

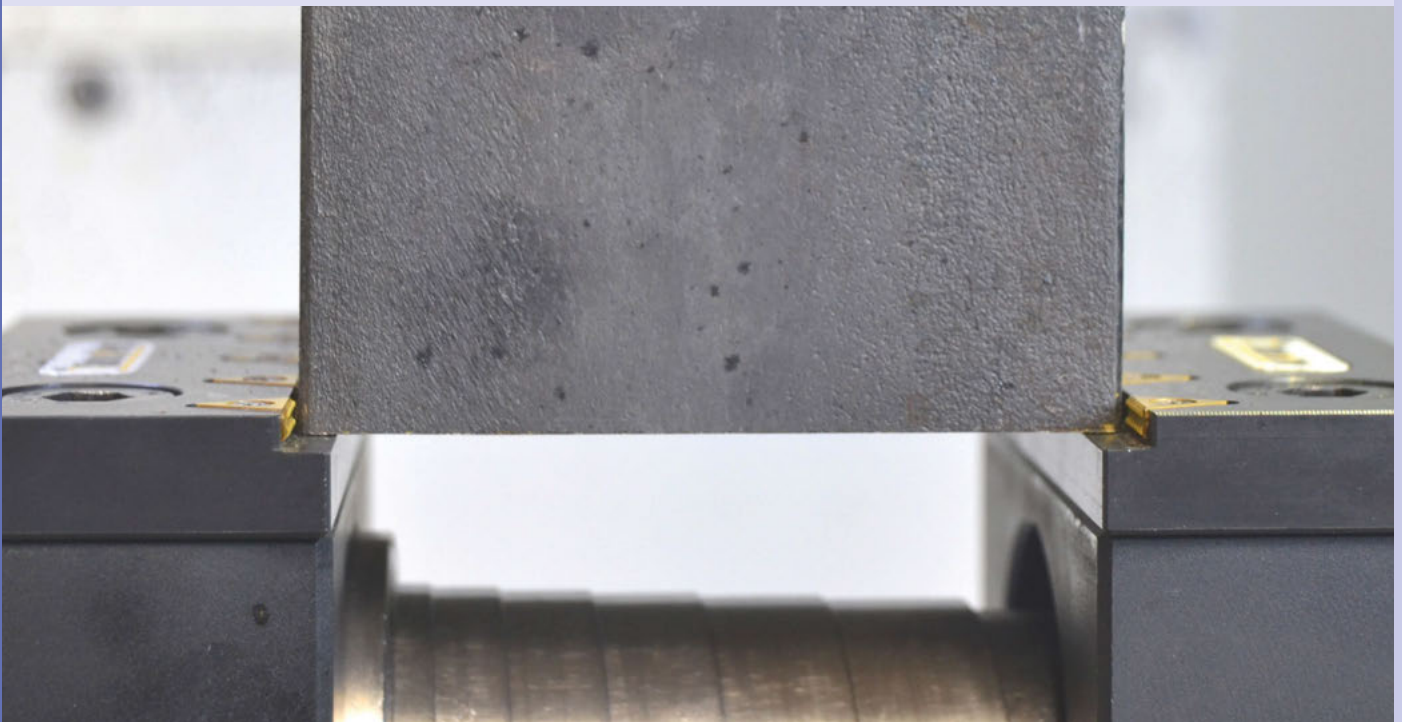
Lowest clamping depth without pre-marking

Thanks to the **SinterGrip clamping inserts**, it is possible to clamp workpieces safe with a clamping depth of just 3.5 mm, so the workpiece can be completely machined in a single operation. This reduces the cost of materials, particularly where raw material costs considerably influence the piece price. **SinterGrip** also optimizes the performance of the machine and tools: Faster cutting and feeding speeds mean larger cutting volumes and shorter machining times for each workpiece.

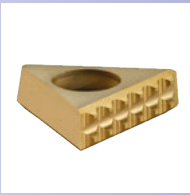
In addition, production steps required until now, such as workpiece pre-marking, are no longer necessary. Eliminating the pre-marking process reduces investment costs and saves on upstream processing costs. Considerable time is also saved as the workpiece can be clamped immediately by eliminating upstream processes.

The triangular insert with pyramidal teeth penetrates into the material, creating a positive fit between the clamp and the workpiece. The forces and vibrations generated during machining are evenly distributed and absorbed.

SinterGrip comes in 3 different versions for different materials: Steel, hardened steel (up to 54 HRC) / titanium and aluminium / plastic. **SinterGrip** is compatible with all commonly available types of vises and clamping devices.



SinterGrip clamping inserts



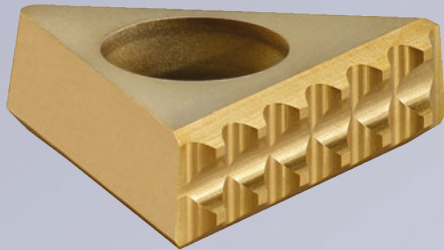
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SinterGrip

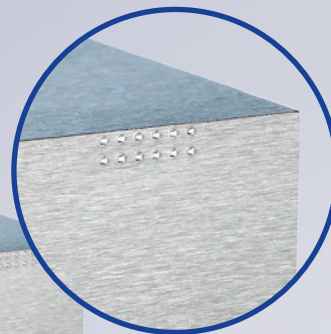
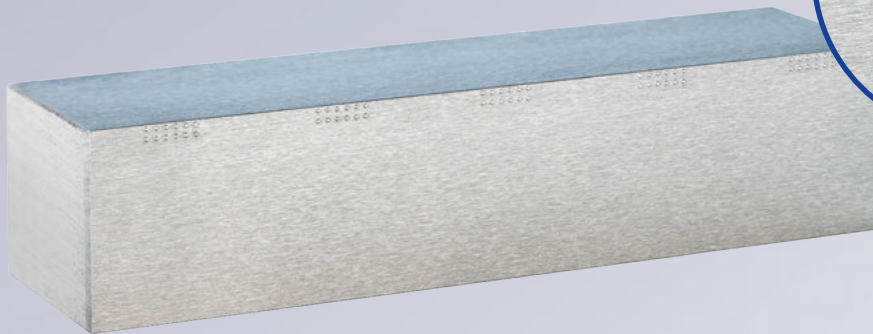
Clamping inserts

- Low clamping depth of only 3.5 mm
- No pre-marking necessary
- Highest stability and active vibration absorption
- Increase of the cutting forces compared to other systems

SinterGrip Clamping inserts

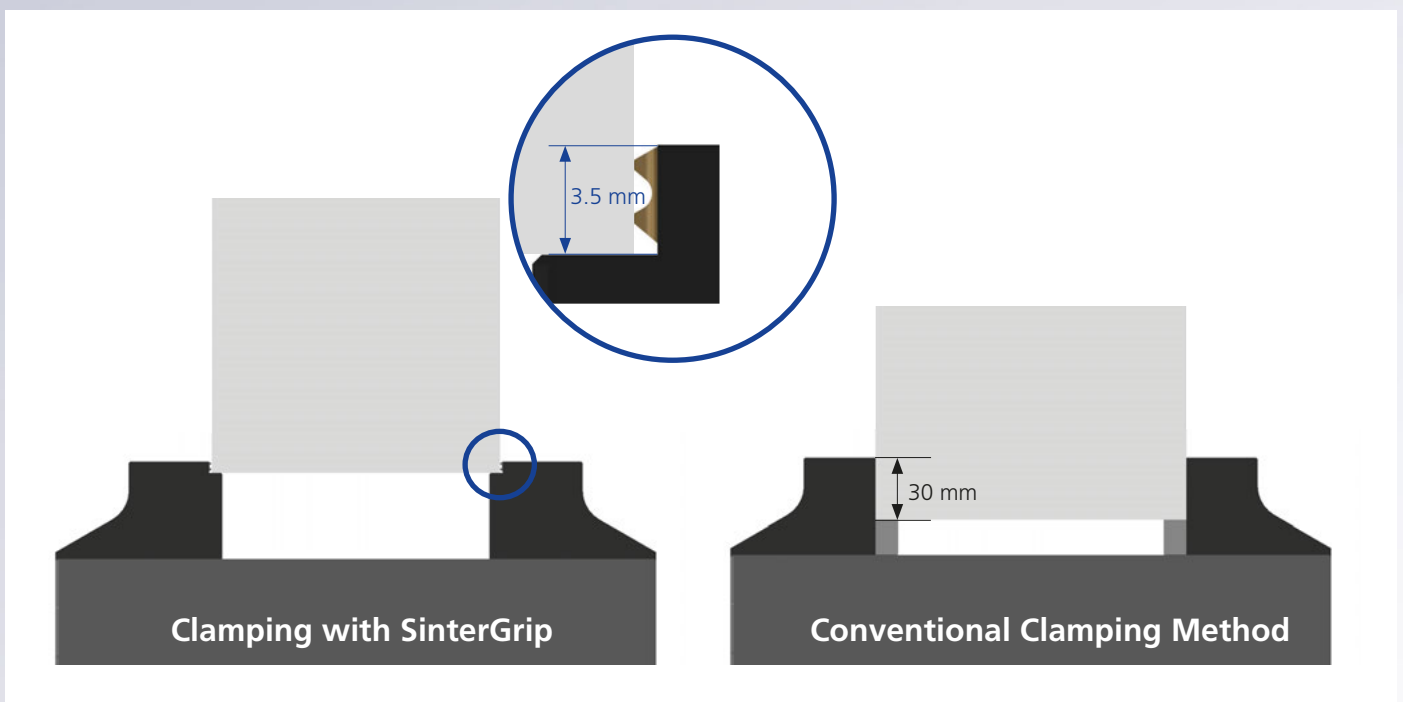


SinterGrip
clamping insert



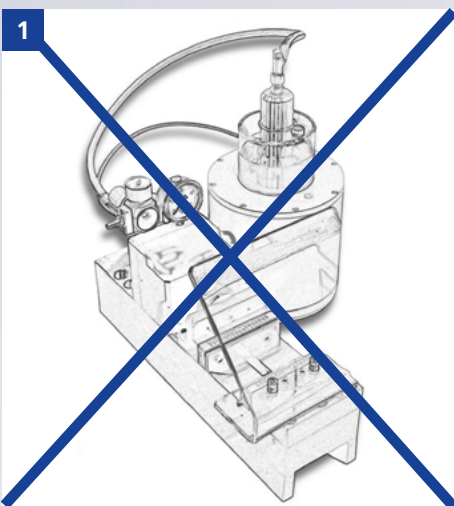
Marks on
the workpiece

Comparison clamping depths



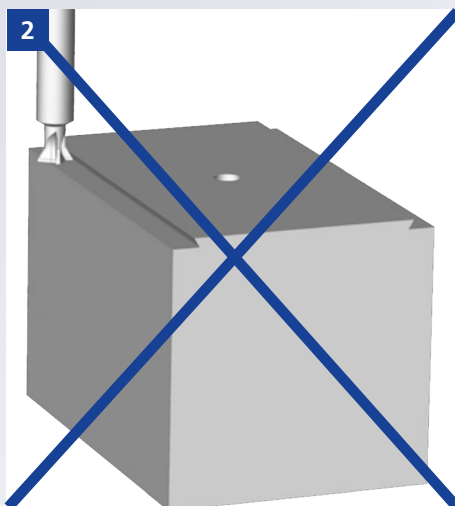
► Lowest clamping depth of workpieces - no pre-marking

Benefits



No pre-marking necessary

→ Elimination of the costs for a pre-mark machine and set-up times



No pre-machining of the workpiece or clamping surfaces necessary

→ Elimination of the costs for the pre-machining

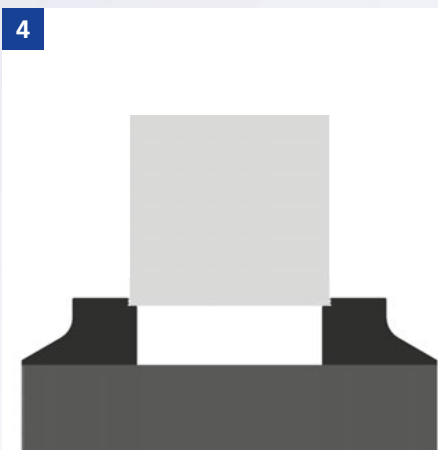
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3 different versions for all materials:

→ Steel

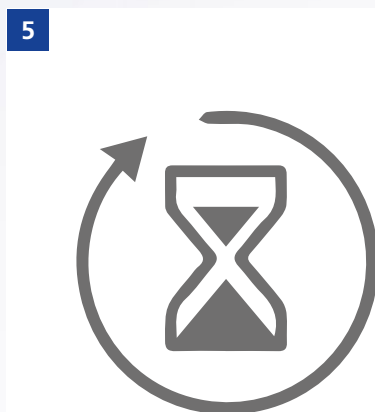
→ Hardened steel | Titanium (up to 54 HRC)

→ Aluminium | Plastic



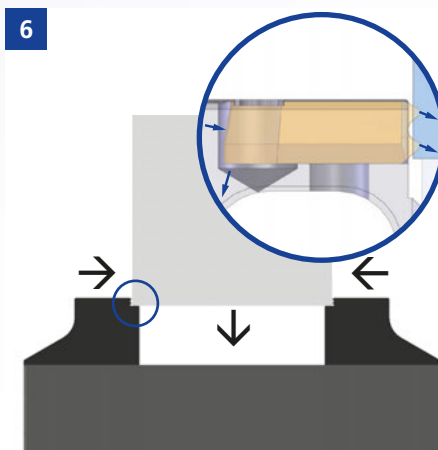
Best accessibility and highest holding forces

→ Safe clamping of workpieces
→ Ideal for 5-axis machining
→ High material saving due to low clamping depth of only 3.5 mm



Maximum lifetime | No wear costs

→ SinterGrip clamping inserts are made from coated carbide steel and have maximum lifetime
→ The inserts are individually exchangeable



Pull-down effect | Active vibration absorption

→ Even distribution of the clamping forces and active vibration absorption
→ Form-fitting clamping by means of the SinterGrip inserts

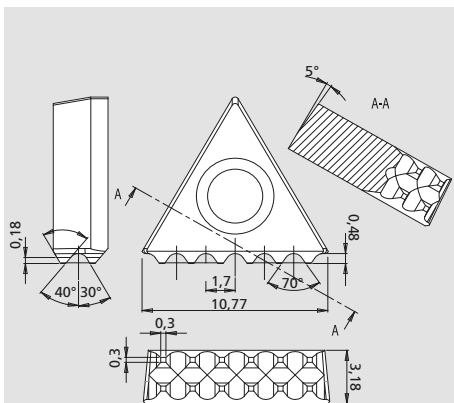
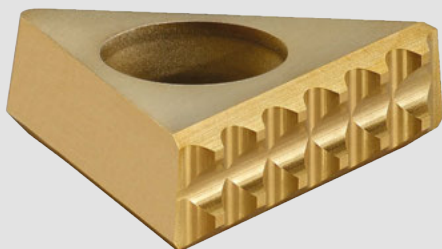
- Low clamping depth
- High stability and active vibration absorption

Application/customer benefits

- Very low clamping depth (only 3.5 mm) ensures safe clamping of the workpieces: Highest efficiency and productivity resulting in lower material costs and less machining costs
- No pre-marking necessary: Eliminates costs for a pre-mark machine and set-up times
- Highest stability and active vibration absorption
- Pull-down effect due to the special row of the teeth
- Increases cutting speeds compared to other systems
- Simple manufacturing of jaws for SinterGrip inserts by the customer
- Maximum lifetime

Technical features

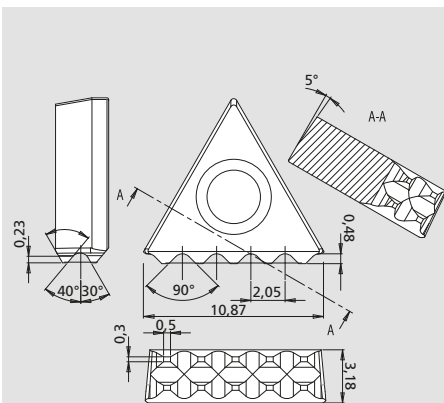
- Clamping depth only 3.5 mm
- 3 different versions for steel, hardened steel / titanium (up to 54 HRC) and aluminium / plastic
- Made from coated carbide steel



SinterGrip STD

Clamping insert
for steel

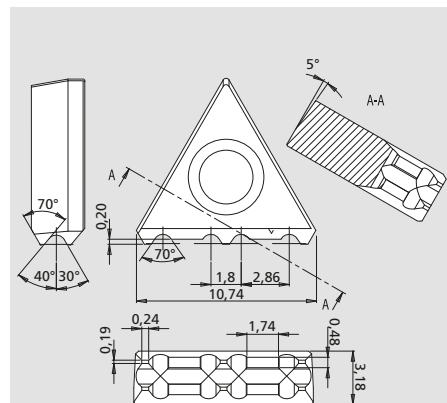
Id. No. 58450119



SinterGrip HRC

Clamping insert
for hardened steel
and titanium until 54 HRC

Id. No. 58450129



SinterGrip ALU

Clamping insert
for aluminium
and plastic

Id. No. 58450139

Order review



Type	Id. No.
SinterGrip STD	58450119

Consisting of 10 pcs. clamping inserts
(without bolts; Order no. SinterGrip bolt-set 58450219)



Type	Id. No.
SinterGrip HRC	58450129

Consisting of 10 pcs. clamping inserts
(without bolts; Order no. SinterGrip bolt-set 58450219)



Type	Id. No.
SinterGrip ALU	58450139

Consisting of 10 pcs. clamping inserts
(without bolts; Order no. SinterGrip bolt-set 58450219)

- Fixing SinterGrip clamping inserts
- Conversion of existing bench vises in SinterGrip

SinterGrip Bolt set, consisting of 10 pieces



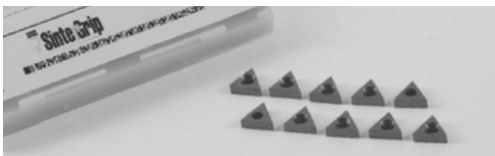
Type	Id. No.
SinterGrip	58450219

Key T9



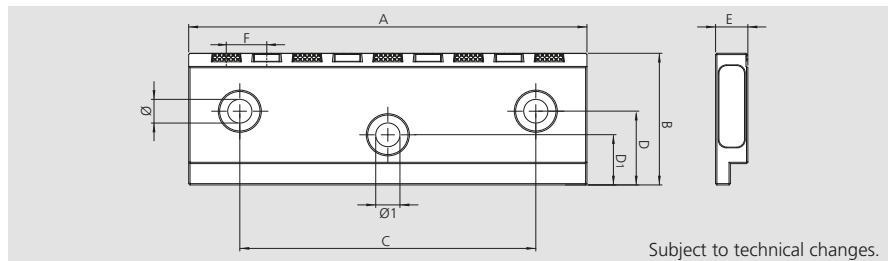
Type	Id. No.
SinterGrip	58450320

Protection cover aluminium set, consisting of 10 pieces



Type	Id. No.
SinterGrip	58450519

Pair of jaws, set (incl. 1 pair parallels, wrench torx T9, screws)



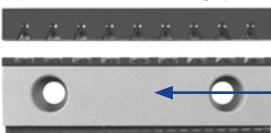
Type	Id. No.		A mm	B mm	C mm	D mm	D1 mm	E mm	Ø mm	Ø1 mm	H parall. mm	F mm
	Version 1	Version 2										
ALLMATIC-T-REX/TITAN	58451119	58452119	124.4	39.5	88	12.3	18	12	7	11	36.5	14
GRESSEL/WNT/SCHUNK	58451129	58452129	125	40	80	15	-	12	9	-	36.5	14
HILMA	58451149	58452149	125	45	80	14	-	12	9	-	42	14
KURT 6"	58451229	58452229	152	44.1	98.4	23.6	-	18.4	11	-	41	15.875
ALLMATIC-T-REX/TITAN	58451319	58452319	160	49.8	88	12.3	20	12	7	11	47	14
GRESSEL/WNT/SCHUNK	58451329	58452329	160	50	100	20	-	12	11	-	47	14
HILMA	58451349	58452349	160	54	100	17	-	12	11	-	51	14

Version 1: without wolfram-carbide coating

Version 2: with wolfram-carbide coating
for a better grip in the 2nd operation (picture)

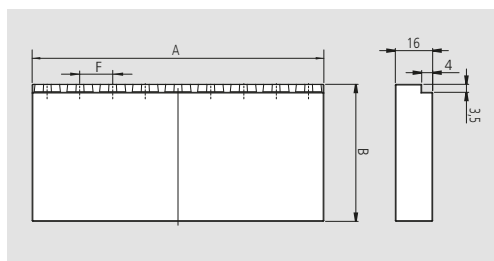
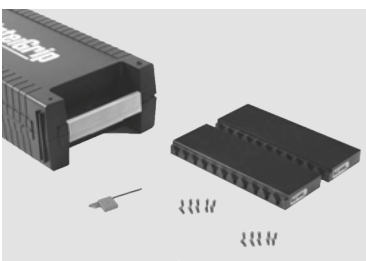
Number of the needed SinterGrip clamping inserts:

Id. No. 58451119 to 58452229: 9 pcs. SinterGrip clamping inserts
Id. No. 58451319 to 58452349: 11 pcs. SinterGrip clamping inserts



← Wolfram-Carbid-Coating

Starter Kit (for the preparation by the customer, tutorial see next page)



Type	Id. No.	A mm	B mm	F mm	Inserts
Starter Kit	58453119	125	59	14	9
Starter Kit	58453319	160	59	14	11
Starter Kit	58453419	200	70	15	13

Consisting of:

1 pair of jaws,
1 wrench TORX T9 and 1 kit of 10 screws

- Milling cutter for SinterGrip clamping inserts
- Manual

SinterGrip milling cutting tool

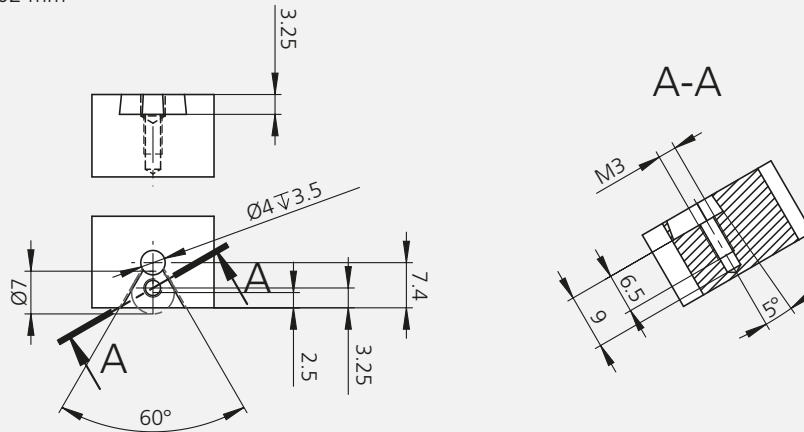


Type	Id. No.
SinterGrip milling cutter	58450410

Solid carbide end milling cutting tool, \varnothing 4 mm, 3 cutting edges, \varnothing 3x5°, $V = 40-60$ m/min, $F_z = 0.01-0.04$ mm/tooth.

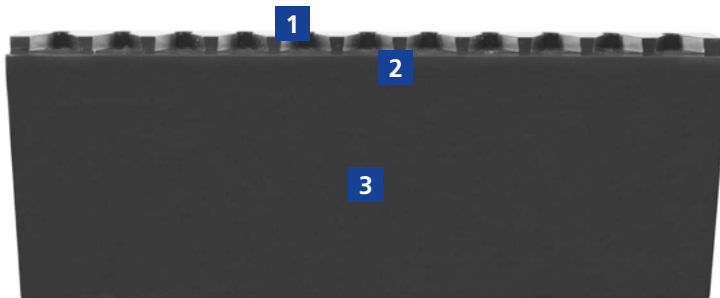
Drawing for the pocket to include SinterGrip clamping inserts:

Recommended cutting parameters:
Cutting speed $V = 80-120$ m/min
Feed force per tooth $F_z = 0.02$ mm

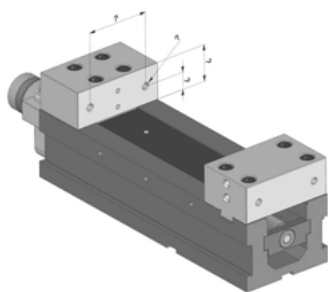


Subject to technical changes.

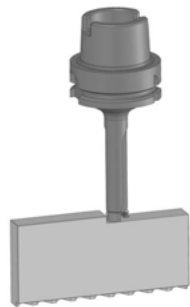
Tutorial for the preparation of jaws for SinterGrip inserts by the customer



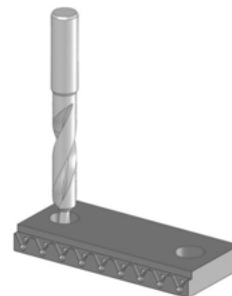
- 1** Shape of the SinterGrip pocket manufactured with SinterGrip milling cutting tool (Id. No. 58450410)
- 2** Clamping step 3.5 x 4 mm
- 3** Jaw made from nitrided steel with a tensile strength of ≈ 980 N/mm²



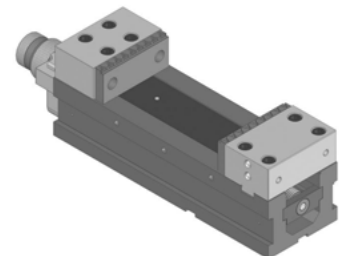
Measurement of the dimensions of the vise



Milling of the jaw to the required height



Drilling of the jaw with the correct distance of the holes



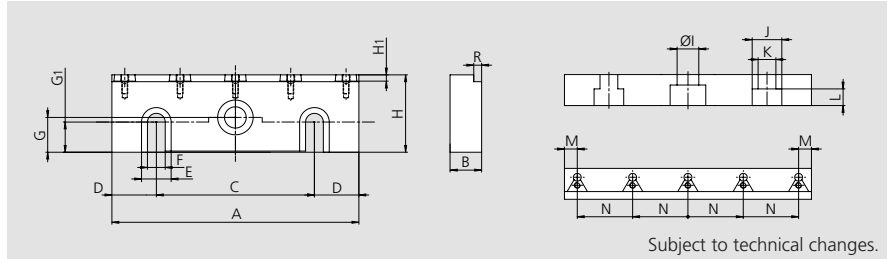
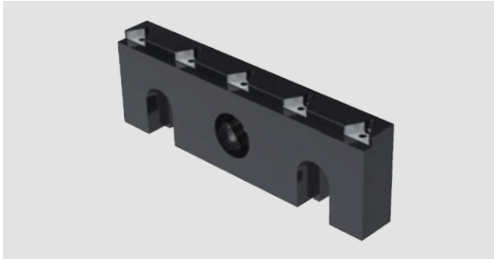
Mounting of the jaw on the vise

Jaws

- Multi jaw for the use of SinterGrip clamping inserts on machine vises
- Form-fitting clamping of components without pre-processing

SinterGrip

Multi jaw SinterGrip



SMW-AUTOBLOK Type		Multi jaw SinterGrip 467112
A	mm	125
B	mm	18
C	mm	80
D	mm	22.5
E	mm	15
F	mm	9
G	mm	18
G ₁	mm	15.6
H	mm	40
H ₁	mm	3.25
I	mm	11
J	mm	15
K	mm	9
L	mm	8.6
M	mm	6.5
N	mm	28

Multi jaw compatible with SMW-AUTOBLOK TTI-2G 125, SMW-AUTOBLOK GT5-2G, Gressel gripis 125, WNT NCG 125, Schunk KSC 125, Allmatic NC8 125, TC/LC 125, Hoffmann HiPo Clamp 125, Garant NC high pressure vise version LC, KESEL NCA 125, CNC 125, Röhm RKE 125

Consisting of: Multi jaw SinterGrip, without SinterGrip clamping inserts, without SinterGrip bolts