Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV210-5D-1380	13,8	14,0	124	77	60
VV210-5D-1400	14,0	14,0	124	77	60
VV210-5D-1450	14,5	16,0	133	83	63
VV210-5D-1480	14,8	16,0	133	83	63
VV210-5D-1500	15,0	16,0	133	83	63
VV210-5D-1550	15,5	16,0	133	83	63
VV210-5D-1580	15,8	16,0	133	83	63
VV210-5D-1600	16,0	16,0	133	83	63
VV210-5D-1650	16,5	18,0	143	93	71
VV210-5D-1680	16,8	18,0	143	93	71

Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV210-5D-1700	17,0	18,0	143	93	71
VV210-5D-1750	17,5	18,0	143	93	71
VV210-5D-1780	17,8	18,0	143	93	71
VV210-5D-1800	18,0	18,0	143	93	71
VV210-5D-1850	18,5	20,0	153	101	77
VV210-5D-1880	18,8	20,0	153	101	77
VV210-5D-1900	19,0	20,0	153	101	77
VV210-5D-1950	19,5	20,0	153	101	77
VV210-5D-1980	19,8	20,0	153	101	77
VV210-5D-2000	20,0	20,0	153	101	77

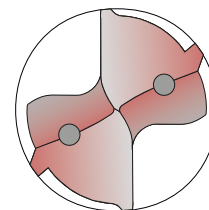
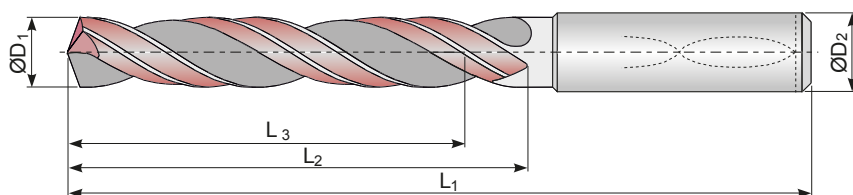
Doporučené řezné podmínky pro vrtáky: S2 VV210; S4 VV217

Materiál	Pevnost	Označení	Řezná rychlost [m/min]	Posuv [mm/ot]						
				Ø6	Ø8	Ø10	Ø12	Ø16	Ø20	
P Nelegovaná ocel, ocelolitina	< 600 N/mm ²	St37, C22, GS38	100-120	0,15	0,20	0,25	0,30	0,36	0,40	
	< 700 N/mm ²	St52, C35, GS52	90-110	0,15	0,20	0,25	0,30	0,36	0,40	
	> 700 N/mm ²	St70, C45, GS62	80-100	0,15	0,20	0,25	0,30	0,36	0,40	
	Legovaná ocel	< 900 N/mm ²	16MnCr5,42CrMo4	80-95	0,15	0,20	0,25	0,30	0,36	0,40
		< 1000 N/mm ²	90MnCrV8,100Cr6	65-80	0,14	0,18	0,22	0,26	0,30	0,35
		> 1000 N/mm ²	X210CM2, 34CrAJNi7	45-65	0,12	0,16	0,20	0,24	0,30	0,35
K Šedá litina, legovaná litina	< 200 HB	GG20, GG25, GTS45	100-130	0,22	0,28	0,34	0,38	0,44	0,50	
	< 250 HB	GG30, GTW40	90-120	0,20	0,25	0,30	0,35	0,40	0,45	
	> 250 HB	GG40, GTS70	80-100	0,20	0,25	0,30	0,35	0,40	0,45	
	Tvárná litina, spec. litiny CGI	< 600 N/mm ²	GGG40, GGG50	90-120	0,20	0,25	0,30	0,35	0,40	0,45
		> 600 N/mm ²	GGG60, GGV (CGI)	70-90	0,18	0,22	0,25	0,30	0,35	0,40

Speed-Drill S4

VV217-5D

5xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdokov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: vnitřní

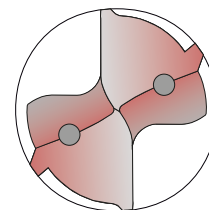
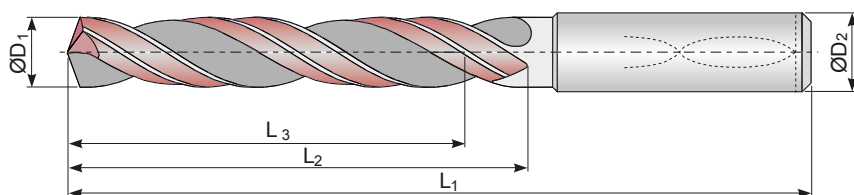


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV217-5D-0300	3,0	6,0	66	28	23	VV217-5D-0710	7,1	8,0	91	53	43
VV217-5D-0310	3,1	6,0	66	28	23	VV217-5D-0720	7,2	8,0	91	53	43
VV217-5D-0320	3,2	6,0	66	28	23	VV217-5D-0730	7,3	8,0	91	53	43
VV217-5D-0330	3,3	6,0	66	28	23	VV217-5D-0740	7,4	8,0	91	53	43
VV217-5D-0340	3,4	6,0	66	28	23	VV217-5D-0750	7,5	8,0	91	53	43
VV217-5D-0350	3,5	6,0	66	28	23	VV217-5D-0760	7,6	8,0	91	53	43
VV217-5D-0360	3,6	6,0	66	28	23	VV217-5D-0770	7,7	8,0	91	53	43
VV217-5D-0370	3,7	6,0	66	28	23	VV217-5D-0780	7,8	8,0	91	53	43
VV217-5D-0380	3,8	6,0	74	36	29	VV217-5D-0790	7,9	8,0	91	53	43
VV217-5D-0390	3,9	6,0	74	36	29	VV217-5D-0800	8,0	8,0	91	53	43
VV217-5D-0400	4,0	6,0	74	36	29	VV217-5D-0810	8,1	10,0	103	61	49
VV217-5D-0410	4,1	6,0	74	36	29	VV217-5D-0820	8,2	10,0	103	61	49
VV217-5D-0420	4,2	6,0	74	36	29	VV217-5D-0830	8,3	10,0	103	61	49
VV217-5D-0430	4,3	6,0	74	36	29	VV217-5D-0840	8,4	10,0	103	61	49
VV217-5D-0440	4,4	6,0	74	36	29	VV217-5D-0850	8,5	10,0	103	61	49
VV217-5D-0450	4,5	6,0	74	36	29	VV217-5D-0860	8,6	10,0	103	61	49
VV217-5D-0460	4,6	6,0	74	36	29	VV217-5D-0870	8,7	10,0	103	61	49
VV217-5D-0470	4,7	6,0	74	36	29	VV217-5D-0880	8,8	10,0	103	61	49
VV217-5D-0480	4,8	6,0	82	44	35	VV217-5D-0890	8,9	10,0	103	61	49
VV217-5D-0490	4,9	6,0	82	44	35	VV217-5D-0900	9,0	10,0	103	61	49
VV217-5D-0500	5,0	6,0	82	44	35	VV217-5D-0910	9,1	10,0	103	61	49
VV217-5D-0510	5,1	6,0	82	44	35	VV217-5D-0920	9,2	10,0	103	61	49
VV217-5D-0520	5,2	6,0	82	44	35	VV217-5D-0930	9,3	10,0	103	61	49
VV217-5D-0530	5,3	6,0	82	44	35	VV217-5D-0940	9,4	10,0	103	61	49
VV217-5D-0540	5,4	6,0	82	44	35	VV217-5D-0950	9,5	10,0	103	61	49
VV217-5D-0550	5,5	6,0	82	44	35	VV217-5D-0960	9,6	10,0	103	61	49
VV217-5D-0560	5,6	6,0	82	44	35	VV217-5D-0970	9,7	10,0	103	61	49
VV217-5D-0570	5,7	6,0	82	44	35	VV217-5D-0980	9,8	10,0	103	61	49
VV217-5D-0580	5,8	6,0	82	44	35	VV217-5D-0990	9,9	10,0	103	61	49
VV217-5D-0590	5,9	6,0	82	44	35	VV217-5D-1000	10,0	10,0	103	61	49
VV217-5D-0600	6,0	6,0	82	44	35	VV217-5D-1020	10,2	12,0	118	71	56
VV217-5D-0610	6,1	8,0	91	53	43	VV217-5D-1050	10,5	12,0	118	71	56
VV217-5D-0620	6,2	8,0	91	53	43	VV217-5D-1080	10,8	12,0	118	71	56
VV217-5D-0630	6,3	8,0	91	53	43	VV217-5D-1100	11,0	12,0	118	71	56
VV217-5D-0640	6,4	8,0	91	53	43	VV217-5D-1150	11,5	12,0	118	71	56
VV217-5D-0650	6,5	8,0	91	53	43	VV217-5D-1180	11,8	12,0	118	71	56
VV217-5D-0660	6,6	8,0	91	53	43	VV217-5D-1200	12,0	12,0	118	71	56
VV217-5D-0670	6,7	8,0	91	53	43	VV217-5D-1250	12,5	14,0	124	77	60
VV217-5D-0680	6,8	8,0	91	53	43	VV217-5D-1280	12,8	14,0	124	77	60
VV217-5D-0690	6,9	8,0	91	53	43	VV217-5D-1300	13,0	14,0	124	77	60
VV217-5D-0700	7,0	8,0	91	53	43	VV217-5D-1350	13,5	14,0	124	77	60

Speed-Drill S4

VV217-5D

5xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdkov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: vnitřní

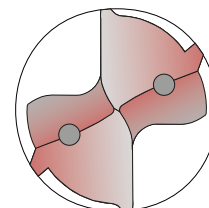
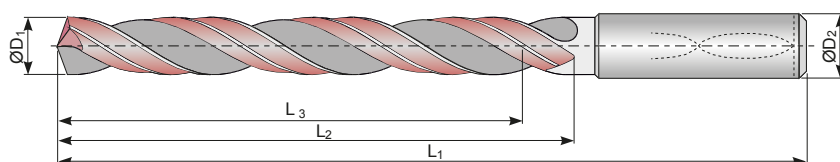


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV217-5D-1380	13,8	14,0	124	77	60
VV217-5D-1400	14,0	14,0	124	77	60
VV217-5D-1450	14,5	16,0	133	83	63
VV217-5D-1480	14,8	16,0	133	83	63
VV217-5D-1500	15,0	16,0	133	83	63
VV217-5D-1550	15,5	16,0	133	83	63
VV217-5D-1580	15,8	16,0	133	83	63
VV217-5D-1600	16,0	16,0	133	83	63
VV217-5D-1650	16,5	18,0	143	93	71
VV217-5D-1680	16,8	18,0	143	93	71
VV217-5D-1700	17,0	18,0	143	93	71
VV217-5D-1750	17,5	18,0	143	93	71
VV217-5D-1780	17,8	18,0	143	93	71
VV217-5D-1800	18,0	18,0	143	93	71
VV217-5D-1850	18,5	20,0	153	101	77
VV217-5D-1880	18,8	20,0	153	101	77
VV217-5D-1900	19,0	20,0	153	101	77
VV217-5D-1950	19,5	20,0	153	101	77
VV217-5D-1980	19,8	20,0	153	101	77
VV217-5D-2000	20,0	20,0	153	101	77

Speed-Drill S4

VV217-8D

8xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdokov: jemnozrný 8-10% Co
 Povlak: GTX
 Chlazení: vnitřní

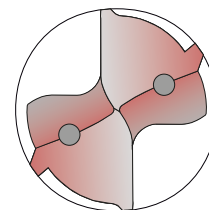
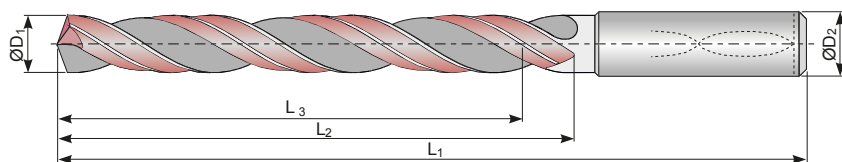


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV217-8D-0300	3,0	6,0	72	34	29	VV217-8D-0710	7,1	8,0	114	76	64
VV217-8D-0310	3,1	6,0	72	34	29	VV217-8D-0720	7,2	8,0	114	76	64
VV217-8D-0320	3,2	6,0	72	34	29	VV217-8D-0730	7,3	8,0	114	76	64
VV217-8D-0330	3,3	6,0	72	34	29	VV217-8D-0740	7,4	8,0	114	76	64
VV217-8D-0340	3,4	6,0	72	34	29	VV217-8D-0750	7,5	8,0	114	76	64
VV217-8D-0350	3,5	6,0	72	34	29	VV217-8D-0760	7,6	8,0	114	76	64
VV217-8D-0360	3,6	6,0	72	34	29	VV217-8D-0770	7,7	8,0	114	76	64
VV217-8D-0370	3,7	6,0	72	34	29	VV217-8D-0780	7,8	8,0	114	76	64
VV217-8D-0380	3,8	6,0	81	43	36	VV217-8D-0790	7,9	8,0	114	76	64
VV217-8D-0390	3,9	6,0	81	43	36	VV217-8D-0800	8,0	8,0	114	76	64
VV217-8D-0400	4,0	6,0	81	43	36	VV217-8D-0810	8,1	10,0	142	95	80
VV217-8D-0410	4,1	6,0	81	43	36	VV217-8D-0820	8,2	10,0	142	95	80
VV217-8D-0420	4,2	6,0	81	43	36	VV217-8D-0830	8,3	10,0	142	95	80
VV217-8D-0430	4,3	6,0	81	43	36	VV217-8D-0840	8,4	10,0	142	95	80
VV217-8D-0440	4,4	6,0	81	43	36	VV217-8D-0850	8,5	10,0	142	95	80
VV217-8D-0450	4,5	6,0	81	43	36	VV217-8D-0860	8,6	10,0	142	95	80
VV217-8D-0460	4,6	6,0	81	43	36	VV217-8D-0870	8,7	10,0	142	95	80
VV217-8D-0470	4,7	6,0	81	43	36	VV217-8D-0880	8,8	10,0	142	95	80
VV217-8D-0480	4,8	6,0	95	57	48	VV217-8D-0890	8,9	10,0	142	95	80
VV217-8D-0490	4,9	6,0	95	57	48	VV217-8D-0900	9,0	10,0	142	95	80
VV217-8D-0500	5,0	6,0	95	57	48	VV217-8D-0910	9,1	10,0	142	95	80
VV217-8D-0510	5,1	6,0	95	57	48	VV217-8D-0920	9,2	10,0	142	95	80
VV217-8D-0520	5,2	6,0	95	57	48	VV217-8D-0930	9,3	10,0	142	95	80
VV217-8D-0530	5,3	6,0	95	57	48	VV217-8D-0940	9,4	10,0	142	95	80
VV217-8D-0540	5,4	6,0	95	57	48	VV217-8D-0950	9,5	10,0	142	95	80
VV217-8D-0550	5,5	6,0	95	57	48	VV217-8D-0960	9,6	10,0	142	95	80
VV217-8D-0560	5,6	6,0	95	57	48	VV217-8D-0970	9,7	10,0	142	95	80
VV217-8D-0570	5,7	6,0	95	57	48	VV217-8D-0980	9,8	10,0	142	95	80
VV217-8D-0580	5,8	6,0	95	57	48	VV217-8D-0990	9,9	10,0	142	95	80
VV217-8D-0590	5,9	6,0	95	57	48	VV217-8D-1000	10,0	10,0	142	95	80
VV217-8D-0600	6,0	6,0	95	57	48	VV217-8D-1020	10,2	12,0	162	114	96
VV217-8D-0610	6,1	8,0	114	76	64	VV217-8D-1050	10,5	12,0	162	114	96
VV217-8D-0620	6,2	8,0	114	76	64	VV217-8D-1080	10,8	12,0	162	114	96
VV217-8D-0630	6,3	8,0	114	76	64	VV217-8D-1100	11,0	12,0	162	114	96
VV217-8D-0640	6,4	8,0	114	76	64	VV217-8D-1150	11,5	12,0	162	114	96
VV217-8D-0650	6,5	8,0	114	76	64	VV217-8D-1180	11,8	12,0	162	114	96
VV217-8D-0660	6,6	8,0	114	76	64	VV217-8D-1200	12,0	12,0	162	114	96
VV217-8D-0670	6,7	8,0	114	76	64	VV217-8D-1250	12,5	14,0	178	133	112
VV217-8D-0680	6,8	8,0	114	76	64	VV217-8D-1280	12,8	14,0	178	133	112
VV217-8D-0690	6,9	8,0	114	76	64	VV217-8D-1300	13,0	14,0	178	133	112
VV217-8D-0700	7,0	8,0	114	76	64	VV217-8D-1350	13,5	14,0	178	133	112

Speed-Drill S4

VV217-8D

8xD



Provedení:

Šroubovice:	30°
Úhel špičky:	140°
Počet fazetek:	4
Tvrdokov:	jemnozrný 8-10% Co
Povlak:	GTX
Chlazení:	vnitřní



Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV217-8D-1380	13,8	14,0	178	133	112
VV217-8D-1400	14,0	14,0	178	133	112
VV217-8D-1450	14,5	16,0	203	152	128
VV217-8D-1480	14,8	16,0	203	152	128
VV217-8D-1500	15,0	16,0	203	152	128
VV217-8D-1550	15,5	16,0	203	152	128
VV217-8D-1580	15,8	16,0	203	152	128
VV217-8D-1600	16,0	16,0	203	152	128
VV217-8D-1650	16,5	18,0	222	171	144
VV217-8D-1680	16,8	18,0	222	171	144

Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV217-8D-1700	17,0	18,0	222	171	144
VV217-8D-1750	17,5	18,0	222	171	144
VV217-8D-1780	17,8	18,0	222	171	144
VV217-8D-1800	18,0	18,0	222	171	144
VV217-8D-1850	18,5	20,0	243	190	160
VV217-8D-1880	18,8	20,0	243	190	160
VV217-8D-1900	19,0	20,0	243	190	160
VV217-8D-1950	19,5	20,0	243	190	160
VV217-8D-1980	19,8	20,0	243	190	160
VV217-8D-2000	20,0	20,0	243	190	160

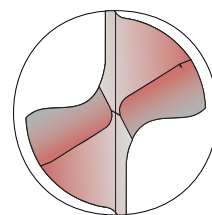
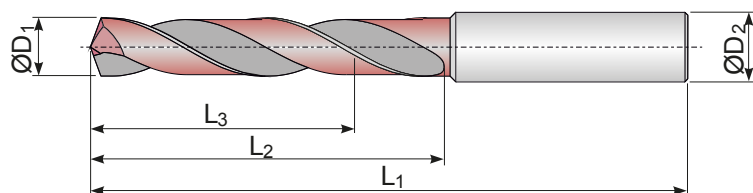
Doporučené řezné podmínky pro vrtáky: S2 VV210; S4 VV217

Materiál	Pevnost	Označení	Řezná rychlost [m/min]	Posuv [mm/ot]						
				Ø6	Ø8	Ø10	Ø12	Ø16	Ø20	
P Nelegovaná ocel, ocelolitina	< 600 N/mm ²	St37, C22, GS38	100-120	0,15	0,20	0,25	0,30	0,36	0,40	
	< 700 N/mm ²	St52, C35, GS52	90-110	0,15	0,20	0,25	0,30	0,36	0,40	
	> 700 N/mm ²	St70, C45, GS62	80-100	0,15	0,20	0,25	0,30	0,36	0,40	
	Legovaná ocel	< 900 N/mm ²	16MnCr5, 42CrMo4	80-95	0,15	0,20	0,25	0,30	0,36	0,40
		< 1000 N/mm ²	90MnCrV8, 100Cr6	65-80	0,14	0,18	0,22	0,26	0,30	0,35
		> 1000 N/mm ²	X210CM2, 34CrAJNi7	45-65	0,12	0,16	0,20	0,24	0,30	0,35
K Šedá litina, legovaná litina	< 200 HB	GG20, GG25, GTS45	100-130	0,22	0,28	0,34	0,38	0,44	0,50	
	< 250 HB	GG30, GTW40	90-120	0,20	0,25	0,30	0,35	0,40	0,45	
	> 250 HB	GG40, GTS70	80-100	0,20	0,25	0,30	0,35	0,40	0,45	
	Tvárná litina, spec. litiny CGI	< 600 N/mm ²	GGG40, GGG50	90-120	0,20	0,25	0,30	0,35	0,40	0,45
		> 600 N/mm ²	GGG60, GGV (CGI)	70-90	0,18	0,22	0,25	0,30	0,35	0,40

Speed-Drill X2

VV170-3D

3xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdkov: jemnozrný 10-12% Co
 Povlak: GTX
 Chlazení: vnější
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)

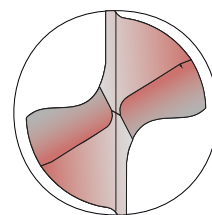
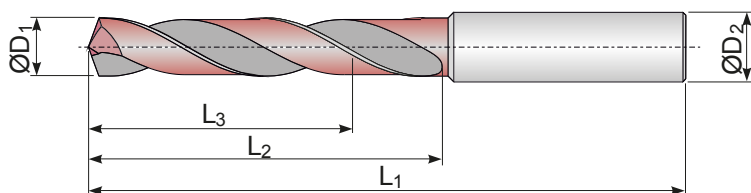


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV170-3D-0300	3,0	6,0	62	20	14	VV170-3D-0690	6,9	8,0	79	34	24
VV170-3D-0310	3,1	6,0	62	20	14	VV170-3D-0700	7,0	8,0	79	34	24
VV170-3D-0320	3,2	6,0	62	20	14	VV170-3D-0710	7,1	8,0	79	41	29
VV170-3D-0330	3,3	6,0	62	20	14	VV170-3D-0720	7,2	8,0	79	41	29
VV170-3D-0340	3,4	6,0	62	20	14	VV170-3D-0730	7,3	8,0	79	41	29
VV170-3D-0350	3,5	6,0	62	20	14	VV170-3D-0740	7,4	8,0	79	41	29
VV170-3D-0360	3,6	6,0	62	20	14	VV170-3D-0750	7,5	8,0	79	41	29
VV170-3D-0370	3,7	6,0	62	20	14	VV170-3D-0760	7,6	8,0	79	41	29
VV170-3D-0380	3,8	6,0	66	24	17	VV170-3D-0770	7,7	8,0	79	41	29
VV170-3D-0390	3,9	6,0	66	24	17	VV170-3D-0780	7,8	8,0	79	41	29
VV170-3D-0400	4,0	6,0	66	24	17	VV170-3D-0790	7,9	8,0	79	41	29
VV170-3D-0410	4,1	6,0	66	24	17	VV170-3D-0800	8,0	8,0	79	41	29
VV170-3D-0420	4,2	6,0	66	24	17	VV170-3D-0810	8,1	10,0	89	47	35
VV170-3D-0430	4,3	6,0	66	24	17	VV170-3D-0820	8,2	10,0	89	47	35
VV170-3D-0440	4,4	6,0	66	24	17	VV170-3D-0830	8,3	10,0	89	47	35
VV170-3D-0450	4,5	6,0	66	24	17	VV170-3D-0840	8,4	10,0	89	47	35
VV170-3D-0460	4,6	6,0	66	24	17	VV170-3D-0850	8,5	10,0	89	47	35
VV170-3D-0465	4,65	6,0	66	24	17	VV170-3D-0860	8,6	10,0	89	47	35
VV170-3D-0470	4,7	6,0	66	24	17	VV170-3D-0870	8,7	10,0	89	47	35
VV170-3D-0480	4,8	6,0	66	28	20	VV170-3D-0880	8,8	10,0	89	47	35
VV170-3D-0490	4,9	6,0	66	28	20	VV170-3D-0890	8,9	10,0	89	47	35
VV170-3D-0500	5,0	6,0	66	28	20	VV170-3D-0900	9,0	10,0	89	47	35
VV170-3D-0510	5,1	6,0	66	28	20	VV170-3D-0910	9,1	10,0	89	47	35
VV170-3D-0520	5,2	6,0	66	28	20	VV170-3D-0920	9,2	10,0	89	47	35
VV170-3D-0530	5,3	6,0	66	28	20	VV170-3D-0925	9,25	10,0	89	47	35
VV170-3D-0540	5,4	6,0	66	28	20	VV170-3D-0930	9,3	10,0	89	47	35
VV170-3D-0550	5,5	6,0	66	28	20	VV170-3D-0940	9,4	10,0	89	47	35
VV170-3D-0555	5,55	6,0	66	28	20	VV170-3D-0950	9,5	10,0	89	47	35
VV170-3D-0560	5,6	6,0	66	28	20	VV170-3D-0960	9,6	10,0	89	47	35
VV170-3D-0570	5,7	6,0	66	28	20	VV170-3D-0970	9,7	10,0	89	47	35
VV170-3D-0580	5,8	6,0	66	28	20	VV170-3D-0980	9,8	10,0	89	47	35
VV170-3D-0590	5,9	6,0	66	28	20	VV170-3D-0990	9,9	10,0	89	47	35
VV170-3D-0600	6,0	6,0	66	28	20	VV170-3D-1000	10,0	10,0	89	47	35
VV170-3D-0610	6,1	8,0	79	34	24	VV170-3D-1020	10,2	12,0	102	55	40
VV170-3D-0620	6,2	8,0	79	34	24	VV170-3D-1050	10,5	12,0	102	55	40
VV170-3D-0630	6,3	8,0	79	34	24	VV170-3D-1080	10,8	12,0	102	55	40
VV170-3D-0640	6,4	8,0	79	34	24	VV170-3D-1100	11,0	12,0	102	55	40
VV170-3D-0650	6,5	8,0	79	34	24	VV170-3D-1150	11,5	12,0	102	55	40
VV170-3D-0660	6,6	8,0	79	34	24	VV170-3D-1180	11,8	12,0	102	55	40
VV170-3D-0670	6,7	8,0	79	34	24	VV170-3D-1200	12,0	12,0	102	55	40
VV170-3D-0680	6,8	8,0	79	34	24	VV170-3D-1250	12,5	14,0	107	60	43

Speed-Drill X2

VV170-3D

3xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdkov: jemnozrný 10-12% Co
 Povlak: GTX
 Chlazení: vnější
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)



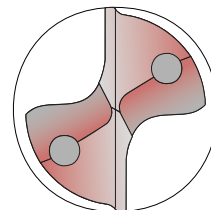
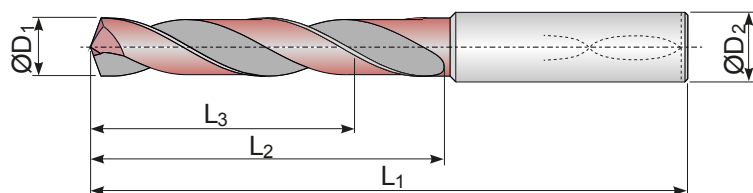
Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV170-3D-1280	12,8	14,0	107	60	43
VV170-3D-1300	13,0	14,0	107	60	43
VV170-3D-1350	13,5	14,0	107	60	43
VV170-3D-1380	13,8	14,0	107	60	43
VV170-3D-1400	14,0	14,0	107	60	43
VV170-3D-1450	14,5	16,0	115	65	45
VV170-3D-1480	14,8	16,0	115	65	45
VV170-3D-1500	15,0	16,0	115	65	45
VV170-3D-1550	15,5	16,0	115	65	45
VV170-3D-1580	15,8	16,0	115	65	45
VV170-3D-1600	16,0	16,0	115	65	45
VV170-3D-1650	16,5	18,0	123	73	51
VV170-3D-1680	16,8	18,0	123	73	51
VV170-3D-1700	17,0	18,0	123	73	51
VV170-3D-1750	17,5	18,0	123	73	51
VV170-3D-1780	17,8	18,0	123	73	51
VV170-3D-1800	18,0	18,0	123	73	51
VV170-3D-1850	18,5	20,0	131	79	55
VV170-3D-1880	18,8	20,0	131	79	55
VV170-3D-1900	19,0	20,0	131	79	55
VV170-3D-1950	19,5	20,0	131	79	55
VV170-3D-1980	19,8	20,0	131	79	55
VV170-3D-2000	20,0	20,0	131	79	55



Speed-Drill X2

VV180-3D

3xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdokov: jemnozrný 10-12% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)

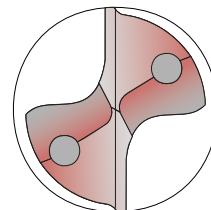
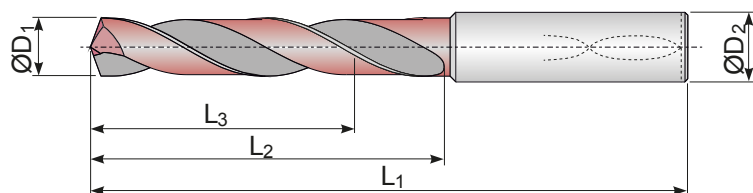


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV180-3D-0300	3,0	6,0	62	20	14	VV180-3D-0690	6,9	8,0	79	34	24
VV180-3D-0310	3,1	6,0	62	20	14	VV180-3D-0700	7,0	8,0	79	34	24
VV180-3D-0320	3,2	6,0	62	20	14	VV180-3D-0710	7,1	8,0	79	41	29
VV180-3D-0330	3,3	6,0	62	20	14	VV180-3D-0720	7,2	8,0	79	41	29
VV180-3D-0340	3,4	6,0	62	20	14	VV180-3D-0730	7,3	8,0	79	41	29
VV180-3D-0350	3,5	6,0	62	20	14	VV180-3D-0740	7,4	8,0	79	41	29
VV180-3D-0360	3,6	6,0	62	20	14	VV180-3D-0750	7,5	8,0	79	41	29
VV180-3D-0370	3,7	6,0	62	20	14	VV180-3D-0760	7,6	8,0	79	41	29
VV180-3D-0380	3,8	6,0	66	24	17	VV180-3D-0770	7,7	8,0	79	41	29
VV180-3D-0390	3,9	6,0	66	24	17	VV180-3D-0780	7,8	8,0	79	41	29
VV180-3D-0400	4,0	6,0	66	24	17	VV180-3D-0790	7,9	8,0	79	41	29
VV180-3D-0410	4,1	6,0	66	24	17	VV180-3D-0800	8,0	8,0	79	41	29
VV180-3D-0420	4,2	6,0	66	24	17	VV180-3D-0810	8,1	10,0	89	47	35
VV180-3D-0430	4,3	6,0	66	24	17	VV180-3D-0820	8,2	10,0	89	47	35
VV180-3D-0440	4,4	6,0	66	24	17	VV180-3D-0830	8,3	10,0	89	47	35
VV180-3D-0450	4,5	6,0	66	24	17	VV180-3D-0840	8,4	10,0	89	47	35
VV180-3D-0460	4,6	6,0	66	24	17	VV180-3D-0850	8,5	10,0	89	47	35
VV180-3D-0465	4,65	6,0	66	24	17	VV180-3D-0860	8,6	10,0	89	47	35
VV180-3D-0470	4,7	6,0	66	24	17	VV180-3D-0870	8,7	10,0	89	47	35
VV180-3D-0480	4,8	6,0	66	28	20	VV180-3D-0880	8,8	10,0	89	47	35
VV180-3D-0490	4,9	6,0	66	28	20	VV180-3D-0890	8,9	10,0	89	47	35
VV180-3D-0500	5,0	6,0	66	28	20	VV180-3D-0900	9,0	10,0	89	47	35
VV180-3D-0510	5,1	6,0	66	28	20	VV180-3D-0910	9,1	10,0	89	47	35
VV180-3D-0520	5,2	6,0	66	28	20	VV180-3D-0920	9,2	10,0	89	47	35
VV180-3D-0530	5,3	6,0	66	28	20	VV180-3D-0925	9,25	10,0	89	47	35
VV180-3D-0540	5,4	6,0	66	28	20	VV180-3D-0930	9,3	10,0	89	47	35
VV180-3D-0550	5,5	6,0	66	28	20	VV180-3D-0940	9,4	10,0	89	47	35
VV180-3D-0555	5,55	6,0	66	28	20	VV180-3D-0950	9,5	10,0	89	47	35
VV180-3D-0560	5,6	6,0	66	28	20	VV180-3D-0960	9,6	10,0	89	47	35
VV180-3D-0570	5,7	6,0	66	28	20	VV180-3D-0970	9,7	10,0	89	47	35
VV180-3D-0580	5,8	6,0	66	28	20	VV180-3D-0980	9,8	10,0	89	47	35
VV180-3D-0590	5,9	6,0	66	28	20	VV180-3D-0990	9,9	10,0	89	47	35
VV180-3D-0600	6,0	6,0	66	28	20	VV180-3D-1000	10,0	10,0	89	47	35
VV180-3D-0610	6,1	8,0	79	34	24	VV180-3D-1010	10,1	12,0	102	55	40
VV180-3D-0620	6,2	8,0	79	34	24	VV180-3D-1020	10,2	12,0	102	55	40
VV180-3D-0630	6,3	8,0	79	34	24	VV180-3D-1030	10,3	12,0	102	55	40
VV180-3D-0640	6,4	8,0	79	34	24	VV180-3D-1040	10,4	12,0	102	55	40
VV180-3D-0650	6,5	8,0	79	34	24	VV180-3D-1050	10,5	12,0	102	55	40
VV180-3D-0660	6,6	8,0	79	34	24	VV180-3D-1060	10,6	12,0	102	55	40
VV180-3D-0670	6,7	8,0	79	34	24	VV180-3D-1070	10,7	12,0	102	55	40
VV180-3D-0680	6,8	8,0	79	34	24	VV180-3D-1080	10,8	12,0	102	55	40

Speed-Drill X2

VV180-3D

3xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdokov: jemnozrný 10-12% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)

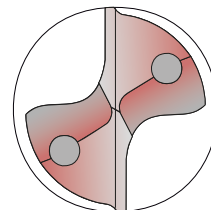
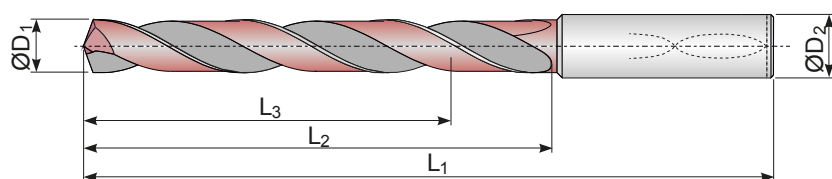


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV180-3D-1090	10,9	12,0	102	55	40
VV180-3D-1100	11,0	12,0	102	55	40
VV180-3D-1110	11,1	12,0	102	55	40
VV180-3D-1120	11,2	12,0	102	55	40
VV180-3D-1130	11,3	12,0	102	55	40
VV180-3D-1140	11,4	12,0	102	55	40
VV180-3D-1150	11,5	12,0	102	55	40
VV180-3D-1160	11,6	12,0	102	55	40
VV180-3D-1170	11,7	12,0	102	55	40
VV180-3D-1180	11,8	12,0	102	55	40
VV180-3D-1190	11,9	12,0	102	55	40
VV180-3D-1200	12,0	12,0	102	55	40
VV180-3D-1250	12,5	14,0	107	60	43
VV180-3D-1280	12,8	14,0	107	60	43
VV180-3D-1300	13,0	14,0	107	60	43
VV180-3D-1350	13,5	14,0	107	60	43
VV180-3D-1380	13,8	14,0	107	60	43
VV180-3D-1400	14,0	14,0	107	60	43
VV180-3D-1450	14,5	16,0	115	65	45
VV180-3D-1480	14,8	16,0	115	65	45
VV180-3D-1500	15,0	16,0	115	65	45
VV180-3D-1550	15,5	16,0	115	65	45
VV180-3D-1580	15,8	16,0	115	65	45
VV180-3D-1600	16,0	16,0	115	65	45
VV180-3D-1650	16,5	18,0	123	73	51
VV180-3D-1680	16,8	18,0	123	73	51
VV180-3D-1700	17,0	18,0	123	73	51
VV180-3D-1750	17,5	18,0	123	73	51
VV180-3D-1780	17,8	18,0	123	73	51
VV180-3D-1800	18,0	18,0	123	73	51
VV180-3D-1850	18,5	20,0	131	79	55
VV180-3D-1880	18,8	20,0	131	79	55
VV180-3D-1900	19,0	20,0	131	79	55
VV180-3D-1950	19,5	20,0	131	79	55
VV180-3D-1980	19,8	20,0	131	79	55
VV180-3D-2000	20,0	20,0	131	79	55

Speed-Drill X2

VV180-5D

5xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdkov: jemnozrný 10-12% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)

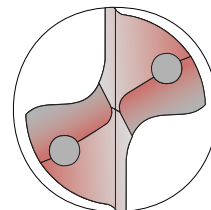
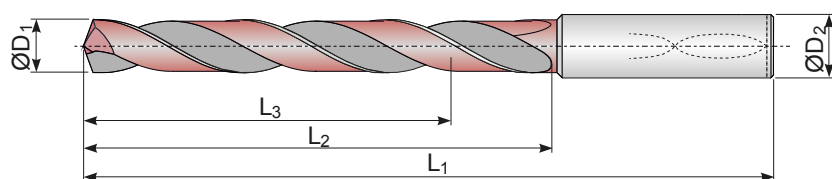


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV180-5D-0300	3,0	6,0	66	28	23	VV180-5D-0710	7,1	8,0	91	53	43
VV180-5D-0310	3,1	6,0	66	28	23	VV180-5D-0720	7,2	8,0	91	53	43
VV180-5D-0320	3,2	6,0	66	28	23	VV180-5D-0730	7,3	8,0	91	53	43
VV180-5D-0330	3,3	6,0	66	28	23	VV180-5D-0740	7,4	8,0	91	53	43
VV180-5D-0340	3,4	6,0	66	28	23	VV180-5D-0750	7,5	8,0	91	53	43
VV180-5D-0350	3,5	6,0	66	28	23	VV180-5D-0760	7,6	8,0	91	53	43
VV180-5D-0360	3,6	6,0	66	28	23	VV180-5D-0770	7,7	8,0	91	53	43
VV180-5D-0370	3,7	6,0	66	28	23	VV180-5D-0780	7,8	8,0	91	53	43
VV180-5D-0380	3,8	6,0	74	36	29	VV180-5D-0790	7,9	8,0	91	53	43
VV180-5D-0390	3,9	6,0	74	36	29	VV180-5D-0800	8,0	8,0	91	53	43
VV180-5D-0400	4,0	6,0	74	36	29	VV180-5D-0810	8,1	10,0	103	61	49
VV180-5D-0410	4,1	6,0	74	36	29	VV180-5D-0820	8,2	10,0	103	61	49
VV180-5D-0420	4,2	6,0	74	36	29	VV180-5D-0830	8,3	10,0	103	61	49
VV180-5D-0430	4,3	6,0	74	36	29	VV180-5D-0840	8,4	10,0	103	61	49
VV180-5D-0440	4,4	6,0	74	36	29	VV180-5D-0850	8,5	10,0	103	61	49
VV180-5D-0450	4,5	6,0	74	36	29	VV180-5D-0860	8,6	10,0	103	61	49
VV180-5D-0460	4,6	6,0	74	36	29	VV180-5D-0870	8,7	10,0	103	61	49
VV180-5D-0470	4,7	6,0	74	36	29	VV180-5D-0880	8,8	10,0	103	61	49
VV180-5D-0480	4,8	6,0	82	44	35	VV180-5D-0890	8,9	10,0	103	61	49
VV180-5D-0490	4,9	6,0	82	44	35	VV180-5D-0900	9,0	10,0	103	61	49
VV180-5D-0500	5,0	6,0	82	44	35	VV180-5D-0910	9,1	10,0	103	61	49
VV180-5D-0510	5,1	6,0	82	44	35	VV180-5D-0920	9,2	10,0	103	61	49
VV180-5D-0520	5,2	6,0	82	44	35	VV180-5D-0930	9,3	10,0	103	61	49
VV180-5D-0530	5,3	6,0	82	44	35	VV180-5D-0940	9,4	10,0	103	61	49
VV180-5D-0540	5,4	6,0	82	44	35	VV180-5D-0950	9,5	10,0	103	61	49
VV180-5D-0550	5,5	6,0	82	44	35	VV180-5D-0960	9,6	10,0	103	61	49
VV180-5D-0560	5,6	6,0	82	44	35	VV180-5D-0970	9,7	10,0	103	61	49
VV180-5D-0570	5,7	6,0	82	44	35	VV180-5D-0980	9,8	10,0	103	61	49
VV180-5D-0580	5,8	6,0	82	44	35	VV180-5D-0990	9,9	10,0	103	61	49
VV180-5D-0590	5,9	6,0	82	44	35	VV180-5D-1000	10,0	10,0	103	61	49
VV180-5D-0600	6,0	6,0	82	44	35	VV180-5D-1010	10,1	12,0	118	71	56
VV180-5D-0610	6,1	8,0	91	53	43	VV180-5D-1020	10,2	12,0	118	71	56
VV180-5D-0620	6,2	8,0	91	53	43	VV180-5D-1030	10,3	12,0	118	71	56
VV180-5D-0630	6,3	8,0	91	53	43	VV180-5D-1040	10,4	12,0	118	71	56
VV180-5D-0640	6,4	8,0	91	53	43	VV180-5D-1050	10,5	12,0	118	71	56
VV180-5D-0650	6,5	8,0	91	53	43	VV180-5D-1060	10,6	12,0	118	71	56
VV180-5D-0660	6,6	8,0	91	53	43	VV180-5D-1070	10,7	12,0	118	71	56
VV180-5D-0670	6,7	8,0	91	53	43	VV180-5D-1080	10,8	12,0	118	71	56
VV180-5D-0680	6,8	8,0	91	53	43	VV180-5D-1090	10,9	12,0	118	71	56
VV180-5D-0690	6,9	8,0	91	53	43	VV180-5D-1100	11,0	12,0	118	71	56
VV180-5D-0700	7,0	8,0	91	53	43	VV180-5D-1110	11,1	12,0	118	71	56

Speed-Drill X2

VV180-5D

5xD



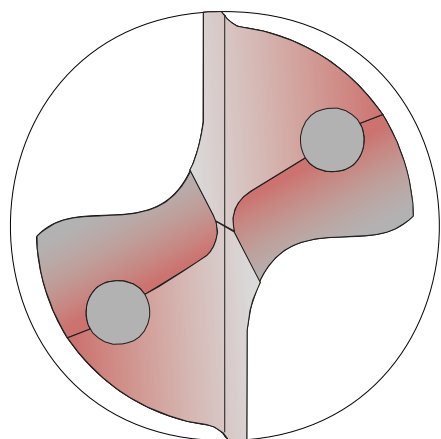
Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Tvrdkov: jemnozrný 10-12% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA
 Na vyžádání: Whistle-Notch-(HE)



Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV180-5D-1120	11,2	12,0	118	71	56
VV180-5D-1130	11,3	12,0	118	71	56
VV180-5D-1140	11,4	12,0	118	71	56
VV180-5D-1150	11,5	12,0	118	71	56
VV180-5D-1160	11,6	12,0	118	71	56
VV180-5D-1170	11,7	12,0	118	71	56
VV180-5D-1180	11,8	12,0	118	71	56
VV180-5D-1190	11,9	12,0	118	71	56
VV180-5D-1200	12,0	12,0	118	71	56
VV180-5D-1250	12,5	14,0	124	77	60
VV180-5D-1280	12,8	14,0	124	77	60
VV180-5D-1300	13,0	14,0	124	77	60
VV180-5D-1350	13,5	14,0	124	77	60
VV180-5D-1380	13,8	14,0	124	77	60
VV180-5D-1400	14,0	14,0	124	77	60
VV180-5D-1450	14,5	16,0	133	83	63
VV180-5D-1480	14,8	16,0	133	83	63
VV180-5D-1500	15,0	16,0	133	83	63
VV180-5D-1550	15,5	16,0	133	83	63
VV180-5D-1580	15,8	16,0	133	83	63
VV180-5D-1600	16,0	16,0	133	83	63
VV180-5D-1650	16,5	18,0	143	93	71
VV180-5D-1680	16,8	18,0	143	93	71
VV180-5D-1700	17,0	18,0	143	93	71
VV180-5D-1750	17,5	18,0	143	93	71
VV180-5D-1780	17,8	18,0	143	93	71
VV180-5D-1800	18,0	18,0	143	93	71
VV180-5D-1850	18,5	20,0	153	101	77
VV180-5D-1880	18,8	20,0	153	101	77
VV180-5D-1900	19,0	20,0	153	101	77
VV180-5D-1950	19,5	20,0	153	101	77
VV180-5D-1980	19,8	20,0	153	101	77
VV180-5D-2000	20,0	20,0	153	101	77

Speed-Drill X2



Hlavní použití: oceli nerezové a kyselinovzdorné, legované oceli nad 1000 N/mm², slitiny legované titanem a niklem

Řezné podmínky

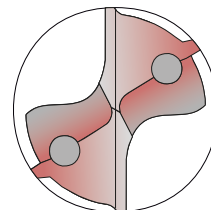
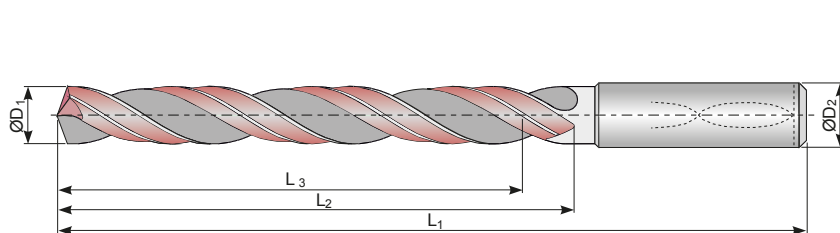
Doporučené řezné podmínky pro vrtáky: X2 VV170 + VV180

Materiál	Pevnost	Označení	Řezná rychlost [m/min]	Posuv [mm/ot]						
				Ø6	Ø8	Ø10	Ø12	Ø16	Ø20	
P	Nelegovaná ocel, ocelolitina	< 600 N/mm ²	St37, C22, GS38	80-100	0,15	0,20	0,25	0,30	0,36	0,40
		< 700 N/mm ²	St52, C35, GS52	70-90	0,15	0,20	0,25	0,30	0,36	0,40
		> 700 N/mm ²	St70, C45, GS62	65-85	0,15	0,20	0,25	0,30	0,36	0,40
	Legovaná ocel	< 900 N/mm ²	16MnCr5,42CrMo4	70-90	0,15	0,20	0,25	0,30	0,36	0,40
		< 1000 N/mm ²	90MnCrV8,100Cr6	65-80	0,14	0,18	0,22	0,26	0,30	0,35
		> 1000 N/mm ²	X210CM2, 34CrAJNi7	45-65	0,12	0,16	0,20	0,24	0,30	0,35
M	Nerezová ocel	X5CrNi 18 9(V2A) X10CrNiMoTM810	30-60	0,10	0,12	0,14	0,16	0,20	0,28	
K	Šedá litina, legovaná litina	< 200 HB	GG20, GG25, GTS45	80-100	0,22	0,28	0,34	0,38	0,44	0,50
		< 250 HB	GG30, GTW40	70-90	0,20	0,25	0,30	0,35	0,40	0,45
		> 250 HB	GG40, GTS70	65-85	0,20	0,25	0,30	0,35	0,40	0,45
	Tvárná litina, spec. litiny CGI	< 600 N/mm ²	GGG40, GGG50	70-90	0,20	0,25	0,30	0,35	0,40	0,45
		> 600 N/mm ²	GGG60, GGV (CGI)	65-80	0,18	0,22	0,25	0,30	0,35	0,40
N	Slitiny hliníku	AlCuMgPb, AlMgSi 0.5	180-250	0,18	0,24	0,30	0,35	0,40	0,50	
	Slitiny hliníku (Si < 10%)	AlSi9Cu3, AlSi7Mg0.6	180-250	0,18	0,24	0,30	0,35	0,40	0,50	
	Slitiny hliníku (Si > 10%)	GB.AISI12(Cu)	160-220	0,18	0,24	0,30	0,35	0,40	0,50	
	Med', mosaz, bronz		120-200	0,18	0,24	0,30	0,35	0,40	0,50	
S	Titanem legované slitiny	Ti6Al4V	20-50	0,10	0,12	0,14	0,16	0,20	0,25	
	Niklem legované slitiny	Inconel, Monel, Hasteloy	20-45	0,10	0,12	0,14	0,16	0,18	0,25	

Speed-Drill X4

VV187-8D

8xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdkov: jemnozrný 10-12% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA

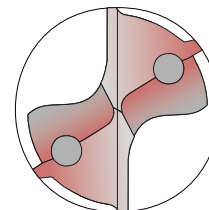
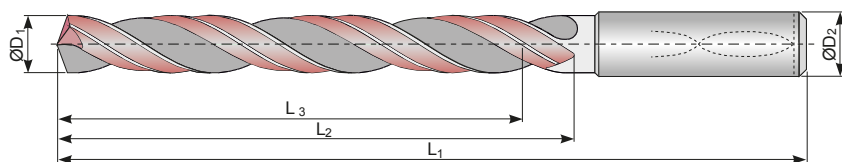


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV187-8D-0300	3,0	6,0	72	34	29	VV187-8D-0710	7,1	8,0	114	76	64
VV187-8D-0310	3,1	6,0	72	34	29	VV187-8D-0720	7,2	8,0	114	76	64
VV187-8D-0320	3,2	6,0	72	34	29	VV187-8D-0730	7,3	8,0	114	76	64
VV187-8D-0330	3,3	6,0	72	34	29	VV187-8D-0740	7,4	8,0	114	76	64
VV187-8D-0340	3,4	6,0	72	34	29	VV187-8D-0750	7,5	8,0	114	76	64
VV187-8D-0350	3,5	6,0	72	34	29	VV187-8D-0760	7,6	8,0	114	76	64
VV187-8D-0360	3,6	6,0	72	34	29	VV187-8D-0770	7,7	8,0	114	76	64
VV187-8D-0370	3,7	6,0	72	34	29	VV187-8D-0780	7,8	8,0	114	76	64
VV187-8D-0380	3,8	6,0	81	43	36	VV187-8D-0790	7,9	8,0	114	76	64
VV187-8D-0390	3,9	6,0	81	43	36	VV187-8D-0800	8,0	8,0	114	76	64
VV187-8D-0400	4,0	6,0	81	43	36	VV187-8D-0810	8,1	10,0	142	95	80
VV187-8D-0410	4,1	6,0	81	43	36	VV187-8D-0820	8,2	10,0	142	95	80
VV187-8D-0420	4,2	6,0	81	43	36	VV187-8D-0830	8,3	10,0	142	95	80
VV187-8D-0430	4,3	6,0	81	43	36	VV187-8D-0840	8,4	10,0	142	95	80
VV187-8D-0440	4,4	6,0	81	43	36	VV187-8D-0850	8,5	10,0	142	95	80
VV187-8D-0450	4,5	6,0	81	43	36	VV187-8D-0860	8,6	10,0	142	95	80
VV187-8D-0460	4,6	6,0	81	43	36	VV187-8D-0870	8,7	10,0	142	95	80
VV187-8D-0470	4,7	6,0	81	43	36	VV187-8D-0880	8,8	10,0	142	95	80
VV187-8D-0480	4,8	6,0	95	57	48	VV187-8D-0890	8,9	10,0	142	95	80
VV187-8D-0490	4,9	6,0	95	57	48	VV187-8D-0900	9,0	10,0	142	95	80
VV187-8D-0500	5,0	6,0	95	57	48	VV187-8D-0910	9,1	10,0	142	95	80
VV187-8D-0510	5,1	6,0	95	57	48	VV187-8D-0920	9,2	10,0	142	95	80
VV187-8D-0520	5,2	6,0	95	57	48	VV187-8D-0930	9,3	10,0	142	95	80
VV187-8D-0530	5,3	6,0	95	57	48	VV187-8D-0940	9,4	10,0	142	95	80
VV187-8D-0540	5,4	6,0	95	57	48	VV187-8D-0950	9,5	10,0	142	95	80
VV187-8D-0550	5,5	6,0	95	57	48	VV187-8D-0960	9,6	10,0	142	95	80
VV187-8D-0560	5,6	6,0	95	57	48	VV187-8D-0970	9,7	10,0	142	95	80
VV187-8D-0570	5,7	6,0	95	57	48	VV187-8D-0980	9,8	10,0	142	95	80
VV187-8D-0580	5,8	6,0	95	57	48	VV187-8D-0990	9,9	10,0	142	95	80
VV187-8D-0590	5,9	6,0	95	57	48	VV187-8D-1000	10,0	10,0	142	95	80
VV187-8D-0600	6,0	6,0	95	57	48	VV187-8D-1020	10,2	12,0	162	114	96
VV187-8D-0610	6,1	8,0	114	76	64	VV187-8D-1050	10,5	12,0	162	114	96
VV187-8D-0620	6,2	8,0	114	76	64	VV187-8D-1080	10,8	12,0	162	114	96
VV187-8D-0630	6,3	8,0	114	76	64	VV187-8D-1100	11,0	12,0	162	114	96
VV187-8D-0640	6,4	8,0	114	76	64	VV187-8D-1150	11,5	12,0	162	114	96
VV187-8D-0650	6,5	8,0	114	76	64	VV187-8D-1180	11,8	12,0	162	114	96
VV187-8D-0660	6,6	8,0	114	76	64	VV187-8D-1200	12,0	12,0	162	114	96
VV187-8D-0670	6,7	8,0	114	76	64	VV187-8D-1250	12,5	14,0	178	133	112
VV187-8D-0680	6,8	8,0	114	76	64	VV187-8D-1280	12,8	14,0	178	133	112
VV187-8D-0690	6,9	8,0	114	76	64	VV187-8D-1300	13,0	14,0	178	133	112
VV187-8D-0700	7,0	8,0	114	76	64	VV187-8D-1350	13,5	14,0	178	133	112

Speed-Drill X4

VV187-8D

8xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdkov: jemnozrný 10-12% Co
 Povlak: GTX
 Chlazení: vnitřní
 Upínací stopka: DIN 6535 HA

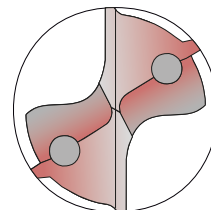
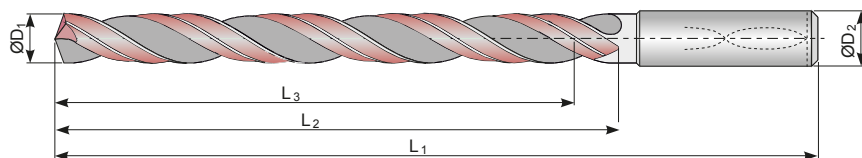


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV187-8D-1380	13,8	14,0	178	133	112
VV187-8D-1400	14,0	14,0	178	133	112
VV187-8D-1450	14,5	16,0	203	152	128
VV187-8D-1480	14,8	16,0	203	152	128
VV187-8D-1500	15,0	16,0	203	152	128
VV187-8D-1550	15,5	16,0	203	152	128
VV187-8D-1580	15,8	16,0	203	152	128
VV187-8D-1600	16,0	16,0	203	152	128
VV187-8D-1650	16,5	18,0	222	171	144
VV187-8D-1680	16,8	18,0	222	171	144
VV187-8D-1700	17,0	18,0	222	171	144
VV187-8D-1750	17,5	18,0	222	171	144
VV187-8D-1780	17,8	18,0	222	171	144
VV187-8D-1800	18,0	18,0	222	171	144
VV187-8D-1850	18,5	20,0	243	190	160
VV187-8D-1880	18,8	20,0	243	190	160
VV187-8D-1900	19,0	20,0	243	190	160
VV187-8D-1950	19,5	20,0	243	190	160
VV187-8D-1980	19,8	20,0	243	190	160
VV187-8D-2000	20,0	20,0	243	190	160

Speed-Drill X4

VV187-12D

12xD



Provedení:

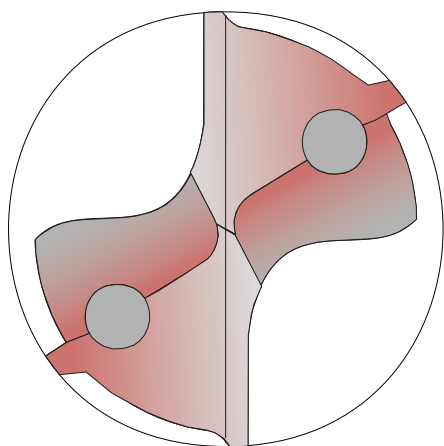
Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdkov: jemnozrný 10-12% Co
 Povlak: GTX
 Chlazení: Vnitřní
 Upínací stopka: DIN 6535 HA



Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV187-12D-0300	3,0	6,0	92	54	48
VV187-12D-0350	3,5	6,0	92	54	48
VV187-12D-0400	4,0	6,0	102	64	58
VV187-12D-0450	4,5	6,0	102	64	58
VV187-12D-0500	5,0	6,0	116	78	70
VV187-12D-0550	5,5	6,0	116	78	70
VV187-12D-0600	6,0	6,0	116	78	70
VV187-12D-0650	6,5	8,0	146	108	94
VV187-12D-0700	7,0	8,0	146	108	94
VV187-12D-0750	7,5	8,0	146	108	94
VV187-12D-0800	8,0	8,0	146	108	94
VV187-12D-0850	8,5	10,0	162	120	110
VV187-12D-0900	9,0	10,0	162	120	110
VV187-12D-0950	9,5	10,0	162	120	110
VV187-12D-1000	10,0	10,0	162	120	110
VV187-12D-1100	11,0	12,0	204	156	142
VV187-12D-1200	12,0	12,0	204	156	142

Jiné rozměry do Ø20 na poptávku

Speed-Drill X4



Hlavní použití: oceli nerezové a kyselinovzdorné, legované oceli nad 1000 N/mm², slitiny legované titanem a niklem

Řezné podmínky

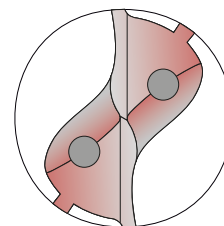
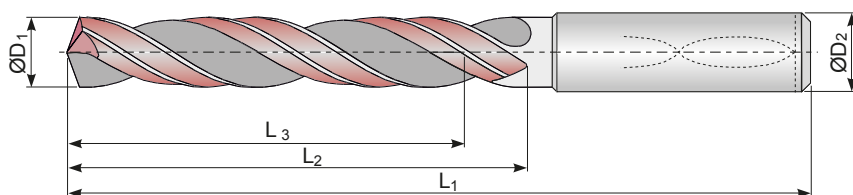
Doporučené řezné podmínky pro vrtáky: X4 VV187

Materiál	Pevnost	Označení	Řezná rychlost [m/min]	Posuv [mm/ot]						
				Ø6	Ø8	Ø10	Ø12	Ø16	Ø20	
P	Nelegovaná ocel, ocelolitina	< 600 N/mm ²	St37, C22, GS38	60-80	0,15	0,20	0,25	0,30	0,36	0,40
		< 700 N/mm ²	St52, C35, GS52	60-80	0,15	0,20	0,25	0,30	0,36	0,40
		> 700 N/mm ²	St70, C45, GS62	55-75	0,15	0,20	0,25	0,30	0,36	0,40
	Legovaná ocel	< 900 N/mm ²	16MnCr5,42CrMo4	50-70	0,15	0,20	0,25	0,30	0,36	0,40
		< 1000 N/mm ²	90MnCrV8, 100Cr6	50-70	0,14	0,18	0,22	0,26	0,30	0,35
		> 1000 N/mm ²	X210CM2, 34CrAJNi7	40-60	0,12	0,16	0,20	0,24	0,30	0,35
M	Nerezová ocel	X5CrNi 18 9(V2A) X10CrNiMoTM810	25-50	0,10	0,12	0,14	0,16	0,20	0,28	
K	Šedá litina, legovaná litina	< 200 HB	GG20, GG25, GTS45	70-90	0,22	0,28	0,34	0,38	0,44	0,50
		< 250 HB	GG30, GTW40	60-80	0,20	0,25	0,30	0,35	0,40	0,45
		> 250 HB	GG40, GTS70	55-75	0,20	0,25	0,30	0,35	0,40	0,45
	Tvárná litina, spec. slitiny CGI	< 600 N/mm ²	GGG40, GGG50	60-75	0,20	0,25	0,30	0,35	0,40	0,45
		> 600 N/mm ²	GGG60, GGV (CGI)	50-65	0,18	0,22	0,25	0,30	0,35	0,40
N	Slitiny hliníku	AlCuMgPb, AlMgSi0.5	120-200	0,18	0,24	0,30	0,35	0,40	0,50	
	Slitiny hliníku (Si < 10%)	AlSi9Cu3, AlSi7Mg0.6	120-200	0,18	0,24	0,30	0,35	0,40	0,50	
	Slitiny hliníku (Si > 10%)	GB.AISI12(Cu)	100-180	0,18	0,24	0,30	0,35	0,40	0,50	
	Med', mosaz, bronz		80-150	0,18	0,24	0,30	0,35	0,40	0,50	
S	Titanem legované slitiny	Ti6Al4V	20-35	0,08	0,12	0,14	0,16	0,20	0,25	
	Niklem legované slitiny	Inconel, Monel, Hasteloy	20-30	0,07	0,10	0,12	0,15	0,18	0,22	

Speed-Drill A4

VV287-5D

5xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdkov: jemnozrný 6-8% Co
 Povlak: bez povlaku,
 leštěné drážky pro odvod třísek
 Chlazení: vnitřní

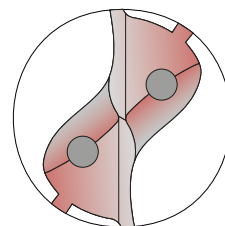
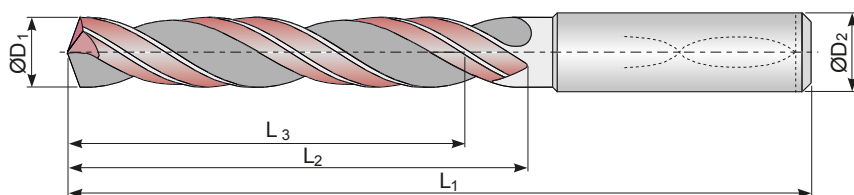


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV287-5D-0300	3,0	6,0	66	28	23	VV287-5D-0710	7,1	8,0	91	53	43
VV287-5D-0310	3,1	6,0	66	28	23	VV287-5D-0720	7,2	8,0	91	53	43
VV287-5D-0320	3,2	6,0	66	28	23	VV287-5D-0730	7,3	8,0	91	53	43
VV287-5D-0330	3,3	6,0	66	28	23	VV287-5D-0740	7,4	8,0	91	53	43
VV287-5D-0340	3,4	6,0	66	28	23	VV287-5D-0750	7,5	8,0	91	53	43
VV287-5D-0350	3,5	6,0	66	28	23	VV287-5D-0760	7,6	8,0	91	53	43
VV287-5D-0360	3,6	6,0	66	28	23	VV287-5D-0770	7,7	8,0	91	53	43
VV287-5D-0370	3,7	6,0	66	28	23	VV287-5D-0780	7,8	8,0	91	53	43
VV287-5D-0380	3,8	6,0	74	36	29	VV287-5D-0790	7,9	8,0	91	53	43
VV287-5D-0390	3,9	6,0	74	36	29	VV287-5D-0800	8,0	8,0	91	53	43
VV287-5D-0400	4,0	6,0	74	36	29	VV287-5D-0810	8,1	10,0	103	61	49
VV287-5D-0410	4,1	6,0	74	36	29	VV287-5D-0820	8,2	10,0	103	61	49
VV287-5D-0420	4,2	6,0	74	36	29	VV287-5D-0830	8,3	10,0	103	61	49
VV287-5D-0430	4,3	6,0	74	36	29	VV287-5D-0840	8,4	10,0	103	61	49
VV287-5D-0440	4,4	6,0	74	36	29	VV287-5D-0850	8,5	10,0	103	61	49
VV287-5D-0450	4,5	6,0	74	36	29	VV287-5D-0860	8,6	10,0	103	61	49
VV287-5D-0460	4,6	6,0	74	36	29	VV287-5D-0870	8,7	10,0	103	61	49
VV287-5D-0470	4,7	6,0	74	36	29	VV287-5D-0880	8,8	10,0	103	61	49
VV287-5D-0480	4,8	6,0	82	44	35	VV287-5D-0890	8,9	10,0	103	61	49
VV287-5D-0490	4,9	6,0	82	44	35	VV287-5D-0900	9,0	10,0	103	61	49
VV287-5D-0500	5,0	6,0	82	44	35	VV287-5D-0910	9,1	10,0	103	61	49
VV287-5D-0510	5,1	6,0	82	44	35	VV287-5D-0920	9,2	10,0	103	61	49
VV287-5D-0520	5,2	6,0	82	44	35	VV287-5D-0930	9,3	10,0	103	61	49
VV287-5D-0530	5,3	6,0	82	44	35	VV287-5D-0940	9,4	10,0	103	61	49
VV287-5D-0540	5,4	6,0	82	44	35	VV287-5D-0950	9,5	10,0	103	61	49
VV287-5D-0550	5,5	6,0	82	44	35	VV287-5D-0960	9,6	10,0	103	61	49
VV287-5D-0560	5,6	6,0	82	44	35	VV287-5D-0970	9,7	10,0	103	61	49
VV287-5D-0570	5,7	6,0	82	44	35	VV287-5D-0980	9,8	10,0	103	61	49
VV287-5D-0580	5,8	6,0	82	44	35	VV287-5D-0990	9,9	10,0	103	61	49
VV287-5D-0590	5,9	6,0	82	44	35	VV287-5D-1000	10,0	10,0	103	61	49
VV287-5D-0600	6,0	6,0	82	44	35	VV287-5D-1020	10,2	12,0	118	71	56
VV287-5D-0610	6,1	8,0	91	53	43	VV287-5D-1050	10,5	12,0	118	71	56
VV287-5D-0620	6,2	8,0	91	53	43	VV287-5D-1080	10,8	12,0	118	71	56
VV287-5D-0630	6,3	8,0	91	53	43	VV287-5D-1100	11,0	12,0	118	71	56
VV287-5D-0640	6,4	8,0	91	53	43	VV287-5D-1150	11,5	12,0	118	71	56
VV287-5D-0650	6,5	8,0	91	53	43	VV287-5D-1180	11,8	12,0	118	71	56
VV287-5D-0660	6,6	8,0	91	53	43	VV287-5D-1200	12,0	12,0	118	71	56
VV287-5D-0670	6,7	8,0	91	53	43	VV287-5D-1250	12,5	14,0	124	77	60
VV287-5D-0680	6,8	8,0	91	53	43	VV287-5D-1280	12,8	14,0	124	77	60
VV287-5D-0690	6,9	8,0	91	53	43	VV287-5D-1300	13,0	14,0	124	77	60
VV287-5D-0700	7,0	8,0	91	53	43	VV287-5D-1350	13,5	14,0	124	77	60

Speed-Drill A4

VV287-5D

5xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdkov: jemnozrný 6-8% Co
 Povlak: bez povlaku,
 leštěné drážky pro odvod třísek
 Chlazení: vnitřní

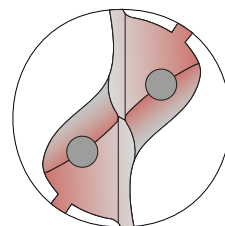
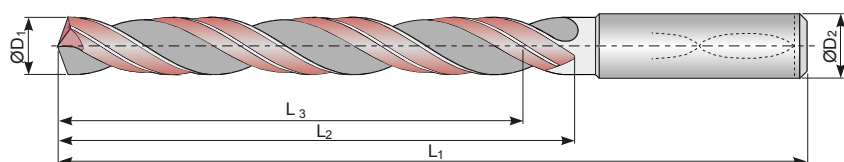


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV287-5D-1380	13,8	14,0	124	77	60
VV287-5D-1400	14,0	14,0	124	77	60
VV287-5D-1450	14,5	16,0	133	83	63
VV287-5D-1480	14,8	16,0	133	83	63
VV287-5D-1500	15,0	16,0	133	83	63
VV287-5D-1550	15,5	16,0	133	83	63
VV287-5D-1580	15,8	16,0	133	83	63
VV287-5D-1600	16,0	16,0	133	83	63
VV287-5D-1650	16,5	18,0	143	93	71
VV287-5D-1680	16,8	18,0	143	93	71
VV287-5D-1700	17,0	18,0	143	93	71
VV287-5D-1750	17,5	18,0	143	93	71
VV287-5D-1780	17,8	18,0	143	93	71
VV287-5D-1800	18,0	18,0	143	93	71
VV287-5D-1850	18,5	20,0	153	101	77
VV287-5D-1880	18,8	20,0	153	101	77
VV287-5D-1900	19,0	20,0	153	101	77
VV287-5D-1950	19,5	20,0	153	101	77
VV287-5D-1980	19,8	20,0	153	101	77
VV287-5D-2000	20,0	20,0	153	101	77

Speed-Drill A4

VV287-8D

8xD

**Provedení:**

Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdkov: jemnozrný 6-8% Co
 Povlak: bez povlaku,
 leštěné drážky pro odvod třísek
 Chlazení: vnitřní

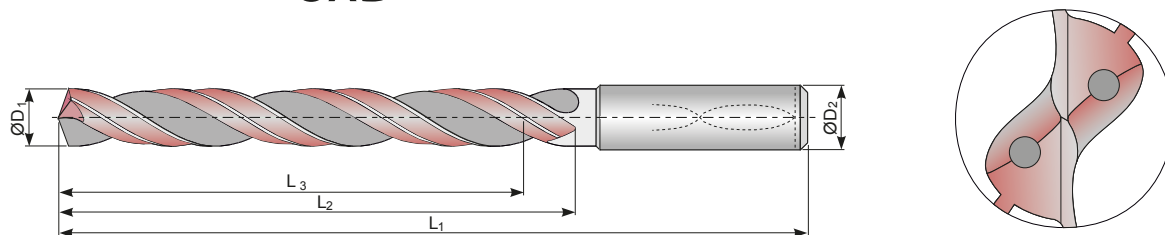


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV287-8D-0300	3,0	6,0	72	34	29	VV287-8D-0710	7,1	8,0	114	76	64
VV287-8D-0310	3,1	6,0	72	34	29	VV287-8D-0720	7,2	8,0	114	76	64
VV287-8D-0320	3,2	6,0	72	34	29	VV287-8D-0730	7,3	8,0	114	76	64
VV287-8D-0330	3,3	6,0	72	34	29	VV287-8D-0740	7,4	8,0	114	76	64
VV287-8D-0340	3,4	6,0	72	34	29	VV287-8D-0750	7,5	8,0	114	76	64
VV287-8D-0350	3,5	6,0	72	34	29	VV287-8D-0760	7,6	8,0	114	76	64
VV287-8D-0360	3,6	6,0	72	34	29	VV287-8D-0770	7,7	8,0	114	76	64
VV287-8D-0370	3,7	6,0	72	34	29	VV287-8D-0780	7,8	8,0	114	76	64
VV287-8D-0380	3,8	6,0	81	43	36	VV287-8D-0790	7,9	8,0	114	76	64
VV287-8D-0390	3,9	6,0	81	43	36	VV287-8D-0800	8,0	8,0	114	76	64
VV287-8D-0400	4,0	6,0	81	43	36	VV287-8D-0810	8,1	10,0	142	95	80
VV287-8D-0410	4,1	6,0	81	43	36	VV287-8D-0820	8,2	10,0	142	95	80
VV287-8D-0420	4,2	6,0	81	43	36	VV287-8D-0830	8,3	10,0	142	95	80
VV287-8D-0430	4,3	6,0	81	43	36	VV287-8D-0840	8,4	10,0	142	95	80
VV287-8D-0440	4,4	6,0	81	43	36	VV287-8D-0850	8,5	10,0	142	95	80
VV287-8D-0450	4,5	6,0	81	43	36	VV287-8D-0860	8,6	10,0	142	95	80
VV287-8D-0460	4,6	6,0	81	43	36	VV287-8D-0870	8,7	10,0	142	95	80
VV287-8D-0470	4,7	6,0	81	43	36	VV287-8D-0880	8,8	10,0	142	95	80
VV287-8D-0480	4,8	6,0	95	57	48	VV287-8D-0890	8,9	10,0	142	95	80
VV287-8D-0490	4,9	6,0	95	57	48	VV287-8D-0900	9,0	10,0	142	95	80
VV287-8D-0500	5,0	6,0	95	57	48	VV287-8D-0910	9,1	10,0	142	95	80
VV287-8D-0510	5,1	6,0	95	57	48	VV287-8D-0920	9,2	10,0	142	95	80
VV287-8D-0520	5,2	6,0	95	57	48	VV287-8D-0930	9,3	10,0	142	95	80
VV287-8D-0530	5,3	6,0	95	57	48	VV287-8D-0940	9,4	10,0	142	95	80
VV287-8D-0540	5,4	6,0	95	57	48	VV287-8D-0950	9,5	10,0	142	95	80
VV287-8D-0550	5,5	6,0	95	57	48	VV287-8D-0960	9,6	10,0	142	95	80
VV287-8D-0560	5,6	6,0	95	57	48	VV287-8D-0970	9,7	10,0	142	95	80
VV287-8D-0570	5,7	6,0	95	57	48	VV287-8D-0980	9,8	10,0	142	95	80
VV287-8D-0580	5,8	6,0	95	57	48	VV287-8D-0990	9,9	10,0	142	95	80
VV287-8D-0590	5,9	6,0	95	57	48	VV287-8D-1000	10,0	10,0	142	95	80
VV287-8D-0600	6,0	6,0	95	57	48	VV287-8D-1020	10,2	12,0	162	114	96
VV287-8D-0610	6,1	8,0	114	76	64	VV287-8D-1050	10,5	12,0	162	114	96
VV287-8D-0620	6,2	8,0	114	76	64	VV287-8D-1080	10,8	12,0	162	114	96
VV287-8D-0630	6,3	8,0	114	76	64	VV287-8D-1100	11,0	12,0	162	114	96
VV287-8D-0640	6,4	8,0	114	76	64	VV287-8D-1150	11,5	12,0	162	114	96
VV287-8D-0650	6,5	8,0	114	76	64	VV287-8D-1180	11,8	12,0	162	114	96
VV287-8D-0660	6,6	8,0	114	76	64	VV287-8D-1200	12,0	12,0	162	114	96
VV287-8D-0670	6,7	8,0	114	76	64	VV287-8D-1250	12,5	14,0	178	133	112
VV287-8D-0680	6,8	8,0	114	76	64	VV287-8D-1280	12,8	14,0	178	133	112
VV287-8D-0690	6,9	8,0	114	76	64	VV287-8D-1300	13,0	14,0	178	133	112
VV287-8D-0700	7,0	8,0	114	76	64	VV287-8D-1350	13,5	14,0	178	133	112

Speed-Drill A4

VV287-8D

8xD



Provedení:

Šroubovice: 30°
 Úhel špičky: 140°
 Počet fazetek: 4
 Tvrdkov: jemnozrný 6-8% Co
 Povlak: bez povlaku,
 leštěné drážky pro odvod třísek
 Chlazení: vnitřní



Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV287-8D-1380	13,8	14,0	178	133	112
VV287-8D-1400	14,0	14,0	178	133	112
VV287-8D-1450	14,5	16,0	203	152	128
VV287-8D-1480	14,8	16,0	203	152	128
VV287-8D-1500	15,0	16,0	203	152	128
VV287-8D-1550	15,5	16,0	203	152	128
VV287-8D-1580	15,8	16,0	203	152	128
VV287-8D-1600	16,0	16,0	203	152	128
VV287-8D-1650	16,5	18,0	222	171	144
VV287-8D-1680	16,8	18,0	222	171	144
VV287-8D-1700	17,0	18,0	222	171	144
VV287-8D-1750	17,5	18,0	222	171	144
VV287-8D-1780	17,8	18,0	222	171	144
VV287-8D-1800	18,0	18,0	222	171	144
VV287-8D-1850	18,5	20,0	243	190	160
VV287-8D-1880	18,8	20,0	243	190	160
VV287-8D-1900	19,0	20,0	243	190	160
VV287-8D-1950	19,5	20,0	243	190	160
VV287-8D-1980	19,8	20,0	243	190	160
VV287-8D-2000	20,0	20,0	243	190	160

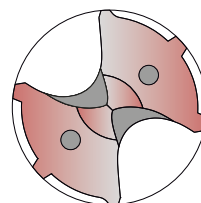
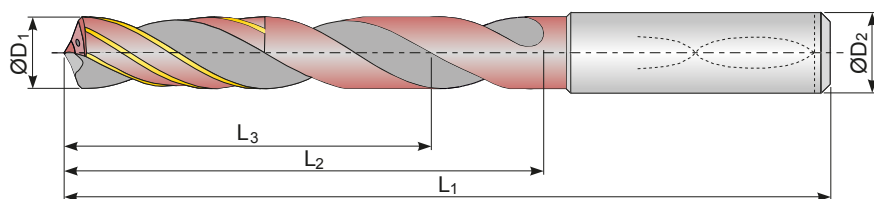
Řezné podmínky**Doporučené řezné podmínky pro vrtáky: A4 VV287**

Materiál	Podíl Si	Označení	Řezná rychlost [m/min]	Posuv [mm/ot]					
				Ø6	Ø8	Ø10	Ø12	Ø16	Ø20
N	Slitiny hliníku	AlCuMgPb, AlMgSi0.5	200-350	0,30	0,40	0,50	0,55	0,70	0,80
	Slitiny hliníku (Si < 10%)	AlSi9Cu3, AlSi7Mg0.6	200-350	0,30	0,40	0,50	0,55	0,70	0,80
	Slitiny hliníku (Si > 10%)	GB.AlSi12(Cu)	180-250	0,24	0,32	0,40	0,45	0,55	0,60
	Med', mosaz, bronz		120-200	0,18	0,24	0,30	0,35	0,40	0,50

Highspeed-Drill 300

VV300-5D

5xD



Provedení:

Počet fazetek: 6
 Šroubovice: 30°
 Úhel špičky: dvojitý
 Tvrdokov: ultra-jemnozrný
 Povlak: GTX-Highspeed
 Chlazení: vnitřní

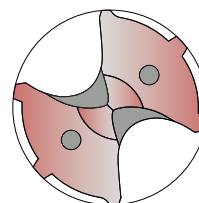
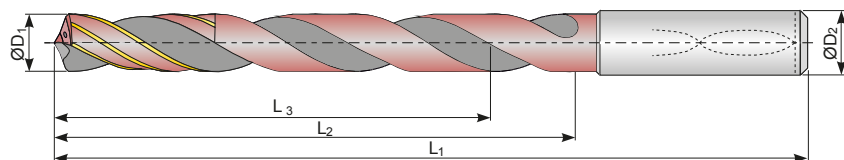


Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV300-5D-0500	5,0	6,0	82	44	35	VV300-5D-0910	9,1	10,0	103	61	49
VV300-5D-0510	5,1	6,0	82	44	35	VV300-5D-0920	9,2	10,0	103	61	49
VV300-5D-0520	5,2	6,0	82	44	35	VV300-5D-0930	9,3	10,0	103	61	49
VV300-5D-0530	5,3	6,0	82	44	35	VV300-5D-0940	9,4	10,0	103	61	49
VV300-5D-0540	5,4	6,0	82	44	35	VV300-5D-0950	9,5	10,0	103	61	49
VV300-5D-0550	5,5	6,0	82	44	35	VV300-5D-0960	9,6	10,0	103	61	49
VV300-5D-0560	5,6	6,0	82	44	35	VV300-5D-0970	9,7	10,0	103	61	49
VV300-5D-0570	5,7	6,0	82	44	35	VV300-5D-0980	9,8	10,0	103	61	49
VV300-5D-0580	5,8	6,0	82	44	35	VV300-5D-0990	9,9	10,0	103	61	49
VV300-5D-0590	5,9	6,0	82	44	35	VV300-5D-1000	10,0	10,0	103	61	49
VV300-5D-0600	6,0	6,0	82	44	35	VV300-5D-1020	10,2	12,0	118	71	56
VV300-5D-0610	6,1	8,0	91	53	43	VV300-5D-1050	10,5	12,0	118	71	56
VV300-5D-0620	6,2	8,0	91	53	43	VV300-5D-1080	10,8	12,0	118	71	56
VV300-5D-0630	6,3	8,0	91	53	43	VV300-5D-1100	11,0	12,0	118	71	56
VV300-5D-0640	6,4	8,0	91	53	43	VV300-5D-1150	11,5	12,0	118	71	56
VV300-5D-0650	6,5	8,0	91	53	43	VV300-5D-1180	11,8	12,0	118	71	56
VV300-5D-0660	6,6	8,0	91	53	43	VV300-5D-1200	12,0	12,0	118	71	56
VV300-5D-0670	6,7	8,0	91	53	43	VV300-5D-1250	12,5	14,0	124	77	60
VV300-5D-0680	6,8	8,0	91	53	43	VV300-5D-1280	12,8	14,0	124	77	60
VV300-5D-0690	6,9	8,0	91	53	43	VV300-5D-1300	13,0	14,0	124	77	60
VV300-5D-0700	7,0	8,0	91	53	43	VV300-5D-1350	13,5	14,0	124	77	60
VV300-5D-0710	7,1	8,0	91	53	43	VV300-5D-1380	13,8	14,0	124	77	60
VV300-5D-0720	7,2	8,0	91	53	43	VV300-5D-1400	14,0	14,0	124	77	60
VV300-5D-0730	7,3	8,0	91	53	43	VV300-5D-1450	14,5	16,0	133	83	63
VV300-5D-0740	7,4	8,0	91	53	43	VV300-5D-1480	14,8	16,0	133	83	63
VV300-5D-0750	7,5	8,0	91	53	43	VV300-5D-1500	15,0	16,0	133	83	63
VV300-5D-0760	7,6	8,0	91	53	43	VV300-5D-1550	15,5	16,0	133	83	63
VV300-5D-0770	7,7	8,0	91	53	43	VV300-5D-1580	15,8	16,0	133	83	63
VV300-5D-0780	7,8	8,0	91	53	43	VV300-5D-1600	16,0	16,0	133	83	63
VV300-5D-0790	7,9	8,0	91	53	43	VV300-5D-1650	16,5	18,0	143	93	71
VV300-5D-0800	8,0	8,0	91	53	43	VV300-5D-1680	16,8	18,0	143	93	71
VV300-5D-0810	8,1	10,0	103	61	49	VV300-5D-1700	17,0	18,0	143	93	71
VV300-5D-0820	8,2	10,0	103	61	49	VV300-5D-1750	17,5	18,0	143	93	71
VV300-5D-0830	8,3	10,0	103	61	49	VV300-5D-1780	17,8	18,0	143	93	71
VV300-5D-0840	8,4	10,0	103	61	49	VV300-5D-1800	18,0	18,0	143	93	71
VV300-5D-0850	8,5	10,0	103	61	49	VV300-5D-1850	18,5	20,0	153	101	77
VV300-5D-0860	8,6	10,0	103	61	49	VV300-5D-1880	18,8	20,0	153	101	77
VV300-5D-0870	8,7	10,0	103	61	49	VV300-5D-1900	19,0	20,0	153	101	77
VV300-5D-0880	8,8	10,0	103	61	49	VV300-5D-1950	19,5	20,0	153	101	77
VV300-5D-0890	8,9	10,0	103	61	49	VV300-5D-1980	19,8	20,0	153	101	77
VV300-5D-0900	9,0	10,0	103	61	49	VV300-5D-2000	20,0	20,0	153	101	77

Highspeed-Drill 300

VV300-8D

8xD



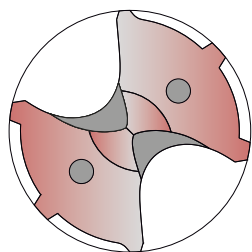
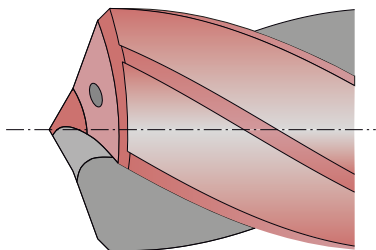
Provedení:

Počet fazetek: 6
 Šroubovice: 30°
 Úhel špičky: dvojitý
 Tvrdkov: ultra-jemnozrný
 Povlak: GTX-Highspeed
 Chlazení: vnitřní



Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm	Katalogové číslo	D1 (m7) mm	D2 (h6) mm	L1 mm	L2 mm	L3 mm
VV300-8D-0500	5,0	6,0	95	57	48	VV300-8D-0910	9,1	10,0	142	95	80
VV300-8D-0510	5,1	6,0	95	57	48	VV300-8D-0920	9,2	10,0	142	95	80
VV300-8D-0520	5,2	6,0	95	57	48	VV300-8D-0930	9,3	10,0	142	95	80
VV300-8D-0530	5,3	6,0	95	57	48	VV300-8D-0940	9,4	10,0	142	95	80
VV300-8D-0540	5,4	6,0	95	57	48	VV300-8D-0950	9,5	10,0	142	95	80
VV300-8D-0550	5,5	6,0	95	57	48	VV300-8D-0960	9,6	10,0	142	95	80
VV300-8D-0560	5,6	6,0	95	57	48	VV300-8D-0970	9,7	10,0	142	95	80
VV300-8D-0570	5,7	6,0	95	57	48	VV300-8D-0980	9,8	10,0	142	95	80
VV300-8D-0580	5,8	6,0	95	57	48	VV300-8D-0990	9,9	10,0	142	95	80
VV300-8D-0590	5,9	6,0	95	57	48	VV300-8D-1000	10,0	10,0	142	95	80
VV300-8D-0600	6,0	6,0	95	57	48	VV300-8D-1020	10,2	12,0	162	114	96
VV300-8D-0610	6,1	8,0	114	76	64	VV300-8D-1050	10,5	12,0	162	114	96
VV300-8D-0620	6,2	8,0	114	76	64	VV300-8D-1080	10,8	12,0	162	114	96
VV300-8D-0630	6,3	8,0	114	76	64	VV300-8D-1100	11,0	12,0	162	114	96
VV300-8D-0640	6,4	8,0	114	76	64	VV300-8D-1150	11,5	12,0	162	114	96
VV300-8D-0650	6,5	8,0	114	76	64	VV300-8D-1180	11,8	12,0	162	114	96
VV300-8D-0660	6,6	8,0	114	76	64	VV300-8D-1200	12,0	12,0	162	114	96
VV300-8D-0670	6,7	8,0	114	76	64	VV300-8D-1250	12,5	14,0	178	133	112
VV300-8D-0680	6,8	8,0	114	76	64	VV300-8D-1280	12,8	14,0	178	133	112
VV300-8D-0690	6,9	8,0	114	76	64	VV300-8D-1300	13,0	14,0	178	133	112
VV300-8D-0700	7,0	8,0	114	76	64	VV300-8D-1350	13,5	14,0	178	133	112
VV300-8D-0710	7,1	8,0	114	76	64	VV300-8D-1380	13,8	14,0	178	133	112
VV300-8D-0720	7,2	8,0	114	76	64	VV300-8D-1400	14,0	14,0	178	133	112
VV300-8D-0730	7,3	8,0	114	76	64	VV300-8D-1450	14,5	16,0	203	152	128
VV300-8D-0740	7,4	8,0	114	76	64	VV300-8D-1480	14,8	16,0	203	152	128
VV300-8D-0750	7,5	8,0	114	76	64	VV300-8D-1500	15,0	16,0	203	152	128
VV300-8D-0760	7,6	8,0	114	76	64	VV300-8D-1550	15,5	16,0	203	152	128
VV300-8D-0770	7,7	8,0	114	76	64	VV300-8D-1580	15,8	16,0	203	152	128
VV300-8D-0780	7,8	8,0	114	76	64	VV300-8D-1600	16,0	16,0	203	152	128
VV300-8D-0790	7,9	8,0	114	76	64	VV300-8D-1650	16,5	18,0	222	171	144
VV300-8D-0800	8,0	8,0	114	76	64	VV300-8D-1680	16,8	18,0	222	171	144
VV300-8D-0810	8,1	10,0	142	95	80	VV300-8D-1700	17,0	18,0	222	171	144
VV300-8D-0820	8,2	10,0	142	95	80	VV300-8D-1750	17,5	18,0	222	171	144
VV300-8D-0830	8,3	10,0	142	95	80	VV300-8D-1780	17,8	18,0	222	171	144
VV300-8D-0840	8,4	10,0	142	95	80	VV300-8D-1800	18,0	18,0	222	171	144
VV300-8D-0850	8,5	10,0	142	95	80	VV300-8D-1850	18,5	20,0	243	190	160
VV300-8D-0860	8,6	10,0	142	95	80	VV300-8D-1880	18,8	20,0	243	190	160
VV300-8D-0870	8,7	10,0	142	95	80	VV300-8D-1900	19,0	20,0	243	190	160
VV300-8D-0880	8,8	10,0	142	95	80	VV300-8D-1950	19,5	20,0	243	190	160
VV300-8D-0890	8,9	10,0	142	95	80	VV300-8D-1980	19,8	20,0	243	190	160
VV300-8D-0900	9,0	10,0	142	95	80	VV300-8D-2000	20,0	20,0	243	190	160

Highspeed-Drill 300



- ▶ **Nová** geometrie břitu
- ▶ **Bezkonkurenční** řezná rychlost - až 300 m/min
- ▶ **Vysoké** hodnoty posuvů
- ▶ **Nejlepší** přesnost vrtání díky zlepšenému samocentrování
- ▶ **Vylepšená** válcovitost a přímost otvoru díky 6-ti fazetkám

Řezné podmínky

Doporučené řezné podmínky pro vrtáky **Highspeed-Drill** : HSD VV300

Materiál	Pevnost	Označení	Řezná rychlost [m/min]	Posuv [mm/ot]						
				Ø6	Ø8	Ø10	Ø12	Ø16	Ø20	
P	Nelegovaná ocel, ocelolitina	< 600 N/mm ²	St37, C22, GS38	220-300	0,15	0,20	0,25	0,30	0,36	0,40
		< 700 N/mm ²	St52, C35, GS52	200-250	0,15	0,20	0,25	0,30	0,36	0,40
		> 700 N/mm ²	St70, C45, GS62	170-230	0,15	0,20	0,25	0,30	0,36	0,40
	Legovaná ocel	< 900 N/mm ²	16MnCr5,42CrMo4	170-230	0,15	0,20	0,25	0,30	0,36	0,40
		< 1000 N/mm ²	90MnCrV8,100Cr6	130-180	0,14	0,18	0,22	0,26	0,30	0,35
	> 1000 N/mm ²	X210CM2, 34CrAJNi7	100-150	0,12	0,16	0,20	0,24	0,30	0,35	
M	Nerezová ocel	X5CrNi 18 9(V2A) X10CrNiMoTM810	80-120	0,10	0,14	0,18	0,22	0,25	0,30	
K	Šedá litina, legovaná litina	< 200 HB	GG20, GG25, GTS45	180-220	0,22	0,28	0,34	0,38	0,44	0,50
		< 250 HB	GG30, GTW40	160-200	0,20	0,25	0,30	0,35	0,40	0,45
		> 250 HB	GG40, GTS70	140-180	0,20	0,25	0,30	0,35	0,40	0,45
	Tvárná litina, spec. litiny CGI	< 600 N/mm ²	GGG40, GGG50	140-180	0,20	0,25	0,30	0,35	0,40	0,45
> 600 N/mm ²		GGG60, GGV (CGI)	100-140	0,18	0,22	0,25	0,30	0,35	0,40	
N	Slitiny hliníku	AlCuMgPb, AlMgSi0.5								
	Slitiny hliníku (Si < 10%)	AlSi9Cu3, AlSi7Mg0.6	300-350	0,30	0,38	0,45	0,50	0,60	0,70	
	Slitiny hliníku (Si > 10%)	GB.AISI12(Cu)	200-280	0,25	0,30	0,35	0,40	0,50	0,55	

Při vrtání s nástroji 8xD se musí redukovat řezná rychlost: 0.85 x vc

Poznámky:

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