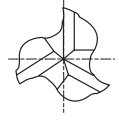
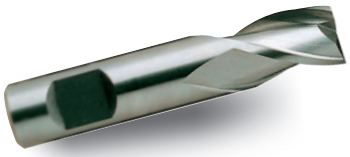


END MILL SET

GENERAL CARBIDE
E5SET553

CARBIDE, 3 FLUTE, SHORT LENGTH, THROW AWAY - General Purpose
VHM Einweg-Schaftfräser, Z=3, kurze Ausführung - Universeller Einsatzbereich
CARBURE, 3 DENTS, SERIE COURTE, JETABLE - Usage Général
FRESA M.D., 3 ELICHE, CORTA, A GETTARE - Impieghi generali
MD, 3 LABIOS, NORMAL, USAR Y TIRAR - Operaciones estándar



unit:mm

EDP No. (FLAT)	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	Pcs
E5553020	2.0	6	4	35	2
E5553030	3.0	6	5	36	2
E5553040	4.0	6	7	38	2
E5553050	5.0	6	8	39	2
E5553060	6.0	6	8	39	2
E5553080	8.0	8	11	43	1
E5553100	10.0	10	13	50	1

Tolerances according to DIN 7160 & 7161 $\mu\text{m} = 1/1000\text{mm}$

Tolerance range in μm	
Nominal-Diameter in mm	
	from 1 to 3
	over 3 to 6
	over 6 to 10
	over 10 to 18
	over 18 to 30
h10	0 -40
	0 -48
	0 -58
	0 -70
	0 -84
h6	0 -6
	0 -8
	0 -9
	0 -11
	0 -13

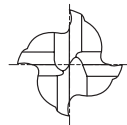
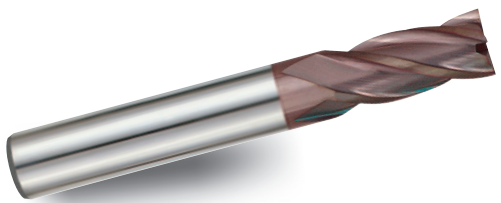


12 PCS

K2 CARBIDE
G9SET432

CARBIDE, 4 FLUTE, SHORT LENGTH - Multi Purpose
VHM-Schaftfräser, Z=4, kurze Ausführung - Universeller Einsatzbereich
CARBURE, 4 DENTS, SERIE COURTE - Multi-Usage
FRESA M.D., 4 ELICHE, CORTA - Impieghi general
MD, 4 LABIOS, NORMAL - Multi operaciones

Coated



unit:mm

EDP No. (PLAIN)	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	Pcs
G9432030	3.0	3	12	32	1
G9432040	4.0	4	12	40	1
G9432050	5.0	5	14	50	1
G9432060	6.0	6	16	50	1
G9432080	8.0	8	20	60	1
G9432100	10.0	10	22	70	1

MILL DIA TOLERANCE	SHANK DIA TOLERANCE
0 -0.03	h6



6 PCS

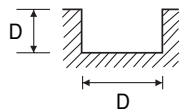


CARBIDE, 3 FLUTE - SLOTTING
VOLLHARTMETALL, 3 SCHNEIDEN - NUTENFRÄSEN

E5553, E5410, E5425, E5417, E5439, E5433, E5528 SERIES

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS				STAINLESS STEELS TITANIUM ALLOYS			
	~ HRc 20				HRc 20 ~ HRc 30				HRc 30 ~ HRc 40							
STRENGTH	500 ~ 800N/mm ²				800 ~ 1000N/mm ²				1000 ~ 1300N/mm ²							
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	5500	70	35	0.004	4800	60	30	0.004	4000	50	25	0.004	8000	55	50	0.002
3.0	3700	80	35	0.007	3200	75	30	0.008	2600	55	25	0.007	5300	55	50	0.003
4.0	2800	80	35	0.010	2400	75	30	0.010	2000	55	25	0.009	4000	55	50	0.005
5.0	2200	80	35	0.012	1900	70	30	0.012	1600	55	25	0.011	3200	55	50	0.006
6.0	1800	80	35	0.015	1600	70	30	0.015	1300	55	25	0.014	2600	60	50	0.008
8.0	1400	80	35	0.019	1200	70	30	0.019	1000	55	25	0.018	2000	60	50	0.010
10.0	1100	80	35	0.024	950	70	30	0.025	800	55	25	0.023	1600	60	50	0.013
12.0	900	80	35	0.030	800	70	30	0.029	660	55	25	0.028	1300	60	50	0.015
14.0	800	80	35	0.033	700	70	30	0.033	570	55	25	0.032	1100	60	50	0.018
16.0	700	90	35	0.043	600	75	30	0.042	500	65	25	0.043	1000	70	50	0.023
20.0	550	90	35	0.055	480	75	30	0.052	400	65	25	0.054	800	70	50	0.029

MATERIAL	CAST IRON				ALUMINUM ALLOYS				COPPER. BRASS NON-FERROUS METALS			
STRENGTH												
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	6500	140	40	0.007	16000	290	100	0.006	12000	220	75	0.006
3.0	4200	140	40	0.011	11000	300	105	0.009	8000	220	75	0.009
4.0	3200	130	40	0.014	8000	290	100	0.012	6000	220	75	0.012
5.0	2500	135	40	0.018	6400	290	100	0.015	4800	220	75	0.015
6.0	2100	160	40	0.025	5300	305	100	0.019	4000	240	75	0.020
8.0	1600	170	40	0.035	4000	310	100	0.026	3000	230	75	0.026
10.0	1300	180	40	0.046	3200	305	100	0.032	2400	230	75	0.032
12.0	1000	190	40	0.063	2600	300	100	0.038	2000	230	75	0.038
14.0	900	200	40	0.074	2300	300	100	0.043	1700	230	75	0.045
16.0	800	200	40	0.083	2000	300	100	0.050	1500	230	75	0.051
20.0	640	215	40	0.112	1600	300	100	0.063	1200	230	75	0.064



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

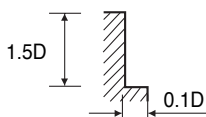
RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

CARBIDE, 3 FLUTE - SIDE CUTTING
VOLLHARTMETALL, 3 SCHNEIDEN - SEITENFRÄSEN

E5553, E5410, E5425, E5417, E5439, E5433, E5528 SERIES

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS TOOL STEELS				STAINLESS STEELS TITANIUM ALLOYS			
	~ HRc 20				HRc 20 ~ HRc 30				HRc 30 ~ HRc 40							
STRENGTH	500 ~ 800N/mm ²				800 ~ 1000N/mm ²				1000 ~ 1300N/mm ²							
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	5500	180	35	0.011	4800	160	30	0.011	4000	120	25	0.010	8000	140	50	0.006
3.0	3700	200	35	0.018	3200	170	30	0.018	2600	130	25	0.017	5300	140	50	0.009
4.0	2800	200	35	0.024	2400	180	30	0.025	2000	130	25	0.022	4000	140	50	0.012
5.0	2200	200	35	0.030	1900	180	30	0.032	1600	130	25	0.027	3200	140	50	0.015
6.0	1800	200	35	0.037	1600	180	30	0.038	1300	130	25	0.033	2600	150	50	0.019
8.0	1400	200	35	0.048	1200	180	30	0.050	1000	130	25	0.043	2000	150	50	0.025
10.0	1100	200	35	0.061	950	180	30	0.063	800	130	25	0.054	1600	150	50	0.031
12.0	900	200	35	0.074	800	180	30	0.075	660	130	25	0.066	1300	150	50	0.038
14.0	800	200	35	0.083	700	180	30	0.086	570	130	25	0.076	1100	150	50	0.045
16.0	700	220	35	0.105	600	190	30	0.106	500	160	25	0.107	1000	170	50	0.057
20.0	550	220	35	0.133	480	190	30	0.132	400	160	25	0.133	800	180	50	0.075

MATERIAL	CAST IRON				ALUMINUM ALLOYS				COPPER. BRASS NON-FERROUS METALS			
	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	6500	330	40	0.017	16000	720	100	0.015	12000	540	75	0.015
3.0	4200	330	40	0.026	11000	690	105	0.021	8000	530	75	0.022
4.0	3200	340	40	0.035	8000	720	100	0.030	6000	540	75	0.030
5.0	2500	340	40	0.045	6400	710	100	0.037	4800	530	75	0.037
6.0	2100	400	40	0.063	5300	760	100	0.048	4000	580	75	0.048
8.0	1600	430	40	0.090	4000	760	100	0.063	3000	580	75	0.064
10.0	1300	450	40	0.115	3200	760	100	0.079	2400	580	75	0.081
12.0	1000	470	40	0.157	2600	760	100	0.097	2000	580	75	0.097
14.0	900	490	40	0.181	2300	760	100	0.110	1700	580	75	0.114
16.0	800	510	40	0.213	2000	760	100	0.127	1500	580	75	0.129
20.0	640	540	40	0.281	1600	760	100	0.158	1200	580	75	0.161



※ 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