
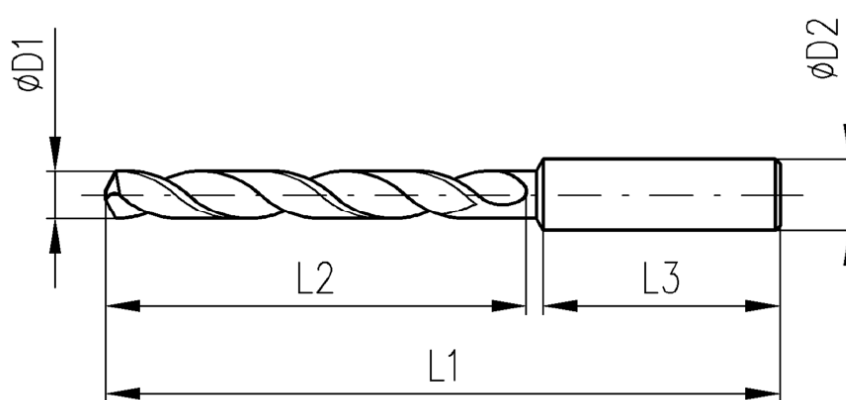
	<b>DRILL WITH REINFORCED SHANK and AIXN3 coating</b>	<b>HSSE-PM</b>
<b>Application:</b> For processing steels, but also alloys based on nickel and titanium. The tool can withstand a high workload. The drills are made of high-speed steel processed by powder metallurgy with a high ability to maintain hardness at high temperatures, with high resistance to pressure loads and resistance to abrasion wear.		
Size range: $\varnothing$ 3,00 ÷ 12,00 mm		
	$\lambda = 35^\circ$	$\epsilon = 130^\circ$
Manufacturing Mode: V	Surface Treatment: 	Grinding Mode: Form C



Order nr.	$\varnothing D1$ h8 mm	L1 mm	L2 mm	L3 mm	$\varnothing D2$ h6 mm
K820300V590S	3,00	56	16	36	6,00
K820330V590S	3,30	58	18	36	6,00
K820350V590S	3,50	60	20	36	6,00
K820400V590S	4,00	62	22	36	6,00
K820420V590S	4,20	66	22	36	6,00
K820450V590S	4,50	68	24	36	6,00
K820500V590S	5,00	70	26	36	6,00
K820550V590S	5,50	72	28	36	6,00
K820600V590S	6,00	72	28	36	6,00
K820650V590S	6,50	75	31	36	8,00
K820700V590S	7,00	78	34	36	8,00
K820750V590S	7,50	78	34	36	8,00
K820800V590S	8,00	81	37	36	8,00
K820850V590S	8,50	87	37	40	10,00
K820900V590S	9,00	91	40	40	10,00
K820950V590S	9,50	91	40	40	10,00
K821000V590S	10,00	93	43	40	10,00
K821050V590S	10,50	100	43	45	12,00
K821100V590S	11,00	104	47	45	12,00
K821150V590S	11,50	104	47	45	12,00
K821200V590S	12,00	108	51	45	12,00

**Recommended cutting conditions for HSSE-PM AIXN3**

Code of	Size of drill D(mm)										
Feed	0,3	0,8	1,3	2	2,5	3,15	4	5	6,5	8	10
	Feed S (mm/ot)										
A				0,02	0,02	0,03	0,03	0,03	0,04	0,05	0,06
B				0,02	0,025	0,03	0,04	0,04	0,05	0,06	0,08
C				0,03	0,032	0,04	0,05	0,05	0,06	0,08	0,1
D	0,01	0,02	0,03	0,03	0,04	0,05	0,06	0,06	0,08	0,1	0,13
E	0,01	0,03	0,04	0,04	0,05	0,06	0,08	0,08	0,1	0,13	0,16
F	0,01	0,03	0,04	0,05	0,063	0,08	0,1	0,1	0,13	0,16	0,2
G	0,02	0,04	0,05	0,06	0,08	0,1	0,13	0,13	0,16	0,2	0,25
H				0,08	0,1	0,13	0,16	0,16	0,2	0,25	0,32

**Example:** 33 F = cutting speed 33 m/min, feed F (v mm/ot) from data sheet above

<b>CSN</b>					<b>221282</b>
Coating					AIXN3
DIN					
Type					RH, LN, UFL
Material					HSSE-PM
					<b>v(m/min) code of feed</b>
<b>1</b>	<b>Unalloyed steel</b>	<b>Strength</b>	<b>Hardness</b>	<b>Cooling</b>	
		<b>N/mm2</b>	<b>HB</b>		
	common structural	400 - 500		E	
		500 - 850		E	
	free cutting	< 850		E	
		850 - 1000		E	50 E
	heat-treatable	400 - 700		E	
		700 - 850		E	50 E
		850 - 1000		E	28 D
	case hardened	400 - 750		E	
<b>2</b>	<b>Alloy steels</b>	<b>Tensile strength</b>	<b>Hardness</b>		
		<b>N/mm2</b>	<b>HB</b>		
	heat-treatable	850 - 1000		E	32 D
		1000 - 1200		E	26 D
	case hardened	800 - 1000		O	28 D
		1000 - 1200		O	11 D
	nitriding	850 - 1000		E	26 D
		1000 - 1200		O	18 D
	spring		< 330	O	14 B
	tool	500 - 850		E	32 D
		850 - 1000		O	18 C
	high-speed	850 - 1200		O	18 C
	hardened steels Hardox 400		400	E	10 C
	hardened steels Hardox 500		500	E	

3	Stainless steels	Tensile strength	Hardness		
		N/mm2	HB		
	ferritic/martensitic	500 - 850		O	26 D
	martensitic	500 - 850		O	9 D
	austenit./ferritic	500 - 850		O	22 C
4	Část iron	Tensile strength	Hardness		
		N/mm2	HB		
	grey		< 200	E/L	66 F
	grey		200 - 300	E/L	50 F
	modular		< 240	E	54 F
	malleable		< 300	E	40 F
5	Aluminium alloys	Tensile strength	Hardness		
		N/mm2	HB		
	unalloyed	< 400		E	
	wrought alloys	< 450		E	
	cast alloys < 10 % Si	< 600		E	130 G
	cast alloys > 10 % Si	< 600		E	100 F
6	Cu and Cu alloys	Tensile strength	Hardness		
		N/mm2	HB		
	unalloyed	< 400		E	66 E
	brass - shortchipping	< 600		E	
	brass - longchipping	< 600		E	82 E
	bronze - shortchipping	< 600		E/O	66 D
	bronze - longchipping	< 600		E	50 D
7	Plastics	Tensile strength	Hardness		
		N/mm2	HB		
	Duroplastics			L	32 D
	Termoplastics			E/L	
8	Heat resistant steel	Tensile strength	Hardness		
		N/mm2	HB		
	Fe basis	< 650		O	8 D
	Fe basis	< 750		O	6 D
	Monel 400, Hastelloy C-4, Nimonic 75, Inconel 625	750 - 800		O	6 D
	Inconel X 750, Hastelloy B, Inconel 751	800 - 950		O	5 D
	Monel K 5400, Inconel 718	900 - 1100		O	5 D
9	Ti and Ti alloys	Tensile strength	Hardness		
		N/mm2	HB		
	Ti and Ti alloys	< 700		O	
	Ti and Ti alloys	700 - 1200		O	

\* **Cooling:** E = emulsion, O = oil, L = air