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LANDING PAGE

Scan the QR code to access detailed specifications, dimensional data, and the full product offering of the Ingersoll Precision Boring (IPB) System in our e-catalog.



CROSS REFERENCE

This document provides a detailed, side-by-side comparison of components from the legacy boring system alongside their corresponding IPB equivalents.



INSERTS

Ingersoll is continuously updating insert geometries and grades. Scan the QR code for the latest list of compatible insert offerings.



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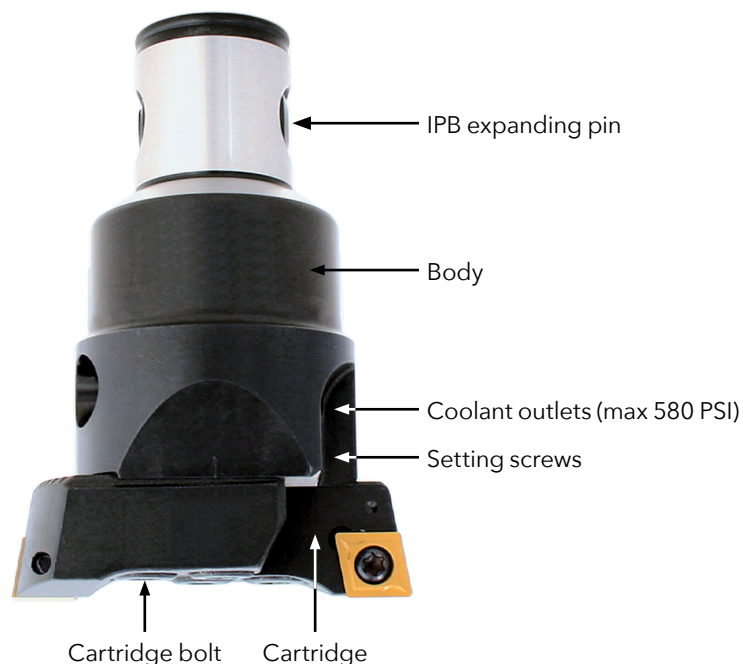
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Roughing Heads

Ø .708-7.874" (18.0-200.0 MM)



Series RH-IPB Rough Boring Heads

Part Number	Diameter Range
RH-IPB16-16	.708 - .866" (18 - 22 mm)
RH-IPB20-20	.866 - 1.102" (22 - 28 mm)
RH-IPB25-25	1.102 - 1.496" (28 - 38 mm)
RH-IPB32-32	1.397 - 1.968" (35.5 - 50 mm)
RH-IPB40-40	1.968 - 2.677" (50 - 68 mm)
RH-IPB50-50	2.677 - 3.543" (68 - 90 mm)
RH-IPB50-63	3.543 - 4.724" (90 - 120 mm)
RH-IPB63-63	3.543 - 4.724" (90 - 120 mm)
RH-IPB80-80	4.724 - 7.874" (120 - 200 mm)

FIGURE 1

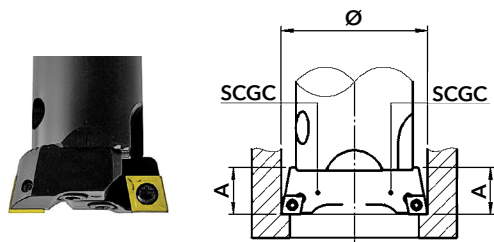


FIGURE 2

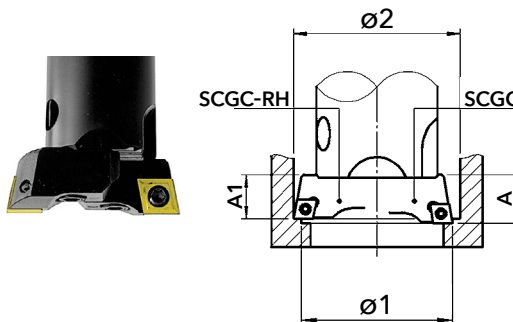
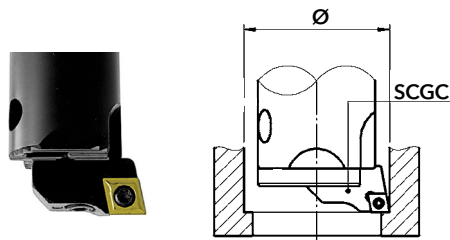


FIGURE 3



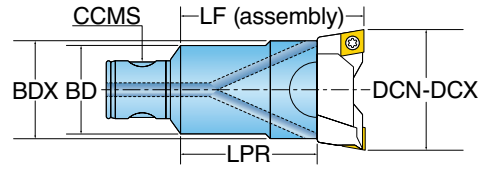
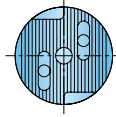
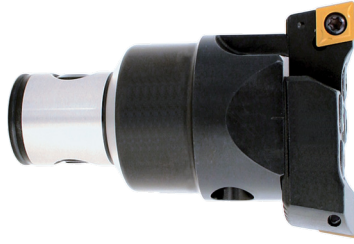
Radial positioning of the cutting edges should be performed using calibrated tool presetting equipment.

Roughing heads utilize 2 cartridges for heavy stock removal and can be configured as shown:

- **Figure 1:** 2 SCGC cartridges on the same plane, with two cutting edges set at identical radial distance for standard roughing applications
- **Figure 2:** 1 SCGC cartridge paired with 1 SCGC-RH cartridge, offset on separate planes with cutting edges set at differing radial distances, optimized for high cutting depth roughing applications
- **Figure 3:** 1 SCGC cartridge can be used for both light roughing and semi-finishing applications

Series IPB-RH - Rough Boring Head

Ø .708-7.874" (18.0-200.0 MM)



Note: LPR + WF (cartridge) = LF (assembly)

Part Number	DCN Cutting Diameter Min.	DCX Cutting Diameter Max.	CCMS Conn. Code Machine Side	BD Body Diameter	BDX Body Diameter Max.	LPR Protruding Length	WT Weight (lbs)
INCH							
RH-IPB16-16	0.708	0.866	IPB-16	16.00 mm	-	1.02	0.110
RH-IPB20-20	0.866	1.102	IPB-20	20.00 mm	-	1.22	0.198
RH-IPB25-25	1.102	1.496	IPB-25	25.00 mm	-	1.48	0.440
RH-IPB32-32	1.397	1.968	IPB-32	32.00 mm	-	1.89	0.771
RH-IPB40-40	1.968	2.677	IPB-40	40.00 mm	-	2.20	1.543
RH-IPB50-50	2.677	3.543	IPB-50	50.00 mm	55.00 mm	2.68	3.395
RH-IPB50-63	3.543	4.724	IPB-50	50.00 mm	72.00 mm	3.07	4.409
RH-IPB63-63	3.543	4.724	IPB-63	63.00 mm	72.00 mm	3.07	6.613
RH-IPB80-80	4.724	7.874	IPB-80	80.00 mm	95.00 mm	3.27	11.680
Roughing Cartridges - Page 36-40 Spare Parts - Page 64 Operating Guidelines - Page 66							

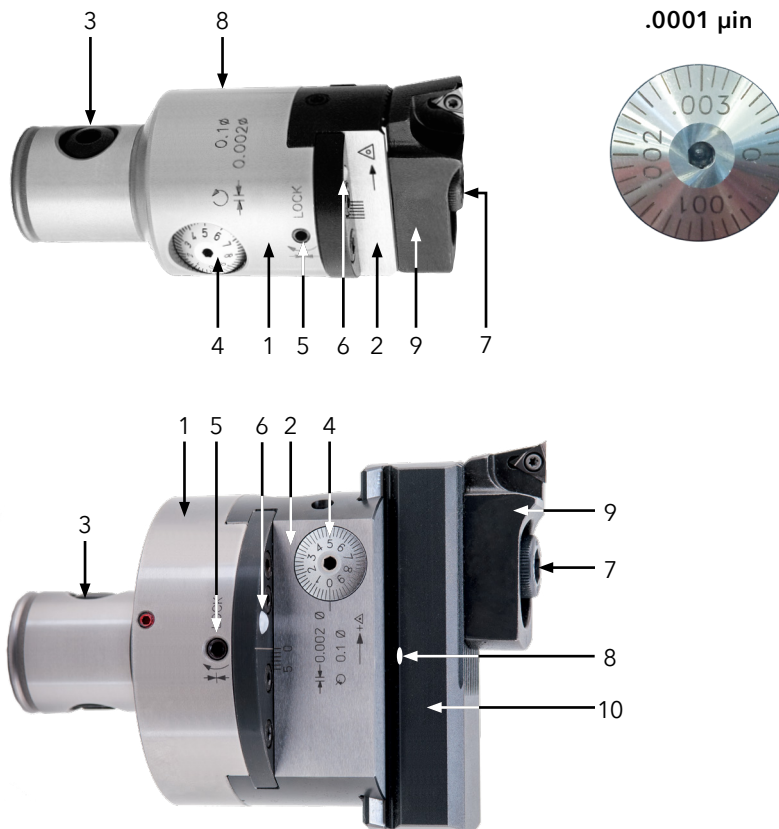
AFH Analog Finish Heads

AFH 16-125 (Ø .098-19.690")

AFH-IPB16-16-INCH
 AFH-IPB20-20-INCH
 AFH-IPB25-25-INCH
 AFH-IPB32-32-INCH
 AFH-IPB40-40-INCH
 AFH-IPB50-50-INCH
 AFH-IPBxx-63-INCH
 AFH-IPBxx-80-INCH
 AFH-IPB80-125-INCH

AFH heads deliver high-precision machining and excellent surface finishes within IT6 tolerance. Each vernier dial mark represents .0001" and is easy to see and adjust while the tool is in the machine.

1. Body
2. Slide
3. IPB expanding pin
4. Vernier dial
5. Slide lock screw
6. Coolant outlet (max 580 PSI)
7. Cartridge bolt
8. Oiler
9. Cartridge
10. Dovetail slide

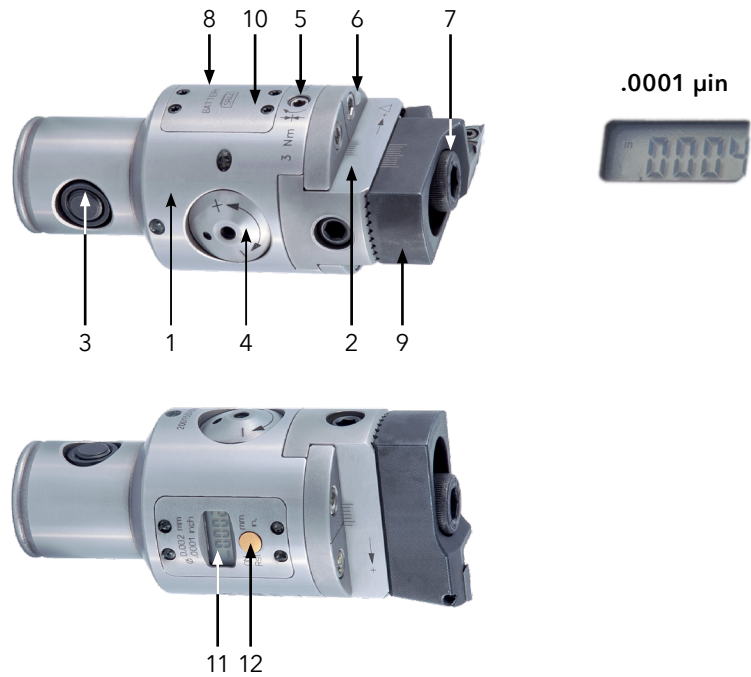


DFH Digital Display Finish Head

DFH-IPB50-69K (Ø .098-5.59")

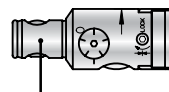
DHF heads deliver high-precision machining and excellent surface finishes within IT6 tolerance. The adjustment of .0001" is fast, accurate, and easily read on the integrated digital display. DHF are rated IPB69K against ingress of dust and coolant.

1. Body
2. Slide
3. IPB expanding pin
4. Adjustment dial
5. Slide lock screw
6. Coolant outlet (max 580 PSI)
7. Cartridge bolt
8. Oiler
9. Cartridge
10. Battery cover
11. Digital display
12. Selection button



AFH 16-40

AFH-IPB16-16-INCH Ø .708-.906"

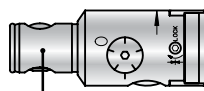


IPB16



FH-SCGC-16

AFH-IPB20-20-INCH Ø .866-1.142"

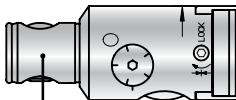


IPB20



FH-SCGC-20

AFH-IPB25-25-INCH Ø 1.102-1.496"



IPB25

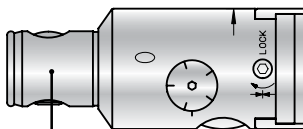


FH-SCGC-25

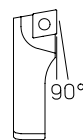


FH-STGP-25

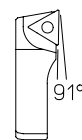
AFH-IPB32-32-INCH Ø 1.397-2.027"



IPB32

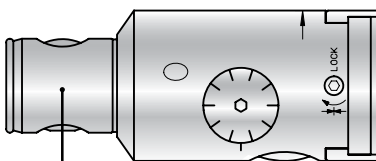


FH-SCGC-32

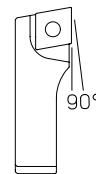


FH-STGP-32

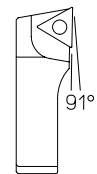
AFH-IPB40-40-INCH Ø 1.889-2.480"



IPB40



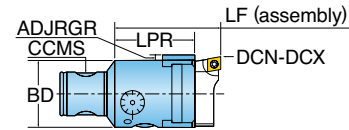
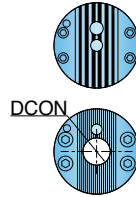
FH-SCGC-40



FH-STGP-40

Series IPB-AFH - Analog Finish Boring Head

Ø .708-2.480" (18.0-63.0 MM)



Note: LPR + WF (cartridge) = LF (assembly)

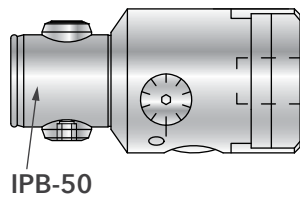
Part Number	DCN Cutting Diameter Min.	DCX Cutting Diameter Max.	CCMS Conn. Code Machine Side	BD Body Diameter	LPR Protruding Length	ADJRGR Adjustment Range Radial	WT Weight (lbs)	Max. RPM
INCH								
AFH-IPB16-16-INCH	0.708	0.906	IPB-16	16.00 mm	1.02	0.039	0.110	12,000
AFH-IPB20-20-INCH	0.866	1.142	IPB-20	20.00 mm	1.24	0.079	0.221	12,000
AFH-IPB25-25-INCH	1.102	1.496	IPB-25	25.00 mm	1.58	0.079	0.441	10,000
AFH-IPB32-32-INCH	1.397	2.027	IPB-32	32.00 mm	2.03	0.119	0.772	10,000
AFH-IPB40-40-INCH	1.889	2.480	IPB-40	40.00 mm	2.60	0.158	1.544	10,000
METRIC								
AFH-IPB16-16	18.0 mm	23.0 mm	IPB-16	16.00 mm	26.0 mm	1.0 mm	0.050	12,000
AFH-IPB20-20	22.0 mm	29.0 mm	IPB-20	20.00 mm	31.5 mm	2.0 mm	0.100	12,000
AFH-IPB25-25	28.0 mm	38.0 mm	IPB-25	25.00 mm	40.0 mm	2.0 mm	0.200	10,000
AFH-IPB32-32	35.5 mm	51.5 mm	IPB-32	32.00 mm	51.5 mm	3.0 mm	0.350	10,000
AFH-IPB40-40	48.0 mm	63.0 mm	IPB-40	40.00 mm	66.0 mm	4.0 mm	0.700	10,000

Finishing Cartridges - Page 41-42 | Spare Parts - Page 64 | Operating Guidelines - Page 66

AFH 50 and DFH 50

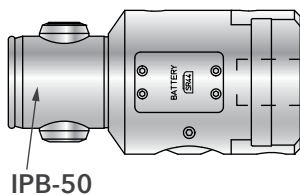
AFH 50 Analog Finish Boring Head

AFH-IPB50 » Ø.098-5.512" • Pg. 29



DFH 50 Digital Finish Boring Head

DFH-IPB50 » Ø.098-5.512" • Pg. 29



▼ 3xD Steel

▼ 5xD Heavy Metal

▼ 8xD Carbide

DXX • See pg. 62

Ø.098-.157" Ø.157-.236"
5xD Carbide • Pg. 44

Ø
.236-
.315"

IPB-3X_ • Pg. 45

IPB-5X_ • Pg. 46

IPB-8X_ • Pg. 47

Ø
.315-
.394"

IPB-3X_ • Pg. 45

IPB-5X_ • Pg. 46

IPB-8X_ • Pg. 47

Ø
.390-
.472"

IPB-3X_ • Pg. 45

IPB-5X_ • Pg. 46

IPB-8X_ • Pg. 47

Ø
.433-
.551"

IPB-3X_ • Pg. 45

IPB-5X_ • Pg. 46

IPB-8X_ • Pg. 47

Ø
.551-
.630"

IPB-3X_ • Pg. 45

IPB-5X_ • Pg. 46

IPB-8X_ • Pg. 47

Ø
.630-
.708"

IPB-3X_ • Pg. 45

IPB-5X_ • Pg. 46

IPB-8X_ • Pg. 47

Ø
.708-
.886"

IPB-3X_ • Pg. 45

Ø
.866-
1.180"

IPB-3X_ • Pg. 45

AFH 50 / DFH 50
Ø1.102-1.654"

AFH 50 / DFH 50
Ø1.417-2.126"

FH-SCGC-06-25 • FH-SCGC-06-32 • Pg. 41

FH-SLB-16-53 • Pg. 50

FH-SLB-16-95 • Pg. 50

FH-STGP-25 • FH-STGP-32 • Pg. 42

1 AFH 50 / DFH 50
Ø2.126-3.307"

2 AFH 50 / DFH 50
Ø3.150-4.252"

3 AFH 50 / DFH 50
Ø4.134-5.512"

SE_ • Pg. 16

1

FH-SCGC-09-40 • FH-SCGC-09-50 • Pg. 41

1

FH-STGP-11-40 • FH-STGP-11-50 • Pg. 42

2

FH-SLD-24-75 • FH-SLD-24-100 • Pg. 51

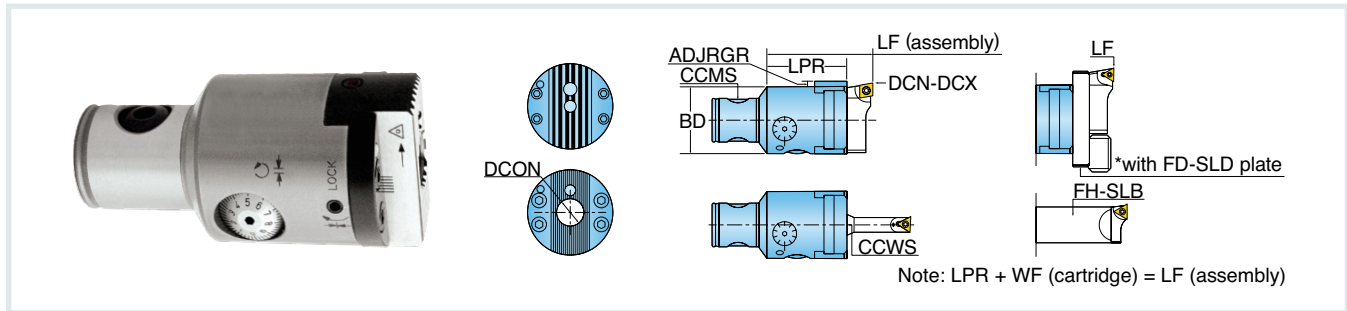
3

3

Counterweight

Series IPB-AFH - Analog Finish Boring Head

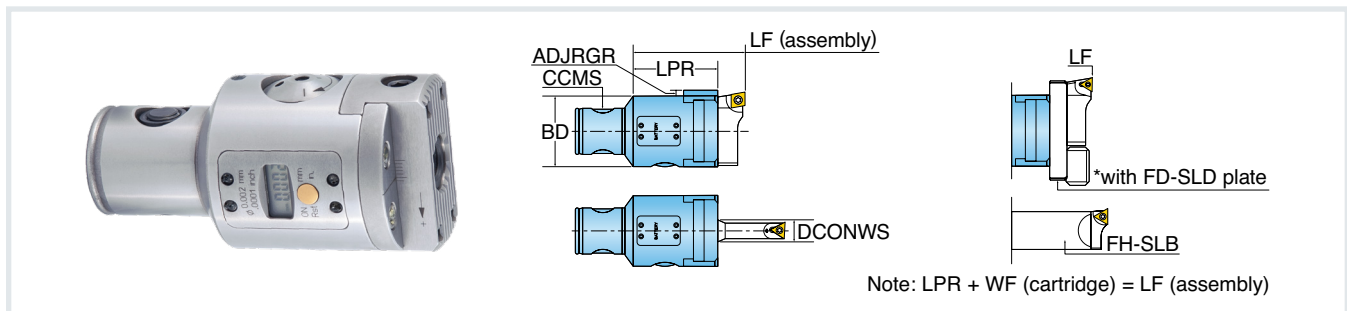
Ø .098-5.512" (2.5-140.0 MM)



Part Number	DCN Cutting Diameter Min.	DCX Cutting Diameter Max.	CCMS Conn. Code Machine Side	BD Body Diameter	LPR Protruding Length	ADJRGR Adjustment Range Radial	WT Weight (lbs)	Max. RPM
INCH								
AFH-IPB50-50-INCH	0.098	5.512	IPB-50	50.00 mm	2.36	0.157	2.205	8,000
METRIC								
AFH-IPB50-50	2.5 mm	140.0 mm	IPB-50	50.00 mm	60.0 mm	4.0 mm	2.205	8,000
Finishing Cartridges - Page 41-42 Boring Bars - Page 44-47 Spare Parts - Page 64 Operating Guidelines - Page 66								

Series IPB-DFH - Digital Finish Boring Head

Ø .098-5.512" (2.5-140.0 MM)

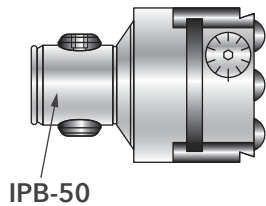


Part Number	DCN Cutting Diameter Min.	DCX Cutting Diameter Max.	CCMS Conn. Code Machine Side	BD Body Diameter	LPR Protruding Length	ADJRGR Adjustment Range Radial	WT Weight (lbs)	Max. RPM
INCH								
DFH-IPB50-69K	0.098	5.512	IPB-50	50.00 mm	2.36	0.157	2.425	20,000
Finishing Cartridges - Page 41-42 Boring Bars - Page 44-47 Spare Parts - Page 64 Operating Guidelines - Page 66								

AFH 50/63 and AFH 63/63

AFH 50/63

AFH-IPB50-63
Ø3.030-6.299" • Pg. 31

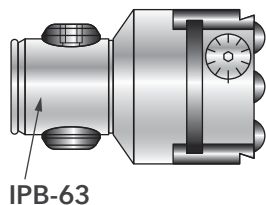


IPB-50

FH-SLV-30-16 • Pg. 48

AFH 63/63

AFH-IPB63-63
Ø3.030-6.299" • Pg. 31



IPB-63

▼ 3xD Steel

▼ 5xD Heavy Metal

▼ 8xD Carbide

DXX • See pg. 62

Ø.098-.157" Ø.157-.236"
5xD Carbide • Pg. 44

Ø .236-.315"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .315-.394"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .390-.472"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .433-.551"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .551-.630"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .630-.708"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .708-.886"	IPB-3X_ • Pg. 45		
Ø .866-1.180"	IPB-3X_ • Pg. 45		

Ø1.181-2.598"

Ø1.397-3.031"

FH-SCGC-06-25 • FH-SCGC-06-32 • Pg. 41

FH-STGP-09-25 • FH-STGP-09-32 • Pg. 42

FH-SLDE-30-40 • FH-SLDE-30-70 • FH-SLDE-30-115 • Pg. 50

FH-SLD-30-75 • Pg. 49

FH-SCGC-09-40 • FH-SCGC-09-50 • Pg. 41

Ø3.031-3.937"

Ø3.031-6.299"

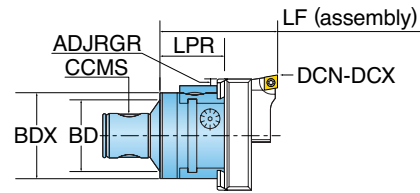
FH-SLD-30-93 • Pg. 49

Ø3.740-6.299"

FH-STGP-11-40 • FH-STGP-11-50 • Pg. 42

Series IPB-AFH Analog Finish Head (Dovetail)

Ø 3.030-6.299" (77.0-160.0 MM)



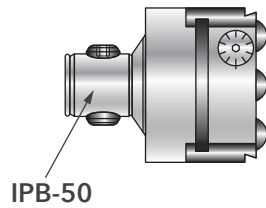
Note: LPR + WF (cartridge) = LF (assembly)

Part Number	DCN Cutting Diameter Min.	DCX Cutting Diameter Max.	CCMS Conn. Code Machine Side	BD Body Diameter	BDX Body Diameter Max.	LPR Protruding Length	ADJRGR Adjustment Range Radial	WT Weight (lbs)	Max. RPM
INCH									
AFH-IPB50-63-INCH	3.030	6.299	IPB-50	50.00 mm	63.00 mm	1.930	0.197	3.747	6,000
AFH-IPB63-63-INCH	3.030	6.299	IPB-63	63.00 mm	63.00 mm	1.930	0.197	4.409	6,000
METRIC									
AFH-IPB50-63	77.0 mm	160.0 mm	IPB-50	50.00 mm	63.00 mm	49.0 mm	5.0 mm	3.747	6,000
AFH-IPB63-63	77.0 mm	160.0 mm	IPB-63	63.00 mm	63.00 mm	49.0 mm	5.0 mm	4.409	6,000
Dovetail Slides - Page 49-51 Spare Parts - Page 64 Operating Guidelines - Page 66									

A FH 50/80 and AFH 80/80

AFH 50/80

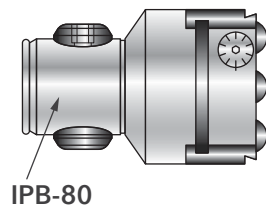
AFH-IPB50-80
Ø3.740-8.661" • Pg. 33



FH-SLV-30-16 • Pg. 48

AFH 80/80

AFH-IPB80-80
Ø3.740-8.661" • Pg. 33



▼ 3xD Steel

▼ 5xD Heavy Metal

▼ 8xD Carbide

DXX • See pg. 62

Ø.098-.157" Ø.157-.236"
5xD Carbide • Pg. 44

Ø .236-.315"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .315-.394"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .390-.472"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .433-.551"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .551-.630"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .630-.708"	IPB-3X_ • Pg. 45	IPB-5X_ • Pg. 46	IPB-8X_ • Pg. 47
Ø .708-.886"	IPB-3X_ • Pg. 45		
Ø .866-1.180"	IPB-3X_ • Pg. 45		

Ø1.181-3.267"

Ø1.397-3.740"

FH-SCGC-06-25 • FH-SCGC-06-32 • Pg. 41

FH-STGP-09-25 • FH-STGP-09-32 • Pg. 42

FH-SLDE-30-40 • FH-SLDE-30-70 • FH-SLDE-30-115 • Pg. 50

FH-SLD-30-93 • Pg. 49

Ø3.740-5.512"

FH-SLD-30-135 • Pg. 49

Ø5.512-8.661"

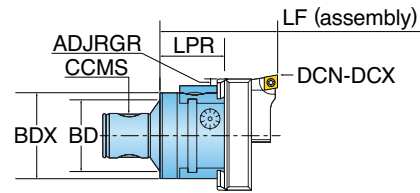
FH-SCGC-09-40 • FH-SCGC-09-50 • Pg. 41

Ø3.740-8.661"

FH-STGP-11-40 • FH-STGP-11-50 • Pg. 42

Series IPB-AFH Analog Finish Head (Dovetail)

Ø 3.740-8.661" (95.0-220.0 MM)



Note: LPR + WF (cartridge) = LF (assembly)

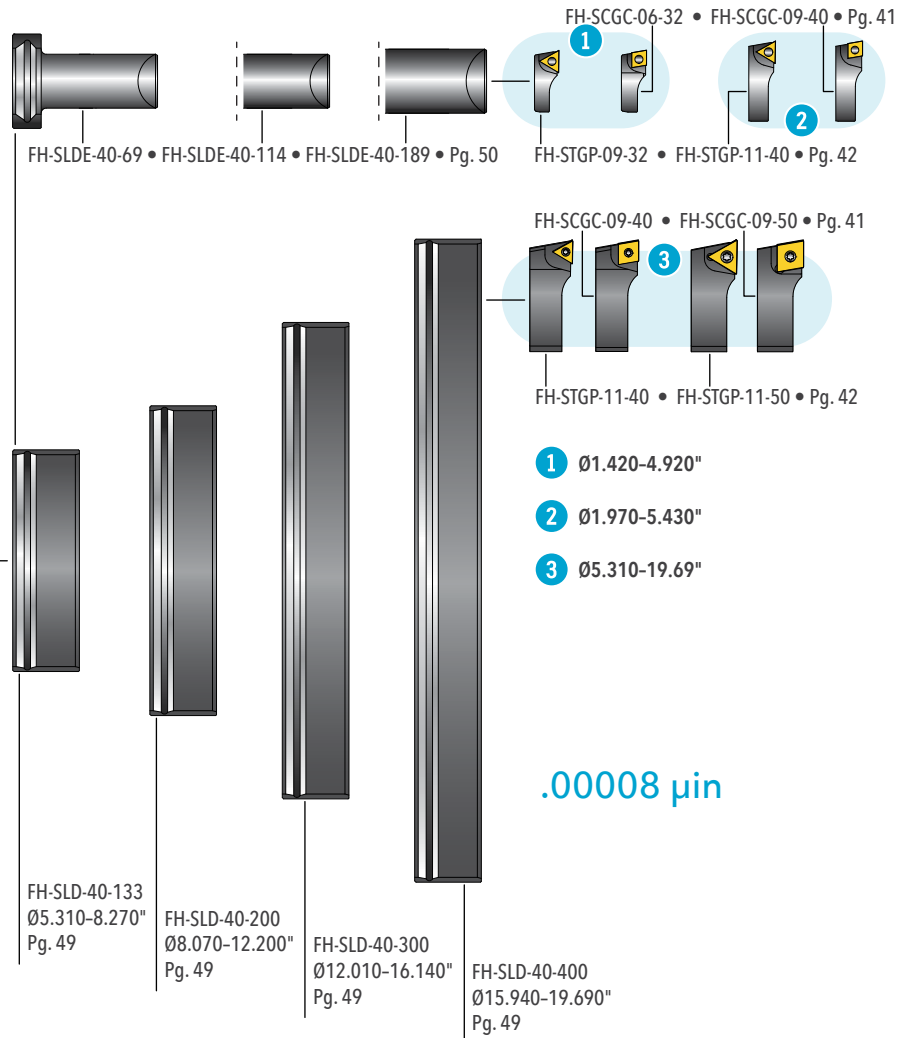
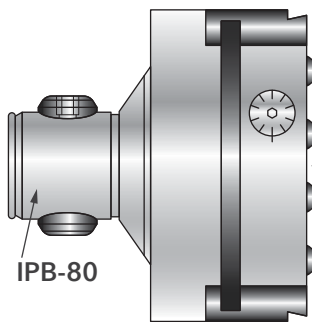
Part Number	DCN Cutting Diameter Min.	DCX Cutting Diameter Max.	CCMS Conn. Code Machine Side	BD Body Diameter	BDX Body Diameter Max.	LPR Protruding Length	ADJRGR Adjustment Range Radial	WT Weight (lbs)	Max. RPM
INCH									
AFH-IPB50-80-INCH	3.740	8.661	IPB-50	50.00 mm	80.00 mm	2.283	0.197	5.732	5,000
AFH-IPB80-80-INCH	3.740	8.661	IPB-80	80.00 mm	80.00 mm	2.283	0.197	6.834	5,000
METRIC									
AFH-IPB50-80	95.0 mm	220.0 mm	IPB-50	50.00 mm	80.00 mm	58.0 mm	5.0 mm	5.732	5,000
AFH-IPB80-80	95.0 mm	220.0 mm	IPB-80	80.00 mm	80.00 mm	58.0 mm	5.0 mm	6.834	5,000
Dovetail Slides - Page 49-51 Spare Parts - Page 64 Operating Guidelines - Page 66									

AFH 80/125

COMPONENT BREAKDOWN

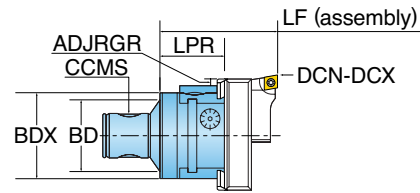
AFH 80/125

AFH-IPB80-125
Ø5.310-19.690" • Pg. 35



Series IPB-AFH Analog Finish Head (Dovetail)

Ø 5.310-19.690" (135.0-500.0 MM)



Note: LPR + WF (cartridge) = LF (assembly)

Part Number	DCN Cutting Diameter Min.	DCX Cutting Diameter Max.	CCMS Conn. Code Machine Side	BD Body Diameter	BDX Body Diameter Max.	LPR Protruding Length	ADJRGR Adjustment Range Radial	WT Weight (lbs)	Max. RPM
INCH									
AFH-IPB80-125-INCH	5.310	19.690	IPB-80	80.00 mm	125.00 mm	2.48	0.197	15.873	4,000
METRIC									
AFH-IPB80-125	135.0 mm	500.0 mm	IPB-80	80.00 mm	125.00 mm	63.0 mm	5.0 mm	15.873	4,000
Dovetail Slides - Page 49-51 Spare Parts - Page 64 Operating Guidelines - Page 66									