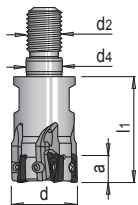
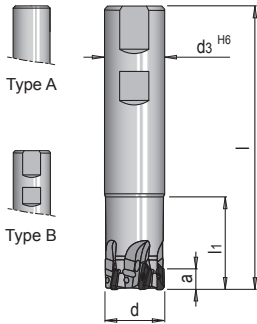


PRODUCT DESCRIPTION

- » Soft cut and very smooth running
- » High cutting performance
- » Extremely positive position on the indexable insert
- » Additional stability during plunging

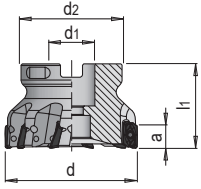


Indexable shoulder milling cutter 90° with steel shank											
WZT 2112	E	d3	d4	a	l1	PG	d	Z	l	No.	EUR
	E 7 (7IP)	16	-	6	32	07	16	3	165	WZT 2112/07/16/ 3/165/A	<>
	E 7 (7IP)	16	-	6	25	07	16	4	75	WZT 2112/07/16/ 4/ 75/B	<>
	E 7 (7IP)	20	-	6	40	07	20	4	200	WZT 2112/07/20/ 4/200/A	<>
	E 7 (7IP)	20	-	6	25	07	20	5	77	WZT 2112/07/20/ 5/ 77/B	<>
	E 7 (7IP)	20	-	6	50	07	25	5	225	WZT 2112/07/25/ 5/225/A	<>
	E 7 (7IP)	20	-	6	32	07	25	6	84	WZT 2112/07/25/ 6/ 84/B	<>
	E 7 (7IP)	25	-	6	40	07	32	8	98	WZT 2112/07/32/ 8/ 98/B	<>
	E 8 (8IP)	16	-	10	20	11	12	1	75	WZT 2112/11/12/ 1/ 75/B	<>
	E 9 (8IP)	16	-	10	25	11	16	2	75	WZT 2112/11/16/ 2/ 75/B	<>
	E 9 (8IP)	16	-	10	32	11	16	2	165	WZT 2112/11/16/ 2/165/A	<>
	E 9 (8IP)	20	-	10	25	11	20	2	77	WZT 2112/11/20/ 2/ 77/A	<>
	E 9 (8IP)	20	-	10	40	11	20	2	200	WZT 2112/11/20/ 2/200/A	<>
	E 9 (8IP)	20	-	10	25	11	20	3	77	WZT 2112/11/20/ 3/ 77/B	<>
	E 9 (8IP)	20	-	10	32	11	20	3	165	WZT 2112/11/20/ 3/165/A	<>
	E 9 (8IP)	25	-	10	32	11	25	3	90	WZT 2112/11/25/ 3/ 90/B	<>
	E 9 (8IP)	25	-	10	50	11	25	3	225	WZT 2112/11/25/ 3/225/A	<>
	E 9 (8IP)	25	-	10	32	11	25	4	90	WZT 2112/11/25/ 4/ 90/A	<>
	E 9 (8IP)	25	-	10	32	11	25	4	90	WZT 2112/11/25/ 4/ 90/B	<>
	E 9 (8IP)	25	-	10	40	11	25	4	165	WZT 2112/11/25/ 4/165/A	<>
	E 9 (8IP)	32	-	10	40	11	32	4	102	WZT 2112/11/32/ 4/102/B	<>
	E 9 (8IP)	32	-	10	64	11	32	4	250	WZT 2112/11/32/ 4/250/A	<>
	E 9 (8IP)	32	-	10	40	11	32	5	102	WZT 2112/11/32/ 5/102/A	<>
	E 9 (8IP)	32	-	10	50	11	32	5	165	WZT 2112/11/32/ 5/165/A	<>
Indexable shoulder milling cutter 90° with screw-in thread											
WZT 2114	E	d2	d4	a	l1	PG	d	Z	l	No.	EUR
	E 7 (7IP)	M 8	8.5	6	27	07	16	4	-	WZT 2114/07/16/ 4	<>
	E 7 (7IP)	M10	10.5	6	33	07	20	5	-	WZT 2114/07/20/ 5	<>
	E 7 (7IP)	M12	12.5	6	35	07	25	6	-	WZT 2114/07/25/ 6	<>
	E 7 (7IP)	M16	17	6	35	07	32	8	-	WZT 2114/07/32/ 8	<>
	E 9 (8IP)	M 8	8.5	10	27	11	16	2	-	WZT 2114/11/16/ 2	<>
	E 9 (8IP)	M10	10.5	10	33	11	20	3	-	WZT 2114/11/20/ 3	<>
	E 9 (8IP)	M12	12.5	10	35	11	25	3	-	WZT 2114/11/25/ 3	<>
	E 9 (8IP)	M12	12.5	10	35	11	25	4	-	WZT 2114/11/25/ 4	<>
	E 9 (8IP)	M16	17	10	35	11	32	4	-	WZT 2114/11/32/ 4	<>
	E 9 (8IP)	M16	17	10	35	11	32	5	-	WZT 2114/11/32/ 5	<>
	E 9 (8IP)	M16	17	10	35	11	40	6	-	WZT 2114/11/40/ 6	<>



Indexable shoulder milling cutter 90°, shell-type

WZT 2116	E	d1	d2	a	l1	PG	d	Z	l	No.	EUR
	E 7 (7IP), E25	16	38	6	40	07	32	6	-	WZT 2116/07/32/ 6	<>
	E 7 (7IP), E25	16	38	6	40	07	32	8	-	WZT 2116/07/32/ 8	<>
	E 7 (7IP), E25	16	38	6	40	07	40	8	-	WZT 2116/07/40/ 8	<>
	E 7 (7IP), E26	22	43	6	40	07	50	10	-	WZT 2116/07/50/10	<>
	E11 (8IP), E25	16	38	10	40	11	40	4	-	WZT 2116/11/40/ 4	<>
	E11 (8IP), E25	16	38	10	40	11	40	6	-	WZT 2116/11/40/ 6	<>
	E11 (8IP), E26	22	43	10	40	11	50	5	-	WZT 2116/11/50/ 5	<>
	E11 (8IP), E26	22	43	10	40	11	50	8	-	WZT 2116/11/50/ 8	<>
	E11 (8IP)	22	48	10	40	11	63	6	-	WZT 2116/11/63/ 6	<>
	E11 (8IP)	22	48	10	40	11	63	10	-	WZT 2116/11/63/10	<>
	E10 (15IP), E26	22	43	14	40	15	50	5	-	WZT 2116/15/50/ 5	<>
	E10 (15IP)	22	48	14	45	15	63	6	-	WZT 2116/15/63/ 6	<>



1) E: matching screws WZE 100 / WZE 200


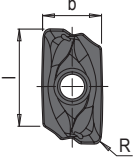
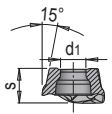
2) PG: plate size

i Supplied without indexable insert, with screw for indexable inserts

PRODUCT DESCRIPTION

- » Specifically for the materials used in die and mould making
- » Vibration-free work
- » Very smooth running
- » Soft cut through helix in cutting edge
- » Easy cutting geometry



WZP 211	ISO	b	l	s	d1	PG ¹⁾	R	PS ²⁾	 Pcs. / PU	No.	EUR
	XDKT 070304FR-F20	4.9	7.8	3.18	2.5	07	0.4	F20	10	WZP 211/07/0,4/F20	<>
	XDKT 070304SR-F50	4.9	7.8	3.18	2.5	07	0.4	F45	10	WZP 211/07/0,4/F45	<>
	XDKT 070304SR-F50	4.9	7.8	3.18	2.5	07	0.4	F54	10	WZP 211/07/0,4/F54	<>
	XDKT 070304SR-M50	4.9	7.8	3.18	2.5	07	0.4	M45	10	WZP 211/07/0,4/M45	<>
	XDKT 070304SR-M50	4.9	7.8	3.18	2.5	07	0.4	M54	10	WZP 211/07/0,4/M54	<>
	XDKT 070308FR-F20	4.9	7.8	3.18	2.5	07	0.8	F20	10	WZP 211/07/0,8/F20	<>
	XDKT 070308SR-F50	4.9	7.8	3.18	2.5	07	0.8	F45	10	WZP 211/07/0,8/F45	<>
	XDKT 070308SR-F50	4.9	7.8	3.18	2.5	07	0.8	F54	10	WZP 211/07/0,8/F54	<>
	XDKT 070308SR-M50	4.9	7.8	3.18	2.5	07	0.8	M45	10	WZP 211/07/0,8/M45	<>
	XDKT 070308SR-M50	4.9	7.8	3.18	2.5	07	0.8	M54	10	WZP 211/07/0,8/M54	<>
	XDKT 11T304SR-F50	6.8	10.6	3.5	2.8	11	0.4	F45	10	WZP 211/11/0,4/F45	<>
	XDKT 11T304SR-M50	6.8	10.6	3.5	2.8	11	0.4	M45	10	WZP 211/11/0,4/M45	<>
	XDKT 11T308SR-F50	6.8	10.6	3.5	2.8	11	0.8	F45	10	WZP 211/11/0,8/F45	<>
	XDKT 11T308SR-M50	6.8	10.6	3.5	2.8	11	0.8	M45	10	WZP 211/11/0,8/M45	<>
	XDKT 11T308SR-F50	6.8	10.6	3.5	2.8	11	0.8	F54	10	WZP 211/11/0,8/F54	<>
	XDKT 11T308SR-M50	6.8	10.6	3.5	2.8	11	0.8	M54	10	WZP 211/11/0,8/M54	<>
	XDKT 11T312SR-F50	6.8	10.6	3.5	2.8	11	1.2	F54	10	WZP 211/11/1,2/F54	<>
	XDKT 11T312SR-M50	6.8	10.6	3.5	2.8	11	1.2	M54	10	WZP 211/11/1,2/M54	<>
	XDKT 11T308SR-R60	6.8	10.6	3.5	2.8	11	0.8	R80	10	WZP 211/11/0,8/R80	<>
	XDHT 11T302FR-27P	6.8	10.6	3.5	2.8	11	0.2	F20	10	WZP 211/11/0,2/F20	<>
XDHT 11T304FR-27P	6.8	10.6	3.5	2.8	11	0.4	F20	10	WZP 211/11/0,4/F20	<>	
XDHT 11T308FR-27P	6.8	10.6	3.5	2.8	11	0.8	F20	10	WZP 211/11/0,8/F20	<>	
XDHT 11T312FR-27P	6.8	10.6	3.5	2.8	11	1.2	F20	10	WZP 211/11/1,2/F20	<>	
XDHT 11T316FR-27P	6.8	10.6	3.5	2.8	11	1.6	F20	10	WZP 211/11/1,6/F20	<>	
XDKT 150508SR-F50	9.3	14.8	5.56	4.5	15	0.8	F45	10	WZP 211/15/0,8/F45	<>	
XDKT 150508SR-F50	9.3	14.8	5.56	4.5	15	0.8	F54	10	WZP 211/15/0,8/F54	<>	
XDKT 150508SR-M50	9.3	14.8	5.56	4.5	15	0.8	M45	10	WZP 211/15/0,8/M45	<>	
XDKT 150508SR-M50	9.3	14.8	5.56	4.5	15	0.8	M54	10	WZP 211/15/0,8/M54	<>	
XDKT 150508SR-R60	9.3	14.8	5.56	4.5	15	0.8	R80	10	WZP 211/15/0,8/R80	<>	

1) PG: plate size

2) PS: plate type

 Overview of plate types on page IL

TECHNOLOGY DATA

Circular plunging	WZP 211 07				WZP 211 11				WZP 211 15			
	d1	Dmax ¹	Dmin ²	aR	d1	Dmax ¹	Dmin ²	aR	d1	Dmax ¹	Dmin ²	aR
	10	19	13	5.5°								
	12	23	17	6.0°	12	21	12	16.0°				
	16	31	25	3.0°	16	29	18	9.5°				
	20	39	33	2.0°	20	37	30	7.0°				
	25	49	43	1.5°	25	47	40	4.5°	25	48	37	7.5°
	32	63	57	1.2°	32	61	53	3.2°	32	62	47	5.0°
	40	79	73	0.8°	40	77	72	2.2°	40	78	63	3.2°
	50	99	93	0.7°	50	98	93	1.7°	50	98	86	2.5°
					63	123	118	1.5°	63	124	111	1.5°

Axial plunging	WZP 211 07		WZP 211 11		WZP 211 15	
	d1	t max	d1	t max	d1	t max
	10	0.8				
	12	0.8	12	1.3		
	16	0.8	16	1.5		
	20	0.8	20	2.0		
	25	0.8	25	2.0	25	2.7
	32	0.8	32	1.8	32	2.5
	40	0.8	40	1.6	40	2.5
	50	0.8	50	1.6	50	2.5
			63	1.6	63	2.5

Ramping	WZP 211 07		WZP 211 11		WZP 211 15	
	d1	aR	d1	aR	d1	aR
	10	11.0°				
	12	7.9°	12	18.0°		
	16	4.3°	16	10.8°		
	20	3.0°	20	9.8°		
	25	2.5°	25	7.5°	25	9.5°
	32	1.6°	32	4.8°	32	6.8°
	40	1.2°	40	2.9°	40	5.1°
	50	1.1°	50	2.2°	50	2.5°
			63	1.8°	63	2.5°

1) Dmin: smallest hole diameter [mm]

2) Dmax: largest diameter for flat bottom surfaces [mm]

REFERENCE VALUES FOR ROUGHING

WZP 211	Material	Strength	PS	Vc m/min.	WZP 211 07		WZP 211 11		WZP 211 15	
					fz mm	ap mm	fz mm	ap mm	fz mm	ap mm
	1.1730	640 N/mm ²	M 45	220	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	1.2083	780 N/mm ²	M 54	180	0.025 - 0.1	0.5 - 5	0.075 - 0.175	1 - 8	0.1 - 0.25	2 - 13
	1.2083	52 HRC	R 80	60			0.05 - 0.15	0.5 - 4	0.1 - 0.2	0.5 - 5
	1.2085	1080 N/mm ²	M 54	180	0.025 - 0.1	0.5 - 5	0.075 - 0.175	1 - 8	0.1 - 0.25	2 - 13
	1.2162	660 N/mm ²	M 45	200	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	1.2162	52 HRC	R 80	60			0.05 - 0.15	0.5 - 4	0.1 - 0.2	0.5 - 5
	1.2311	1080 N/mm ²	M 45	200	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	1.2312	1080 N/mm ²	M 45	200	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	1.2316	1010 N/mm ²	M 54	160	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	1.2343	780 N/mm ²	M 45	160	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	1.2343	52 HRC	R 80	60			0.05 - 0.15	0.5 - 4	0.1 - 0.2	0.5 - 5
	1.2379	780 N/mm ²	M 54	180	0.025 - 0.1	0.5 - 5	0.075 - 0.175	1 - 8	0.1 - 0.25	2 - 13
	1.2379	60 HRC	R 80	50			0.05 - 0.15	0.5 - 4	0.1 - 0.2	0.5 - 5
	1.2714HH	1350 N/mm ²	M 45	150	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	1.2767	830 N/mm ²	M 45	180	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	1.2767	52 HRC	R 80	60			0.05 - 0.15	0.5 - 4	0.1 - 0.2	0.5 - 5
	1.2842	775 N/mm ²	M 45	180	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	1.2842	60 HRC	R 80	50			0.05 - 0.15	0.5 - 4	0.1 - 0.2	0.5 - 5
	Steel	1400 N/mm ²	M 45	150	0.025 - 0.1	1 - 6	0.075 - 0.175	1.5 - 10	0.1 - 0.25	2 - 14
	3.3547	270 N/mm ²	F 20	1500	0.05 - 0.3	0.2 - 6	0.05 - 0.3	0.2 - 10	0.05 - 0.3	1 - 14
3.4365	520 N/mm ²	F 20	1000	0.05 - 0.3	0.2 - 6	0.05 - 0.3	0.2 - 10	0.05 - 0.3	1 - 14	