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Our Product Portfolio

MILLING

TURNING

GROOVING

DRILLING

MULTICUT

The Origin of Galtona O.K.

We are proud to present Galtona UK as one of the pioneers in Metalworking Excellence.

Explore the realm of exceptional metalworking prowess with Galtona UK, which has been a trailblazer in the industry for decades.

As an esteemed manufacturer, specializing in precision machining solutions, Galtona UK presents an extreme array of cutting-edge tools especially designed and built to suit diverse turning, milling, threading, and drilling needs.

Our collaborative approach is unique. We closely work with our clients to embark on a journey of 'co-creation' by fashioning bespoke solutions for addressing the intricate demands of aviation, aerospace, automotive, energy, and general engineering sectors.

In the vanguard of innovation, we're not just engineers; we're digital architects. Our expertise extends to sculpting digital process solutions that redefine efficiency standards.

Embodying a profound commitment, Galtona UK promotes a sustainable and visionary energy landscape. Join us in our mission to illuminate the path towards tomorrow.

General overview

The complete programme from ø 8 – 32 mm with cutting depths of 1.5D and 2.25D

Productivity

The system:

4 machining operations – only one tool

1. Drilling into solid material with flat bottom holes
2. Boring applications
3. Turning of face profiles
4. External turning applications

Your benefits:

- Problem solver for insufficient tool storage
- Less programming effort
- Produces a flat bottom hole
- Reduced tool and insert inventory costs
- Considerable acquisition cost savings
- Shorter set-up times. Reduced pre-setting time

Grades for Inserts:

- Three coated high-performance grades: GTCP425, GTCP435, GTPP430 and a new one for aluminium: GTWN715.
- Capable to cover all the ISO material groups P, M, K, N and S.

Available in 2 lengths:

1.5 x D

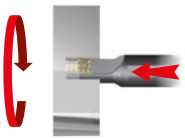
2.25 x D

Tool performances:

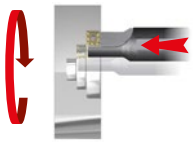
- Optimised stability
- Torx Plus screws for better insert clamping. Easier and more reliable handling
- "Hard & tough" surfaces for easy chip evacuating and reduced surface abrasion

Multi-purpose tool:

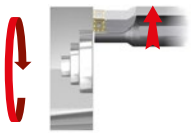
Turning and boring ø ≥ 8 mm



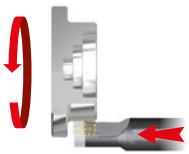
Drilling with flat bottom face



Turning of internal profiles



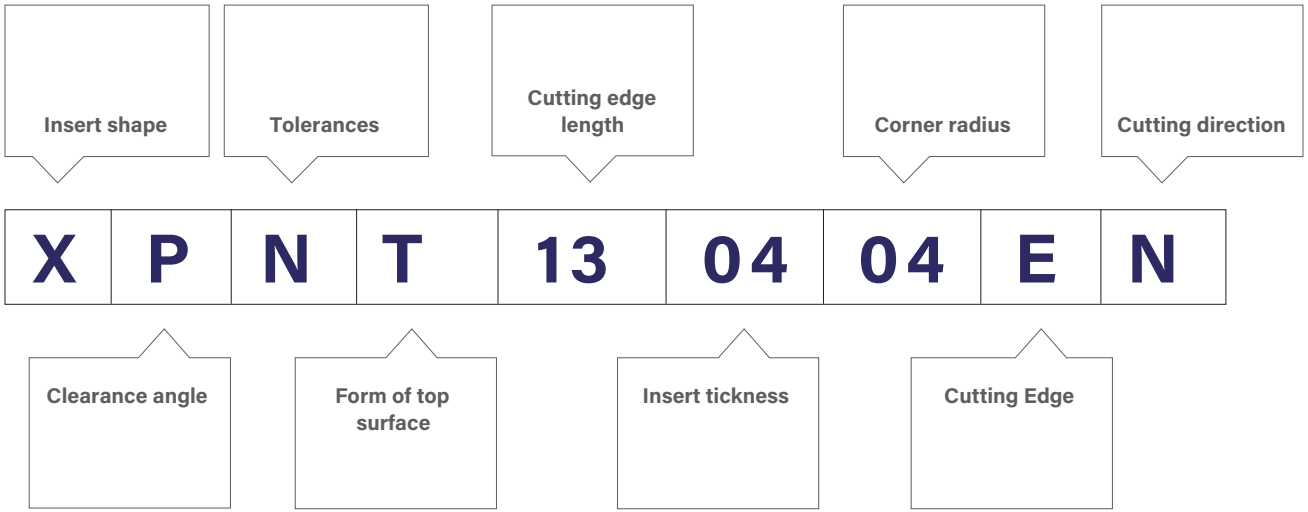
Facing operations



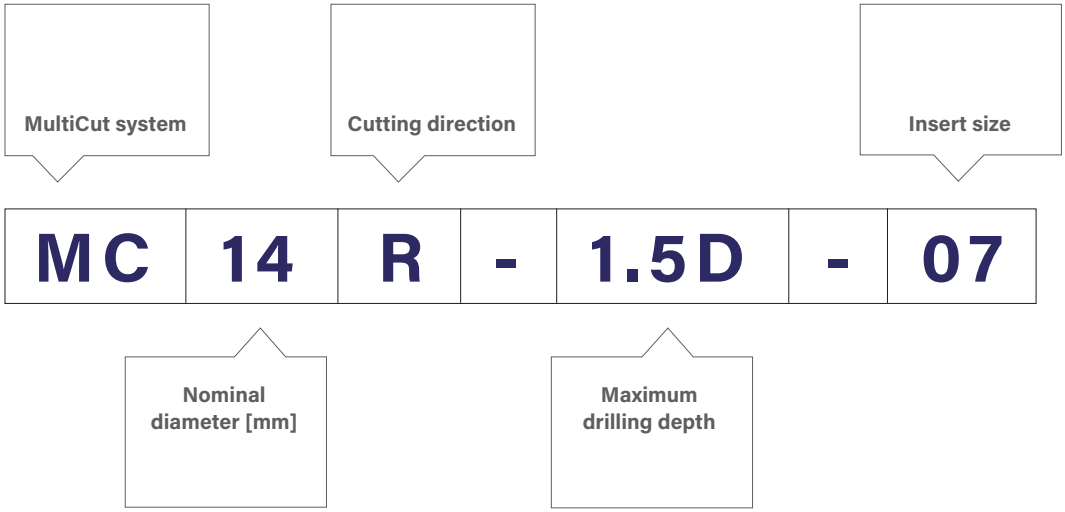
Turning of external profiles

GALTONA designation system

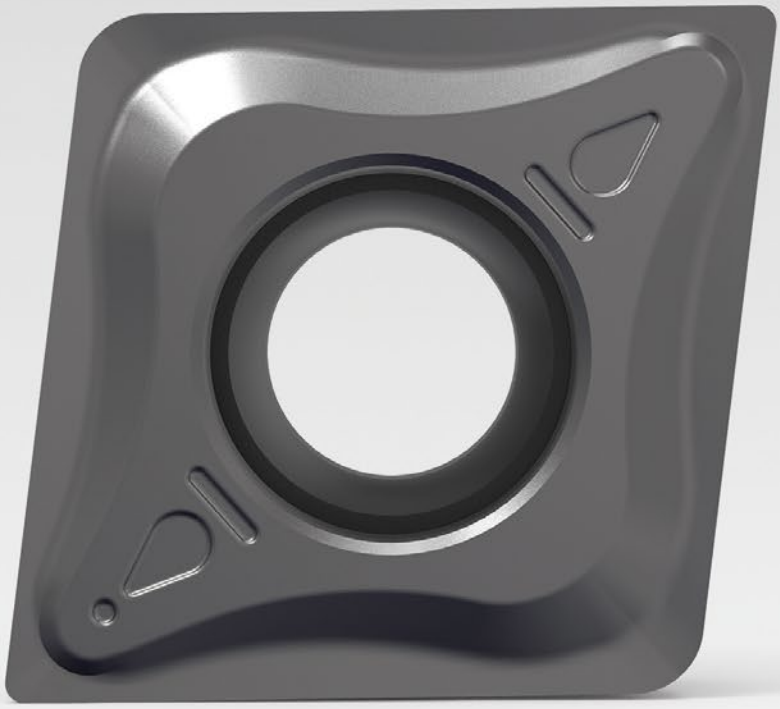
Designation system for inserts



Designation system for holders

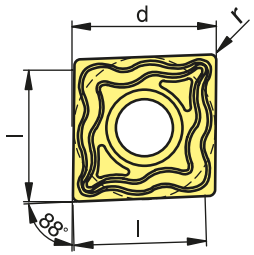


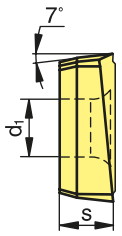
MultiCut
XPNT



XPNT Inserts

Designation	d [mm]	l [mm]	s [mm]	r [mm]	d_1 [mm]	GTCP425	GTPP430	GTCP435
XPNT 040204EL	4.50	4.00	1.80	0.40	2.10	on request	12052485	12052488
XPNT 040204ER	4.50	4.00	1.80	0.40	2.10	on request	12052490	12052492
XPNT 050204EN	5.80	5.00	2.10	0.40	2.25	on request	12052495	12052497
XPNT 060204EN	6.50	6.00	2.92	0.40	2.50	on request	12052498	12052499
XPNT 070304EN	7.60	7.00	3.87	0.40	2.80	on request	12052501	12052503
XPNT 080304EN	8.50	8.00	3.87	0.40	3.40	on request	12131066	12131067
XPNT 090404EN	9.60	9.00	4.66	0.40	3.40	on request	12053144	12053143
XPNT 100404EN	10.60	10.00	4.66	0.40	4.40	on request	12053158	12053146
XPNT 100408EN	10.60	10.00	4.66	0.80	4.40	on request	12053160	12053159
XPNT 130504EN	13.50	12.50	5.45	0.40	5.30	on request	12053165	12053162
XPNT 130508EN	13.50	12.50	5.45	0.80	5.30	on request	12053168	12053166
XPNT 170608EN	17.50	16.00	6.25	0.80	5.30	on request	12053173	12053172





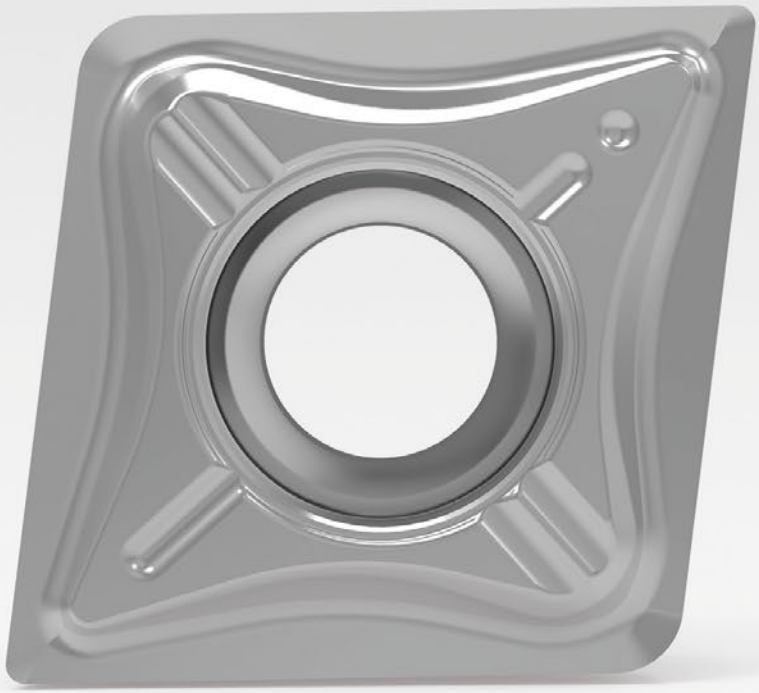
P	●	●	●
M	○	●	○
K	●	○	●
N		○	
S		●	
H			

● Main application
○ Extended application

MultiCut

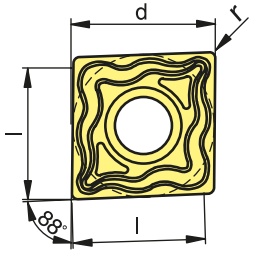
XPET ALUMINIUM

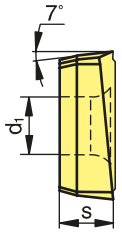
Polished – grinded



XPET inserts for aluminium

Designation	d [mm]	l [mm]	s [mm]	r [mm]	d_1 [mm]	GTWN715
XPET 050204FN	5.80	5.00	2.10	0.40	2.25	12564629
XPET 060204FN	6.50	6.00	2.92	0.40	2.50	12558732
XPET 070304FN	7.60	7.00	3.87	0.40	2.80	12545420
XPET 080304FN	8.50	8.00	3.87	0.40	3.40	12558731
XPET 090404FN	9.60	9.00	4.66	0.40	3.40	12558729
XPET 100404FN	10.60	10.00	4.66	0.40	4.40	12564630
XPET 130504FN	13.50	12.50	5.45	0.40	5.30	12564631
XPET 170608FN	17.50	16.00	6.25	0.80	5.30	12564633



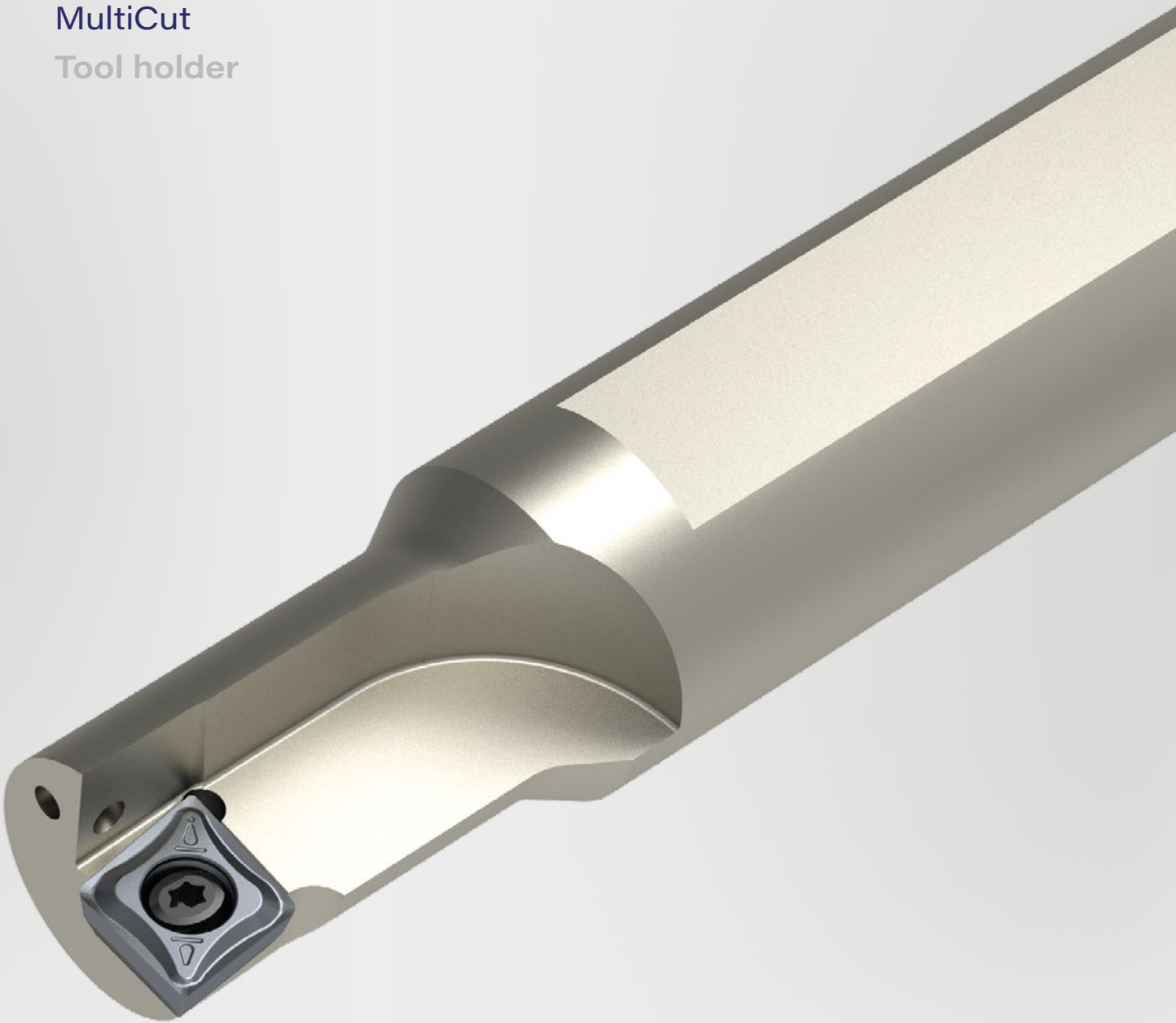


P	
M	
K	
N	●
S	
H	

● Main application
○ Extended application

MultiCut

Tool holder

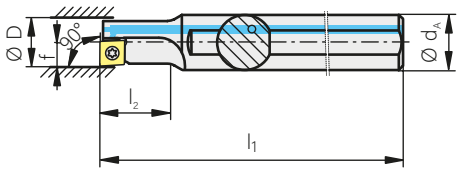


Drilling depth up to 1.5 x D

Available range for XPNT and XPET

D [mm]	Type Description	Material	d_A [mm]	l_1 [mm]	l_2 [mm]	f [mm]	[XPNT/XPET]			
8.00	MC 08R-1.5D 04* MC 08L-1.5D 04*	MM12035031 MM12035027	12.00	80.00	12.00	4.00	XPNT 0402	11807484	–	11843205
10.00	MC 10R-1.5D 05 MC 10L-1.5D 05	MM12035040 MM12035034	12.00	90.00	15.00	5.00	XP...T 0502	11807480	–	11843205
12.00	MC 12R-1.5D 06 MC 12L-1.5D 06	MM12035057 MM12035052	16.00	100.00	18.00	6.00	XP...T 0602	11684214	–	11488748
14.00	MC 14R-1.5D 07 MC 14L-1.5D 07	MM12035065 MM12160177	16.00	110.00	21.00	7.00	XP...T 0703	11684216	–	11206195
16.00	MC 16R-1.5D 08 MC 16L-1.5D 08	MM12035070 MM12158340	20.00	125.00	24.00	8.00	XP...T 0803	11227305	–	11843208
18.00	MC 18R-1.5D 09 MC 18L-1.5D 09	MM12035453 MM12160172	25.00	135.00	27.00	9.00	XP...T 0904	11227305	–	11843208
20.00	MC 20R-1.5D 10 MC 20L-1.5D 10	MM12035456 MM12160171	25.00	150.00	30.00	10.00	XP...T 1004	11610311	11450858	–
25.00	MC 25R-1.5D 13 MC 25L-1.5D 13	MM12035458 MM12160170	32.00	180.00	37.50	12.50	XP...T 1305	11801441	11816974	–
32.00	MC 32R-1.5D 17 MC 32L-1.5D 17	MM12035460 MM12160168	40.00	200.00	48.00	16.00	XP...T 1706	11801441	11816974	–

* Right-hand holder → Right-hand indexable insert
* Left-hand holder → Left-hand indexable insert



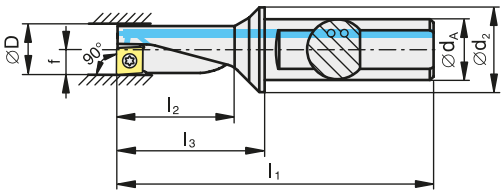
Drawing shows right-hand tool

Drilling depth up to 2.25 x D

Available range for XPNT and XPET

D [mm]	Type Description	Material	d_A [mm]	d_2 [mm]	l_1 [mm]	l_2 [mm]	l_3 [mm]	f [mm]	[XPNT/XPET]			
8.00	MC 08R-2.25D 04*	MM12035032	10.00	15.00	60.00	18.00	22.00	4.00	XPNT 0402	11807484	–	11843205
	MC 08L-2.25D 04*	MM12035029										
10.00	MC 10R-2.25D 05	MM12035047	12.00	18.00	69.50	22.50	27.50	5.00	XP...T 0502	11807480	–	11843205
	MC 10L-2.25D 05	MM12035037										
12.00	MC 12R-2.25D 06	MM12035064	16.00	22.00	78.00	27.00	33.00	6.00	XP...T 0602	11684214	–	11488748
	MC 12L-2.25D 06	MM12035054										
14.00	MC 14R-2.25D 07	MM12035069	16.00	23.00	83.50	31.50	38.50	7.00	XP...T 0703	11684216	–	11206195
	MC 14L-2.25D 07	MM12160167										
16.00	MC 16R-2.25D 08	MM12035076	20.00	28.00	94.00	36.00	44.00	8.00	XP...T 0803	11227305	–	11843208
	MC 16L-2.25D 08	MM12160165										
18.00	MC 18R-2.25D 09	MM12035454	25.00	36.00	109.50	40.50	53.50	9.00	XP...T 0904	11227305	–	11843208
	MC 18L-2.25D 09	MM12160164										
20.00	MC 20R-2.25D 10	MM12035457	25.00	35.00	111.00	45.00	55.00	10.00	XP...T 1004	11610311	11450858	–
	MC 20L-2.25D 10	MM12160163										
25.00	MC 25R-2.25D 13	MM12035459	32.00	44.00	129.00	56,50	69.00	12.50	XP...T 1304	11801441	11816974	–
	MC 25L-2.25D 13	MM12160162										
32.00	MC 32R-2.25D 17	MM12035461	40.00	54.00	158.00	72.00	88.00	16.00	XP...T 1706	11801441	11816974	–
	MC 32L-2.25D 17	MM12160157										

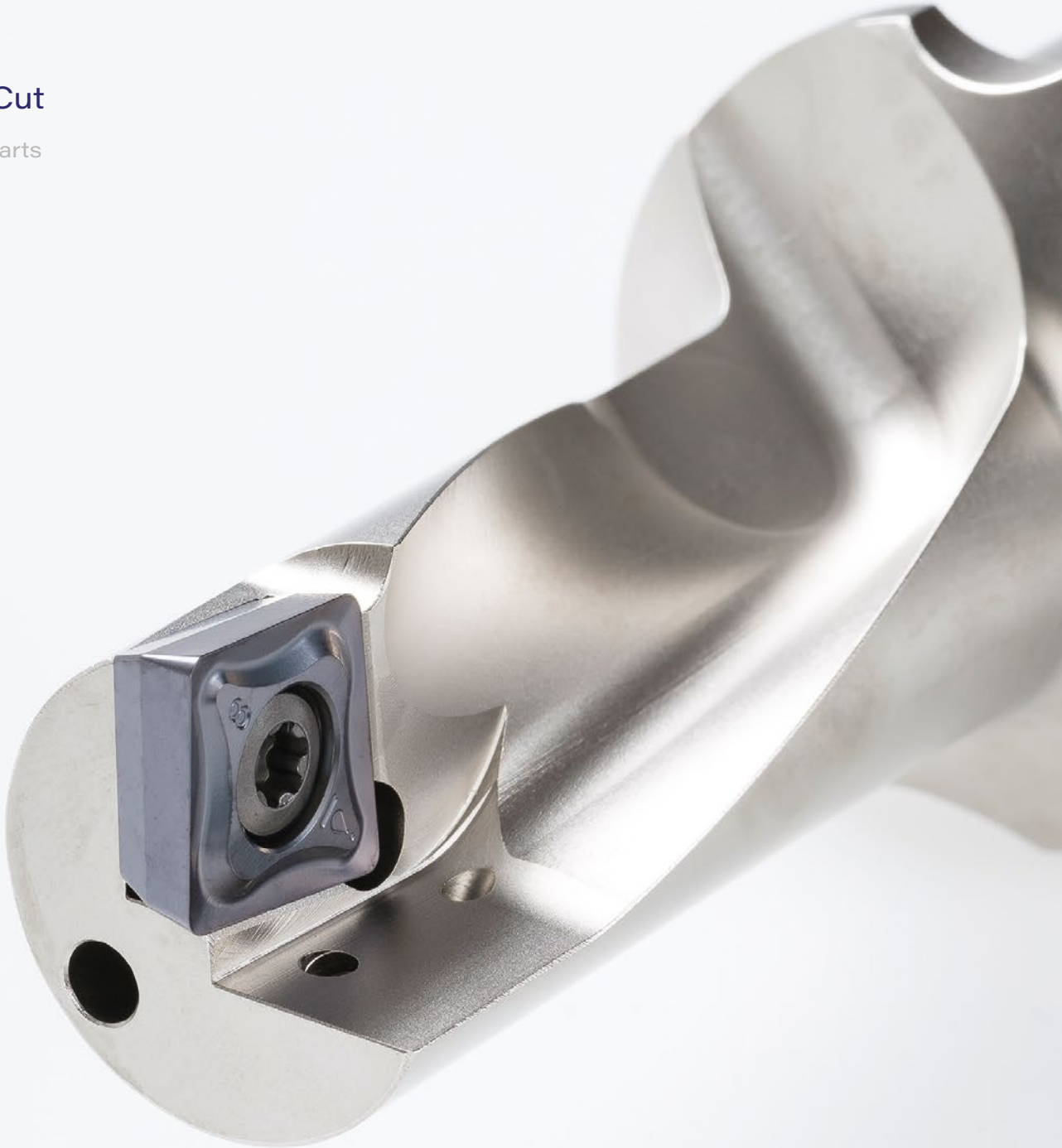
* Right-hand holder → Right-hand indexable insert
* Left-hand holder → Left-hand indexable insert



Drawing shows right-hand tool

MultiCut

Spare parts



Spare parts

	Material	Type description	Key size
	MM11206195	10002494/TORX 08IP F	T08IP
	MM1148748	10007404/TORX 07IP F	T07IP
	MM11843205	10014921/TORX 06IP F	T06IP
	MM11843208	10014922/TORX 09IP F	T09IP
	MM11450858	10006919/TORX 15IP	T15IP
	MM11816974	10013909/TORX 20IP	T20IP

	Material	Type description	Length [mm]	Thread size	Key size
	MM11227305	M3.0x7.0-09IP/10003007	7.00	M3.0	T09IP
	MM11610311	M3.5x8.6-15IP/1000749	8.60	M3.5	T15IP
	MM11684214	M2.2x5.0-071IP/10009244	5.00	M2.2	T07IP
	MM11684216	M2.5x6.0-08IP/10009243	6.00	M2.5	T08IP
	MM11801441	M4.5x10.5-20IP/10013040	10.50	M4.5	T20IP
	MM11807480	M2.0x4.3-06IP/10013332	4.30	M2.0	T06IP
	MM11807484	M1.8x3.6-06IP/10013338	3.60	M1.8	T06IP

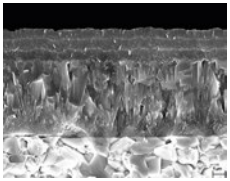
Grade overview

Grade description		Standard designation ISO	ANSI	*Type of cutting material	Application range 01 05 10 15 20 25 30 35 40 45 50	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metals	S Heat resistant alloys	H Hard materials
GTCP425		HC-P25	C6	C		●					
		HC-K30	C1	C				●			
		HC-M20	–	C			○				
GTPP430		HC-P30	C6	P		●					
		HC-M25	–	P			●				
		HC-S25	–	P			○			●	
		HC-K30	C1	P				○			
		HC-N25	C2	P					○		
GTCP435		HC-P35	C6	C		●					
		HC-K40	C1	C				●			
		HC-M30	–	C			○			●	
GTWN715		HW-K15	C2	K					●		

● Main application
○ Extended application

Grade description

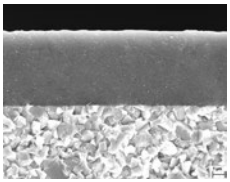
GTCP425 | **HC-P25 | HC-K30 | HC-M20**



Specification:
Composition: Co 7.0%; mixed carbides 8.1%; WC balance | Grain size: 1-2 μm | Hardness: HV_{30} 1450 | Coating specification: CVD $Ti(CN)_2O_3$ multi-layer

Recommended application:
The wear-resistant solution for steel and cast iron under stable conditions and with high cutting speed

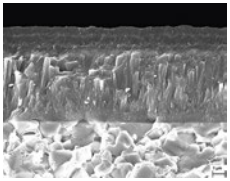
GTPP430 | **HC-P30 | HC-M25 | HC-S25 | HC-K30 | HC-N25**



Specification:
Composition: Co 9.0%; others 0.75%; WC balance | Grain size: 0.85 μm | Hardness: HV_{30} 1590 | Coating specification: PVD TiAlN

Recommended application:
The universal high-performance grade for steel, austenitic steel and heat-resistant alloys

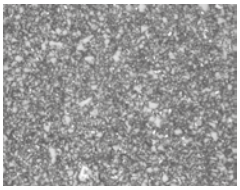
GTCP435 | **HC-P35 | HC-K40 | HC-M30**



Specification:
Composition: Co 9.6%; mixed carbides 7.8%; others 0.4%; WC balance | Grain size: 1-2 μm | Hardness: HV30 1400 | Coating specification: CVD Ti(C,N) + Al_2O_3 multi-layer

Recommended application:
The reliable choice when machining steel and cast iron under unstable conditions.

GTWN715 | **HW-K15**



Specification:
Composition: Co 6.0% | WC balance; other: 0.20% | Grain size: 0.8-1.3 μm | Hardness: HV_{30} 1650

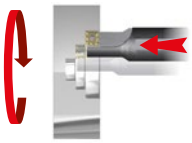
Recommended application:
The uncoated carbide grade for the machining of aluminium and other non-ferrous metals

Grades / materials

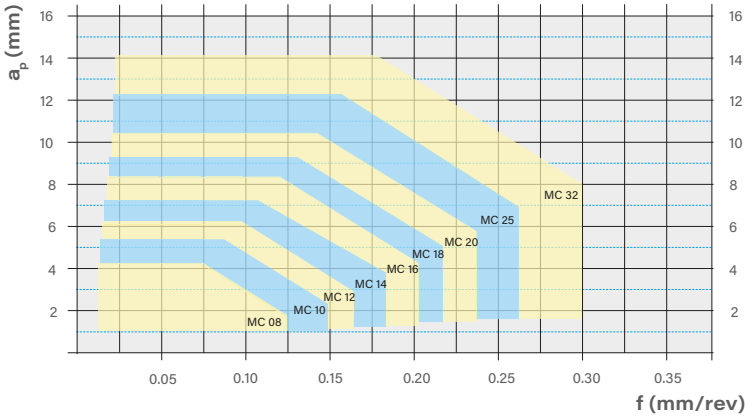
Cutting data

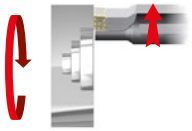
Work piece material		Type of treatment / alloy	Coated carbide GTCP425 v_c [m/min]	GTPP430 v_c [m/min]	GTCP435 v_c [m/min]	GTWN715 v_c [m/min]
P	Steel	Non-alloyed steel	270 – 90	230 – 50	80 – 280	–
		Low-alloyed steel	270 – 70	160 – 50	700 – 200	–
		High-alloyed steel	170 – 60	150 – 50	600 – 180	–
		Corrosion-resistant steel	200 – 90	180 – 50	800 – 200	–
M	Stainless steel	Stainless steel	200 – 90	160 – 50	100 – 180	–
			–	–	–	–
			–	–	–	–
			–	–	–	–
K	Cast iron	Grey cast iron	250 – 120	180 – 90	120 – 250	–
		Spheroidal cast iron	250 – 110	180 – 90	110 – 250	–
		Malleable cast iron	250 – 100	140 – 60	100 – 250	–
			–	–	–	–
N	Non-ferrous metals	Aluminium wrought alloys	–	1800 – 70	80 – 2000	100 – 2250
		Aluminium cast alloys	–	1350 – 70	80 – 1500	100 – 1250
		Copper and copper alloys (bronze, brass)	–	360 – 70	80 – 400	100 – 600
		Non-metallic materials	–	180 – 50	60 – 200	60 – 220
S	Heat resistant alloys	Heat-resistant alloys	–	80 – 20	10 – 50	–
		Titanium alloys	–	90 – 30	30 – 120	–
			–	–	–	–
			–	–	–	–

Depth of cut / feed rate – 1.5 x D

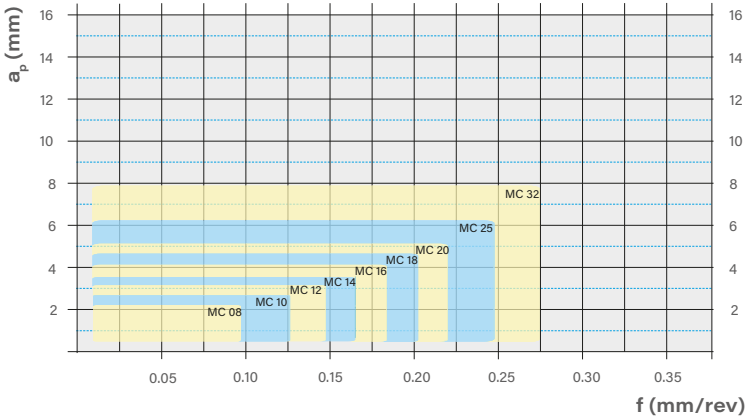


Turning of internal profiles

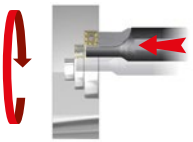




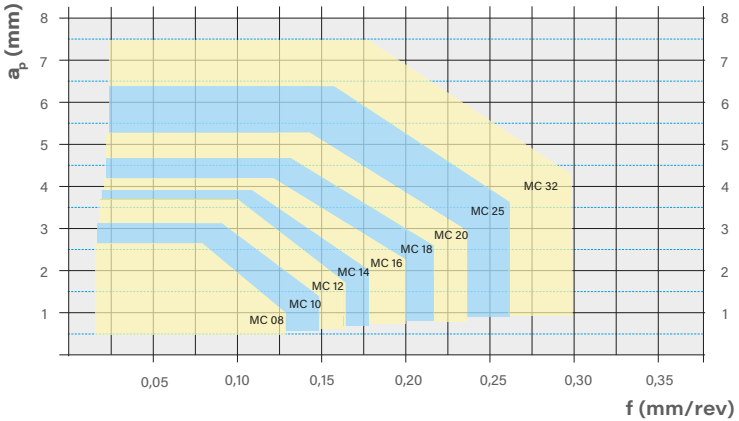
Facing operations

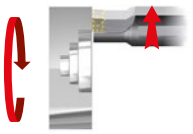


Depth of cut / feed rate – 2.25 x D

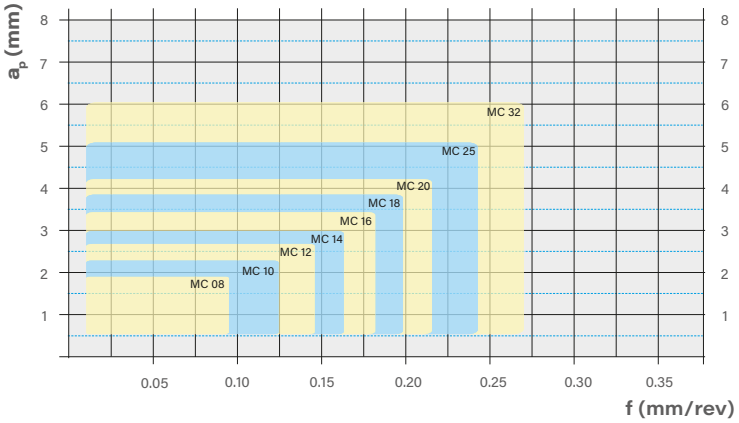


Turning of internal profiles



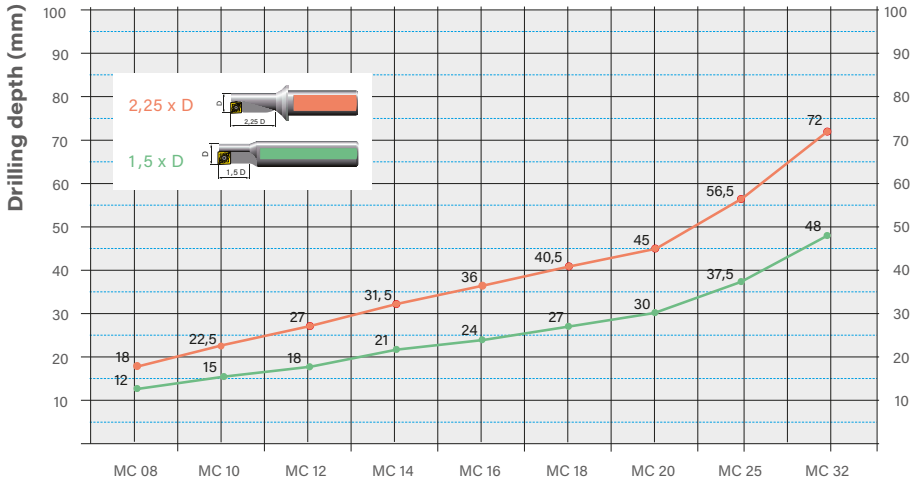


Facing operations

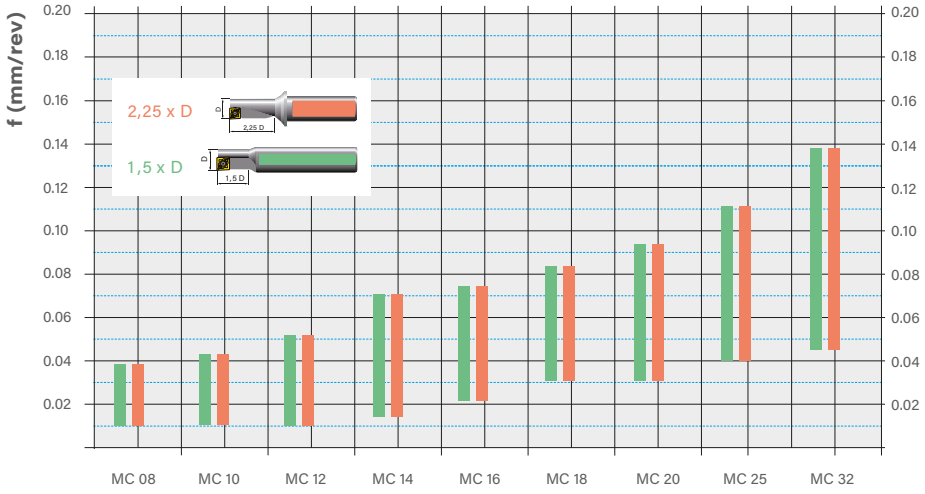


Drilling depth / feed rate

Drilling depth



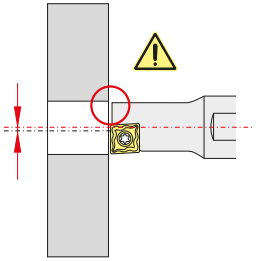
Drilling feed rate



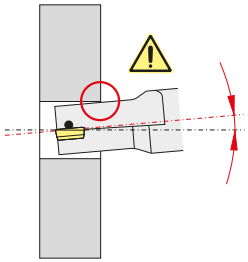
Application reference

Application

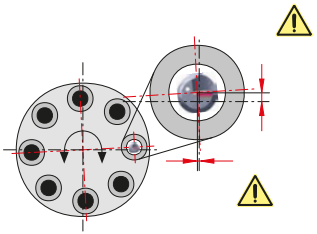
Axial displacement of the machine:



Displacement in x -direction
Correct tool positioning



Angular error
Turret and/or spindle adjustment



Turret position error
Adjust turret plate (Y-axis)

Mounting of the insert:

For tools Ø 8 mm right-hand or left-hand inserts are required. From Ø 10-32 mm neutral inserts are applied.

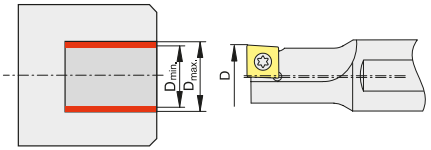
Through hole:

With through holes a sharp-edged disk is created as tool break-out occurs. Safety measures are necessary.

Off-centre drilling

Application

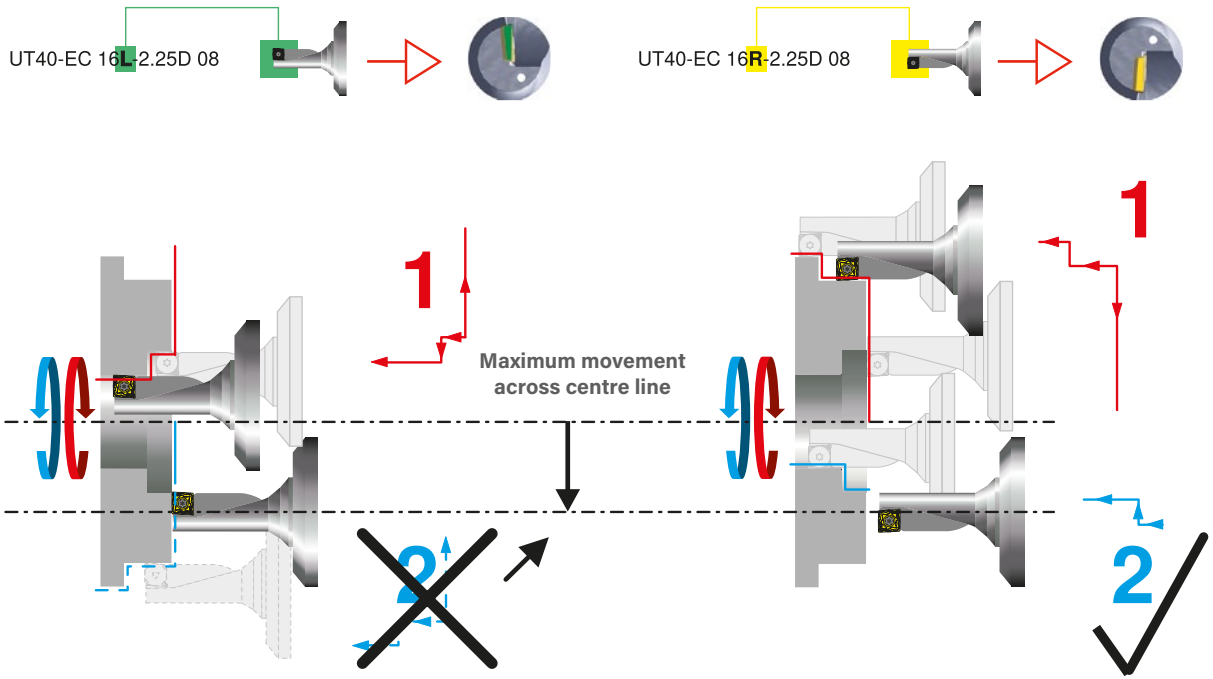
Type of tool Solid carbide	Nominal tool D [mm]	Workpiece bore diameter D_{min} [mm]	D_{max} [mm]
MC 08 R/L ... 04	8.00	7.85	8.30
MC 10 R/L ... 05	10.00	9.85	10.50
MC 12 R/L ... 06	12.00	11.85	12.50
MC 14 R/L ... 07	14.00	13.85	14.50
MC 16 R/L ... 08	16.00	15.85	16.50
MC 18 R/L ... 09	18.00	17.85	18.50
MC 20 R/L ... 10	20.00	19.80	20.50
MC 25 R/L ... 13	25.00	24.80	25.80
MC 32 R/L ... 17	32.00	31.80	33.00



Thanks to the special design of the holder and the indexable inserts off-centre drilling is possible.

Machining across centre line

Application



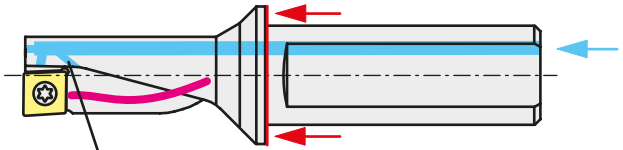
Situation:
In case of insufficient movement of the machine across the centre line the external diameter cannot be machined with the same tool

Solution:

Use a right-hand MultiCut tool

Chip booster / coolant pressure

Application



Internal coolant supply (chip booster)

Helical chip pocket (stability)

Axial abutment face (stability)

EcoCut offers an innovative detail solution for range 2.25D, namely additional bidirectional coolant supply for better chip evacuation.

An additional backwards directed coolant stream improves chip evacuation from the flute area. A minimum coolant pressure of 1.5 – 3 bar (optimum 5 – 7 bar) is required.

DESIGN AND
MANUFACTURE OF QUALITY
CUTTING TOOLS

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