

holemaking **SOLUTIONS**

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INSERT HOLDERS

VolCut

Ø 65 mm - 3255 mm



LARGE VOLUME...
...machining in one CUT.

Time saving solutions for your application



VolCUT INSERT HOLDERS

- ✓ **Increased Material Removal Capacity**
Material Removal upto 70mm in diameter
- ✓ **Low machine power consumption**
is compensated for by the low cutting pressure of our indexable inserts in Form 464
- ✓ **Excellent chip control**
even with long-chipping materials
- ✓ **High cutting speeds**
for short processing times
- ✓ **Wohlhaupter standard serrated body**
for modular tool construction
- ✓ **Outstanding surface quality**
due to the optimal ratio of feed and cutting speed
- ✓ **Modular construction**
thanks to the Wohlhaupter MVS connection point
- ✓ **Maximum durability and stability**
through Wohlhaupter serration



Need larger holes? No problem!

With the VolCut insert holders we combine Allied Machine experience with the benefits of the modular tool structure from Wohlhaupter tools. The idea was developed from the standard range of Allied Machine in which these are for coring applications,

so that they can be used for pre-machining boring holes. The characteristics of this boring concept are particularly convincing with large Diameters. Furthermore, with this concept the machine power consumption is a lot lower than with standard milling tools.

Set-up Instructions



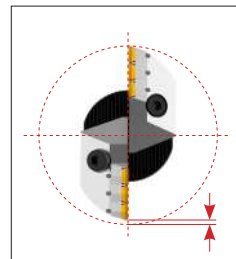
Step 1:
Loosen the mounting screws on both cartridges.



Step 2:
Set one cartridge to the finish diameter by tightening the adjustment screw against the adjustment pin.



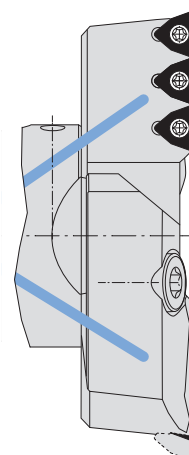
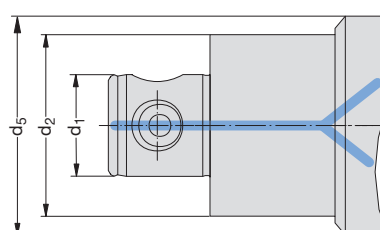
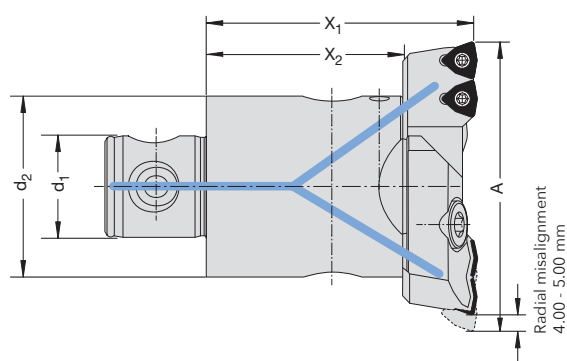
Step 3:
Tighten the mounting screws on the cartridge to 15-19 Nm (11-14 ft-lbf).



Step 4:
Set the opposing cartridge with 4mm to 5mm radial offset inward by tightening the adjustment screw against the adjustment pin (optimum situation for each insert to remove equal material).



Step 5:
Tighten the mounting screws on the cartridge to 15-19 Nm (11-14 ft-lbf).





Serrated body with VolCut Insert Holder

MVS- Connection	Boring range	Serrated body				kg	Serrated body Item Nr.	VolCUT Insert holders (2 pack) Item Nr.	Replaceable Insert form	Replaceable Inserts per Insert holder
		A	X ₁	X ₂	d ₅					
d ₂ d ₁										
50 – 28	65 – 83	74	55	–	–	1,1	148005	151019	464	2
63 – 36	82 – 103	89	60	–	–	2,2	148006	151039	464	3
80 – 36	100 – 130	89	60	–	–	3,0	148007	151059	464	3
80 – 36	125 – 155	89	60	–	–	3,2	148007	151069	464	3
80 – 36	150 – 205	89	60	–	125	5,1	148009	151069	464	3
D40	200 – 520						*	149030	464	3
D60	200 – 3255						*	149030	464	3

All measurements in mm unless stated differently.

*extensive selection of serrated slides, see MultiBore Catalogue, Chapter F

Replaceable Insert form 464

Carbide Grade	Geometry	Item Nr.  AM300®	 WSP-Screw
P35 (C5)	Standard	OP-05T308-P	IS-10-1
K35 (C1)	Standard	OP-05T308-1P	IS-10-1
K20 (C2)	Standard	OP-05T308-2P	IS-10-1
P35 (C5)	High Rake	OP-05T308-PHR	IS-10-1

* Explanations of the cutting material types, geometries and the recommended cutting data can be found in the Allied Master Catalogue, chapter A70.

Note: Drilling systems with OP inserts are used as single cutters. The replaceable inserts are mounted offset in diameter. Please observe the assembly instructions.



APPLICATION EXAMPLE

Saving 2 tools!

YOUR APPLICATION

Drilling of ST Materials

- Material: ST52-3
- Start-Ø = 80 mm
- Finish-Ø = 124,5 mm
- Machine: Hüller Hille
- Spindle: SK50 DIN69871
- Power consumption = 54 %

OUR SOLUTION

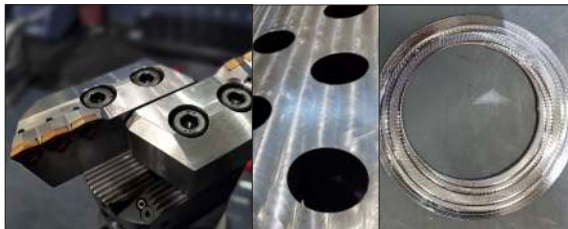
Where previously a circular milling was used and the machine was pushed to its limits, now comes the VolCut Insert Holder. The radial measurement of 22.25 mm is machine-friendly in just one Drilled operation. With the OP-05T308-PHR indexable inserts, a feed of 0.10 mm / rev at a cutting speed of 200 m / min.

Tool assembly:

- Master Shank: 327010
- Serrated body: 148007
- VolCut Insert Holder: 151059
- Insert: OP-05T308-PHR

Process:

- AP = 22,25 mm
- Cutting Values: Vc = 200 m/min. f = 0,10 mm/U



YOUR ADVANTAGE

'When your current processes cannot save you more time, you cannot save money. By using the VolCut insert holder, the machining time could be reduced to two minutes' Says Oliver Birkle, sales representative with Wohlhaupter and Allied.

'With a lower power consumption, the process is more machine friendly than the previous circular interpolation method' says Birkle.

YOUR APPLICATION

Boring of GG and GGG Materials

- Material: GGG40
- Start-Ø = 40 mm
- Finish-Ø = 105 mm ith Interrupted Cut
- Machine: Matec HV30
- Spindle: HSK-A100
- Power consumption = 52 %

OUR SOLUTION

The challenge of the radial allowance of 32.5 mm with interrupted cut in the machining- material GGG40, master the VolCut Insert Holder with ease. We choose the indexable Insert OP-05T308-PHR and achieve a feed rate of 0.08 mm / rev at a cutting speed of 300 m / min.

Tool assembly:

- Master Shank: 245015
- Serrated body: 148006
- VolCut Insert Holder: 151039
- Insert: OP-05T308-PHR

Process:

- AP = 32,50 mm
- Cutting Values: Vc = 300 m/min. f = 0,08 mm/U



YOUR ADVANTAGE

'With the VolCut Insert Holder we can cut the chip volume increase significantly. We eliminate two tools from the process!' reports Axel Wagner, Product manager at Wohlhaupter and Allied.

*80% time savings
comparison with circular milling*

