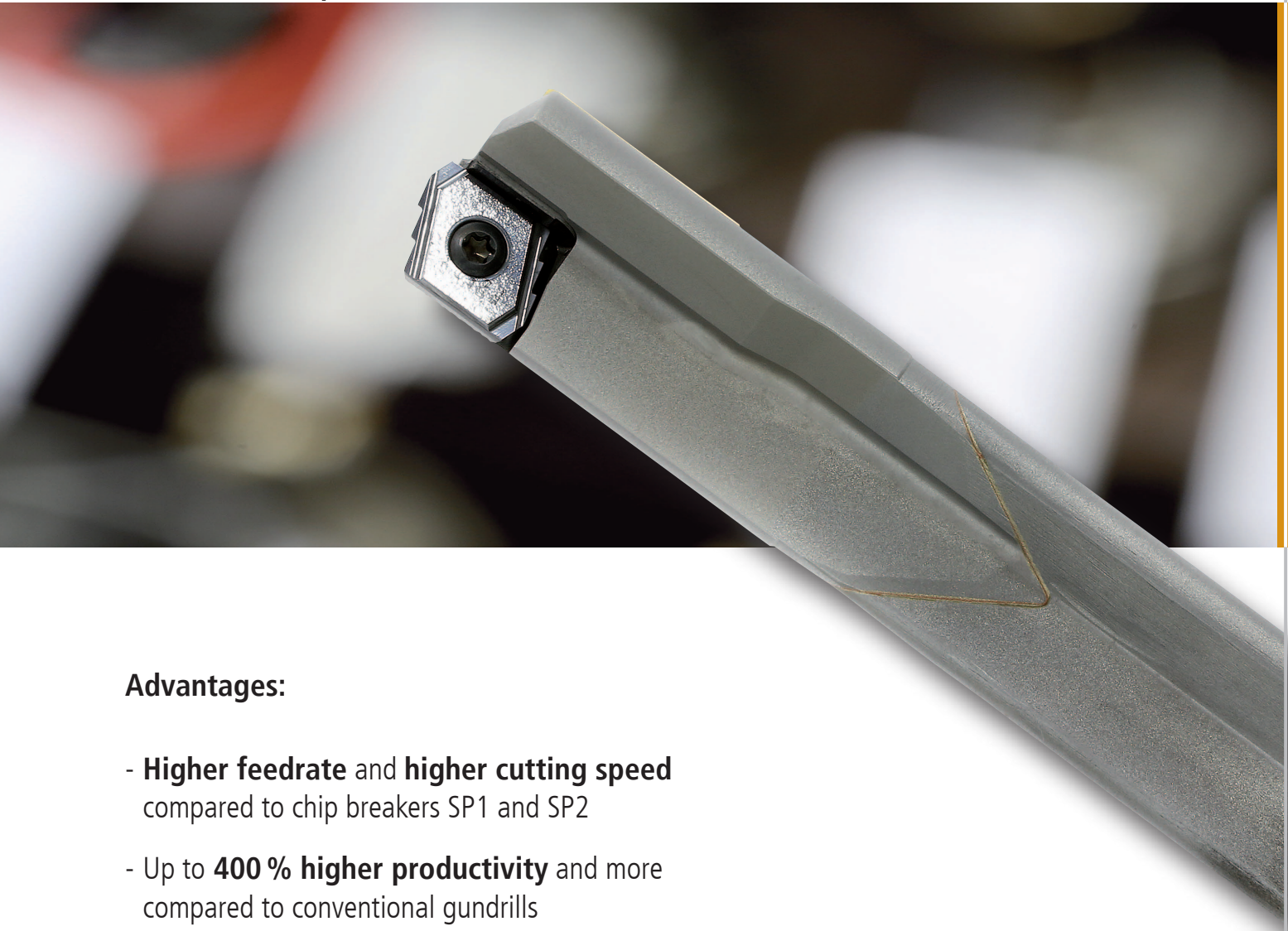


INNOVATION

botek[®]

DEEP HOLE DRILLING SYSTEMS
SOLID CARBIDE TOOLS

High Performance Inserts
High Productivity and Wide Range of Application
New Chip Breaker **SP91**



Advantages:

- **Higher feedrate** and **higher cutting speed** compared to chip breakers SP1 and SP2
- Up to **400 % higher productivity** and more compared to conventional gundrills
- **Higher lifetime per insert** together with improved process reliability
- Positive chip breaker for good chip control also with long chipping steels
- Application for material groups **ISO P** and **ISO M**
- Available in **standard grades K30BX** (Ø 12.00 - 17.99 mm) and **P25BX** (Ø 18.00 - 43.99 mm)



Sample applications:

Material:	40CrMnNiMo8-6-4/1.2738	Material:	C60E/1.1221	Material:	X17CrNi16-2/1.4057
Strength:	1100 N/mm ²	Strength:	900 N/mm ²	Strength:	950 N/mm ²
Application:	Mold production	Application:	Automotive	Application:	Special machine
Type of tool:	Type 01 (Gundrill)	Type of tool:	Type 11 (BTA)	Type of tool:	Type 01 (Gundrill)
Drill-Ø:	15 mm	Drill-Ø:	23 mm	Drill-Ø:	13.5 mm
Drilling depth:	1100 mm	Drilling depth:	300 mm	Drilling depth:	260 mm
Cutting speed v_c :	60 m/min	Cutting speed v_c :	80 m/min	Cutting speed v_c :	90 m/min
Feed f:	0.11 mm/rev	Feed f:	0.12 mm/rev	Feed f:	0.125 mm/rev
Coolant:	Water soluble / Emulsion	Coolant:	Oil	Coolant:	Oil

<p>200 %</p> <p>v_c 50 m/min f 0.066 mm</p> <p>v_c 60 m/min f 0.11 mm</p> <p>321 - SP1 321 - SP91</p>	<p>325 %</p> <p>60 Parts</p> <p>195 Parts</p> <p>310 - SP1 310 - SP91</p>	<p>470 %</p> <p>v_c 60 m/min f 0.04 mm</p> <p>v_c 90 m/min f 0.125 mm</p> <p>Gundrill 321 - SP91</p>
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Available for the following types of tools:

<p>Type 01 Ø 12.00 - 43.99 mm System Gundrill</p>	<p>Type 60 Ø 18.40 - 36.20 mm System Ejector 4-start connection thread</p>
<p>Type 11 Ø 14.55 - 36.99 mm System BTA 1-start connection thread</p>	<p>Type 61 Ø 15.65 - 36.20 mm System BTA 4-start connection thread</p>

Let us know your application – we develop your drilling process and accompany you from development stage to successful realization.

Further information: www.botek.de

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