

_MC230 ADVANCE

Xill-tec™ –
Universal excellence for
milling applications

Xill-tec™

Xill-tec™ – universal and eXcellent.

NEW

THE TOOL

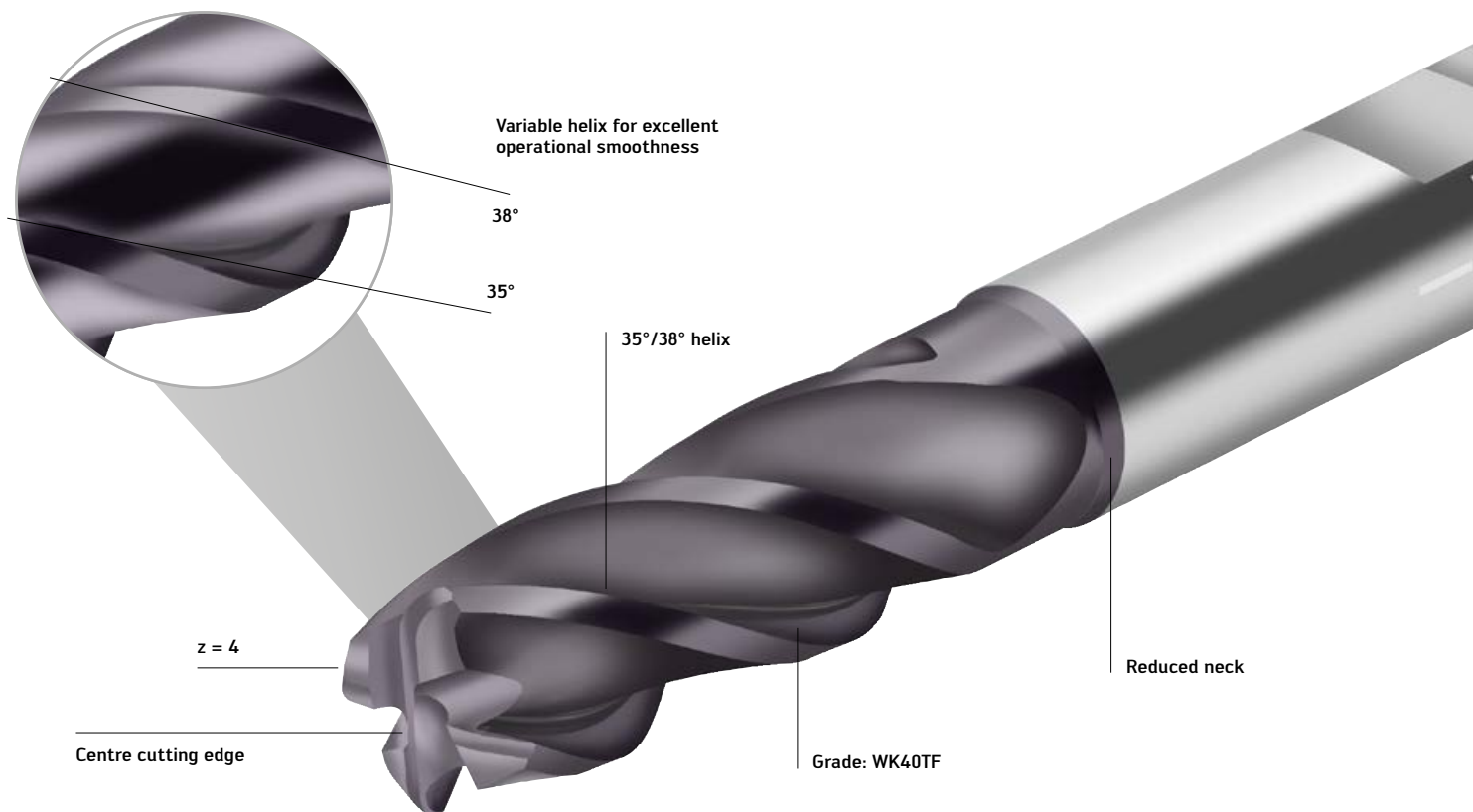
- MC230 Advance Xill-tec™ solid carbide milling cutter range
- $z = 4$
- Variable 35°/38° helix
- Corner radius: 0.2–4 mm, with protective chamfer
- Dia. 2–20 mm [DIN 6535 HA]
- Dia. 2–25 mm [DIN 6535 HB]

THE GRADE

- Universal, tough milling grade WK40TF with TiAlN coating

THE APPLICATION

- First choice for universal application when roughing and finishing
- Shoulder milling, full slotting, ramping and dynamic milling
- For ISO materials P, M, K, N and S
- Areas of use: General mechanical engineering, mould and die making, sub-supplier for the aerospace industry, medical technology, energy and automotive industries



Xill-tec™

MC230 Advance Xill-tec™ solid carbide milling cutter

Fig.: MC230 Advance WK40TF

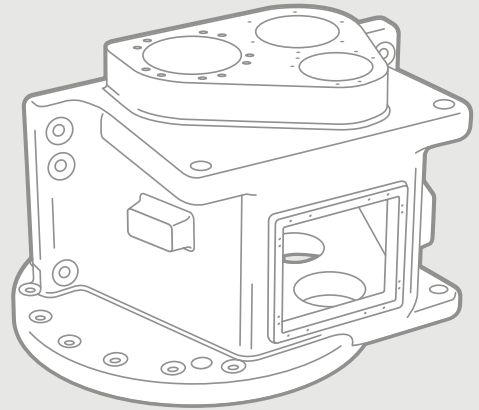




DIN 6527 L

APPLICATION EXAMPLE

Gearbox housing

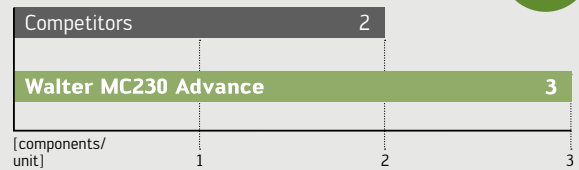


Material: G22NiMoCr5-6/1.6760;
Tensile strength: 900–1200 N/mm²
Tool: MC230-16.0W4B050C-WK40TF
Adaptor: HSK 100; Weldon
Cutting data:

	Competitors	Walter MC230-16.0W4B050C- WK40TF
v_c (m/min)	130	130
f_z (mm)	0,08	0,08
a_e (mm)	15,5	15,5
a_p (mm)	5–29	5–29
Number of components	2	3

Comparison: Number of components

+50%



BENEFITS FOR YOU

- Can be used universally with all ISO materials
- Low inventory costs
- Comprehensive range: With corner radii, protective chamfer, plain shank and Weldon shank
- Long tool life due to high-performance grade WK40EA
- Regrindable in all Walter Reconditioning Centres with performance guarantee

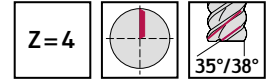
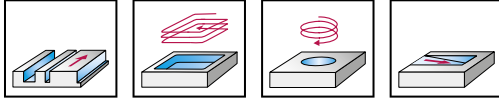
Solid carbide shoulder/slot milling cutters

MC230 Advance



Xill-tec™

– Long reach

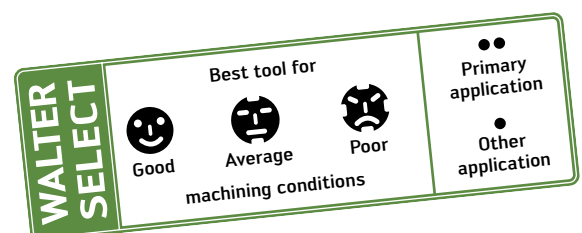


	P	M	K	N	S	H	O
WK40TF	●	●	●	●	●		

DIN 6527 L		D _c h10 mm	L _c mm	l ₃ mm	d ₂ mm	l ₁ mm	l ₄ mm	d ₁ h5 mm	Z	WK40TF
Shank DIN 6535 HA	MC230-02.0A4BC-	2	7	11	1,9	57	21	6	4	●
	MC230-02.5A4BC-	2,5	8	12	2,4	57	21	6	4	●
	MC230-03.0A4BC-	3	8	12	2,9	57	21	6	4	●
	MC230-03.5A4BC-	3,5	10	15	3,3	57	21	6	4	●
	MC230-04.0A4BC-	4	11	15	3,8	57	21	6	4	●
	MC230-04.5A4BC-	4,5	11	18	4,3	57	21	6	4	●
	MC230-05.0A4BC-	5	13	18	4,8	57	21	6	4	●
	MC230-05.5A4BC-	5,5	13	19	5,2	57	21	6	4	●
	MC230-06.0A4BC-	6	13	19	5,7	57	21	6	4	●
	MC230-06.5A4BC-	6,5	16	25	6,2	63	27	8	4	●
	MC230-07.0A4BC-	7	16	25	6,7	63	27	8	4	●
	MC230-08.0A4BC-	8	19	25	7,6	63	27	8	4	●
	MC230-09.0A4BC-	9	19	30	8,6	72	32	10	4	●
	MC230-10.0A4BC-	10	22	30	9,5	72	32	10	4	●
	MC230-12.0A4BC-	12	26	36	11,4	83	38	12	4	●
	MC230-14.0A4BC-	14	26	36	13,3	83	38	14	4	●
	MC230-16.0A4BC-	16	32	42	15,2	92	44	16	4	●
	MC230-18.0A4BC-	18	32	42	17,1	92	44	18	4	●
	MC230-20.0A4BC-	20	38	52	19	104	54	20	4	●
	Shank DIN 6535 HB	MC230-02.0W4BC-	2	7	11	1,9	57	21	6	4
MC230-02.5W4BC-		2,5	8	12	2,4	57	21	6	4	●
MC230-03.0W4BC-		3	8	12	2,9	57	21	6	4	●
MC230-04.0W4BC-		4	11	15	3,8	57	21	6	4	●
MC230-05.0W4BC-		5	13	18	4,8	57	21	6	4	●
MC230-06.0W4BC-		6	13	19	5,7	57	21	6	4	●
MC230-07.0W4BC-		7	16	25	6,7	63	27	8	4	●
MC230-08.0W4BC-		8	19	25	7,6	63	27	8	4	●
MC230-09.0W4BC-		9	19	30	8,6	72	32	10	4	●
MC230-10.0W4BC-		10	22	30	9,5	72	32	10	4	●
MC230-12.0W4BC-		12	26	36	11,4	83	38	12	4	●
MC230-14.0W4BC-		14	26	36	13,3	83	38	14	4	●
MC230-16.0W4BC-		16	32	42	15,2	92	44	16	4	●
MC230-18.0W4BC-		18	32	42	17,1	92	44	18	4	●
MC230-20.0W4BC-		20	38	52	19	104	54	20	4	●
MC230-25.0W4BC-	25	45	63	23,8	121	65	25	4	●	

Ordering example for the WK40TF grade: MC230-02.0A4BC-WK40TF

Continued



DIN 6527 L		D _c h9 mm	R mm	L _c mm	l ₃ mm	d ₂ mm	l ₁ mm	l ₄ mm	d ₁ h5 mm	Z	WK40TF
Shank DIN 6535 HA	MC230-02.0A4B020C-	2	0,2	7	11	1,9	57	21	6	4	☺
	MC230-03.0A4B030C-	3	0,3	8	12	2,9	57	21	6	4	☺
	MC230-03.0A4B050C-	3	0,5	8	12	2,9	57	21	6	4	☺
	MC230-04.0A4B020C-	4	0,2	11	15	3,8	57	21	6	4	☺
	MC230-04.0A4B050C-	4	0,5	11	15	3,8	57	21	6	4	☺
	MC230-05.0A4B050C-	5	0,5	13	18	4,8	57	21	6	4	☺
	MC230-05.0A4B100C-	5	1	13	18	4,8	57	21	6	4	☺
	MC230-06.0A4B050C-	6	0,5	13	19	5,7	57	21	6	4	☺
	MC230-06.0A4B080C-	6	0,8	13	19	5,7	57	21	6	4	☺
	MC230-06.0A4B100C-	6	1	13	19	5,7	57	21	6	4	☺
	MC230-08.0A4B050C-	8	0,5	19	25	7,6	63	27	8	4	☺
	MC230-08.0A4B080C-	8	0,8	19	25	7,6	63	27	8	4	☺
	MC230-08.0A4B100C-	8	1	19	25	7,6	63	27	8	4	☺
	MC230-08.0A4B150C-	8	1,5	19	25	7,6	63	27	8	4	☺
	MC230-08.0A4B200C-	8	2	19	25	7,6	63	27	8	4	☺
	MC230-10.0A4B050C-	10	0,5	22	30	9,5	72	32	10	4	☺
	MC230-10.0A4B080C-	10	0,8	22	30	9,5	72	32	10	4	☺
	MC230-10.0A4B100C-	10	1	22	30	9,5	72	32	10	4	☺
	MC230-10.0A4B150C-	10	1,5	22	30	9,5	72	32	10	4	☺
	MC230-10.0A4B200C-	10	2	22	30	9,5	72	32	10	4	☺
	MC230-12.0A4B050C-	12	0,5	26	36	11,4	83	38	12	4	☺
	MC230-12.0A4B080C-	12	0,8	26	36	11,4	83	38	12	4	☺
	MC230-12.0A4B100C-	12	1	26	36	11,4	83	38	12	4	☺
	MC230-12.0A4B150C-	12	1,5	26	36	11,4	83	38	12	4	☺
	MC230-12.0A4B200C-	12	2	26	36	11,4	83	38	12	4	☺
	MC230-12.0A4B250C-	12	2,5	26	36	11,4	83	38	12	4	☺
	MC230-12.0A4B300C-	12	3	26	36	11,4	83	38	12	4	☺
	MC230-16.0A4B050C-	16	0,5	32	42	15,2	92	44	16	4	☺
	MC230-16.0A4B100C-	16	1	32	42	15,2	92	44	16	4	☺
	MC230-16.0A4B200C-	16	2	32	42	15,2	92	44	16	4	☺
	MC230-16.0A4B250C-	16	2,5	32	42	15,2	92	44	16	4	☺
	MC230-16.0A4B300C-	16	3	32	42	15,2	92	44	16	4	☺
MC230-16.0A4B400C-	16	4	32	42	15,2	92	44	16	4	☺	
MC230-20.0A4B050C-	20	0,5	38	52	19	104	54	20	4	☺	
MC230-20.0A4B100C-	20	1	38	52	19	104	54	20	4	☺	
MC230-20.0A4B200C-	20	2	38	52	19	104	54	20	4	☺	
MC230-20.0A4B250C-	20	2,5	38	52	19	104	54	20	4	☺	
MC230-20.0A4B300C-	20	3	38	52	19	104	54	20	4	☺	
MC230-20.0A4B400C-	20	4	38	52	19	104	54	20	4	☺	
Shank DIN 6535 HB	MC230-05.0W4B050C-	5	0,5	13	18	4,8	57	21	6	4	☺
	MC230-06.0W4B050C-	6	0,5	13	19	5,7	57	21	6	4	☺
	MC230-06.0W4B080C-	6	0,8	13	19	5,7	57	21	6	4	☺
	MC230-06.0W4B100C-	6	1	13	19	5,7	57	21	6	4	☺
	MC230-08.0W4B050C-	8	0,5	19	25	7,6	63	27	8	4	☺
	MC230-08.0W4B080C-	8	0,8	19	25	7,6	63	27	8	4	☺
	MC230-08.0W4B100C-	8	1	19	25	7,6	63	27	8	4	☺
	MC230-08.0W4B150C-	8	1,5	19	25	7,6	63	27	8	4	☺
	MC230-08.0W4B200C-	8	2	19	25	7,6	63	27	8	4	☺
	MC230-10.0W4B050C-	10	0,5	22	30	9,5	72	32	10	4	☺
	MC230-10.0W4B080C-	10	0,8	22	30	9,5	72	32	10	4	☺
	MC230-10.0W4B100C-	10	1	22	30	9,5	72	32	10	4	☺
	MC230-10.0W4B150C-	10	1,5	22	30	9,5	72	32	10	4	☺
	MC230-10.0W4B200C-	10	2	22	30	9,5	72	32	10	4	☺
	MC230-12.0W4B050C-	12	0,5	26	36	11,4	83	38	12	4	☺
	MC230-12.0W4B080C-	12	0,8	26	36	11,4	83	38	12	4	☺
	MC230-12.0W4B100C-	12	1	26	36	11,4	83	38	12	4	☺
	MC230-12.0W4B150C-	12	1,5	26	36	11,4	83	38	12	4	☺
	MC230-12.0W4B200C-	12	2	26	36	11,4	83	38	12	4	☺
	MC230-12.0W4B250C-	12	2,5	26	36	11,4	83	38	12	4	☺
MC230-12.0W4B300C-	12	3	26	36	11,4	83	38	12	4	☺	
MC230-16.0W4B050C-	16	0,5	32	42	15,2	92	44	16	4	☺	

Ordering example for the WK40TF grade: MC230-02.0A4B020C-WK40TF

Continued

C1

Continued

DIN 6527 L		D_c h9 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40TF
Shank DIN 6535 HB 	MC230-16.0W4B100C-	16	1	32	42	15,2	92	44	16	4	
	MC230-16.0W4B200C-	16	2	32	42	15,2	92	44	16	4	
	MC230-16.0W4B250C-	16	2,5	32	42	15,2	92	44	16	4	
	MC230-16.0W4B300C-	16	3	32	42	15,2	92	44	16	4	
	MC230-16.0W4B400C-	16	4	32	42	15,2	92	44	16	4	
	MC230-20.0W4B050C-	20	0,5	38	52	19	104	54	20	4	
	MC230-20.0W4B100C-	20	1	38	52	19	104	54	20	4	
	MC230-20.0W4B200C-	20	2	38	52	19	104	54	20	4	
	MC230-20.0W4B250C-	20	2,5	38	52	19	104	54	20	4	
	MC230-20.0W4B300C-	20	3	38	52	19	104	54	20	4	
	MC230-20.0W4B400C-	20	4	38	52	19	104	54	20	4	
	MC230-25.0W4B100C-	25	1	45	63	23,8	121	65	25	4	
	MC230-25.0W4B200C-	25	2	45	63	23,8	121	65	25	4	
	MC230-25.0W4B300C-	25	3	45	63	23,8	121	65	25	4	
	MC230-25.0W4B400C-	25	4	45	63	23,8	121	65	25	4	

Ordering example for the WK40TF grade: MC230-02.0A4B020C-WK40TF

Cutting data for solid carbide shoulder/slot milling

						Product family		λ			
						MC230 Advance Xill-tec™		35°/38°			
Material group	Overview of the main material groups and code letters					Ø 2–25 mm					
						Z = 4					
						WK40TF					
						Starting values for cutting speed v _c [m/min]					
						a _e / D _c					
						1/1	1/2	1/10	VT		
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	150	185	264	A	
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2	206	253	363	A	
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3	175	216	310	A	
		C > 0.55%	Annealed	190	639	P4	175	216	310	A	
		C > 0.55%	Heat-treated	300	1013	P5	124	153	219	A	
		Free-machining steel (short-chipping)	Annealed	220	745	P6	175	216	310	A	
	Low-alloy steel	Annealed		175	591	P7	175	216	310	A	
		Heat-treated		300	1013	P8	109	135	192	A	
		Heat-treated		380	1282	P9	102	127	181	A	
		Heat-treated		430	1477	P10	87	107	153	A	
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11	175	216	310	A	
		Hardened and tempered		300	1013	P12	124	153	219	A	
		Hardened and tempered		400	1361	P13	102	127	181	A	
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14	60	74	106	A	
		Martensitic, heat-treated		330	1114	P15	49	61	87	A	
M	Stainless steel	Austenitic, quench hardened		200	675	M1	71	87	125	B	
		Austenitic, precipitation hardened (PH)		300	1013	M2	44	55	78	B	
		Austenitic/ferritic, duplex		230	778	M3	61	75	107	B	
K	Malleable cast iron	Ferritic		200	675	K1	164	203	290	A	
		Pearlitic		260	867	K2	129	159	226	A	
	Grey cast iron	Low tensile strength		180	602	K3	164	203	290	A	
		High tensile strength/austenitic		245	825	K4	138	170	243	A	
	Cast iron with spheroidal graphite	Ferritic		155	518	K5	164	203	290	A	
		Pearlitic		265	885	K6	129	159	226	A	
GGV (CGI)			200	675	K7	110	136	194	A		
N	Wrought aluminium alloys	Not hardenable		30	–	N1					
		Hardenable, hardened		100	343	N2					
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	579	720	1030	C	
		≤ 12% Si, hardenable, hardened		90	314	N4	579	720	1030	C	
		> 12% Si, not hardenable		130	447	N5					
	Magnesium-based alloys			70	250	N6					
Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	343	N7						
	Brass, bronze, red brass		90	314	N8	417	518	740	C		
	Cu alloys, short-chipping		110	382	N9	417	518	740	C		
	High tensile, Ampco		300	1013	N10	56	70	99	C		
S	Heat-resistant alloys	Fe-based	Annealed		200	675	S1	46	57	81	B
			Hardened		280	943	S2	29	35	50	B
		Ni- or Co-based	Annealed		250	839	S3	46	57	81	B
			Hardened		350	1177	S4	29	35	50	B
			Cast		320	1076	S5	29	35	50	B
	Titanium alloys	Pure titanium		200	675	S6	49	61	87	B	
		α and β alloys, hardened		375	1262	S7	49	61	87	B	
		β alloys		410	1396	S8	26	32	46	B	
	Tungsten alloys			300	1013	S9	65	80	114	B	
	Molybdenum alloys			300	1013	S10	65	80	114	B	
H	Hardened steel	Hardened and tempered		50 HRC	–	H1					
		Hardened and tempered		55 HRC	–	H2					
		Hardened and tempered		60 HRC	–	H3					
	Hardened cast iron			55 HRC	–	H4					
O	Thermoplastics	Without abrasive fillers									
	Thermosets	Without abrasive fillers									
	Plastic, glass-fibre-reinforced	GFRP									
	Plastic, carbon-fibre-reinforced	CFRP									
	Plastic, aramid-fibre-reinforced	AFRP									
	Graphite (technical)			80 Shore							

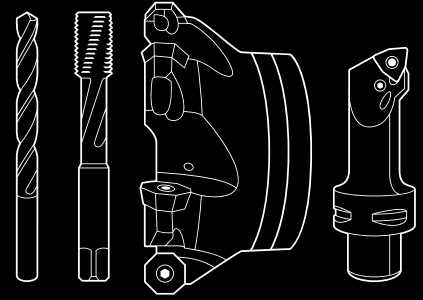
¹ The classification of the machining groups can be found in the General Catalogue from page C 671 onwards.

C 1

Walter AG

Derendinger Straße 53, 72072 Tübingen
Postfach 2049, 72010 Tübingen
Germany

walter-tools.com



Europe

Walter Austria GmbH

Wien, Österreich
+43 1 5127300-0, service.at@walter-tools.com

Walter Benelux N.V./S.A.

Zaventem, Belgique
(B) +32 (02) 7258500
(NL) +31 (0) 900 26585-22
service.benelux@walter-tools.com

Walter (Schweiz) AG

Solothurn, Schweiz
+41 (0) 32 617 40 72, service.ch@walter-tools.com

Walter CZ s.r.o

Kurim, Czech Republic
+420 (0) 541 423352, service.cz@walter-tools.com

Walter Deutschland GmbH

Frankfurt, Deutschland
+49 (0) 69 78902-100, service.de@walter-tools.com

Walter France

Soultz-sous-Forêts, France
+33 (0) 3 88 80 20 00, service.fr@walter-tools.com

Walter Hungária Kft.

Budapest, Magyarorszá
+36 1 464 7160, service.hu@walter-tools.com

Walter Tools Ibérica S.A.U.

El Prat de Llobregat, España
+34 934 796760, service.iberica@walter-tools.com

Walter Italia s.r.l.

Via Volta, s.n.c., 22071 Cadorago - CO, Italia
+39 031 926-111, service.it@walter-tools.com

Walter Norden AB

Halmstad, Sweden
+46 (0) 35 16 53 00, service.norden@walter-tools.com

Walter Polska Sp. z o.o.

Warszawa, Polska
+48 (0) 22 8520495, service.pl@walter-tools.com

Walter Tools SRL

Timișoara, România
+40 (0) 256 406218, service.ro@walter-tools.com

ООО „Вальтер“

г. Санкт-Петербург
+7 (812) 334 54 56, service.ru@walter-tools.com

Walter Tools d.o.o.

Maribor, Slovenija
+386 (2) 629 01 30, service.si@walter-tools.com

Walter Slovakia, s.r.o.

Nitra, Slovakia
+421 (0) 37 3260 910, service.sk@walter-tools.com

Walter Kesici Takımlar Sanayi ve Ticaret Ltd. Şti.

Istanbul, Türkiye
+90 (0) 216 528 1900 Pbx, service.tr@walter-tools.com

Walter GB Ltd.

Bromsgrove, England
+44 (1527) 839 450, service.uk@walter-tools.com

Asia

Walter Wuxi Co. Ltd.

Wuxi, Jiangsu, P.R. China
+86 (510) 853 72199, service.cn@walter-tools.com

Walter Wuxi Co. Ltd.

中国江苏省无锡市新区新畅南路 3 号
电话: +86-510-8537 2199 邮编: 214028
客服热线: 400 1510 510
邮箱: service.cn@walter-tools.com

Walter Tools India Pvt. Ltd.

Pune, India
+91 (20) 6773 7300, service.in@walter-tools.com

Walter Japan K.K.

Nagoya, Japan
+81 (52) 533 6135, service.jp@walter-tools.com

ワルタージャパン株式会社

名古屋市中村区名駅二丁目 45 番 7 号
+81 (0) 52 533 6135, service.jp@walter-tools.com

Walter Korea Ltd.

Anyang-si Gyeonggi-do, Korea
+82 (31) 337 6100, service.wkr@walter-tools.com

한국발터(주)

경기도 안양시 동안구 학의로 282
금강펜테리움 106호 14056
+82 (0) 31 337 6100, service.wkr@walter-tools.com

Walter Malaysia Sdn. Bhd.

Selangor D.E., Malaysia
+60(3)-5624 4265, service.my@walter-tools.com

Walter AG Singapore Pte. Ltd.

+65 6773 6180, service.sg@walter-tools.com

Walter (Thailand) Co., Ltd.

Bangkok, 10120, Thailand
+66 2 687 0388, service.th@walter-tools.com