



FLEXLOK™

Precision Control for Short-Chipping Metals

- Near neutral geometry provides maximum edge strength and proper chip control
- High density capability for high production applications
- Maximize tool life by using flex-type insert seats
- Solid insert seats for fixed pocket economy milling applications

Member IMC Group
 **Ingersoll**
Cutting Tools

LIGHT-WEIGHT ALUMINUM BODY FACE MILL* SERIES 6X1V, 6X2V

Diameters

2.50" to 10.00" (63mm to 250mm)

Cutting Edge Length

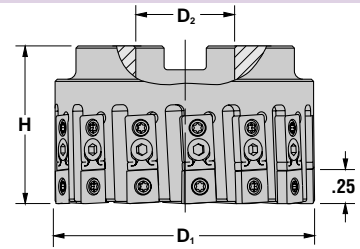
.25"

Geometry

Positive/Positive

Insert Corner

.015" to .093"R (.4mm to 2.4mm)



D ₁ Nominal Diameter	New Cutter Number	Old Cutter Number	Number of Inserts	H Height	D ₂ Bore Diameter	Bolt Circle	Weight with Carbide
Medium Density							
2.50	6X2V-02R01	-	4	2.000	1.000	-	.8 lbs.
3.00	6X2V-03R01	-	6	2.000	1.000	-	1.1 lbs.
4.00	6X2V-04R01	-	8	2.000	1.250	-	1.7 lbs.
5.00	6X2V-05R01	-	10	2.380	1.500	-	3.0 lbs.
6.00	6X2V-06R01	-	12	2.380	1.500	-	4.2 lbs.
8.00	6X2V-08R01	-	16	2.380	2.500	4.00	7.6 lbs.
10.00	6X2V-10R01	-	20	2.380	2.500	4.00	11.4 lbs.
High-Density							
2.50	6X1V-02R01	-	6	2.000	1.000	-	.85 lbs.
3.00	6X1V-03R01	-	8	2.000	1.000	-	1.1 lbs.
4.00	6X1V-04R01	-	12	2.000	1.250	-	2.0 lbs.
5.00	6X1V-05R01	-	15	2.380	1.500	-	3.0 lbs.
6.00	6X1V-06R01	-	18	2.380	1.500	-	4.2 lbs.
8.00	6X1V-08R01	-	24	2.380	2.500	4.00	7.6 lbs.
10.00	6X1V-10R01	-	30	2.380	2.500	4.00	11.4 lbs.

* For use with coolant-through-spindle applications.

DURABLE STEEL BODY FACE MILL SERIES 6X3V, 6X4V

Diameters

2.50" to 10.00" (63mm to 250mm)

Cutting Edge Length

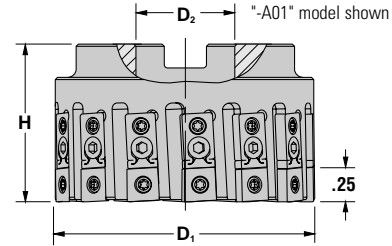
.25"

Geometry

Positive/Positive

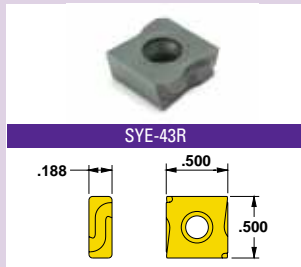
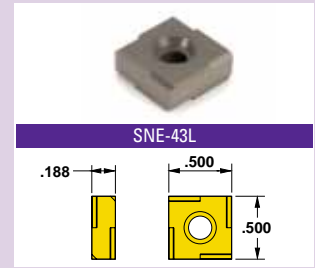
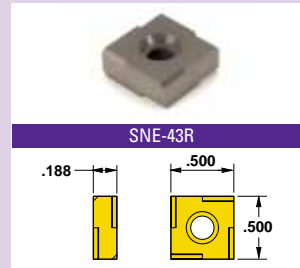
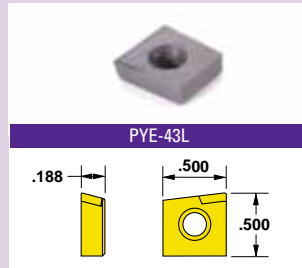
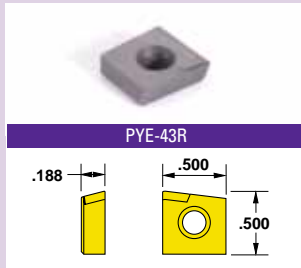
Insert Corner

.015" to .093"R (4mm to 2.4mm)



D ₁ Nominal Diameter	New Cutter Number	Old Cutter Number	Number of Inserts	H Height	D ₂ Bore Diameter	Bolt Circle
Medium Density - Adjustable Finishing Style						
2.50	6X4V-02A01	NEW	4	2.000	1.000	-
3.00	6X4V-03A01	NEW	6	2.000	1.000	-
4.00	6X4V-04A01	NEW	8	2.000	1.250	-
5.00	6X4V-05A01	NEW	10	2.380	1.500	-
6.00	6X4V-06A01	NEW	12	2.380	1.500	-
8.00	6X4V-08A01	NEW	16	2.380	2.500	4.00
10.00	6X4V-10A01	NEW	20	2.380	2.500	4.00
High-Density - Adjustable Finishing Style						
2.50	6X3V-02A01	NEW	6	2.000	1.000	-
3.00	6X3V-03A01	NEW	8	2.000	1.000	-
4.00	6X3V-04A01	NEW	12	2.000	1.250	-
5.00	6X3V-05A01	NEW	15	2.380	1.500	-
6.00	6X3V-06A01	NEW	18	2.380	1.500	-
8.00	6X3V-08A01	NEW	24	2.380	2.500	4.00
10.00	6X3V-10A01	NEW	30	2.380	2.500	4.00
Medium Density - Fixed Pocket Style						
2.50	6X4V-02A02	NEW	4	2.000	1.000	-
3.00	6X4V-03A02	NEW	6	2.000	1.000	-
4.00	6X4V-04A02	NEW	8	2.000	1.250	-
5.00	6X4V-05A02	NEW	10	2.380	1.500	-
6.00	6X4V-06A02	NEW	12	2.380	1.500	-
8.00	6X4V-08A02	NEW	16	2.380	2.500	4.00
10.00	6X4V-10A02	NEW	20	2.380	2.500	4.00
High-Density - Fixed Pocket Style						
2.50	6X3V-02A02	NEW	6	2.000	1.000	-
3.00	6X3V-03A02	NEW	8	2.000	1.000	-
4.00	6X3V-04A02	NEW	12	2.000	1.250	-
5.00	6X3V-05A02	NEW	15	2.380	1.500	-
6.00	6X3V-06A02	NEW	18	2.380	1.500	-
8.00	6X3V-08A02	NEW	24	2.380	2.500	4.00
10.00	6X3V-10A02	NEW	30	2.380	2.500	4.00

INSERTS



New Insert Number*	Old Insert Number	Type	Corner	Cutting Edges	OLD	NEW	IN	10K	90D	80B	70N	2015
					IC	111	411	421	405	822		
PYE-43R001	NEW	PCD, CBN	.093"R	1					■	■		
PYE-43R002	NEW	PCD, CBN	.015"R	1					■	■		
PYE-43R003	NEW	PCD, CBN	.031"R	1					■	■		
PYE-43L001	NEW	PCD, CBN Left-Hand	.093"R	1					■	■		
PYE-43L002	NEW	PCD, CBN Left-Hand	.015"R	1					■	■		
PYE-43L003	NEW	PCD, CBN Left-Hand	.031"R	1					■	■		
SYE-43R001	NEW	Carbide	.031"R	4			■					■
SNE43R001	NEW	SiNi	.030 x 45°	8							■	
SNE43L001	NEW	SiNi Left-Hand	.030 x 45°	8							■	

* PCD and CBN inserts should be used with adjustable style tools.

HARDWARE

Insert/Seat Screw			Driver	
New Part No.	Old Part No.	Torque	New Part No.	Old Part No.
SM40-120-20	SE02-81	25-30 in. lbs.	DS-T15T (Tx-15)	DS-0010



Fixed Seat



Adjustable Seat



Barrel Screw

Cutter Diameter	Fixed Seat		Adjustable Seat		Barrel Screw (for Adjustable)		
	New Part No.	Old Part No.	New Part No.	Old Part No.	New Part No.	Old Part No.	Drive Size
2.500-10.000	PA-0605	-	PA-0598	PA-0598	SC03-21	SC03-21	4mm hex



Coolant Lock Screw



Manifold Plate

Coolant Hardware (6X1V, 6X2V Series Tools)		
Cutter Dia.	Part No.	Type
2.50-3.00	n/a	-
4.00	CZ-0104	Lock-screw
5.00-6.00	CZ-0097	Lock-screw
8.00+	CZ-0091	Manifold Plate

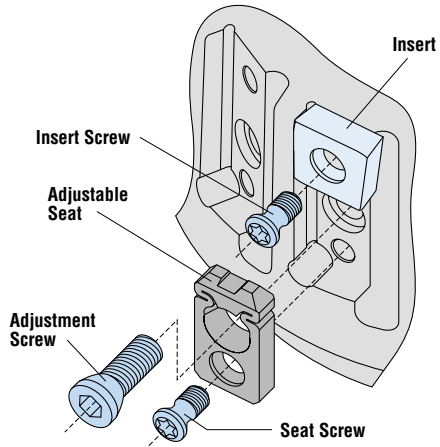
Operating Guidelines

Material	Brinell Hardness	SFM	Feed per Insert	Grades*					Coolant
				INV10K (111)	INV20N (205)	IN800B (221)	IN900 (411)	IN22015 (822)	
Aluminum	6061 T-6, 7075 T-6	-	1500-3000	.004-.015	2		1		Yes
Cast Iron	Gray	150-250	300-1000	.004-.012	3	1	2		No
	Nodular		300-600						

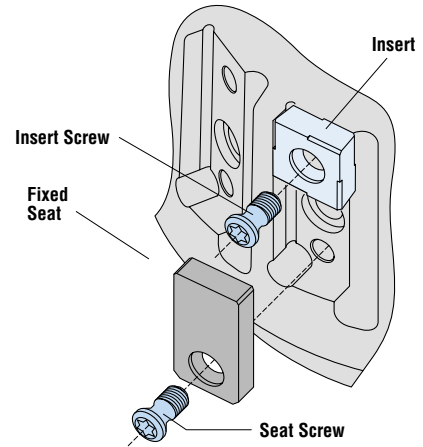
*In order of preference.

HARDWARE CONFIGURATION

Adjustable Seat



Fixed Seat



AXIAL ADJUSTMENT



1. Pre-torque insert screw to 10-15 in. lbs.



2. Set indicator to zero over a set master.

AXIAL ADJUSTMENT



3. Adjust insert to within .0002 - .0003" of desired height by turning adjustment screw clockwise.



4. Tighten insert screw to 30-35 in. lbs.



5. Bring insert to desired height with adjustment screw.



6. Check all insert mounting surfaces for proper seating.



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