ALLIED MACHINE & ENGINEERING | WOHLHAUPTER®

Holemaking Solutions for Today's Manufacturing

Drilling

Reaming

Burnishing

Threading

Wohlhaupter®

▶ *BORING*

Fine Boring Tools

Specials

WOHLHAUPTER®

SECTION

B10-B

Fine Boring

Wohlhaupter® Fine Boring

410 | 464 | 364 | 564 | 310 | 537

Diameter Range: 20.00 mm - 205.00 mm

NOTE: 3E^{TECH+} adjustment accuracy of 0.001 mm on diameter.

NOTE: Internal digital and vernier adjustment accuracy of 0.002 mm on diameter.

Boring has never been more exciting.

Wohlhaupter's fine boring systems are offered in both vernier and easy-to-read digital readout boring heads and cassettes. The lightweight Alu-Line serrated tool bodies reduce weight on the machine spindle.

Digital 3E^{TECH+} Boring Heads
- 410 / 464 fine boring heads
- 410 Ø 20.00 mm - 29.00 mm
- 464 Ø 29.00 mm - 205.00 mm

Balanced Analogue Boring Heads
- 364 / 464 fine boring heads
- 364 Ø 20.00 mm - 29.50 mm
- 464 Ø 29.00 mm - 205.00 mm

Balanced Digital Boring Heads
- 564 fine boring heads
- Ø 50.00 mm - 205.00 mm

Analogue Boring Heads
- 310 fine boring heads
- Ø 20.00 mm - 205.00 mm

Analogue and Digital Cassettes
- 537 fine boring cassettes
- Ø 100.00 mm - 205.00 mm

Applicable Industries

Aerospace | Agriculture | Automotive | Firearms | General Machining | Oil & Gas | Renewable Energy

Your safety and the safety of others is very important. This catalogue contains important safety messages. Always read and follow all safety precautions.

This triangle is a safety hazard symbol. It alerts you to potential safety hazards that can cause tool failure and serious injury.

When you see this symbol in the catalogue, look for a related safety message that may be near this triangle or referred to in the nearby text.

There are safety signal words also used in the catalogue. Safety messages follow these words.

⚠ WARNING

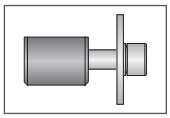
WARNING (shown above) means that failure to follow the precautions in this message could result in tool failure and serious injury.

NOTICE means that failure to follow the precautions in this message could result in damage to the tool or machine but not result in personal injury.

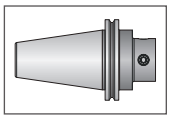
NOTE and **IMPORTANT** are also used. These are important that you read and follow but are not safety-related.

Visit www.alliedmachine.com for the most up-to-date information and procedures.

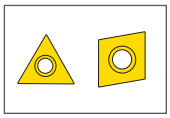
Reference Icons
The following icons will appear throughout the catalogue to help you navigate between products.



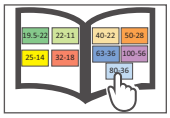
Clamping Elements
For use with insert holders and boring heads



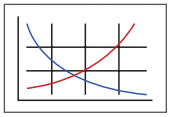
Shanks
A variety of shanks for different machines



Inserts
For use with insert holder boring heads and boring bars using indexable inserts



MVS Connection Colour Guide
Detailed instructions and information regarding the MVS connection(s)



Recommended Cutting Data
Speed and feed recommendations for optimum and safe boring

Through Coolant Option
Indicates that the product is through coolant

Series	Diameter Range Metric (mm)
410	20.00 - 29.00
464	29.00 - 205.00
364	20.00 - 29.50
564	50.00 - 205.00
310	20.00 - 205.00
537	100.00 - 205.00

Fine Boring Table of Contents

410 and 464 Product Overview

410 and *464* Digital 3E^{TECH+} FINE BORING

Make easy diameter adjustments with our 3E^{TECH+} digital readout module.

Wohlhaupter® 410 and 464 balance digital boring heads are equipped with a 3E^{TECH+} docking port for easy digital adjustments. Boring heads from 29.00 mm offer precision boring with automatic balancing. Our boring heads are specifically engineered to minimise the residual imbalance produced by insert holder displacement. Wohlhaupter Alu-Line boring heads, ranging from 65.00 mm, offer a lightweight aluminium design with a wear-resistant coating that reduces weight on the spindle up to 50%. The insert holder can also be rotated for reverse machining jobs.

- 410 diameter range: 20.00 mm - 29.00 mm.
- 464 balance diameter range: 29.00 mm - 205.00 mm.
- 464 balance Alu-Line diameter range: 65.00 mm - 205.00 mm.
  - Special coating on Alu-Line for wear-resistant surface.
  - Alu-Line body reduces tool weight by 50%, reducing stress on the spindle.
- Through coolant.
- 3E^{TECH+} diameter adjustment of 0.001 mm.
- Vernier diameter adjustment of 0.002 mm.
- Internal balancing improves tool life and surface finish.
- Insert holder can be rotated for back boring jobs.
- Max cutting speed: 1,700 M/min.

Highly accurate adjustments through *vernier* scale

NOTE: 3E^{TECH+} adjustment accuracy of 0.001 mm on diameter.

NOTE: Vernier adjustment accuracy of 0.002 mm on diameter.

Versatile *3E^{TECH+}* digital readout compatible with other boring tools

IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

WOHLHAUPTER® 410 and 464 DIGITAL 3E^{TECH+} ***BORING HEADS***

Wohlhaupter 3E^{TECH+}

Improve productivity and quality with the Wohlhaupter 3E^{TECH+} external digital readout module. The 3E^{TECH+} docks onto boring heads and cassettes that offer the 3E^{TECH+} port to make easy diameter adjustments at the machine.

- Make quick and easy micron-accurate diameter adjustments.
- Easy-to-read digital display shows exact diameter adjustments.
- 3E^{TECH+} screen will auto-rotate to match orientation of the display module.
- Toggle between imperial and metric to accommodate all applications.
- Adjustments of 0.002 mm on diameter.
- Designed to be removed from boring tool before operation (if forgotten 3E^{TECH+} will fall off at 500 RPM).
- Water and dust resistent IP 56.
- Coolant and chip resistant.
- 3E^{TECH+} will automatically turn off after 30 seconds of not using.
- Adjustment setting is saved directly in the respective tool, even if the digital display is removed.
- WEEE-Reg.-Nr. DE 15820388.

✓ **High-production fine boring**

✓ **Easy diameter adjustment with 3E^{TECH+}**

✓ **Self-balancing 464 boring heads**

410 & 464 BORING HEADS WITH 3E^{TECH+}		
	Diameter Range	**Part No.**
Ⓜ	**20.00 - 24.50**	**410001**
	24.50 - 29.00	**410002**
	29.00 - 38.00	**464003**
	38.00 - 50.00	**464004**
	50.00 - 65.50	**464005**
	65.00 - 83.00	**464006**
	82.00 - 103.00	**464007**
	100.00 - 130.00	**464008**
	125.00 - 167.50	**464009**
	162.50 - 205.00	**464010**

NOTE: 3E^{TECH+} adjustment accuracy of 0.001 mm on diameter.

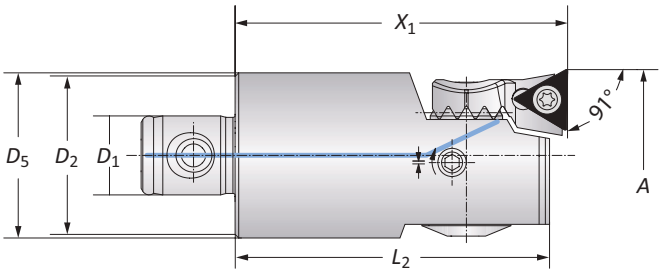
NOTE: Vernier adjustment accuracy of 0.002 mm on diameter.

IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

410 Digital 3E[TECH+] Boring Heads

Diameter Range: 20.00 mm - 29.00 mm

Form 101



Form 20

410 Digital 3E[TECH+] Boring Heads

	MVS Connection	Boring Range	Boring Head					Part No.	
	D_2 | D_1	A	X_1	L_2	D_5	Weight	Insert Form	Insert Holder	Boring Head
ⓜ	19 - 11	20.00 - 24.50	46.00	43.00	–	0.09 (kg)	20*	**364077**	**410001**
ⓜ	22 - 11	24.50 - 29.00	46.00	43.50	23.00	0.13 (kg)	20	**210059**	**410002**
	22 - 11	24.50 - 29.00	46.00	43.50	23.00	0.13 (kg)	101	**210069**	**410002**

***Not suitable for indexable inserts with a radius of 0.80 mm.
NOTE: 3E[TECH+] module, charging unit, insert holders, and inserts sold separately.

3E[TECH+] Digital Readout Module

Part No.	Charging Unit*
536015	**536016**

NOTE: WEEE-Reg.-Nr. DE 15820388
*Charging unit sold separately.

NOTE: 3E[TECH+] adjustment accuracy of 0.001 mm on diameter.

B10-M: 12-13 | B10-F | B10: VI-VII

Key on B10-B: 1

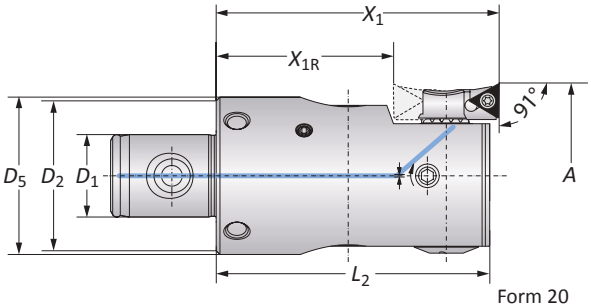
ⓜ = Metric (mm)

IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

464 Balance Digital 3E[TECH+] Boring Heads

Diameter Range: 29.00 mm - 65.50 mm

Form 101



Form 20

464 Balance Digital 3E[TECH+] Boring Heads

	MVS Connection $D_2 \mid D_1$	Boring Range A	Boring Head X_1	X_{1R}	L_2	D_5	Weight	Insert Form	Part No. Insert Holder	Boring Head
	25 - 14	29.00 - 38.00	56.00	–	53.50	27.00	0.21 (kg)	20	**210059**	**464003**
	25 - 14	29.00 - 38.00	56.00	–	53.50	27.00	0.21 (kg)	101	**210069**	**464003**
m	32 - 18	38.00 - 50.00	66.00	38.00	63.50	34.00	0.41 (kg)	20	**264051**	**464004**
	32 - 18	38.00 - 50.00	66.00	38.00	63.50	34.00	0.41 (kg)	101	**264077**	**464004**
	40 - 22	50.00 - 65.50	75.00	47.00	72.50	42.00	0.80 (kg)	20	**210052**	**464005**
	40 - 22	50.00 - 65.50	75.00	47.00	72.50	42.00	0.80 (kg)	101	**210062**	**464005**

NOTE: X_{1R} = rotated insert holder for reverse machining.
NOTE: 3E[TECH+] module, charging unit, insert holders, and inserts sold separately.

3E[TECH+] Digital Readout Module

Part No.	Charging Unit*
536015	**536016**

NOTE: WEEE-Reg.-Nr. DE 15820388
*Charging unit sold separately.

NOTE: 3E[TECH+] adjustment accuracy of 0.001 mm on diameter.

B10-M: 12-13 | B10-F | B10: VI-VII

Key on B10-B: 1

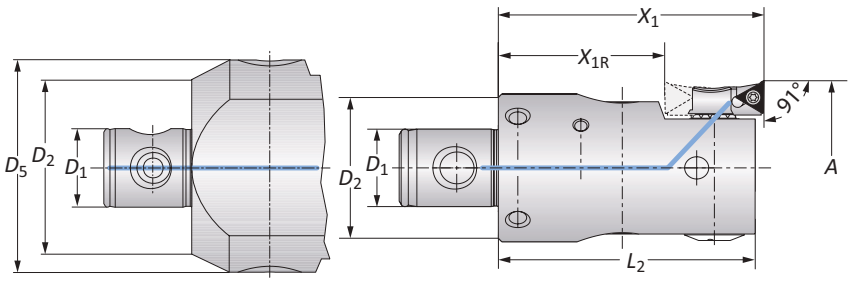
m = Metric (mm)

IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

464 Balance Digital Boring Heads with 3E^{TECH+}

Alu-Line | Diameter Range: 65.00 mm - 205.00 mm

Form 101



Form 20

464 Balance Alu-Line Digital 3E^{TECH+} Boring Heads

	MVS Connection $D_2 \mid D_1$	Boring Range A	Boring Head X_1	X_{1R}	L_2	D_5	Weight	Insert Form	Part No. Insert Holder	Boring Head
	50 - 28	65.00 - 83.00	75.00	39.00	73.00	–	0.60 (kg)	20	**210020**	**464006**
	50 - 28	65.00 - 83.00	75.00	39.00	73.00	–	0.60 (kg)	101	**210063**	**464006**
	50 - 28	65.00 - 83.00	75.00	39.00	73.00	–	0.60 (kg)	103	**210064**	**464006**
	63 - 36	82.00 - 103.00	90.00	54.00	88.00	–	1.00 (kg)	20	**210020**	**464007**
	63 - 36	82.00 - 103.00	90.00	54.00	88.00	–	1.00 (kg)	101	**210063**	**464007**
	63 - 36	82.00 - 103.00	90.00	54.00	88.00	–	1.00 (kg)	103	**210064**	**464007**
	80 - 36	100.00 - 130.00	90.00	54.00	88.00	–	1.50 (kg)	20	**210020**	**464008**
ⓜ	80 - 36	100.00 - 130.00	90.00	54.00	88.00	–	1.50 (kg)	101	**210063**	**464008**
	80 - 36	100.00 - 130.00	90.00	54.00	88.00	–	1.50 (kg)	103	**210064**	**464008**
	80 - 36	125.00 - 167.50	90.00	54.00	88.00	100.00	1.90 (kg)	20	**210020**	**464009**
	80 - 36	125.00 - 167.50	90.00	54.00	88.00	100.00	1.90 (kg)	101	**210063**	**464009**
	80 - 36	125.00 - 167.50	90.00	54.00	88.00	100.00	1.90 (kg)	103	**210064**	**464009**
	80 - 36	162.50 - 205.00	90.00	54.00	88.00	135.00	2.50 (kg)	20	**210020**	**464010**
	80 - 36	162.50 - 205.00	90.00	54.00	88.00	135.00	2.50 (kg)	101	**210063**	**464010**
	80 - 36	162.50 - 205.00	90.00	54.00	88.00	135.00	2.50 (kg)	103	**210064**	**464010**

NOTE: X_{1R} = rotated insert holder for reverse machining.
NOTE: 3E^{TECH+} module, insert holders, and inserts sold separately.

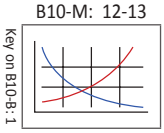
3E^{TECH+} Digital Readout Module

Part No.	Charging Unit*
536015	**536016**

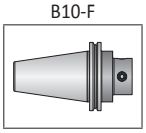
NOTE: WEEE-Reg.-Nr. DE 15820388
*Charging unit sold separately.

NOTE: 3E^{TECH+} adjustment accuracy of 0.001 mm on diameter.

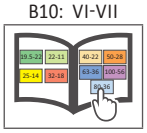
B10-M: 12-13



B10-F



B10: VI-VII



Key on B10-B: 1

ⓜ = Metric (mm)

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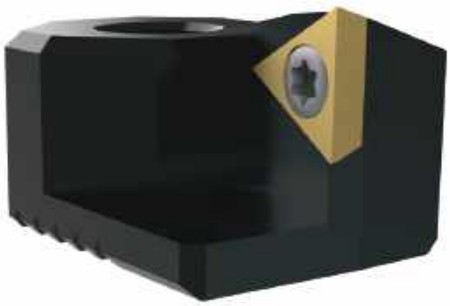
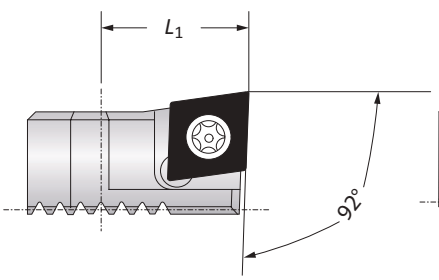
email: **engineering.eu@alliedmachine.com**

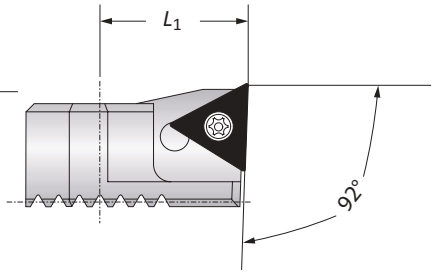
Insert Holders for Abrasive Materials

Diameter Range: 65.00 mm - 205.00 mm





Form 101 / 103



Form 20

	Boring Range	Insert Holder L_1	Weight	Insert Form	Part No.
	65.00 - 205.00	18.00	0.03 (kg)	20	**211061**
Ⓜ	65.00 - 205.00	18.00	0.03 (kg)	101	**211063**
	65.00 - 205.00	18.00	0.03 (kg)	103	**211065**

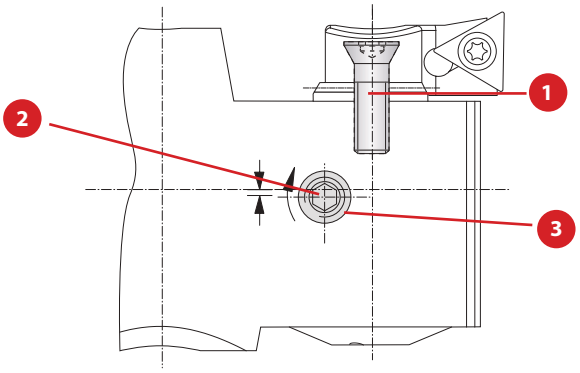
NOTE: Insert holders used for abrasive materials to protect boring head against chip wash.
NOTE: When machining grey cast iron, we recommend using insert holders for abrasive materials with CBN inserts for optimised chip removal.

B10-M: 12-13
Key on B10-B: 1
B10-H
B10: VI-VII

Ⓜ = Metric (mm)
Inserts sold separately

Accessories

Screws | 3E[TECH+] Accessories



Screws

Boring Head	Part No. 1 Countersunk Screw	Countersunk Screw Service Key	2 Clamping Screw	Clamping Screw Service Key	3 Ball
410001	**215323**	T15 / H	**410151**	S2 / A	364270
410002	**215338**	T15 / H	**410152**	s2 / A	364270
464003	**215338**	T15 / H	**364138**	s2.5 / A	364139
464004	**215338**	T15 / H	**115180**	s2.5 / A	–
464005	**215338**	T15 / H	**115505**	s3 / B	–
464006	**215462**	T20 / H	**315943**	s4 / B	–
464007	**215462**	T20 / H	**515178**	s4 / B	–
464008	**215462**	T20 / H	**515178**	s4 / B	–
464009	**215462**	T20 / H	**515178**	s4 / B	–
464010	**215462**	T20 / H	**515178**	s4 / B	–

3E[TECH+] Accessories

1 Charging Unit
Part No.
536016

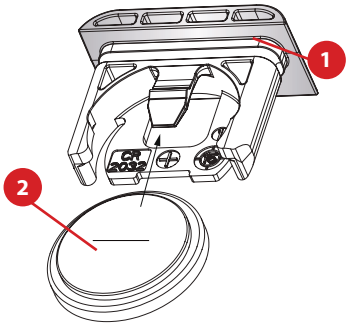
NOTE: Charging unit sold separately from 3E[TECH+].

NOTE: 3E[TECH+] adjustment accuracy of 0.001 mm on diameter.

3E[TECH] Accessories (Old Display)

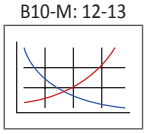
1 Sealing Ring	2 Battery CR2032
Part No.	Part No.
215483	**515491**

NOTE: Not required for 3E[TECH+] (new display).

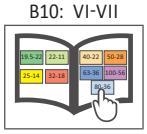


B10-M: 12-13

Key on B10-B: 1



B10: VI-VII



Notes

364 and *464* Balance Analogue
FINE BORING

Analogue fine boring tools for high-production jobs

Wohlhaupter® 364 and 464 balance analogue boring heads offer precision boring with automatic balancing. Our boring heads are specifically engineered to minimise the residual imbalance produced by insert holder displacement. Wohlhaupter Alu-Line boring heads offer a lightweight aluminium design with a wear-resistant coating that reduces weight on the spindle up to 50% yet remains durable in challenging boring applications. The insert holder can also be rotated for reverse machining jobs.

- 364 balance diameter range: 20.00 mm - 29.50 mm.
- 464 balance diameter range: 29.00 mm - 205.00 mm.
- 464 balance Alu-Line diameter range: 65.00 mm - 205.00 mm.
  - Special coating on Alu-Line for wear-resistant surface.
  - Alu-Line body reduces tool weight by 50%, reducing stress on the spindle.
- Internal balancing improves tool life and surface finish.
- Through coolant.
- Vernier diameter adjustment of 0.002 mm.
- Insert holder can be rotated for back boring jobs.
- Max cutting speed: 1,000 M/min.

IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

WOHLHAUPTER® 464 BALANCE ANALOG
BORING HEADS

ANALOGUE BORING HEAD PART NUMBER CONVERSION			
	Diameter Range	Old Part No.	*UPDATED* Part No.
ⓜ	20.00 - 24.50	364030	*No Change*
	24.50 - 29.50	364031	*No Change*
	29.00 - 38.00	364032	464033
	38.00 - 50.00	364033	464034
	50.00 - 65.50	364034	464035
	65.00 - 83.00	364045	464036
	82.00 - 103.00	364046	464037
	100.00 - 130.00	364047	464038
	125.00 - 167.50	364048	464039
	162.50 - 205.00	364049	464040

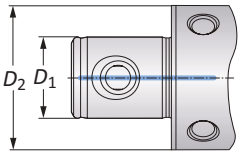
- ✓ High-production fine boring
- ✓ Easy diameter adjustment
- ✓ Self-balancing
- ✓ Imperial and metric

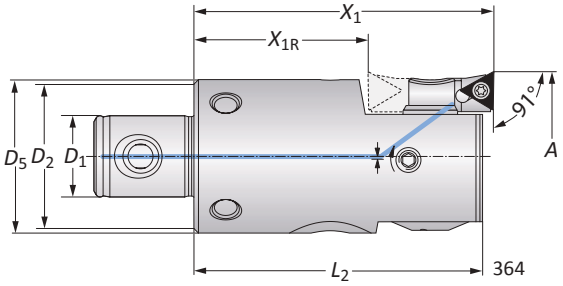
FEATURES AN ***ENHANCED*** CLAMPING MECHANISM FROM OUR TRUSTED LINE OF 564 BALANCE DIGITAL FINE BORING HEADS

364 and 464 Balance Analogue Boring Heads

Diameter Range: 20.00 mm - 65.50 mm

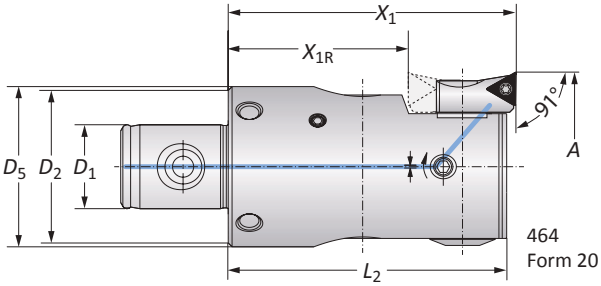
364
Form 101





364
Form 20

464
Form 101



464
Form 20

364 and 464 Balance Analogue Boring Heads

	MVS Connection	Boring Range	Boring Head						Part No.	
	D_2 | D_1	A	X_1	X_{1R}	L_2	D_5	Weight	Insert Form	Insert Holder	Boring Head
	19 - 11	20.00 - 24.50	46.00	–	43.00	–	0.09 (kg)	20*	**364077**	**364030**
	22 - 11	24.50 - 29.50	46.00	–	43.50	23.00	0.15 (kg)	20	**210059**	**364031**
	22 - 11	24.50 - 29.50	46.00	–	43.50	23.00	0.15 (kg)	101	**210069**	**364031**
	25 - 14	29.00 - 38.00	56.00	–	53.50	27.00	0.20 (kg)	20	**210059**	**464033**
ⓜ	25 - 14	29.00 - 38.00	56.00	–	53.50	27.00	0.20 (kg)	101	**210069**	**464033**
	32 - 18	38.00 - 50.00	66.00	38.00	63.50	34.00	0.40 (kg)	20	**264051**	**464034**
	32 - 18	38.00 - 50.00	66.00	38.00	63.50	34.00	0.40 (kg)	101	**264077**	**464034**
	40 - 22	50.00 - 65.50	75.00	47.00	72.50	42.00	0.80 (kg)	20	**210052**	**464035**
	40 - 22	50.00 - 65.50	75.00	47.00	72.50	42.00	0.80 (kg)	101	**210062**	**464035**

*Not suitable for indexable inserts with a radius of 0.80 mm.
NOTE: X_{1R} = rotated insert holder for reverse machining.
NOTE: Insert holders and inserts sold separately.

B10-M: 12-13
Key on B10-B: 1
B10-F
B10: VI-VII

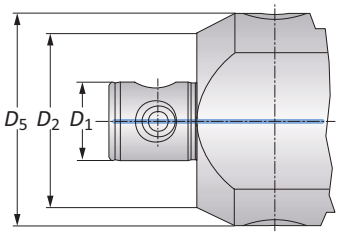
ⓜ = Metric (mm)

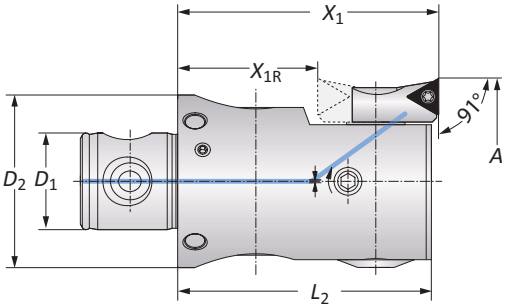
IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

464 Balance Analogue Boring Heads

Alu-Line | Diameter Range: 65.00 mm - 205.00 mm

Form 101





Form 20

464 Balance Analogue Alu-Line Boring Heads

	MVS Connection	Boring Range	Boring Head						Part No.	
	D_2 | D_1	A	X_1	X_{1R}	L_2	D_5	Weight	Insert Form	Insert Holder	Boring Head
	50 - 28	65.00 - 83.00	75.00	39.00	72.50	–	0.60 (kg)	20	**210020**	**464036**
	50 - 28	65.00 - 83.00	75.00	39.00	72.50	–	0.60 (kg)	101	**210063**	**464036**
	50 - 28	65.00 - 83.00	75.00	39.00	72.50	–	0.60 (kg)	103	**210064**	**464036**
	63 - 36	82.00 - 103.00	90.00	54.00	87.50	–	1.00 (kg)	20	**210020**	**464037**
	63 - 36	82.00 - 103.00	90.00	54.00	87.50	–	1.00 (kg)	101	**210063**	**464037**
	63 - 36	82.00 - 103.00	90.00	54.00	87.50	–	1.00 (kg)	103	**210064**	**464037**
	80 - 36	100.00 - 130.00	90.00	54.00	87.50	–	1.50 (kg)	20	**210020**	**464038**
Ⓜ	80 - 36	100.00 - 130.00	90.00	54.00	87.50	–	1.50 (kg)	101	**210063**	**464038**
	80 - 36	100.00 - 130.00	90.00	54.00	87.50	–	1.50 (kg)	103	**210064**	**464038**
	80 - 36	125.00 - 167.50	90.00	54.00	87.50	100.00	1.90 (kg)	20	**210020**	**464039**
	80 - 36	125.00 - 167.50	90.00	54.00	87.50	100.00	1.90 (kg)	101	**210063**	**464039**
	80 - 36	125.00 - 167.50	90.00	54.00	87.50	100.00	1.90 (kg)	103	**210064**	**464039**
	80 - 36	162.50 - 205.00	90.00	54.00	87.50	135.00	2.50 (kg)	20	**210020**	**464040**
	80 - 36	162.50 - 205.00	90.00	54.00	87.50	135.00	2.50 (kg)	101	**210063**	**464040**
	80 - 36	162.50 - 205.00	90.00	54.00	87.50	135.00	2.50 (kg)	103	**210064**	**464040**

NOTE: X_{1R} = rotated insert holder for reverse machining.
NOTE: Insert holders and inserts sold separately.

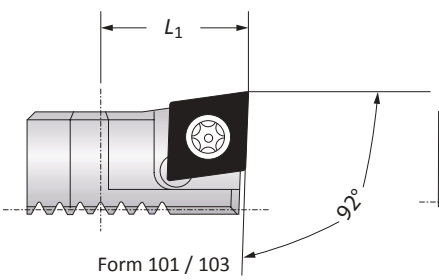
B10-M: 12-13
Key on B10-B: 1
B10-F
B10: VI-VII

Ⓜ = Metric (mm)

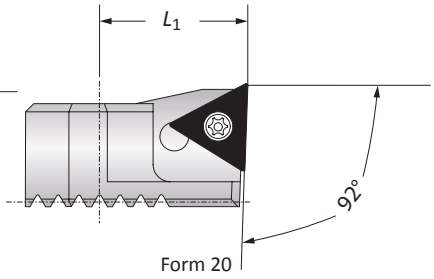
IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

Insert Holders for Abrasive Materials

Diameter Range: 265.00 mm - 205.00 mm



Form 101 / 103



Form 20

	Boring Range	Insert Holder L_1	Weight	Insert Form	Part No.
	65.00 - 205.00	18.00	0.03 (kg)	20	**211061**
ⓜ	65.00 - 205.00	18.00	0.03 (kg)	101	**211063**
	65.00 - 205.00	18.00	0.03 (kg)	103	**211065**

NOTE: Insert holders used for abrasive materials to protect boring head against chip wash.
NOTE: When machining grey cast iron, we recommend using insert holders for abrasive materials with CBN inserts for optimised chip removal.

B10-M: 12-13
Key on B10-B: 1
B10-H
B10: VI-VII

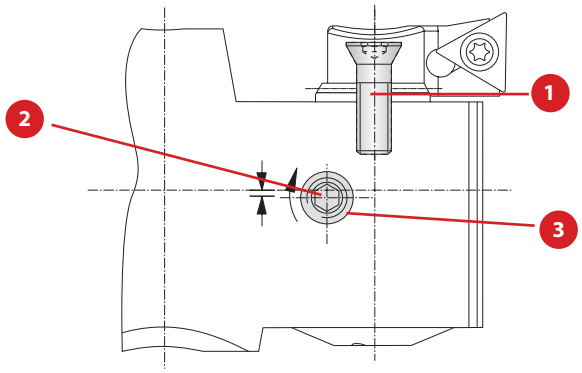
ⓜ = Metric (mm)

Inserts sold separately

www.alliedmachine.com | +44 (0) 1384 400 900 | enquiries.eu@alliedmachine.com

Accessories

Screws



Boring Head	Part No. 1 Countersunk Screw	Countersunk Screw Service Key	2 Clamping Screw	Clamping Screw Service Key	3 Ball
364030	**215323**	T15 / H	**364260**	s2 / A	**364270**
364031	**215338**	T15 / H	**364138**	s2.5 / A	**364139**
464033	**215338**	T15 / H	**364138**	s2.5 / A	**364139**
464034	**215338**	T15 / H	**115180**	s2.5 / A	–
464035	**215338**	T15 / H	**115505**	s3 / B	–
464036	**215462**	T20 / H	**315943**	s4 / B	–
464037	**215462**	T20 / H	**515178**	s4 / B	–
464038	**215462**	T20 / H	**515178**	s4 / B	–
464039	**215462**	T20 / H	**515178**	s4 / B	–
464040	**215462**	T20 / H	**515178**	s4 / B	–

B10-M: 12-13
Key on B10-B: 1
B10: VI-VII

564 Balance Digital Product Overview

564 Balance Digital
FINE BORING

Adjustable diameter for precise machining.

Wohlhaupter® digital 564 balance boring heads feature automatic balancing with an easy-to-read digital display. For diameter ranges above 65.00 mm, 564 boring heads are made of lightweight aluminium. 564 boring heads are specifically engineered to minimise the residual imbalance produced by insert holder displacement. Reverse boring applications can be achieved by rotating the insert holders.

Test the ***engineered lightweight*** boring head today.

- Diameter range: 50.00 mm - 205.00 mm.
- Alu-Line diameter range: 65.00 mm - 205.00 mm.
  - Special coating on Alu-Line for wear-resistant surface.
  - Alu-Line body reduces tool weight by 50%, reducing stress on the spindle.
- Digital readout advantage for diameter adjustments of 0.002 mm.
- Through coolant.
- Internal balancing improves tool life and surface finish.
- Insert holder can be rotated for back boring jobs.
- Max cutting speed: 2,000 M/min.
- Max coolant pressure: 40 bar.

Aluminium Boring Head
65.00 mm - 205.00 mm

Steel Boring Head
50.00 mm - 65.50 mm

NOTE: Metric items pictured.

NOTE: Digital adjustment accuracy of 0.002 mm on diameter.

IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

564 DIGITAL BORING HEAD
Balance
with NOVI^{TECH}®

Product:	Wohlhaupter 564 balance digital boring head with NOVI^{TECH}
Objectives:	0.005 mm concentricity over the length of two bores spaced 355.60 mm apart
Material:	Cast iron
Hole Ø:	79.38 mm
Depth:	469.9 mm
Stock Removal:	0.80 mm on diameter

Measure	564 Balance Digital Boring Head with NOVI^{TECH}
RPM	430 RPM
Speed	352 SFM (*107.28 m/min*)
Feed Rate	0.003 IPR (*0.08 mm/rev*)
Penetration Rate	1.29 IPM (*33 mm/min*)

- Boring head 564 series
  Item No. 564045
- NOVI^{TECH} vibration dampening intermediate module
  Item No. 519005
- Wohlhaupter boring insert:
  Item No. 397239WHC79
  (F103 04MN158 WHC79)

The balanced 564 digital boring head with the NOVI^{TECH} vibration damper module provided:

✓ **Precision concentricity over 7xD**

✓ **Eliminated vibration and chatter**

NOTE: Metric item pictured.

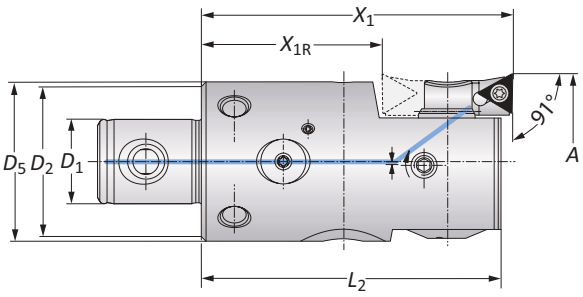
NOTE: Digital adjustment accuracy of 0.002 mm on diameter.

564 Balance Digital Boring Heads

Diameter Range: 50.00 mm - 65.50 mm

NOTE: Metric item pictured.
NOTE: Digital adjustment accuracy of 0.002 mm on diameter.

Form 101



Form 20

564 Balance Digital Boring Heads

MVS Connection	Boring Range	Boring Head						Part No.	
D_2 | D_1	A	X_1	X_{1R}	L_2	D_5	Weight	Insert Form	Insert Holder	Boring Head
40 - 22	50.00 - 65.50	75.00	47.00	72.50	42.00	0.80 (kg)	20	**210052**	**564034**
40 - 22	50.00 - 65.50	75.00	47.00	72.50	42.00	0.80 (kg)	101	**210062**	**564034**

NOTE: X_{1R} = rotated insert holder for reverse machining.
NOTE: Insert holders and inserts sold separately.

B10-M: 12-13 | B10-F | B10: VI-VII

Key on B10-B: 1

Ⓜ = Metric (mm)

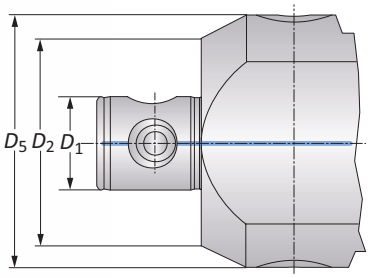
IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

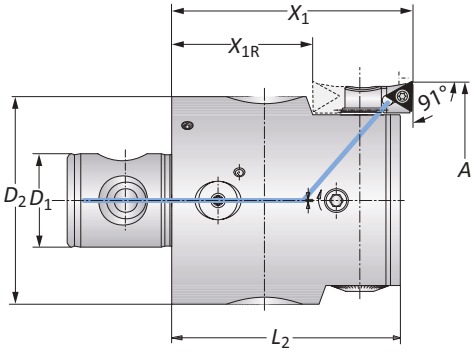
564 Balance Digital Boring Heads

Alu-Line | Diameter Range: 65.00 mm - 205.00 mm

NOTE: Metric item pictured.
NOTE: Digital adjustment accuracy of 0.002 mm on diameter.

Form 101





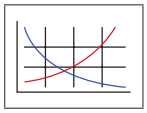
Form 20

564 Balance Digital Alu-Line Boring Heads

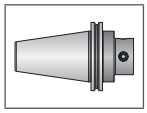
	MVS Connection	Boring Range	Boring Head						Part No.	
	D_2 | D_1	A	X_1	X_{1R}	L_2	D_5	Weight	Insert Form	Insert Holder	Boring Head
	50 - 28	65.00 - 83.00	75.00	39.00	73.00	–	0.60 (kg)	20	**210020**	**564045**
	50 - 28	65.00 - 83.00	75.00	39.00	73.00	–	0.60 (kg)	101	**210063**	**564045**
	50 - 28	65.00 - 83.00	75.00	39.00	73.00	–	0.60 (kg)	103	**210064**	**564045**
	63 - 36	82.00 - 103.00	90.00	54.00	88.00	–	1.00 (kg)	20	**210020**	**564046**
	63 - 36	82.00 - 103.00	90.00	54.00	88.00	–	1.00 (kg)	101	**210063**	**564046**
	63 - 36	82.00 - 103.00	90.00	54.00	88.00	–	1.00 (kg)	103	**210064**	**564046**
	80 - 36	100.00 - 130.00	90.00	54.00	88.00	–	1.50 (kg)	20	**210020**	**564047**
Ⓜ	80 - 36	100.00 - 130.00	90.00	54.00	88.00	–	1.50 (kg)	101	**210063**	**564047**
	80 - 36	100.00 - 130.00	90.00	54.00	88.00	–	1.50 (kg)	103	**210064**	**564047**
	80 - 36	125.00 - 167.50	90.00	54.00	88.00	100.00	1.90 (kg)	20	**210020**	**564048**
	80 - 36	125.00 - 167.50	90.00	54.00	88.00	100.00	1.90 (kg)	101	**210063**	**564048**
	80 - 36	125.00 - 167.50	90.00	54.00	88.00	100.00	1.90 (kg)	103	**210064**	**564048**
	80 - 36	162.50 - 205.00	90.00	54.00	88.00	135.00	2.50 (kg)	20	**210020**	**564049**
	80 - 36	162.50 - 205.00	90.00	54.00	88.00	135.00	2.50 (kg)	101	**210063**	**564049**
	80 - 36	162.50 - 205.00	90.00	54.00	88.00	135.00	2.50 (kg)	103	**210064**	**564049**

NOTE: X_{1R} = rotated insert holder for reverse machining.
NOTE: Insert holders and inserts sold separately.

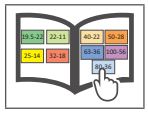
B10-M: 12-13



B10-F



B10: VI-VII



Key on B10-B: 1

Ⓜ = Metric (mm)

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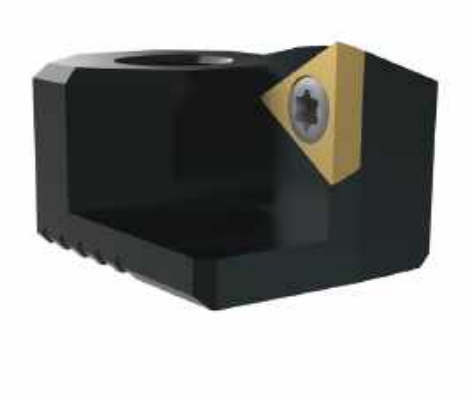
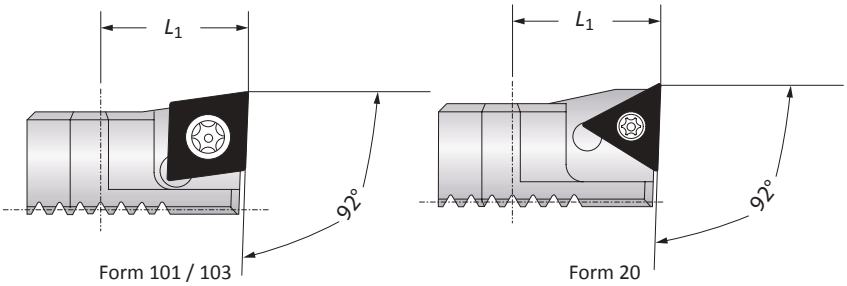
email: **engineering.eu@alliedmachine.com**

Insert Holder for Abrasive Materials

Diameter Range: 65.00 mm - 205.00 mm





	Boring Range	Insert Holder L_1	Weight	Insert Form	Part No.
	65.00 - 205.00	18.00	0.03 (kg)	20	**211061**
ⓜ	65.00 - 205.00	18.00	0.03 (kg)	101	**211063**
	65.00 - 205.00	18.00	0.03 (kg)	103	**211065**

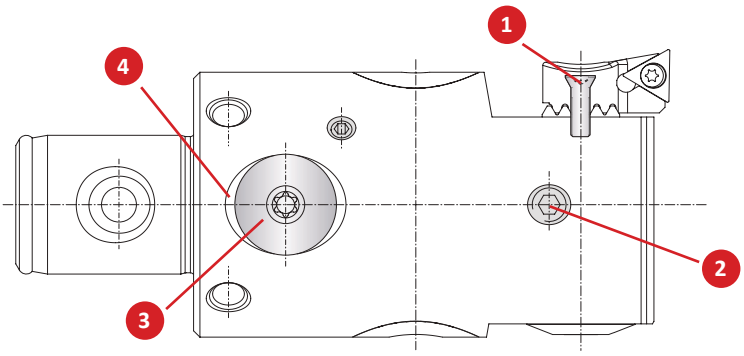
NOTE: Insert holders used for abrasive materials to protect boring head against chip wash.
NOTE: When machining grey cast iron, we recommend using insert holders for abrasive materials with CBN inserts for optimised chip removal.

B10-M: 12-13
Key on B10-B: 1
B10-H
B10: VI-VII

ⓜ = Metric (mm)
Inserts sold separately

Accessories

Screws | Battery Cover | Batteries

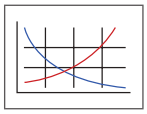


Boring Head	Part No. 1 Countersunk Screw	Service Key	2 Clamping Screw	Service Key	3 Battery Cover	Service Key	4 Sealing Ring	Battery*
564034	**215338**	T15 / H	**115505**	s3 / B	**501016**	T20 / H	**415895**	**415896**
564045	**215462**	T20 / H	**315943**	s4 / B	**501016**	T20 / H	**415895**	**415896**
564046	**215462**	T20 / H	**515178**	s4 / B	**501016**	T20 / H	**415895**	**415896**
564047	**215462**	T20 / H	**515178**	s4 / B	**501016**	T20 / H	**415895**	**415896**
564048	**215462**	T20 / H	**515178**	s4 / B	**501016**	T20 / H	**415895**	**415896**
564049	**215462**	T20 / H	**515178**	s4 / B	**501016**	T20 / H	**415895**	**415896**

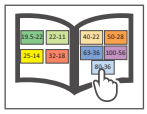
*Replace both batteries.

B10-M: 12-13

Key on B10-B: 1



B10: VI-VII



310 Analogue Product Overview

310 Analogue
FINE BORING

Engineered with wear and tear in mind.

310 Wohlhaupter boring heads are made from steel for Ø 20.00 mm - 103.00 mm and coated Alu-Line material for Ø 100.00 mm - 205.00 mm boring heads to protect against corrosion and wear. The insert holder can be rotated quickly for reverse machining.

- Diameter range: 20.00 mm - 205.00 mm.
- Alu-Line diameter range: 100.00 mm - 205.00 mm.
  - Special coating on Alu-Line provides hard, durable surface.
  - Alu-Line body reduces tool weight by 50%, reducing stress on the spindle.
- Through coolant.
- Vernier diameter adjustment of 0.002 mm.
- Max cutting speed: 1,000 M/min.

IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

WOHLHAUPTER® 310 BORING HEAD
*with NOVI*TECH®

Time is money, so make it count.

If you want to improve your machining processes, cycle time is a key factor to examine. Our customer was experiencing lengthy cycle times while machining pumps from grey cast iron. The parts required three bored holes, each with a 304.8 mm depth and a 558.8 mm reach.

In order to free up machine time, the customer questioned if their process could be more efficient. The main objectives were to decrease the current cycle time and to maintain the required surface finish to perform the burnishing process that followed.

The previous tooling ran at a slow 11.938 mm/min and a slow 84-minute cycle time to bore the three holes on each part. With our **Wohlhaupter 310 boring head** utilising the **NOVI**TECH **vibration dampening module**, the customer increased to a more efficient 95.25 mm/min and slashed the cycle time to 10.5 minutes (*an 87% decrease*). Along with the increased speed, the Wohlhaupter tooling also achieved a 4 Ra finish, accomplishing everything the customer needed.

The Wohlhaupter solution reduced the process cycle time by 74 minutes. Improvements in speed and cycle time can free up machine hours, which means more throughput and higher profit for your company. ***Are you losing money on applications with substantially long cycle times?***

Product:	Wohlhaupter 310 Boring Head with NOVITECH
Objectives:	(1) Decrease cycle time (2) Maintain 4 Ra hole finish
Industry:	Oil & gas/petrochemical
Part:	Pump
Material:	Grey cast iron
Hole Ø:	139.7 mm
Hole Depth:	304.8 mm

Measure	Competitor Boring Head	310 Boring Head w/ NOVITECH
RPM	39	469
Speed Rate	17.069 M/min	205.74 M/min
Feed Rate	0.305 mm/rev	0.203 mm/rev
Penetration Rate	11.938 mm/min	92.25 mm/min
Cycle Time (per hole)	27 min 54 sec	3 min 32 sec

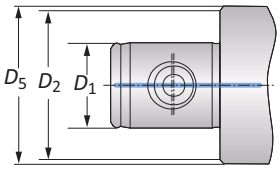
- Boring head 310 series ***Item No. 310008***
- NOVITECH vibration dampening intermediate module ***Item No. 519005***

The Wohlhaupter 310 boring head with the NOVITECH vibration dampening module provided:

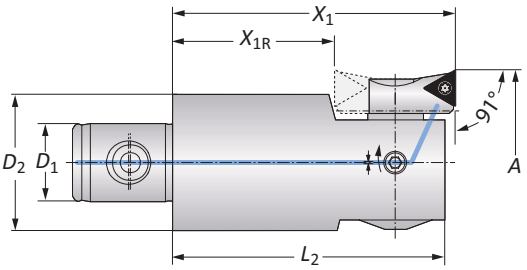
- ✓ **Increased penetration rate**
- ✓ **Decreased cycle time**

310 Analogue Boring Heads

Diameter Range: 20.00 mm - 103.00 mm



Form 101 / 103



Form 20

310 Analogue Boring Heads

	MVS Connection	Boring Range	Boring Head						Part No.	
	D_2 | D_1	A	X_1	X_{1R}	L_2	D_5	Weight	Insert Form	Insert Holder	Boring Head
	19 - 11	20.00 - 24.50	46.00	–	43.00	–	0.10 (kg)	20*	**364077**	**310010**
	22 - 11	24.50 - 29.50	46.00	–	43.50	23.00	0.15 (kg)	20	**210059**	**310020**
	22 - 11	24.50 - 29.50	46.00	–	43.50	23.00	0.15 (kg)	101	**210069**	**310020**
	25 - 14	29.00 - 37.00	56.00	–	53.50	26.00	0.20 (kg)	20	**210059**	**310001**
	25 - 14	29.00 - 37.00	56.00	–	53.50	26.00	0.20 (kg)	101	**210069**	**310001**
	25 - 14	36.00 - 44.00	56.00	28.00	53.50	26.00	0.20 (kg)	20	**210052**	**310001**
	25 - 14	36.00 - 44.00	56.00	28.00	53.50	26.00	0.20 (kg)	101	**210062**	**310001**
	32 - 18	43.00 - 54.00	66.00	38.00	63.50	–	0.40 (kg)	20	**210052**	**310003**
Ⓜ	32 - 18	43.00 - 54.00	66.00	38.00	63.50	–	0.40 (kg)	101	**210062**	**310003**
	40 - 22	53.00 - 66.00	75.00	39.00	72.50	–	0.70 (kg)	20	**210020**	**310004**
	40 - 22	53.00 - 66.00	75.00	39.00	72.50	–	0.70 (kg)	101	**210063**	**310004**
	40 - 22	53.00 - 66.00	75.00	39.00	72.50	–	0.70 (kg)	103	**210064**	**310004**
	50 - 28	65.00 - 83.00	75.00	39.00	72.50	–	1.20 (kg)	20	**210020**	**310005**
	50 - 28	65.00 - 83.00	75.00	39.00	72.50	–	1.20 (kg)	101	**210063**	**310005**
	50 - 28	65.00 - 83.00	75.00	39.00	72.50	–	1.20 (kg)	103	**210064**	**310005**
	63 - 36	82.00 - 103.00	90.00	54.00	87.50	–	2.20 (kg)	20	**210020**	**310006**
	63 - 36	82.00 - 103.00	90.00	54.00	87.50	–	2.20 (kg)	101	**210063**	**310006**
	63 - 36	82.00 - 103.00	90.00	54.00	87.50	–	2.20 (kg)	103	**210064**	**310006**

*Not suitable for indexable inserts with a radius of 0.80 mm.
NOTE: X_{1R} = rotated insert holder for reverse machining.
NOTE: Insert holders and inserts sold separately.

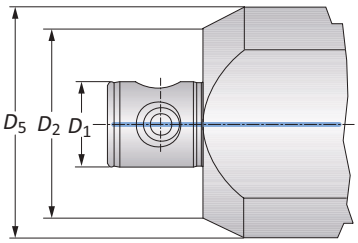
B10-M: 12-13
Key on B10-B: 1
B10-F
B10: VI-VII

Ⓜ = Metric (mm)

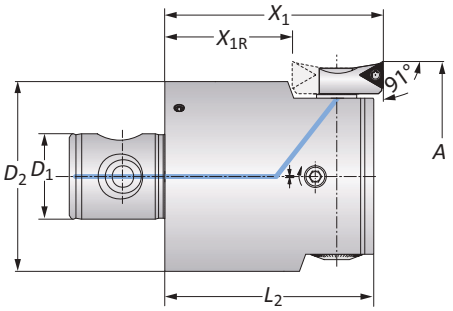
IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

310 Analogue Boring Heads

Alu-Line | Diameter Range: 100.00 mm - 205.00 mm



Form 101 / 103



Form 20

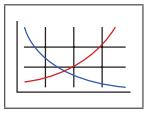
310 Analogue Alu-Line Boring Heads

	MVS Connection	Boring Range	Boring Head						Part No.	
	D_2 | D_1	A	X_1	X_{1R}	L_2	D_5	Weight	Insert Form	Insert Holder	Boring Head
	80 - 36	100.00 - 130.00	90.00	54.00	87.50	–	1.40 (kg)	20	**210020**	**310007**
	80 - 36	100.00 - 130.00	90.00	54.00	87.50	–	1.40 (kg)	101	**210063**	**310007**
	80 - 36	100.00 - 130.00	90.00	54.00	87.50	–	1.40 (kg)	103	**210064**	**310007**
	80 - 36	125.00 - 167.50	90.00	54.00	87.50	100.00	1.80 (kg)	20	**210020**	**310008**
Ⓜ	80 - 36	125.00 - 167.50	90.00	54.00	87.50	100.00	1.80 (kg)	101	**210063**	**310008**
	80 - 36	125.00 - 167.50	90.00	54.00	87.50	100.00	1.80 (kg)	103	**210064**	**310008**
	80 - 36	162.50 - 205.00	90.00	54.00	87.50	135.00	2.40 (kg)	20	**210020**	**310009**
	80 - 36	162.50 - 205.00	90.00	54.00	87.50	135.00	2.40 (kg)	101	**210063**	**310009**
	80 - 36	162.50 - 205.00	90.00	54.00	87.50	135.00	2.40 (kg)	103	**210064**	**310009**

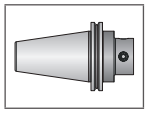
NOTE: X_{1R} = rotated insert holder for reverse machining.
NOTE: Insert holders and inserts sold separately.

Key on B10-B: 1

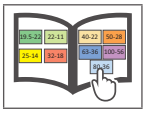
B10-M: 12-13



B10-F



B10: VI-VII

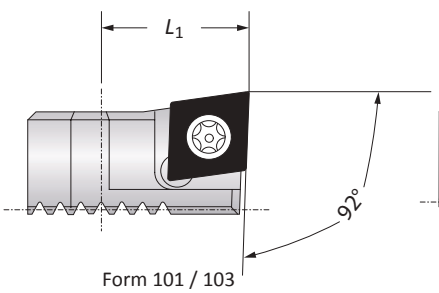


Ⓜ = Metric (mm)

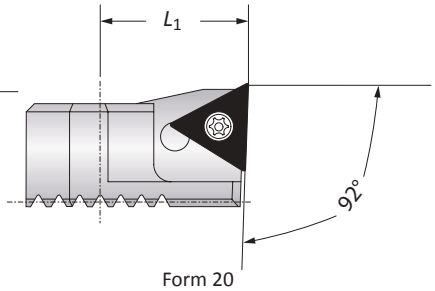
IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

Insert Holders for Abrasive Materials | Serrated Shims

Diameter Range: 53.00 mm - 205.00 mm



Form 101 / 103

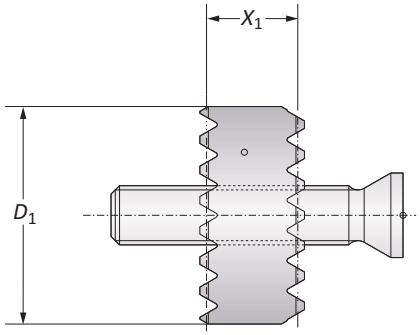


Form 20

Insert Holders

	Boring Range	Insert Holder L_1	Weight	Insert Form	Part No.
	53.00 - 205.00	18.00	0.03 (kg)	20	**211061**
m	53.00 - 205.00	18.00	0.03 (kg)	101	**211063**
	53.00 - 205.00	18.00	0.03 (kg)	103	**211065**

NOTE: Insert holders used for abrasive materials to protect boring head against chip wash.
NOTE: When machining grey cast iron, we recommend using insert holders for abrasive materials with CBN inserts for optimised chip removal.



Serrated Shims

	Boring Range	Additional Boring Range	Serrated Shim X_1	Serrated Shim D_1	Weight	Part No. Serrated Shim & Screw	Part No. Replacement Screw
	29.00 - 54.00	8.00	4.00	12.00	0.01 (kg)	**310070**	**415360**
m	29.00 - 54.00	12.00	6.00	12.00	0.01 (kg)	**310071**	**415342**
	53.00 - 205.00	10.00	5.00	18.00	0.01 (kg)	**310074**	**515595**
	53.00 - 205.00	15.00	7.50	18.00	0.01 (kg)	**310075**	**515596**

B10-M: 12-13
Key on B10-B: 1
B10-H
B10: VI-VII

m = Metric (mm)
Inserts sold separately

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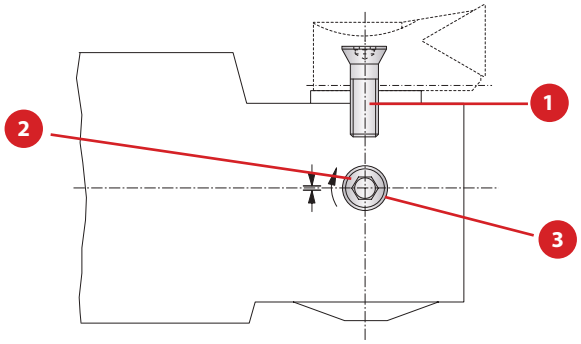
Accessories

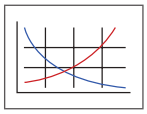
Screws



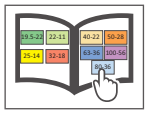
Boring Head	1 Countersunk Screw		2 Clamping Screw		3 Ball
	Part No.	Service Key	Part No.	Service Key	Part No.
310010	**215323**	T15 / H	**364260**	s2.0 / A	**364270**
310020	**215338**	T15 / H	**364138**	s2.5 / A	**364139**
310001	**215338**	T15 / H	**115136**	s2.5 / A	–
310003	**215338**	T15 / H	**115180**	s2.5 / A	–
310004	**215462**	T20 / H	**115249**	s4 / B	–
310005	**215462**	T20 / H	**115185**	s4 / B	–
310006	**215462**	T20 / H	**315279**	s4 / B	–
310007	**215462**	T20 / H	**115186**	s4 / B	–
310008	**215462**	T20 / H	**115186**	s4 / B	–
310009	**215462**	T20 / H	**115186**	s4 / B	–

B10-M: 12-13

Key on B10-B: 1



B10: VI-VII



537 Product Overview

537 Cassettes
FINE BORING

Engineered for easy precision.

537 fine boring cassettes offer high accuracy and are available in an easy-to-use digital or analogue version. The digital version features a docking port to attach the 3E^{TECH+} digital readout module for µ-accurate diameter adjustments while the Analogue cassettes provide highly accurate adjustments through the vernier scale. 537 cassettes are made of hardened steel and can be used on serrated tool bodies and slides from 100.00 mm - 3255.00 mm. The insert holder can be rotated easily for reverse machining applications.

Experience ***digital precision boring*** for yourself.

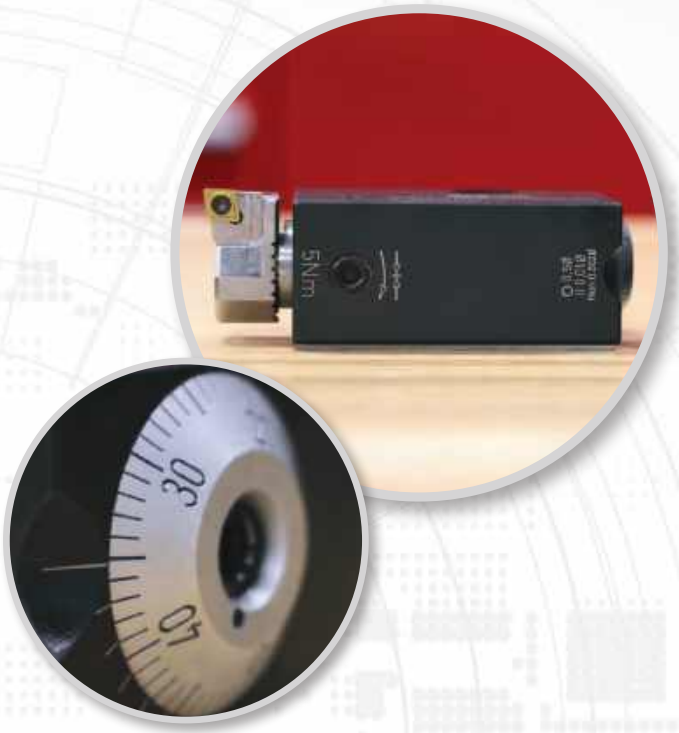
- Diameter range: 100.00 mm - 205.00 mm.
- Cassette can be used on large diameter serrated slides **(pg. B10-G: 8):** 200.00 mm - 3255.00 mm.
- Through coolant.
- 3E^{TECH+} module provides a simple digital readout.
- Analogue version with a vernier scale.
- Max cutting speed: 900 M/min.

NOTE: 3E^{TECH+} adjustment accuracy of 0.001 mm on diameter.

NOTE: Vernier adjustment accuracy of 0.002 mm on diameter.

IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

537 BORING CASSETTES



NEW vernier scale on both analogue and digital cassettes

NEW digital 537 cassettes with 3E^{TECH+} docking port

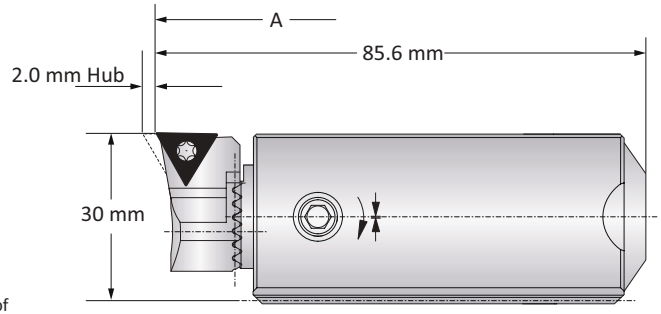
- Convenient tool handling
- Large range of applications
- Hardened steel bodies

537 Analogue Cassettes

Diameter Range: 100.00 mm - 205.00 mm

Form 101 / 103

NOTE: Vernier adjustment accuracy of 0.0001" or 0.002 mm on diameter.



Form 20

Analogue 537 Cassettes

	Boring Range	Weight	Insert Form	Part No. Insert Holder	Clamping Piece	Cassette*
	100.00 - 205.00	0.60 (kg)	20	**210020**	**137026**	**537051**
ⓜ	100.00 - 205.00	0.60 (kg)	101	**210063**	**137026**	**537051**
	100.00 - 205.00	0.60 (kg)	103	**210064**	**137026**	**537051**

*Required serrated tool body sold separately.
NOTE: Cassette and insert holder can be used on large diameter serrated slides (B10-G: 10 - 11).
NOTE: Insert holders, inserts, and clamping pieces ***sold separately.***

B10-M: 12-13
Key on B10-B: 1
B10-F
B10: VI-VII

ⓜ = Metric (mm)

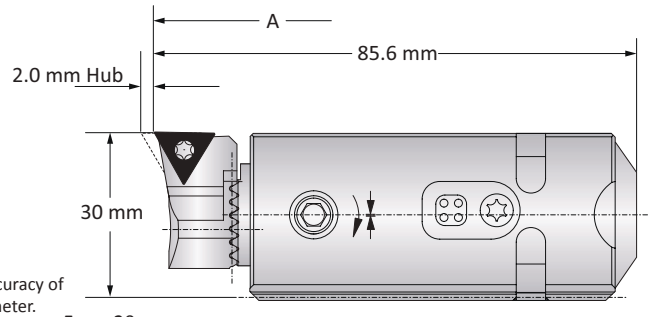
IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
email: **engineering.eu@alliedmachine.com**

537 Digital 3E^{TECH+} Cassettes

Diameter Range: 100.00 mm - 205.00 mm

Form 101 / 103

NOTE: Vernier adjustment accuracy of 0.0001" or 0.002 mm on diameter.



Form 20

537 Digital 3E^{TECH+} Cassettes

	Boring Range	Weight	Insert Form	Part No. Insert Holder	Clamping Piece	Cassette*
ⓜ	100.00 - 205.00	0.60 (kg)	20	**210020**	**137026**	**537052**
ⓜ	100.00 - 205.00	0.60 (kg)	101	**210063**	**137026**	**537052**
ⓜ	100.00 - 205.00	0.60 (kg)	103	**210064**	**137026**	**537052**

*Required serrated tool body sold separately.

NOTE: Cassette and insert holder can be used on large diameter serrated slides (B10-G: 10 - 11).

NOTE: 3E^{TECH+} digital readout module, charging unit, insert holders, inserts, and clamping pieces ***sold separately.***

3E^{TECH+} Digital Readout Module

Part No.	Charging Unit*
536015	**536016**

NOTE: WEEE-Reg.-Nr. DE 15820388

*Charging unit sold separately.

NOTE: 3E^{TECH+} adjustment accuracy of 0.001 mm on diameter.

B10-M: 12-13 | B10-F | B10: VI-VII

Key on B10-B: 1

ⓜ = Metric (mm)

IMPORTANT: Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.
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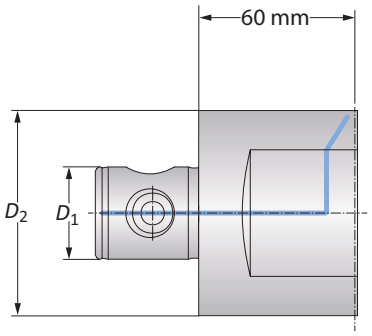
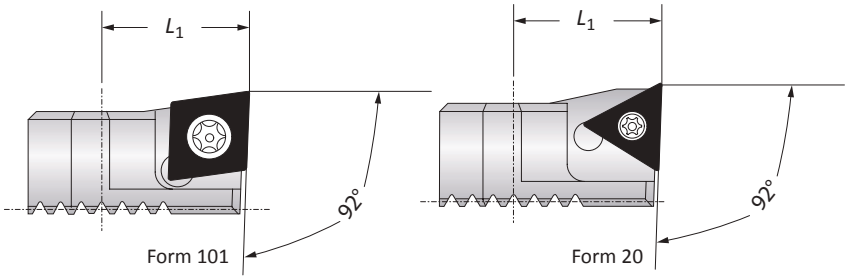
Serrated Tool Bodies | Insert Holders for Abrasive Materials

Diameter Range: 100.00 mm - 205.00 mm



Serrated Tool Bodies

	MVS Connection D_2 | D_1	Serrated Tool Body Boring Range	Part No.
m	80 - 36	100.00 - 155.00	**148007**
	80 - 36	150.00 - 205.00	**148009**



Insert Holders for Abrasive Materials

	Boring Range	Insert Holder L_1	Weight	Insert Form	Part No.
m	100.00 - 205.00	18.00	0.03 (kg)	20	**211061**
	100.00 - 205.00	18.00	0.03 (kg)	101	**211063**
	100.00 - 205.00	18.00	0.03 (kg)	103	**211065**

NOTE: Insert holders used for abrasive materials to protect boring head against chip wash.
NOTE: When machining grey cast iron, we recommend using insert holders for abrasive materials with CBN inserts for optimised chip removal.

B10-M: 12-13
Key on B10-B: 1
B10-H
B10: VI-VII

m = Metric (mm)

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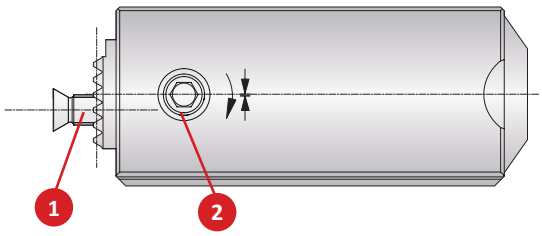
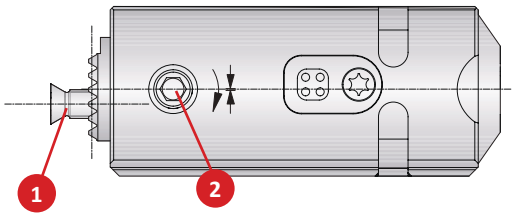
537 Accessories | 3E[TECH+] Accessories | Clamping Pieces



537 Analogue Cassette



537 3E[TECH+] Cassette

537 Accessories

	Cassette Part No.	1 Countersunk Screw		2 Clamping Screw	
		Part No.	Service Key	Part No.	Service Key
ⓜ	537051	**215462**	**T20 / H**	**115249**	**s4 / F**
	537052	**215462**	**T20 / H**	**315789**	**s4 / F**

3E[TECH+] Accessories

1 Charging Unit Part No.
536016

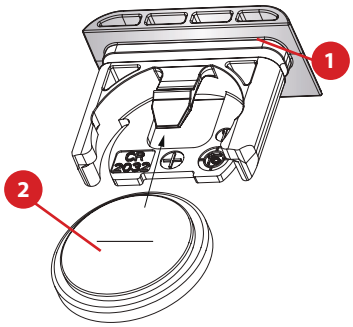
NOTE: Charging unit sold separately from 3E[TECH+]

NOTE: 3E[TECH+] adjustment accuracy of 0.0001" or 0.001 mm on diameter

3E[TECH] Accessories (Old Display)

1 Sealing Ring Part No.	2 Battery CR2032 Part No.
215483	**515491**

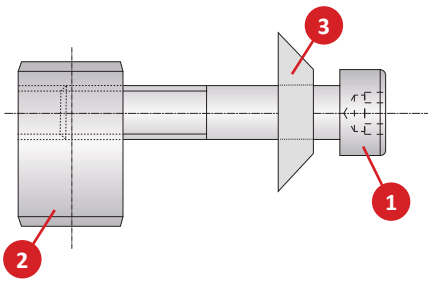
NOTE: Not required for 3E[TECH+] (new display)



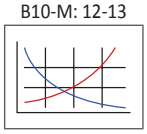
537 Clamping Pieces

Slide Type	Complete Part No.	Service Key		Replacement Components 1 Cap Screw	2 Clamping Nut	3 Disk Spring
Serrated Tool Bodies	**137026**	115578	s6 / B	215101	140118	337105
Basic and Eco Slides	**137027**			215102	215105	337105
Flex Slides	**137019**			415900	215105	337105

NOTE: Clamping pieces sold separately

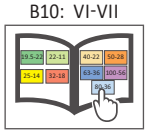


B10-M: 12-13



Key on B10-B: 1

B10: VI-VII



ⓜ = Metric (mm)
Inserts sold separately

Notes

Notes

Allied Machine & Engineering

Guaranteed Test / Demo Application Form

Distributor PO #	

The following must be filled out completely before your test will be considered

IMPORTANT: For processing, send purchase order to your Allied Field Sales Engineer (FSE). Please clearly mark the paperwork as "Test Order."

Distributor Information

Company Name: _____

Contact: _____

Account Number: _____

Phone: _____

Email: _____

End User Information

Company Name: _____

Contact: _____

Industry: _____

Phone: _____

Email: _____

Current Process

List all tooling, coatings, substrates, speeds and feeds, tool life, and any problems you are experiencing

_____

_____

Test Objective

List what would make this a successful test (i.e. penetration rate, finish, tool life, hole size, etc.)

_____

_____

Application Information

Hole Diameter: _____ in/mm Tolerance: _____ Material: _____ (4150, A36, cast iron, etc.)

Pre-existing Diameter: _____ in/mm Depth of Cut: _____ in/mm Hardness: _____ (BHN, Rc)

Required Finish: _____ RMS State: _____ (Casting, hot rolled, forging)

Machine Information

Machine Type: _____ (Lathe, screw machine, machine center, etc.) Builder: _____ (Haas, Mori Seiki, etc.) Model #: _____

Shank Required: _____ (CAT50, Morse taper, etc.) Power: _____ HP/KW

Rigidity:
- ☐ Excellent
- ☐ Good
- ☐ Poor

Orientation:
- ☐ Vertical
- ☐ Horizontal

Tool Rotating:
- ☐ Yes
- ☐ No

Thrust: _____ lbs/N

Coolant Information

Coolant Delivery: _____ (Through tool, flood) Coolant Pressure: _____ PSI / bar

Coolant Type: _____ (Air mist, oil, synthetic, water soluble, etc.) Coolant Volume: _____ GPM / LPM

Requested Tooling

QTY	Item Number

QTY	Item Number

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