Engineering Kompetenz

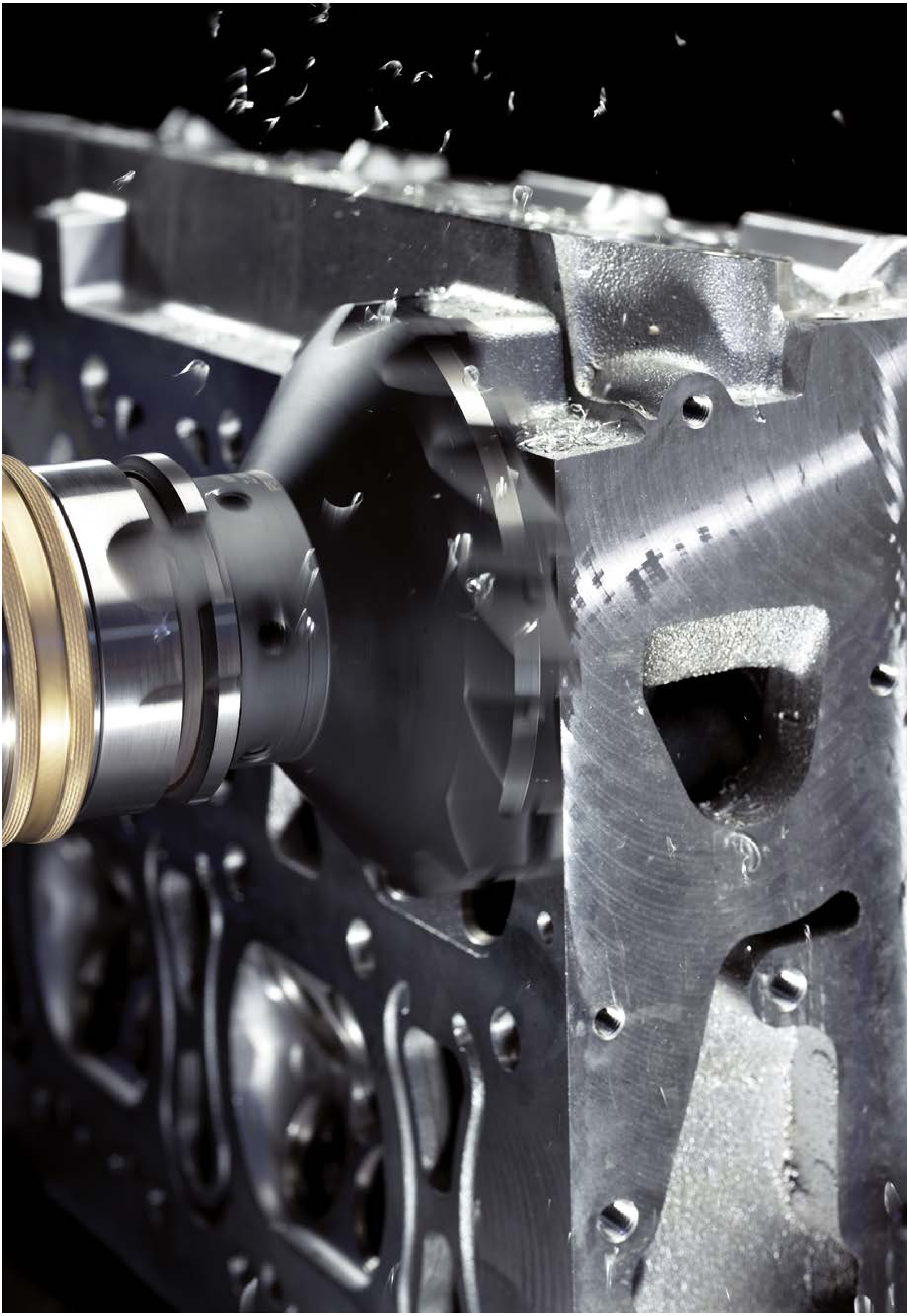
Machining of
NF metals

Product overview
Edition 2022

_WALTER PRODUCT HIGHLIGHTS

Aluminium Tools – forming an excellent future

Contents



A – Turning

_GEOMETRIES AND GRADES FOR ISO N

Successful aluminium turning with Walter.

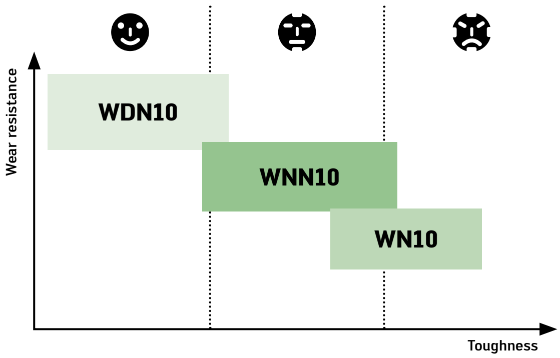
THE GRADE

- Polycrystalline diamond with a grain size of 6–10 µm
- Universal application in ISO N and ISO O materials
- Extremely hard PCD universal grade WDN10 – polycrystalline medium-grain diamond
- Grain size: 6 µm
- Binder: Co

THE GEOMETRY

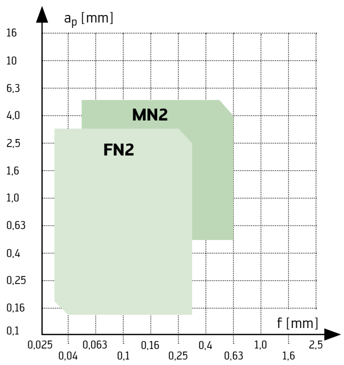
- Available indexable insert types:
  - CCGT.. / CCGW.. / CPGW..
  - DCGT.. / DCGW.. / DPGW..
  - SCGW.. / SPGW..
  - TCGW.. / TPGW..
  - VCGT.. / VCGW..
- Available geometries:
  - Rake angle: 0°; 7–10°
  - Laser-generated chip breaker
  - Entire edge can be used as a cutting edge
- Cutting edge preparation:
  - F version (sharp)
  - 6–8 µm edge rounding

NF metals ISO N

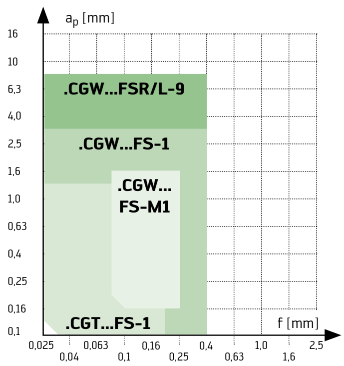


WDN10 – polycrystalline diamond (PCD)
WNN10 – coated carbide (PVD – HiPIMS)
WN10 – uncoated carbide

Positive basic shape – carbide



Positive basic shape – PCD



BENEFITS FOR YOU

- Longer tool life on materials with a tendency to stick (build-up on the cutting edge) thanks to optimised surface roughness
- Maximum process reliability with long-chipping materials due to sharp, polished cutting edges
- Best surface qualities (up to R_z 3 µm) when precision finishing
- Problem-solver for workpieces with vibration tendency due to minimal cutting pressures
- All PCD indexable inserts are ground to ISO G tolerance

_FN2 AND MN2 GEOMETRIES IN WN10 AND WNN10

Positive – with the best performance on ISO N.

THE GRADE

WN10
- Uncoated, polished carbide substrate
- Cost-effective alternative to coated grades

WNN10
- HiPIMS PVD TiAlN coated, polished carbide grade
- Extremely high wear resistance
- Excellent layer bonding on sharp cutting edges

THE GEOMETRY

FN2
- Tight chip breaker – optimum chip breaking at low depths of cut

MN2
- Open geometry – high productivity and universal application

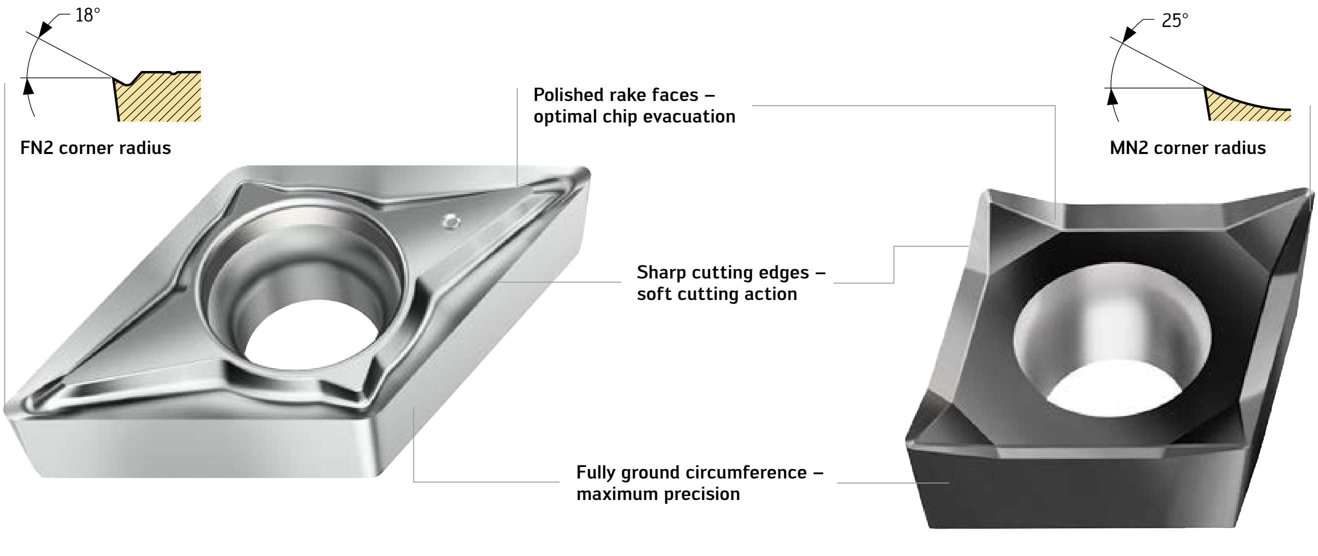
THE APPLICATION

WN10
- Primary application: ISO N; secondary application: ISO S, O
- Al wrought alloys or AlSi cast alloys with low silicon content (less than ~7%)
- Suitable for copper alloys or brass alloys

WNN10
- Primary application: ISO N; secondary application: ISO P, M, K, S, O
- AlSi cast alloys (up to 10% silicon content), Al wrought alloys, copper alloys and brass alloys
- Ideal for precision finishing operations on ISO P, M and S

FN2 geometry
- Finishing of ISO N
- a_p 0.1–3.0 mm; f 0.02–0.3 mm

MN2 geometry
- Medium machining of ISO N
- a_p 0.5–6.0 mm; f 0.02–0.8 mm



Positive ISO N FN2 geometry — Fig.: DCGT070202-FN2 WN10

Positive ISO N MN2 geometry — Fig.: CCGT09T304-MN2 WNN10

BENEFITS FOR YOU
- Longer tool life on materials with a tendency to stick (build-up on the cutting edge) thanks to optimised surface roughness
- Maximum process reliability with long-chipping materials due to sharp, polished cutting edges
- Best surface qualities (up to R_z 3 µm) when precision finishing
- No layer flaking and even wear development due to excellent layer bonding
- Machining less stable components as well as components with long overhangs

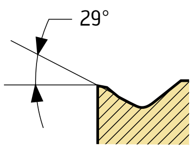
_MN3 GEOMETRY

Highly positive and double-sided – ideal for ISO N machining.

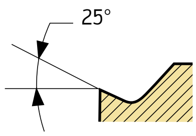
THE GEOMETRY

– Double-sided, polished MN3 geometry
– Highly positive cutting edges

Corner radius – MN3



Main cutting edge – MN3



THE INDEXABLE INSERT

– CNGG, DNGG, VNGG, WNGG
– Corner radii with negative tolerance for maximum precision: 0.2/0.4/0.8 mm

THE GRADE

– WN10 (uncoated and polished)
– WNN10 (with HiPIMS PVD coating for an extremely smooth surface)

THE APPLICATION

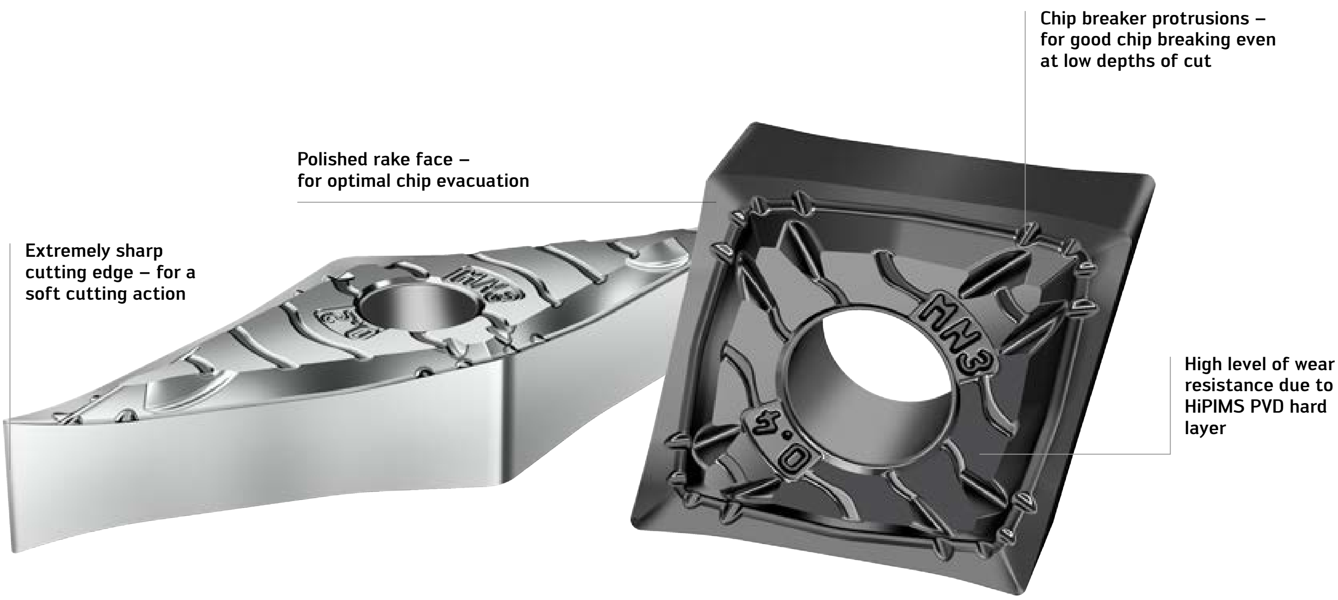
– Machining parameters: f = 0.05–0.40 mm, a_p = 0.5–4.0 mm

Further applications:

– Best surface qualities up to Rz 3 µm
– Fine finishing of small components made from steel and stainless materials, as well as high-temperature alloys

Primary application

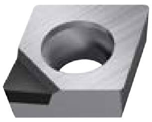
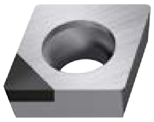
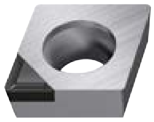
– ISO N alloys, e.g.:
  - Aluminium alloys
  - Copper alloys
  - Brass alloys
  - "Lead-free" materials
– Medium machining of non-ferrous metals



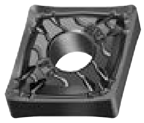
BENEFITS FOR YOU

– High level of cost-efficiency and productivity due to negative basic shape with double the number of cutting edges
– Long tool life on materials with a tendency to stick (adhesion) thanks to optimised surface roughness
– Machines unstable components or components with long overhangs with no problems thanks to low cutting pressure
– Improved chip breaking (e.g. lead-free materials) due to chip breaker protrusions and highly positive cutting edges

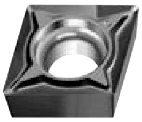
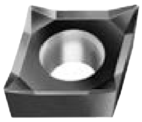
ISO indexable inserts – CBN/PCD/ceramic

Machining	Finishing operation		Medium machining	Roughing operation
	Selection	Selection	Selection	Selection
				
Geometry	T-FS	W-FS	FS-M	FS-9
P Steel				
M Stainless steel				
K Cast iron				
N NF metals	●●	●●	●●	●●
S Materials with difficult cutting properties	●	●	●	●
H Hard materials				
O Other	●●	●●	●●	●●
a_p [mm]	0,05–4,0	0,05–4,0	0,1–2,0	0,05–15,3
f [mm]	0,03–0,38	0,03–0,38	0,08–0,20	0,03–0,38
Page in catalogue	**16**	**17**	**16**	**16**
QR code				
www.walter-tools.com/woc/	T-FS	W-FS	FS-M	FS-9

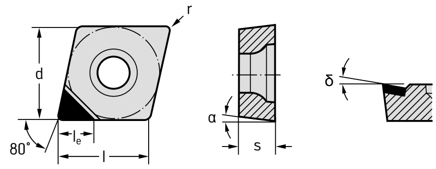
ISO indexable inserts – Negative basic shape

Machining	Medium machining
	Selection
	
Geometry	**MN3**
P Steel	●
M Stainless steel	●
K Cast iron	
N NF metals	●●
S Materials with difficult cutting properties	●
H Hard materials	
O Other	
a_p [mm]	0,5–4,0
f [mm]	0,05–0,40
Page in catalogue	**22**
QR code	
www.walter-tools.com/woc/	MN3

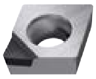
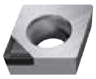
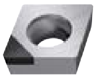
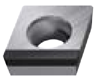
ISO indexable inserts – Positive basic shape 5°/7°/11°

Machining	Finishing operation	Medium machining
	Selection	Selection
		
Geometry	**FN2**	**MN2**
P Steel	●	●
M Stainless steel	●	●
K Cast iron	●	
N NF metals	●●	●●
S Materials with difficult cutting properties	●	●
H Hard materials		
O Other	●	●
a_p [mm]	0,12–3,5	0,5–6,0
f [mm]	0,02–0,30	0,02–0,80
Page in catalogue	**24**	**24**
QR code		
www.walter-tools.com/woc/	FN2	MN2

PCD – Positive rhombic 80°
CCGT / CCGW



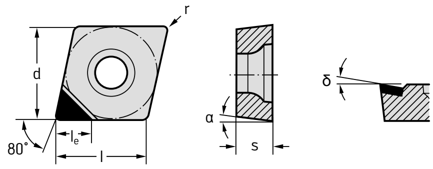
Indexable inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	N DP WDN10	O DP WDN10
	CCGT060202FS-1	1	3,5	6,45	0,2	7°	7°	0,03–0,12	0,1–3,0	☻	☻
	CCGT060204FS-1	1	3,5	6,45	0,4	7°	7°	0,03–0,25	0,1–3,0	☻	☻
	CCGT060208FS-1	1	3,5	6,45	0,8	7°	7°	0,03–0,38	0,1–3,0	☻	☻
	CCGT09T304FS-1	1	4	9,67	0,4	7°	10°	0,03–0,25	0,1–3,5	☻	☻
	CCGT09T308FS-1	1	4	9,67	0,8	7°	10°	0,03–0,38	0,1–3,5	☻	☻
	CCGT060204FS-M1	1	3,5	6,45	0,4	7°		0,08–0,20	0,1–2,0	☻	☻
	CCGT09T304FS-M1	1	4	9,67	0,4	7°		0,08–0,20	0,1–2,0	☻	☻
	CCGW060202FS-1	1	3,6	6,45	0,2	7°	0°	0,03–0,12	0,1–3,0	☻	☻
	CCGW060204FS-1	1	3,5	6,45	0,4	7°	0°	0,03–0,25	0,1–3,0	☻	☻
	CCGW060208FS-1	1	3,5	6,45	0,8	7°	0°	0,03–0,38	0,1–3,0	☻	☻
	CCGW09T302FS-1	1	4,1	9,67	0,2	7°	0°	0,03–0,12	0,1–3,5	☻	☻
	CCGW09T304FS-1	1	4,1	9,67	0,4	7°	0°	0,03–0,25	0,1–3,5	☻	☻
	CCGW09T308FS-1	1	4	9,67	0,8	7°	0°	0,03–0,38	0,1–3,5	☻	☻
	CCGW120404FS-1	1	4,1	12,9	0,4	7°	0°	0,03–0,25	0,1–3,5	☻	☻
	CCGW120408FS-1	1	4	12,9	0,8	7°	0°	0,03–0,38	0,1–3,5	☻	☻
	CCGW060204FSL-9	1	6,4	6,45	0,4	7°	0°	0,03–0,25	0,1–6,4	☻	☻
	CCGW09T304FSL-9	1	9,7	9,67	0,4	7°	0°	0,03–0,25	0,1–9,7	☻	☻
	CCGW09T308FSL-9	1	9,7	9,67	0,8	7°	0°	0,03–0,38	0,1–9,7	☻	☻
	CCGW060204FSR-9	1	6,4	6,45	0,4	7°	0°	0,03–0,25	0,1–6,4	☻	☻
	CCGW09T304FSR-9	1	9,7	9,67	0,4	7°	0°	0,03–0,25	0,1–9,7	☻	☻
	CCGW09T308FSR-9	1	9,7	9,67	0,8	7°	0°	0,03–0,38	0,1–9,7	☻	☻

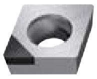
See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

PCD – Positive rhombic 80°
CPGW



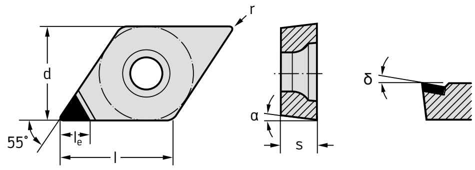
Indexable inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	N DP WDN10	O DP WDN10
	CPGW050204FS-1	1	3	5,64	0,4	11°	0°	0,03–0,25	0,1–2,5	☻	☻
	CPGW060204FS-1	1	3,5	6,45	0,4	11°	0°	0,03–0,25	0,1–3,0	☻	☻
	CPGW09T304FS-1	1	4	9,67	0,4	11°	0°	0,03–0,25	0,1–3,5	☻	☻
	CPGW09T308FS-1	1	4	9,67	0,8	11°	0°	0,03–0,38	0,1–3,5	☻	☻
	CPGW120408FS-1	1	4	12,9	0,8	11°	0°	0,03–0,38	0,1–3,5	☻	☻

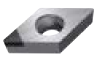
See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

PCD – Positive rhombic 55°
DCGT / DCGW



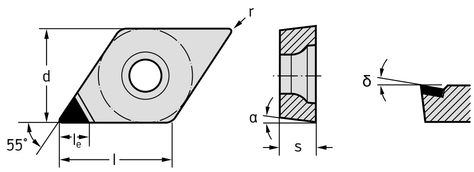
Indexable inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	N DP WDN10	O DP WDN10
	DCGT070202FS-1	1	3,7	7,75	0,2	7°	7°	0,03–0,12	0,1–3,0	☻	☻
	DCGT070204FS-1	1	3,5	7,75	0,4	7°	7°	0,03–0,25	0,1–3,0	☻	☻
	DCGT070208FS-1	1	3,5	7,75	0,8	7°	7°	0,03–0,38	0,1–3,0	☻	☻
	DCGT11T302FS-1	1	4,2	11,63	0,2	7°	10°	0,03–0,12	0,1–3,5	☻	☻
	DCGT11T304FS-1	1	4	11,63	0,4	7°	10°	0,03–0,25	0,1–3,0	☻	☻
	DCGT11T308FS-1	1	4	11,63	0,8	7°	10°	0,03–0,38	0,1–3,5	☻	☻
	DCGT070204FS-M1	1	3,5	7,75	0,4	7°		0,08–0,20	0,1–2,0	☻	☻
	DCGT11T304FS-M1	1	4	11,63	0,4	7°		0,08–0,20	0,1–2,0	☻	☻
	DCGW070202FS-1	1	3,7	7,75	0,2	7°	0°	0,03–0,12	0,1–3,0	☻	☻
	DCGW070204FS-1	1	3,5	7,75	0,4	7°	0°	0,03–0,25	0,1–3,0	☻	☻
	DCGW070208FS-1	1	3,5	7,75	0,8	7°	0°	0,03–0,38	0,1–3,0	☻	☻
	DCGW11T302FS-1	1	4,2	11,63	0,2	7°	0°	0,03–0,12	0,1–3,5	☻	☻
	DCGW11T304FS-1	1	4	11,63	0,4	7°	0°	0,03–0,25	0,1–3,5	☻	☻
	DCGW11T308FS-1	1	4	11,63	0,8	7°	0°	0,03–0,38	0,1–3,5	☻	☻

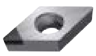
See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

PCD – Positive rhombic 55°
DPGW



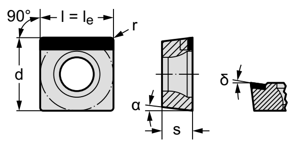
Indexable inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	N DP WDN10	O DP WDN10
	DPGW070204FS-1	1	3,5	7,75	0,4	11°	0°	0,03–0,25	0,1–3,0		
	DPGW11T304FS-1	1	4	11,63	0,4	11°	0°	0,03–0,25	0,1–3,5		
	DPGW11T308FS-1	1	4	11,63	0,8	11°	0°	0,03–0,38	0,1–3,5		

See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

PCD – Positive square
SCGW



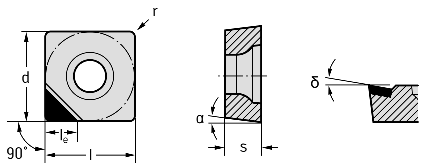
Indexable inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	N DP WDN10	O DP WDN10
	SCGW09T304FS-9	1	9,5	9,53	0,4	7°	0°	0,03–0,25	0,1–9,5		

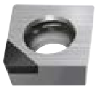
See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

PCD – Positive square
SPGW



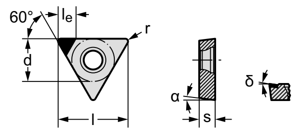
Indexable inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	N DP WDN10	O DP WDN10
	SPGW09T308FS-1	1	4	9,53	0,8	11°	0°	0,03–0,38	0,1–3,5	☻	☻

See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

PCD – Positive triangular 60°
TCGW



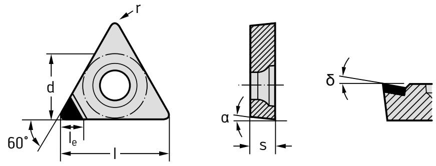
Indexable inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	N DP WDN10	O DP WDN10
	TCGW090202FS-1	1	3,9	9,62	0,2	7°	0°	0,03–0,12	0,1–3,0	☻	☻
	TCGW090204FS-1	1	3,8	9,62	0,4	7°	0°	0,03–0,25	0,1–3,0	☻	☻
	TCGW110202FS-1	1	4,4	11	0,2	7°	0°	0,03–0,12	0,1–3,0	☻	☻
	TCGW110204FS-1	1	4,3	11	0,4	7°	0°	0,03–0,25	0,1–3,0	☻	☻
	TCGW110208FS-1	1	4	11	0,8	7°	0°	0,03–0,38	0,1–3,0	☻	☻
	TCGW16T304FS-1	1	4,3	16,5	0,4	7°	0°	0,03–0,25	0,1–3,5	☻	☻
	TCGW16T308FS-1	1	4	16,5	0,8	7°	0°	0,03–0,38	0,1–3,5	☻	☻
	TCGW090204FS-9	1	9	9,62	0,4	7°	0°	0,03–0,25	0,1–9,0	☻	☻
	TCGW110204FS-9	1	10,4	11	0,4	7°	0°	0,03–0,25	0,1–10,4	☻	☻
	TCGW16T308FS-9	1	15,3	16,5	0,8	7°	0°	0,03–0,38	0,1–15,3	☻	☻

See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

PCD – Positive triangular 60°
TPGW



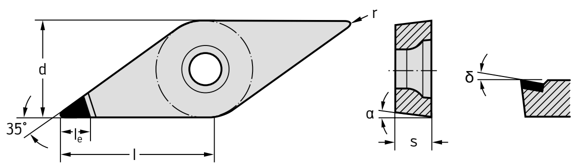
Indexable inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	N DP WDN10	O DP WDN10
	TPGW110204FS-1	1	4,2	11	0,4	11°	0°	0,03–0,25	0,1–3,5	☻	☻
	TPGW110208FS-1	1	4	11	0,8	11°	0°	0,03–0,38	0,1–3,5	☻	☻
	TPGW16T304FS-1	1	4,2	16,5	0,4	11°	0°	0,03–0,25	0,1–3,5	☻	☻
	TPGW16T308FS-1	1	4	16,5	0,8	11°	0°	0,03–0,38	0,1–3,5	☻	☻

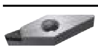
See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

PCD – Positive rhombic 35°
VCGT / VCGW



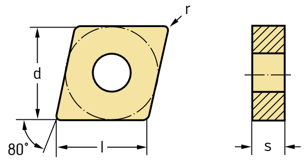
Indexable inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	N DP WDN10	O DP WDN10
	VCGT110302FS-1	1	4,1	11,07	0,2	7°	10°	0,03–0,12	0,1–3,0	☻	☻
	VCGT110304FS-1	1	3,7	11,07	0,4	7°	10°	0,03–0,25	0,1–3,0	☻	☻
	VCGT160404FS-1	1	4,5	16,61	0,4	7°	10°	0,03–0,25	0,1–4,0	☻	☻
	VCGT160408FS-1	1	4,5	16,61	0,8	7°	10°	0,03–0,38	0,1–4,0	☻	☻
	VCGW110302FS-1	1	4,1	11,07	0,2	7°	0°	0,03–0,12	0,1–3,0	☻	☻
	VCGW110304FS-1	1	3,7	11,07	0,4	7°	0°	0,03–0,25	0,1–3,0	☻	☻
	VCGW160404FS-1	1	4,5	16,61	0,4	7°	0°	0,03–0,25	0,1–4,0	☻	☻
	VCGW160408FS-1	1	4,5	16,61	0,8	7°	0°	0,03–0,38	0,1–4,0	☻	☻

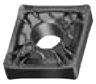
See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

Negative rhombic 80°
CNGG

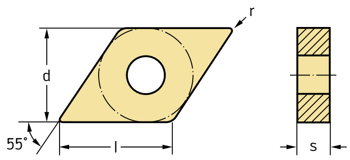


Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	CNGG120402M-MN3	12,9	0,17	0,05–0,12	0,5–3,0		
	CNGG120404M-MN3	12,9	0,37	0,08–0,30	0,8–4,0		
	CNGG120408M-MN3	12,9	0,77	0,10–0,40	1,0–4,0		

HW = Uncoated carbide
HC = Coated carbide

Negative rhombic 55°
DNGG

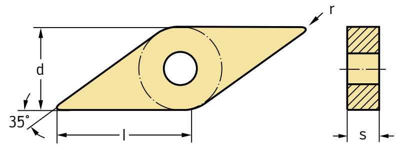


Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	DNGG110402M-MN3	11,63	0,17	0,05–0,12	0,5–2,0		
	DNGG110404M-MN3	11,63	0,37	0,08–0,30	0,6–3,0		

HW = Uncoated carbide
HC = Coated carbide

Negative rhombic 35°
VNGG



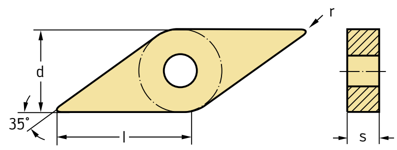
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	VNGG160402M-MN3	16,61	0,17	0,05–0,12	0,5–2,0		
	VNGG160404M-MN3	16,61	0,37	0,08–0,30	0,6–3,0		

See the ISO 1832 designation key for dimensions

HW = Uncoated carbide
HC = Coated carbide

Negative Trigon 80°
WNGG

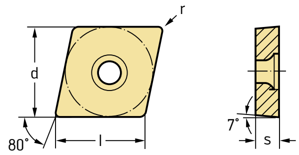


Indexable inserts

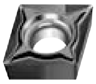
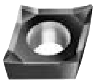
	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	WNGG080404M-MN3	8,69	0,37	0,08–0,30	0,8–4,0		
	WNGG080408M-MN3	8,69	0,77	0,10–0,40	1,0–4,0		

HW = Uncoated carbide
HC = Coated carbide

Positive rhombic 80°
CCGT



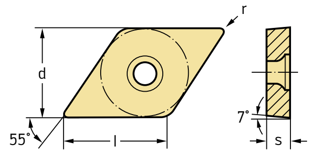
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	CCGT060201-FN2	6,45	0,1	0,02–0,06	0,1–1,5	●	
	CCGT060202-FN2	6,45	0,2	0,05–0,12	0,2–2,0	●	☻
	CCGT060204-FN2	6,45	0,4	0,08–0,25	0,2–2,5	●	☻
	CCGT09T301-FN2	9,67	0,1	0,02–0,06	0,1–1,5	●	
	CCGT09T302-FN2	9,67	0,2	0,05–0,12	0,2–2,0	●	☻
	CCGT09T304-FN2	9,67	0,4	0,08–0,25	0,2–2,5	●	☻
	CCGT09T308-FN2	9,67	0,8	0,10–0,30	0,3–3,0	●	☻
	CCGT120404-FN2	12,9	0,4	0,08–0,25	0,2–3,0	●	☻
	CCGT120408-FN2	12,9	0,8	0,10–0,30	0,3–3,5	●	☻
	CCGT060201-MN2	6,45	0,1	0,02–0,06	0,5–1,5	●	☻
	CCGT060202-MN2	6,45	0,2	0,05–0,12	0,5–2,0	●	☻
	CCGT060204-MN2	6,45	0,4	0,08–0,25	0,6–3,0	●	☻
	CCGT09T301-MN2	9,67	0,1	0,02–0,06	0,5–1,5	●	☻
	CCGT09T302-MN2	9,67	0,2	0,05–0,12	0,5–2,0	●	☻
	CCGT09T304-MN2	9,67	0,4	0,08–0,25	0,6–4,0	●	☻
	CCGT09T308-MN2	9,67	0,8	0,10–0,35	0,8–4,0	●	☻
	CCGT120402-MN2	12,9	0,2	0,05–0,12	0,5–2,0	●	☻
	CCGT120404-MN2	12,9	0,4	0,08–0,25	0,6–5,0	●	☻
	CCGT120408-MN2	12,9	0,8	0,10–0,35	0,8–5,0	●	☻

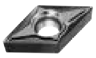
See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Positive rhombic 55°
DCGT



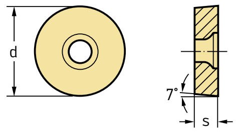
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	DCGT070201-FN2	7,75	0,1	0,02–0,06	0,1–1,5	●	
	DCGT070202-FN2	7,75	0,2	0,05–0,12	0,2–2,0	●	●
	DCGT070204-FN2	7,75	0,4	0,08–0,25	0,2–2,5	●	●
	DCGT11T301-FN2	11,63	0,1	0,02–0,06	0,1–1,5	●	
	DCGT11T302-FN2	11,63	0,2	0,05–0,12	0,2–2,0	●	●
	DCGT11T304-FN2	11,63	0,4	0,08–0,25	0,2–2,5	●	●
	DCGT11T308-FN2	11,63	0,8	0,10–0,30	0,3–3,0	●	●
	DCGT070201-MN2	7,75	0,1	0,02–0,06	0,5–1,5	●	●
	DCGT070202-MN2	7,75	0,2	0,05–0,12	0,5–2,0	●	●
	DCGT070204-MN2	7,75	0,4	0,08–0,25	0,6–2,5	●	●
	DCGT11T301-MN2	11,63	0,1	0,02–0,06	0,5–1,5	●	●
	DCGT11T302-MN2	11,63	0,2	0,05–0,12	0,5–2,0	●	●
	DCGT11T304-MN2	11,63	0,4	0,08–0,25	0,6–3,0	●	●
	DCGT11T308-MN2	11,63	0,8	0,10–0,30	0,8–3,5	●	●

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Positive round
RCGT



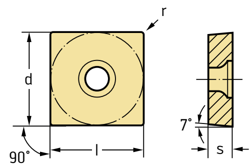
Indexable inserts

	Designation	d mm	f mm	a_p mm	N HC WNN10	N HW WN10
	RCGT0602M0-MN2	6	0,10–0,55	0,6–2,5	●	●
	RCGT0803M0-MN2	8	0,12–0,60	0,7–3,0	●	●
	RCGT10T3M0-MN2	10	0,15–0,70	0,8–4,0	●	●
	RCGT120400-MN2	12,7	0,18–0,80	1,0–5,0	●	
	RCGT1204M0-MN2	12	0,18–0,80	1,0–5,0	●	●

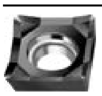
See the ISO 1832 designation key for dimensions

HW = Uncoated carbide
HC = Coated carbide

Positive square
SCGT



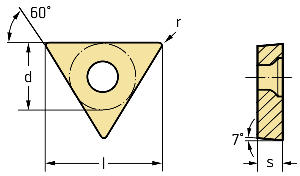
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	SCGT09T304-FN2	9,53	0,4	0,08–0,25	0,2–2,5	●	
	SCGT09T308-FN2	9,53	0,8	0,10–0,30	0,3–3,0	●	
	SCGT120408-FN2	12,7	0,8	0,10–0,30	0,3–3,0	●	
	SCGT09T304-MN2	9,53	0,4	0,08–0,25	0,6–4,0	●	●
	SCGT09T308-MN2	9,53	0,8	0,10–0,35	0,7–4,0	●	●
	SCGT120408-MN2	12,7	0,8	0,10–0,40	0,8–6,0	●	●

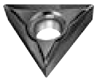
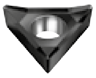
See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Positive triangular 60°
TCGT



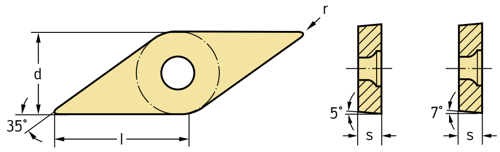
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	TCGT06T101-FN2	6,87	0,1	0,02–0,06	0,1–1,5	●	
	TCGT06T102-FN2	6,87	0,2	0,05–0,12	0,2–2,0	●	
	TCGT06T104-FN2	6,87	0,4	0,08–0,25	0,2–2,5	●	●
	TCGT090202-FN2	9,62	0,2	0,05–0,12	0,2–2,0	●	
	TCGT090204-FN2	9,62	0,4	0,08–0,25	0,2–2,5	●	●
	TCGT110202-FN2	11	0,2	0,05–0,12	0,2–2,0	●	
	TCGT110204-FN2	11	0,4	0,08–0,25	0,2–2,5	●	●
	TCGT16T304-FN2	16,5	0,4	0,08–0,25	0,2–2,5	●	●
	TCGT16T308-FN2	16,5	0,8	0,10–0,30	0,3–3,0	●	●
	TCGT110201-MN2	11	0,1	0,02–0,06	0,5–1,5	●	
	TCGT110202-MN2	11	0,2	0,05–0,12	0,6–2,0	●	●
	TCGT110204-MN2	11	0,4	0,08–0,25	0,6–3,0	●	●
	TCGT16T302-MN2	16,5	0,2	0,05–0,12	0,5–2,0	●	●
	TCGT16T304-MN2	16,5	0,4	0,08–0,25	0,6–4,0	●	●
	TCGT16T308-MN2	16,5	0,8	0,10–0,35	0,8–4,0	●	●

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Positive rhombic 35°
VCGT



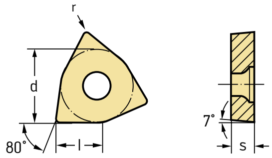
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	VCGT110301-FN2	11,07	0,1	0,02–0,06	0,1–1,5	●	
	VCGT110302-FN2	11,07	0,2	0,05–0,12	0,2–2,0	●	●
	VCGT110304-FN2	11,07	0,4	0,08–0,25	0,2–2,5	●	●
	VCGT160402-FN2	16,61	0,2	0,05–0,12	0,2–2,0	●	●
	VCGT160404-FN2	16,61	0,4	0,08–0,25	0,2–2,5	●	●
	VCGT160408-FN2	16,61	0,8	0,10–0,30	0,3–3,0	●	●
	VCGT110301-MN2	11,07	0,1	0,02–0,06	0,5–1,5	●	●
	VCGT110302-MN2	11,07	0,2	0,05–0,12	0,5–2,0	●	●
	VCGT110304-MN2	11,07	0,4	0,08–0,25	0,6–2,5	●	●
	VCGT110308-MN2	11,07	0,8	0,10–0,35	0,8–3,0	●	●
	VCGT130301-MN2	13,1	0,1	0,02–0,06	0,5–1,5	●	
	VCGT130302-MN2	13,1	0,2	0,05–0,12	0,5–2,0	●	●
	VCGT130304-MN2	13,1	0,4	0,08–0,25	0,6–3,0	●	●
	VCGT160404-MN2	16,61	0,4	0,08–0,25	0,6–3,5	●	●
	VCGT160408-MN2	16,61	0,8	0,10–0,35	0,8–3,5	●	●
	VCGT160412-MN2	16,61	1,2	0,10–0,45	1,0–3,5	●	●

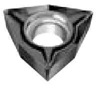
See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Positive Trigon 80°
WCGT



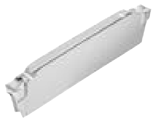
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10
	WCGT020102-FN2	2,7	0,2	0,05–0,12	0,2–1,5	●
	WCGT020104-FN2	2,7	0,4	0,08–0,20	0,2–1,5	●
	WCGT030202-FN2	3,91	0,2	0,05–0,12	0,2–2,0	●
	WCGT030204-FN2	3,91	0,4	0,08–0,25	0,2–2,5	●
	WCGT040202-FN2	4,34	0,2	0,05–0,12	0,2–2,0	●
	WCGT040204-FN2	4,34	0,4	0,08–0,25	0,2–2,5	●
	WCGT06T304-FN2	6,52	0,4	0,08–0,25	0,2–2,5	●
	WCGT06T308-FN2	6,52	0,8	0,10–0,30	0,3–3,0	●
	WCGT030202-MN2	3,91	0,2	0,05–0,12	0,5–1,5	●
	WCGT030204-MN2	3,91	0,4	0,08–0,20	0,6–1,5	●
	WCGT040204-MN2	4,34	0,4	0,08–0,25	0,6–2,5	●
	WCGT06T302-MN2	6,52	0,2	0,05–0,12	0,6–2,0	●
	WCGT06T304-MN2	6,52	0,4	0,08–0,25	0,6–3,0	●
	WCGT080404-MN2	8,69	0,4	0,08–0,25	0,6–4,0	●
	WCGT080408-MN2	8,69	0,8	0,10–0,35	0,8–4,0	●

See the ISO 1832 designation key for dimensions

HC = Coated carbide

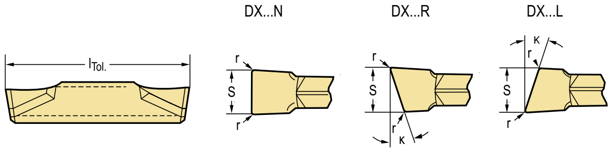
Cutting inserts

Machining	Low feed		Medium feed	Low feed	Medium feed
	Selection	Selection	Selection	Selection	Selection
					
Geometry	CK8	CK8	FS-F1	RK8	FS-M1
P Steel					
M Stainless steel	●	●			
K Cast iron					
N NF metals	●●	●●	●●	●●	●●
S Materials with difficult cutting properties	●	●	●		●
H Hard materials					
O Other			●●	●	●●
Insert width s [mm]	1,5–2,0	2,0–4,0	2,0–6,0	6,0	2,0–8,0
a_p [mm]				0,1–4,0	0,1–4,0
f [mm]	0,04–0,12	0,04–0,22	0,04–0,28	0,10–0,60	0,05–0,60
Page in catalogue	32	32	33	34	33
QR code					
www.walter-tools.com/woc/	CK8	CK8	FS-F1	RK8	FS-M1

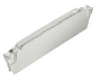
	Low feed	
	Selection	Selection
		
	CK8	SK8
	●	
	●●	●●
	●	●
	2,0–5,0	1,5–5,0
	0,04–0,25	0,03–0,25
	34	**35**
	CK8	SK8

A2

Grooving and parting off – Cutting inserts
DX

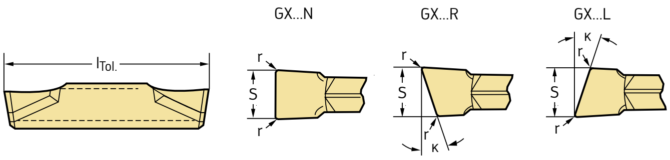


Cutting inserts

	Designation	s mm	r mm	κ	l mm	f mm	s_{Tol} mm	l_{Tol} mm	N HF WN13	S HF WN13
	DX18-2E200L7-CK8	2	0	7°	18	0,04–0,10	±0,05	±0,15	☻	☻
	DX18-1E150N01-CK8	1,5	0,15		18	0,04–0,10	±0,05	±0,15	☻	☻
	DX18-2E200N02-CK8	2	0,2		18	0,04–0,12	±0,05	±0,15	☻	☻
	DX18-2E200R7-CK8	2	0	7°	18	0,04–0,10	±0,05	±0,15	☻	☻

HF = Uncoated fine-grained carbide

Grooving and parting off – Cutting inserts GX



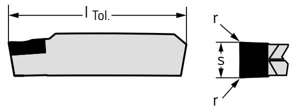
Cutting inserts

	Designation	s mm	r mm	l mm	f mm	s_{Tol} mm	l_{Tol} mm	N HW WK1	S HW WK1
	GX16-1E200N02-CK8	2	0,2	16,6	0,04–0,12	±0,02	±0,03	☻	☻
	GX16-2E300N02-CK8	3	0,2	16,6	0,08–0,20	±0,02	±0,03	☻	☻
	GX24-2E300N02-CK8	3	0,2	24,6	0,08–0,20	±0,02	±0,03	☻	☻
	GX24-3E400N02-CK8	4	0,2	24,6	0,10–0,22	±0,02	±0,03	☻	☻

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

HW = Uncoated carbide

PCD – Grooving and parting off
GX



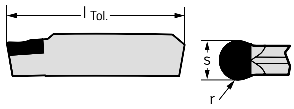
Cutting inserts

	Designation	s mm	r mm	l mm	f mm	S_{Tol} mm	l_{Tol} mm	N DP WDN10	O DP WDN10
	GX16-1F200N02FS-F1	2	0,2	16	0,04–0,12	±0,02	±0,02	☻	☻
	GX24-2F300N02FS-F1	3	0,2	24	0,05–0,16	±0,02	±0,02	☻	☻
	GX24-2F318N02FS-F1	3,18	0,2	24	0,05–0,16	±0,02	±0,02	☻	☻
	GX24-3F400N02FS-F1	4	0,2	24	0,06–0,22	±0,02	±0,02	☻	☻
	GX24-3F475N02FS-F1	4,75	0,2	24	0,06–0,25	±0,02	±0,02	☻	☻
	GX24-3F500N02FS-F1	5	0,2	24	0,06–0,25	±0,02	±0,02	☻	☻
	GX24-4F600N02FS-F1	6	0,2	24	0,06–0,28	±0,02	±0,02	☻	☻

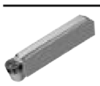
l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

DP = Polycrystalline diamond

PCD – Grooving and copy turning
GX



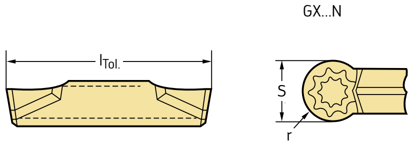
Cutting inserts

	Designation	s mm	r mm	l mm	f mm	S_{Tol} mm	l_{Tol} mm	N DP WDN10	O DP WDN10
	GX16-1F200N10FS-M1	2	1	16	0,05–0,25	±0,02	±0,02	☻	☻
	GX24-2F300N15FS-M1	3	1,5	24	0,05–0,30	±0,02	±0,02	☻	☻
	GX24-2F318N16FS-M1	3,18	1,59	24	0,05–0,30	±0,02	±0,02	☻	☻
	GX24-3F400N20FS-M1	4	2	24	0,05–0,35	±0,02	±0,02	☻	☻
	GX24-3F475N24FS-M1	4,75	2,38	24	0,05–0,40	±0,02	±0,02	☻	☻
	GX24-3F500N25FS-M1	5	2,5	24	0,05–0,40	±0,02	±0,02	☻	☻
	GX24-4F600N30FS-M1	6	3	24	0,05–0,50	±0,02	±0,02	☻	☻
	GX30-5F800N40FS-M1	8	4	30	0,05–0,60	±0,02	±0,02	☻	☻

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

DP = Polycrystalline diamond

Grooving and copy turning – Cutting inserts GX



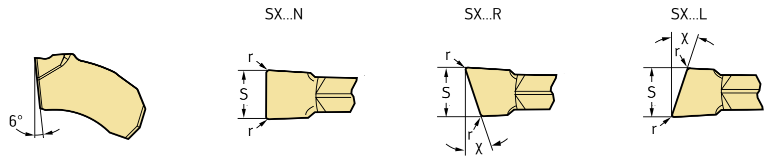
Cutting inserts

	Designation	s mm	r mm	l mm	f mm	S_{Tol} mm	l_{Tol} mm	N HW WK1	S HW WK1
	GX24-4R300N-RK8	6	3	25,4	0,10–0,60	±0,02	±0,05	☻	☻

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

HW = Uncoated carbide

Grooving and parting off – Cutting inserts SX



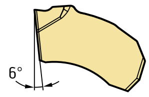
Cutting inserts

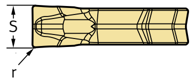
	Designation	s mm	r mm	f mm	S_{Tol} mm	l_{Tol} mm	N HW WK1	S HW WK1
	SX-2E200N02-CK8	2	0,2	0,04–0,12	±0,02	±0,05	☻	☻
	SX-3E300N02-CK8	3	0,2	0,08–0,20	±0,02	±0,05	☻	☻
	SX-4E400N02-CK8	4	0,2	0,10–0,22	±0,02	±0,05	☻	☻
	SX-5E500N04-CK8	5	0,4	0,10–0,25	±0,02	±0,05	☻	☻

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

HW = Uncoated carbide

Slitting – Cutting inserts
SX





Cutting inserts

	Designation	s mm	r mm	f mm	S_{Tol} mm	l_{Tol} mm	N HW WK1	S HW WK1
	SX-1E150N01-SK8	1,5	0,1	0,03–0,08	±0,02	±0,05		
	SX-2E200N02-SK8	2	0,2	0,05–0,10	±0,02	±0,05		
	SX-3E300N02-SK8	3	0,2	0,05–0,15	±0,02	±0,05		
	SX-4E400N02-SK8	4	0,2	0,05–0,20	±0,02	±0,05		
	SX-5E500N04-SK8	5	0,4	0,05–0,25	±0,02	±0,05		

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

HW = Uncoated carbide

B – Holemaking

Strong as standard – with options for customisation.

THE TOOL

- DC165 Advance solid carbide drill
- Dia. 4–16 mm

Dimensions – standard:

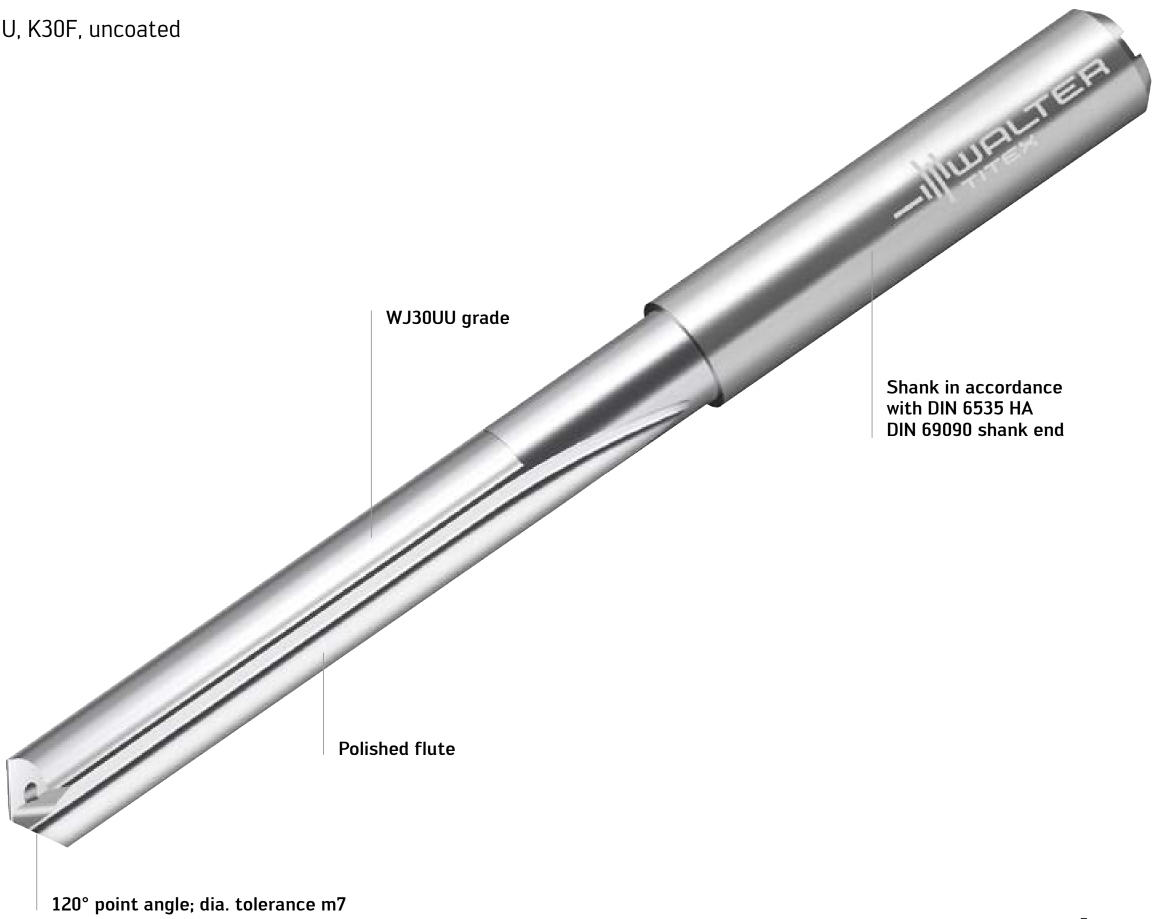
- 5 × D_c in accordance with Walter standard

Dimensions – Walter Xpress:

- Up to 12 × D_c
- Step drill
- Grade: WJ30UU, K30F, uncoated

THE APPLICATION

- ISO material groups K and N
- Can be used with emulsion and oil
- Areas of use: General mechanical engineering and the automotive industry



DC165 Advance solid carbide drill

Fig.: DC165-05-08.500A1-WJ30UU

BENEFITS FOR YOU

- Straight flute allows for step tools with large differences in diameter
- High bore quality due to four-margin design
- Polished flutes ensure reliable chip evacuation

Reliable drilling in aluminium and other materials.

NEW ADDITION TO THE PRODUCT RANGE

- PVD drilling grade WNN15
- P4840C (centre) and P4840P (external): Sizes 1–8 for D4120 indexable insert drill
- P2840S (centre and external): Sizes 1–7 for D3120 indexable insert drill
- LCGX (centre and external): Sizes 05 and 06 for B3212.DF.–B3214.DF. indexable insert drill in dia. range 10–18 mm

THE GRADE

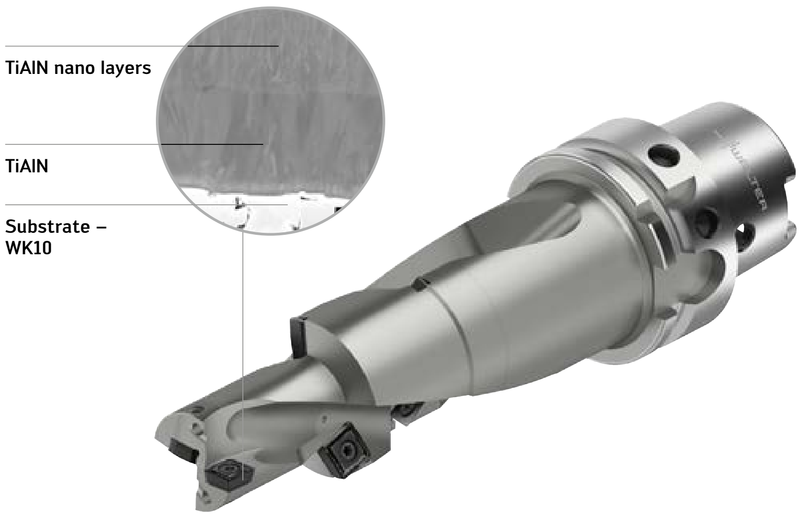
- TiAlN coating with special structure: 1. Coarse crystalline area; 2. Nanostructured area with higher Al content
- Hard substrate for maximum cutting edge stability
- Extremely smooth rake face for low friction
- HiPIMS PVD coating technology

THE GEOMETRY

- E77 – the sharp one
- Fully ground circumference – for maximum precision
- Polished rake face – for the lowest friction and material adhesion
- Sharp cutting edge formation – for low cutting forces

THE APPLICATION

- Non-ferrous metals (ISO N), can be used specifically for wrought aluminium alloys as well as cast aluminium alloys
- Areas of use: Aerospace and automotive industry, general mechanical engineering, etc.



ISO N grade: WNN15

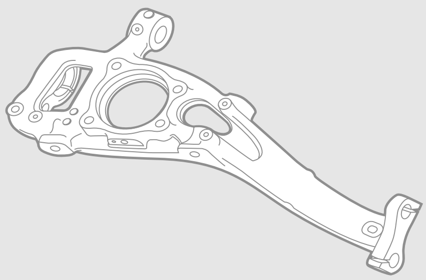
Fig.: B4273-7497120

BENEFITS FOR YOU

- Maximum process reliability due to optimum layer bonding of the WNN15 grade
- Reliable chip removal thanks to polished rake face and extremely smooth surface
- Reduced tendency towards adhesion and build-up on the cutting edge increase process reliability and wear resistance
- Long tool life at maximum cutting speeds due to HiPIMS PVD coating

APPLICATION EXAMPLE

Pivot bearings

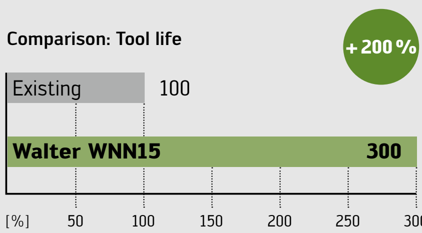


Material:	AlMgSi1 F54 forged aluminium, hardened (3.2315); ISO N
Tool:	B4273-7497120
Indexable insert:	P4840P-5R-E77 WNN15 P4840C-5R-E77 WNN15

Cutting data

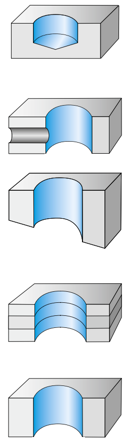
	Existing	Walter WNN15
v_c (m/min)	443	443
n [min^{-1}]	4700	4700
f_n (mm)	0,22	0,22
v_f (mm/min)	1034	1034
Drilling depth (mm)	32	32
Cooling	6% emulsion	6% emulsion
Adaptor	HSK 63	HSK 63

Comparison: Tool life



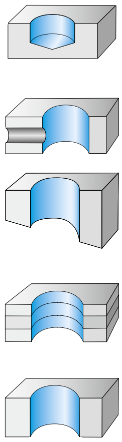
B1

Solid carbide drills – with internal coolant



Drilling depth	3 x D_C	5 x D_C		8 x D_C	12 x D_C
	Selection	NEW	Selection	Selection	Selection
					
Designation	DC160 Advance X·treme Evo	DC165 Advance	DC160 Advance X·treme Evo	DC160 Advance X·treme Evo	DC160 Advance X·treme Evo
Other services	R	R	R	R	R
Standard	DIN 6537 K	Walter	DIN 6537 L	Walter	Walter
Coating/grade	WJ30ET	WJ30UU	WJ30ET	WJ30ET	WJ30EU
Shank	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA
Dia. range [mm]	3–20	4–16	3–25	3–20	3–20
P Steel	●●		●●	●●	●●
M Stainless steel	●		●	●	●
K Cast iron	●●	●●	●●	●●	●●
N NF metals	●●	●●	●●	●●	●●
S Materials with difficult cutting properties	●●		●●	●●	●●
H Hard materials	●		●	●	●
O Other	●		●	●	●
Page in catalogue	42	67	47	52	56
QR code					
www.walter-tools.com/woc/	DC160	DC165	DC160	DC160	DC160

B1

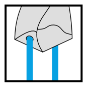


	16 x D_C	20 x D_C	25 x D_C	30 x D_C
	Selection	Selection	Selection	Selection
				
	DC160 Advance X·treme Evo	DC160 Advance X·treme Evo	DC160 Advance X·treme Evo	DC160 Advance X·treme Evo
	R	R	R	R
	Walter	Walter	Walter	Walter
	WJ30EU	WJ30EU	WJ30EU	WJ30EU
	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA
	3–16	3–16	3–12	3–12
	●●	●●	●●	●●
	●	●	●	●
	●●	●●	●●	●●
	●●	●●	●●	●●
	●●	●●	●●	●●
	●	●	●	●
	●	●	●	●
	59	61	63	65
	DC160	DC160	DC160	DC160

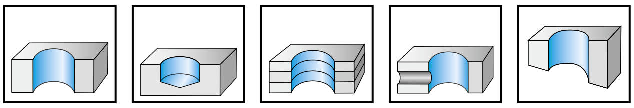
B1

Solid carbide drills with coolant channel
DC160 Advance
X·treme Evo

3×Dc | DIN 6537 K

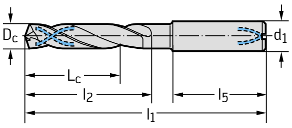


140°



	P	M	K	N	S	H	O
WJ30ET	●●	●	●●	●●	●●	●	●

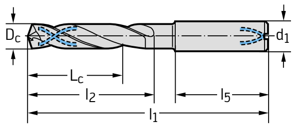
Tool



DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-03-03.000A1-	3		14	62	20	36	6	
DC160-03-03.100A1-	3,1		14	62	20	36	6	
DC160-03-03.175A1-	3,175	1/8"	14	62	20	36	6	
DC160-03-03.200A1-	3,2		14	62	20	36	6	
DC160-03-03.250A1-	3,25		14	62	20	36	6	
DC160-03-03.300A1-	3,3		14	62	20	36	6	
DC160-03-03.400A1-	3,4		14	62	20	36	6	
DC160-03-03.500A1-	3,5		14	62	20	36	6	
DC160-03-03.572A1-	3,572	9/64"	14	62	20	36	6	
DC160-03-03.600A1-	3,6		14	62	20	36	6	
DC160-03-03.650A1-	3,65		14	62	20	36	6	
DC160-03-03.700A1-	3,7		14	62	20	36	6	
DC160-03-03.800A1-	3,8		17	66	24	36	6	
DC160-03-03.900A1-	3,9		17	66	24	36	6	
DC160-03-03.969A1-	3,969	5/32"	17	66	24	36	6	
DC160-03-04.000A1-	4		17	66	24	36	6	
DC160-03-04.100A1-	4,1		17	66	24	36	6	
DC160-03-04.200A1-	4,2		17	66	24	36	6	
DC160-03-04.300A1-	4,3		17	66	24	36	6	
DC160-03-04.366A1-	4,366	11/64"	17	66	24	36	6	
DC160-03-04.400A1-	4,4		17	66	24	36	6	
DC160-03-04.500A1-	4,5		17	66	24	36	6	
DC160-03-04.600A1-	4,6		17	66	24	36	6	
DC160-03-04.650A1-	4,65		17	66	24	36	6	
DC160-03-04.700A1-	4,7		17	66	24	36	6	
DC160-03-04.763A1-	4,763	3/16"	20	66	28	36	6	
DC160-03-04.800A1-	4,8		20	66	28	36	6	
DC160-03-04.900A1-	4,9		20	66	28	36	6	
DC160-03-05.000A1-	5		20	66	28	36	6	
DC160-03-05.100A1-	5,1		20	66	28	36	6	
DC160-03-05.159A1-	5,159	13/64"	20	66	28	36	6	
DC160-03-05.200A1-	5,2		20	66	28	36	6	
DC160-03-05.300A1-	5,3		20	66	28	36	6	
DC160-03-05.400A1-	5,4		20	66	28	36	6	
DC160-03-05.500A1-	5,5		20	66	28	36	6	
DC160-03-05.550A1-	5,55		20	66	28	36	6	

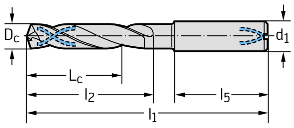
Tool



DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-03-05.556A1-	5,556	7/32"	20	66	28	36	6	
DC160-03-05.600A1-	5,6		20	66	28	36	6	
DC160-03-05.700A1-	5,7		20	66	28	36	6	
DC160-03-05.800A1-	5,8		20	66	28	36	6	
DC160-03-05.900A1-	5,9		20	66	28	36	6	
DC160-03-05.953A1-	5,953	15/64"	20	66	28	36	6	
DC160-03-06.000A1-	6		20	66	28	36	6	
DC160-03-06.100A1-	6,1		24	79	34	36	8	
DC160-03-06.200A1-	6,2		24	79	34	36	8	
DC160-03-06.300A1-	6,3		24	79	34	36	8	
DC160-03-06.350A1-	6,35	1/4"	24	79	34	36	8	
DC160-03-06.400A1-	6,4		24	79	34	36	8	
DC160-03-06.500A1-	6,5		24	79	34	36	8	
DC160-03-06.600A1-	6,6		24	79	34	36	8	
DC160-03-06.700A1-	6,7		24	79	34	36	8	
DC160-03-06.747A1-	6,747	17/64"	24	79	34	36	8	
DC160-03-06.800A1-	6,8		24	79	34	36	8	
DC160-03-06.900A1-	6,9		24	79	34	36	8	
DC160-03-07.000A1-	7		24	79	34	36	8	
DC160-03-07.100A1-	7,1		29	79	41	36	8	
DC160-03-07.144A1-	7,144	9/32"	29	79	41	36	8	
DC160-03-07.200A1-	7,2		29	79	41	36	8	
DC160-03-07.300A1-	7,3		29	79	41	36	8	
DC160-03-07.400A1-	7,4		29	79	41	36	8	
DC160-03-07.500A1-	7,5		29	79	41	36	8	
DC160-03-07.541A1-	7,541	19/64"	29	79	41	36	8	
DC160-03-07.550A1-	7,55		29	79	41	36	8	
DC160-03-07.600A1-	7,6		29	79	41	36	8	
DC160-03-07.700A1-	7,7		29	79	41	36	8	
DC160-03-07.800A1-	7,8		29	79	41	36	8	
DC160-03-07.900A1-	7,9		29	79	41	36	8	
DC160-03-07.938A1-	7,938	5/16"	29	79	41	36	8	
DC160-03-08.000A1-	8		29	79	41	36	8	
DC160-03-08.100A1-	8,1		35	89	47	40	10	
DC160-03-08.200A1-	8,2		35	89	47	40	10	
DC160-03-08.300A1-	8,3		35	89	47	40	10	
DC160-03-08.334A1-	8,334	21/64"	35	89	47	40	10	
DC160-03-08.400A1-	8,4		35	89	47	40	10	
DC160-03-08.500A1-	8,5		35	89	47	40	10	
DC160-03-08.600A1-	8,6		35	89	47	40	10	
DC160-03-08.700A1-	8,7		35	89	47	40	10	
DC160-03-08.731A1-	8,731	11/32"	35	89	47	40	10	
DC160-03-08.800A1-	8,8		35	89	47	40	10	
DC160-03-08.900A1-	8,9		35	89	47	40	10	
DC160-03-09.000A1-	9		35	89	47	40	10	
DC160-03-09.100A1-	9,1		35	89	47	40	10	
DC160-03-09.128A1-	9,128	23/64"	35	89	47	40	10	
DC160-03-09.200A1-	9,2		35	89	47	40	10	
DC160-03-09.300A1-	9,3		35	89	47	40	10	

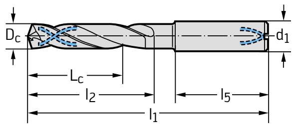
Tool



DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-03-09.400A1-	9,4		35	89	47	40	10	
DC160-03-09.500A1-	9,5		35	89	47	40	10	
DC160-03-09.525A1-	9,525	3/8"	35	89	47	40	10	
DC160-03-09.550A1-	9,55		35	89	47	40	10	
DC160-03-09.600A1-	9,6		35	89	47	40	10	
DC160-03-09.700A1-	9,7		35	89	47	40	10	
DC160-03-09.800A1-	9,8		35	89	47	40	10	
DC160-03-09.900A1-	9,9		35	89	47	40	10	
DC160-03-09.922A1-	9,922	25/64"	35	89	47	40	10	
DC160-03-10.000A1-	10		35	89	47	40	10	
DC160-03-10.100A1-	10,1		40	102	55	45	12	
DC160-03-10.200A1-	10,2		40	102	55	45	12	
DC160-03-10.300A1-	10,3		40	102	55	45	12	
DC160-03-10.319A1-	10,319	13/32"	40	102	55	45	12	
DC160-03-10.400A1-	10,4		40	102	55	45	12	
DC160-03-10.500A1-	10,5		40	102	55	45	12	
DC160-03-10.600A1-	10,6		40	102	55	45	12	
DC160-03-10.700A1-	10,7		40	102	55	45	12	
DC160-03-10.716A1-	10,716	27/64"	40	102	55	45	12	
DC160-03-10.800A1-	10,8		40	102	55	45	12	
DC160-03-10.900A1-	10,9		40	102	55	45	12	
DC160-03-11.000A1-	11		40	102	55	45	12	
DC160-03-11.100A1-	11,1		40	102	55	45	12	
DC160-03-11.113A1-	11,113	7/16"	40	102	55	45	12	
DC160-03-11.200A1-	11,2		40	102	55	45	12	
DC160-03-11.300A1-	11,3		40	102	55	45	12	
DC160-03-11.400A1-	11,4		40	102	55	45	12	
DC160-03-11.500A1-	11,5		40	102	55	45	12	
DC160-03-11.509A1-	11,509	29/64"	40	102	55	45	12	
DC160-03-11.550A1-	11,55		40	102	55	45	12	
DC160-03-11.600A1-	11,6		40	102	55	45	12	
DC160-03-11.700A1-	11,7		40	102	55	45	12	
DC160-03-11.800A1-	11,8		40	102	55	45	12	
DC160-03-11.900A1-	11,9		40	102	55	45	12	
DC160-03-11.906A1-	11,906	15/32"	40	102	55	45	12	
DC160-03-12.000A1-	12		40	102	55	45	12	
DC160-03-12.100A1-	12,1		43	107	60	45	14	
DC160-03-12.200A1-	12,2		43	107	60	45	14	
DC160-03-12.250A1-	12,25		43	107	60	45	14	
DC160-03-12.300A1-	12,3		43	107	60	45	14	
DC160-03-12.303A1-	12,303	31/64"	43	107	60	45	14	
DC160-03-12.400A1-	12,4		43	107	60	45	14	
DC160-03-12.500A1-	12,5		43	107	60	45	14	
DC160-03-12.600A1-	12,6		43	107	60	45	14	
DC160-03-12.700A1-	12,7	1/2"	43	107	60	45	14	
DC160-03-12.750A1-	12,75		43	107	60	45	14	
DC160-03-12.800A1-	12,8		43	107	60	45	14	
DC160-03-12.900A1-	12,9		43	107	60	45	14	
DC160-03-13.000A1-	13		43	107	60	45	14	

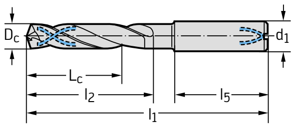
Tool



DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-03-13.100A1-	13,1		43	107	60	45	14	
DC160-03-13.200A1-	13,2		43	107	60	45	14	
DC160-03-13.300A1-	13,3		43	107	60	45	14	
DC160-03-13.400A1-	13,4		43	107	60	45	14	
DC160-03-13.494A1-	13,494	17/32"	43	107	60	45	14	
DC160-03-13.500A1-	13,5		43	107	60	45	14	
DC160-03-13.600A1-	13,6		43	107	60	45	14	
DC160-03-13.700A1-	13,7		43	107	60	45	14	
DC160-03-13.800A1-	13,8		43	107	60	45	14	
DC160-03-13.900A1-	13,9		43	107	60	45	14	
DC160-03-14.000A1-	14		43	107	60	45	14	
DC160-03-14.100A1-	14,1		45	115	65	48	16	
DC160-03-14.200A1-	14,2		45	115	65	48	16	
DC160-03-14.288A1-	14,288	9/16"	45	115	65	48	16	
DC160-03-14.300A1-	14,3		45	115	65	48	16	
DC160-03-14.400A1-	14,4		45	115	65	48	16	
DC160-03-14.500A1-	14,5		45	115	65	48	16	
DC160-03-14.600A1-	14,6		45	115	65	48	16	
DC160-03-14.700A1-	14,7		45	115	65	48	16	
DC160-03-14.750A1-	14,75		45	115	65	48	16	
DC160-03-14.800A1-	14,8		45	115	65	48	16	
DC160-03-15.000A1-	15		45	115	65	48	16	
DC160-03-15.100A1-	15,1		45	115	65	48	16	
DC160-03-15.200A1-	15,2		45	115	65	48	16	
DC160-03-15.300A1-	15,3		45	115	65	48	16	
DC160-03-15.500A1-	15,5		45	115	65	48	16	
DC160-03-15.600A1-	15,6		45	115	65	48	16	
DC160-03-15.700A1-	15,7		45	115	65	48	16	
DC160-03-15.800A1-	15,8		45	115	65	48	16	
DC160-03-15.875A1-	15,875	5/8"	45	115	65	48	16	
DC160-03-15.900A1-	15,9		45	115	65	48	16	
DC160-03-16.000A1-	16		45	115	65	48	16	
DC160-03-16.100A1-	16,1		51	123	73	48	18	
DC160-03-16.200A1-	16,2		51	123	73	48	18	
DC160-03-16.300A1-	16,3		51	123	73	48	18	
DC160-03-16.400A1-	16,4		51	123	73	48	18	
DC160-03-16.500A1-	16,5		51	123	73	48	18	
DC160-03-16.600A1-	16,6		51	123	73	48	18	
DC160-03-16.700A1-	16,7		51	123	73	48	18	
DC160-03-16.750A1-	16,75		51	123	73	48	18	
DC160-03-16.800A1-	16,8		51	123	73	48	18	
DC160-03-17.000A1-	17		51	123	73	48	18	
DC160-03-17.200A1-	17,2		51	123	73	48	18	
DC160-03-17.300A1-	17,3		51	123	73	48	18	
DC160-03-17.500A1-	17,5		51	123	73	48	18	
DC160-03-17.600A1-	17,6		51	123	73	48	18	
DC160-03-17.700A1-	17,7		51	123	73	48	18	
DC160-03-17.800A1-	17,8		51	123	73	48	18	
DC160-03-18.000A1-	18		51	123	73	48	18	

B1

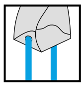
Tool	Designation	D_c m7 mm	$D_{c\ Inch/No.}$	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
 DIN 6535 HA	DC160-03-18.200A1-	18,2		55	131	79	50	20	
	DC160-03-18.500A1-	18,5		55	131	79	50	20	
	DC160-03-18.700A1-	18,7		55	131	79	50	20	
	DC160-03-18.800A1-	18,8		55	131	79	50	20	
	DC160-03-19.000A1-	19		55	131	79	50	20	
	DC160-03-19.050A1-	19,05	3/4"	55	131	79	50	20	
	DC160-03-19.500A1-	19,5		55	131	79	50	20	
	DC160-03-19.700A1-	19,7		55	131	79	50	20	
	DC160-03-19.800A1-	19,8		55	131	79	50	20	
	DC160-03-20.000A1-	20		55	131	79	50	20	

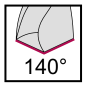
Solid carbide drills with coolant channel

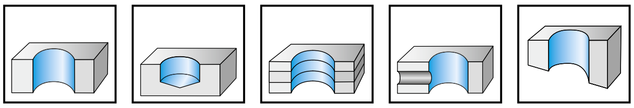
DC160 Advance

X·treme Evo

5×Dc | DIN 6537 L

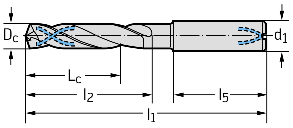






	P	M	K	N	S	H	O
WJ30ET	●●	●	●●	●●	●●	●	●

B1

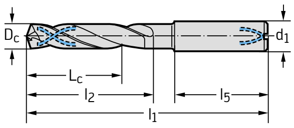


DIN 6535 HA

Tool Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-03.000A1-	3		23	66	28	36	6	
DC160-05-03.100A1-	3,1		23	66	28	36	6	
DC160-05-03.175A1-	3,175	1/8"	23	66	28	36	6	
DC160-05-03.200A1-	3,2		23	66	28	36	6	
DC160-05-03.250A1-	3,25		23	66	28	36	6	
DC160-05-03.300A1-	3,3		23	66	28	36	6	
DC160-05-03.400A1-	3,4		23	66	28	36	6	
DC160-05-03.500A1-	3,5		23	66	28	36	6	
DC160-05-03.572A1-	3,572	9/64"	23	66	28	36	6	
DC160-05-03.600A1-	3,6		23	66	28	36	6	
DC160-05-03.650A1-	3,65		23	66	28	36	6	
DC160-05-03.700A1-	3,7		23	66	28	36	6	
DC160-05-03.800A1-	3,8		29	74	36	36	6	
DC160-05-03.900A1-	3,9		29	74	36	36	6	
DC160-05-03.969A1-	3,969	5/32"	29	74	36	36	6	
DC160-05-04.000A1-	4		29	74	36	36	6	
DC160-05-04.100A1-	4,1		29	74	36	36	6	
DC160-05-04.200A1-	4,2		29	74	36	36	6	
DC160-05-04.300A1-	4,3		29	74	36	36	6	
DC160-05-04.366A1-	4,366	11/64"	29	74	36	36	6	
DC160-05-04.400A1-	4,4		29	74	36	36	6	
DC160-05-04.500A1-	4,5		29	74	36	36	6	
DC160-05-04.600A1-	4,6		29	74	36	36	6	
DC160-05-04.650A1-	4,65		29	74	36	36	6	
DC160-05-04.700A1-	4,7		29	74	36	36	6	
DC160-05-04.763A1-	4,763	3/16"	35	82	44	36	6	
DC160-05-04.800A1-	4,8		35	82	44	36	6	
DC160-05-04.900A1-	4,9		35	82	44	36	6	
DC160-05-05.000A1-	5		35	82	44	36	6	
DC160-05-05.100A1-	5,1		35	82	44	36	6	
DC160-05-05.159A1-	5,159	13/64"	35	82	44	36	6	
DC160-05-05.200A1-	5,2		35	82	44	36	6	
DC160-05-05.300A1-	5,3		35	82	44	36	6	
DC160-05-05.400A1-	5,4		35	82	44	36	6	
DC160-05-05.500A1-	5,5		35	82	44	36	6	
DC160-05-05.550A1-	5,55		35	82	44	36	6	

B1

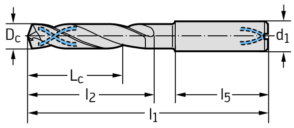
Tool



DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-05.556A1-	5,556	7/32"	35	82	44	36	6	●
DC160-05-05.600A1-	5,6		35	82	44	36	6	●
DC160-05-05.700A1-	5,7		35	82	44	36	6	●
DC160-05-05.800A1-	5,8		35	82	44	36	6	●
DC160-05-05.900A1-	5,9		35	82	44	36	6	●
DC160-05-05.953A1-	5,953	15/64"	35	82	44	36	6	●
DC160-05-06.000A1-	6		35	82	44	36	6	●
DC160-05-06.100A1-	6,1		43	91	53	36	8	●
DC160-05-06.200A1-	6,2		43	91	53	36	8	●
DC160-05-06.300A1-	6,3		43	91	53	36	8	●
DC160-05-06.350A1-	6,35	1/4"	43	91	53	36	8	●
DC160-05-06.400A1-	6,4		43	91	53	36	8	●
DC160-05-06.500A1-	6,5		43	91	53	36	8	●
DC160-05-06.600A1-	6,6		43	91	53	36	8	●
DC160-05-06.700A1-	6,7		43	91	53	36	8	●
DC160-05-06.747A1-	6,747	17/64"	43	91	53	36	8	●
DC160-05-06.800A1-	6,8		43	91	53	36	8	●
DC160-05-06.900A1-	6,9		43	91	53	36	8	●
DC160-05-07.000A1-	7		43	91	53	36	8	●
DC160-05-07.100A1-	7,1		43	91	53	36	8	●
DC160-05-07.144A1-	7,144	9/32"	43	91	53	36	8	●
DC160-05-07.200A1-	7,2		43	91	53	36	8	●
DC160-05-07.300A1-	7,3		43	91	53	36	8	●
DC160-05-07.400A1-	7,4		43	91	53	36	8	●
DC160-05-07.500A1-	7,5		43	91	53	36	8	●
DC160-05-07.541A1-	7,541	19/64"	43	91	53	36	8	●
DC160-05-07.550A1-	7,55		43	91	53	36	8	●
DC160-05-07.600A1-	7,6		43	91	53	36	8	●
DC160-05-07.700A1-	7,7		43	91	53	36	8	●
DC160-05-07.800A1-	7,8		43	91	53	36	8	●
DC160-05-07.900A1-	7,9		43	91	53	36	8	●
DC160-05-07.938A1-	7,938	5/16"	43	91	53	36	8	●
DC160-05-08.000A1-	8		43	91	53	36	8	●
DC160-05-08.100A1-	8,1		49	103	61	40	10	●
DC160-05-08.200A1-	8,2		49	103	61	40	10	●
DC160-05-08.300A1-	8,3		49	103	61	40	10	●
DC160-05-08.334A1-	8,334	21/64"	49	103	61	40	10	●
DC160-05-08.400A1-	8,4		49	103	61	40	10	●
DC160-05-08.500A1-	8,5		49	103	61	40	10	●
DC160-05-08.600A1-	8,6		49	103	61	40	10	●
DC160-05-08.700A1-	8,7		49	103	61	40	10	●
DC160-05-08.731A1-	8,731	11/32"	49	103	61	40	10	●
DC160-05-08.800A1-	8,8		49	103	61	40	10	●
DC160-05-08.900A1-	8,9		49	103	61	40	10	●
DC160-05-09.000A1-	9		49	103	61	40	10	●
DC160-05-09.100A1-	9,1		49	103	61	40	10	●
DC160-05-09.128A1-	9,128	23/64"	49	103	61	40	10	●
DC160-05-09.200A1-	9,2		49	103	61	40	10	●
DC160-05-09.300A1-	9,3		49	103	61	40	10	●

Tool

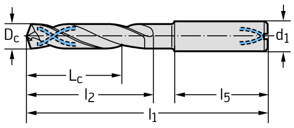


DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-09.400A1-	9,4		49	103	61	40	10	
DC160-05-09.500A1-	9,5		49	103	61	40	10	
DC160-05-09.525A1-	9,525	3/8"	49	103	61	40	10	
DC160-05-09.550A1-	9,55		49	103	61	40	10	
DC160-05-09.600A1-	9,6		49	103	61	40	10	
DC160-05-09.700A1-	9,7		49	103	61	40	10	
DC160-05-09.800A1-	9,8		49	103	61	40	10	
DC160-05-09.900A1-	9,9		49	103	61	40	10	
DC160-05-09.922A1-	9,922	25/64"	49	103	61	40	10	
DC160-05-10.000A1-	10		49	103	61	40	10	
DC160-05-10.100A1-	10,1		56	118	71	45	12	
DC160-05-10.200A1-	10,2		56	118	71	45	12	
DC160-05-10.300A1-	10,3		56	118	71	45	12	
DC160-05-10.319A1-	10,319	13/32"	56	118	71	45	12	
DC160-05-10.400A1-	10,4		56	118	71	45	12	
DC160-05-10.500A1-	10,5		56	118	71	45	12	
DC160-05-10.600A1-	10,6		56	118	71	45	12	
DC160-05-10.700A1-	10,7		56	118	71	45	12	
DC160-05-10.716A1-	10,716	27/64"	56	118	71	45	12	
DC160-05-10.800A1-	10,8		56	118	71	45	12	
DC160-05-10.900A1-	10,9		56	118	71	45	12	
DC160-05-11.000A1-	11		56	118	71	45	12	
DC160-05-11.100A1-	11,1		56	118	71	45	12	
DC160-05-11.113A1-	11,113	7/16"	56	118	71	45	12	
DC160-05-11.200A1-	11,2		56	118	71	45	12	
DC160-05-11.300A1-	11,3		56	118	71	45	12	
DC160-05-11.400A1-	11,4		56	118	71	45	12	
DC160-05-11.500A1-	11,5		56	118	71	45	12	
DC160-05-11.509A1-	11,509	29/64"	56	118	71	45	12	
DC160-05-11.550A1-	11,55		56	118	71	45	12	
DC160-05-11.600A1-	11,6		56	118	71	45	12	
DC160-05-11.700A1-	11,7		56	118	71	45	12	
DC160-05-11.800A1-	11,8		56	118	71	45	12	
DC160-05-11.900A1-	11,9		56	118	71	45	12	
DC160-05-11.906A1-	11,906	15/32"	56	118	71	45	12	
DC160-05-12.000A1-	12		56	118	71	45	12	
DC160-05-12.100A1-	12,1		60	124	77	45	14	
DC160-05-12.200A1-	12,2		60	124	77	45	14	
DC160-05-12.250A1-	12,25		60	124	77	45	14	
DC160-05-12.300A1-	12,3		60	124	77	45	14	
DC160-05-12.303A1-	12,303	31/64"	60	124	77	45	14	
DC160-05-12.400A1-	12,4		60	124	77	45	14	
DC160-05-12.500A1-	12,5		60	124	77	45	14	
DC160-05-12.600A1-	12,6		60	124	77	45	14	
DC160-05-12.700A1-	12,7	1/2"	60	124	77	45	14	
DC160-05-12.750A1-	12,75		60	124	77	45	14	
DC160-05-12.800A1-	12,8		60	124	77	45	14	
DC160-05-12.900A1-	12,9		60	124	77	45	14	
DC160-05-13.000A1-	13		60	124	77	45	14	

B1

Tool



DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-13.100A1-	13,1		60	124	77	45	14	
DC160-05-13.200A1-	13,2		60	124	77	45	14	
DC160-05-13.300A1-	13,3		60	124	77	45	14	
DC160-05-13.400A1-	13,4		60	124	77	45	14	
DC160-05-13.494A1-	13,494	17/32"	60	124	77	45	14	
DC160-05-13.500A1-	13,5		60	124	77	45	14	
DC160-05-13.600A1-	13,6		60	124	77	45	14	
DC160-05-13.700A1-	13,7		60	124	77	45	14	
DC160-05-13.800A1-	13,8		60	124	77	45	14	
DC160-05-13.900A1-	13,9		60	124	77	45	14	
DC160-05-14.000A1-	14		60	124	77	45	14	
DC160-05-14.100A1-	14,1		63	133	83	48	16	
DC160-05-14.200A1-	14,2		63	133	83	48	16	
DC160-05-14.288A1-	14,288	9/16"	63	133	83	48	16	
DC160-05-14.300A1-	14,3		63	133	83	48	16	
DC160-05-14.400A1-	14,4		63	133	83	48	16	
DC160-05-14.500A1-	14,5		63	133	83	48	16	
DC160-05-14.600A1-	14,6		63	133	83	48	16	
DC160-05-14.700A1-	14,7		63	133	83	48	16	
DC160-05-14.750A1-	14,75		63	133	83	48	16	
DC160-05-14.800A1-	14,8		63	133	83	48	16	
DC160-05-14.900A1-	14,9		63	133	83	48	16	
DC160-05-15.000A1-	15		63	133	83	48	16	
DC160-05-15.100A1-	15,1		63	133	83	48	16	
DC160-05-15.200A1-	15,2		63	133	83	48	16	
DC160-05-15.300A1-	15,3		63	133	83	48	16	
DC160-05-15.400A1-	15,4		63	133	83	48	16	
DC160-05-15.500A1-	15,5		63	133	83	48	16	
DC160-05-15.600A1-	15,6		63	133	83	48	16	
DC160-05-15.700A1-	15,7		63	133	83	48	16	
DC160-05-15.800A1-	15,8		63	133	83	48	16	
DC160-05-15.875A1-	15,875	5/8"	63	133	83	48	16	
DC160-05-15.900A1-	15,9		63	133	83	48	16	
DC160-05-16.000A1-	16		63	133	83	48	16	
DC160-05-16.100A1-	16,1		71	143	93	48	18	
DC160-05-16.200A1-	16,2		71	143	93	48	18	
DC160-05-16.300A1-	16,3		71	143	93	48	18	
DC160-05-16.400A1-	16,4		71	143	93	48	18	
DC160-05-16.500A1-	16,5		71	143	93	48	18	
DC160-05-16.600A1-	16,6		71	143	93	48	18	
DC160-05-16.700A1-	16,7		71	143	93	48	18	
DC160-05-16.750A1-	16,75		71	143	93	48	18	
DC160-05-16.800A1-	16,8		71	143	93	48	18	
DC160-05-16.900A1-	16,9		71	143	93	48	18	
DC160-05-17.000A1-	17		71	143	93	48	18	
DC160-05-17.100A1-	17,1		71	143	93	48	18	
DC160-05-17.200A1-	17,2		71	143	93	48	18	
DC160-05-17.300A1-	17,3		71	143	93	48	18	
DC160-05-17.400A1-	17,4		71	143	93	48	18	

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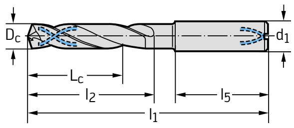
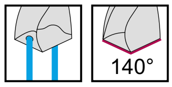
Tool	Designation	D_c m7 mm	$D_{c\ Inch/No.}$	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
	DC160-05-17.500A1-	17,5		71	143	93	48	18	
	DC160-05-17.600A1-	17,6		71	143	93	48	18	
	DC160-05-17.700A1-	17,7		71	143	93	48	18	
	DC160-05-17.800A1-	17,8		71	143	93	48	18	
DIN 6535 HA	DC160-05-17.900A1-	17,9		71	143	93	48	18	
	DC160-05-18.000A1-	18		71	143	93	48	18	
	DC160-05-18.100A1-	18,1		77	153	101	50	20	
	DC160-05-18.200A1-	18,2		77	153	101	50	20	
	DC160-05-18.300A1-	18,3		77	153	101	50	20	
	DC160-05-18.400A1-	18,4		77	153	101	50	20	
	DC160-05-18.500A1-	18,5		77	153	101	50	20	
	DC160-05-18.600A1-	18,6		77	153	101	50	20	
	DC160-05-18.700A1-	18,7		77	153	101	50	20	
	DC160-05-18.800A1-	18,8		77	153	101	50	20	
	DC160-05-18.900A1-	18,9		77	153	101	50	20	
	DC160-05-19.000A1-	19		77	153	101	50	20	
	DC160-05-19.050A1-	19,05	3/4"	77	153	101	50	20	
	DC160-05-19.100A1-	19,1		77	153	101	50	20	
	DC160-05-19.200A1-	19,2		77	153	101	50	20	
	DC160-05-19.300A1-	19,3		77	153	101	50	20	
	DC160-05-19.400A1-	19,4		77	153	101	50	20	
	DC160-05-19.500A1-	19,5		77	153	101	50	20	
	DC160-05-19.600A1-	19,6		77	153	101	50	20	
	DC160-05-19.700A1-	19,7		77	153	101	50	20	
	DC160-05-19.800A1-	19,8		77	153	101	50	20	
	DC160-05-19.900A1-	19,9		77	153	101	50	20	
	DC160-05-20.000A1-	20		77	153	101	50	20	
	DC160-05-20.500A1-	20,5		86	166	108	56	25	
	DC160-05-21.000A1-	21		86	166	108	56	25	
	DC160-05-21.500A1-	21,5		86	166	108	56	25	
	DC160-05-22.000A1-	22		86	166	108	56	25	
	DC160-05-22.500A1-	22,5		91	173	115	56	25	
	DC160-05-23.000A1-	23		91	173	115	56	25	
	DC160-05-23.500A1-	23,5		91	173	115	56	25	
	DC160-05-24.000A1-	24		91	173	115	56	25	
	DC160-05-24.500A1-	24,5		97	180	122	56	25	
	DC160-05-25.000A1-	25		97	180	122	56	25	

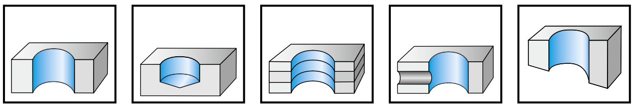
Solid carbide drills with coolant channel

DC160 Advance

X·treme Evo

8×D_c





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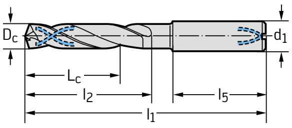
	P	M	K	N	S	H	O
WJ30ET	●●	●	●●	●●	●●	●	●

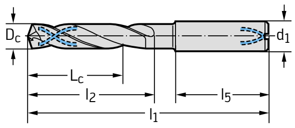
Tool



DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-08-03.000A1-	3		28	74	34	36	6	
DC160-08-03.100A1-	3,1		28	74	34	36	6	
DC160-08-03.175A1-	3,175	1/8"	28	74	34	36	6	
DC160-08-03.200A1-	3,2		28	74	34	36	6	
DC160-08-03.300A1-	3,3		28	74	34	36	6	
DC160-08-03.400A1-	3,4		28	74	34	36	6	
DC160-08-03.500A1-	3,5		28	74	34	36	6	
DC160-08-03.572A1-	3,572	9/64"	28	74	34	36	6	
DC160-08-03.600A1-	3,6		28	74	34	36	6	
DC160-08-03.700A1-	3,7		28	74	34	36	6	
DC160-08-03.800A1-	3,8		37	85	45	36	6	
DC160-08-03.900A1-	3,9		37	85	45	36	6	
DC160-08-03.969A1-	3,969	5/32"	37	85	45	36	6	
DC160-08-04.000A1-	4		37	85	45	36	6	
DC160-08-04.100A1-	4,1		37	85	45	36	6	
DC160-08-04.200A1-	4,2		37	85	45	36	6	
DC160-08-04.300A1-	4,3		37	85	45	36	6	
DC160-08-04.366A1-	4,366	11/64"	37	85	45	36	6	
DC160-08-04.400A1-	4,4		37	85	45	36	6	
DC160-08-04.500A1-	4,5		37	85	45	36	6	
DC160-08-04.600A1-	4,6		37	85	45	36	6	
DC160-08-04.700A1-	4,7		37	85	45	36	6	
DC160-08-04.763A1-	4,763	3/16"	48	97	57	36	6	
DC160-08-04.800A1-	4,8		48	97	57	36	6	
DC160-08-04.900A1-	4,9		48	97	57	36	6	
DC160-08-05.000A1-	5		48	97	57	36	6	
DC160-08-05.100A1-	5,1		48	97	57	36	6	
DC160-08-05.159A1-	5,159	13/64"	48	97	57	36	6	
DC160-08-05.200A1-	5,2		48	97	57	36	6	
DC160-08-05.300A1-	5,3		48	97	57	36	6	
DC160-08-05.400A1-	5,4		48	97	57	36	6	
DC160-08-05.500A1-	5,5		48	97	57	36	6	
DC160-08-05.556A1-	5,556	7/32"	48	97	57	36	6	
DC160-08-05.600A1-	5,6		48	97	57	36	6	
DC160-08-05.700A1-	5,7		48	97	57	36	6	
DC160-08-05.800A1-	5,8		48	97	57	36	6	

Tool



DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-08-05.900A1-	5,9		48	97	57	36	6	
DC160-08-05.953A1-	5,953	15/64"	48	97	57	36	6	
DC160-08-06.000A1-	6		48	97	57	36	6	
DC160-08-06.100A1-	6,1		55	106	66	36	8	
DC160-08-06.200A1-	6,2		55	106	66	36	8	
DC160-08-06.300A1-	6,3		55	106	66	36	8	
DC160-08-06.350A1-	6,35	1/4"	55	106	66	36	8	
DC160-08-06.400A1-	6,4		55	106	66	36	8	
DC160-08-06.500A1-	6,5		55	106	66	36	8	
DC160-08-06.600A1-	6,6		55	106	66	36	8	
DC160-08-06.700A1-	6,7		55	106	66	36	8	
DC160-08-06.747A1-	6,747	17/64"	55	106	66	36	8	
DC160-08-06.800A1-	6,8		55	106	66	36	8	
DC160-08-06.900A1-	6,9		55	106	66	36	8	
DC160-08-07.000A1-	7		55	106	66	36	8	
DC160-08-07.100A1-	7,1		64	116	76	36	8	
DC160-08-07.144A1-	7,144	9/32"	64	116	76	36	8	
DC160-08-07.200A1-	7,2		64	116	76	36	8	
DC160-08-07.300A1-	7,3		64	116	76	36	8	
DC160-08-07.400A1-	7,4		64	116	76	36	8	
DC160-08-07.500A1-	7,5		64	116	76	36	8	
DC160-08-07.541A1-	7,541	19/64"	64	116	76	36	8	
DC160-08-07.600A1-	7,6		64	116	76	36	8	
DC160-08-07.700A1-	7,7		64	116	76	36	8	
DC160-08-07.800A1-	7,8		64	116	76	36	8	
DC160-08-07.900A1-	7,9		64	116	76	36	8	
DC160-08-07.938A1-	7,938	5/16"	64	116	76	36	8	
DC160-08-08.000A1-	8		64	116	76	36	8	
DC160-08-08.100A1-	8,1		80	139	95	40	10	
DC160-08-08.200A1-	8,2		80	139	95	40	10	
DC160-08-08.300A1-	8,3		80	139	95	40	10	
DC160-08-08.334A1-	8,334	21/64"	80	139	95	40	10	
DC160-08-08.400A1-	8,4		80	139	95	40	10	
DC160-08-08.500A1-	8,5		80	139	95	40	10	
DC160-08-08.600A1-	8,6		80	139	95	40	10	
DC160-08-08.700A1-	8,7		80	139	95	40	10	
DC160-08-08.731A1-	8,731	11/32"	80	139	95	40	10	
DC160-08-08.800A1-	8,8		80	139	95	40	10	
DC160-08-08.900A1-	8,9		80	139	95	40	10	
DC160-08-09.000A1-	9		80	139	95	40	10	
DC160-08-09.100A1-	9,1		80	139	95	40	10	
DC160-08-09.128A1-	9,128	23/64"	80	139	95	40	10	
DC160-08-09.200A1-	9,2		80	139	95	40	10	
DC160-08-09.300A1-	9,3		80	139	95	40	10	
DC160-08-09.400A1-	9,4		80	139	95	40	10	
DC160-08-09.500A1-	9,5		80	139	95	40	10	
DC160-08-09.525A1-	9,525	3/8"	80	139	95	40	10	
DC160-08-09.600A1-	9,6		80	139	95	40	10	
DC160-08-09.700A1-	9,7		80	139	95	40	10	

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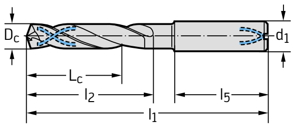
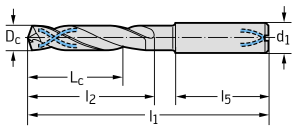
B1

Tool



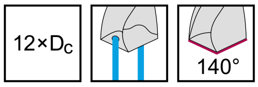
DIN 6535 HA

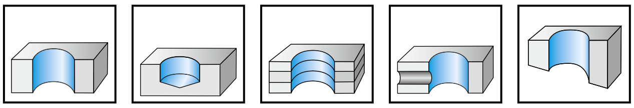
Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-08-09.800A1-	9,8		80	139	95	40	10	
DC160-08-09.900A1-	9,9		80	139	95	40	10	
DC160-08-09.922A1-	9,922	25/64"	80	139	95	40	10	
DC160-08-10.000A1-	10		80	139	95	40	10	
DC160-08-10.100A1-	10,1		96	163	114	45	12	
DC160-08-10.200A1-	10,2		96	163	114	45	12	
DC160-08-10.300A1-	10,3		96	163	114	45	12	
DC160-08-10.319A1-	10,319	13/32"	96	163	114	45	12	
DC160-08-10.400A1-	10,4		96	163	114	45	12	
DC160-08-10.500A1-	10,5		96	163	114	45	12	
DC160-08-10.600A1-	10,6		96	163	114	45	12	
DC160-08-10.700A1-	10,7		96	163	114	45	12	
DC160-08-10.716A1-	10,716	27/64"	96	163	114	45	12	
DC160-08-10.800A1-	10,8		96	163	114	45	12	
DC160-08-10.900A1-	10,9		96	163	114	45	12	
DC160-08-11.000A1-	11		96	163	114	45	12	
DC160-08-11.100A1-	11,1		96	163	114	45	12	
DC160-08-11.113A1-	11,113	7/16"	96	163	114	45	12	
DC160-08-11.200A1-	11,2		96	163	114	45	12	
DC160-08-11.300A1-	11,3		96	163	114	45	12	
DC160-08-11.400A1-	11,4		96	163	114	45	12	
DC160-08-11.500A1-	11,5		96	163	114	45	12	
DC160-08-11.509A1-	11,509	29/64"	96	163	114	45	12	
DC160-08-11.600A1-	11,6		96	163	114	45	12	
DC160-08-11.700A1-	11,7		96	163	114	45	12	
DC160-08-11.800A1-	11,8		96	163	114	45	12	
DC160-08-11.900A1-	11,9		96	163	114	45	12	
DC160-08-11.906A1-	11,906	15/32"	96	163	114	45	12	
DC160-08-12.000A1-	12		96	163	114	45	12	
DC160-08-12.303A1-	12,303	31/64"	119	182	133	45	14	
DC160-08-12.500A1-	12,5		119	182	133	45	14	
DC160-08-12.700A1-	12,7	1/2"	119	182	133	45	14	
DC160-08-13.000A1-	13		119	182	133	45	14	
DC160-08-13.494A1-	13,494	17/32"	119	182	133	45	14	
DC160-08-13.500A1-	13,5		119	182	133	45	14	
DC160-08-14.000A1-	14		119	182	133	45	14	
DC160-08-14.288A1-	14,288	9/16"	136	204	152	48	16	
DC160-08-14.500A1-	14,5		136	204	152	48	16	
DC160-08-15.000A1-	15		136	204	152	48	16	
DC160-08-15.500A1-	15,5		136	204	152	48	16	
DC160-08-15.875A1-	15,875	5/8"	136	204	152	48	16	
DC160-08-16.000A1-	16		136	204	152	48	16	
DC160-08-16.500A1-	16,5		153	223	171	48	18	
DC160-08-17.000A1-	17		153	223	171	48	18	
DC160-08-17.500A1-	17,5		153	223	171	48	18	
DC160-08-18.000A1-	18		153	223	171	48	18	
DC160-08-18.500A1-	18,5		170	244	190	50	20	
DC160-08-19.000A1-	19		170	244	190	50	20	
DC160-08-19.050A1-	19,05	3/4"	170	244	190	50	20	

Tool	Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
 DIN 6535 HA	DC160-08-19.500A1-	19,5		170	244	190	50	20	
	DC160-08-20.000A1-	20		170	244	190	50	20	

B1

Solid carbide drills with coolant channel
DC160 Advance
X·treme Evo





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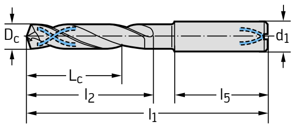
	P	M	K	N	S	H	O
WJ30EU	●●	●	●●	●●	●●	●	●

Tool

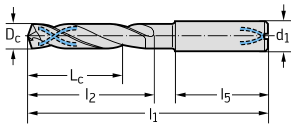


DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
DC160-12-03.000A1-	3		48	92	54	36	6	
DC160-12-03.100A1-	3,1		48	92	54	36	6	
DC160-12-03.175A1-	3,175	1/8"	48	92	54	36	6	
DC160-12-03.200A1-	3,2		48	92	54	36	6	
DC160-12-03.300A1-	3,3		48	92	54	36	6	
DC160-12-03.400A1-	3,4		48	92	54	36	6	
DC160-12-03.500A1-	3,5		48	92	54	36	6	
DC160-12-03.572A1-	3,572	9/64"	48	92	54	36	6	
DC160-12-03.600A1-	3,6		48	92	54	36	6	
DC160-12-03.700A1-	3,7		48	92	54	36	6	
DC160-12-03.800A1-	3,8		56	102	64	36	6	
DC160-12-03.900A1-	3,9		56	102	64	36	6	
DC160-12-03.969A1-	3,969	5/32"	56	102	64	36	6	
DC160-12-04.000A1-	4		56	102	64	36	6	
DC160-12-04.100A1-	4,1		56	102	64	36	6	
DC160-12-04.200A1-	4,2		56	102	64	36	6	
DC160-12-04.300A1-	4,3		56	102	64	36	6	
DC160-12-04.366A1-	4,366	11/64"	56	102	64	36	6	
DC160-12-04.400A1-	4,4		56	102	64	36	6	
DC160-12-04.500A1-	4,5		56	102	64	36	6	
DC160-12-04.600A1-	4,6		56	102	64	36	6	
DC160-12-04.700A1-	4,7		56	102	64	36	6	
DC160-12-04.763A1-	4,763	3/16"	74	121	83	36	6	
DC160-12-04.800A1-	4,8		74	121	83	36	6	
DC160-12-04.900A1-	4,9		74	121	83	36	6	
DC160-12-05.000A1-	5		74	121	83	36	6	
DC160-12-05.100A1-	5,1		74	121	83	36	6	
DC160-12-05.159A1-	5,159	13/64"	74	121	83	36	6	
DC160-12-05.200A1-	5,2		74	121	83	36	6	
DC160-12-05.300A1-	5,3		74	121	83	36	6	
DC160-12-05.400A1-	5,4		74	121	83	36	6	
DC160-12-05.500A1-	5,5		74	121	83	36	6	
DC160-12-05.550A1-	5,55		74	121	83	36	6	
DC160-12-05.556A1-	5,556	7/32"	74	121	83	36	6	
DC160-12-05.600A1-	5,6		74	121	83	36	6	
DC160-12-05.700A1-	5,7		74	121	83	36	6	

WALTER TITEX

Tool



DIN 6535 HA

Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
DC160-12-05.800A1-	5,8		74	121	83	36	6	
DC160-12-05.900A1-	5,9		74	121	83	36	6	
DC160-12-06.000A1-	6		74	121	83	36	6	
DC160-12-06.100A1-	6,1		98	148	110	36	8	
DC160-12-06.200A1-	6,2		98	148	110	36	8	
DC160-12-06.300A1-	6,3		98	148	110	36	8	
DC160-12-06.350A1-	6,35	1/4"	98	148	110	36	8	
DC160-12-06.400A1-	6,4		98	148	110	36	8	
DC160-12-06.500A1-	6,5		98	148	110	36	8	
DC160-12-06.600A1-	6,6		98	148	110	36	8	
DC160-12-06.700A1-	6,7		98	148	110	36	8	
DC160-12-06.747A1-	6,747	17/64"	98	148	110	36	8	
DC160-12-06.800A1-	6,8		98	148	110	36	8	
DC160-12-06.900A1-	6,9		98	148	110	36	8	
DC160-12-07.000A1-	7		98	148	110	36	8	
DC160-12-07.100A1-	7,1		98	148	110	36	8	
DC160-12-07.144A1-	7,144	9/32"	98	148	110	36	8	
DC160-12-07.200A1-	7,2		98	148	110	36	8	
DC160-12-07.300A1-	7,3		98	148	110	36	8	
DC160-12-07.400A1-	7,4		98	148	110	36	8	
DC160-12-07.500A1-	7,5		98	148	110	36	8	
DC160-12-07.541A1-	7,541	19/64"	98	148	110	36	8	
DC160-12-07.800A1-	7,8		98	148	110	36	8	
DC160-12-07.900A1-	7,9		98	148	110	36	8	
DC160-12-07.938A1-	7,938	5/16"	98	148	110	36	8	
DC160-12-08.000A1-	8		98	148	110	36	8	
DC160-12-08.100A1-	8,1		123	180	138	40	10	
DC160-12-08.200A1-	8,2		123	180	138	40	10	
DC160-12-08.300A1-	8,3		123	180	138	40	10	
DC160-12-08.400A1-	8,4		123	180	138	40	10	
DC160-12-08.500A1-	8,5		123	180	138	40	10	
DC160-12-08.600A1-	8,6		123	180	138	40	10	
DC160-12-08.700A1-	8,7		123	180	138	40	10	
DC160-12-08.731A1-	8,731	11/32"	123	180	138	40	10	
DC160-12-08.800A1-	8,8		123	180	138	40	10	
DC160-12-09.000A1-	9		123	180	138	40	10	
DC160-12-09.128A1-	9,128	23/64"	123	180	138	40	10	
DC160-12-09.200A1-	9,2		123	180	138	40	10	
DC160-12-09.300A1-	9,3		123	180	138	40	10	
DC160-12-09.500A1-	9,5		123	180	138	40	10	
DC160-12-09.525A1-	9,525	3/8"	123	180	138	40	10	
DC160-12-09.600A1-	9,6		123	180	138	40	10	
DC160-12-09.700A1-	9,7		123	180	138	40	10	
DC160-12-09.800A1-	9,8		123	180	138	40	10	
DC160-12-09.922A1-	9,922	25/64"	123	180	138	40	10	
DC160-12-10.000A1-	10		123	180	138	40	10	
DC160-12-10.100A1-	10,1		140	206	158	45	12	
DC160-12-10.200A1-	10,2		140	206	158	45	12	
DC160-12-10.300A1-	10,3		140	206	158	45	12	

B1

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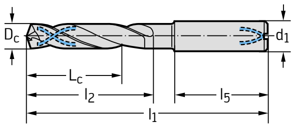
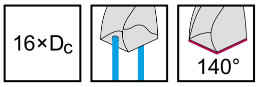
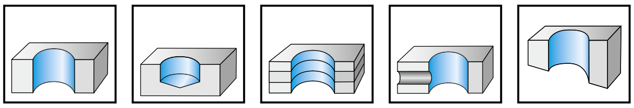
Tool	Designation	D_c m7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
 DIN 6535 HA	DC160-12-10.319A1-	10,319	13/32"	140	206	158	45	12	
	DC160-12-10.400A1-	10,4		140	206	158	45	12	
	DC160-12-10.500A1-	10,5		140	206	158	45	12	
	DC160-12-10.716A1-	10,716	27/64"	140	206	158	45	12	
	DC160-12-10.800A1-	10,8		140	206	158	45	12	
	DC160-12-11.000A1-	11		140	206	158	45	12	
	DC160-12-11.100A1-	11,1		140	206	158	45	12	
	DC160-12-11.113A1-	11,113	7/16"	140	206	158	45	12	
	DC160-12-11.200A1-	11,2		140	206	158	45	12	
	DC160-12-11.500A1-	11,5		140	206	158	45	12	
	DC160-12-11.509A1-	11,509	29/64"	140	206	158	45	12	
	DC160-12-11.700A1-	11,7		140	206	158	45	12	
	DC160-12-11.800A1-	11,8		140	206	158	45	12	
	DC160-12-11.906A1-	11,906	15/32"	140	206	158	45	12	
	DC160-12-12.000A1-	12		140	206	158	45	12	
	DC160-12-12.100A1-	12,1		168	230	182	45	14	
	DC160-12-12.200A1-	12,2		168	230	182	45	14	
	DC160-12-12.300A1-	12,3		168	230	182	45	14	
	DC160-12-12.303A1-	12,303	31/64"	168	230	182	45	14	
	DC160-12-12.500A1-	12,5		168	230	182	45	14	
	DC160-12-12.600A1-	12,6		168	230	182	45	14	
	DC160-12-12.700A1-	12,7	1/2"	168	230	182	45	14	
	DC160-12-13.000A1-	13		168	230	182	45	14	
	DC160-12-13.494A1-	13,494	17/32"	168	230	182	45	14	
	DC160-12-13.500A1-	13,5		168	230	182	45	14	
	DC160-12-14.000A1-	14		168	230	182	45	14	
	DC160-12-14.288A1-	14,288	9/16"	192	260	208	48	16	
	DC160-12-14.500A1-	14,5		192	260	208	48	16	
	DC160-12-15.000A1-	15		192	260	208	48	16	
	DC160-12-15.500A1-	15,5		192	260	208	48	16	
	DC160-12-15.875A1-	15,875	5/8"	192	260	208	48	16	
	DC160-12-16.000A1-	16		192	260	208	48	16	
	DC160-12-16.500A1-	16,5		216	285	234	48	18	
	DC160-12-17.000A1-	17		216	285	234	48	18	
	DC160-12-17.500A1-	17,5		216	285	234	48	18	
	DC160-12-18.000A1-	18		216	285	234	48	18	
	DC160-12-18.500A1-	18,5		238	310	258	50	20	
	DC160-12-19.000A1-	19		238	310	258	50	20	
	DC160-12-19.500A1-	19,5		238	310	258	50	20	
	DC160-12-20.000A1-	20		238	310	258	50	20	

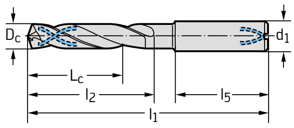
Solid carbide drills with coolant channel
DC160 Advance
X·treme Evo





	P	M	K	N	S	H	O
WJ30EU	●●	●	●●	●●	●●	●	●

Tool

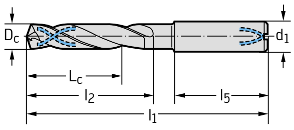


DIN 6535 HA

Designation	D_c h7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
DC160-16-03.000A1-	3		52	89	57	28	4	
DC160-16-03.175A1-	3,175	1/8"	60	98	66	28	4	
DC160-16-03.500A1-	3,5		72	110	78	28	4	
DC160-16-03.572A1-	3,572	9/64"	72	110	78	28	4	
DC160-16-03.969A1-	3,969	5/32"	72	110	78	28	4	
DC160-16-04.000A1-	4		72	110	78	28	4	
DC160-16-04.500A1-	4,5		93	132	100	28	5	
DC160-16-04.763A1-	4,763	3/16"	92	132	100	28	5	
DC160-16-04.800A1-	4,8		92	132	100	28	5	
DC160-16-05.000A1-	5		92	132	100	28	5	
DC160-16-05.500A1-	5,5		101	150	110	36	6	
DC160-16-05.556A1-	5,556	7/32"	111	160	120	36	6	
DC160-16-05.800A1-	5,8		111	160	120	36	6	
DC160-16-06.000A1-	6		111	160	120	36	6	
DC160-16-06.100A1-	6,1		124	175	135	36	8	
DC160-16-06.350A1-	6,35	1/4"	124	175	135	36	8	
DC160-16-06.500A1-	6,5		124	175	135	36	8	
DC160-16-06.800A1-	6,8		124	175	135	36	8	
DC160-16-07.000A1-	7		124	175	135	36	8	
DC160-16-07.144A1-	7,144	9/32"	140	192	152	36	8	
DC160-16-07.400A1-	7,4		140	192	152	36	8	
DC160-16-07.500A1-	7,5		140	192	152	36	8	
DC160-16-07.938A1-	7,938	5/16"	140	192	152	36	8	
DC160-16-08.000A1-	8		140	192	152	36	8	
DC160-16-08.300A1-	8,3		148	206	162	40	10	
DC160-16-08.500A1-	8,5		148	206	162	40	10	
DC160-16-08.731A1-	8,731	11/32"	148	206	162	40	10	
DC160-16-09.000A1-	9		148	206	162	40	10	
DC160-16-09.525A1-	9,525	3/8"	165	224	180	40	10	
DC160-16-09.800A1-	9,8		165	224	180	40	10	
DC160-16-10.000A1-	10		165	224	180	40	10	
DC160-16-10.200A1-	10,2		181	247	198	45	12	
DC160-16-10.319A1-	10,319	13/32"	181	247	198	45	12	
DC160-16-11.000A1-	11		181	247	198	45	12	
DC160-16-11.113A1-	11,113	7/16"	198	265	216	45	12	
DC160-16-11.500A1-	11,5		198	265	216	45	12	

B1

Tool



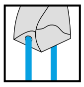
DIN 6535 HA

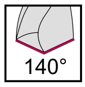
Designation	D_c h7 mm	$D_{c\ Inch/No.}$	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
DC160-16-11.800A1-	11,8		198	265	216	45	12	
DC160-16-11.906A1-	11,906	15/32"	198	265	216	45	12	
DC160-16-12.000A1-	12		198	265	216	45	12	
DC160-16-12.700A1-	12,7	1/2"	238	301	252	45	14	
DC160-16-13.000A1-	13		238	301	252	45	14	
DC160-16-14.000A1-	14		238	301	252	45	14	
DC160-16-14.288A1-	14,288	9/16"	272	340	288	48	16	
DC160-16-15.000A1-	15		272	340	288	48	16	
DC160-16-16.000A1-	16		272	340	288	48	16	

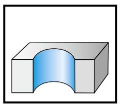
Solid carbide drills with coolant channel

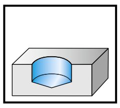
DC160 Advance

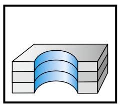
X·treme Evo

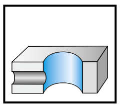


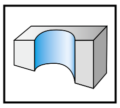






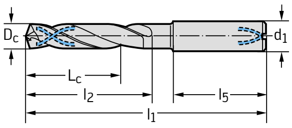






	P	M	K	N	S	H	O
WJ30EU	●●	●	●●	●●	●●	●	●

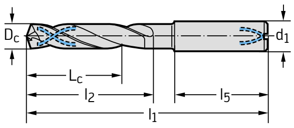
Tool



DIN 6535 HA

Designation	D_c h7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
DC160-20-03.000A1-	3		60	97	65	28	4	
DC160-20-03.175A1-	3,175	1/8"	74	112	80	28	4	
DC160-20-03.500A1-	3,5		86	124	92	28	4	
DC160-20-03.572A1-	3,572	9/64"	86	124	92	28	4	
DC160-20-03.969A1-	3,969	5/32"	86	124	92	28	4	
DC160-20-04.000A1-	4		86	124	92	28	4	
DC160-20-04.500A1-	4,5		111	150	118	28	5	
DC160-20-04.763A1-	4,763	3/16"	110	150	118	28	5	
DC160-20-04.800A1-	4,8		110	150	118	28	5	
DC160-20-05.000A1-	5		110	150	118	28	5	
DC160-20-05.500A1-	5,5		123	170	132	36	6	
DC160-20-05.556A1-	5,556	7/32"	135	182	144	36	6	
DC160-20-05.800A1-	5,8		135	182	144	36	6	
DC160-20-06.000A1-	6		135	182	144	36	6	
DC160-20-06.100A1-	6,1		151	200	162	36	8	
DC160-20-06.350A1-	6,35	1/4"	151	200	162	36	8	
DC160-20-06.500A1-	6,5		151	200	162	36	8	
DC160-20-06.800A1-	6,8		151	200	162	36	8	
DC160-20-07.000A1-	7		151	200	162	36	8	
DC160-20-07.144A1-	7,144	9/32"	172	222	184	36	8	
DC160-20-07.400A1-	7,4		172	222	184	36	8	
DC160-20-07.500A1-	7,5		172	222	184	36	8	
DC160-20-07.938A1-	7,938	5/16"	172	222	184	36	8	
DC160-20-08.000A1-	8		172	222	184	36	8	
DC160-20-08.300A1-	8,3		184	240	198	40	10	
DC160-20-08.500A1-	8,5		184	240	198	40	10	
DC160-20-08.731A1-	8,731	11/32"	184	240	198	40	10	
DC160-20-09.000A1-	9		184	240	198	40	10	
DC160-20-09.525A1-	9,525	3/8"	205	262	220	40	10	
DC160-20-09.800A1-	9,8		205	262	220	40	10	
DC160-20-10.000A1-	10		205	262	220	40	10	
DC160-20-10.200A1-	10,2		225	289	242	45	12	
DC160-20-10.319A1-	10,319	13/32"	225	289	242	45	12	
DC160-20-11.000A1-	11		225	289	242	45	12	
DC160-20-11.113A1-	11,113	7/16"	246	311	264	45	12	
DC160-20-11.500A1-	11,5		246	311	264	45	12	

Tool

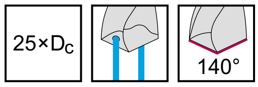


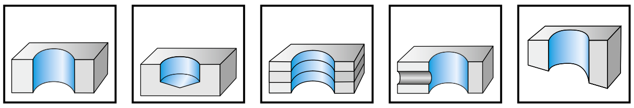
DIN 6535 HA

Designation	D_c h7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
DC160-20-11.800A1-	11,8		246	311	264	45	12	
DC160-20-11.906A1-	11,906	15/32"	246	311	264	45	12	
DC160-20-12.000A1-	12		246	311	264	45	12	
DC160-20-12.700A1-	12,7	1/2"	294	357	308	45	14	
DC160-20-13.000A1-	13		294	357	308	45	14	
DC160-20-14.000A1-	14		294	357	308	45	14	
DC160-20-14.288A1-	14,288	9/16"	336	404	352	48	16	
DC160-20-15.000A1-	15		336	404	352	48	16	
DC160-20-16.000A1-	16		336	404	352	48	16	

B1

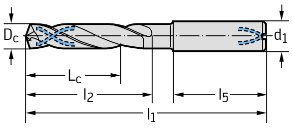
Solid carbide drills with coolant channel
DC160 Advance
X·treme Evo





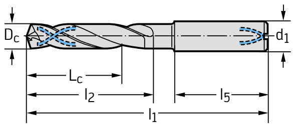
	P	M	K	N	S	H	O
WJ30EU	●●	●	●●	●●	●●	●	●

Tool

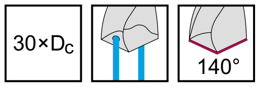


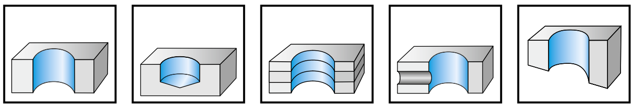
DIN 6535 HA

Designation	D_c h7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
DC160-25-03.000A1-	3		79	119	84	28	4	
DC160-25-03.175A1-	3,175	1/8"	96	148	102	28	4	
DC160-25-03.500A1-	3,5		108	148	114	28	4	
DC160-25-03.572A1-	3,572	9/64"	108	148	114	28	4	
DC160-25-03.969A1-	3,969	5/32"	108	148	114	28	4	
DC160-25-04.000A1-	4		108	148	114	28	4	
DC160-25-04.500A1-	4,5		138	177	145	28	5	
DC160-25-04.763A1-	4,763	3/16"	137	177	145	28	5	
DC160-25-04.800A1-	4,8		137	177	145	28	5	
DC160-25-05.000A1-	5		137	177	145	28	5	
DC160-25-05.500A1-	5,5		151	200	160	36	6	
DC160-25-05.556A1-	5,556	7/32"	165	214	174	36	6	
DC160-25-05.800A1-	5,8		165	214	174	36	6	
DC160-25-06.000A1-	6		165	214	174	36	6	
DC160-25-06.100A1-	6,1		183	234	194	36	8	
DC160-25-06.350A1-	6,35	1/4"	183	234	194	36	8	
DC160-25-06.500A1-	6,5		183	234	194	36	8	
DC160-25-06.800A1-	6,8		183	234	194	36	8	
DC160-25-07.000A1-	7		183	234	194	36	8	
DC160-25-07.144A1-	7,144	9/32"	208	260	220	36	8	
DC160-25-07.400A1-	7,4		208	260	220	36	8	
DC160-25-07.500A1-	7,5		208	260	220	36	8	
DC160-25-07.938A1-	7,938	5/16"	208	260	220	36	8	
DC160-25-08.000A1-	8		208	260	220	36	8	
DC160-25-08.300A1-	8,3		229	289	243	40	10	
DC160-25-08.500A1-	8,5		229	289	243	40	10	
DC160-25-08.731A1-	8,731	11/32"	229	289	243	40	10	
DC160-25-09.000A1-	9		229	289	243	40	10	
DC160-25-09.525A1-	9,525	3/8"	255	314	270	40	10	
DC160-25-09.800A1-	9,8		255	314	270	40	10	
DC160-25-10.000A1-	10		255	314	270	40	10	
DC160-25-10.200A1-	10,2		280	346	297	45	12	
DC160-25-10.319A1-	10,319	13/32"	280	346	297	45	12	
DC160-25-11.000A1-	11		280	346	297	45	12	
DC160-25-11.113A1-	11,113	7/16"	306	373	324	45	12	
DC160-25-11.500A1-	11,5		306	373	324	45	12	

Tool	Designation	D_c h7 mm	$D_{c\ \mathrm{Inch/No.}}$	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
	DC160-25-11.800A1-	11,8		306	373	324	45	12	
	DC160-25-11.906A1-	11,906	15/32"	306	373	324	45	12	
DIN 6535 HA	DC160-25-12.000A1-	12		306	373	324	45	12	

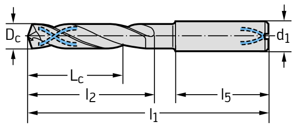
Solid carbide drills with coolant channel
DC160 Advance
X·treme Evo





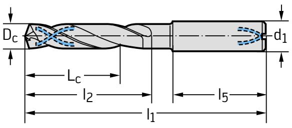
	P	M	K	N	S	H	O
WJ30EU	●●	●	●●	●●	●●	●	●

Tool



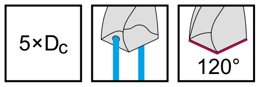
DIN 6535 HA

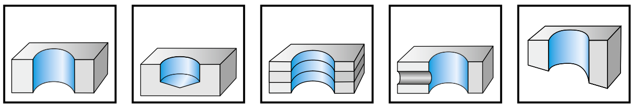
Designation	D_c h7 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
DC160-30-03.000A1-	3		92	132	97	28	4	
DC160-30-03.175A1-	3,175	1/8"	114	166	120	28	4	
DC160-30-03.500A1-	3,5		127	166	133	28	4	
DC160-30-03.572A1-	3,572	9/64"	127	166	133	28	4	
DC160-30-03.969A1-	3,969	5/32"	127	166	133	28	4	
DC160-30-04.000A1-	4		127	166	133	28	4	
DC160-30-04.500A1-	4,5		162	200	169	28	5	
DC160-30-04.763A1-	4,763	3/16"	161	200	169	28	5	
DC160-30-04.800A1-	4,8		161	200	169	28	5	
DC160-30-05.000A1-	5		161	200	169	28	5	
DC160-30-05.500A1-	5,5		178	225	187	36	6	
DC160-30-05.556A1-	5,556	7/32"	195	242	204	36	6	
DC160-30-05.800A1-	5,8		195	242	204	36	6	
DC160-30-06.000A1-	6		195	242	204	36	6	
DC160-30-06.100A1-	6,1		217	268	228	36	8	
DC160-30-06.350A1-	6,35	1/4"	217	268	228	36	8	
DC160-30-06.500A1-	6,5		217	268	228	36	8	
DC160-30-06.800A1-	6,8		217	268	228	36	8	
DC160-30-07.000A1-	7		217	268	228	36	8	
DC160-30-07.144A1-	7,144	9/32"	244	294	256	36	8	
DC160-30-07.400A1-	7,4		244	294	256	36	8	
DC160-30-07.500A1-	7,5		244	294	256	36	8	
DC160-30-07.938A1-	7,938	5/16"	244	294	256	36	8	
DC160-30-08.000A1-	8		244	294	256	36	8	
DC160-30-08.300A1-	8,3		273	330	287	40	10	
DC160-30-08.500A1-	8,5		273	330	287	40	10	
DC160-30-08.731A1-	8,731	11/32"	273	330	287	40	10	
DC160-30-09.000A1-	9		273	330	287	40	10	
DC160-30-09.525A1-	9,525	3/8"	305	364	320	40	10	
DC160-30-09.800A1-	9,8		305	364	320	40	10	
DC160-30-10.000A1-	10		305	364	320	40	10	
DC160-30-10.200A1-	10,2		335	401	352	45	12	
DC160-30-10.319A1-	10,319	13/32"	335	401	352	45	12	
DC160-30-11.000A1-	11		335	401	352	45	12	
DC160-30-11.113A1-	11,113	7/16"	364	430	382	45	12	
DC160-30-11.500A1-	11,5		364	430	382	45	12	

Tool	Designation	D_c h7 mm	$D_{c\ Inch/No.}$	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EU
	DC160-30-11.800A1-	11,8		364	430	382	45	12	
	DC160-30-11.906A1-	11,906	15/32"	364	430	382	45	12	
DIN 6535 HA	DC160-30-12.000A1-	12		364	430	382	45	12	

B1

Solid carbide drills with coolant channel, straight-fluted
DC165 Advance

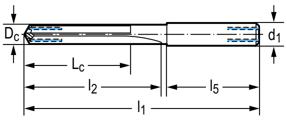




	P	M	K	N	S	H	O
WJ30UU			●●	●●			

B1

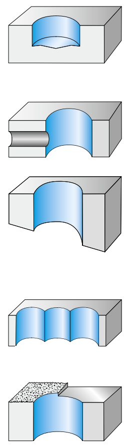
Tool



DIN 6535 HA

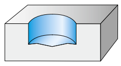
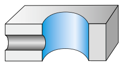
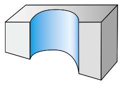
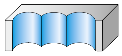
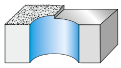
Designation	D_c k6 mm	D_c Inch/No.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 mm	WJ30UU
DC165-05-04.000A1-	4		16	74	31	36	6	
DC165-05-05.000A1-	5		22	82	40	36	6	
DC165-05-06.000A1-	6		22	82	40	36	6	
DC165-05-08.000A1-	8		29	91	49	36	8	
DC165-05-08.500A1-	8,5		37	103	57	40	10	
DC165-05-10.000A1-	10		37	103	57	40	10	
DC165-05-10.200A1-	10,2		43	118	67	45	12	
DC165-05-11.000A1-	11		43	118	67	45	12	
DC165-05-12.000A1-	12		43	118	67	45	12	
DC165-05-14.000A1-	14		45	124	73	45	14	
DC165-05-15.000A1-	15		55	133	79	48	16	
DC165-05-16.000A1-	16		55	133	79	48	16	

Boring tools with indexable inserts



Drilling depth	3 x D_C	2 x D_C	3 x D_C	4 x D_C	5 x D_C
					
Designation	**D4170**	**D4120**	**D4120**	**D4120**	**D4120**
Diameter range					
[mm]	65–80	13,5–59	13,5–59	17–59	17–59
[inch]		0,531–2,250	0,531–2,250	0,656–2,250	0,656–2,250
P Steel	●●	●●	●●	●●	●●
M Stainless steel	●●	●●	●●	●	
K Cast iron	●●	●●	●●	●●	●●
N NF metals	●●	●●	●●	●●	●●
S Materials with difficult cutting properties	●●	●●	●●	●	
H Hard materials					
O Other					
Page in catalogue					
QR code					
www.walter-tools.com/woc/	D4170-03	D4120	D4120	D4120	D4120

B1

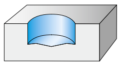
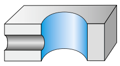
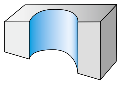
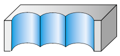
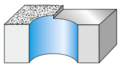






	2 x D_C	3 x D_C	4 x D_C	2 x D_C	2 x D_C	3 x D_C	3 x D_C
							
	D3120	**D3120**	**D3120**	**B3212**	**B3212**	**B3213**	**B3213**
	16–42	16–58	16–42	10–18		10–18	
		0,750–1,500	0,750–1,500		0,391–0,625		0,391–0,64
	●●	●●	●●	●●	●●	●●	●●
	●●	●●	●	●●	●●	●●	●●
	●●	●●	●●	●●	●●	●●	●●
	●●	●●	●●	●●	●●	●●	●●
	●●	●●	●	●●	●●	●●	●●

D3120	D3120	D3120	B3212	B3212	B3213	B3213

B1

Boring tools with indexable inserts

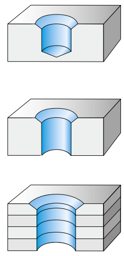
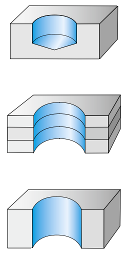






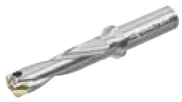
Drilling depth	4 x D_C

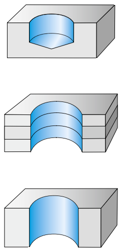
Designation	B3214
Diameter range	
[mm]	10–18
[inch]	
P Steel	
M Stainless steel	
K Cast iron	●●
N NF metals	●●
S Materials with difficult cutting properties	
H Hard materials	
O Other	
Page in catalogue	
QR code	
www.walter-tools.com/woc/	B3214

B1

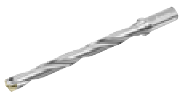
Boring tools with indexable inserts

Drilling depth	2,5 x D_C	1,3 x D_C	3 x D_C	3 x D_C	5 x D_C
					
Designation	**D4240**	**D4140**	**D4140**	**D4140**	**D4140**
Diameter range					
[mm]	12–29,99	12–25,99		12–37,99	12–31,99
[inch]			0,472–1,22	0,472–1,496	0,472–1,22
P Steel	●●	●●	●●	●●	●●
M Stainless steel	●●	●●	●●	●●	●●
K Cast iron	●●	●●	●●	●●	●●
N NF metals	●●	●●	●●	●●	●●
S Materials with difficult cutting properties	●●	●●	●●	●●	●
H Hard materials					
O Other					
Page in catalogue					
QR code					
www.walter-tools.com/woc/	D4240	D4140	D4140	D4140	D4140

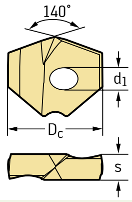


B1

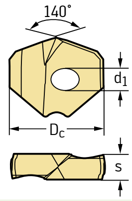
	5 x D_C	7 x D_C	7 x D_C	10 x D_C
				
	D4140	**D4140**	**D4140**	**D4140**
	12–37,99	12–31,99	12–37,99	12–25,99
	0,472–1,496	0,472–1,22	0,472–1,496	0,472–1,023
	●●	●●	●●	●●
	●●	●	●	●
	●●	●●	●●	●●
	●●	●●	●●	●●
	●	●	●	●
	D4140	D4140	D4140	D4140

Indexable inserts
P6004

P6001
P6003
P6004

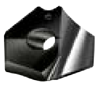


P6005



Drill inserts

B1

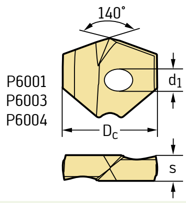


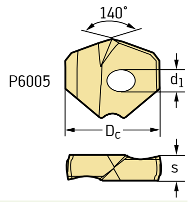
Designation	Number of cutting edges	D_c mm	d_1 mm	s mm	N HC WNN25
P6004-D12,00R	1	12	3	3,6	●
P6004-D12,50R	1	12,5	3	3,6	●
P6004-D13,00R	1	13	3	3,6	●
P6004-D13,50R	1	13,5	3	3,6	●
P6004-D14,00R	1	14	3	4	●
P6004-D14,50R	1	14,5	3	4	●
P6004-D14,80R	1	14,8	3	4	●
P6004-D15,00R	1	15	3	4	●
P6004-D15,50R	1	15,5	3	4	●
P6004-D16,00R	1	16	4	4,5	●
P6004-D16,50R	1	16,5	4	4,5	●
P6004-D16,66R	1	16,66	4	4,5	●
P6004-D17,00R	1	17	4	4,5	●
P6004-D17,50R	1	17,5	4	4,5	●
P6004-D17,70R	1	17,7	4	4,5	●
P6004-D18,00R	1	18	4	5	●
P6004-D18,50R	1	18,5	4	5	●
P6004-D18,65R	1	18,65	4	5	●
P6004-D19,00R	1	19	4	5	●
P6004-D19,50R	1	19,5	4	5	●
P6004-D19,70R	1	19,7	4	5	●
P6004-D19,84R	1	19,84	4	5	●
P6004-D20,00R	1	20	5	5,5	●
P6004-D20,50R	1	20,5	5	5,5	●
P6004-D21,00R	1	21	5	5,5	●
P6004-D21,50R	1	21,5	5	5,5	●
P6004-D21,70R	1	21,7	5	5,5	●
P6004-D22,00R	1	22	5	6	●
P6004-D22,50R	1	22,5	5	6	●
P6004-D23,00R	1	23	5	6	●
P6004-D23,50R	1	23,5	5	6	●
P6004-D24,00R	1	24	5	6,5	●
P6004-D24,50R	1	24,5	5	6,5	●
P6004-D25,00R	1	25	5	6,5	●
P6004-D25,50R	1	25,5	5	6,5	●
P6004-D26,00R	1	26	6	7,1	●
P6004-D26,50R	1	26,5	6	7,1	●
P6004-D27,00R	1	27	6	7,1	●
P6004-D27,50R	1	27,5	6	7,1	●
P6004-D28,00R	1	28	6	7,7	●
P6004-D28,50R	1	28,5	6	7,7	●
P6004-D29,00R	1	29	6	7,7	●

Ordering example: P60.. -D13.00R is available as
P6003 in the WMP35 grade (ISO P, ISO M and ISO S): P6003-D13.00R WMP35 or as
P6001 in the WPP45C grade (ISO P): P6001-D13.00R WPP45C

HC = Coated carbide

Indexable inserts
P6004





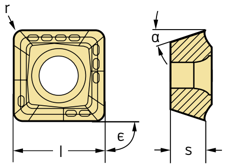
Drill inserts

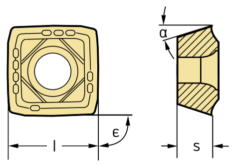
	Designation	Number of cutting edges	D_c mm	d_1 mm	s mm	N HC WNN25
	P6004-D29,50R	1	29,5	6	7,7	
	P6004-D30,00R	1	30	6	8	
	P6004-D30,50R	1	30,5	6	8	
	P6004-D31,00R	1	31	6	8	
	P6004-D31,50R	1	31,5	6	8	

Ordering example: P60.. -D13.00R is available as
P6003 in the WMP35 grade (ISO P, ISO M and ISO S): P6003-D13.00R WMP35 or as
P6001 in the WPP45C grade (ISO P): P6001-D13.00R WPP45C

HC = Coated carbide

Square
P484 .





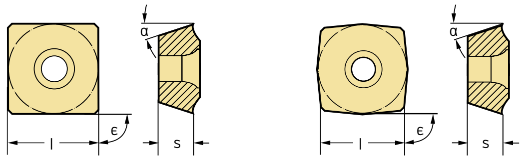
B1

Cutting inserts

	Designation	Number of cutting edges	l mm	r mm	α	ε	N HC WNN15
	P4840C-1R-E77	4	4,9	0,29	11°	90°	
	P4840C-2R-E77	4	5,95	0,34	11°	90°	
	P4840C-3R-E77	4	7	0,4	11°	90°	
	P4840C-4R-E77	4	8,4	0,48	11°	90°	
	P4840C-5R-E77	4	10,29	0,59	11°	90°	
	P4840C-6R-E77	4	12,24	0,7	11°	90°	
	P4840C-7R-E77	4	14,69	0,8	11°	90°	
	P4840C-8R-E77	4	17,49	1	11°	90°	
	P4840P-1R-E77	4	4,55	0,29	11°	90°	
	P4840P-2R-E77	4	5,52	0,34	11°	90°	
	P4840P-3R-E77	4	6,5	0,4	11°	90°	
	P4840P-4R-E77	4	7,8	0,48	11°	90°	
	P4840P-5R-E77	4	9,56	0,59	11°	90°	
	P4840P-6R-E77	4	11,75	0,7	11°	90°	
	P4840P-7R-E77	4	14,03	0,8	11°	90°	
	P4840P-8R-E77	4	16,5	1	11°	90°	

=
HC = Coated carbide

Square
P284..



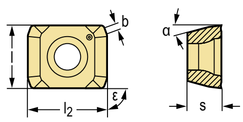
B1

Cutting inserts

	Designation	Number of cutting edges	l mm	α	ε	N HC WNN15
	P2840S-1N-E77	4	6,35	14°	90°	●
	P2840S-2N-E77	4	7,8	14°	90°	●
	P2840S-3N-E77	4	9,52	11°	96°	●
	P2840S-4N-E77	4	11	11°	96°	●
	P2840S-5N-E77	4	12,7	11°	96°	●
	P2840S-6N-E77	4	15	11°	96°	●
	P2840S-7N-E77	4	17,6	11°	96°	●

=
HC = Coated carbide

Rectangular
LCGX



Cutting inserts

	Designation	Number of cutting edges	l mm	l_2 mm	α	ε	b mm	N HC WNN15
	LCGX050203-E77	2	4	5,2	7°	90°	0,6	●
	LCGX06T204-E77	2	5,2	6,6	7°	90°	0,8	●

=
HC = Coated carbide

Boring and precision boring for every application.

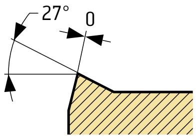
THE TOOL

- Special tool with tangentially-laterally arranged indexable inserts
- Combined for chamfering and boring operations
- High number of teeth for small tool diameters
- Radially adjustable solutions are also possible

THE INDEXABLE INSERT

- P4460-R208-G88

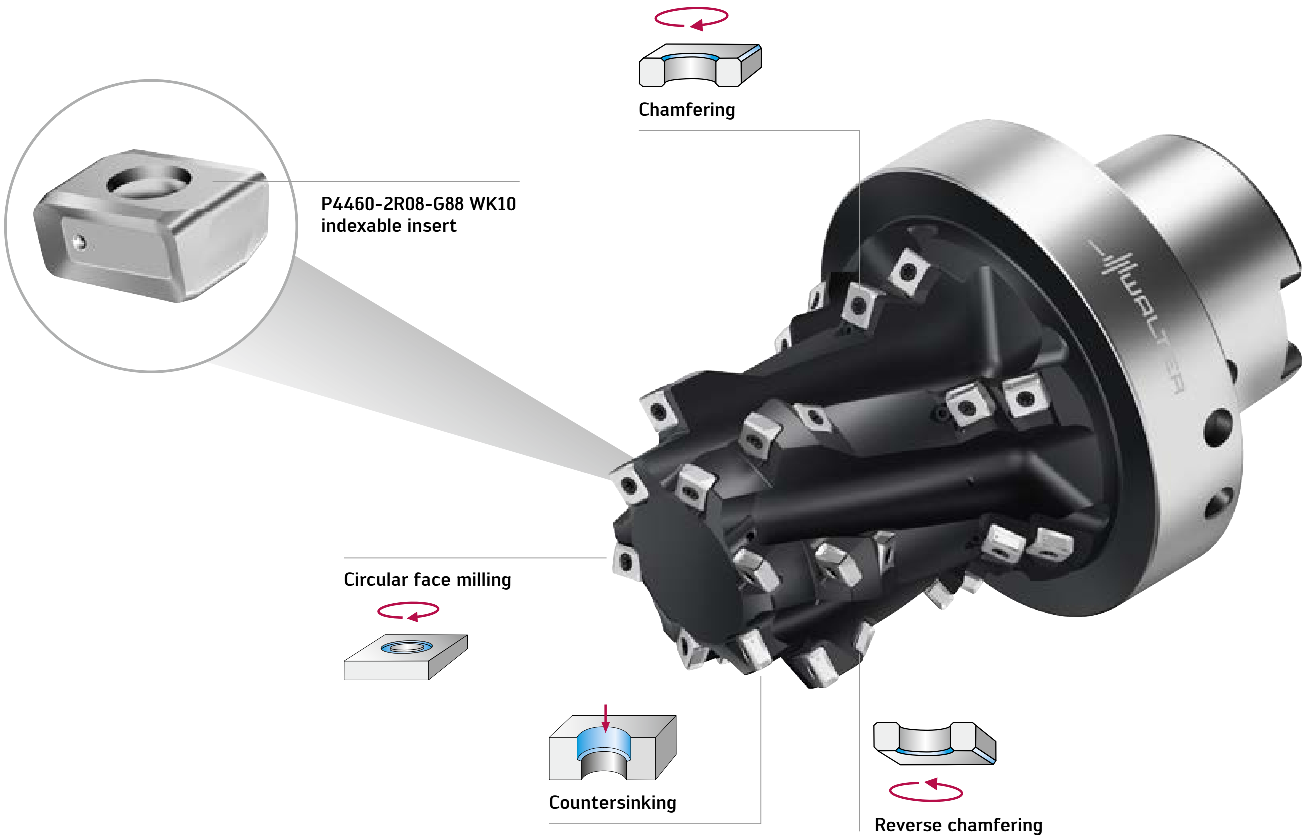
THE GEOMETRY



- G88 – The sharp one:
  Especially for machining aluminium

THE APPLICATION

- Machining of ISO N
- Boring (with and without interrupted cuts)
- Milling and chamfering
- Customer-specific components



Special tool for boring B2074-7733613

BENEFITS FOR YOU

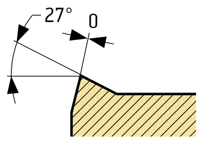
- Maximum productivity due to extremely high feeds per tooth
- Long tool life and flexible use due to customer-specific design
- High level of process reliability due to excellent chip breaking

Reliable boring in a matter of seconds.

THE TOOL

- Special tool with tangentially-laterally arranged indexable inserts
- Combined for chamfering and boring operations
- High number of teeth for small tool diameters
- Radially adjustable solutions are also possible

THE GEOMETRY



- G88 – The sharp one:
  Especially for machining aluminium

THE APPLICATION

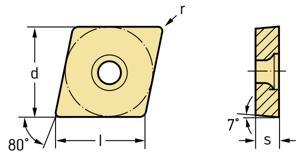
- ISO N materials
- Boring (with and without interrupted cuts)
- Milling and chamfering
- Customer-specific components

Special tool: Indexable insert step drill **W_Di_Sonder_B2074-7786154_P4460_pol_P_01**

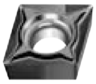
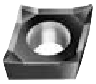
BENEFITS FOR YOU

- Maximum productivity due to extremely high feeds per tooth
- Several machining operations are combined in a single tool
- Long tool life and flexible use due to customer-specific design
- High level of process reliability due to excellent chip breaking

Positive rhombic 80°
CCGT



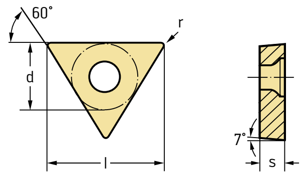
Cutting inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	CCGT060201-FN2	6,45	0,1	0,02–0,06	0,1–1,5	●	
	CCGT060202-FN2	6,45	0,2	0,05–0,12	0,2–2,0	●	●
	CCGT060204-FN2	6,45	0,4	0,08–0,25	0,2–2,5	●	●
	CCGT09T301-FN2	9,67	0,1	0,02–0,06	0,1–1,5	●	
	CCGT09T302-FN2	9,67	0,2	0,05–0,12	0,2–2,0	●	●
	CCGT09T304-FN2	9,67	0,4	0,08–0,25	0,2–2,5	●	●
	CCGT09T308-FN2	9,67	0,8	0,10–0,30	0,3–3,0	●	●
	CCGT120404-FN2	12,9	0,4	0,08–0,25	0,2–3,0	●	●
	CCGT120408-FN2	12,9	0,8	0,10–0,30	0,3–3,5	●	●
	CCGT060201-MN2	6,45	0,1	0,02–0,06	0,5–1,5	●	●
	CCGT060202-MN2	6,45	0,2	0,05–0,12	0,5–2,0	●	●
	CCGT060204-MN2	6,45	0,4	0,08–0,25	0,6–3,0	●	●
	CCGT09T301-MN2	9,67	0,1	0,02–0,06	0,5–1,5	●	●
	CCGT09T302-MN2	9,67	0,2	0,05–0,12	0,5–2,0	●	●
	CCGT09T304-MN2	9,67	0,4	0,08–0,25	0,6–4,0	●	●
	CCGT09T308-MN2	9,67	0,8	0,10–0,35	0,8–4,0	●	●
	CCGT120402-MN2	12,9	0,2	0,05–0,12	0,5–2,0	●	●
	CCGT120404-MN2	12,9	0,4	0,08–0,25	0,6–5,0	●	●
	CCGT120408-MN2	12,9	0,8	0,10–0,35	0,8–5,0	●	●

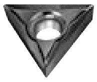
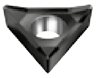
See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Positive triangular 60°
TCGT



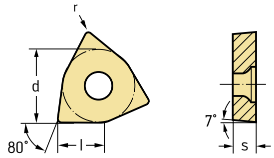
Cutting inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10	N HW WN10
	TCGT06T101-FN2	6,87	0,1	0,02–0,06	0,1–1,5	☻	
	TCGT06T102-FN2	6,87	0,2	0,05–0,12	0,2–2,0	☻	
	TCGT06T104-FN2	6,87	0,4	0,08–0,25	0,2–2,5	☻	☻
	TCGT090202-FN2	9,62	0,2	0,05–0,12	0,2–2,0	☻	
	TCGT090204-FN2	9,62	0,4	0,08–0,25	0,2–2,5	☻	☻
	TCGT110202-FN2	11	0,2	0,05–0,12	0,2–2,0	☻	
	TCGT110204-FN2	11	0,4	0,08–0,25	0,2–2,5	☻	☻
	TCGT16T304-FN2	16,5	0,4	0,08–0,25	0,2–2,5	☻	☻
	TCGT16T308-FN2	16,5	0,8	0,10–0,30	0,3–3,0	☻	☻
	TCGT110201-MN2	11	0,1	0,02–0,06	0,5–1,5	☻	
	TCGT110202-MN2	11	0,2	0,05–0,12	0,6–2,0	☻	☻
	TCGT110204-MN2	11	0,4	0,08–0,25	0,6–3,0	☻	☻
	TCGT16T302-MN2	16,5	0,2	0,05–0,12	0,5–2,0	☻	☻
	TCGT16T304-MN2	16,5	0,4	0,08–0,25	0,6–4,0	☻	☻
	TCGT16T308-MN2	16,5	0,8	0,10–0,35	0,8–4,0	☻	☻

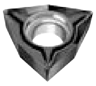
See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Positive Trigon 80°
WCGT



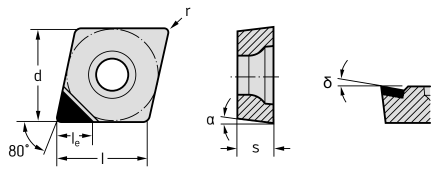
Cutting inserts

	Designation	l mm	r mm	f mm	a_p mm	N HC WNN10
	WCGT020102-FN2	2,7	0,2	0,05–0,12	0,2–1,5	
	WCGT020104-FN2	2,7	0,4	0,08–0,20	0,2–1,5	
	WCGT030202-FN2	3,91	0,2	0,05–0,12	0,2–2,0	
	WCGT030204-FN2	3,91	0,4	0,08–0,25	0,2–2,5	
	WCGT040202-FN2	4,34	0,2	0,05–0,12	0,2–2,0	
	WCGT040204-FN2	4,34	0,4	0,08–0,25	0,2–2,5	
	WCGT06T304-FN2	6,52	0,4	0,08–0,25	0,2–2,5	
	WCGT06T308-FN2	6,52	0,8	0,10–0,30	0,3–3,0	
	WCGT030202-MN2	3,91	0,2	0,05–0,12	0,5–1,5	
	WCGT030204-MN2	3,91	0,4	0,08–0,20	0,6–1,5	
	WCGT040204-MN2	4,34	0,4	0,08–0,25	0,6–2,5	
	WCGT06T302-MN2	6,52	0,2	0,05–0,12	0,6–2,0	
	WCGT06T304-MN2	6,52	0,4	0,08–0,25	0,6–3,0	
	WCGT080404-MN2	8,69	0,4	0,08–0,25	0,6–4,0	
	WCGT080408-MN2	8,69	0,8	0,10–0,35	0,8–4,0	

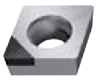
See the ISO 1832 designation key for dimensions

HC = Coated carbide

PCD – Positive rhombic 80°
CPGW



Cutting inserts

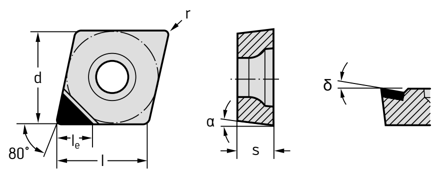
	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	DP WDN10
	CPGW050204FS-1		3	5,64	0,4	11°	0°	0,03–0,25	0,1–2,5	
	CPGW060204FS-1		3,5	6,45	0,4	11°	0°	0,03–0,25	0,1–3,0	
	CPGW09T304FS-1		4	9,67	0,4	11°	0°	0,03–0,25	0,1–3,5	
	CPGW09T308FS-1		4	9,67	0,8	11°	0°	0,03–0,38	0,1–3,5	
	CPGW120408FS-1		4	12,9	0,8	11°	0°	0,03–0,38	0,1–3,5	

See the ISO 1832 designation key for dimensions

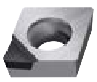
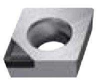
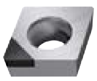
DP = Polycrystalline diamond

B 2

PCD – Positive rhombic 80°
CCGT / CCGW



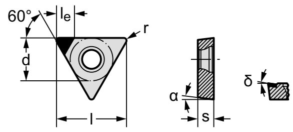
Cutting inserts

	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	DP WDN10
	CCGT060202FS-1		3,5	6,45	0,2	7°	7°	0,03–0,12	0,1–3,0	
	CCGT060204FS-1		3,5	6,45	0,4	7°	7°	0,03–0,25	0,1–3,0	
	CCGT060208FS-1		3,5	6,45	0,8	7°	7°	0,03–0,38	0,1–3,0	
	CCGT09T304FS-1		4	9,67	0,4	7°	10°	0,03–0,25	0,1–3,5	
	CCGT09T308FS-1		4	9,67	0,8	7°	10°	0,03–0,38	0,1–3,5	
	CCGT060204FS-M1		3,5	6,45	0,4	7°		0,08–0,20	0,1–2,0	
	CCGT09T304FS-M1		4	9,67	0,4	7°		0,08–0,20	0,1–2,0	
	CCGW060202FS-1		3,6	6,45	0,2	7°	0°	0,03–0,12	0,1–3,0	
	CCGW060204FS-1		3,5	6,45	0,4	7°	0°	0,03–0,25	0,1–3,0	
	CCGW060208FS-1		3,5	6,45	0,8	7°	0°	0,03–0,38	0,1–3,0	
	CCGW09T302FS-1		4,1	9,67	0,2	7°	0°	0,03–0,12	0,1–3,5	
	CCGW09T304FS-1		4,1	9,67	0,4	7°	0°	0,03–0,25	0,1–3,5	
	CCGW09T308FS-1		4	9,67	0,8	7°	0°	0,03–0,38	0,1–3,5	
	CCGW120404FS-1		4,1	12,9	0,4	7°	0°	0,03–0,25	0,1–3,5	
	CCGW120408FS-1		4	12,9	0,8	7°	0°	0,03–0,38	0,1–3,5	
	CCGW060204FSL-9		6,4	6,45	0,4	7°	0°	0,03–0,25	0,1–6,4	
	CCGW09T304FSL-9		9,7	9,67	0,4	7°	0°	0,03–0,25	0,1–9,7	
	CCGW09T308FSL-9		9,7	9,67	0,8	7°	0°	0,03–0,38	0,1–9,7	
	CCGW060204FSR-9		6,4	6,45	0,4	7°	0°	0,03–0,25	0,1–6,4	
	CCGW09T304FSR-9		9,7	9,67	0,4	7°	0°	0,03–0,25	0,1–9,7	
	CCGW09T308FSR-9		9,7	9,67	0,8	7°	0°	0,03–0,38	0,1–9,7	

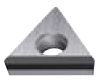
See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

PCD – Positive triangular 60°
TCGW



Cutting inserts

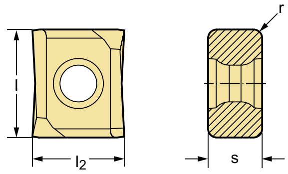
	Designation	Number of cutting edges	l_e mm	l mm	r mm	α	δ	f mm	a_p mm	O DP WDN10
	TCGW090202FS-1		3,9	9,62	0,2	7°	0°	0,03–0,12	0,1–3,0	
	TCGW090204FS-1		3,8	9,62	0,4	7°	0°	0,03–0,25	0,1–3,0	
	TCGW110202FS-1		4,4	11	0,2	7°	0°	0,03–0,12	0,1–3,0	
	TCGW110204FS-1		4,3	11	0,4	7°	0°	0,03–0,25	0,1–3,0	
	TCGW110208FS-1		4	11	0,8	7°	0°	0,03–0,38	0,1–3,0	
	TCGW16T304FS-1		4,3	16,5	0,4	7°	0°	0,03–0,25	0,1–3,5	
	TCGW16T308FS-1		4	16,5	0,8	7°	0°	0,03–0,38	0,1–3,5	
	TCGW090204FS-9		9	9,62	0,4	7°	0°	0,03–0,25	0,1–9,0	
	TCGW110204FS-9		10,4	11	0,4	7°	0°	0,03–0,25	0,1–10,4	
	TCGW16T308FS-9		15,3	16,5	0,8	7°	0°	0,03–0,38	0,1–15,3	

See the ISO 1832 designation key for dimensions

DP = Polycrystalline diamond

B 2

Tangential rhombic
P4460



Cutting inserts

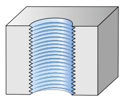
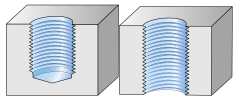
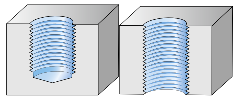
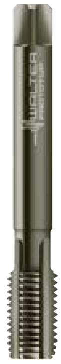
	Designation	Number of cutting edges	l mm	l_2 mm	r mm	N HC WNN15	N HW WK10
	P4460-2R04-G88	2	10	9,69	0,4	☻	
	P4460-2R08-G88	2	10	9,69	0,8	☻	☻

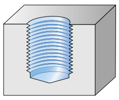
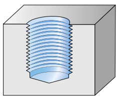
HC = Coated carbide
HW = Uncoated carbide

B 2

B – Threading

Tapping

Machining				
Thread depth	3 x D_N	2 x D_N	3 x D_N	3 x D_N
	Selection	Selection	Selection	Selection
				
Designation	**Prototex® X·pert N**	**Paradur® AP**	**KMB Ms**	**Paradur® Eco CI**
Thread type				
M	✔	✔	✔	✔
MF				✔
UNC / UNF / UN-8				✔
G / Rc / Rp			✔	✔
MJ / UNJC / UNJF				
NPT / NPTF				
Pg / BSW / Tr				
Thread insert				
Tolerance	6H	6HX	6H / NORMAL	2B / 6HX / NORMAL
Coolant supply	External	External	External	External
Chamfer form	B	C	E / F	C / E
Coating/grade	Uncoated	NIT	Uncoated	NID / TICN
Cutting tool material	HSS-E	HSS-E	HSS-E	HSS-E-PM
P Steel				
M Stainless steel				
K Cast iron				●●
N NF metals	●●	●●	●●	●●
S Materials with difficult cutting properties	●	●		
H Hard materials				
O Other	●		●	●●
Page in catalogue	**90**	**92**	**119**	**121**
QR code				
www.walter-tools.com/woc/	prototex-xpert-n	paradur-ap	kmb-ms	paradur-eco-ci

		
	3 x D_N	3 x D_N
	Selection	Selection
		
	Paradur® Eco CI	**Paradur® X·pert N**
	✔	✔
	✔	✔
		✔
		✔
		✔
	6HX	2B / 3B / 6G / 6H / 6HMOD / NORMAL
	Axial/radial	External
	C / E	C
	TICN	Uncoated
	HSS-E-PM	HSS-E
	●●	
	●●	●●
		●
	●●	●
	98	**123**
	paradur-eco-ci	paradur-xpert-n

B 4

HSS-E machine taps

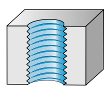
mm

Prototex® X·pert N

– For long-chipping materials

M
DIN 13

ISO2/6H



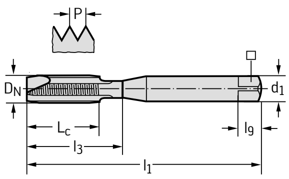
≤ 3×D_N

B=3,5-5

14HRC 700 –200 N/mm²

	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 371



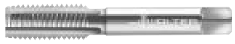
Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N20219-M2	M 2	0,4	45	6	9	2,8	2,1	5	2
N20219-M2.5	M 2.5	0,45	50	8	12,5	2,8	2,1	5	2
N20219-M3	M 3	0,5	56	9	18	3,5	2,7	6	2
N20219-M4	M 4	0,7	63	12	21	4,5	3,4	6	2
N20219-M5	M 5	0,8	70	13	25	6	4,9	8	2
N20219-M6	M 6	1	80	15	30	6	4,9	8	3
N20219-M8	M 8	1,25	90	18	35	8	6,2	9	3
N20219-M10	M 10	1,5	100	20	39	10	8	11	3

B4

HSS-E taps, short

mm

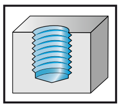
KMB Ms

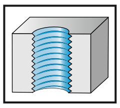


– For short-chipping materials

M
DIN 13

ISO2/6H

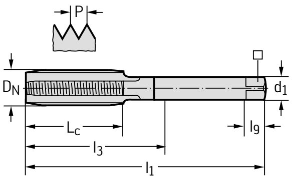




≤ 3×D_N | E=1,5-2 | S l_1 | 25HRC 850 –350 N/mm²

	P	M	K	N	S	H	O
Uncoated				●●			●

DIN 2184-2



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
20165-M2	M 2	0,4	36	8	8	2,8	2,1	5	3
20165-M2.5	M 2.5	0,45	40	9	9	2,8	2,1	5	3
20165-M3	M 3	0,5	40	9	13,5	3,5	2,7	6	3
20165-M3.5	M 3.5	0,6	45	10	15	4	3	6	3
20165-M4	M 4	0,7	45	11	16,5	4,5	3,4	6	3
20165-M5	M 5	0,8	50	13	19	6	4,9	8	3
20165-M6	M 6	1	56	15	27	6	4,9	8	3
20165-M8	M 8	1,25	63	19	40	6	4,9	8	3

≤ M 2.5: Without reduced neck after the thread

B 4

HSS-E machine taps

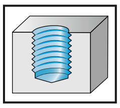
mm

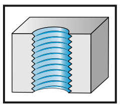
Paradur® AP

– For short-chipping materials
– For Ampco

M
DIN 13

6HX





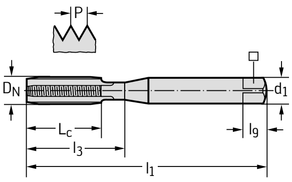
≤ 2×D_N

C=2-3

47HRC
1500 –700 N/mm²

	P	M	K	N	S	H	O
NIT				●●	●		

DIN 371



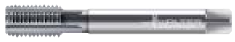
Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
20312-M3	M 3	0,5	56	9	18	3,5	2,7	6	3
20312-M4	M 4	0,7	63	12	21	4,5	3,4	6	3
20312-M5	M 5	0,8	70	13	25	6	4,9	8	3
20312-M6	M 6	1	80	15	30	6	4,9	8	3
20312-M8	M 8	1,25	90	18	35	8	6,2	9	3
20312-M10	M 10	1,5	100	20	39	10	8	11	3

B 4

HSS-E machine taps

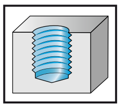
mm

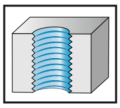
Paradur® AP

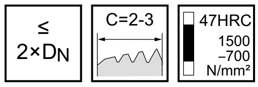


– For short-chipping materials
– For Ampco

M
DIN 13

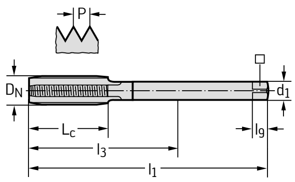






	P	M	K	N	S	H	O
NIT				●●	●		

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
20362-M12	M 12	1,75	110	23	83	9	7	10	4
20362-M16	M 16	2	110	25	68	12	9	12	4
20362-M20	M 20	2,5	140	30	95	16	12	15	4

B 4

HSS-E-PM machine taps

mm

Paradur® Eco CI


≤ 3×DN

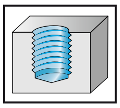
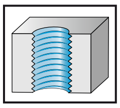
C=2-3

32HRC 1000 –100 N/mm²

– For short-chipping materials
– Nitrided

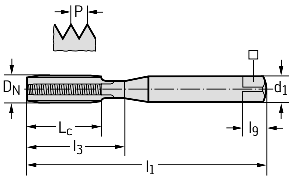
M DIN 13

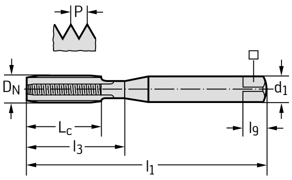
6HX

	P	M	K	N	S	H	O
NID			●●	●●			●●
TICN			●●	●●			●●

DIN 371





Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E20314-M3	M 3	0,5	56	9	18	3,5	2,7	6	3
E20314-M4	M 4	0,7	63	12	21	4,5	3,4	6	3
E20314-M5	M 5	0,8	70	13	25	6	4,9	8	4
E20314-M6	M 6	1	80	15	30	6	4,9	8	4
E20314-M7	M 7	1	80	15	30	7	5,5	8	4
E20314-M8	M 8	1,25	90	18	35	8	6,2	9	4
E20314-M10	M 10	1,5	100	20	39	10	8	11	4
E2031406-M3	M 3	0,5	56	9	18	3,5	2,7	6	3
E2031406-M4	M 4	0,7	63	12	21	4,5	3,4	6	3
E2031406-M5	M 5	0,8	70	13	25	6	4,9	8	4
E2031406-M6	M 6	1	80	15	30	6	4,9	8	4
E2031406-M7	M 7	1	80	15	30	7	5,5	8	4
E2031406-M8	M 8	1,25	90	18	35	8	6,2	9	4
E2031406-M9	M 9	1,25	90	18	35	9	7	10	4
E2031406-M10	M 10	1,5	100	20	39	10	8	11	4

HSS-E-PM machine taps

mm

Paradur® Eco CI


≤ 3×D_N

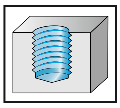
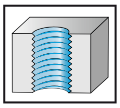
C=2-3

32HRC 1000 –100 N/mm²

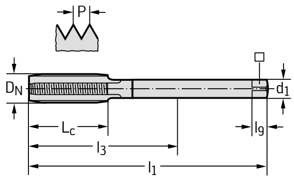
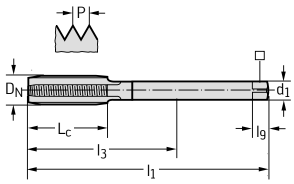
– For short-chipping materials
– Nitrided

M DIN 13

6HX

	P	M	K	N	S	H	O
NID			●●	●●			●●
TICN			●●	●●			●●

DIN 376	Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
	E20364-M12	M 12	1,75	110	23	83	9	7	10	4
	E20364-M14	M 14	2	110	25	81	11	9	12	4
	E20364-M16	M 16	2	110	25	68	12	9	12	4
	E20364-M18	M 18	2,5	125	30	81	14	11	14	4
	E20364-M20	M 20	2,5	140	30	95	16	12	15	4
	E20364-M22	M 22	2,5	140	30	93	18	14,5	17	4
	E20364-M24	M 24	3	160	36	113	18	14,5	17	5
	E20364-M30	M 30	3,5	180	42	115	22	18	21	5
	E2036406-M12	M 12	1,75	110	23	83	9	7	10	4
	E2036406-M14	M 14	2	110	25	81	11	9	12	4
	E2036406-M16	M 16	2	110	25	68	12	9	12	4
	E2036406-M18	M 18	2,5	125	30	81	14	11	14	4
	E2036406-M20	M 20	2,5	140	30	95	16	12	15	4
	E2036406-M22	M 22	2,5	140	30	93	18	14,5	17	4
	E2036406-M24	M 24	3	160	36	113	18	14,5	17	5
	E2036406-M30	M 30	3,5	180	42	115	22	18	21	5

B 4

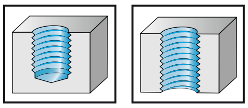
HSS-E-PM machine taps

mm

Paradur® Eco CI

– For short-chipping materials
– Nitrided

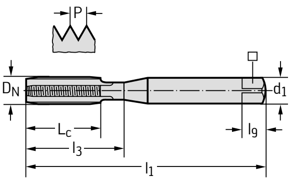
M DIN 13 | 6HX



≤ 3×D_N | E=1,5-2 | 32HRC 1000 –100 N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2031466-M4	M 4	0,7	63	12	21	4,5	3,4	6	3
E2031466-M5	M 5	0,8	70	13	25	6	4,9	8	4
E2031466-M6	M 6	1	80	15	30	6	4,9	8	4
E2031466-M8	M 8	1,25	90	18	35	8	6,2	9	4
E2031466-M10	M 10	1,5	100	20	39	10	8	11	4

B4

HSS-E-PM machine taps

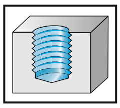
mm

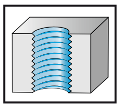
Paradur® Eco CI

– For short-chipping materials
– Nitrided

M
DIN 13

6HX





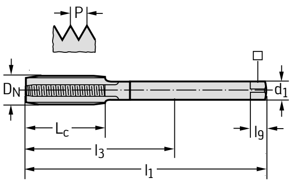
≤ 3×D_N

E=1,5-2

32HRC
1000
–100
N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN 376



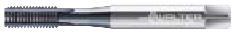
Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2036466-M12	M 12	1,75	110	23	83	9	7	10	4
E2036466-M16	M 16	2	110	25	68	12	9	12	4
E2036466-M20	M 20	2,5	140	30	95	16	12	15	4
E2036466-M24	M 24	3	160	36	113	18	14,5	17	5

B 4

HSS-E-PM machine taps

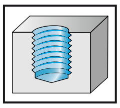
mm

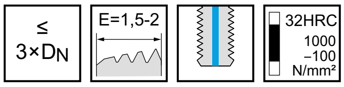
Paradur® Eco CI



– For short-chipping materials
– Nitrided

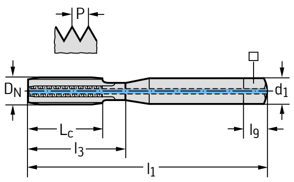
M DIN 13	6HX





	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN 371



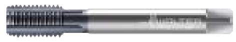
Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2031456-M4	M 4	0,7	63	12	21	4,5	3,4	6	3
E2031456-M5	M 5	0,8	70	13	25	6	4,9	8	4
E2031456-M6	M 6	1	80	15	30	6	4,9	8	4
E2031456-M8	M 8	1,25	90	18	35	8	6,2	9	4
E2031456-M10	M 10	1,5	100	20	39	10	8	11	4

B4

HSS-E-PM machine taps

mm

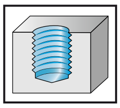
Paradur® Eco CI



– For short-chipping materials
– Nitrided

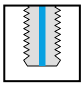
M
DIN 13

6HX



≤ 3×D_N

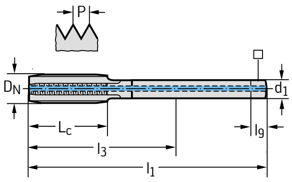
E=1,5-2



32HRC 1000 –100 N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2036456-M12	M 12	1,75	110	23	83	9	7	10	4
E2036456-M16	M 16	2	110	25	68	12	9	12	4
E2036456-M20	M 20	2,5	140	30	95	16	12	15	4

B 4

HSS-E-PM machine taps

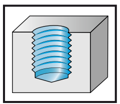
mm

Paradur® Eco CI

– For short-chipping materials
– Nitrided

M
DIN 13

6HX



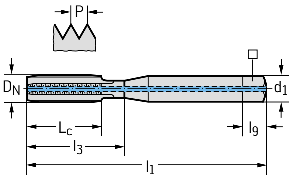
≤ 3×DN

C=2-3

32HRC
1000
–100
N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN 371



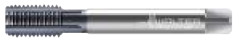
Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2031416-M4	M 4	0,7	63	12	21	4,5	3,4	6	3
E2031416-M5	M 5	0,8	70	13	25	6	4,9	8	4
E2031416-M6	M 6	1	80	15	30	6	4,9	8	4
E2031416-M7	M 7	1	80	15	30	7	5,5	8	4
E2031416-M8	M 8	1,25	90	18	35	8	6,2	9	4
E2031416-M10	M 10	1,5	100	20	39	10	8	11	4

B 4

HSS-E-PM machine taps

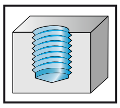
mm

Paradur® Eco CI



– For short-chipping materials
– Nitrided

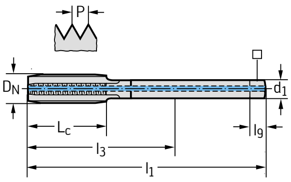
M DIN 13 | 6HX



≤ 3×D_N | C=2-3 | 32HRC 1000 –100 N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2036416-M12	M 12	1,75	110	23	83	9	7	10	4
E2036416-M14	M 14	2	110	25	81	11	9	12	4
E2036416-M16	M 16	2	110	25	68	12	9	12	4
E2036416-M18	M 18	2,5	125	30	81	14	11	14	4
E2036416-M20	M 20	2,5	140	30	95	16	12	15	4
E2036416-M24	M 24	3	160	36	113	18	14,5	17	5

B 4

HSS-E-PM machine taps

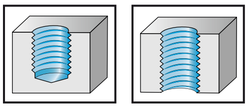
mm

Paradur® Eco CI

– For short-chipping materials
– Nitrided

M
DIN 13

6HX

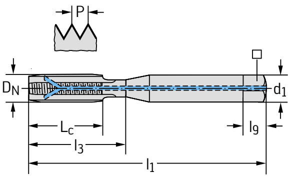


≤ 3×DN

C=2-3

32HRC
1000
–100
N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

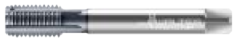
DIN 371	Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
	E2031446-M6	M 6	1	80	15	30	6	4,9	8	4
	E2031446-M8	M 8	1,25	90	18	35	8	6,2	9	4
	E2031446-M10	M 10	1,5	100	20	39	10	8	11	4

B 4

HSS-E-PM machine taps

mm

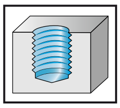
Paradur® Eco CI

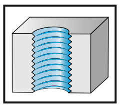


– For short-chipping materials
– Nitrided

M
DIN 13

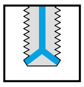
6HX





≤ $3 \times D_N$

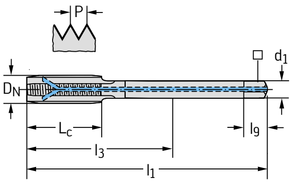
C=2-3



32HRC
1000
–100
N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2036446-M12	M 12	1,75	110	23	83	9	7	10	4
E2036446-M16	M 16	2	110	25	68	12	9	12	4

B 4

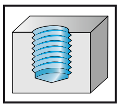
HSS-E-PM machine taps

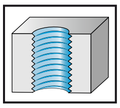
mm

Paradur® Eco CI

– For short-chipping materials
– Nitrided

M DIN 13 | 6HX

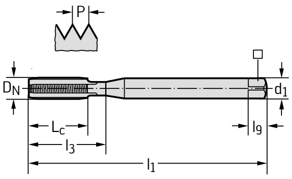




≤ 3×DN | C=2-3 | XL l_1 | 32HRC 1000 –100 N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

~DIN 371 XL



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2031436-M4	M 4	0,7	125	12	21	4,5	3,4	6	3
E2031436-M5	M 5	0,8	140	13	25	6	4,9	8	4
E2031436-M6	M 6	1	160	15	30	6	4,9	8	4
E2031436-M8	M 8	1,25	180	18	35	8	6,2	9	4
E2031436-M10	M 10	1,5	200	20	39	10	8	11	4

B 4

HSS-E-PM machine taps

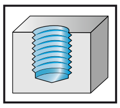
mm

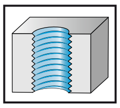
Paradur® Eco CI

– For short-chipping materials
– Nitrided

M
DIN 13

6HX

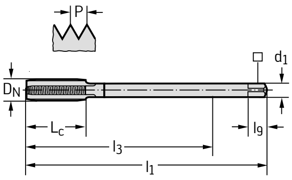




≤ 3×D_N | C=2-3 | XL l_1 | 32HRC 1000 –100 N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

~DIN 376 XL



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2036436-M12	M 12	1,75	220	23	193	9	7	10	4
E2036436-M16	M 16	2	220	25	178	12	9	12	4
E2036436-M20	M 20	2,5	280	30	235	16	12	15	4

B 4

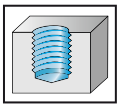
HSS-E machine taps

mm

Paradur® X·pert N

– For long-chipping materials

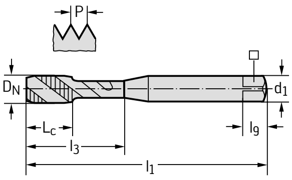
M DIN 13 | ISO2/6H



≤ 3×DN | C=2-3 | 35° | 14HRC 700 –200 N/mm²

	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N20516-M1.6	M 1.6	0,35	40	6	6	2,5	2,1	5	2
N20516-M2	M 2	0,4	45	4	9	2,8	2,1	5	2
N20516-M2.3	M 2.3	0,4	45	4	12	2,8	2,1	5	2
N20516-M2.5	M 2.5	0,45	50	4	12,5	2,8	2,1	5	2
N20516-M3	M 3	0,5	56	6	18	3,5	2,7	6	2
N20516-M3.5	M 3.5	0,6	56	6,5	20	4	3	6	2
N20516-M4	M 4	0,7	63	7	21	4,5	3,4	6	2
N20516-M5	M 5	0,8	70	8	25	6	4,9	8	2
N20516-M6	M 6	1	80	10	30	6	4,9	8	2
N20516-M8	M 8	1,25	90	12	35	8	6,2	9	2
N20516-M10	M 10	1,5	100	15	39	10	8	11	2

B 4

HSS-E machine taps

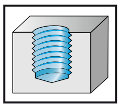
mm

Paradur® X·pert N

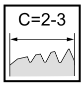
– For long-chipping materials

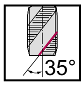
M
DIN 13

ISO2/6H



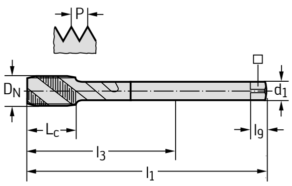
≤ 3×D_N





	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N20566-M6	M 6	1	80	10	59	4,5	3,4	6	2
N20566-M8	M 8	1,25	90	12	67	6	4,9	8	2
N20566-M10	M 10	1,5	100	15	77	7	5,5	8	2
N20566-M12	M 12	1,75	110	16	83	9	7	10	3
N20566-M14	M 14	2	110	20	81	11	9	12	3
N20566-M16	M 16	2	110	20	68	12	9	12	3
N20566-M20	M 20	2,5	140	25	95	16	12	15	3

B4

HSS-E machine taps

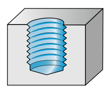
mm

Paradur® X·pert N

– Increased number of grooves
– For long-chipping materials

M
DIN 13

ISO2/6H



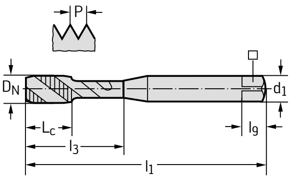
≤ 3×D_N

C=2-3

35°

14HRC
700
–200
N/mm²

	P	M	K	N	S	H	O
Uncoated				●●	●		●



DIN 371 Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N205166-M3	M 3	0,5	56	6	18	3,5	2,7	6	3
N205166-M4	M 4	0,7	63	7	21	4,5	3,4	6	3
N205166-M5	M 5	0,8	70	8	25	6	4,9	8	3
N205166-M6	M 6	1	80	10	30	6	4,9	8	3
N205166-M7	M 7	1	80	10	30	7	5,5	8	3
N205166-M8	M 8	1,25	90	12	35	8	6,2	9	3
N205166-M10	M 10	1,5	100	15	39	10	8	11	3

B4

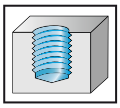
HSS-E machine taps

mm

Paradur® X·pert N

– For long-chipping materials

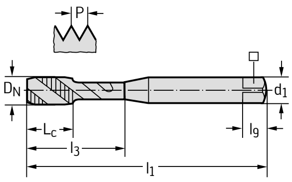
M DIN 13 | ISO3/6G



≤ 3×D_N | C=2-3 | 35° | 14HRC 700 –200 N/mm²

	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N20536-M2	M 2	0,4	45	4	9	2,8	2,1	5	2
N20536-M2.5	M 2.5	0,45	50	4	12,5	2,8	2,1	5	2
N20536-M3	M 3	0,5	56	6	18	3,5	2,7	6	2
N20536-M4	M 4	0,7	63	7	21	4,5	3,4	6	2
N20536-M5	M 5	0,8	70	8	25	6	4,9	8	2
N20536-M6	M 6	1	80	10	30	6	4,9	8	2
N20536-M8	M 8	1,25	90	12	35	8	6,2	9	2

B4

HSS-E-PM machine taps

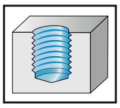
mm

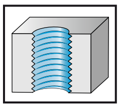
Paradur® Eco CI

– For short-chipping materials
– Nitrided

≤ 3×D_N | C=2-3 | 32HRC 1000 –100 N/mm²

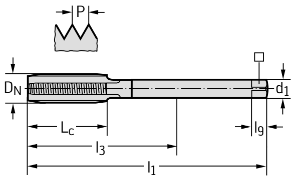
MF DIN 13 | 6HX



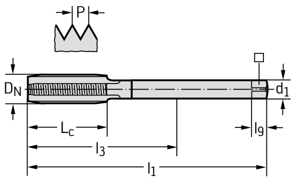


	P	M	K	N	S	H	O
NID			●●	●●			●●
TICN			●●	●●			●●

DIN 374



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E21364-M8X0.75	MF 8x0.75	0,75	80	15	57	6	4,9	8	4
E21364-M8X1	MF 8x1	1	90	18	67	6	4,9	8	4
E21364-M10X1	MF 10x1	1	90	20	67	7	5,5	8	4
E21364-M12X1	MF 12x1	1	100	21	73	9	7	10	4
E21364-M10X1.25	MF 10x1.25	1,25	100	20	77	7	5,5	8	4
E21364-M12X1.25	MF 12x1.25	1,25	100	21	73	9	7	10	4
E21364-M12X1.5	MF 12x1.5	1,5	100	21	73	9	7	10	4
E21364-M14X1.5	MF 14x1.5	1,5	100	21	71	11	9	12	4
E21364-M16X1.5	MF 16x1.5	1,5	100	21	58	12	9	12	4
E21364-M18X1.5	MF 18x1.5	1,5	110	24	66	14	11	14	4
E21364-M20X1.5	MF 20x1.5	1,5	125	24	80	16	12	15	4
E21364-M22X1.5	MF 22x1.5	1,5	125	24	78	18	14,5	17	5
E21364-M24X1.5	MF 24x1.5	1,5	140	26	93	18	14,5	17	5
E21364-M26X1.5	MF 26x1.5	1,5	140	26	93	18	14,5	17	5
E21364-M30X1.5	MF 30x1.5	1,5	150	26	85	22	18	21	5



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2136406-M6X0.75	MF 6x0.75	0,75	80	15	59	4,5	3,4	6	4
E2136406-M8X0.75	MF 8x0.75	0,75	80	15	57	6	4,9	8	4
E2136406-M8X1	MF 8x1	1	90	18	67	6	4,9	8	4
E2136406-M10X1	MF 10x1	1	90	20	67	7	5,5	8	4
E2136406-M12X1	MF 12x1	1	100	21	73	9	7	10	4
E2136406-M10X1.25	MF 10x1.25	1,25	100	20	77	7	5,5	8	4
E2136406-M12X1.25	MF 12x1.25	1,25	100	21	73	9	7	10	4
E2136406-M12X1.5	MF 12x1.5	1,5	100	21	73	9	7	10	4
E2136406-M14X1.5	MF 14x1.5	1,5	100	21	71	11	9	12	4
E2136406-M16X1.5	MF 16x1.5	1,5	100	21	58	12	9	12	4
E2136406-M18X1.5	MF 18x1.5	1,5	110	24	66	14	11	14	4
E2136406-M20X1.5	MF 20x1.5	1,5	125	24	80	16	12	15	4
E2136406-M22X1.5	MF 22x1.5	1,5	125	24	78	18	14,5	17	5
E2136406-M24X1.5	MF 24x1.5	1,5	140	26	93	18	14,5	17	5
E2136406-M26X1.5	MF 26x1.5	1,5	140	26	93	18	14,5	17	5
E2136406-M30X1.5	MF 30x1.5	1,5	150	26	85	22	18	21	5

HSS-E-PM machine taps

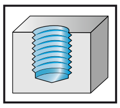
mm

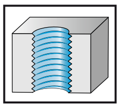
Paradur® Eco CI

– For short-chipping materials
– Nitrided

MF
DIN 13

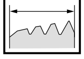
6HX





≤ 3×D_N

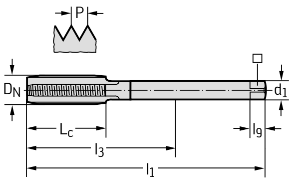
E=1,5-2



32HRC
1000
–100
N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN 374



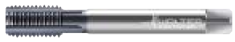
Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2136466-M8X1	MF 8x1	1	90	18	67	6	4,9	8	4
E2136466-M10X1	MF 10x1	1	90	20	67	7	5,5	8	4
E2136466-M12X1	MF 12x1	1	100	21	73	9	7	10	4
E2136466-M12X1.5	MF 12x1.5	1,5	100	21	73	9	7	10	4
E2136466-M14X1.5	MF 14x1.5	1,5	100	21	71	11	9	12	4
E2136466-M16X1.5	MF 16x1.5	1,5	100	21	58	12	9	12	4
E2136466-M18X1.5	MF 18x1.5	1,5	110	24	66	14	11	14	4
E2136466-M20X1.5	MF 20x1.5	1,5	125	24	80	16	12	15	4
E2136466-M22X1.5	MF 22x1.5	1,5	125	24	78	18	14,5	17	5

B 4

HSS-E-PM machine taps

mm

Paradur® Eco CI



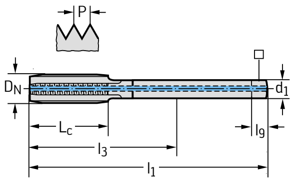
– For short-chipping materials
– Nitrided

MF DIN 13 | 6HX

≤ 3×DN | C=2-3 | 32HRC 1000 –100 N/mm²

	P	M	K	N	S	H	O
TICN			●●	●●			●●

DIN 374



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E2136416-M8X1	MF 8x1	1	90	18	67	6	4,9	8	4
E2136416-M10X1	MF 10x1	1	90	20	67	7	5,5	8	4
E2136416-M12X1	MF 12x1	1	100	21	73	9	7	10	4
E2136416-M12X1.5	MF 12x1.5	1,5	100	21	73	9	7	10	4
E2136416-M14X1.5	MF 14x1.5	1,5	100	21	71	11	9	12	4
E2136416-M16X1.5	MF 16x1.5	1,5	100	21	58	12	9	12	4
E2136416-M18X1.5	MF 18x1.5	1,5	110	24	66	14	11	14	4
E2136416-M20X1.5	MF 20x1.5	1,5	125	24	80	16	12	15	4
E2136416-M22X1.5	MF 22x1.5	1,5	125	24	78	18	14,5	17	5

HSS-E machine taps

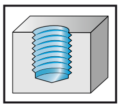
mm

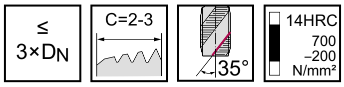
Paradur® X·pert N

– For long-chipping materials

MF
DIN 13

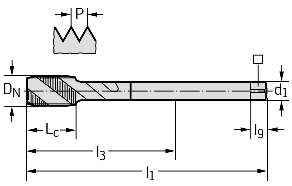
ISO2/6H





	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 374



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N21566-M8X1	MF 8x1	1	90	12	67	6	4,9	8	2
N21566-M10X1	MF 10x1	1	90	12	67	7	5,5	8	3
N21566-M12X1	MF 12x1	1	100	13	73	9	7	10	3
N21566-M16X1	MF 16x1	1	100	15	58	12	9	12	4
N21566-M12X1.5	MF 12x1.5	1,5	100	13	73	9	7	10	3
N21566-M14X1.5	MF 14x1.5	1,5	100	15	71	11	9	12	3
N21566-M16X1.5	MF 16x1.5	1,5	100	15	58	12	9	12	3
N21566-M18X1.5	MF 18x1.5	1,5	110	17	66	14	11	14	4
N21566-M20X1.5	MF 20x1.5	1,5	125	17	80	16	12	15	4

B 4

HSS-E-PM machine taps

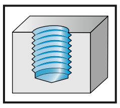
mm

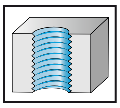
Paradur® Eco CI

– For short-chipping materials
– Nitrided

UNC
ASME B1.1

2B





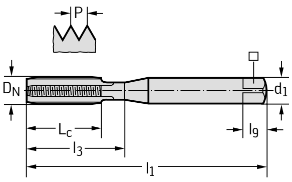
≤ 3×D_N

C=2-3

32HRC 1000 –100 N/mm²

	P	M	K	N	S	H	O
NID			●●	●●			●●

DIN 2184-1

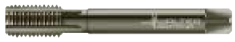


Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E22314-UNC6	UNC #6-32	3,505	56	11	20	4	3	6	3
E22314-UNC8	UNC #8-32	4,166	63	12	21	4,5	3,4	6	3
E22314-UNC10	UNC #10-24	4,826	70	13	25	6	4,9	8	4
E22314-UNC1/4	UNC 1/4-20	6,35	80	15	30	7	5,5	8	4

HSS-E-PM machine taps

mm

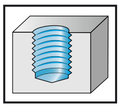
Paradur® Eco CI

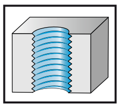


– For short-chipping materials
– Nitrided

UNC ASME B1.1

2B





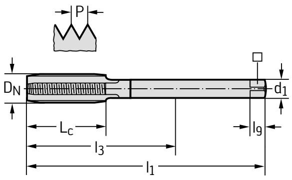
≤ 3×D_N

C=2-3

32HRC 1000 –100 N/mm²

	P	M	K	N	S	H	O
NID			●●	●●			●●

DIN 2184-1



Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E22364-UNC5/16	UNC 5/16-18	7,938	90	18	67	6	4,9	8	4
E22364-UNC3/8	UNC 3/8-16	9,525	100	20	77	7	5,5	8	4
E22364-UNC7/16	UNC 7/16-14	11,113	100	20	76	8	6,2	9	4
E22364-UNC1/2	UNC 1/2-13	12,7	110	23	83	9	7	10	4
E22364-UNC9/16	UNC 9/16-12	14,288	110	25	81	11	9	12	4
E22364-UNC5/8	UNC 5/8-11	15,875	110	25	68	12	9	12	4
E22364-UNC3/4	UNC 3/4-10	19,05	125	30	81	14	11	14	4
E22364-UNC7/8	UNC 7/8-9	22,225	140	30	93	18	14,5	17	4

B 4

HSS-E-PM machine taps

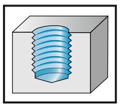
mm

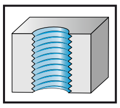
Paradur® Eco CI

– For short-chipping materials
– Nitrided

UNF
ASME B1.1

2B



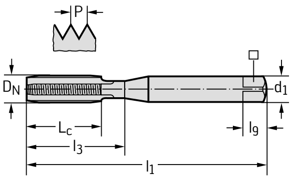


≤ 3×D_N

C=2-3

32HRC 1000 –100 N/mm²

	P	M	K	N	S	H	O
NID			●●	●●			●●

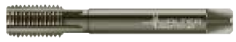
DIN 2184-1	Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
	E23314-UNF10	UNF #10-32	4,826	70	13	25	6	4,9	8	4
	E23314-UNF1/4	UNF 1/4-28	6,35	80	15	30	7	5,5	8	4

B4

HSS-E-PM machine taps

mm

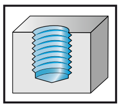
Paradur® Eco CI

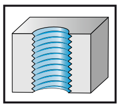


– For short-chipping materials
– Nitrided

UNF
ASME B1.1

2B





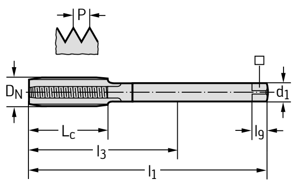
≤ 3×D_N

C=2-3

32HRC
1000 –100 N/mm²

	P	M	K	N	S	H	O
NID			●●	●●			●●

DIN 2184-1



Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
E23364-UNF5/16	UNF 5/16-24	7,938	90	18	67	6	4,9	8	4
E23364-UNF3/8	UNF 3/8-24	9,525	100	20	77	7	5,5	8	4
E23364-UNF7/16	UNF 7/16-20	11,113	100	20	76	8	6,2	9	4
E23364-UNF1/2	UNF 1/2-20	12,7	100	21	73	9	7	10	4
E23364-UNF9/16	UNF 9/16-18	14,288	100	21	71	11	9	12	4
E23364-UNF5/8	UNF 5/8-18	15,875	100	21	58	12	9	12	4
E23364-UNF3/4	UNF 3/4-16	19,05	110	24	66	14	11	14	4
E23364-UNF7/8	UNF 7/8-14	22,225	125	24	78	18	14,5	17	5

B 4

HSS-E machine taps

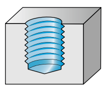
mm

Paradur® X·pert N

– For long-chipping materials

UNC
ASME B1.1

2B



≤ $3\times D_N$

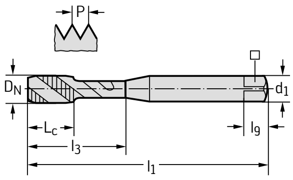
C=2-3

35°

14HRC
700
–200
N/mm²

	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 2184-1



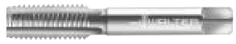
Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N22516-UNC2	UNC #2-56	2,184	45	4	12	2,8	2,1	5	2
N22516-UNC4	UNC #4-40	2,845	56	6	18	3,5	2,7	6	2
N22516-UNC6	UNC #6-32	3,505	56	6,5	20	4	3	6	2
N22516-UNC8	UNC #8-32	4,166	63	7	21	4,5	3,4	6	2
N22516-UNC10	UNC #10-24	4,826	70	8	25	6	4,9	8	2
N22516-UNC1/4	UNC 1/4-20	6,35	80	10	30	7	5,5	8	2
N22516-UNC5/16	UNC 5/16-18	7,938	90	12	35	8	6,2	9	2
N22516-UNC3/8	UNC 3/8-16	9,525	100	15	39	10	8	11	2

B 4

HSS-E taps, short

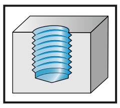
mm

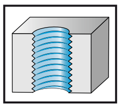
KMB Ms



– For short-chipping materials

G (BSP)
DIN EN ISO 228

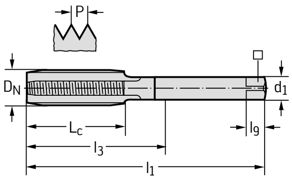




≤ 3×D_N | F=1-1,5 | S l_1 | 25HRC 850 –350 N/mm²

	P	M	K	N	S	H	O
Uncoated				●●			●

DIN 5157



Designation	D_N-P	D_N mm	Threads per inch	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
24165-G1/8	G 1/8-28	9,728	28	63	20	40	7	5,5	8	3
24165-G1/4	G 1/4-19	13,157	19	70	20	41	11	9	12	4
24165-G3/8	G 3/8-19	16,662	19	70	20	28	12	9	12	4
24165-G1/2	G 1/2-14	20,955	14	80	22	35	16	12	15	6
24165-G3/4	G 3/4-14	26,441	14	90	22	27	20	16	19	6
24165-G1	G 1"-11	33,249	11	100	25	33	25	20	23	6

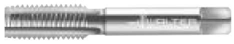
Thread machining allowance 0.05 mm

B4

HSS-E taps, short

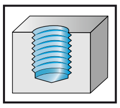
mm

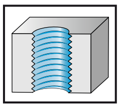
KMB Ms



– For short-chipping materials

G (BSP)
DIN EN ISO 228

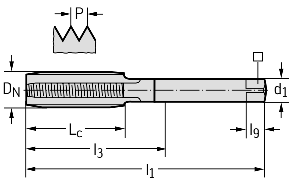




≤ 3×D_N | F=1-1,5 | S l_1 | 25HRC 850–350 N/mm²

	P	M	K	N	S	H	O
Uncoated				●●			●

DIN 5157



Designation	D_N-P	D_N mm	Threads per inch	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
24195-G1/8	G 1/8-28	9,728	28	63	20	40	7	5,5	8	3
24195-G1/4	G 1/4-19	13,157	19	70	20	41	11	9	12	4
24195-G3/8	G 3/8-19	16,662	19	70	20	28	12	9	12	4
24195-G1/2	G 1/2-14	20,955	14	80	22	35	16	12	15	6
24195-G3/4	G 3/4-14	26,441	14	90	22	27	20	16	19	6

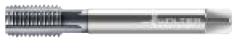
Thread machining allowance 0.1 mm

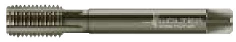
B 4

HSS-E-PM machine taps

mm

Paradur® Eco CI

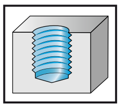


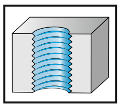


≤ 3×D_N | C=2-3 | 32HRC 1000 –100 N/mm²

– For short-chipping materials
– Nitrided

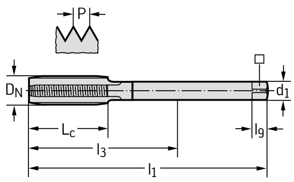
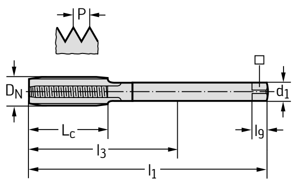
G (BSP)
DIN EN ISO 228





	P	M	K	N	S	H	O
NID			●●	●●			●●
TICN			●●	●●			●●

DIN 5156

	Designation	D_N-P	D_N mm	Threads per inch	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
	E24364-G1/8	G 1/8-28	9,728	28	90	20	67	7	5,5	8	4
	E24364-G1/4	G 1/4-19	13,157	19	100	21	71	11	9	12	4
	E24364-G3/8	G 3/8-19	16,662	19	100	21	58	12	9	12	5
	E24364-G1/2	G 1/2-14	20,955	14	125	24	80	16	12	15	5
	E24364-G3/4	G 3/4-14	26,441	14	140	26	77	20	16	19	6
	E24364-G1	G 1"-11	33,249	11	160	28	93	25	20	23	6
	E24364-G1.1/4	G 1.1/4-11	41,91	11	170	28	72	32	24	27	6
	E2436406-G1/8	G 1/8-28	9,728	28	90	20	67	7	5,5	8	4
	E2436406-G1/4	G 1/4-19	13,157	19	100	21	71	11	9	12	4
	E2436406-G3/8	G 3/8-19	16,662	19	100	21	58	12	9	12	5
	E2436406-G1/2	G 1/2-14	20,955	14	125	24	80	16	12	15	5
	E2436406-G3/4	G 3/4-14	26,441	14	140	26	77	20	16	19	6
	E2436406-G1	G 1"-11	33,249	11	160	28	93	25	20	23	6
	E2436406-G1.1/4	G 1.1/4-11	41,91	11	170	28	72	32	24	27	6
	E2436406-G1.1/2	G 1.1/2-11	47,803	11	190	30	87	36	29	32	6

B4

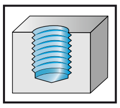
HSS-E machine taps

mm

Paradur® X·pert N

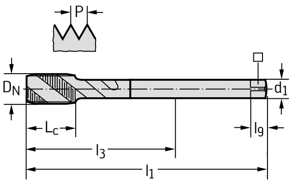
– For long-chipping materials

G (BSP)
DIN EN ISO 228



≤ 3×DN | C=2-3 | 35° | 14HRC 700 –200 N/mm²

	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 5156	Designation	D_N-P	D_N mm	Threads per inch	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
	N24566-G1/8	G 1/8-28	9,728	28	90	12	67	7	5,5	8	3

B4

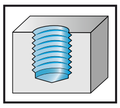
HSS-E machine taps

mm

Paradur® X·pert N

– For long-chipping materials

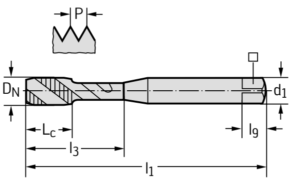
EgUNC NASM 33537 | 3B



≤ 3×DN | C=2-3 | 35° | 14HRC 700 –200 N/mm²

	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 2184-1



Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N225069-EGUNC6	EGUNC #6-32	4,536	70	8	25	6	4,9	8	2
N225069-EGUNC8	EGUNC #8-32	5,197	80	10	30	6	4,9	8	2
N225069-EGUNC10	EGUNC #10-24	6,201	80	10	30	7	5,5	8	2
N225069-EGUNC1/4	EGUNC 1/4-20	8	90	12	35	8	6,2	9	2

B4

HSS-E machine taps

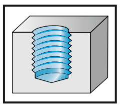
mm

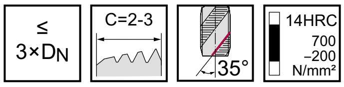
Paradur® X·pert N

– For long-chipping materials

EgUNF
NASM 33537

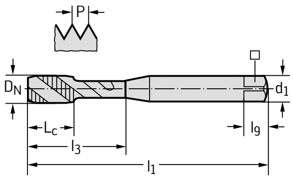
3B





	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 2184-1

	Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
	N235069-EGUNF10	EGUNF #10-32	5,857	80	10	30	6	4,9	8	2
	N235069-EGUNF1/4	EGUNF 1/4-28	7,528	90	12	35	8	6,2	9	3

B4

HSS-E machine taps

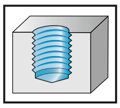
mm

Paradur® X·pert N

– For long-chipping materials

EgM
DIN 8140

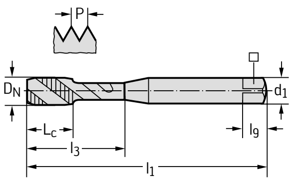
6H mod



≤ 3×D_N | C=2-3 | 35° | 14HRC 700–200 N/mm²

	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 40435



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N205069-EGM2.5	EGM 2.5	0,45	56	6	18	3,5	2,7	6	2
N205069-EGM3	EGM 3	0,5	63	7	21	4,5	3,4	6	2
N205069-EGM4	EGM 4	0,7	70	8	25	6	4,9	8	2
N205069-EGM5	EGM 5	0,8	80	10	30	6	4,9	8	3
N205069-EGM6	EGM 6	1	90	12	35	8	6,2	9	3
N205069-EGM8	EGM 8	1,25	100	15	39	10	8	11	3

HSS-E machine taps

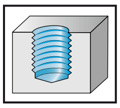
mm

Paradur® X·pert N

≤ 3×D_N | C=2-3 | 35° | 14HRC 700 –200 N/mm²

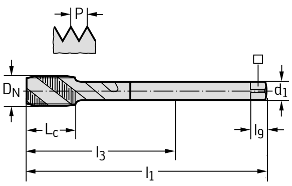
– For long-chipping materials

EgM DIN 8140 | 6H mod



	P	M	K	N	S	H	O
Uncoated				●●	●		●

DIN 40435



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
N205569-EGM10	EGM 10	1,5	100	13	73	9	7	10	3
N205569-EGM12	EGM 12	1,75	110	20	81	11	9	12	3
N205569-EGM16	EGM 16	2	125	25	81	14	11	14	4

B4

_TC420 SUPREME

Strong performance – reduced torque.

THE TOOL

- TC420 Supreme HSS-E-PM thread former – universal
- With and without lubrication grooves
- With and without internal coolant (axial/radial)
- Tolerances: 6HX and 6GX

Dimensions

- Metric: M2–M24
- Metric fine: M8×1–M16×1.5

THE GRADE

- WW60AD (HSS-E-PM + TiN)
- WW60BA (HSS-E-PM + TiCN)

THE APPLICATION

- Blind-hole and through-hole threads
- Thread depth up to 3.5 × D_N
- ISO material groups P, M, K and N
- All formable materials
- Areas of use: General mechanical engineering, automotive and energy industries, among others

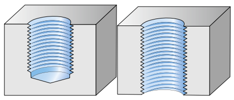
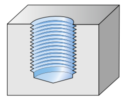
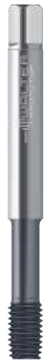
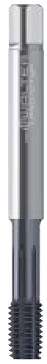
TC420 Supreme thread former

Fig.: TC420

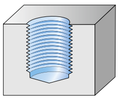
BENEFITS FOR YOU

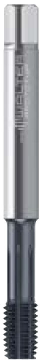
- Universal application
- Up to 30% lower torque
- High cutting speeds possible
- Better surface finish than that achieved using thread cutting

Thread forming

Machining					
Thread depth	3 x D_N	3 x D_N	3,5 x D_N	3,5 x D_N	3,5 x D_N
	Selection	Selection	Selection	Selection	Selection
					
Designation	**TC420 Supreme**	**TC470 Supreme**	**TC420 Supreme**	**TC470 Supreme**	**TC420 Supreme**
Thread type					
M	✔	✔	✔	✔	✔
MF			✔	✔	✔
UNC / UNF / UN-8					
G / Rc / Rp					
MJ / UNJC / UNJF					
NPT / NPTF					
Pg / BSW / Tr					
Thread insert					
Tolerance	6GX / 6HX	6HX	6GX / 6HX	6HX	6GX / 6HX
Coolant supply	External	External	External/radial	External/radial	External/axial
Chamfer form	C	C	C	C	C / E
Coating/grade	WW60AD / WW60BA	WG20EL	WW60AD / WW60BA	WG20EL	WW60AD / WW60BA
Cutting tool material	HSS-E-PM	Solid carbide	HSS-E-PM	Solid carbide	HSS-E-PM
P Steel	●●	●●	●●	●●	●●
M Stainless steel	●		●●		●●
K Cast iron	●	●	●	●	●
N NF metals	●●	●	●●	●	●●
S Materials with difficult cutting properties	●		●		●
H Hard materials					
O Other					
Page in catalogue	132	154	136	155	134
QR code					
www.walter-tools.com/woc/	TC420	TC470	TC420	TC470	TC420

B5



	$3{,}5 \times D_N$
	Selection
	
	TC470 Supreme
	✔
	✔
	6HX
	Axial
	C / E
	WG20EL
	Solid carbide
	●●
	●
	●
	156
	TC470

B5

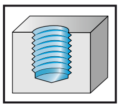
HSS-E-PM machine thread former

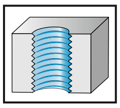
TC420 Supreme mm

≤ 3×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

– For long-chipping materials

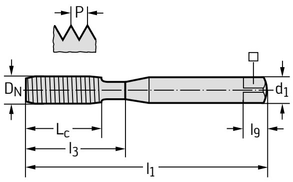
M DIN 13 | 6HX





	P	M	K	N	S	H	O
WW60AD	●●	●	●	●●	●		
WW60BA	●●	●	●	●●	●		

DIN 2174

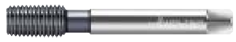


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-C0-	M 2	0,4	45	4	11	2,8	2,1	5	3		
TC420-M2.5-C0-	M 2.5	0,45	50	4	14	2,8	2,1	5	3		
TC420-M3-C0-	M 3	0,5	56	6	18	3,5	2,7	6	4		
TC420-M3.5-C0-	M 3.5	0,6	56	7	20	4	3	6	4		
TC420-M4-C0-	M 4	0,7	63	7	21	4,5	3,4	6	5		
TC420-M5-C0-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-C0-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-C0-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-C0-	M 10	1,5	100	15	39	10	8	11	6		

B 5

HSS-E-PM machine thread former

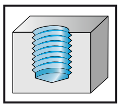
TC420 Supreme mm

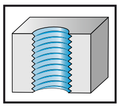


≤ 3×D_N | C=2-3 | 36HRC 1200–200 N/mm²

– For long-chipping materials

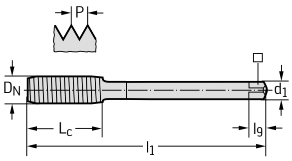
M DIN 13 | 6HX





	P	M	K	N	S	H	O
WW60AD	●●	●	●	●●	●		
WW60BA	●●	●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-L0-	M 12	1,75	110	16	83	9	7	10	6	✱	✱
TC420-M14-L0-	M 14	2	110	20	81	11	9	12	6	✱	✱
TC420-M16-L0-	M 16	2	110	20	68	12	9	12	6	✱	✱
TC420-M20-L0-	M 20	2,5	140	25	95	16	12	15	7	✱	

B5

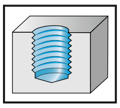
HSS-E-PM machine thread former

TC420 Supreme mm

≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

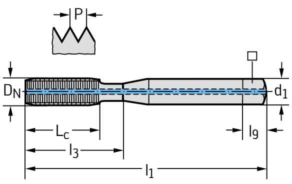
– For long-chipping materials

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

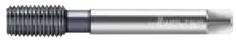


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M5-C1-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-C1-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-C1-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-C1-	M 10	1,5	100	15	39	10	8	11	6		

B 5

HSS-E-PM machine thread former

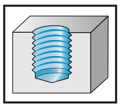
TC420 Supreme mm



≤ 3,5×D_N	C=2-3		36HRC 1200–200 N/mm²

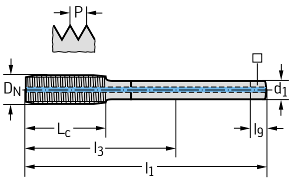
– For long-chipping materials

M DIN 13	6HX	



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

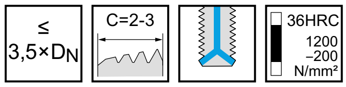
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-L1-	M 12	1,75	110	16	83	9	7	10	6	✱	✱
TC420-M14-L1-	M 14	2	110	20	81	11	9	12	6	✱	✱
TC420-M16-L1-	M 16	2	110	20	68	12	9	12	6	✱	✱

HSS-E-PM machine thread former

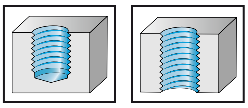
TC420 Supreme mm



– For long-chipping materials

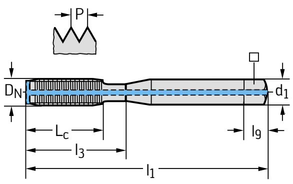
M
DIN 13

6HX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

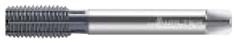
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M5-C2-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-C2-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-C2-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-C2-	M 10	1,5	100	15	39	10	8	11	6		

B 5

HSS-E-PM machine thread former
TC420 Supreme mm



≤ 3,5×D_N

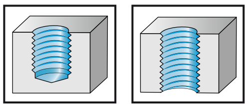
C=2-3

36HRC 1200 –200 N/mm²

– For long-chipping materials

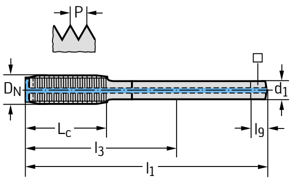
M DIN 13

6HX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-L2-	M 12	1,75	110	16	83	9	7	10	6	✱	✱
TC420-M14-L2-	M 14	2	110	20	81	11	9	12	6	✱	✱
TC420-M16-L2-	M 16	2	110	20	68	12	9	12	6	✱	✱
TC420-M20-L2-	M 20	2,5	140	25	95	16	12	15	7	✱	✱
TC420-M24-L2-	M 24	3	160	30	113	18	14,5	17	8	✱	✱

B5

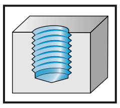
HSS-E-PM machine thread former

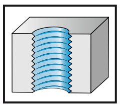
TC420 Supreme mm

≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

– For long-chipping materials

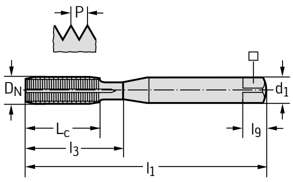
M DIN 13 | 6HX





	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

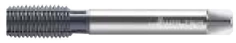


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-C6-	M 2	0,4	45	4	11	2,8	2,1	5	3		
TC420-M2.5-C6-	M 2.5	0,45	50	4	14	2,8	2,1	5	3		
TC420-M3-C6-	M 3	0,5	56	6	18	3,5	2,7	6	4		
TC420-M3.5-C6-	M 3.5	0,6	56	7	20	4	3	6	4		
TC420-M4-C6-	M 4	0,7	63	7	21	4,5	3,4	6	5		
TC420-M5-C6-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-C6-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-C6-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-C6-	M 10	1,5	100	15	39	10	8	11	6		

B5

HSS-E-PM machine thread former

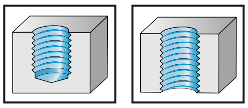
TC420 Supreme mm



≤ 3,5×D_N | C=2-3 | 36HRC 1200–200 N/mm²

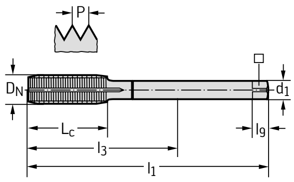
– For long-chipping materials

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

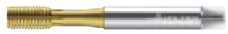


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-L6-	M 12	1,75	110	16	83	9	7	10	6		
TC420-M14-L6-	M 14	2	110	20	81	11	9	12	6		
TC420-M16-L6-	M 16	2	110	20	68	12	9	12	6		
TC420-M20-L6-	M 20	2,5	140	25	95	16	12	15	7		

B 5

HSS-E-PM machine thread former

TC420 Supreme mm



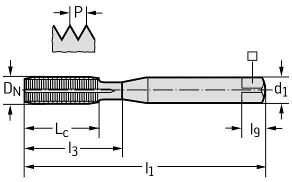
≤ 3,5×D_N | E=1,5-2 | 36HRC 1200–200 N/mm²

– For long-chipping materials

M DIN 13 | 6HX

	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

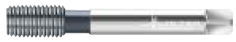


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-CE-	M 2	0,4	45	4	11	2,8	2,1	5	3		
TC420-M2.5-CE-	M 2.5	0,45	50	4	14	2,8	2,1	5	3		
TC420-M3-CE-	M 3	0,5	56	6	18	3,5	2,7	6	4		
TC420-M3.5-CE-	M 3.5	0,6	56	7	20	4	3	6	4		
TC420-M4-CE-	M 4	0,7	63	7	21	4,5	3,4	6	5		
TC420-M5-CE-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-CE-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-CE-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-CE-	M 10	1,5	100	15	39	10	8	11	6		

B5

HSS-E-PM machine thread former

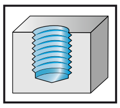
TC420 Supreme mm



≤ 3,5×D_N | E=1,5-2 | 36HRC 1200 –200 N/mm²

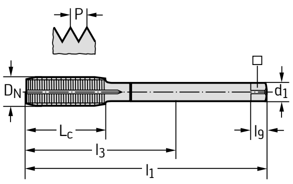
– For long-chipping materials

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-LE-	M 12	1,75	110	16	83	9	7	10	6		
TC420-M14-LE-	M 14	2	110	20	81	11	9	12	6		
TC420-M16-LE-	M 16	2	110	20	68	12	9	12	6		

B 5

HSS-E-PM machine thread former

TC420 Supreme mm

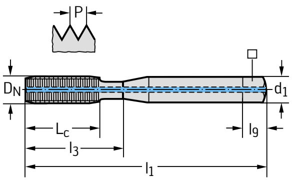
≤ 3,5×D_N | E=1,5-2 | 36HRC 1200 –200 N/mm²

– For long-chipping materials

M DIN 13 | 6HX

	P	M	K	N	S	H	O
WW60AD	●●	●●		●●	●		
WW60BA	●●	●●		●●	●		

DIN 2174

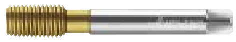


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M5-CF-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-CF-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-CF-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-CF-	M 10	1,5	100	15	39	10	8	11	6		

B5

HSS-E-PM machine thread former

TC420 Supreme mm



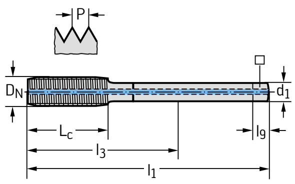
– For long-chipping materials

M DIN 13 | 6HX

≤ 3,5×D_N | E=1,5-2 | 36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●●		●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M12-LF-	M 12	1,75	110	16	83	9	7	10	6	✱
TC420-M16-LF-	M 16	2	110	20	68	12	9	12	6	✱

B 5

HSS-E-PM machine thread former

TC420 Supreme mm

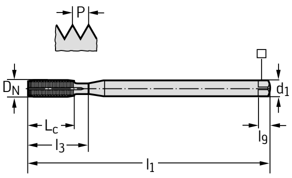
– For long-chipping materials

M DIN 13 | 6HX

≤ 3,5×D_N | C=2-3 | XL l_1 | 36HRC 1200–200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		

~DIN 371 XL



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M3-CH-	M 3	0,5	125	6	18	3,5	2,7	6	4	
TC420-M4-CH-	M 4	0,7	125	7	21	4,5	3,4	6	5	
TC420-M5-CH-	M 5	0,8	140	8	25	6	4,9	8	5	
TC420-M6-CH-	M 6	1	160	10	30	6	4,9	8	5	

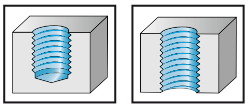
HSS-E-PM machine thread former

TC420 Supreme mm

≤ 3,5×D_N | C=2-3 | XL l_1

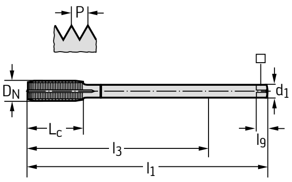
– For long-chipping materials

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		

~DIN 376 XL



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M8-LH-	M 8	1,25	180	13	157	6	4,9	8	5	
TC420-M10-LH-	M 10	1,5	200	15	177	7	5,5	8	6	
TC420-M12-LH-	M 12	1,75	220	16	193	9	7	10	6	
TC420-M16-LH-	M 16	2	220	20	178	12	9	12	6	

B 5

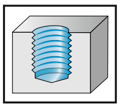
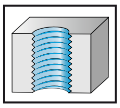
HSS-E-PM machine thread former

TC420 Supreme mm

≤ 3×D_N | C=2-3 | 36HRC 1200–200 N/mm²

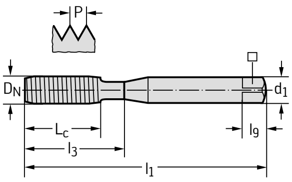
– For long-chipping materials

M DIN 13 | 6GX

	P	M	K	N	S	H	O
WW60AD	●●	●	●	●●	●		
WW60BA	●●	●	●	●●	●		

DIN 2174

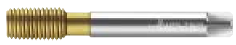


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-E0-	M 2	0,4	45	4	11	2,8	2,1	5	3		
TC420-M2.5-E0-	M 2.5	0,45	50	4	14	2,8	2,1	5	3		
TC420-M3-E0-	M 3	0,5	56	6	18	3,5	2,7	6	4		
TC420-M3.5-E0-	M 3.5	0,6	56	7	20	4	3	6	4		
TC420-M4-E0-	M 4	0,7	63	7	21	4,5	3,4	6	5		
TC420-M5-E0-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-E0-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-E0-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-E0-	M 10	1,5	100	15	39	10	8	11	6		

B5

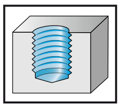
HSS-E-PM machine thread former

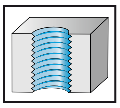
TC420 Supreme mm



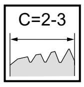
– For long-chipping materials

M DIN 13 | 6GX



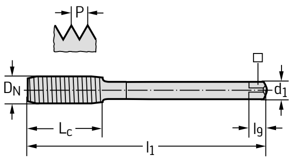


≤ 3×D_N



	P	M	K	N	S	H	O
WW60AD	●●	●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M12-N0-	M 12	1,75	110	16	83	9	7	10	6	
TC420-M14-N0-	M 14	2	110	20	81	11	9	12	6	
TC420-M16-N0-	M 16	2	110	20	68	12	9	12	6	

B 5

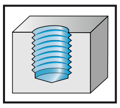
HSS-E-PM machine thread former

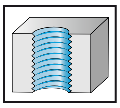
TC420 Supreme mm

≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

– For long-chipping materials

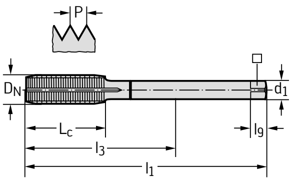
M DIN 13 | 6GX





	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

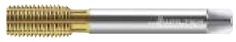


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-E6-	M 2	0,4	45	4	11	2,8	2,1	5	3		
TC420-M2.5-E6-	M 2.5	0,45	50	4	14	2,8	2,1	5	3		
TC420-M3-E6-	M 3	0,5	56	6	18	3,5	2,7	6	4		
TC420-M3.5-E6-	M 3.5	0,6	56	7	20	4	3	6	4		
TC420-M4-E6-	M 4	0,7	63	7	21	4,5	3,4	6	5		
TC420-M5-E6-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-E6-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-E6-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-E6-	M 10	1,5	100	15	39	10	8	11	6		

B 5

HSS-E-PM machine thread former

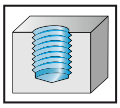
TC420 Supreme mm

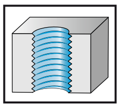


≤ 3,5×D_N | C=2-3 | 36HRC 1200–200 N/mm²

– For long-chipping materials

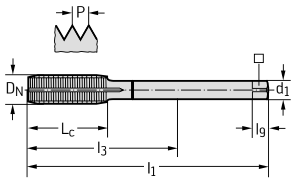
M DIN 13 | 6GX





	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		

DIN 2174



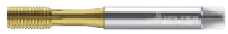
Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M12-N6-	M 12	1,75	110	16	83	9	7	10	6	
TC420-M14-N6-	M 14	2	110	20	81	11	9	12	6	
TC420-M16-N6-	M 16	2	110	20	68	12	9	12	6	

B 5

HSS-E-PM machine thread former

TC420 Supreme

mm



≤ 3,5×D_N

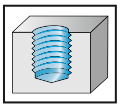
E=1,5-2

36HRC 1200 –200 N/mm²

– For long-chipping materials

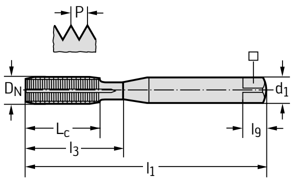
M
DIN 13

6GX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

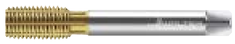


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-EE-	M 2	0,4	45	4	11	2,8	2,1	5	3		
TC420-M2.5-EE-	M 2.5	0,45	50	4	14	2,8	2,1	5	3		
TC420-M3-EE-	M 3	0,5	56	6	18	3,5	2,7	6	4		
TC420-M4-EE-	M 4	0,7	63	7	21	4,5	3,4	6	5		
TC420-M5-EE-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-EE-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-EE-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-EE-	M 10	1,5	100	15	39	10	8	11	6		

B 5

HSS-E-PM machine thread former

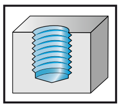
TC420 Supreme mm



– For long-chipping materials

M
DIN 13

6GX



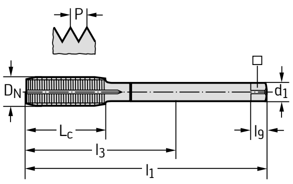
≤ 3,5×D_N

E=1,5-2

36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M12-NE-	M 12	1,75	110	16	83	9	7	10	6	
TC420-M14-NE-	M 14	2	110	20	81	11	9	12	6	
TC420-M16-NE-	M 16	2	110	20	68	12	9	12	6	

B 5

HSS-E-PM machine thread former

TC420 Supreme mm

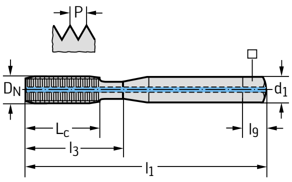
≤ 3,5×D_N | E=1,5-2 | 36HRC 1200 –200 N/mm²

– For long-chipping materials

M DIN 13 | 6GX

	P	M	K	N	S	H	O
WW60AD	●●	●●		●●	●		
WW60BA	●●	●●		●●	●		

DIN 2174

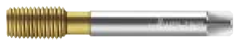


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M5-EF-	M 5	0,8	70	8	25	6	4,9	8	5		
TC420-M6-EF-	M 6	1	80	10	30	6	4,9	8	5		
TC420-M8-EF-	M 8	1,25	90	12	35	8	6,2	9	5		
TC420-M10-EF-	M 10	1,5	100	15	39	10	8	11	6		

B 5

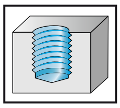
HSS-E-PM machine thread former

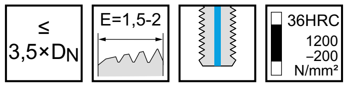
TC420 Supreme mm



– For long-chipping materials

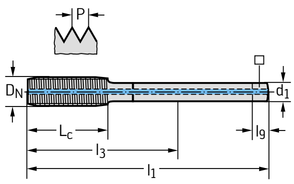
M DIN 13 | 6GX





	P	M	K	N	S	H	O
WW60AD	●●	●●		●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M12-NF-	M 12	1,75	110	16	83	9	7	10	6	
TC420-M16-NF-	M 16	2	110	20	68	12	9	12	6	

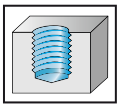
B5

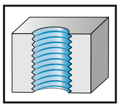
Solid carbide machine thread former

TC470 Supreme mm

– For long-chipping materials

M DIN 13 | 6HX

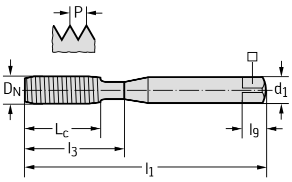




≤ 3×D_N | C=2-3 | 36HRC 1200–200 N/mm²

	P	M	K	N	S	H	O
WG20EL	●●		●	●			

DIN 2174

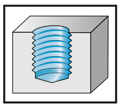
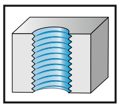


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WG20EL
TC470-M3-C0-	M 3	0,5	56	10	10	3,5	2,7	6	4	
TC470-M4-C0-	M 4	0,7	63	13	13	4,5	3,4	6	5	
TC470-M5-C0-	M 5	0,8	70	16	16	6	4,9	8	5	
TC470-M6-C0-	M 6	1	80	10	30	6	4,9	8	5	
TC470-M8-C0-	M 8	1,25	90	12	35	8	6,2	9	6	
TC470-M10-C0-	M 10	1,5	100	15	39	10	8	11	7	

Solid carbide machine thread former

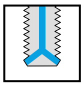
TC470 Supreme mm

– For long-chipping materials

M DIN 13	6HX		

≤ 3,5×D_N

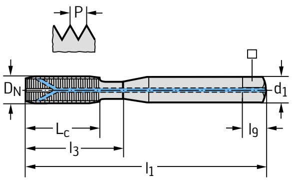
C=2-3



36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WG20EL	●●		●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WG20EL
TC470-M6-C2-	M 6	1	80	10	30	6	4,9	8	5	
TC470-M8-C2-	M 8	1,25	90	12	35	8	6,2	9	6	
TC470-M10-C2-	M 10	1,5	100	15	39	10	8	11	7	

B 5

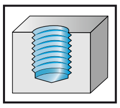
Solid carbide machine thread former

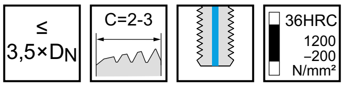
TC470 Supreme mm

– For long-chipping materials

M DIN 13

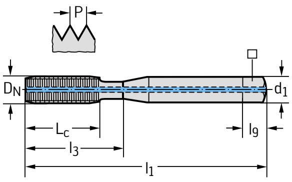
6HX





	P	M	K	N	S	H	O
WG20EL	●●		●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WG20EL
TC470-M5-C5-	M 5	0,8	70	16	16	6	4,9	8	5	
TC470-M6-C5-	M 6	1	80	10	30	6	4,9	8	5	
TC470-M8-C5-	M 8	1,25	90	12	35	8	6,2	9	6	
TC470-M10-C5-	M 10	1,5	100	15	39	10	8	11	7	

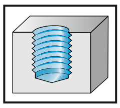
B 5

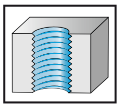
Solid carbide machine thread former

TC470 Supreme mm

– For long-chipping materials

M DIN 13 | 6HX

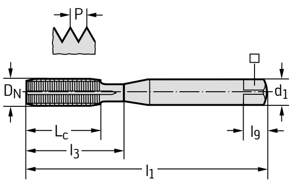




≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WG20EL	●●		●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WG20EL
TC470-M3-C6-	M 3	0,5	56	10	10	3,5	2,7	6	4	
TC470-M4-C6-	M 4	0,7	63	13	13	4,5	3,4	6	5	
TC470-M5-C6-	M 5	0,8	70	16	16	6	4,9	8	5	
TC470-M6-C6-	M 6	1	80	10	30	6	4,9	8	5	
TC470-M8-C6-	M 8	1,25	90	12	35	8	6,2	9	6	
TC470-M10-C6-	M 10	1,5	100	15	39	10	8	11	7	

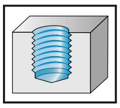
B 5

Solid carbide machine thread former

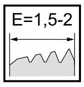
TC470 Supreme mm

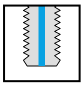
– For long-chipping materials

M DIN 13 | 6HX



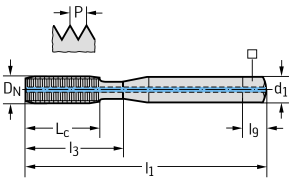
≤ 3,5×D_N





	P	M	K	N	S	H	O
WG20EL	●●		●	●			

DIN 2174

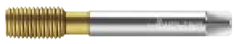


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WG20EL
TC470-M5-CE-	M 5	0,8	70	16	16	6	4,9	8	5	
TC470-M6-CE-	M 6	1	80	10	30	6	4,9	8	5	
TC470-M8-CE-	M 8	1,25	90	12	35	8	6,2	9	6	
TC470-M10-CE-	M 10	1,5	100	15	39	10	8	11	7	

B 5

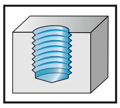
HSS-E-PM machine thread former

TC420 Supreme mm



– For long-chipping materials

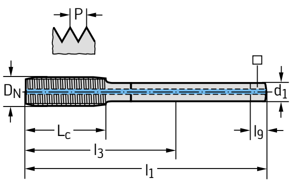
MF DIN 13 | 6HX



≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		

DIN 2174

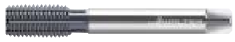


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M8X1-L1-	MF 8x1	1	90	12	67	6	4,9	8	5	
TC420-M10X1-L1-	MF 10x1	1	90	12	67	7	5,5	8	6	
TC420-M12X1-L1-	MF 12x1	1	100	13	73	9	7	10	6	
TC420-M12X1.5-L1-	MF 12x1.5	1,5	100	13	73	9	7	10	6	
TC420-M14X1.5-L1-	MF 14x1.5	1,5	100	15	71	11	9	12	6	

B5

HSS-E-PM machine thread former

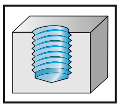
TC420 Supreme mm

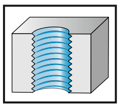


≤ 3,5×D_N | C=2-3 | 36HRC 1200–200 N/mm²

– For long-chipping materials

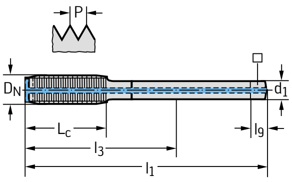
MF DIN 13 | 6HX





	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

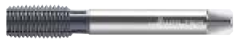


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M8X1-L2-	MF 8x1	1	90	12	67	6	4,9	8	5		
TC420-M10X1-L2-	MF 10x1	1	90	12	67	7	5,5	8	6		
TC420-M12X1-L2-	MF 12x1	1	100	13	73	9	7	10	6		
TC420-M12X1.5-L2-	MF 12x1.5	1,5	100	13	73	9	7	10	6		
TC420-M14X1.5-L2-	MF 14x1.5	1,5	100	15	71	11	9	12	6		
TC420-M16X1.5-L2-	MF 16x1.5	1,5	100	15	58	12	9	12	6		

B5

HSS-E-PM machine thread former

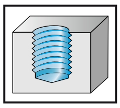
TC420 Supreme mm

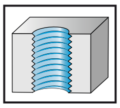


≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

– For long-chipping materials

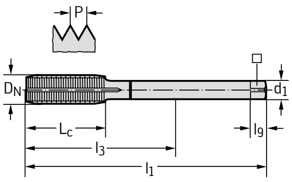
MF DIN 13 | 6HX





	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

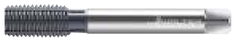


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M8X1-L6-	MF 8x1	1	90	12	67	6	4,9	8	5		
TC420-M10X1-L6-	MF 10x1	1	90	12	67	7	5,5	8	6		
TC420-M12X1-L6-	MF 12x1	1	100	13	73	9	7	10	6		
TC420-M12X1.5-L6-	MF 12x1.5	1,5	100	13	73	9	7	10	6		
TC420-M14X1-L6-	MF 14x1	1	100	15	71	11	9	12	6		
TC420-M14X1.25-L6-	MF 14x1.25	1,25	100	15	71	11	9	12	6		
TC420-M14X1.5-L6-	MF 14x1.5	1,5	100	15	71	11	9	12	6		
TC420-M16X1.5-L6-	MF 16x1.5	1,5	100	15	58	12	9	12	6		

B 5

HSS-E-PM machine thread former

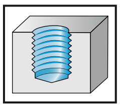
TC420 Supreme mm

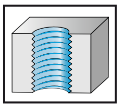


≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

– For long-chipping materials

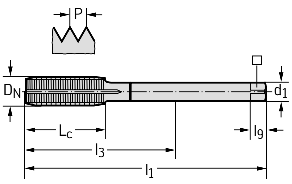
MF DIN 13 | 6GX





	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174



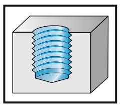
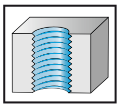
Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M8X1-N6-	MF 8x1	1	90	12	67	6	4,9	8	5		
TC420-M10X1-N6-	MF 10x1	1	90	12	67	7	5,5	8	6		
TC420-M12X1-N6-	MF 12x1	1	100	13	73	9	7	10	6		
TC420-M12X1.5-N6-	MF 12x1.5	1,5	100	13	73	9	7	10	6		
TC420-M14X1.5-N6-	MF 14x1.5	1,5	100	15	71	11	9	12	6		
TC420-M16X1.5-N6-	MF 16x1.5	1,5	100	15	58	12	9	12	6		

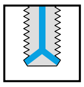
B5

Solid carbide machine thread former

TC470 Supreme mm

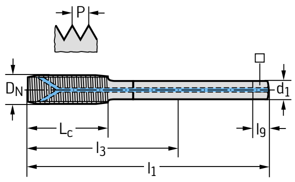
– For long-chipping materials

MF DIN 13	6HX		

≤ 3,5×D_N	C=2-3		36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WG20EL	●●		●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WG20EL
TC470-M12X1.5-L2-	MF 12x1.5	1,5	100	13	73	9	7	10	8	☻
TC470-M14X1.5-L2-	MF 14x1.5	1,5	100	15	58	11	9	12	8	☻
TC470-M16X1.5-L2-	MF 16x1.5	1,5	100	15	58	12	9	12	8	☻

B5

Solid carbide machine thread former
TC470 Supreme mm

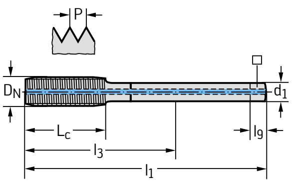
– For long-chipping materials

MF DIN 13 | 6HX

≤ 3,5×D_N | C=2-3 | 36HRC 1200–200 N/mm²

	P	M	K	N	S	H	O
WG20EL	●●		●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WG20EL
TC470-M10X1-L5-	MF 10x1	1	90	14	67	7	5,5	8	7	
TC470-M12X1.5-L5-	MF 12x1.5	1,5	100	13	73	9	7	10	8	
TC470-M14X1.5-L5-	MF 14x1.5	1,5	100	15	58	11	9	12	8	
TC470-M16X1.5-L5-	MF 16x1.5	1,5	100	15	58	12	9	12	8	

B 5

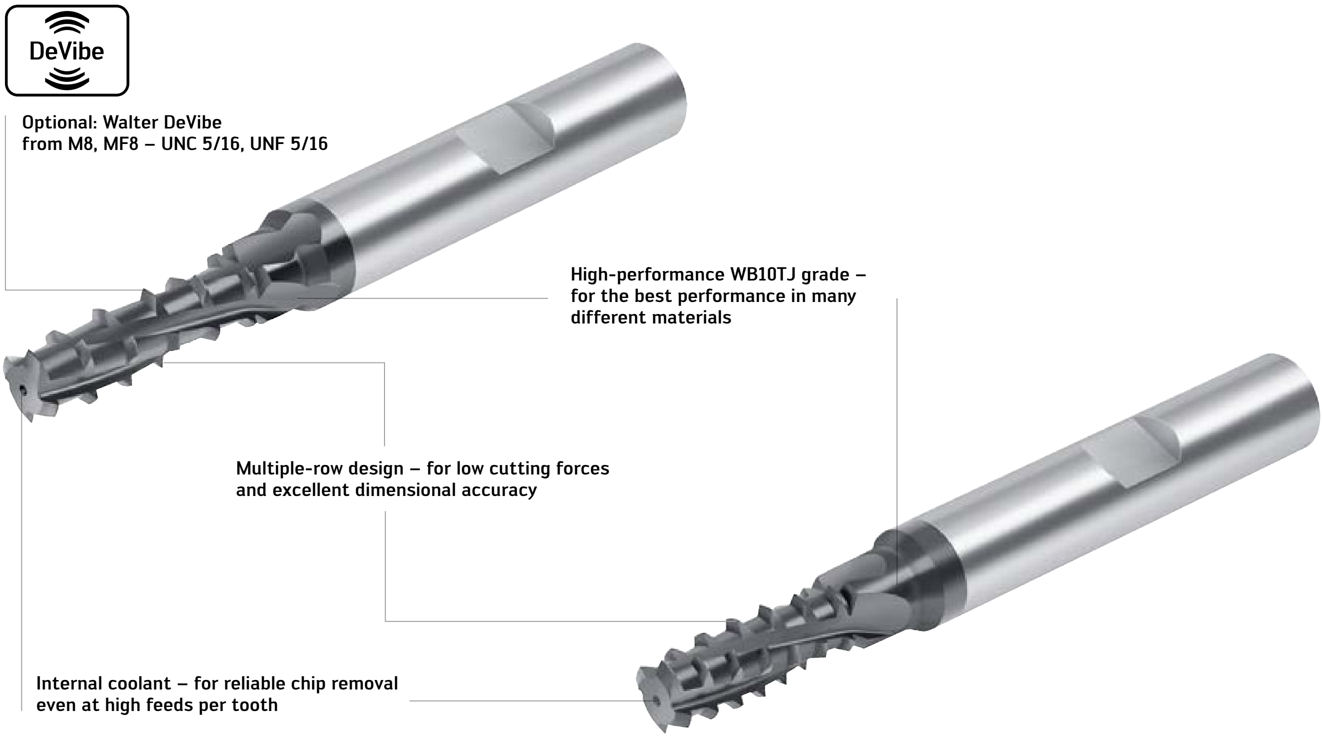
DeVibe and multiple-row design – less vibration and reduced cutting pressure.

THE TOOL

- Multiple-row thread milling cutter for universal application
- Walter DeVibe technology for vibration damping
- Internal coolant for reliable chip removal even at high feeds per tooth
- M4–M20 (DeVibe from M8–M20)
  M4×0.5–M20×1.5 (DeVibe from M8×1–M20×1.5)
  UNC8–UNC¾ (DeVibe from UNC5/16–UNC¾)
  UNF10–UNF¾ (DeVibe from UNF5/16–UNF¾)

THE APPLICATION

- ISO materials P, M, K, N and S up to 48 HRC
- Blind-hole and through-hole threads
- Thread depths of 2 and 2.5 × D_N
- Ideal for strict requirements on process reliability (e.g. for expensive components)



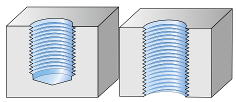
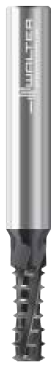
TC620 Supreme 2,5 × D_N Fig.: TC620E-W_TJ_P_02

TC620 Supreme 2 × D_N Fig.: TC620D-W_TJ_P_02

BENEFITS FOR YOU

- Low cost per thread due to fast machining time and high tool life quantity
- High level of process reliability and easy handling due to extremely infrequent radius corrections
- Walter DeVibe technology: Reliable machining, even in extreme conditions
- Universal application in many different materials

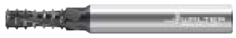
Thread milling

Machining		
Thread depth	2 x D_N	2,5 x D_N
	Selection	Selection
		
Designation	**TC620 Supreme**	**TC620 Supreme**
Thread type		
M	✔	✔
MF	✔	✔
UNC / UNF / UN-8	✔	✔
G / Rc / Rp		
MJ / UNJC / UNJF		
NPT / NPTF		
Pg / BSW / Tr		
Thread insert	✔	✔
Tolerance		
Coolant supply	Axial	Axial
Chamfer form		
Coating/grade	WB10TJ	WB10TJ
Cutting tool material	Solid carbide	Solid carbide
P Steel	●●	●●
M Stainless steel	●●	●●
K Cast iron	●●	●●
N NF metals	●●	●●
S Materials with difficult cutting properties	●●	●●
H Hard materials		
O Other	●	●
Page in catalogue	**170**	**171**
QR code		
www.walter-tools.com/woc/	TC620	TC620

B 6

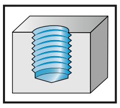
Multiple-row thread milling cutter

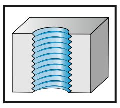
TC620 Supreme mm

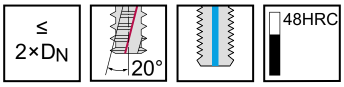


– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

M-MF
DIN 13

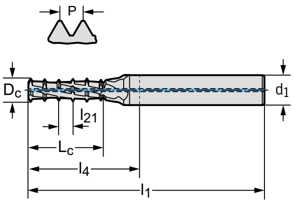






	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool



DIN 6535 HA

Designation	D_N	P mm	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-M4-A1D-	M 4	0,7	3,1	1,4	8,4	21	57	6	3	
TC620-M5-A1D-	M 5	0,8	3,9	1,6	10,4	21	57	6	3	
TC620-M6-A1D-	M 6	1	4,7	2	12	21	57	6	4	
TC620-M8-A1D-	M 8	1,25	6,3	2,5	16,3	27	63	8	4	
TC620-M10-A1D-	M 10	1,5	7,9	3	21	27	63	8	4	
TC620-M12-A1D-	M 12	1,75	9,6	3,5	24,5	32	72	10	4	
TC620-M14-A1D-	M 14	2	11,2	4	28	38	83	12	4	
TC620-M16-A1D-	M 16	2	13,1	4	32	44	92	16	5	
TC620-M20-A1D-	M 20	2,5	16,4	5	40	58	106	18	5	

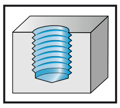
B 6

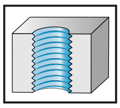
Multiple-row thread milling cutter

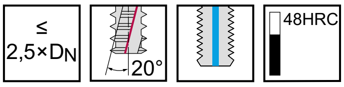
TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

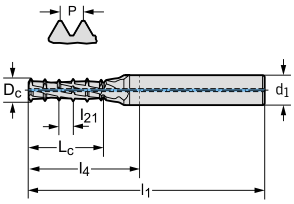
M-MF
DIN 13







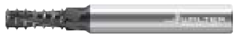
	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool	Designation	D_N	P mm	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
	TC620-M4-A1E-	M 4	0,7	3,1	2,1	10,5	21	57	6	3	
	TC620-M5-A1E-	M 5	0,8	3,9	2,4	12,8	21	57	6	3	
	TC620-M6-A1E-	M 6	1	4,7	3	15	21	57	6	4	
	TC620-M8-A1E-	M 8	1,25	6,3	3,75	20	27	63	8	4	
	TC620-M10-A1E-	M 10	1,5	7,9	4,5	27	36	72	8	4	
	TC620-M12-A1E-	M 12	1,75	9,6	5,25	31,5	43	83	10	4	
DIN 6535 HA	TC620-M14-A1E-	M 14	2	11,2	6	36	55	100	12	4	
	TC620-M16-A1E-	M 16	2	13,1	6	42	58	106	16	5	
	TC620-M20-A1E-	M 20	2,5	16,4	7,5	52,5	68	116	18	5	

B 6

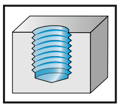
Multiple-row thread milling cutter

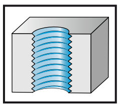
TC620 Supreme mm

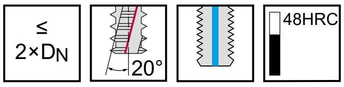


– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

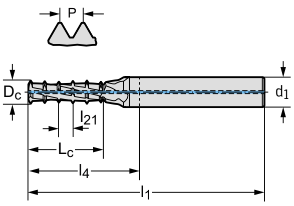
UNC
ASME B1.1







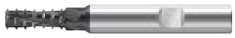
	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool	Designation	D_N	Threads per inch	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
	TC620-UNC8-A1D-	UNC #8-32	32	3,1	1,59	8,7	21	57	6	3	
	TC620-UNC10-A1D-	UNC #10-24	24	3,5	2,12	10,6	21	57	6	3	
	TC620-UNC1/4-A1D-	UNC 1/4-20	20	4,7	2,54	12,7	21	57	6	3	
	TC620-UNC5/16-A1D-	UNC 5/16-18	18	6,1	2,82	16,9	27	63	8	4	
DIN 6535 HA	TC620-UNC3/8-A1D-	UNC 3/8-16	16	7,4	3,18	19,1	27	63	8	4	
	TC620-UNC1/2-A1D-	UNC 1/2-13	13	10,1	3,91	25,4	38	83	12	4	
	TC620-UNC5/8-A1D-	UNC 5/8-11	11	12,7	4,62	32,3	44	92	16	4	
	TC620-UNC3/4-A1D-	UNC 3/4-10	10	15,5	5,08	38,1	56	104	16	5	
	TC620-UNC7/8-A1D-	UNC 7/8-9	9	18	5,64	45,2	67	115	18	5	

B 6

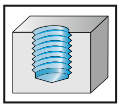
Multiple-row thread milling cutter

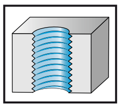
TC620 Supreme mm

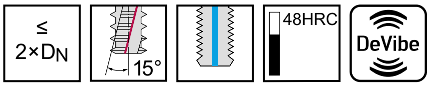


– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

M-MF
DIN 13

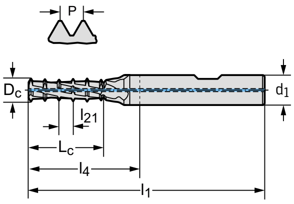






	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool



DIN 6535 HB

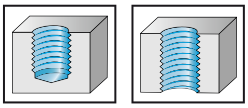
Designation	D_N	P mm	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-M8-W5D-	M 8	1,25	6,3	2,5	16,3	27	63	8	4	
TC620-M10-W5D-	M 10	1,5	7,9	3	21	32	68	8	4	
TC620-M12-W5D-	M 12	1,75	9,6	3,5	24,5	38	78	10	4	
TC620-M14-W5D-	M 14	2	11,2	4	28	45	90	12	4	
TC620-M16-W5D-	M 16	2	13,1	4	32	44	92	16	5	
TC620-M18-W5D-	M 18	2,5	14,5	5	37,5	52	100	16	5	
TC620-M20-W5D-	M 20	2,5	16,4	5	40	57	105	18	5	

B6

Multiple-row thread milling cutter
TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

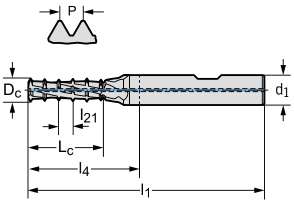
M-MF
DIN 13



≤ 2,5×D_N | 15° | 48HRC | DeVibe

	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool



DIN 6535 HB

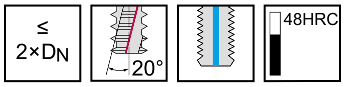
Designation	D_N	P mm	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-M8-W5E-	M 8	1,25	6,3	3,75	20	32	68	8	4	
TC620-M10-W5E-	M 10	1,5	7,9	4,5	27	39	75	8	4	
TC620-M12-W5E-	M 12	1,75	9,6	5,25	31,5	45	85	10	4	
TC620-M14-W5E-	M 14	2	11,2	6	36	55	100	12	4	
TC620-M16-W5E-	M 16	2	13,1	6	42	58	106	16	5	
TC620-M18-W5E-	M 18	2,5	14,5	7,5	45	60	108	16	5	
TC620-M20-W5E-	M 20	2,5	16,4	7,5	52,5	67	115	18	5	

B 6

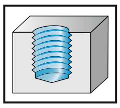
Multiple-row thread milling cutter

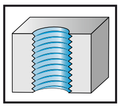
TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth



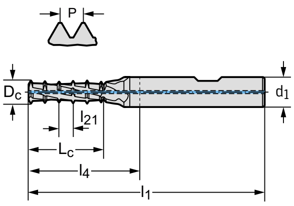
MF
DIN 13





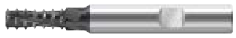
	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool

Tool	Designation	D_N	P mm	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
	TC620-M4X0.5-W1D-	MF 4X0.5	0,5	3,2	1	8	21	57	6	4	●
DIN 6535 HB	TC620-M6X0.75-W1D-	MF 6X0.75	0,75	4,9	1,5	12	21	57	6	4	●

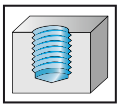
Multiple-row thread milling cutter

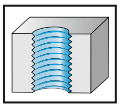
TC620 Supreme mm

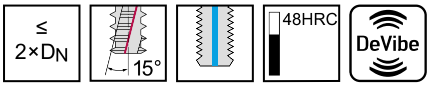


– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

MF
DIN 13

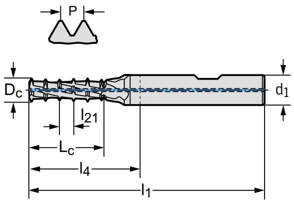






	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool



DIN 6535 HB

Designation	D_N	P mm	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-M8X1-W5D-	MF 8X1	1	6,5	2	16	27	63	8	4	
TC620-M10X1.25W5D-	M10X1.25	1,25	8,2	2,5	20	32	72	10	5	
TC620-M10X1-W5D-	MF 10X1	1	8,4	2	20	32	72	10	5	
TC620-M12X1.5-W5D-	MF 12X1.5	1,5	9,8	3	24	38	78	10	5	
TC620-M12X1.25W5D-	MF 12X1.25	1,25	10	2,5	25	38	78	10	5	
TC620-M12X1-W5D-	MF 12X1	1	10,3	2	24	38	83	12	6	
TC620-M14X1.5-W5D-	MF 14X1.5	1,5	11,7	3	28,5	44	89	12	5	
TC620-M16X1.5-W5D-	MF 16X1.5	1,5	13,6	3	33	44	92	16	6	
TC620-M18X1.5-W5D-	MF 18X1.5	1,5	15,5	3	36	52	100	16	6	
TC620-M20X1.5-W5D-	MF 20X1.5	1,5	17,3	3	40,5	57	105	18	7	

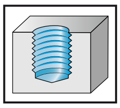
B 6

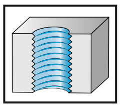
Multiple-row thread milling cutter

TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

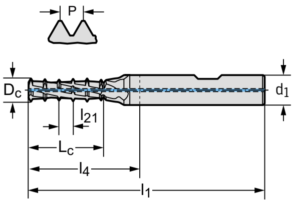
UNC
ASME B1.1





≤ 2×D_N | 15° | 48HRC | DeVibe

	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool	Designation	D_N	Threads per inch	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
	TC620-UNC5/16-W5D-	UNC 5/16-18	18	6,1	2,82	16,9	27	63	8	4	
	TC620-UNC3/8-W5D-	UNC 3/8-16	16	7,4	3,18	19,1	32	68	8	4	
	TC620-UNC1/2-W5D-	UNC 1/2-13	13	10,1	3,91	25,4	38	83	12	4	
	TC620-UNC5/8-W5D-	UNC 5/8-11	11	12,7	4,62	32,3	52	100	16	4	
DIN 6535 HB	TC620-UNC3/4-W5D-	UNC 3/4-10	10	15,5	5,08	38,1	52	100	16	5	

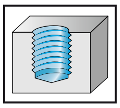
B 6

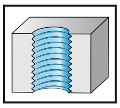
Multiple-row thread milling cutter

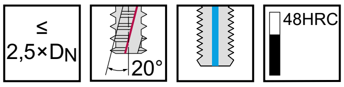
TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

UNC
ASME B1.1

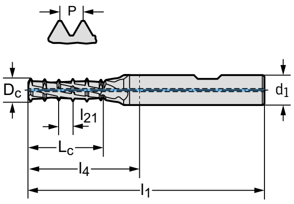






	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool



DIN 6535 HB

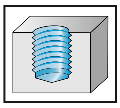
Designation	D_N	Threads per inch	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-UNC8-W1E-	UNC #8-32	32	3,1	2,38	10,3	21	57	6	3	●
TC620-UNC10-W1E-	UNC #10-24	24	3,5	3,18	12,7	21	57	6	3	●
TC620-UNC1/4-W1E-	UNC 1/4-20	20	4,7	3,81	16,5	29	65	6	3	●

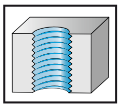
B6

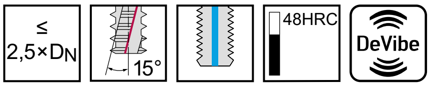
Multiple-row thread milling cutter
TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

UNC
ASME B1.1

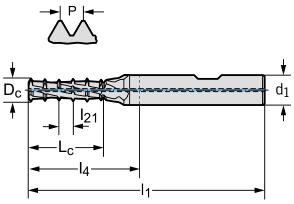






	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool



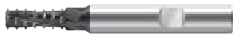
DIN 6535 HB

Designation	D_N	Threads per inch	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-UNC5/16-W5E-	UNC 5/16-18	18	6,1	4,23	21,2	34	70	8	4	
TC620-UNC3/8-W5E-	UNC 3/8-16	16	7,4	4,76	23,8	36	72	8	4	
TC620-UNC1/2-W5E-	UNC 1/2-13	13	10,1	5,86	31,3	47	92	12	4	
TC620-UNC5/8-W5E-	UNC 5/8-11	11	12,7	6,93	41,6	60	108	16	4	
TC620-UNC3/4-W5E-	UNC 3/4-10	10	15,5	7,62	48,3	62	110	16	5	

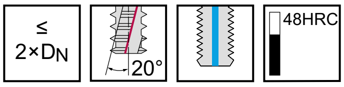
B 6

Multiple-row thread milling cutter

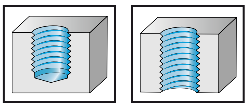
TC620 Supreme mm



– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

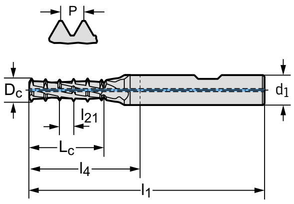


UNF
ASME B1.1



	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool



DIN 6535 HB

Designation	D_N	Threads per inch	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-UNF10-W1D-	UNF #10-32	32	3,7	1,59	10,3	21	57	6	3	
TC620-UNF1/4-W1D-	UNF 1/4-28	28	5,1	1,81	12,7	21	57	6	4	

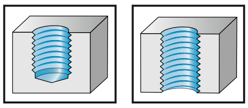
B 6

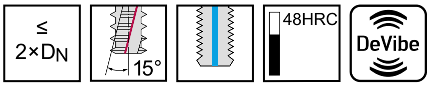
Multiple-row thread milling cutter

TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

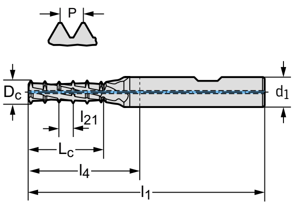
UNF
ASME B1.1





	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool



DIN 6535 HB

Designation	D_N	Threads per inch	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-UNF5/16-W5D-	UNF 5/16-24	24	6,4	2,12	15,9	27	63	8	4	
TC620-UNF3/8-W5D-	UNF 3/8-24	24	7,9	2,12	19,1	31	67	8	5	
TC620-UNF7/16-W5D-	UNF 7/16-20	20	9,2	2,54	22,9	32	72	10	5	
TC620-UNF1/2-W5D-	UNF 1/2-20	20	10,7	2,54	25,4	38	83	12	5	
TC620-UNF9/16-W5D-	UNF 9/16-18	18	12	2,82	29,6	45	90	12	5	
TC620-UNF5/8-W5D-	UNF 5/8-18	18	13,5	2,82	32,5	48	96	16	6	
TC620-UNF3/4-W5D-	UNF 3/4-16	16	16,4	3,18	38,1	56	104	18	6	

B 6

C – Milling

Specialists in aluminium – the new Supreme and Advance solid carbide milling cutters.

THE TOOL

- Universal high-performance milling cutter and universal milling cutter for ISO N machining
- MC267 Advance: z2 and z3, dia. 1–20 mm with and without neck; with and without radius; coated and uncoated; centre cut
- MD266 Supreme: z2 and z3, dia. 2–25 mm with neck; internal coolant from dia. 6 mm; uncoated; centre cut

THE APPLICATION

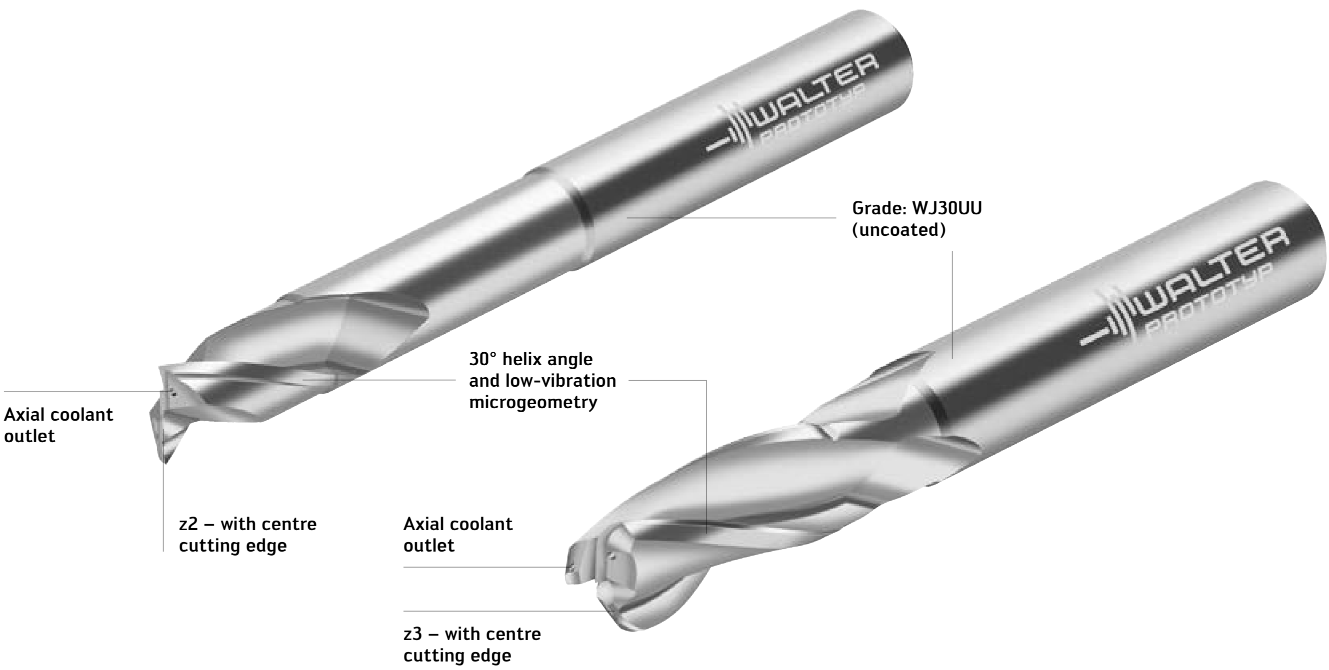
- Developed for the aerospace industry
- Can be used universally for roughing, semi-finishing and finishing
- Suitable for full slotting and ramping
- Ideal for wrought and cast aluminium alloys up to 9% silicon
- Ideal for ISO N materials such as copper, magnesium, brass

MC267 Advance

- Machining of residual material with tight radii in the aerospace industry
- Universal application in all areas of industry

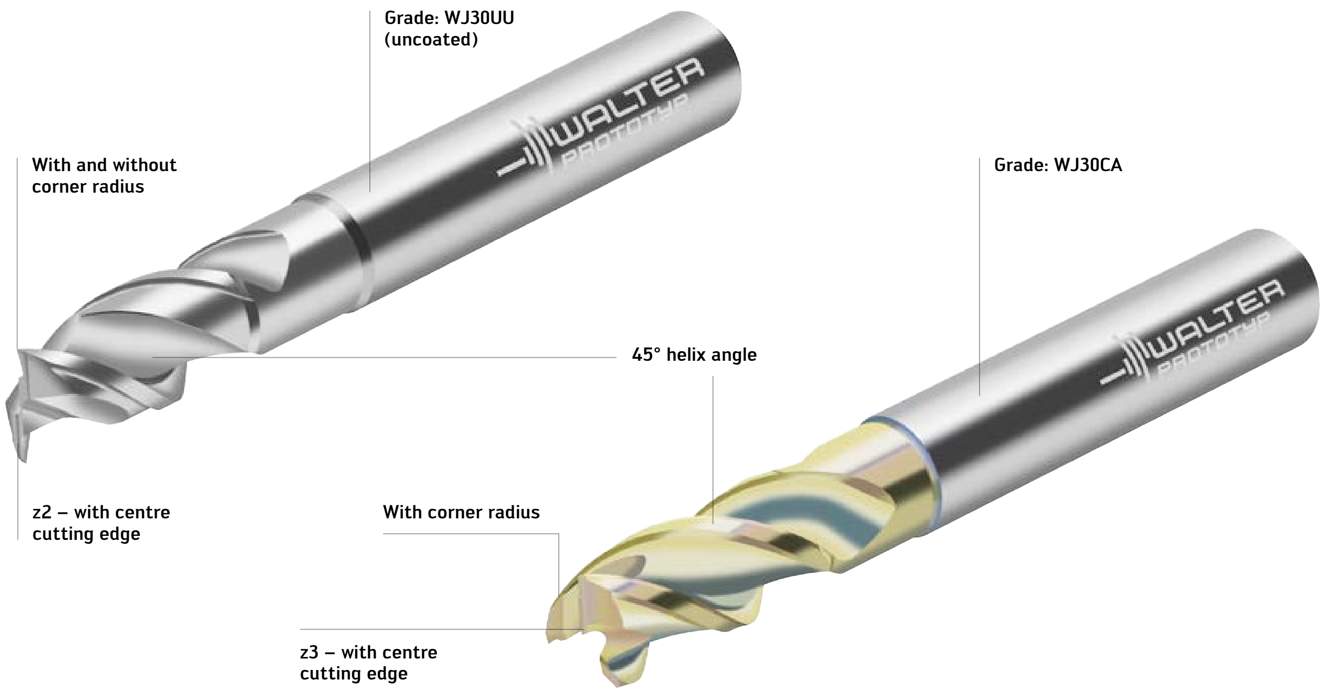
MD266 Supreme

- Best performance when machining structural components in the aerospace industry and in general mechanical engineering



Walter Xpress

MD266 Supreme solid carbide milling cutter — Fig.: WJ30UU



Walter Xpress

MC267 Advance solid carbide milling cutter

Fig.: MC267 Advance WJ30UU

MC267 Advance solid carbide milling cutter

Fig.: MC267 Advance WJ30CA

BENEFITS FOR YOU

MC267 Advance

- Maximum process reliability
- Can be used universally for roughing, semi-finishing and finishing

MD266 Supreme

- Can be used universally, especially for roughing
- Highest machining rates and process reliability
- Low-vibration thanks to special geometry

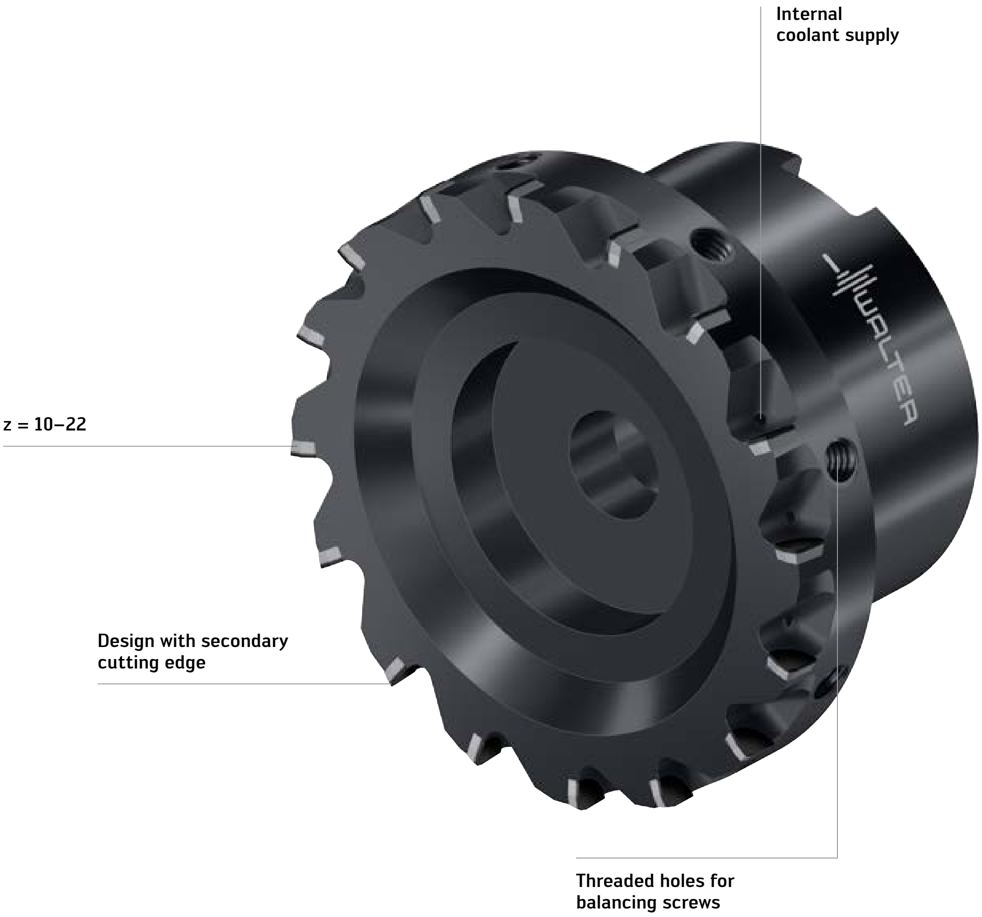
Reduced cutting forces – less vibration.

THE TOOL

- Face milling cutters, shoulder milling cutters and routing cutters with brazed PCD cutting edges dia. 4–125 mm
- MP060 face milling cutter with maximum number of teeth; dia. 40–125 mm
- MP160 shoulder milling cutter with cylindrical shank and ScrewFit adaption; dia. 16–40 mm
- MP260 routing cutter with cylindrical shank and ScrewFit adaption; dia. 4–20 mm

THE APPLICATION

- Face, shoulder and slot milling
- Milling operations with the highest surface quality
- Non-ferrous metals (e.g. aluminium, Al-Si alloys, magnesium and magnesium-based alloys), as well as plastics and fibre-reinforced plastics
- For applications with emulsion or with MQL
- Areas of use: Automotive industry, aerospace industry, general mechanical engineering



MP060 PCD milling cutter

Fig.: MP060 WDN20

z = 4
(cylindrical shank z = 3–4)

Internal
coolant supply

MP160 and MP260 PCD milling cutters Fig.: MP160 WDN20

z = 2–3

Centre cutting edge

Internal
coolant supply

MP160 and MP260 PCD milling cutters Fig.: MP260 WDN

BENEFITS FOR YOU

- Cost-effective, precise machining
- Tool life increased by 20 to 200 times (compared to conventional solid carbide tools on the market)
- Reduced cutting forces and minimal vibration tendency due to optimised geometries
- Shortest machining times due to high cutting speeds and a high number of teeth
- Possibility of reconditioning and/or reconfiguration

Walter Xpress – Tool overview

THE GRADE
- Uncoated, can be used almost universally

THE APPLICATION
- Developed for the aerospace industry
- Ideal for wrought and cast aluminium alloys up to 9% silicon
- Specialist for almost all applications
- Can be used universally in all industries

MD266 Supreme
- With centre cutting edge
- For roughing and finishing
- For best performance
- z2–3; Ø 5-25 mm

MC267 Advance
- Universal tool, problem-solver
- With centre cutting edge
- For roughing and finishing
- z2–4; Ø 5–25 mm

MC166 Advance
- For finishing, dynamic milling
- Long cutting edge (up to 5 × D_c)
- Thin walls
- z3; Ø 6–25 mm

HPC Al40
- With centre cutting edge
- For semi-finishing, finishing
- Extremely quiet operation
- z4; Ø 5–25 mm

HPC Al30 Conical
- Conical spherical cutter
- With full radius
- For five-axis contour milling
- z2

Walter Xpress

MB265 Supreme
- Roughing specialist
- With centre cutting edge
- For best performance
- z3; Ø 6–25 mm

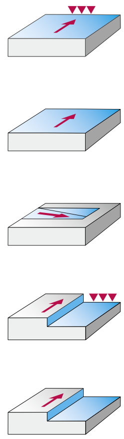
MB464
- Spherical cutter
- With full radius
- For contour finishing
- z2; Ø 6–25 mm

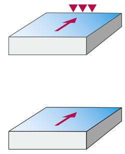
HPC AI38
- With centre cutting edge
- For finishing, dynamic milling
- For thin walls
- z4; Ø 5–25 mm

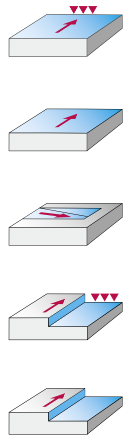
HPC AI30
- With centre cutting edge
- For finishing larger areas and thin pocket bases
- z6–8; Ø 12–25 mm

BENEFITS FOR YOU
- Various cooling options, internal and external, depending on the tool range
- Various lengths, radii and chamfers for your exact machining task
- Maximum productivity and cost-efficiency
- Short delivery time of 2–3 weeks
- Standardised geometries with reliably good performance

Solid carbide, ceramic and PCD milling tools







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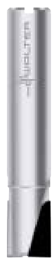
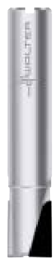
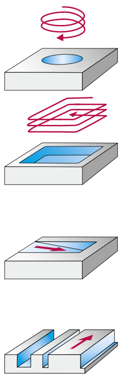
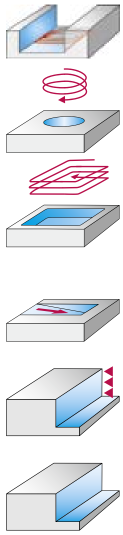
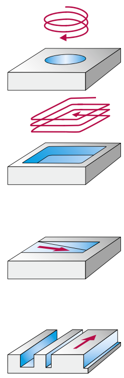
										
Designation	MP260		MP260		MP060		MP160		MP260	
	[mm]	*[inch]*	[mm]	*[inch]*	[mm]	*[inch]*	[mm]	*[inch]*	[mm]	*[inch]*
Diameter range	4–6	—	8–12	—	40,6–125,6	—	16–40	—	16–20	—
Number of teeth	2		2		10–22		3–4		2–3	
Corner radius	0,1–0,2		0,2		—		0,2		0,2	
Standard										
Shank	Cylindrical shank		Cylindrical shank		Parallel bore DIN 138 transverse keyway		ScrewFit Cylindrical shank		ScrewFit Cylindrical shank	
P Steel										
M Stainless steel										
K Cast iron										
N NF metals	●●		●●		●●		●●		●●	
S Materials with difficult cutting properties										
H Hard materials										
O Other	●		●		●		●		●	
Page in catalogue	200		200		196		197		199	
QR code										
www.walter-tools.com/woc/	MP260		MP260		MP060		MP160		MP260	

C1



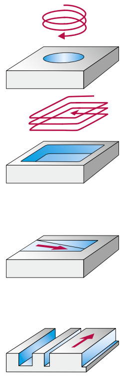




	Selection		Selection		Selection		Selection		Selection		Selection		Selection	
	Protostar®		MB265 Supreme		MD266 Supreme		Protostar®		MC166 Advance		Protostar®		MC267 Advance	
	[mm]	*[inch]*	[mm]	*[inch]*	[mm]	*[inch]*	[mm]	*[inch]*	[mm]	*[inch]*	[mm]	*[inch]*	[mm]	*[inch]*
	2–20	—	16–25	—	2–25	—	2–16	—	12–20	—	6–25	—	1–20	—
	2		3		2–3		1–2		3		3		2–3	
	—		2–4		0,2–4		1–8		1–5		—		0,2–4	
	PROTOTYP TOOLS STANDARD L		PROTOTYP TOOLS STANDARD XL		DIN 6527 L P STANDARD L P STANDARD XL		DIN 6527 L PROTOTYP TOOLS STANDARD L		PROTOTYP TOOLS STANDARD L PROTOTYP TOOLS STANDARD XL		PROTOTYP TOOLS STANDARD L DIN 6527 L		DIN 6527 L	
	DIN 6535 HA		DIN 6535 HA		DIN 6535 HA		DIN 6535 HA		DIN 6535 HA		DIN 6535 HA DIN 6535 HB		DIN 6535 HA	
	●●		●●		●●		●●		●●		●●		●●	
	201		216		208		202		217		212		204	
	protostar		MB265		MD266				MC166		protostar		MC267	

C1

Solid carbide, ceramic and PCD milling tools



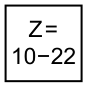
Selection

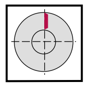
Designation	Protostar®	
	[mm]	*[inch]*
Diameter range	6–25	—
Number of teeth	2–3	
Corner radius	—	
Standard	PROTOTYP TOOLS STANDARD L PROTOTYP TOOLS STANDARD	
Shank	DIN 6535 HA ConeFit	
P **Steel**		
M **Stainless steel**		
K **Cast iron**		
N **NF metals**	●●	
S **Materials with difficult cutting properties**		
H **Hard materials**		
O **Other**		
Page in catalogue	203	
QR code		
www.walter-tools.com/woc/	protostar	

C1

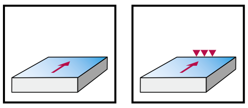
PCD face milling cutter

MP060 mm

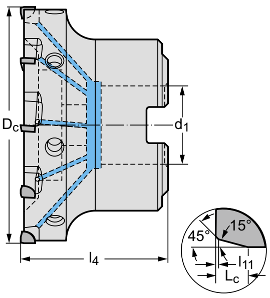




– κ = 75° to L_c = 1.1 mm



	P	M	K	N	S	H	O
WDN20				●●			●

Tool	Designation	D_c mm	l_{11} mm	L_c mm	l_4 mm	d_1 mm	Z	kg	WDN20
	MP060-040B10P	40	0,1	1,1	40	16	10	0,3	●
	MP060-050B12P	50	0,1	1,1	40	22	12	0,4	●
	MP060-063B14P	63	0,1	1,1	40	22	14	0,5	●
	MP060-080B16P	80	0,1	1,1	50	27	16	1	●
	MP060-100B18P	100	0,1	1,1	50	32	18	1,4	●
	MP060-125B22P	125	0,1	1,1	63	40	22	3,2	●

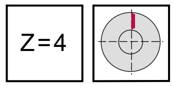
Parallel bore
DIN 138 transverse keyway

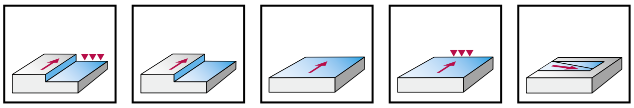
Pre-balanced to G6.3 where n = 16,000 rpm

C1

PCD shoulder milling cutter

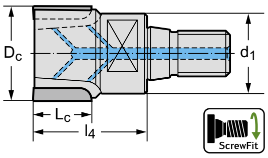
MP160 mm

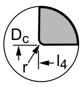




	P	M	K	N	S	H	O
WDN20				●●			●

Tool





ScrewFit

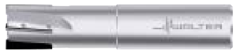
Designation	D_c mm	R mm	L_c mm	l_4 mm	d_1	Z	kg	WDN20
MP160-020T04P	20	0,2	18	30	T18	4	0,05	
MP160-025T04P	25	0,2	20	35	T22	4	0,11	
MP160-032T04P	32	0,2	20	40	T28	4	0,39	
MP160-040T04P	40	0,2	20	40	T36	4	0,37	

Pre-balanced to G6.3 where n = 16,000 rpm

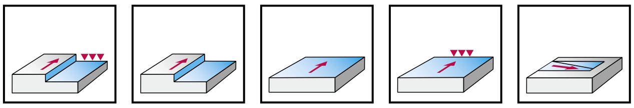
C1

PCD shoulder milling cutter

MP160 mm

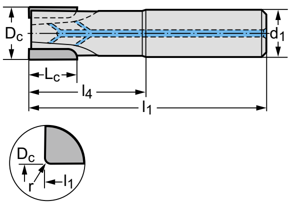


Z= 3–4



	P	M	K	N	S	H	O
WDN20				●●			●

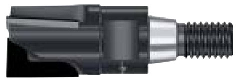
Tool	Designation	D_c mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1	Z	kg	WDN20
	MP160-016A03P	16	0,2	20	90	41	16	3	0,22	
	MP160-020A04P	20	0,2	20	100	49	20	4	0,39	
	MP160-025A04P	25	0,2	20	100	43	25	4	0,62	



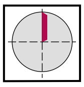
Cylindrical shank

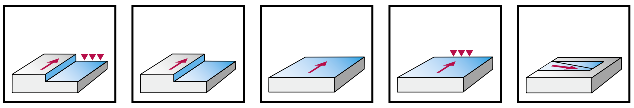
PCD routing cutter

MP260 mm



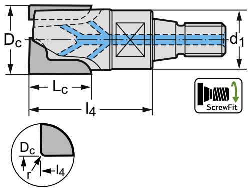
Z= 2–3





	P	M	K	N	S	H	O
WDN20				●●			●

Tool



ScrewFit

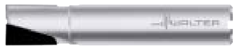
Designation	D_c mm	R mm	L_c mm	l_4 mm	d_1	Z	kg	WDN20
MP260-016T02P	16	0,2	15	30	T14	2	0,04	
MP260-016T03P	16	0,2	15	30	T14	3	0,03	
MP260-020T03P	20	0,2	18	30	T18	3	0,05	

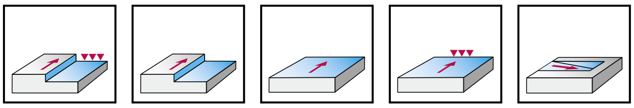
Pre-balanced to G6.3 where n = 16,000 rpm

C1

PCD routing cutter

MP260 mm

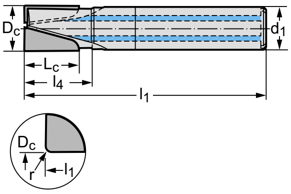




Z= 2–3

	P	M	K	N	S	H	O
WDN20				●●			●

Tool



Cylindrical shank

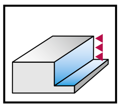
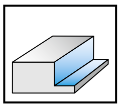
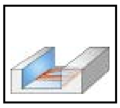
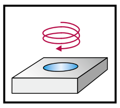
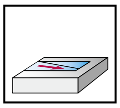
Designation	D_c mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1	Z	kg	WDN20
MP260-004A02P	4	0,1	6	52	15	4	2	0,02	
MP260-005A02P	5	0,1	8	55	18	5	2	0,02	
MP260-006A02P	6	0,2	8	60	23	6	2	0,02	
MP260-008A02P	8	0,2	10	70	33	8	2	0,04	
MP260-010A02P	10	0,2	12	80	39	10	2	0,08	
MP260-012A02P	12	0,2	16	80	34	12	2	0,11	
MP260-016A02P	16	0,2	20	90	41	16	2	0,22	
MP260-016A03P	16	0,2	20	90	41	16	3	0,22	
MP260-020A03P	20	0,2	20	100	49	20	3	0,4	

C1

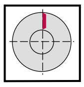
Solid carbide shoulder milling cutter

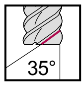
MC166 Advance mm

– Long reach

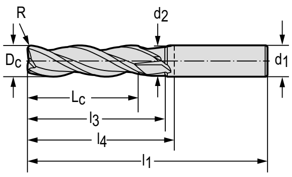
Z=3





	P	M	K	N	S	H	O
WJ30UU				●●			

Tool



DIN 6535 HA

Designation	D_c mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 mm	Z	WJ30UU
MC166-12.0A3L100D-	12	1	42	52	11,4	100	55	12	3	☻
MC166-12.0A3L200D-	12	2	42	52	11,4	100	55	12	3	☻
MC166-12.0A3L300D-	12	3	42	52	11,4	100	55	12	3	☻
MC166-12.0A3L400D-	12	4	42	52	11,4	100	55	12	3	☻
MC166-15.0A3L300D-	15	3	52	64	14,3	115	67	16	3	☻
MC166-15.0A3L400D-	15	4	52	64	14,3	115	67	16	3	☻
MC166-16.0A3L100D-	16	1	56	70	15,2	121	73	16	3	☻
MC166-16.0A3L200D-	16	2	56	70	15,2	121	73	16	3	☻
MC166-16.0A3L300D-	16	3	56	70	15,2	121	73	16	3	☻
MC166-16.0A3L400D-	16	4	56	70	15,2	121	73	16	3	☻
MC166-16.0A3L500D-	16	5	56	70	15,2	121	73	16	3	☻
MC166-20.0A3L100D-	20	1	70	88	19	141	91	20	3	☻
MC166-20.0A3L200D-	20	2	70	88	19	141	91	20	3	☻
MC166-20.0A3L300D-	20	3	70	88	19	141	91	20	3	☻
MC166-20.0A3L400D-	20	4	70	88	19	141	91	20	3	☻
MC166-20.0A3L500D-	20	5	70	88	19	141	91	20	3	☻

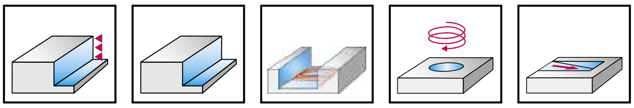
Shoulder milling $a_e \leq 0.3 \times D_a$

C1

Solid carbide shoulder milling cutter

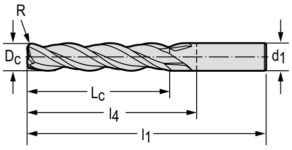
MC166 Advance mm

Z=3



	P	M	K	N	S	H	O
WJ30UU				●●			

Tool



DIN 6535 HA

Designation	D_c mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z	WJ30UU
MC166-12.0A3X100L-	12	1	60	118	73	12	3	☻
MC166-12.0A3X200L-	12	2	60	118	73	12	3	☻
MC166-12.0A3X300L-	12	3	60	118	73	12	3	☻
MC166-12.0A3X400L-	12	4	60	118	73	12	3	☻
MC166-15.0A3X300L-	15	3	75	139	91	16	3	☻
MC166-15.0A3X400L-	15	4	75	139	91	16	3	☻
MC166-16.0A3X100L-	16	1	80	145	97	16	3	☻
MC166-16.0A3X200L-	16	2	80	145	97	16	3	☻
MC166-16.0A3X300L-	16	3	80	145	97	16	3	☻
MC166-16.0A3X400L-	16	4	80	145	97	16	3	☻
MC166-16.0A3X500L-	16	5	80	145	97	16	3	☻
MC166-20.0A3X100L-	20	1	100	171	121	20	3	☻
MC166-20.0A3X200L-	20	2	100	171	121	20	3	☻
MC166-20.0A3X300L-	20	3	100	171	121	20	3	☻
MC166-20.0A3X400L-	20	4	100	171	121	20	3	☻
MC166-20.0A3X500L-	20	5	100	171	121	20	3	☻

Shoulder milling $a_e \leq 0.3 \times D_c$

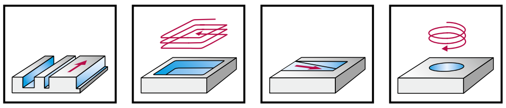
C1

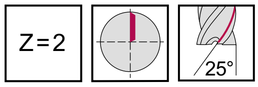
Solid carbide shoulder/slot milling cutter

H602641 mm

Protostar®

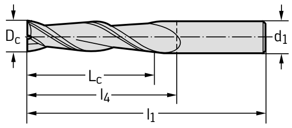
– Type AI 25





	P	M	K	N	S	H	O
Uncoated				●●			

Tool



DIN 6535 HA

Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z
H602641-2	2	8	38	10,5	3	2
H602641-3	3	12	38	10	3	2
H602641-4	4	14	50	22	4	2
H602641-5	5	16	57	21	6	2
H602641-6	6	22	65	29	6	2
H602641-8	8	28	80	44	8	2
H602641-10	10	32	90	50	10	2
H602641-12	12	38	100	55	12	2
H602641-16	16	50	115	67	16	2
H602641-20	20	50	125	75	20	2

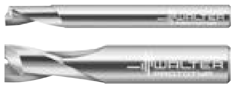
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

C1

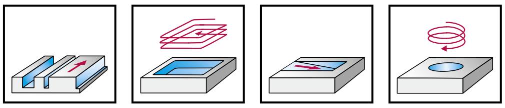
Solid carbide shoulder/slot milling cutter

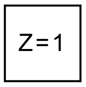
H901451 mm

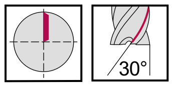
Protostar®



– Type Al 30

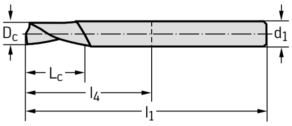






	P	M	K	N	S	H	O
Uncoated				●●			

Tool



DIN 6535 HA

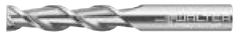
Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z
H901451-3	3	7	57	21	6	1
H901451-4	4	8	57	21	6	1
H901451-5	5	10	57	21	6	1
H901451-6	6	10	57	21	6	1
H901451-8	8	16	63	27	8	1
H901451-10	10	19	72	32	10	1

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

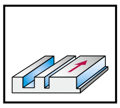
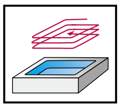
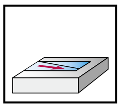
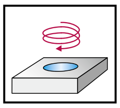
Solid carbide shoulder/slot milling cutter

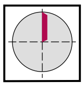
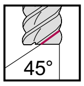
H602551 mm

Protostar®

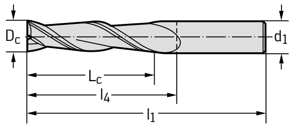


– Type AI 45, long

Z=2  

	P	M	K	N	S	H	O
Uncoated				●●			

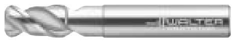
Tool	Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z
	H602551-6	6	35	80	44	6	2
	H602551-8	8	45	97	61	8	2
	H602551-10	10	50	118	78	10	2
	H602551-12	12	60	120	75	12	2
DIN 6535 HA	H602551-16	16	65	130	82	16	2
	H602551-20	20	75	145	95	20	2

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

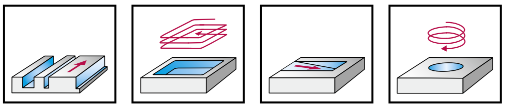
C1

Solid carbide shoulder/slot milling cutter

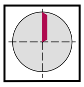
MC267 Advance mm

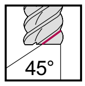


– Type Al 45



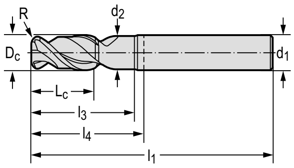
Z=2





	P	M	K	N	S	H	O
WJ30UU				●●			

Tool

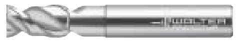


DIN 6535 HA

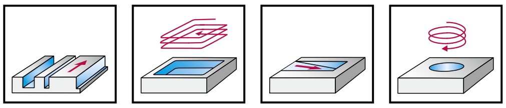
Designation	D_c mm	R mm	L_c mm	l_3 mm	l_4 mm	l_1 mm	d_2 mm	d_1 mm	Z	WJ30UU
MC267-05.0A2B050C-	5	0,5	10	16	21	57	4,8	6	2	☻
MC267-06.0A2B050C-	6	0,5	10	19	21	57	5,7	6	2	☻
MC267-08.0A2B050C-	8	0,5	16	25	27	63	7,6	8	2	☻
MC267-10.0A2B050C-	10	0,5	19	30	32	72	9,5	10	2	☻
MC267-10.0A2B100C-	10	1	19	30	32	72	9,5	10	2	☻
MC267-10.0A2B200C-	10	2	19	30	32	72	9,5	10	2	☻
MC267-12.0A2B050C-	12	0,5	22	36	38	83	11,4	12	2	☻
MC267-12.0A2B100C-	12	1	22	36	38	83	11,4	12	2	☻
MC267-12.0A2B200C-	12	2	22	36	38	83	11,4	12	2	☻
MC267-12.0A2B300C-	12	3	22	36	38	83	11,4	12	2	☻
MC267-16.0A2B050C-	16	0,5	26	42	44	92	15,2	16	2	☻
MC267-16.0A2B300C-	16	3	26	42	44	92	15,2	16	2	☻
MC267-16.0A2B400C-	16	4	26	42	44	92	15,2	16	2	☻
MC267-20.0A2B050C-	20	0,5	32	52	54	104	19	20	2	☻
MC267-20.0A2B300C-	20	3	32	52	54	104	19	20	2	☻
MC267-20.0A2B400C-	20	4	32	52	54	104	19	20	2	☻

C1

Solid carbide shoulder/slot milling cutter
MC267 Advance mm



– Type AI 45

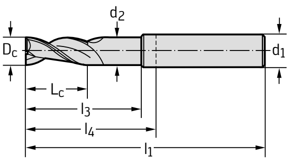


Z=2

45°

	P	M	K	N	S	H	O
WJ30UU				●●			

Tool



DIN 6535 HA

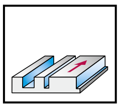
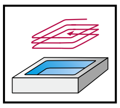
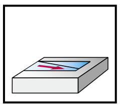
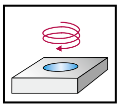
Designation	D_c mm	L_c mm	l_3 mm	l_4 mm	l_1 mm	d_2 mm	d_1 mm	Z	WJ30UU
MC267-01.0A2BC-	1	3	7	21	57	1	6	2	☻
MC267-01.5A2BC-	1,5	3	7	21	57	1,4	6	2	☻
MC267-02.0A2BC-	2	6	10	21	57	1,9	6	2	☻
MC267-02.5A2BC-	2,5	7	10	21	57	2,4	6	2	☻
MC267-03.0A2BC-	3	7	10	21	57	2,9	6	2	☻
MC267-03.5A2BC-	3,5	7	15	21	57	3,3	6	2	☻
MC267-04.0A2BC-	4	8	15	21	57	3,8	6	2	☻
MC267-05.0A2BC-	5	10	16	21	57	4,8	6	2	☻
MC267-06.0A2BC-	6	10	19	21	57	5,7	6	2	☻
MC267-08.0A2BC-	8	16	25	27	63	7,6	8	2	☻
MC267-10.0A2BC-	10	19	30	32	72	9,5	10	2	☻
MC267-12.0A2BC-	12	22	36	38	83	11,4	12	2	☻
MC267-16.0A2BC-	16	26	42	44	92	15,2	16	2	☻
MC267-20.0A2BC-	20	32	52	54	104	19	20	2	☻

C1

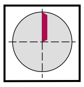
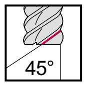
Solid carbide shoulder/slot milling cutter

MC267 Advance mm

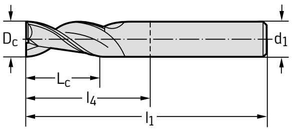
– Type Al 45

Z=2

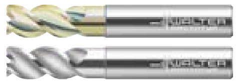
	P	M	K	N	S	H	O
WJ30UU				●●			

Tool	Designation	D_c mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WJ30UU
	MC267-01.0A2B-	1	3	21	57	6	2	☻
	MC267-01.5A2B-	1,5	3	21	57	6	2	☻
	MC267-02.0A2B-	2	6	21	57	6	2	☻
	MC267-02.5A2B-	2,5	7	21	57	6	2	☻
DIN 6535 HA	MC267-03.0A2B-	3	7	21	57	6	2	☻
	MC267-03.5A2B-	3,5	7	21	57	6	2	☻
	MC267-04.0A2B-	4	8	21	57	6	2	☻

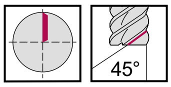
C1

Solid carbide shoulder/slot milling cutter

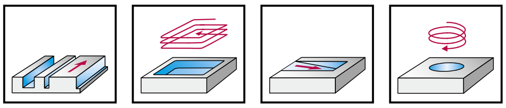
MC267 Advance mm



Z=3

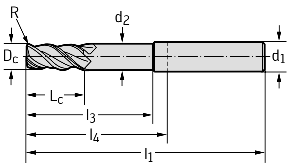


– Type AI 45



	P	M	K	N	S	H	O
WJ30CA				●●			
WJ30UU				●●			

Tool

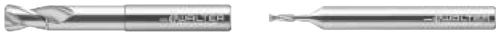


DIN 6535 HA

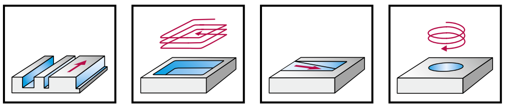
Designation	D_c mm	R mm	L_c mm	l_3 mm	l_4 mm	l_1 mm	d_2 mm	d_1 mm	Z	WJ30CA	WJ30UU
MC267-01.0A3B020C-	1	0,2	3	7	21	57	1	6	3	☻	☻
MC267-02.0A3B020C-	2	0,2	6	10	21	57	1,9	6	3	☻	☻
MC267-03.0A3B020C-	3	0,2	7	10	21	57	2,9	6	3	☻	☻
MC267-04.0A3B030C-	4	0,3	8	15	21	57	3,8	6	3	☻	☻
MC267-05.0A3B050C-	5	0,5	10	16	21	57	4,8	6	3	☻	☻
MC267-06.0A3B050C-	6	0,5	10	19	21	57	5,7	6	3	☻	☻
MC267-08.0A3B050C-	8	0,5	16	25	27	63	7,6	8	3	☻	☻
MC267-10.0A3B050C-	10	0,5	19	30	32	72	9,5	10	3	☻	☻
MC267-12.0A3B050C-	12	0,5	22	36	38	83	11,4	12	3	☻	☻
MC267-16.0A3B050C-	16	0,5	26	42	44	92	15,2	16	3	☻	☻
MC267-20.0A3B050C-	20	0,5	32	52	54	104	19	20	3	☻	☻

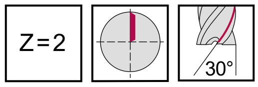
C1

Solid carbide shoulder/slot milling cutter
MD266 Supreme mm

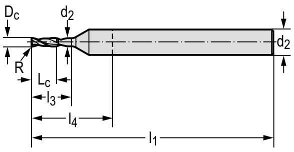
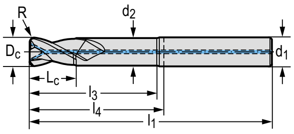


– Long reach





	P	M	K	N	S	H	O
WJ30UU				●●			

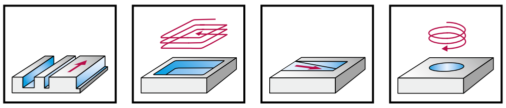
Tool	Designation	D_c mm	R mm	L_c mm	l_3 mm	l_1 mm	l_4 mm	d_2 mm	d_1 mm	Z	WJ30UU
 DIN 6535 HA	MD266-02.0A2B020E-	2	0,2	6	10	57	20	1,9	6	2	☻
	MD266-03.0A2B030D-	3	0,3	7,5	12	57	20	2,9	6	2	☻
	MD266-04.0A2B030D-	4	0,3	8	16	57	20	3,8	6	2	☻
	MD266-05.0A2B050C-	5	0,5	10	18	57	20	4,8	6	2	☻
	MD266-05.0A2L050D-	5	0,5	7,5	20	65	26	4,8	6	2	☻
 DIN 6535 HA	MD266-06.0A2L050D-	6	0,5	10,5	25	65	26	5,7	6	2	☻
	MD266-06.0A2L100D-	6	1	10,5	25	65	26	5,7	6	2	☻
	MD266-08.0A2L050E-	8	0,5	12	42	80	43	7,6	8	2	☻
	MD266-08.0A2L100E-	8	1	12	42	80	43	7,6	8	2	☻
	MD266-08.0A2L200E-	8	2	12	42	80	43	7,6	8	2	☻
	MD266-10.0A2B050C-	10	0,5	20	30	72	31	9,5	10	2	☻
	MD266-10.0A2B100C-	10	1	20	30	72	31	9,5	10	2	☻
	MD266-10.0A2B200C-	10	2	20	30	72	31	9,5	10	2	☻
	MD266-10.0A2L050D-	10	0,5	15	48	90	49	9,5	10	2	☻
	MD266-10.0A2L100D-	10	1	15	48	90	49	9,5	10	2	☻
	MD266-10.0A2L200D-	10	2	15	48	90	49	9,5	10	2	☻
	MD266-12.0A2L050D-	12	0,5	18	53	100	54	11,4	12	2	☻
	MD266-12.0A2L200D-	12	2	18	53	100	54	11,4	12	2	☻
	MD266-12.0A2L300D-	12	3	18	53	100	54	11,4	12	2	☻
	MD266-16.0A2L050D-	16	0,5	24	65	115	66	15,2	16	2	☻
	MD266-16.0A2L200D-	16	2	24	65	115	66	15,2	16	2	☻
	MD266-16.0A2L300D-	16	3	24	65	115	66	15,2	16	2	☻
	MD266-16.0A2L400D-	16	4	24	65	115	66	15,2	16	2	☻
	MD266-20.0A2L050C-	20	0,5	25	73	125	74	19	20	2	☻
	MD266-20.0A2L300C-	20	3	25	73	125	74	19	20	2	☻
	MD266-20.0A2L400C-	20	4	25	73	125	74	19	20	2	☻

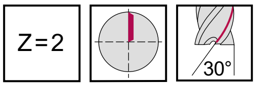
C1

Solid carbide shoulder/slot milling cutter

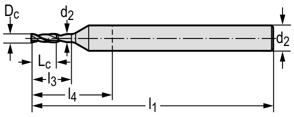
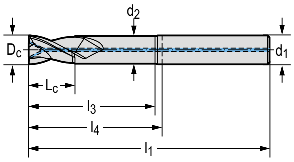
MD266 Supreme mm

– Long reach





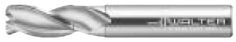
	P	M	K	N	S	H	O
WJ30UU				●●			

Tool	Designation	D_c mm	L_c mm	l_3 mm	l_1 mm	l_4 mm	d_2 mm	d_1 mm	Z	WJ30UU
	MD266-02.0A2BE-	2	6	10	57	20	1,9	6	2	☻
	MD266-03.0A2BD-	3	7,5	12	57	20	2,9	6	2	☻
	MD266-04.0A2BD-	4	8	16	57	20	3,8	6	2	☻
	MD266-05.0A2BC-	5	10	18	57	20	4,8	6	2	☻
DIN 6535 HA	MD266-05.0A2LD-	5	7,5	20	65	26	4,8	6	2	☻
	MD266-06.0A2LD-	6	10,5	25	65	26	5,7	6	2	☻
	MD266-08.0A2LE-	8	12	42	80	43	7,6	8	2	☻
	MD266-10.0A2BC-	10	20	30	72	31	9,5	10	2	☻
	MD266-10.0A2LD-	10	15	48	90	49	9,5	10	2	☻
	MD266-12.0A2LD-	12	18	53	100	54	11,4	12	2	☻
DIN 6535 HA	MD266-16.0A2LD-	16	24	65	115	66	15,2	16	2	☻
	MD266-20.0A2LC-	20	25	73	125	74	19	20	2	☻

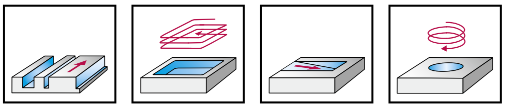
C1

Solid carbide shoulder/slot milling cutter

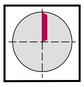
MD266 Supreme mm

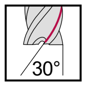


– Long reach



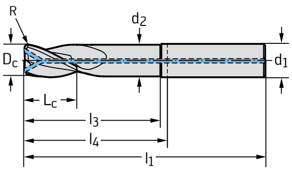
Z=3





	P	M	K	N	S	H	O
WJ30UU				●●			

Tool

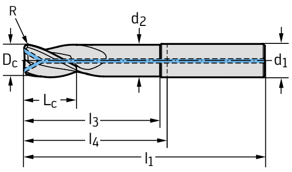


DIN 6535 HA

Designation	D_c mm	R mm	L_c mm	l_3 mm	l_1 mm	l_4 mm	d_2 mm	d_1 mm	Z	WJ30UU
MD266-10.0A3B050C-	10	0,5	20	30	72	31	9,5	10	3	☻
MD266-10.0A3B100C-	10	1	20	30	72	31	9,5	10	3	☻
MD266-10.0A3B200C-	10	2	20	30	72	31	9,5	10	3	☻
MD266-10.0A3L050D-	10	0,5	15	48	90	49	9,5	10	3	☻
MD266-10.0A3L100D-	10	1	15	48	90	49	9,5	10	3	☻
MD266-10.0A3L200D-	10	2	15	48	90	49	9,5	10	3	☻
MD266-12.0A3B050C-	12	0,5	24	36	83	37	11,4	12	3	☻
MD266-12.0A3B200C-	12	2	24	36	83	37	11,4	12	3	☻
MD266-12.0A3B300C-	12	3	24	36	83	37	11,4	12	3	☻
MD266-12.0A3L050D-	12	0,5	18	53	100	54	11,4	12	3	☻
MD266-12.0A3L200D-	12	2	18	53	100	54	11,4	12	3	☻
MD266-12.0A3L300D-	12	3	18	53	100	54	11,4	12	3	☻
MD266-12.0A3X050E-	12	0,5	12	68	115	69	11,4	12	3	☻
MD266-12.0A3X200E-	12	2	12	68	115	69	11,4	12	3	☻
MD266-12.0A3X300E-	12	3	12	68	115	69	11,4	12	3	☻
MD266-16.0A3B050C-	16	0,5	32	42	92	43	15,2	16	3	☻
MD266-16.0A3B200C-	16	2	32	42	92	43	15,2	16	3	☻
MD266-16.0A3B300C-	16	3	32	42	92	43	15,2	16	3	☻
MD266-16.0A3B400C-	16	4	32	42	92	43	15,2	16	3	☻
MD266-16.0A3L050D-	16	0,5	24	65	115	66	15,2	16	3	☻
MD266-16.0A3L200D-	16	2	24	65	115	66	15,2	16	3	☻
MD266-16.0A3L300D-	16	3	24	65	115	66	15,2	16	3	☻
MD266-16.0A3L400D-	16	4	24	65	115	66	15,2	16	3	☻
MD266-16.0A3X050E-	16	0,5	16	80	130	81	15,2	16	3	☻
MD266-16.0A3X200E-	16	2	16	80	130	81	15,2	16	3	☻
MD266-16.0A3X300E-	16	3	16	80	130	81	15,2	16	3	☻
MD266-16.0A3X400E-	16	4	16	80	130	81	15,2	16	3	☻
MD266-20.0A3L050C-	20	0,5	25	73	125	74	19	20	3	☻
MD266-20.0A3L300C-	20	3	25	73	125	74	19	20	3	☻
MD266-20.0A3L400C-	20	4	25	73	125	74	19	20	3	☻
MD266-20.0A3X050D-	20	0,5	20	88	140	89	19	20	3	☻
MD266-20.0A3X300D-	20	3	20	88	140	89	19	20	3	☻
MD266-20.0A3X400D-	20	4	20	88	140	89	19	20	3	☻
MD266-25.0A3B050B-	25	0,5	43,75	52	110	53	23,8	25	3	☻
MD266-25.0A3B300B-	25	3	43,75	52	110	53	23,8	25	3	☻
MD266-25.0A3B400B-	25	4	43,75	52	110	53	23,8	25	3	☻

C1

Tool



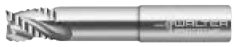
DIN 6535 HA

Designation	D_c mm	R mm	L_c mm	l_3 mm	l_1 mm	l_4 mm	d_2 mm	d_1 mm	Z	WJ30UU
MD266-25.0A3L050B-	25	0,5	37,5	72	130	73	23,8	25	3	☻
MD266-25.0A3L300B-	25	3	37,5	72	130	73	23,8	25	3	☻
MD266-25.0A3L400B-	25	4	37,5	72	130	73	23,8	25	3	☻
MD266-25.0A3X050C-	25	0,5	25	92	150	93	23,8	25	3	☻
MD266-25.0A3X300C-	25	3	25	92	150	93	23,8	25	3	☻
MD266-25.0A3X400C-	25	4	25	92	150	93	23,8	25	3	☻

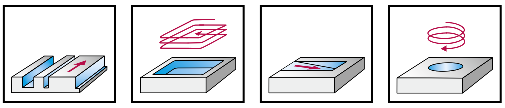
Solid carbide shoulder/slot milling cutter

H608771 mm

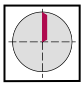
Protostar®

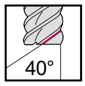


– Long reach
– Type Al Kordel G 40

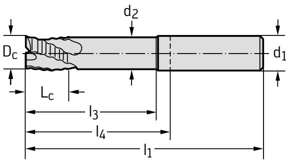


Z=3





	P	M	K	N	S	H	O
Uncoated				●●			

Tool	Designation	D_c mm	L_c mm	l_3 mm	l_1 mm	l_4 mm	d_2 mm	d_1 mm	Z
	H608771-6	6	10	24	63	27	5,5	8	3
	H608771-8	8	12	29	72	32	7,5	10	3
	H608771-10	10	14	35	83	38	9,5	12	3
	H608771-12	12	16	50	100	55	11,4	12	3
	H608771-16	16	20	63	115	67	15,2	16	3
DIN 6535 HA	H608771-20	20	20	70	125	75	19	20	3

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

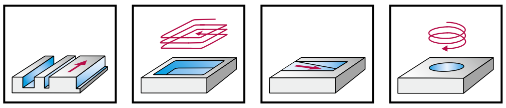
C1

Solid carbide shoulder/slot milling cutter

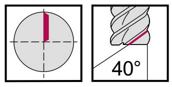
H608411 mm

Protostar®

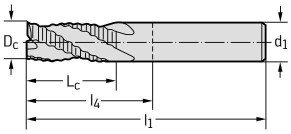
– Type Al Kordel G 40
– With V cutting edge



Z=3



	P	M	K	N	S	H	O
Uncoated				●●			

Tool	Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z
	H608411-6	6	13	57	21	6	3
	H608411-8	8	19	63	27	8	3
	H608411-10	10	22	72	32	10	3
	H608411-12	12	26	83	38	12	3
DIN 6535 HA	H608411-16	16	32	92	44	16	3
	H608411-20	20	38	104	54	20	3

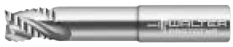
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

C1

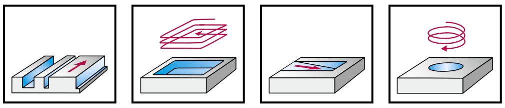
Solid carbide shoulder/slot milling cutter

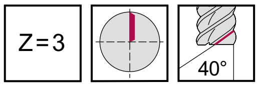
H608871 mm

Protostar®



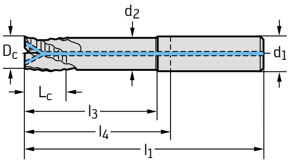
– Long reach
– With V cutting edge





	P	M	K	N	S	H	O
Uncoated				●●			

Tool



DIN 6535 HA

Designation	D_c mm	L_c mm	l_3 mm	l_1 mm	l_4 mm	d_2 mm	d_1 mm	Z
H608871-6	6	10	24	63	27	5,5	8	3
H608871-8	8	12	29	72	32	7,5	10	3
H608871-10	10	14	35	83	38	9,5	12	3
H608871-12	12	16	50	100	55	11,4	12	3
H608871-16	16	20	63	115	67	15,2	16	3
H608871-20	20	20	70	125	75	19	20	3
H608871-25	25	25	75	135	79	23,8	25	3

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

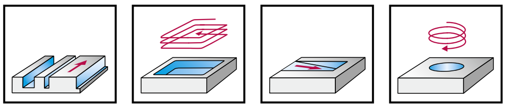
C1

Solid carbide shoulder/slot milling cutter

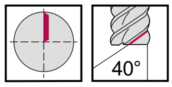
H618911 mm

Protostar®

– Type Al Kordel G 40

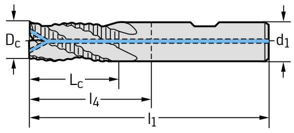


Z=3



	P	M	K	N	S	H	O
Uncoated				●●			

Tool



DIN 6535 HB

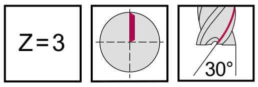
Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z
H618911-6	6	13	57	21	6	3
H618911-8	8	19	63	27	8	3
H618911-10	10	22	72	32	10	3
H618911-12	12	26	83	38	12	3
H618911-14	14	26	83	38	14	3
H618911-16	16	32	92	44	16	3
H618911-20	20	38	104	54	20	3

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

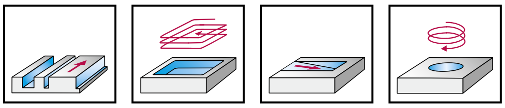
C1

Solid carbide shoulder/slot milling cutter

MB265 Supreme mm

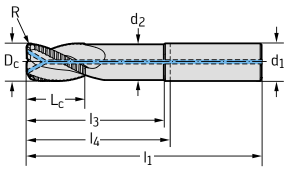


– Long reach



	P	M	K	N	S	H	O
WJ30CA				●●			
WJ30UU				●●			

Tool



DIN 6535 HA

Designation	D_c mm	R mm	L_c mm	l_3 mm	l_4 mm	l_1 mm	d_2 mm	d_1 mm	Z	WJ30CA	WJ30UU
MB265-16.0A3X200A-	16	2	20	65	67	115	15,2	16	3	●	●
MB265-16.0A3X200B-	16	2	24	42	44	92	15,2	16	3	●	●
MB265-16.0A3X300A-	16	3	20	65	67	115	15,2	16	3		●
MB265-20.0A3X200A-	20	2	20	88	90	140	19	20	3	●	●
MB265-20.0A3X200B-	20	2	25	73	75	125	19	20	3	●	●
MB265-20.0A3X400B-	20	4	25	73	75	125	19	20	3		●
MB265-25.0A3X200A-	25	2	25	92	94	150	23,8	25	3		●
MB265-25.0A3X200B-	25	2	30	72	74	130	23,8	25	3		●
MB265-25.0A3X200C-	25	2	37	52	54	110	23,8	25	3	●	
MB265-25.0A3X300B-	25	3	30	72	74	130	23,8	25	3		●
MB265-25.0A3X400A-	25	4	25	92	94	150	23,8	25	3		●
MB265-25.0A3X400B-	25	4	30	72	74	130	23,8	25	3	●	●
MB265-25.0A3X400C-	25	4	37	52	54	110	23,8	25	3		●

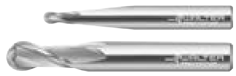
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

C1

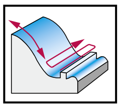
Solid carbide ball-nose end mill

H602111 mm

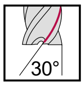
Protostar®



– Type AI 30

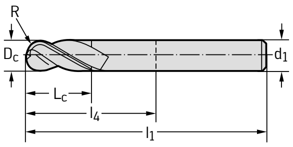


Z=2



	P	M	K	N	S	H	O
Uncoated				●●			

Tool



DIN 6535 HA

Designation	D_c mm	R mm	L_c mm	l_4 mm	d_1	l_1 mm	Z
H602111-2	2	1	6	32	3	60	2
H602111-3	3	1,5	7	44	6	80	2
H602111-4	4	2	8	44	6	80	2
H602111-5	5	2,5	10	44	6	80	2
H602111-6	6	3	10	44	6	80	2
H602111-8	8	4	16	64	8	100	2
H602111-10	10	5	19	60	10	100	2
H602111-12	12	6	22	55	12	100	2
H602111-16	16	8	26	52	16	100	2

Shank tolerance h6 with shank diameter d_1 > 10 mm

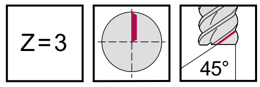
C1

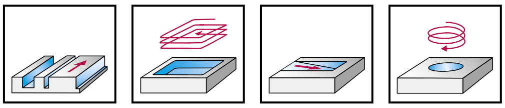
Solid carbide shoulder/slot milling cutter

H6E2211 mm

Protostar®

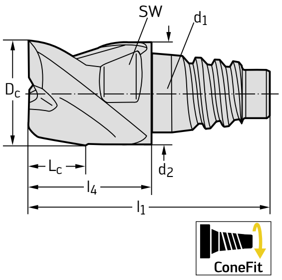
– Type Al 45





	P	M	K	N	S	H	O
Uncoated				●●			

Tool

	Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_2 mm	d_1	WAF mm	Z
	H6E2211-E10-10	10	5,5	23,6	12,4	9,7	E10	8	3
	H6E2211-E12-12	12	6,5	28,3	14,5	11,7	E12	10	3
	H6E2211-E16-16	16	8,5	35,7	18,7	15,5	E16	12	3
	H6E2211-E20-20	20	11	40,8	21,3	19,3	E20	16	3
	H6E2211-E25-25	25	13,5	49,6	25,6	24,2	E25	20	3
ConeFit									

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

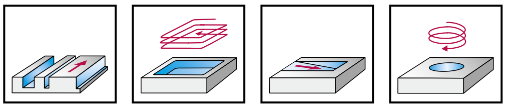
C1

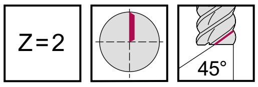
Solid carbide shoulder/slot milling cutter

H6E2511 mm

Protostar®

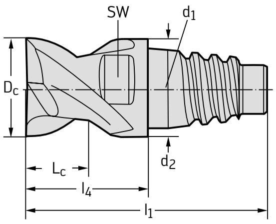
– Type AI 45

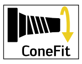




	P	M	K	N	S	H	O
Uncoated				●●			

Tool





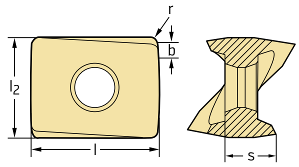
ConeFit

Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_2 mm	d_1	WAF mm	Z
H6E2511-E10-10	10	5,5	23,6	12,4	9,7	E10	8	2
H6E2511-E12-12	12	6,5	28,3	14,5	11,7	E12	10	2
H6E2511-E16-16	16	8,5	35,7	18,7	15,5	E16	12	2

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Bodies and assembly parts are included in the scope of delivery.

C1

Negative rhombic
LNGX

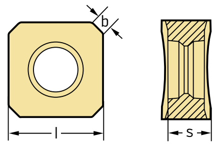


Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	l_2 mm	r mm	b mm	N HC WXN15	N HW WK10
	LNGX130708R-L88	7,74	**G**	**4**	13,7	11	0,8	1,2		

HW = Uncoated carbide
HC = Coated carbide

Negative square
SNHX



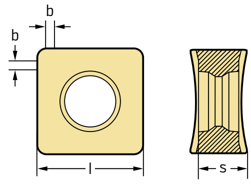
Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	b mm	N HC WXN15	N HW WK10
	SNHX0904ANN-K88	4,68	**H**	**8**	9,52	1,5		
	SNHX1205ANN-K88	5,54	**H**	**8**	12,7	1,5		

HW = Uncoated carbide
HC = Coated carbide

C2

Negative square
SNHX

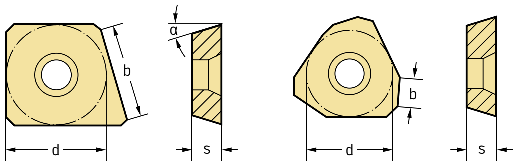


Cutting inserts

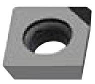
	Designation	s mm	Tolerance class	Number of cutting edges	l mm	b mm	N HC WXN15	N HW WK10
	SNHX0904ZNN-K88	5,01	H	8	9,52	1		
	SNHX1205ZNN-K88	5,89	H	8	12,7	1,2		

HW = Uncoated carbide
HC = Coated carbide

Finishing inserts
SPHX



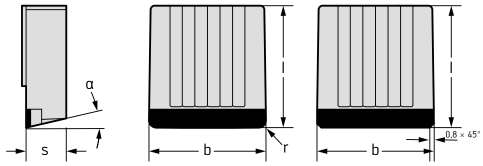
Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	d mm	α	b mm	N DP WCD10
	SPHX1204PDR-A88	4,76	H	1	12,7	11°	3,5	

DP = Polycrystalline diamond

C2

PCD finishing inserts
XOEX

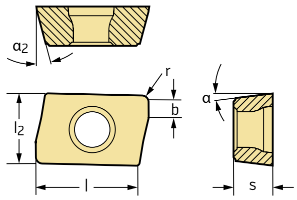


Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	r mm	α	b mm	N DP WDN20
	XOEX12T308N-F-A88	4	E	1	12,16	0,8	13°	11,8	
	XOEX12T3AZR-F-A88	4	E	1	12,16	0,8	13°	11,8	

DP = Polycrystalline diamond

Positive rhombic
ACGT



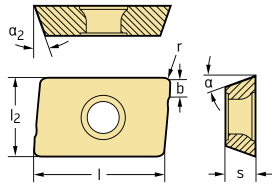
Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	l_2 mm	r mm	α	$α_2$	b mm	N HC WXN15	N HW WK10
	ACGT060204R-M85	2,38	G	2	6,7	4,4	0,4	7°	15°	0,9		

HW = Uncoated carbide
HC = Coated carbide

C2

Positive rhombic
ADHT



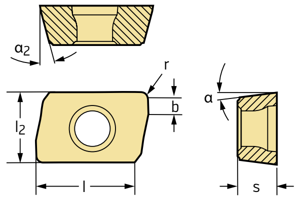
Cutting inserts

Designation	s mm	Tolerance class	Number of cutting edges	l mm	l2 mm	r mm	α	α2	b mm	N HC WXN15	N HW WK10
ADHT0803PEL-G88	3,35	H	2	9,52	6,75	0,4	15°	20°	1,2	●	
ADHT0803PER-G88	3,35	H	2	9,52	6,75	0,4	15°	20°	1,2	●	●
ADHT10T3PER-G88	3,8	H	2	11,3	7,25	0,8	15°	15°	1,2	●	●
ADHT120416L-G88	4,76	H	2	13,6	8,4	1,6	15°	20°	1	●	
ADHT120416R-G88	4,76	H	2	13,6	8,4	1,6	15°	20°	1	●	
ADHT120430L-G88	4,76	H	2	13,6	8,4	3	15°	20°	0,8	●	
ADHT120430R-G88	4,76	H	2	13,6	8,4	3	15°	20°	0,8	●	●
ADHT120440L-G88	4,76	H	2	13,6	8,4	4	15°	20°	0,4	●	
ADHT120440R-G88	4,76	H	2	13,6	8,4	4	15°	20°	0,4		●
ADHT1204PEL-G88	4,76	H	2	13,6	8,4	0,8	15°	20°	1,2	●	
ADHT1204PER-G88	4,76	H	2	13,6	8,4	0,8	15°	20°	1,2	●	●
ADHT160616L-G88	6,15	H	2	17,5	10,8	1,6	15°	20°	1,4	●	
ADHT160616R-G88	6,15	H	2	17,5	10,8	1,6	15°	20°	1,4	●	●
ADHT1606PEL-G88	6,15	H	2	17,5	10,8	0,8	15°	20°	1,6	●	
ADHT1606PER-G88	6,15	H	2	17,5	10,8	0,8	15°	20°	1,6	●	●

HC = Coated carbide
HW = Uncoated carbide

C2

Positive rhombic
BCHT



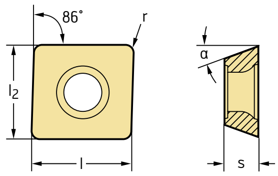
Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	l_2 mm	r mm	α	$α_2$	b mm	N HC WXN15	N HW WK10
	BCGT090304R-K85	3,21	G	2	10,3	6,3	0,4	7°	15°	1,2	☻	😐
	BCHT120404R-K85	4,8	H	2	13,8	7,6	0,4	7°	15°	1,7	☻	😐
	BCHT120408R-K85	4,8	H	2	13,8	7,6	0,8	7°	15°	1,3	☻	😐
	BCHT120412R-K85	4,8	H	2	13,8	7,6	1,2	7°	15°	1,2	☻	😐
	BCHT120416R-K85	4,8	H	2	13,8	7,6	1,6	7°	15°	1,1	☻	😐
	BCHT120420R-K85	4,8	H	2	13,8	7,6	2	7°	15°	1,2	☻	😐
	BCHT120425R-K85	4,8	H	2	13,8	7,6	2,5	7°	15°	1	☻	😐
	BCHT120430R-K85	4,8	H	2	13,8	7,6	3	7°	15°	0,7	☻	😐
	BCHT120440R-K85	4,8	H	2	13,8	7,6	4	7°	15°	0,4	☻	😐
	BCHT160508R-K85	5,75	H	2	17,3	9,9	0,8	7°	15°	2	☻	😐
	BCHT160512R-K85	5,75	H	2	17,3	9,9	1,2	7°	15°	1,7	☻	😐
	BCHT160516R-K85	5,75	H	2	17,3	9,9	1,6	7°	15°	1,7	☻	😐
	BCHT160520R-K85	5,75	H	2	17,3	9,9	2	7°	15°	1,5	☻	😐
	BCHT160525R-K85	5,75	H	2	17,3	9,9	2,5	7°	15°	1,4	☻	😐
	BCHT160530R-K85	5,75	H	2	17,3	9,9	3	7°	15°	1,2	☻	😐
	BCHT160540R-K85	5,75	H	2	17,3	9,9	4	7°	15°	1,1	☻	😐

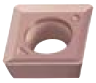
HW = Uncoated carbide
HC = Coated carbide

C2

Positive rhombic
MPHT / MPHX

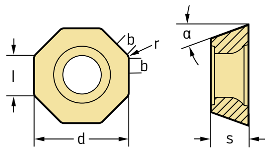


Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	l_2 mm	r mm	α	N HC WXN15
	MPHT120408-G88	4,76	H	2	12,7	12,7	0,8	11°	☻
	MPHX060304-G88	3,18	H	2	6,35	6,35	0,4	11°	☻
	MPHX080305-G88	3,18	H	2	8,3	8,3	0,5	11°	☻

HC = Coated carbide

Positive octagonal
ODHT



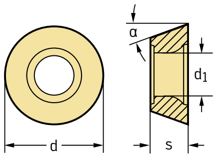
Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	d mm	l mm	r mm	α	b mm	N HC WXN15	N HW WK10
	ODHT0504ZZN-G88	4,76	H	8	12,7	5,26	0,8	15°	1,2	☻	☻
	ODHT0605ZZN-G88	5,56	H	8	15,88	6,58	0,8	15°	1,6	☻	☻

HW = Uncoated carbide
HC = Coated carbide

C2

Positive round
RDGX

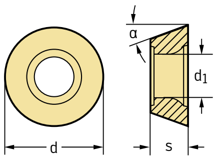


Cutting inserts

Designation	s mm	Tolerance class	Number of cutting edges	d mm	α	d_1 mm	N HW WK10
RDGX0501M0-G88	1,45	G	4	5	15°	2,2	
RDGX07T1M0-G88	1,94	G	4	7	15°	2,8	
RDGX1003M0-G88	3,18	G	4	10	15°	4,4	
RDGX12T3M0-G88	3,97	G	4	12	15°	4,4	
RDGX1604M0-G88	4,76	G	4	16	15°	5,5	
RDGX2006M0-G88	6	G	4	20	15°	5,5	

HW = Uncoated carbide

Positive round
RDGT



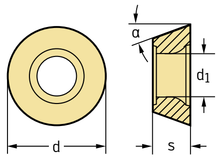
Cutting inserts

Designation	s mm	Tolerance class	Number of cutting edges	d mm	α	d_1 mm	N HC WXN15	N HW WK10	N HW WMG40
RDGT1204M0-G85	4,76	G	6	12	15°	4,4			
RDGT2006M0-G85	6,35	G	6	20	15°	6,5			
RDGT0803M0-G88	3,18	G	4	8	15°	3,4			
RDGT10T3M0-G88	3,97	G	4	10	15°	4,4			
RDGT1204M0-G88	4,76	G	6	12	15°	4,4			
RDGT1605M0-G88	5,56	G	6	16	15°	5,5			
RDGT2006M0-G88	6,35	G	6	20	15°	6,5			

HW = Uncoated carbide
HC = Coated carbide

C2

Positive round
ROGX

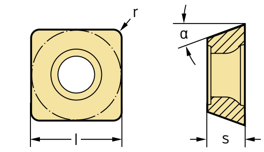


Cutting inserts

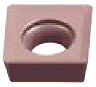
	Designation	s mm	Tolerance class	Number of cutting edges	d mm	α	d_1 mm	N HC WXN15	N HW WK10
	ROGX0803M04-G88	3,18	G	4	8	11°	3,4		
	ROGX2006M08-G88	6,35	G	8	20	15°	6,5		
	ROGX10T3M08-G88	3,97	G	8	10	11°	3,9		
	ROGX1204M08-G88	4,76	G	8	12	11°	4,4		
	ROGX1605M08-G88	5,56	G	8	16	15°	5,5		

HW = Uncoated carbide
HC = Coated carbide

Positive square
SPHT

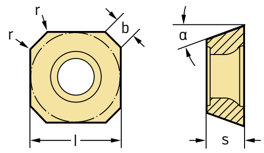


Cutting inserts

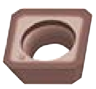
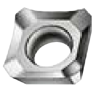
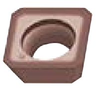
	Designation	s mm	Tolerance class	Number of cutting edges	l mm	r mm	α	N HC WXN15	N HW WK10
	SPHT060304-G88	3,18	H	4	6,35	0,4	11°	☺	☺
	SPHT09T308-G88	3,97	H	4	9,52	0,8	11°	☺	☺
	SPHT120408-G88	4,76	H	4	12,7	0,8	11°	☺	☺

HW = Uncoated carbide
HC = Coated carbide

Positive square
SDGT / SEHT / SPGT



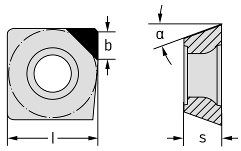
Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	r mm	α	b mm	N HC WXN15	N HW WK10
	SDGT09T3AEN-G88	3,97	G	4	9,52	0,3	15°	1,2	☺	☺
	SEHT1204AFN-K88	4,76	H	4	12,7	0,8	20°	1,8		☺
	SPGT1204AEN-K88	4,76	G	4	12,7		11°	1,5	☺	☺

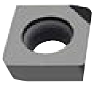
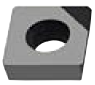
HW = Uncoated carbide
HC = Coated carbide

C2

Positive square
SPHW

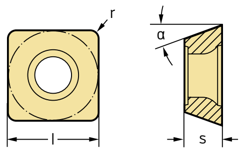


Cutting inserts

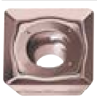
	Designation	s mm	Tolerance class	Number of cutting edges	l mm	α	b mm	N DP WCD10
	SPHW1204EDR-A88	4,76	H	1	12,7	11°	1,5	
	SPHW1204PDR-A88	4,76	H	1	12,7	11°	1,5	

DP = Polycrystalline diamond

Positive square
SDGT



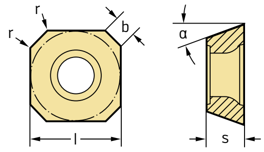
Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	r mm	α	N HC WXN15	N HW WK10
	SDHT06T204-G88	2,78	H	4	6,35	0,4	15°		
	SDHT09T304-G88	3,97	H	4	9,52	0,4	15°		
	SDHT09T308-G88	3,97	H	4	9,52	0,8	15°		
	SDHT120408-G88	4,76	H	4	12,7	0,8	15°		

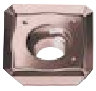
HW = Uncoated carbide
HC = Coated carbide

C2

Positive square
SDGT

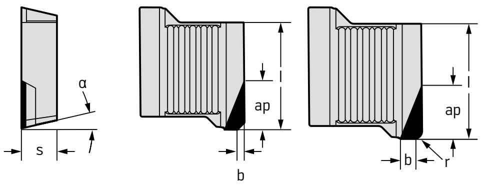


Cutting inserts

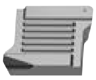
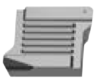
	Designation	s mm	Tolerance class	Number of cutting edges	l mm	r mm	α	b mm	N HC WXN15	N HW WK10
	SDHT09T3AZN-G88	3,97	H	4	9,52	0,3	15°	1,2		
	SDHT1204AZN-G88	4,76	H	4	12,7	0,3	15°	1,4		

HW = Uncoated carbide
HC = Coated carbide

PCD indexable inserts
XOEN



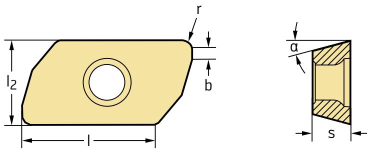
Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	r mm	α	b mm	a_p mm	N DP WDN20
	XOEN12T3AZR-A-A88	4	E	1	12,21		13°	0,8	5,1	
	XOEN12T308R-A-A88	4	E	1	12,11	0,8	13°	1,2	5	
	XOEN12T308R-F-A88	4	E	1	12,11	0,8	13°	1,2	10,3	

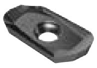
DP = Polycrystalline diamond

C2

Positive rhombic
ZDGT



Cutting inserts

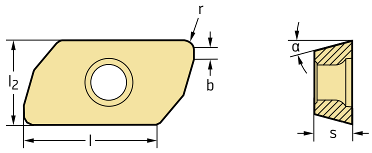
	Designation	s mm	Tolerance class	Number of cutting edges	l mm	l_2 mm	r mm	α	b mm	N HC WNN15	N HC WXN15	N HW WK10
	ZDGT150404R-K85	4,76	G	2	16,2	10,5	0,4	15°	1,2	☻	☻	☻
	ZDGT150408R-K85	4,76	G	2	16,2	10,5	0,8	15°	1,2	☻	☻	☻
	ZDGT150412R-K85	4,76	G	2	16,2	10,5	1,2	15°	1,2	☻	☻	☻
	ZDGT150416R-K85	4,76	G	2	16,2	10,5	1,6	15°	1,2	☻	☻	☻
	ZDGT150420R-K85	4,76	G	2	16,2	10,5	2	15°	1,2	☻	☻	☻
	ZDGT150425R-K85	4,76	G	2	16,2	10,5	2,5	15°	1,2	☻	☻	☻
	ZDGT150430R-K85	4,76	G	2	16,2	10,5	3	15°	1,2	☻	☻	☻
	ZDGT150440R-K85	4,76	G	2	16,2	10,5	4	15°	1,2	☻	☻	☻
	ZDGT200508R-K85	5,56	G	2	21,2	14	0,8	15°	1,2	☻		☻
	ZDGT200512R-K85	5,56	G	2	21,2	14	1,2	15°	1,2			☻
	ZDGT200516R-K85	5,56	G	2	21,2	14	1,6	15°	1,2			☻
	ZDGT200520R-K85	5,56	G	2	21,2	14	2	15°	1,2	☻		☻
	ZDGT200530R-K85	5,56	G	2	21,2	14	3	15°	1,2	☻		☻
	ZDGT200540R-K85	5,56	G	2	21,2	14	4	15°	1,2	☻		☻
	ZDGT200550R-K85	5,56	G	2	21,2	14	5	15°	1,2			☻
	ZDGT200560R-K85	5,56	G	2	21,2	14	6	15°	1,2			☻
	ZDGT200564R-K85	5,56	G	2	21,2	14	6,4	15°	1,2			☻

ZDGT1504 and ZDGT2005 can be used in the M2131 ramping milling cutter

HW = Uncoated carbide
HC = Coated carbide

C2

Positive rhombic
ZDGT



Cutting inserts

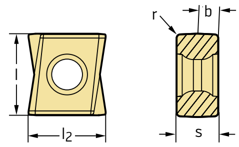
	Designation	s mm	Tolerance class	Number of cutting edges	l mm	l2 mm	r mm	α	b mm	N HW WMG40
	ZDGT15A404R-K85	4,76	G	2	16,2	10,5	0,4	15°	1,2	●
	ZDGT15A408R-K85	4,76	G	2	16,2	10,5	0,8	15°	1,2	●
	ZDGT15A412R-K85	4,76	G	2	16,2	10,5	1,2	15°	1,2	●
	ZDGT15A416R-K85	4,76	G	2	16,2	10,5	1,6	15°	1,2	●
	ZDGT15A430R-K85	4,76	G	2	16,2	10,5	3	15°	1,2	●
	ZDGT15A440R-K85	4,76	G	2	16,2	10,5	4	15°	1,2	●
	ZDGT20A508R-K85	5,56	G	2	21,2	14	0,8	15°	1,2	●
	ZDGT20A516R-K85	5,56	G	2	21,2	14	1,6	15°	1,2	●
	ZDGT20A520R-K85	5,56	G	2	21,2	14	2	15°	1,2	●
	ZDGT20A530R-K85	5,56	G	2	21,2	14	3	15°	1,2	●
	ZDGT20A540R-K85	5,56	G	2	21,2	14	4	15°	1,2	●
	ZDGT20A550R-K85	5,56	G	2	21,2	14	5	15°	1,2	●

ZDGT15A4 and ZDGT20A5 can be used in the M2131 and M2331 ramping milling cutters

HW = Uncoated carbide

C2

Tangential rhombic
LNHU

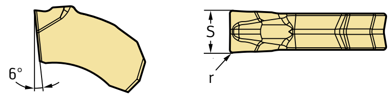


Cutting inserts

	Designation	s mm	Tolerance class	Number of cutting edges	l mm	l2 mm	r mm	b mm	N HC WXN15	N HW WK10
	LNHU090404R-L85T	4,5	H	4	9	8,5	0,4	1,5		
	LNHU130608R-L85T	6,8	H	4	13	12	0,8	2,2		

HW = Uncoated carbide
HC = Coated carbide

Slitting – Cutting inserts
SX



Cutting inserts

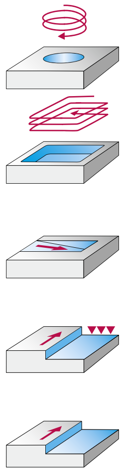
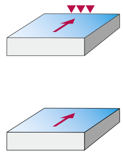
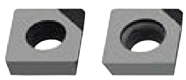
	Designation	s mm	r mm	f mm	S_{Tol} mm	l_{Tol} mm	N HW WK1	S HW WK1
	SX-1E150N01-SK8	1,5	0,1	0,03–0,08	±0,02	±0,05		
	SX-2E200N02-SK8	2	0,2	0,05–0,10	±0,02	±0,05		
	SX-3E300N02-SK8	3	0,2	0,05–0,15	±0,02	±0,05		
	SX-4E400N02-SK8	4	0,2	0,05–0,20	±0,02	±0,05		
	SX-5E500N04-SK8	5	0,4	0,05–0,25	±0,02	±0,05		

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

HW = Uncoated carbide

C2

Milling tools with indexable inserts

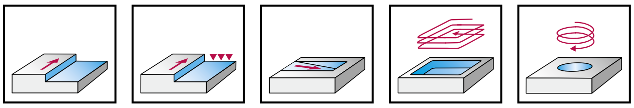
	M2331		M2131		F2250	
						
Lead angle κ	90°		90°		90°	
	Selection		Selection		Selection	
						
Designation	M2331		M2131		F2250	
Diameter range [mm] [inch]	40–50	*2,000*	25–80	*1,000–3,000*	*63–100*	—
Adaptor type						
DIN 1835 B						
DIN 138 parallel bore	✔	✔	✔	✔	✔	
ScrewFit			✔	✔		
Cylindrical shank			✔	✔		
Cylindrical, modular						
Steep taper						
HSK			✔			
NCT						
P Steel						
M Stainless steel						
K Cast iron						
N NF metals	●●		●●		●●	
S Materials with difficult cutting properties						
H Hard materials						
O Other	●		●			
Indexable inserts						
Number of cutting edges	2		2		1 / 1	
Max. depth of cut [mm]	15 - 20		15 - 20		3	
Page in catalogue	240		238		242	
QR code						
www.walter-tools.com/woc/	M2331		M2131		F2250	

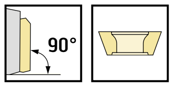
C2

Ramping milling cutter

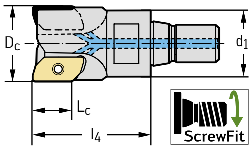
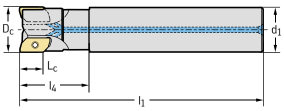
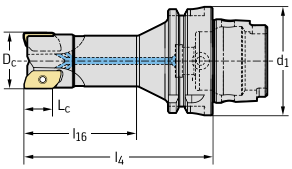
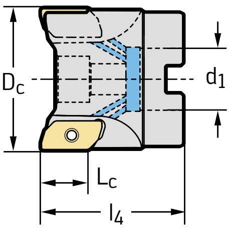
M2131 mm

– For pocket machining
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M2131				●●			●

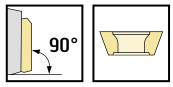
Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
 ScrewFit	M2131-025-T22-02-15	25	T22	45			15	2	0,12	2	ZD .. 1504 ..
	M2131-032-T28-02-15	32	T28	50			15	2	0,23	2	
	M2131-032-T28-02-20	32	T28	50			20	2	0,19	2	ZD .. 2005 ..
	M2131-032-T28-03-15	32	T28	50			15	3	0,21	3	ZD .. 1504 ..
	M2131-040-T36-02-20	40	T36	50			20	2	0,35	2	ZD .. 2005 ..
	M2131-040-T36-03-15	40	T36	50			15	3	0,39	3	ZD .. 1504 ..
 Cylindrical shank	M2131-025-A20-02-15-S	25	20	40		110	15	2	0,25	2	ZD .. 1504 ..
	M2131-025-A25-02-15-L	25	25	40		150	15	2	0,53	2	
	M2131-032-A20-02-15-S	32	20	40		110	15	2	0,29	2	
	M2131-032-A20-03-15-S	32	20	40		110	15	3	0,26	3	
	M2131-032-A25-02-15-L	32	25	40		175	15	2	0,65	2	
	M2131-032-A25-02-20-L	32	25	40		175	20	2	0,61	2	ZD .. 2005 ..
	M2131-032-A25-03-15-L	32	25	40		175	15	3	0,62	3	ZD .. 1504 ..
	M2131-032-A32-02-15-L	32	32	50		175	15	2	0,97	2	
	M2131-032-A32-02-20-L	32	32	50		175	20	2	0,93	2	ZD .. 2005 ..
	M2131-032-A32-03-15-L	32	32	50		175	15	3	0,96	3	ZD .. 1504 ..
 HSK DIN 69893-1 A	M2131-025-H63-02-15	25	63	110	60		15	2	1	2	ZD .. 1504 ..
	M2131-032-H63-02-15	32	63	110	65		15	2	1,05	2	
	M2131-050-H63-03-20	50	63	110	80		20	3	1,43	3	ZD .. 2005 ..
	M2131-050-H63-04-15	50	63	110	80		15	4	1,48	4	ZD .. 1504 ..
 Parallel bore DIN 138 transverse keyway	M2131-040-B16-03-15	40	16	50			15	3	0,27	3	ZD .. 1504 ..
	M2131-050-B22-03-20	50	22	60			20	3	0,44	3	ZD .. 2005 ..
	M2131-050-B22-04-15	50	22	50			15	4	0,38	4	ZD .. 1504 ..
	M2131-063-B22-04-20	63	22	50			20	4	0,52	4	ZD .. 2005 ..
	M2131-063-B22-05-15	63	22	50			15	5	0,61	5	ZD .. 1504 ..
	M2131-080-B27-05-15	80	27	60			15	5	1,39	5	

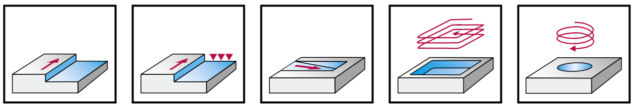
Pre-balanced tools
Tools with HSK have a residual imbalance of 3 gmm – with chip hole, without chip
M2131-...-D special interface for Dörries Scharmann (similar to HSK-A DIN 69893)
For HSK accessories, see "Assembly parts and accessories/Transfer units for HSK"
Bodies and assembly parts are included in the scope of delivery.

Ramping milling cutter

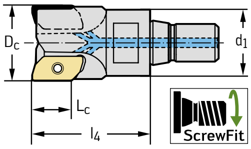
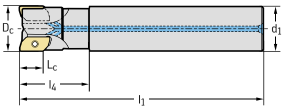
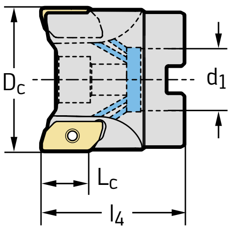
M2131 inch

– For pocket machining
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M2131				●●			●

Tool	Designation	D_c inch	d_1 inch	l_4 inch	l_1 inch	L_c inch	Z	lbs	No. of indexable inserts	Type
 ScrewFit	M2131.026-T22-02-15	1,000	T22	1,752		0,591	2	0,000	2	ZD .. 1504 ..
	M2131.031-T28-02-15	1,250	T28	2,000		0,591	2	0,009	2	
	M2131.031-T28-03-15	1,250	T28	2,000		0,591	3	0,008	3	
	M2131.038-T36-03-15	1,500	T36	2,000		0,591	3	0,015	3	
 Cylindrical shank	M2131.026-A26-02-15-L	1,000	1,000	1,500	6,000	0,591	2	0,021	2	ZD .. 1504 ..
	M2131.031-A26-02-15-L	1,250	1,000	1,500	7,000	0,591	2	0,026	2	
	M2131.031-A26-03-15-L	1,250	1,000	1,500	7,000	0,591	3	0,025	3	
	M2131.038-A31-03-15-L	1,500	1,250	2,252	7,000	0,591	3	0,042	3	
 Parallel bore DIN 138 transverse keyway	M2131.051-B19-03-20	2,000	0,750	2,000		0,787	3	0,014	3	ZD .. 2005 ..
	M2131.051-B19-04-15	2,000	0,750	2,000		0,591	4	0,016	4	ZD .. 1504 ..
	M2131.064-B26-04-20	2,500	1,000	2,000		0,787	4	0,019	4	ZD .. 2005 ..
	M2131.064-B26-05-15	2,500	1,000	2,000		0,591	5	0,021	5	ZD .. 1504 ..
	M2131.076-B26-05-15	3,000	1,000	2,000		0,591	5	0,037	5	
	M2131.076-B26-05-20	3,000	1,000	2,000		0,787	5	0,032	5	ZD .. 2005 ..

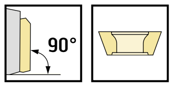
Pre-balanced tools
Bodies and assembly parts are included in the scope of delivery.

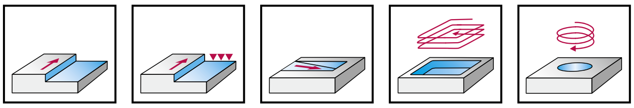
C2

Ramping milling cutter

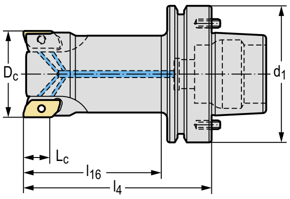
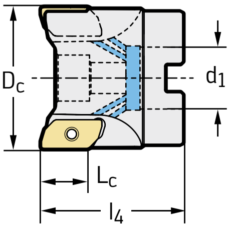
M2331 mm

– For pocket machining
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M2331				●●			●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	L_c mm	Z	kg	No. of indexable inserts	Type
	M2331-050-H80F-04-15-MA	50	80	110	80	15	4	1,89	4	ZD .. 15A4 ..
	M2331-040-B16-03-15	40	16	50		15	3	0,22	3	ZD .. 15A4 ..
	M2331-050-B22-03-15	50	22	50		15	3	0,39	3	
	M2331-050-B22-03-20	50	22	60		20	3	0,42	3	ZD .. 20A5 ..
	M2331-050-B22-04-15	50	22	50		15	4	0,34	4	ZD .. 15A4 ..
Parallel bore DIN 138 transverse keyway										

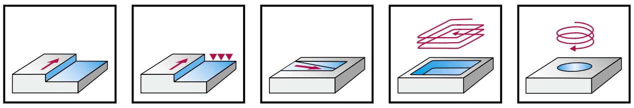
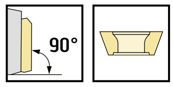
Pre-balanced tools
Tools with HSK have a residual imbalance of 3 gmm – with chip hole, without chip
M2331-...-MA special interface for Makino (similar to HSK-A DIN 69893)
Bodies and assembly parts are included in the scope of delivery.

C2

Ramping milling cutter

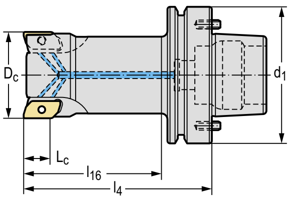
M2331 inch


– For pocket machining
– Two cutting edges per indexable insert

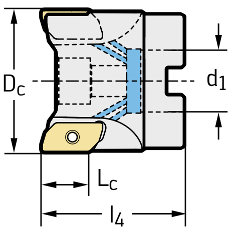



	P	M	K	N	S	H	O
M2331				●●			●

Tool



Designation	D_c inch	d_1 inch	l_4 inch	l_{16} inch	L_c inch	Z	lbs	No. of indexable inserts	Type
M2331.051-H80F-03-20-MA	2,000	3,150	4,331	3,150	0,787	3	0,074	3	ZD .. 20A5 ..
M2331.051-H80F-04-15-MA	2,000	3,150	4,331	3,150	0,591	4	0,075	4	ZD .. 15A4 ..
M2331.051-B19-03-15	2,000	0,750	2,000		0,591	3	0,018	3	ZD .. 15A4 ..



Parallel bore
DIN 138 transverse keyway

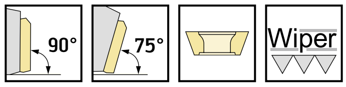
Pre-balanced tools
Tools with HSK have a residual imbalance of 3 gmm – with chip hole, without chip
M2331-...-MA special interface for Makino (similar to HSK-A DIN 69893)
Bodies and assembly parts are included in the scope of delivery.

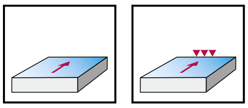
Face milling cutter for light metals

F2250 mm

SPH . 1204 . DR

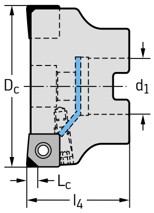
– Adjustable runout
– One cutting edge per indexable insert





	P	M	K	N	S	H	O
F2250				●●			

Tool



Parallel bore
DIN 138 transverse keyway

Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
F2250.B22.063.Z05.03	63	22	40	3	5	0,43	5	SPH . 1204 . DR
F2250.B27.080.Z06.03	80	27	50	3	6	0,78	6	
F2250.B32.100.Z07.03	100	32	50	3	7	1,32	7	

Pre-balanced tools
D_c 80–100 mm, basic body made of steel; D_c 125–200 mm, basic body made of aluminium
*Approach angle κ = 75° (EDR)/κ = 90° (PDR)
Bodies and assembly parts are included in the scope of delivery.

C2

Overview

Indexable insert	Indexable insert type	Tool	Tool type
ACGT0602..	Positive rhombic	M5130	Shoulder milling cutter
ADHT0803.. ADHT10T3.. ADHT1204.. ADHT1606..	Positive rhombic	F4042 F4042R F4038 F4138 F4238 F2010 F2252	Shoulder milling cutter Shoulder milling cutter Helical milling cutter Helical milling cutter Helical milling cutter Cartridge-type cutter Slot milling cutter
BCGT0903.. BCHT1204.. BCHT1605..	Positive rhombic	M5130	Shoulder milling cutter
MPHX1204..	Positive rhombic	F2252	Slot milling cutter
ODHT0504.. ODHT0605..	Positive octagonal	F4080 F2010	Face milling cutter
RDGT0803.. RDGT10T3.. RDGT1204.. RDGT1605.. RDGT2006..	Positive round	F2231 F2234	Copy milling cutter
SDHT06T2.. SDHT09T3.. SDHT1204..	Positive square	M4002 M4132 M4574 M4575 M4791 F2010	High-feed milling cutter Shoulder milling cutter Chamfer milling cutter T-slot milling cutter Routing cutter Cartridge-type cutter
SPHT0603.. SPHT09T3.. SPHT1204..	Positive square		
XOEN12T3.. XOEX12T3.. SPHW1204.. SPHX1204..	PCD	M2127 M2127 F2250 F2250	Face milling cutter
ZDGT1504.. ZDGT2005..	Positive rhombic	M2131	Ramping milling cutter
ZDGT15A4.. ZDGT20A5..	Positive rhombic	M2131 M2331	Ramping milling cutter
LNGX1307..	Negative rhombic	F4041 F2010	Shoulder milling cutter Cartridge-type cutter
SNHX0904.. SNHX1205..	Negative square	M5009 M5012	Face milling cutter
LNHU0904.. LNHU1306..	Tangential rhombic	F5041 F5038 F5141 F5138 F2010	Shoulder milling cutter Helical milling cutter Shoulder milling cutter Helical milling cutter Cartridge-type cutter
SX-1E150N01.. SX-2E200N02.. SX-3E300N02.. SX-4E400N02.. SX-5E500N04..	Slitting	F5055	Slitting cutter

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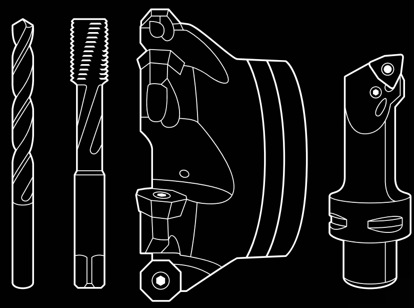

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Info Area

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