



FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

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# HSSCo8, 3 FLUTE LONG LENGTH THROW AWAY HSSCo8, 3 SCHNEIDEN LANG EINWEGFRÄSER



P.1234, 1235, 1236, 1237

Unit : mm

EDP No.	ITEM No.	EDP No.	ITEM No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
UNCOATED	UNCOATED	TiAlN	TiAlN	e8	h6		
E2554015	C3FLC-015AF	EQ554015	R3FLC-015AF	1.5	6	4	35
E2554020	C3FLC-020AF	EQ554020	R3FLC-020AF	2.0	6	7	38
E2554025	C3FLC-025AF	EQ554025	R3FLC-025AF	2.5	6	8	39
E2554030	C3FLC-030AF	EQ554030	R3FLC-030AF	3.0	6	8	39
E2554035	C3FLC-035AF	EQ554035	R3FLC-035AF	3.5	6	10	41
E2554040	C3FLC-040AF	EQ554040	R3FLC-040AF	4.0	6	11	42
E2554045	C3FLC-045AF	EQ554045	R3FLC-045AF	4.5	6	11	42
E2554050	C3FLC-050AF	EQ554050	R3FLC-050AF	5.0	6	13	44
E2554055	C3FLC-055AF	EQ554055	R3FLC-055AF	5.5	6	13	44
E2554060	C3FLC-060AF	EQ554060	R3FLC-060AF	6.0	6	13	44
E2554065	C3FLC-065BF	EQ554065	R3FLC-065BF	6.5	8	16	48
E2554070	C3FLC-070BF	EQ554070	R3FLC-070BF	7.0	8	16	48
E2554075	C3FLC-075BF	EQ554075	R3FLC-075BF	7.5	8	16	48
E2554080	C3FLC-080BF	EQ554080	R3FLC-080BF	8.0	8	19	51
E2554085	C3FLC-085TF	EQ554085	R3FLC-085TF	8.5	10	19	56
E2554090	C3FLC-090TF	EQ554090	R3FLC-090TF	9.0	10	19	56
E2554095	C3FLC-095TF	EQ554095	R3FLC-095TF	9.5	10	19	56
E2554100	C3FLC-100TF	EQ554100	R3FLC-100TF	10.0	10	22	59

► TIN-COATING & TiCN-COATING are available on your request.

### Tolerances according to DIN 7160 & 7161 Toleranzen nach DIN 7160 & 7161

Tolerance range in $\mu\text{m}$ / Toleranzwerte in $\mu\text{m}$						
Nominal-Diameter in mm / Nennmaßbereich in mm						
	from 1 to 3 von 1 bis 3	over 3 to 6 über 3 bis 6	over 6 to 10 über 6 bis 10	over 10 to 18 über 10 bis 18	over 18 to 30 über 18 bis 30	over 30 to 50 über 30 bis 50
e8	— 14 — 28	— 20 — 38	— 25 — 47	— 32 — 59	— 40 — 73	— 50 — 89
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRC30~40	HRc40~45	HRc45~55	HRc55~70									
◎	◎	○							○					



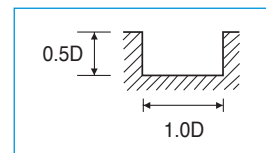
RECOMMENDED CUTTING CONDITIONS  
EMPFOHLENE SCHNEIDKONDITIONEN

HSSCo8, 3 FLUTE - SLOTTING  
HSSCo8, 3 SCHNEIDEN - NUTENFRÄSEN

**E2572, E2573, E2516, E2553, E2554, E2551, E2552** SERIES

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS			
	~ 500N/mm <sup>2</sup>				~ HRC20 500 ~ 800N/mm <sup>2</sup>				HRC20 ~ HRC30 800 ~ 1000N/mm <sup>2</sup>			
HARDNESS												
STRENGTH												
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	5600	35	35	0.002	4500	25	30	0.002	4000	20	25	0.002
3.0	3500	50	35	0.005	3200	35	30	0.004	2500	25	25	0.003
4.0	2800	60	35	0.007	2200	45	30	0.007	1800	30	25	0.006
5.0	2200	80	35	0.012	1800	55	30	0.010	1600	40	25	0.008
6.0	1800	80	35	0.015	1600	65	30	0.014	1200	40	25	0.011
8.0	1400	90	35	0.021	1100	70	30	0.021	900	50	25	0.019
10.0	1100	90	35	0.027	900	70	30	0.026	800	55	25	0.023
12.0	900	100	35	0.037	800	80	30	0.033	630	55	25	0.029
14.0	800	100	35	0.042	700	70	30	0.033	560	55	25	0.033
16.0	700	100	35	0.048	560	70	30	0.042	450	50	25	0.037
18.0	630	90	35	0.048	500	70	30	0.047	400	50	25	0.042
20.0	560	90	35	0.054	450	70	30	0.052	400	50	25	0.042
22.0	500	90	35	0.060	450	70	30	0.052	350	50	25	0.048
25.0	450	80	35	0.059	400	65	30	0.054	310	40	25	0.043
28.0	400	70	35	0.058	350	55	30	0.052	280	35	25	0.042
30.0	350	60	35	0.057	310	50	30	0.054	250	30	25	0.040
32.0	350	60	35	0.057	280	45	30	0.054	220	30	20	0.045
35.0	320	55	35	0.057	260	40	30	0.051	210	25	25	0.040
36.0	310	55	35	0.059	250	40	30	0.053	200	25	25	0.042
40.0	280	55	35	0.065	220	40	30	0.061	180	25	25	0.046

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				ALUMINUM ALUMINUM ALLOYS			
	HRC30 ~ HRC40 1000 ~ 1300N/mm <sup>2</sup>							
HARDNESS								
STRENGTH								
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	2200	10	15	0.002	12000	110	75	0.003
3.0	1600	15	15	0.003	11000	170	105	0.005
4.0	1100	20	15	0.006	8000	200	100	0.008
5.0	900	20	15	0.007	6300	210	100	0.011
6.0	800	25	15	0.010	5600	210	105	0.013
8.0	560	30	15	0.018	4000	260	100	0.022
10.0	450	30	15	0.022	3100	270	95	0.029
12.0	400	35	15	0.029	2500	260	95	0.035
14.0	350	35	15	0.033	2200	240	95	0.036
16.0	280	30	15	0.036	2000	240	100	0.040
18.0	250	30	15	0.040	1800	240	100	0.044
20.0	220	30	15	0.045	1600	220	100	0.046
22.0	220	30	15	0.045	1400	200	95	0.048
25.0	180	20	15	0.037	1200	190	95	0.053
28.0	160	20	15	0.042	1100	180	95	0.055
30.0	160	20	15	0.042	1100	180	105	0.055
32.0	140	20	15	0.048	1000	160	100	0.053
35.0	130	15	15	0.038	950	150	105	0.053
36.0	120	15	15	0.042	900	150	100	0.056
40.0	110	15	15	0.045	800	130	100	0.054



\* The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min.  
FEED = mm/min.  
Vc = m/min.  
fz = mm/t

**HSSCo8, 3 FLUTE TiAlN COATED - SLOTTING**  
**HSSCo8, 3 SCHNEIDEN TiAlN-BESCHICHTET - NUTENFRÄSEN**

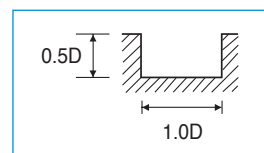
**E2572, E2573, E2516, E2553, E2554, E2551, E2552 SERIES**

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS			
	~ 500N/mm <sup>2</sup>				~ HRC20				HRC20 ~ HRC30			
HARDNESS												
STRENGTH					500 ~ 800N/mm <sup>2</sup>				800 ~ 1000N/mm <sup>2</sup>			
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	7900	50	50	0.002	6300	35	40	0.002	5600	30	35	0.002
3.0	4900	70	45	0.005	4500	50	40	0.004	3500	35	35	0.003
4.0	3900	85	50	0.007	3100	60	40	0.006	2500	40	30	0.005
5.0	3100	110	50	0.012	2500	75	40	0.010	2200	55	35	0.008
6.0	2500	110	45	0.015	2200	90	40	0.014	1700	55	30	0.011
8.0	2000	125	50	0.021	1500	100	40	0.022	1300	70	35	0.018
10.0	1500	125	45	0.028	1300	110	40	0.028	1100	75	35	0.023
12.0	1300	140	50	0.036	1100	110	40	0.033	880	75	35	0.028
14.0	1100	140	50	0.042	980	100	45	0.034	780	75	35	0.032
16.0	980	140	50	0.048	780	100	40	0.043	630	70	30	0.037
18.0	880	125	50	0.047	700	100	40	0.048	560	70	30	0.042
20.0	780	125	50	0.053	630	100	40	0.053	560	70	35	0.042
22.0	700	125	50	0.060	630	100	45	0.053	490	70	35	0.048
25.0	630	110	50	0.058	560	90	45	0.054	430	55	35	0.043
28.0	560	100	50	0.060	490	75	45	0.051	390	50	35	0.043
30.0	490	85	45	0.058	430	70	40	0.054	350	40	35	0.038
32.0	490	85	50	0.058	390	65	40	0.056	310	40	30	0.043
35.0	450	80	50	0.059	360	60	40	0.056	290	35	30	0.040
36.0	430	75	50	0.058	350	55	40	0.052	280	35	30	0.042
40.0	390	75	50	0.064	310	55	40	0.059	250	35	30	0.047

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				ALUMINUM ALUMINUM ALLOYS			
	HRC30 ~ HRC40							
STRENGTH	1000 ~ 1300N/mm <sup>2</sup>							
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	3100	15	20	0.002	16800	150	105	0.003
3.0	2200	20	20	0.003	15400	240	145	0.005
4.0	1500	30	20	0.007	11200	280	140	0.008
5.0	1300	30	20	0.008	8800	290	140	0.011
6.0	1100	35	20	0.011	7800	290	145	0.012
8.0	780	40	20	0.017	5600	360	140	0.021
10.0	630	40	20	0.021	4300	380	135	0.029
12.0	560	50	20	0.030	3500	360	130	0.034
14.0	490	50	20	0.034	3100	340	135	0.037
16.0	390	40	20	0.034	2800	340	140	0.040
18.0	350	40	20	0.038	2500	340	140	0.045
20.0	310	40	20	0.043	2200	310	140	0.047
22.0	310	40	20	0.043	1950	280	135	0.048
25.0	250	30	20	0.040	1700	270	135	0.053
28.0	220	30	20	0.045	1500	250	130	0.056
30.0	220	30	20	0.045	1500	250	140	0.056
32.0	200	30	20	0.050	1400	225	140	0.054
35.0	180	25	20	0.046	1300	215	145	0.055
36.0	170	20	20	0.039	1250	210	140	0.056
40.0	150	20	20	0.044	1100	180	140	0.055

\* The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min.  
FEED = mm/min.  
Vc = m/min.  
fz = mm/t





**HSSCo8, 3 FLUTE - SIDE CUTTING  
HSSCo8, 3 SCHNEIDEN - SEITENFRÄSEN**

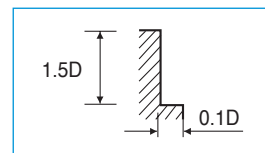
**E2572, E2573, E2516, E2553, E2554, E2551, E2552 SERIES**

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS			
	~ 500N/mm <sup>2</sup>				~ HRC20 500 ~ 800N/mm <sup>2</sup>				HRC20 ~ HRC30 800 ~ 1000N/mm <sup>2</sup>			
HARDNESS												
STRENGTH												
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	5600	60	35	0.004	4500	40	30	0.003	4000	35	25	0.003
3.0	3500	80	35	0.008	3200	60	30	0.006	2500	45	25	0.006
4.0	2800	105	35	0.013	2200	75	30	0.011	1800	50	25	0.009
5.0	2200	135	35	0.020	1800	95	30	0.018	1600	65	25	0.014
6.0	1800	135	35	0.025	1600	110	30	0.023	1200	65	25	0.018
8.0	1400	150	35	0.036	1100	120	30	0.036	900	80	25	0.030
10.0	1100	150	35	0.045	900	120	30	0.044	800	90	25	0.038
12.0	900	165	35	0.061	800	135	30	0.056	630	90	25	0.048
14.0	800	165	35	0.069	700	120	30	0.057	560	90	25	0.054
16.0	700	165	35	0.079	560	120	30	0.071	450	80	25	0.059
18.0	630	150	35	0.079	500	120	30	0.080	400	80	25	0.067
20.0	560	150	35	0.089	450	120	30	0.089	400	80	25	0.067
22.0	500	150	35	0.100	450	120	30	0.089	350	80	25	0.076
25.0	450	135	35	0.100	400	110	30	0.092	310	65	25	0.070
28.0	400	120	35	0.100	350	95	30	0.090	280	60	25	0.071
30.0	350	105	35	0.100	310	80	30	0.086	250	55	25	0.073
32.0	350	105	35	0.100	280	75	30	0.089	220	50	20	0.076
35.0	320	95	35	0.099	260	65	30	0.083	210	45	25	0.071
36.0	310	90	35	0.097	250	65	30	0.087	200	45	25	0.075
40.0	280	90	35	0.107	220	65	30	0.098	180	45	25	0.083

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				ALUMINUM ALUMINUM ALLOYS			
	HRC30 ~ HRC40 1000 ~ 1300N/mm <sup>2</sup>							
HARDNESS								
STRENGTH								
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	2200	15	15	0.002	12000	180	75	0.005
3.0	1600	20	15	0.004	11000	280	105	0.008
4.0	1100	30	15	0.009	8000	330	100	0.014
5.0	900	35	15	0.013	6300	350	100	0.019
6.0	800	45	15	0.019	5600	350	105	0.021
8.0	560	50	15	0.030	4000	440	100	0.037
10.0	450	50	15	0.037	3100	450	95	0.048
12.0	400	55	15	0.046	2500	430	95	0.057
14.0	350	55	15	0.052	2200	400	95	0.061
16.0	280	50	15	0.060	2000	400	100	0.067
18.0	250	50	15	0.067	1800	400	100	0.074
20.0	220	50	15	0.076	1600	360	100	0.075
22.0	220	50	15	0.076	1400	340	95	0.081
25.0	180	35	15	0.065	1200	320	95	0.089
28.0	160	30	15	0.063	1100	300	95	0.091
30.0	160	30	15	0.063	1100	300	105	0.091
32.0	140	30	15	0.071	1000	270	100	0.090
35.0	130	25	15	0.064	950	260	105	0.091
36.0	120	25	15	0.069	900	250	100	0.093
40.0	110	25	15	0.076	800	220	100	0.092

\* The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min.  
FEED = mm/min.  
Vc = m/min.  
fz = mm/t



**HSSCo8, 3 FLUTE TiAlN COATED - SIDE CUTTING**  
**HSSCo8, 3 SCHNEIDEN TiAlN-BESCHICHTET - SEITENFRÄSEN**

**E2572, E2573, E2516, E2553, E2554, E2551, E2552 SERIES**

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS			
	~ 500N/mm <sup>2</sup>				500 ~ 800N/mm <sup>2</sup>				800 ~ 1000N/mm <sup>2</sup>			
HARDNESS					~ HRC20				HRC20 ~ HRC30			
STRENGTH												
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	7900	85	50	0.004	6300	55	40	0.003	5600	50	35	0.003
3.0	4900	110	45	0.007	4500	85	40	0.006	3500	60	35	0.006
4.0	3900	145	50	0.012	3100	105	40	0.011	2500	70	30	0.009
5.0	3100	190	50	0.020	2500	130	40	0.017	2200	90	35	0.014
6.0	2500	190	45	0.025	2200	155	40	0.023	1700	90	30	0.018
8.0	2000	210	50	0.035	1500	170	40	0.038	1300	110	35	0.028
10.0	1500	210	45	0.047	1300	170	40	0.044	1100	125	35	0.038
12.0	1300	230	50	0.059	1100	190	40	0.058	880	125	35	0.047
14.0	1100	230	50	0.070	980	170	45	0.058	780	125	35	0.053
16.0	980	230	50	0.078	780	170	40	0.073	630	110	30	0.058
18.0	880	210	50	0.080	700	170	40	0.081	560	110	30	0.065
20.0	780	210	50	0.090	630	170	40	0.090	560	110	35	0.065
22.0	700	210	50	0.100	630	170	45	0.090	490	110	35	0.075
25.0	630	190	50	0.101	560	155	45	0.092	430	90	35	0.070
28.0	560	170	50	0.101	490	130	45	0.088	390	85	35	0.073
30.0	490	145	45	0.099	430	110	40	0.085	350	75	35	0.071
32.0	490	145	50	0.099	390	105	40	0.090	310	70	30	0.075
35.0	450	130	50	0.096	360	95	40	0.088	290	65	30	0.075
36.0	430	125	50	0.097	350	90	40	0.086	280	65	30	0.077
40.0	390	125	50	0.107	310	90	40	0.097	250	65	30	0.087

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				ALUMINUM ALUMINUM ALLOYS			
	HRC30 ~ HRC40							
STRENGTH	1000 ~ 1300N/mm <sup>2</sup>							
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	3100	20	20	0.002	16800	250	105	0.005
3.0	2200	30	20	0.005	15400	390	145	0.008
4.0	1500	40	20	0.009	11200	460	140	0.014
5.0	1300	50	20	0.013	8800	490	140	0.019
6.0	1100	60	20	0.018	7800	490	145	0.021
8.0	780	70	20	0.030	5600	620	140	0.037
10.0	630	70	20	0.037	4300	630	135	0.049
12.0	560	75	20	0.045	3500	600	130	0.057
14.0	490	75	20	0.051	3100	560	135	0.060
16.0	390	70	20	0.060	2800	560	140	0.067
18.0	350	70	20	0.067	2500	560	140	0.075
20.0	310	70	20	0.075	2200	500	140	0.076
22.0	310	70	20	0.075	1950	480	135	0.082
25.0	250	50	20	0.067	1700	450	135	0.088
28.0	220	40	20	0.061	1500	420	130	0.093
30.0	220	40	20	0.061	1500	420	140	0.093
32.0	200	40	20	0.067	1400	380	140	0.090
35.0	180	35	20	0.065	1300	360	145	0.092
36.0	170	35	20	0.069	1250	350	140	0.093
40.0	150	35	20	0.078	1100	310	140	0.094

\* The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min.  
FEED = mm/min.  
Vc = m/min.  
fz = mm/t

