



## 337.01

### Operating instruction Indexable insert drills

#### Drills from Ø16-30mm with CKS6 tool connection.

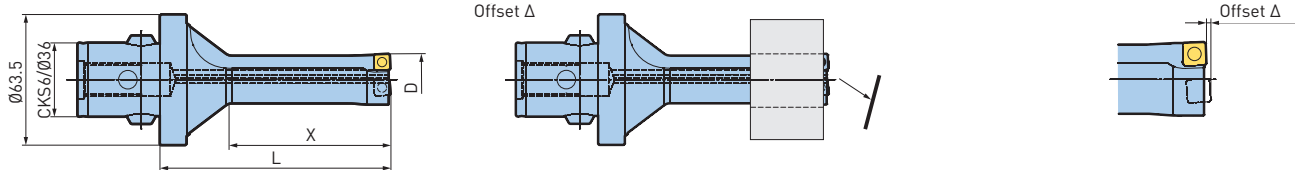
Drills in two length graduations (3xD and 4xD), with equal inserts for the inside and outside cutting edges. Large chip spaces in combination

with the coolant supply up to the cutting edge guarantee optimum cooling and chip removal.

For an optimal dimensional accuracy, the insert offset  $\Delta$  must be very precise (by swapping the inside and outside insert or using insert type B).

#### Caution!

A disc is generated during through boring operations and thrown out because of the impact to the centrifugal force. Use always safety devices.



Boring depth 3xD				Boring depth 4xD				Adjustable range *)			Inserts	
Dimensions		Order No.		Dimensions		Order No.		Dimensions			Designation	Offset $\Delta$
D	X	L		D	X	L		D	D a)	D b)		
16	48	85	337.316	16	64	101	337.416	16	16.0-18.0	16.0-19.4	WP 337-1 16/20	0.15 $\pm 0.025$
17	51	88	337.317	17	68	105	337.417	17	17.0-18.6	17.0-20.0		
18	54	91	337.318	18	72	109	337.418	18	18.0-19.4	18.0-20.6		
19	57	94	337.319	19	76	113	337.419	19	19.0-20.0	19.0-21.0		
20	60	97	337.320	20	80	117	337.420	20	20.0-20.6	20.0-21.6		
21	63	100	337.321	21	84	121	337.421	21	21.0-23.2	21.0-25.0	WP 337-2 21/25	0.15 $\pm 0.025$
22	66	103	337.322	22	88	125	337.422	22	22.0-23.8	22.0-25.4		
23	69	106	337.323	23	92	129	337.423	23	23.0-24.6	23.0-26.0		
24	72	109	337.324	24	96	133	337.424	24	24.0-25.2	24.0-26.4		
25	75	112	337.325	25	100	137	337.425	25	25.0-25.8	25.0-27.0		
26	78	118	337.326	26	104	146	337.426	26	26.0-28.0	26.0-29.4	WP 337-3 26/30	0.18 $\pm 0.025$
27	81	121	337.327	27	108	150	337.427	27	27.0-28.6	27.0-29.8		
28	84	124	337.328	28	112	154	337.428	28	28.0-29.2	28.0-30.4		
29	87	127	337.329	29	116	158	337.429	29	29.0-29.8	29.0-30.8		
30	90	130	337.330	30	120	162	337.430	30	30.0-30.6	30.0-31.4		

#### Cutting data

Material		Feed [mm/rev]		Cutting speed $v_c$ [m/min]	
		Ø15.8 – Ø20.4	Ø20.5 – Ø30.4		
St 37	1.0067	0.08	0.10	160-200	
St 60	1.0062	0.08	0.10	160-180	
Ck 45	1.1191	0.08	0.10	160-180	
34CrMo4	1.7220	0.08	0.10	180-200	
40CrMnMo7	1.2311	0.06	0.08	120-160	
X210Cr12	1.2080	0.06	0.08	120-160	
X100CrMo13	1.4108	0.06	0.08	120-160	
GS 42		0.08	0.10	140-200	
GG 22 ...GG 42		0.08	0.10	140-200	
GG 60		0.08	0.10	140-200	
Aluminium**)		0.08	0.10	500	

The cutting data are guide values and apply under normal working conditions when an ample supply of coolant is used.

\*) with adjustable drill holder or for drills not rotating.

\*\*) Machining of aluminum: In case of unfavorable chipping, interrupt drilling cycle for chip removal.

- a) under difficult conditions  
b) under favorable conditions

Max. bore depth with coolant supply from outside: 1xD