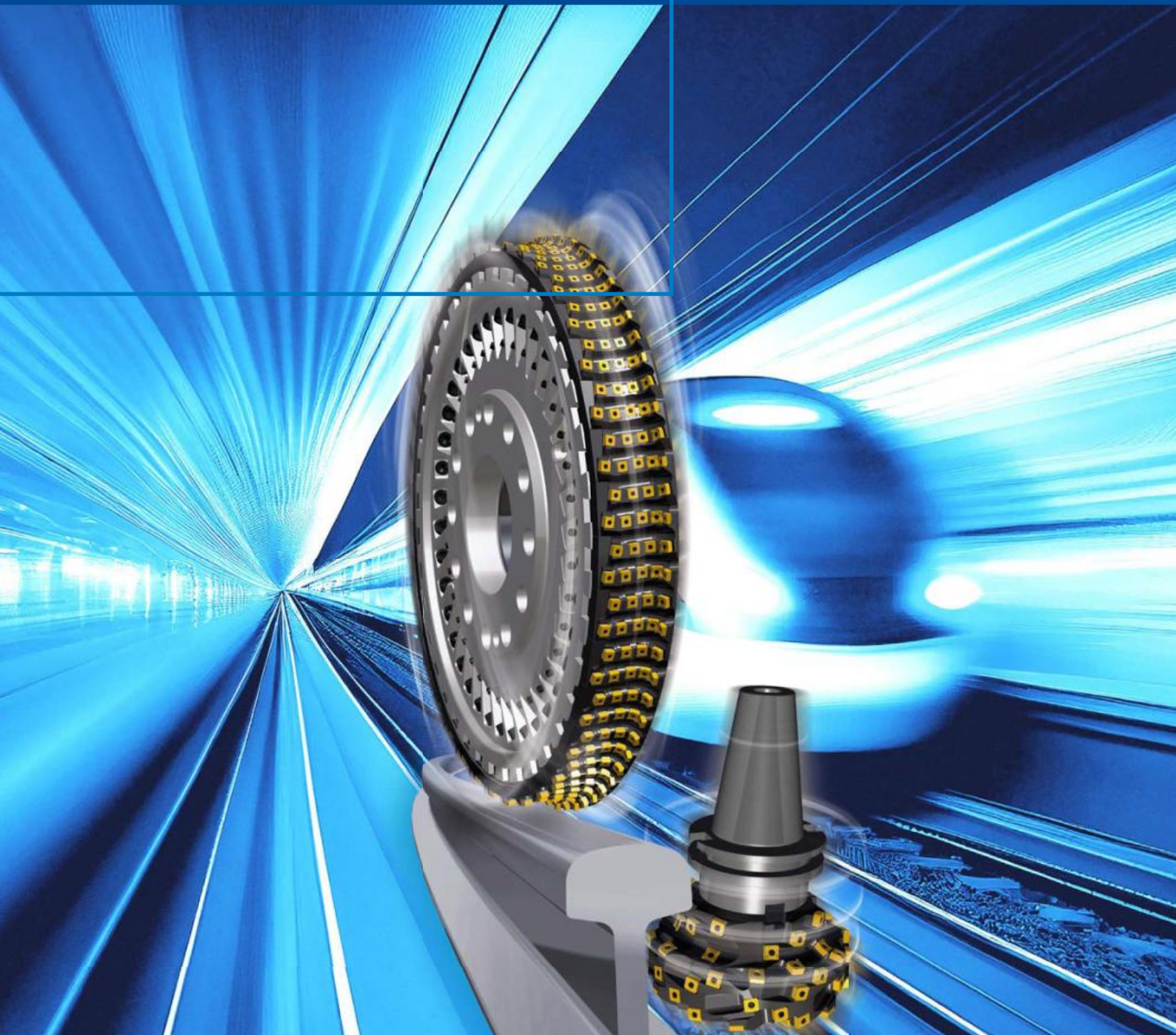


boehlerit

鐵道鋼軌和道岔加工
Rail- and turnout
machining



Boehlerit – 硬質合金開發先驅

Boehlerit是一家家族企業，隸屬於Brucklacher集團（Leitz、Bilz和Boehlerit），總部位於奧地利小鎮卡芬貝格，為金屬、木材、塑膠和複合材料加工的硬質合金和刀具制定了全球標準。

憑藉用於銑削、車削、鑽孔和成型的切削材料、半成品、精密刀具和刀具系統，Boehlerit確保了全球範圍內的工藝安全性和效率。該公司廣泛的產品組合包括用於曲軸加工以及採礦業、棒材剝皮、管材和板材加工以及重型加工的高度專業化工具。Boehlerit產品系列還具有用於建築部件和磨損保護的碳化物。

在塗層技術方面，Boehlerit在全球範圍內佔據著獨特的地位，從有史以來第一個奈米CVD黏合層到全球最硬的鑽石層。憑藉在冶金、塗層技術和最先進的沖壓技術方面的多年經驗，Boehlerit成為刀具製造商的高素質開發合作夥伴。

Boehlerit – Pioneer in carbide development www.boehlerit.com

Boehlerit, a family business that is part of the Brucklacher group (Leitz, Bilz and Boehlerit) and headquartered in the Austrian town of Kapfenberg, sets global standards with carbides and tools for the processing of metal, wood, plastics and composites. With cutting materials, semi-finished products, precision tools and tool systems for milling, turning, drilling and forming, Boehlerit ensures process safety and efficiency on a global scale. The company's extensive product portfolio includes highly specialised tools for the machining of crankshafts as well as for the mining industry, for bar peeling, tube and sheet metal processing and heavy-duty machining. The Boehlerit product range also features carbides for construction components and wear protection. When it comes to coating technology, Boehlerit occupies a unique position worldwide, ranging from the first-ever nano-CVD bonding layer to the hardest diamond layer worldwide. With its many years' experience in metallurgy, coating technology and state-of-the-art press technology, Boehlerit is a highly competent development partner for toolmakers.



hard facts for best results

生產基地

Boehlerit集團制定了國際品質標準。每年，公司都會投資新的生產技術並擴大其先進生產基地的產能。奧地利、德國和土耳其製造的高品質產品融合了最新的研發成果。

Production sites

The Boehlerit Group sets international quality standards. Every year, the company invests in new production technologies and in the expansion of capacities at its advanced production sites. High-quality products made in Austria, Germany and Turkey incorporate the latest research and development findings.



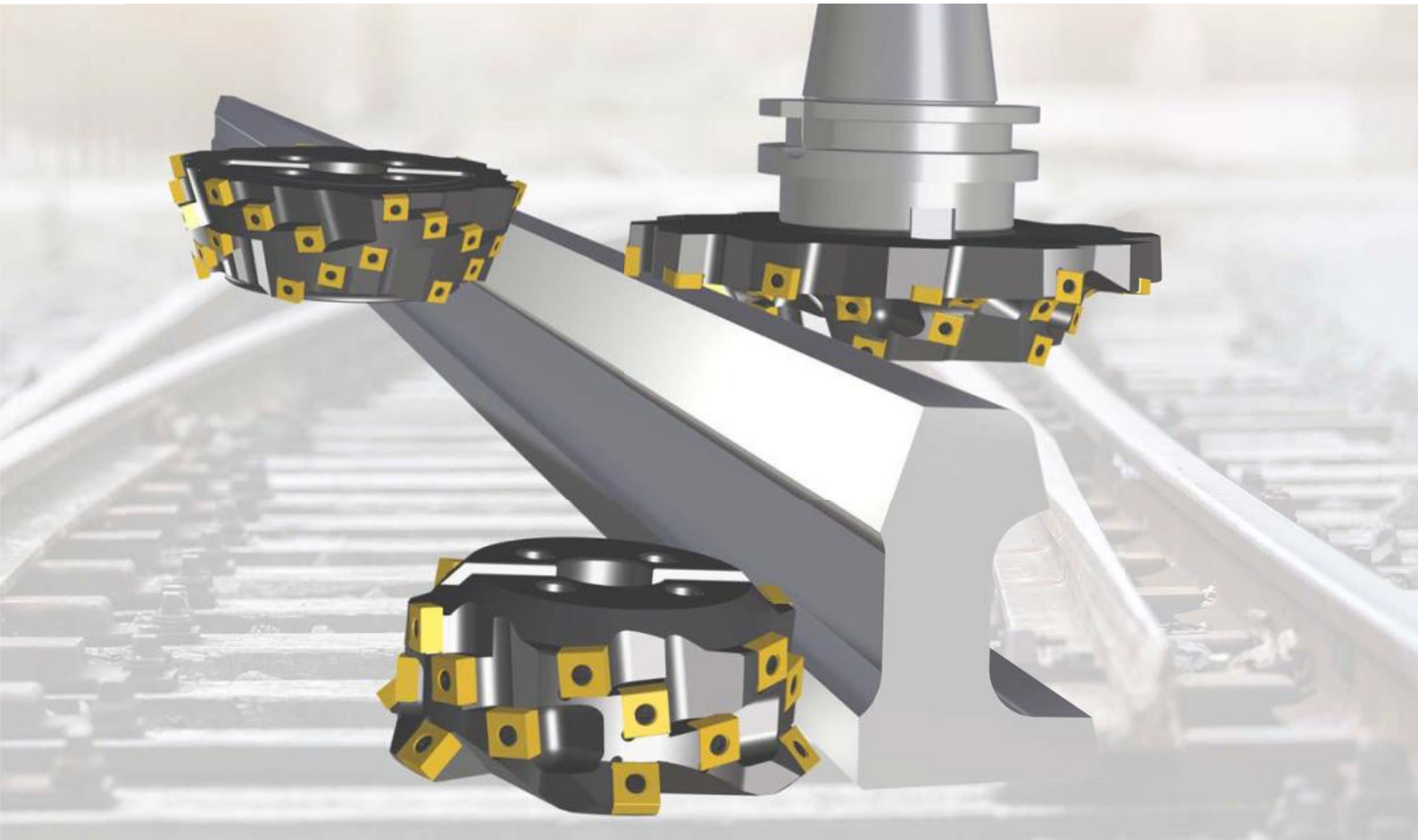
Boehlerit Kapfenberg (Headquarter)
in der Steiermark/Österreich Styria/Austria



Boehlerit Sert Metal
in Istanbul/Türkei Turkey



Boehlerit Deutschland
in Oberkochen Deutschland/Germany



對於每個處理步驟 正確的銑刀

道岔是鐵軌上壓力很大，昂貴的元素，設計複雜，生產要求高。精確、高效地製造的組件可確保最佳功能並延長工具壽命。

Boehlerit為您提供：

可靠的刀具和精確的切削以進行道岔加工量身定制的設計可滿足您的需求。



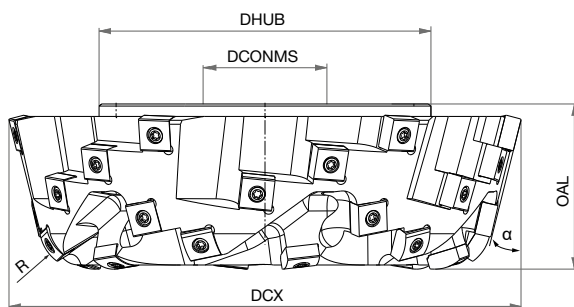
The right milling tool for every processing step

We know that turnouts are highly stressed, expensive elements of the railway track, complex in terms of design and demanding in terms of production. Precisely, efficiently manufactured components ensure optimal functionality and a long tool life.

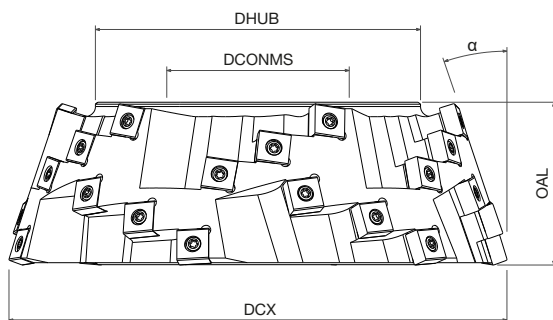
Boehlerit offers you:

Robust tools and precise cutting for turnout machining Tailor-made designs to fit your profile.

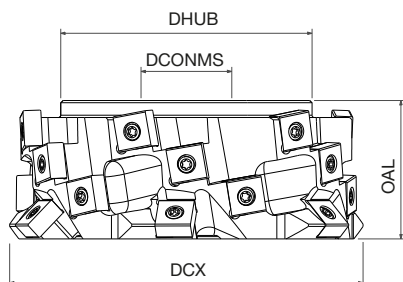




Artikelbezeichnung Item code	Bestell-Nr. Ordering No.	Verfügbarkeit Availability								Ersatzteil Spar parts
			∅ DCX	∅ DHUB	∅ DCONMS	OAL	α	R	ZEFF☼	
D-06-243/ R20 R	5132271	○	250	162	60	80	14°	20	36	Spannschraube Fixation screw A021-S0150 5132563
D-06-242/ R20 L	5193143	○	250	162	60	80	14°	20	36	



Artikelbezeichnung Item code	Bestell-Nr. Ordering No.	Verfügbarkeit Availability								Ersatzteil Spar parts
			∅ DCX	∅ DHUB	∅ DCONMS	OAL	α	R	ZEFF☼	
D-06-239/ 18,5°	5132273	○	250	162	60	80	18,5	-	36	Spannschraube Fixation screw A021-S0150 5132563



Artikelbezeichnung Item code	Bestell-Nr. Ordering No.	Verfügbarkeit Availability								Ersatzteil Spar parts
			∅ DCX	∅ DHUB	∅ DCONMS	OAL	α	R	ZEFF☼	
D-06-240/Z1153 L	5132272	○	164	112	40	60	-	-	24	Spannschraube Fixation screw A021-S0150 5132563

Bestellbeispiel Order example:
1 Stück Piece D-06-243/R20 R oder or 5132271

***)可根據要求定制設計! 我們很樂意為您提供建議!**
*)Customized designs on request! We will be happy to advise you!

CEDC = Anzahl der Schneidkanten CEDC = Number of cutting edges	Artikelbezeichnung Item code	Schneidstoff-sorte Cutting materials	Bestell-Nr. Ordering No.	Verfügbarkeit Availability	Abmessungen [mm] Dimensions [mm]					
					IC	S	D1	RE	R	α
 CEDC = 8	SNNX 1507-FP	BCP40M	5136526	●	15,88	7,94	5,8	-	-	-
 CEDC = 8	SNNQ 1507	BCP35M	5127251	●	15,88	7,94	5,8	0,6	-	-
	SNNQ 1507	BCP40M	5127269	●	15,88	7,94	5,8	0,6	-	-
 CEDC = 4	SNNX 150706	BCP35M	5127275	○	15,88	7,94	5,8	0,6	-	-
	SNNX 150706	BCP40M	5127276	●	15,88	7,94	5,8	0,6	-	-
 CEDC = 4	SNNX 150720	BCP35M	5127278	○	15,88	7,94	5,8	2	-	-
	SNNX 150720	BCP40M	5127280	●	15,88	7,94	5,8	2	-	-
 CEDC = 2	SNNX 1507 - OR10	BCP35M	5127299	○	15,88	7,94	5,8	-	10	-
	SNNX 1507 - OR10	BCP40M	5127306	●	15,88	7,94	5,8	-	10	-
	SNNX 1507 - OR14	BCP35M	5127281	○	15,88	7,94	5,8	-	14	7°
	SNNX 1507 - OR14	BCP40M	5127290	●	15,88	7,94	5,8	-	14	7°
	SNNX 1507 - OR20	BCP35M	5127292	○	15,88	7,94	5,8	-	20	17°
	SNNX 1507 - OR20	BCP40M	5127294	●	15,88	7,94	5,8	-	20	17°
 CEDC = 4	SNNX 1507-IR13	BCP35M	5127315	○	15,88	7,94	5,8	-	13	-
	SNNX 1507-IR13	BCP40M	5127316	●	15,88	7,94	5,8	-	13	-

Bestellbeispiel Order example: 10 Stück piece SNNX 150720 oder or 5127278

● Verfügbar ab Lager Available from stock
○ Lieferzeit auf Anfrage Delivery time on request



完美保養的鐵軌

完美保養的鐵軌使乘坐擁有舒適性，也使刀具壽命長和操作安全性擁有高水平。借助我們專門設計的軌道銑削系統，賦予了磨損的軌道新生命，精確度和效率都很高。

Boehlerit為您提供履帶銑削系統，可對磨損的鋼軌進行完美的重型加工，並根據您的要求量身定制。
速度：0.2 – 3 mm，最高2500 m/h。

優點：

- 堅固耐用的設計
- 一體式或刀片式版本，可快速更換刀具
- 高度精確的設計可提供精確的銑削結果

Perfectly maintained rails

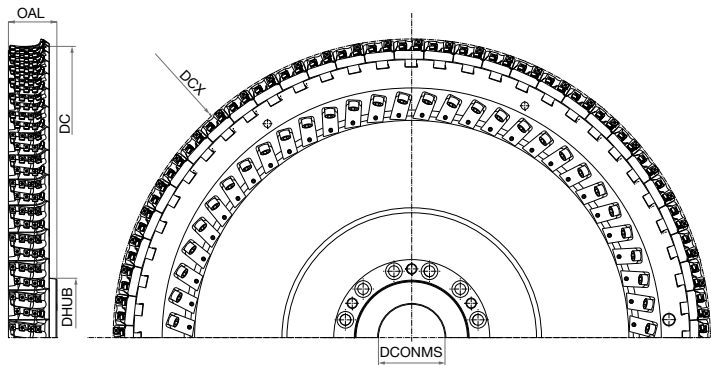
Perfectly maintained rails are a prerequisite for excellent riding comfort, a long tool life and a high level of operational safety. With our specially designed track-milling system, worn rails are given a new lease of life, with great precision and efficiency. Boehlerit offers you track-milling systems for the perfect re-profiling of worn rails, tailored to fit your exact requirements. Removal rate: 0.2 – 3 mm, up to 2500 m/h.

Benefits:

- Robust, durable design
- Monobloc or cartridge version for speedy tool changes
- Highly precise design for clean, exact milling results



Fräser für die Schienenbearbeitung
Milling Cutter for Railway machining



Artikelbezeichnung Item code	Bestell-Nr. Ordering No.	Verfügbarkeit Availability						
			Ø DC	Ø DCX	Ø DHUB	Ø DCONMS	OAL	ZEFF ^o
D-75-140/Z-15745 Right	5066120	○	1400	1437	280	160	116	36
D-75-139/Z-15745 Left	5066114	○	1400	1437	280	160	116	36

Bestellbeispiel Order example: 1 Stück Piece BF45 HP12.125BT Z07 R oder or 5144138
Fräser einsatzfertig montiert - exklusive Wendschneidplatte
Milling cutter ready to use - exclusive Inserts

Ersatz-Kassette und Ersatzteile für Planfräskopf 45° HP12
Replacment-cartridge and spare parts for face milling cutter 45° HP12

	Kassette Rechts Cartridge D-72-473 5066123			
	Kassette Links Cartridge D-72-472 5066122	Unterlagsplatte Shim D-20-060 5062628	Gewindehülse Shim screw D-23-005 6413185	Spannschraube Fixation screw D-22-020 6413184

CEDC = Anzahl der Schneidkanten CEDC = Number of cutting edges	Artikelbezeichnung Item code	Schneid- stoffsorte Cutting materials	Bestell-Nr. Ordering No.	Verfügbarkeit Availability	Abmessungen [mm] Dimensions [mm]			
					IC	S	D1	RE
 CEDC = 8	SNNQ 1206	BCM35W	5200973	○	12,7	6,35	4,5	0,8
 CEDC = 4	SNNX 1306 IR13	BCM35W	5200978	○	13,5	5,35	4,5	0,8

^{*)}可根據要求定制設計！ 我們很樂意為您提供建議！
^{*)}Customized designs on request! We will be happy to advise you!

● Verfügbar ab Lager Available from stock
○ Lieferzeit auf Anfrage Delivery time on request



一個刀盤多種選擇 One basic body - many options

BULLtec® 2.0 Serie

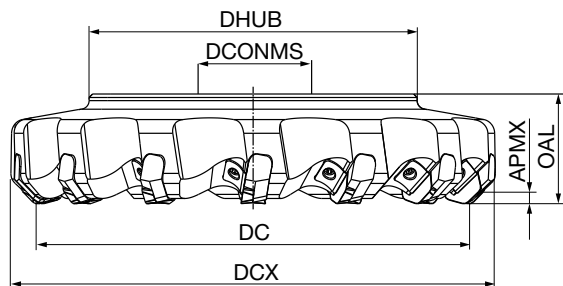
模組化BULLtec® 2.0刀具系統為重型加工的性能、成本效益和靈活性樹立了新標準。其小型、經濟的刀夾易於更換，可用於多種不同材料的表面銑削。單一 BULLtec® 2.0 刀具系統由刀盤和用於可轉位切削刀片的可更換刀架組成。不同的刀架類型可以與不同尺寸的刀盤靈活組合，與其他系統相比大大增加了靈活性。創新的固定設計確保刀盤本體、刀夾和可轉位切削刀片穩定、精確地融合，無需進一步調整。

透過這種方式，BULLtec® 2.0 工具可以快速、輕鬆地適應特殊任務，或根據需要從頭開始設定。此外，可轉位刀片的可觸及位置使得更換它們變得非常容易。由於採用專門設計的可轉位刀片主偏角，所有 BULLtec® 2.0 刀具系統均以其特別柔軟的切削而脫穎而出，從而保護刀具和機器並顯著延長刀具壽命。

The modular BULLtec® 2.0 tooling system sets new standards for performance, cost-efficiency and flexibility in heavy-duty machining. Its small, economical cartridges are easy to replace and can be used for face milling of a wide range of different materials. A single BULLtec® 2.0 tooling system consists of a base body and exchangeable cartridges for the indexable cutting inserts. Different cartridge types may be combined flexibly with different-sized base bodies, greatly increasing flexibility in comparison with other systems. The innovative tool holders ensure the stable, precise fusion of the base body, the cartridges and the indexable cutting inserts, without the need for further adjustments. In this way, BULLtec® 2.0 tools may be adapted to special tasks quickly and effortlessly, or set up from scratch where required. In addition, the accessible position of the indexable inserts makes it astonishingly easy to exchange them. Thanks to the specially designed approach angle of the indexable inserts, all the BULLtec® 2.0 tooling systems stand out for their particularly soft cut, thereby protecting tools and machines and significantly increasing tool life.



Planfräskopf 45° / SP.. 20
Face milling cutter 45° / SP.. 20





Artikelbezeichnung Item code	Bestell-Nr. Ordering No.	Verfügbarkeit Availability	Abmessungen [mm] Dimensions [mm]						
			DC	DCX	DHUB	DCONMS	OAL	APMX	ZEFF [⊙]
BF45 SP20.125BT Z07 R	5144152	○	125	147	120	40	63	10	7
BF45 SP20.160BT Z09 R	5144153	●	160	182	120	40	63	10	9
BF45 SP20.200BT Z11 R	5144154	●	200	222	159	60	63	10	11
BF45 SP20.250BT Z14 R	5144156	●	250	272	190	60	63	10	14
BF45 SP20.315BT Z18 R	5144157	●	315	337	274	60	63	10	18
BF45 SP20.400BT Z18 R	5144158	○	400	422	274	60	80	10	18
BF45 SP20.400BT Z22 R	5144159	○	400	422	274	60	80	10	22
BF45 SP20.500BT Z22 R	5144160	○	500	522	274	60	80	10	22
BF45 SP20.500BT Z26 R	5144162	○	500	522	274	60	80	10	26

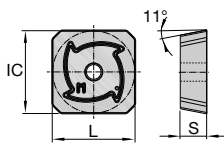

Bestellbeispiel Order example: 1 Stück Piece 5144152 oder or BF45 SP20.125BT Z07 R
 Fräser einsatzfertig montiert - exklusive Wendeschneidplatte
 Milling cutter ready to use - exclusive Inserts

Hinweis: Linksausführung **L** auf Anfrage
 Note: Left hand version **L** on request

Ersatz-Kassette und Ersatzteile für Planfräskopf 45° SP20
Replacement-cartridge and spare parts for face milling cutter 45° SP20

	<p>Kassette CBT45 SP20 R inkl. Spannschraube Cartridge CBT45 SP20 R incl. fixation screw 5136693</p>		<p>Spannschraube für Kassette Fixation screw for cartridge 5049762</p>		<p>Spannkeil Wedge clamp 5132639</p>		<p>Spannschraube für Spannkeil Fixation screw for wedgeclamp 5132480</p>		<p>Drehmoment- schlüssel Torque wrench 5136235</p>
---	---	---	---	--	---	---	---	---	--

Bestellbeispiel Order example: 1 Stück Piece Kassette Cartridge 5136693 oder or CBT45 SP20 R

N = Anzahl der Schneidkanten N = Number of cutting edges	Artikelbezeichnung Item code	Schneidstoffsorte Cutting materials	Bestell-Nr. Ordering No.	Verfügbarkeit Availability	Abmessungen [mm] Dimensions [mm]		
					L	IC	S
  CEDC = 4	SPKN 2006 ADSN	BCP20M	5173433	○	20	20	6,35
	SPKN 2006 ADSN	BCP25M	5190694	●	20	20	6,35
	SPKN 2006 ADSN	BCP30M	5190697	○	20	20	6,35
	SPKN 2006 ADSN	BCP35M	5137986	●	20	20	6,35
	SPKN 2006 ADSN	BCM40M	5137989	●	20	20	6,35
	SPKN 2006 ADSN	BCK15M	5190708	○	20	20	6,35
	SPKN 2006 ADSN	BCK20M	5176323	●	20	20	6,35

Bestellbeispiel Order example: 10 Stück piece 5173433 oder or SPKN 2006 ADSN BCP20M

Empfehlung: Mindestens Aufnahme SK-60 verwenden!
 Recommendation: Use at least chuck SK-60!

- Verfügbar ab Lager Available from stock
- kurzfristig lieferbar shortly available
- Auf Anfrage On request

● **BCK15M (HC-K15) TERAspeed 2.0**

Ausgesuchte Rohstoffe für ein optimiertes K15-Hartmetallsustrat mit einer extrem harten und verschleißfesten HR-CVD Mehrlagen-Beschichtung. Ideal geeignet für die Trockenbearbeitung von Grauguss (GJL), Kugelgraphitguss (GJS), Temperguss und legiertem Guss.

● **BCK20M (HC-K20/P10)**

Zähes K20 Substrat und eine dicke PVD-Beschichtung für die Bearbeitung von Gussmaterialien.
Auch als Schlichtsorte für die Stahlzerspanung und für die Bearbeitung von Kaltarbeitsstählen härter als 54 HRC geeignet.

● **BCK15M (HC-K15) TERAspeed 2.0**

Selected raw materials for an optimised K15 carbide substrate with a particularly hard and wear-resistant HR-CVD multilayer coating. Ideal for dry machining of grey cast iron (GJL), spheroidal graphite cast iron (GJS), tempered cast iron and alloyed cast iron.

● **BCK20M (HC-K20/P10)**

Tough K20 substrate and a thick PVD coating for the machining of cast materials.
Also suited as finishing grade for steel cutting and the machining of cold work steels of 54 HRC.

Schnittwertempfehlung für Fräser 45°

Cutting data recommendations for Milling Cutter 45°

ISO 513	BZG	Kühlung Cooling			Schnittdaten v _c [m/min] Cutting data v _c [m/min]			
		MMS/Luft MMS/Air	Trocken Dry	Nass Wet	BCP35M BCP40M	BCM35W	BCM40M	BCK15M BCK20M
P	P1	●	●		180 - 260	---	200 - 260	220 - 280
	P2	●	●		160 - 200	---	160 - 220	190 - 240
	P3	●	●		120 - 160	---	130 - 170	150 - 190
	P4	●	●		110 - 150	---	120 - 150	---
	P5	●	●		120 - 170	---	130 - 190	140 - 200
M	M1	●	●	●	---	120 - 200	110 - 160	---
	M2	●	●	●	---	80 - 130	70 - 120	---
K	K1	●	●		---	---	---	220 - 360
	K2	●	●		---	---	---	150 - 190
	K3	●	●		---	---	---	170 - 240
S	S1	●	●	●	---	70 - 90	55 - 70	---
	S2	●	●	●	---	35 - 45	25 - 35	---
	S3	●	●	●	---	50 - 100	30 - 70	---
	S4	●	●	●	---	30 - 80	25 - 50	---

Schnittwertempfehlung für BULLtec®

Bei Verwendung des Systems BULLtec® 2.0 ist eine Reduktion der Schnittdaten von 30 - 40% zu beachten!

Cutting data recommendations for BULLtec®

When using the Bulltec® 2.0 system, a reduction in cutting data of 30 - 40% should be noted!

- empfohlene Anwendung recommended application
- alternative Anwendung um 30 - 50 % reduzieren
alternative application reduced by 30 - 50 %

日 易 暉 机 械

台北市敦化南路二段40號2樓 郵遞區號: 106
2/F, No. 40, Sec. 2, Tun Hwa S. Road,
Taipei, Taiwan Zip: 106
Tel: 886-2-2705-8448
Fax: 886-2-2700-8430

上海市天鑰橋路325號嘉匯國際廣場A幢2101-2102室 郵編: 200030
Room 2101-2102, Gateway International Plaza, Building A, No.325, Tian
Yao Qiao Road, Shanghai, China Zip: 200030
Tel: 86-21-3363-2088 & 3363-2099
Fax: 86-21-3363-3303

上海辦事處	電話: 86-21-3363-2088	傳真: 86-21-3363-3303
天津辦事處	電話: 86-22-5817-3069	傳真: 86-22-5817-3069
成都辦事處	電話: 86-28-8526-6681	傳真: 86-28-8526-6684
重慶辦事處	電話: 86-23-6757-3205	傳真: 86-23-6757-3207
長春辦事處	電話: 86-431-8461-7085	傳真: 86-431-8461-7087
外高橋保稅庫	電話: 86-21-5868-3075	傳真: 86-21-5868-3076

台北辦事處	電話: 886-2-2705-8448	傳真: 886-2-2700-8430
台中辦事處	電話: 886-4-2463-8159	傳真: 886-4-2463-8160