

# GEN3SYS® and GEN3SYS® XT



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Revolution & Opening

APX

GEN3SYS & GEN3SYS XT

Original T-A & GEN2 T-A

AccuPort 432

ASC 320

Special Tooling

## Features & Benefits

- The unique geometry of the GEN3SYS Drilling System provides excellent chip control
- Designed to increase hole quality, surface finish and true position when compared to other competitive products
- The helical margin design provides maximum durability and stability



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# GEN3SYS® and GEN3SYS® XT

## Reference Page

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Special Tooling

### GEN3SYS Drill Insert

<b>5</b>	<b>C2</b>	<b>12</b>	<b>H</b>	<b>-</b>	<b>.484</b>	<b>-</b>	<b>CI</b>
↑	↑	↑	↑		↑		↑
<b>Insert</b>	<b>Material</b>	<b>Series</b>	<b>Coating</b>		<b>Diameter</b>		<b>Geometry</b>
	C1	12 18	H = AM200®		Inch = 0017		CI = Cast Iron
	C2	13 20			Decimal = .515		LR = Low Rake
		14 22			Metric = 13		
		15 24					
		16 26					
		17 29					

### GEN3SYS XT Drill Insert

<b>7</b>	<b>C2</b>	<b>12</b>	<b>P</b>	<b>-</b>	<b>.484</b>	<b>CI</b>
↑	↑	↑	↑		↑	↑
<b>Insert</b>	<b>Material</b>	<b>Series</b>	<b>Coating</b>		<b>Diameter</b>	<b>Geometry</b>
	C1	11 18	P = AM300®		Inch = 0017	CI = Cast Iron
	C2	12 20			Decimal = .515	LR = Low Rake
		13 22			Metric = 13	AS = Stainless Steel
		14 24				
		15 26				
		16 29				
		17 32				

### GEN3SYS and GEN3SYS XT Holder

<b>6</b>	<b>03</b>	<b>12</b>	<b>H</b>	<b>-</b>	<b>20FM</b>
↑	↑	↑	↑		↑
<b>Holder</b>	<b>Length</b>	<b>Series</b>	<b>Flute</b>		<b>Geometry</b>
	01 = Stub Length	11 18	H = Helical		F = Flanged with Flat
	03 = 3 x Diameter	12 20	S = Straight		FM = Flanged Metric with Flat
	05 = 5 x Diameter	13 22	C45 = Drill/Chamfer		C = Cylindrical (No Flat)
	07 = 7 x Diameter	14 24			CM = Cylindrical Metric (No Flat)
		15 26			
		16 29			
		17 32			



### Ordering Instructions for Standard Stocked Items

All orders are processed through Allied Machine's computerized Order Entry and Invoicing System. Please specify the correct catalog number (ADP) as well as a full description of the desired item(s) so we can process your order accurately and efficiently. Incorrect item numbers and/or descriptions will cause unnecessary delays and possible returns that are subject to a 10% restocking charge. Your assistance is critical if we are to achieve our goal of processing orders and shipping in stock items error free within 24 hours.

### Holder Ordering Information

We use a series designator in the header, at the top of each page of both the drill insert and holder sections of the catalog, for your reference when ordering. Please refer to these series designators when placing your order. For example, series 12 drill inserts will fit in a series 12 holder.

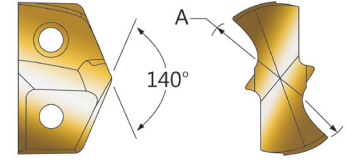
### Regrinding and Recoating

The GEN3SYS Drilling System is so cost efficient that it eliminates the need for regrinding and recoating. However, if you choose to have your drill inserts reground, it is critical that it be done by Allied Machine. Any slight deviation in performance due to an improperly reground drill insert will more than offset any benefit from regrinding. Allied Machine is the only company that has the experience, knowledge, equipment and inspection process to manage a regrind program for you. Using our service assures that the best tool performance is maintained in your production process. When returning tools for regrinding, please package tools carefully to avoid damage during shipment. Returning drill inserts for regrinding in their original packaging will help avoid damage during shipment. Drill Inserts reground by Allied Machine are repackaged and clearly identified as "Allied Regrind" to avoid any confusion with new tools.



# GEN3SYS® XT Inserts

11 Series Range: 0.4331"-0.4723" (11,00mm-11,99mm)



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.4331	11,00	7C111P-11	○	7C111P-11LR	▲	7C211P-11	○	7C211P-11CI	▲	7C211P-11LR	▲	7C211P-11AS	○
7/16"	0.4375	11,11	7C111P-0014	○	7C111P-0014LR	▲	7C211P-0014	○	7C211P-0014CI	▲	7C211P-0014LR	▲	7C211P-0014AS	○
	0.4528	11,50	7C111P-11.5	○	7C111P-11.5LR	▲	7C211P-11.5	○	7C211P-11.5CI	▲	7C211P-11.5LR	▲	7C211P-11.5AS	○
29/64"	0.4531	11,51	7C111P-.453	▲	7C111P-.453LR	▲	7C211P-.453	▲	7C211P-.453CI	▲	7C211P-.453LR	▲	7C211P-.453AS	▲
15/32"	0.4688	11,91	7C111P-0015	○	7C111P-0015LR	▲	7C211P-0015	○	7C211P-0015CI	▲	7C211P-0015LR	▲	7C211P-0015AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

When ordering, please follow the examples shown below:

Decimals = .4340" AM300, 11 Series, C2 = 7C211P-.4340

Metric = 11,20 mm AM300, 11 Series, C2 = 7C211P-11.20

Revolution & Opening

APX

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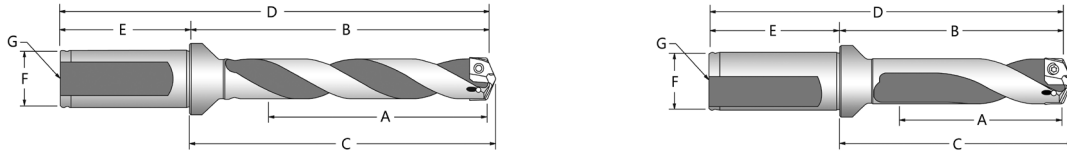
ASC 320

Special Tooling

# GEN3SYS® XT Holders



11 Series Range: 0.4331"-0.4723" (11,00mm-11,99mm)

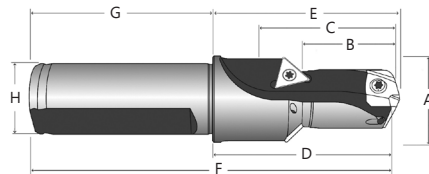


## GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60311S-063F	1-27/64"	2-29/64"	2-17/32"	YES	4-21/64"	1-7/8"	5/8"	1/16"
	5xD	60511S-063F	2-23/64"	3-13/32"	3-31/64"	YES	5-9/32"			1/16"
	7xD	60711S-063F	3-19/64"	4-11/32"	4-27/64"	YES	6-7/32"			1/16"
Helical	Stub	60111H-063F	5/8"	1-43/64"	1-3/4"	YES	3-35/64"	1-7/8"	5/8"	1/16"
	3xD	60311H-063F	1-27/64"	2-29/64"	2-17/32"	YES	4-21/64"			1/16"
		60311H-063C	1-27/64"	2-29/64"	2-17/32"	NO	4-21/64"			1/16"
	5xD	60511H-063F	2-23/64"	3-13/32"	3-31/64"	YES	5-9/32"			1/16"
		60511H-063C	2-23/64"	3-13/32"	3-31/64"	NO	5-9/32"			1/16"
	7xD	60711H-063F	3-19/64"	4-11/32"	4-27/64"	YES	6-7/32"			1/16"
60711H-063C		3-19/64"	4-11/32"	4-27/64"	NO	6-7/32"	1/16"			

### METRIC (mm) \*Thread to BSP & ISO 7-1

Straight	3xD	60311S-16FM	36,0	62,6	64,7	YES	110,6	48	16	1/16**
	5xD	60511S-16FM	59,9	86,6	88,6	YES	134,6			1/16**
	7xD	60711S-16FM	83,9	110,6	112,6	YES	158,6			1/16**
Helical	Stub	60111H-16FM	16,0	42,6	44,7	YES	90,7	48	16	1/16**
	3xD	60311H-16FM	36,0	62,6	64,7	YES	110,6			1/16**
		60311H-16CM	36,0	62,6	64,7	NO	110,6			1/16**
	5xD	60511H-16FM	59,9	86,6	88,6	YES	134,6			1/16**
		60511H-16CM	59,9	86,6	88,6	NO	134,6			1/16**
	7xD	60711H-16FM	83,9	110,6	112,6	YES	158,6			1/16**
60711H-16CM		83,9	110,6	112,6	NO	158,6	1/16**			



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60111C45-063F	61/64"	21/32"	15/16"	1-43/64"	1-3/4"	3-35/64"	1-7/8"	5/8"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60111C45-16FM	24,1	16,5	23,8	42,3	44,3	96,4	48	16	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

Series	TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
					TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
11	71843-IP6-1	8IP-6	8IP-6TL	8IP-6B	4.4 in-lbs	50 N-cm

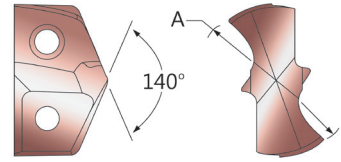
Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.

Allied Machine & Engineering Corp. patent information can be found at [www.alliedmachine.com/patents](http://www.alliedmachine.com/patents)



# GEN3SYS® and GEN3SYS® XT Inserts

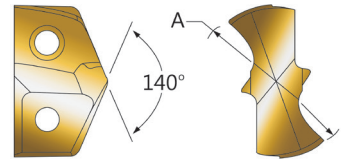
12 Series Range: 0.4724"-0.5117" (12,00mm-12,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	ⓘ	C1 AM200 Low Rake	ⓘ	C2 AM200 Standard	ⓘ	C2 AM200 Cast Iron	ⓘ	C2 AM200 Low Rake	ⓘ
	0.4724	12,00	5C112H-12	○	5C112H-12-LR	▲	5C212H-12	○	5C212H-12-CI	○	5C212H-12-LR	▲
31/64"	0.4844	12,30	5C112H-.484	○	5C112H-.484-LR	▲	5C212H-.484	○	5C212H-.484-CI	▲	5C212H-.484-LR	▲
	0.4921	12,50	5C112H-12.5	○	5C112H-12.5-LR	▲	5C212H-12.5	○	5C212H-12.5-CI	○	5C212H-12.5-LR	▲
1/2"	0.5000	12,70	5C112H-0016	○	5C112H-0016-LR	▲	5C212H-0016	○	5C212H-0016-CI	▲	5C212H-0016-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	ⓘ	C1 AM300 Low Rake	ⓘ	C2 AM300 Standard	ⓘ	C2 AM300 Cast Iron	ⓘ	C2 AM300 Low Rake	ⓘ	C2 AM300 Stainless	ⓘ
	0.4724	12,00	7C112P-12	○	7C112P-12LR	▲	7C212P-12	○	7C212P-12CI	○	7C212P-12LR	▲	7C212P-12AS	○
31/64"	0.4844	12,30	7C112P-.484	○	7C112P-.484LR	▲	7C212P-.484	○	7C212P-.484CI	▲	7C212P-.484LR	▲	7C212P-.484AS	○
	0.4921	12,50	7C112P-12.5	○	7C112P-12.5LR	▲	7C212P-12.5	○	7C212P-12.5CI	○	7C212P-12.5LR	▲	7C212P-12.5AS	○
1/2"	0.5000	12,70	7C112P-0016	○	7C112P-0016LR	▲	7C212P-0016	○	7C212P-0016CI	○	7C212P-0016LR	▲	7C212P-0016AS	○

- see page 90 for geometry details

- ⓘ Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.  
 When ordering, please follow the examples shown below:  
 Decimals = .4900" AM200, 12 Series, C2 = 5C212H-.4900  
 Metric = 12,20 mm AM200, 12 Series, C2 = 5C212H-12.20

Revolution & Opening

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GEN3SYS & GEN3SYS XT

Original T-A & GEN2 T-A

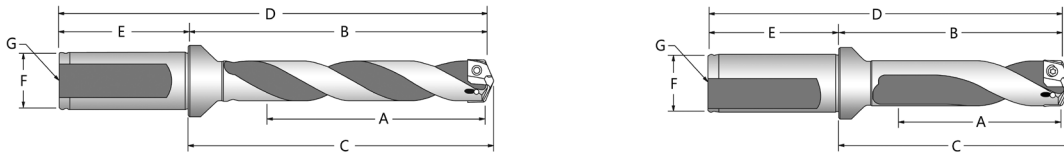
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ASC 320

Special Tooling

# GEN3SYS® and GEN3SYS® XT Holders

12 Series Range: 0.4724"-0.5117" (12,00mm-12,99mm)

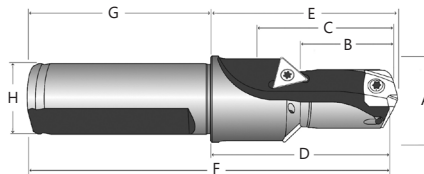


## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60312S-075F	1-35/64"	2-5/8"	2-45/64"	YES	4-21/32"	2-1/32"	3/4"	1/8"
	5xD	60512S-075F	2-9/16"	3-21/32"	3-47/64"	YES	5-43/64"			1/8"
	7xD	60712S-075F	3-19/32"	4-25/32"	4-3/4"	YES	6-45/64"			1/8"
Helical	Stub	60112H-075F	5/8"	1-45/64"	1-25/32"	YES	3-47/64"	2-1/32"	3/4"	1/8"
	3xD	60312H-075F	1-35/64"	2-5/8"	2-45/64"	YES	4-21/32"			1/8"
		60312H-075C	1-35/64"	2-5/8"	2-45/64"	NO	4-21/32"			1/8"
	5xD	60512H-075F	2-9/16"	3-21/32"	3-47/64"	YES	5-43/64"			1/8"
		60512H-075C	2-9/16"	3-21/32"	3-47/64"	NO	5-43/64"			1/8"
	7xD	60712H-075F	3-19/32"	4-25/32"	4-3/4"	YES	6-45/64"			1/8"
		60712H-075C	3-19/32"	4-25/32"	4-3/4"	NO	6-45/64"			1/8"

### METRIC (mm) \*Thread to BSP & ISO 7-1

Straight	3xD	60312S-20FM	39,0	66,6	68,8	YES	116,6	50	20	1/8"
	5xD	60512S-20FM	64,9	92,6	94,8	YES	142,6			1/8"
	7xD	60712S-20FM	90,9	118,5	120,8	YES	168,6			1/8"
Helical	Stub	60112H-20FM	16,0	43,2	45,4	YES	93,2	50	20	1/8"
	3xD	60312H-20FM	39,0	66,6	68,8	YES	116,6			1/8"
		60312H-20CM	39,0	66,6	68,8	NO	116,6			1/8"
	5xD	60512H-20FM	64,9	92,6	94,8	YES	142,6			1/8"
		60512H-20CM	64,9	92,6	94,8	NO	142,6			1/8"
	7xD	60712H-20FM	90,9	118,5	120,8	YES	168,6			1/8"
		60712H-20CM	90,9	118,5	120,8	NO	168,6			1/8"



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60112C45-075F	31/32"	45/64"	63/64"	1-45/64"	1-25/32"	3-47/64"	2-1/32"	3/4"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60111C45-16FM	24,8	18,0	35,2	43,2	45,4	101,3	50	20	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

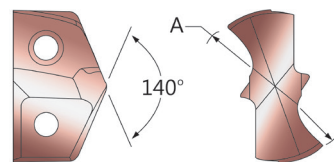
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
12	7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	7.4 in-lbs	84 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

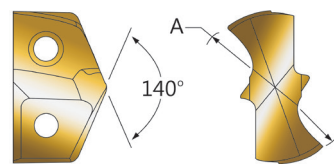
13 Series Range: 0.5118"-0.5511" (13,00mm-13,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	0.5118	13,00	5C113H-13	○	5C113H-13-LR	▲	5C213H-13	○	5C213H-13-CI	○	5C213H-13-LR	▲
33/64"	0.5156	13,08	5C113H-.515	○	5C113H-.515-LR	▲	5C213H-.515	○	5C213H-.515-CI	▲	5C213H-.515-LR	▲
17/32"	0.5312	13,49	5C113H-0017	○	5C113H-0017-LR	▲	5C213H-0017	○	5C213H-0017-CI	○	5C213H-0017-LR	▲
	0.5315	13,50	5C113H-13.5	○	5C113H-13.5-LR	▲	5C213H-13.5	○	5C213H-13.5-CI	○	5C213H-13.5-LR	▲
35/64"	0.5469	13,89	5C113H-.546	○	5C113H-.546-LR	▲	5C213H-.546	○	5C213H-.546-CI	▲	5C213H-.546-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.5118	13,00	7C113P-13	○	7C113P-13LR	▲	7C213P-13	○	7C213P-13CI	○	7C213P-13LR	▲	7C213P-13AS	○
33/64"	0.5156	13,08	7C113P-.515	○	7C113P-.515LR	▲	7C213P-.515	○	7C213P-.515CI	▲	7C213P-.515LR	▲	7C213P-.515AS	○
17/32"	0.5312	13,49	7C113P-0017	○	7C113P-0017LR	▲	7C213P-0017	○	7C213P-0017CI	○	7C213P-0017LR	▲	7C213P-0017AS	○
	0.5315	13,50	7C113P-13.5	○	7C113P-13.5LR	▲	7C213P-13.5	○	7C213P-13.5CI	○	7C213P-13.5LR	▲	7C213P-13.5AS	○
35/64"	0.5469	13,89	7C113P-.546	○	7C113P-.546 LR	▲	7C213P-.546	○	7C213P-.546CI	▲	7C213P-.546LR	▲	7C213P-.546AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

When ordering, please follow the examples shown below:

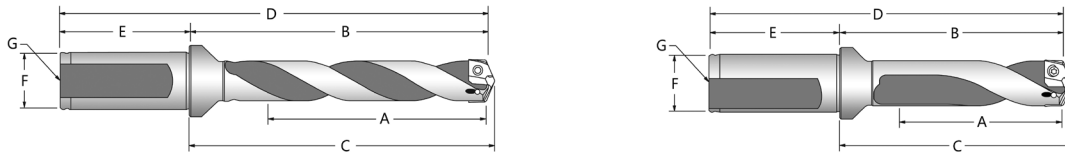
Decimals = .5200" AM200, 13 Series, C2 = 5C213H-.5200

Metric = 13,20 mm AM200, 13 Series, C2 = 5C213H-13.20



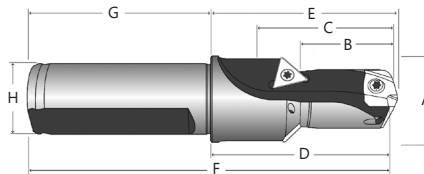
# GEN3SYS® and GEN3SYS® XT Holders

13 Series Range: 0.5118"-0.5511" (13,00mm-13,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60313S-075F	1-21/32"	2-47/64"	2-13/16"	YES	4-49/64"	2-1/32"	3/4"	1/8"
	5xD	60513S-075F	2-49/64"	3-53/64"	3-59/64"	YES	5-55/64"			1/8"
	7xD	60713S-075F	3-55/64"	4-15/16"	5-1/16"	YES	6-31/32"			1/8"
Helical	Stub	60113H-075F	5/8"	1-11/16"	1-25/32"	YES	3-23/32"	2-1/32"	3/4"	1/8"
	3xD	60313H-075F	1-21/32"	2-47/64"	2-13/16"	YES	4-49/64"			1/8"
		60313H-075C	1-21/32"	2-47/64"	2-13/16"	NO	4-49/64"			1/8"
	5xD	60513H-075F	2-49/64"	3-53/64"	3-59/64"	YES	5-55/64"			1/8"
		60513H-075C	2-49/64"	3-53/64"	3-59/64"	NO	5-55/64"			1/8"
	7xD	60713H-075F	3-55/64"	4-15/16"	5-1/16"	YES	6-31/32"			1/8"
		60713H-075C	3-55/64"	4-15/16"	5-1/16"	NO	6-31/32"			1/8"
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60313S-20FM	42,0	69,3	71,5	YES	119,3	50	20	1/8**
	5xD	60513S-20FM	70,0	97,3	99,5	YES	147,3			1/8**
	7xD	60713S-20FM	97,9	125,3	127,5	YES	175,3			1/8**
Helical	Stub	60113H-20FM	16,0	43,0	45,2	YES	93,0	50	20	1/8**
	3xD	60313H-20FM	42,0	69,3	71,5	YES	119,3			1/8**
		60313H-20CM	42,0	69,3	71,5	NO	119,3			1/8**
	5xD	60513H-20FM	70,0	97,3	99,5	YES	147,3			1/8**
		60513H-20CM	70,0	97,3	99,5	NO	147,3			1/8**
	7xD	60713H-20FM	97,9	125,3	127,5	YES	175,3			1/8**
		60713H-20CM	97,9	125,3	127,5	NO	175,3			1/8**



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60113C45-075F	1-1/64"	49/64"	1"	1-11/16"	1-25/32"	3-23/32"	2-1/32"	3/4"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60113C45-20FM	25,8	19,5	25,4	43,0	45,2	101,3	50	20	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

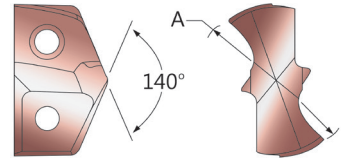
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
13	7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	7.4 in.-lbs	84 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

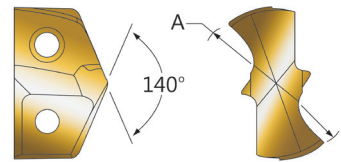
14 Series Range: 0.5512"-0.5905" (14,00mm-14,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	0.5512	14,00	5C114H-14	○	5C114H-14-LR	▲	5C214H-14	○	5C214H-14-CI	○	5C214H-14-LR	▲
9/16"	0.5625	14,29	5C114H-0018	○	5C114H-0018-LR	▲	5C214H-0018	○	5C214H-0018-CI	○	5C214H-0018-LR	▲
	0.5709	14,50	5C114H-14.5	○	5C114H-14.5-LR	▲	5C214H-14.5	○	5C214H-14.5-CI	○	5C214H-14.5-LR	▲
37/64"	0.5781	14,68	5C114H-.578	○	5C114H-.578-LR	▲	5C214H-.578	○	5C214H-.578-CI	▲	5C214H-.578-LR	▲
	0.5827	14,80	5C114H-14.8	○	5C114H-14.8-LR	▲	5C214H-14.8	○	5C214H-14.8-CI	▲	5C214H-14.8-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.5512	14,00	7C114P-14	○	7C114P-14LR	○	7C214P-14	○	7C214P-14CI	○	7C214P-14LR	▲	7C214P-14AS	○
9/16"	0.5625	14,29	7C114P-0018	○	7C114P-0018LR	○	7C214P-0018	○	7C214P-0018CI	○	7C214P-0018LR	▲	7C214P-0018AS	○
	0.5709	14,50	7C114P-14.5	○	7C114P-14.5LR	▲	7C214P-14.5	○	7C214P-14.5CI	○	7C214P-14.5LR	▲	7C214P-14.5AS	○
37/64"	0.5781	14,68	7C114P-.578	○	7C114P-.578LR	▲	7C214P-.578	○	7C214P-.578CI	▲	7C214P-.578LR	▲	7C214P-.578AS	○
	0.5827	14,80	7C114P-14.8	○	7C114P-14.8LR	▲	7C214P-14.8	○	7C214P-14.8CI	▲	7C214P-14.8LR	▲	7C214P-14.8AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

When ordering, please follow the examples shown below:

Decimals = .5600" AM200, 14 Series, C2 = 5C214H-.5600

Metric = 14,10 mm AM200, 14 Series, C2 = 5C214H-14.10

Revolution & Opening

APX

GEN3SYS & GEN3SYS XT

Original T-A & GEN2 T-A

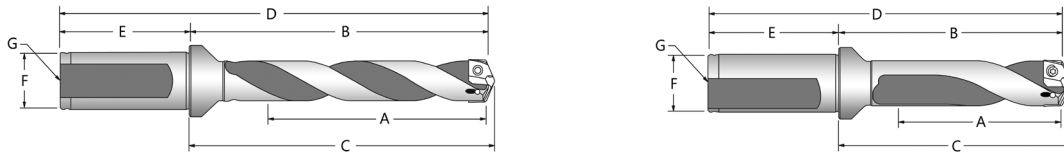
AccuPort 432

ASC 320

Special Tooling

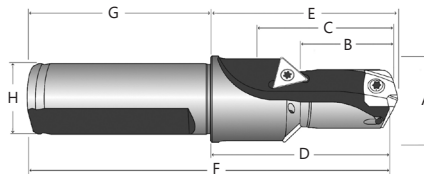
# GEN3SYS® and GEN3SYS® XT Holders

14 Series Range: 0.5512"-0.5905" (14,00mm-14,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	
Straight	3xD	60314S-075F	1-25/32"	2-55/64"	2-61/64"	YES	4-55/64"	2-1/32"	3/4"	1/8"
	5xD	60514S-075F	2-61/64"	4-1/32"	4-1/8"	YES	6-1/16"			1/8"
	7xD	60714S-075F	4-9/64"	5-7/32"	5-5/16"	YES	7-1/4"			1/8"
Helical	Stub	60114H-075F	11/16"	1-3/4"	1-55/64"	YES	3-25/32"	2-1/32"	3/4"	1/8"
	3xD	60314H-075F	1-25/32"	2-55/64"	2-61/64"	YES	4-55/64"			1/8"
		60314H-075C	1-25/32"	2-55/64"	2-61/64"	NO	4-55/64"			1/8"
	5xD	60514H-075F	2-61/64"	4-1/32"	4-1/8"	YES	6-1/16"			1/8"
		60514H-075C	2-61/64"	4-1/32"	4-1/8"	NO	6-1/16"			1/8"
	7xD	60714H-075F	4-9/64"	5-7/32"	5-5/16"	YES	7-1/4"			1/8"
		60714H-075C	4-9/64"	5-7/32"	5-5/16"	NO	7-1/4"			1/8"
	<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>									
Straight	3xD	60314S-20FM	45,0	72,4	75,0	YES	122,4	50	20	1/8**
	5xD	60514S-20FM	75,0	102,4	104,9	YES	152,4			1/8**
	7xD	60714S-20FM	104,9	132,4	134,9	YES	182,4			1/8**
Helical	Stub	60114H-20FM	17,5	44,6	47,2	YES	94,6	50	20	1/8**
	3xD	60314H-20FM	45,0	72,4	75,0	YES	122,4			1/8**
		60314H-20CM	45,0	72,4	75,0	NO	122,4			1/8**
	5xD	60514H-20FM	75,0	102,4	104,9	YES	152,4			1/8**
		60514H-20CM	75,0	102,4	104,9	NO	152,4			1/8**
	7xD	60714H-20FM	104,9	132,4	134,9	YES	182,4			1/8**
		60714H-20CM	104,9	132,4	134,9	NO	182,4			1/8**



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60114C45-075F	1-3/64"	53/64"	1-3/64"	1-3/4"	1-55/64"	3-25/32"	2-1/32"	3/4"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60114C45-20FM	26,7	21,0	26,8	44,6	47,2	102,7	50	20	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

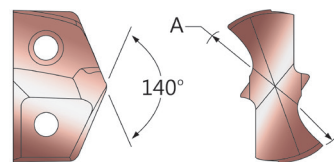
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
14	7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	7.4 in.-lbs	84 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

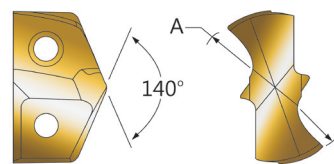
15 Series Range: 0.5906"-0.6298" (15,00mm-15,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	0.5906	15,00	5C115H-15	○	5C115H-15-LR	▲	5C215H-15	○	5C215H-15-CI	▲	5C215H-15-LR	▲
19/32"	0.5938	15,08	5C115H-0019	○	5C115H-0019-LR	▲	5C215H-0019	○	5C215H-0019-CI	○	5C215H-0019-LR	▲
	0.6004	15,25	5C115H-15.25	▲	5C115H-15.25-LR	▲	5C215H-15.25	▲	5C215H-15.25-CI	○	5C215H-15.25-LR	▲
39/64"	0.6094	15,48	5C115H-.609	○	5C115H-.609-LR	▲	5C215H-.609	○	5C215H-.609-CI	▲	5C215H-.609-LR	▲
	0.6103	15,50	5C115H-15.5	○	5C115H-15.5-LR	▲	5C215H-15.5	○	5C215H-15.5-CI	○	5C215H-15.5-LR	▲
	0.6181	15,70	5C115H-.618	○	5C115H-.618-LR	▲	5C215H-.618	○	5C215H-.618-CI	▲	5C215H-.618-LR	▲
5/8"	0.6250	15,88	5C115H-0020	○	5C115H-0020-LR	▲	5C215H-0020	○	5C215H-0020-CI	○	5C215H-0020-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.5906	15,00	7C115P-15	○	7C115P-15LR	▲	7C215P-15	○	7C215P-15CI	▲	7C215P-15LR	▲	7C215P-15AS	○
19/32"	0.5938	15,08	7C115P-0019	○	7C115P-0019LR	▲	7C215P-0019	○	7C215P-0019CI	○	7C215P-0019LR	▲	7C215P-0019AS	○
	0.6004	15,25	7C115P-15.25	▲	7C115P-15.25LR	▲	7C215P-15.25	▲	7C215P-15.25CI	○	7C215P-15.25LR	▲	7C215P-15.25AS	▲
39/64"	0.6094	15,48	7C115P-.609	○	7C115P-.609LR	▲	7C215P-.609	○	7C215P-.609CI	▲	7C215P-.609LR	▲	7C215P-.609AS	○
	0.6103	15,50	7C115P-15.5	○	7C115P-15.5LR	▲	7C215P-15.5	○	7C215P-15.5CI	○	7C215P-15.5LR	▲	7C215P-15.5AS	○
	0.6181	15,70	7C115P-.618	○	7C115P-.618LR	▲	7C215P-.618	○	7C215P-.618CI	▲	7C215P-.618LR	▲	7C215P-.618AS	○
5/8"	0.6250	15,88	7C115P-0020	○	7C115P-0020LR	○	7C215P-0020	○	7C215P-0020CI	○	7C215P-0020LR	▲	7C215P-0020AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

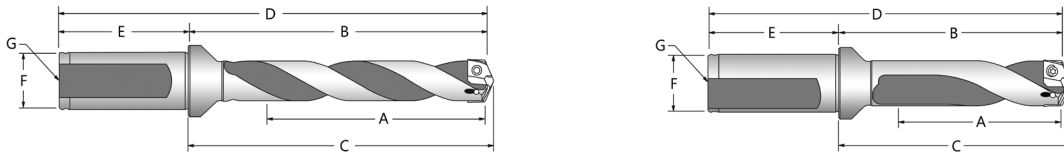
When ordering, please follow the examples shown below:

Decimals = .5925" AM200, 15 Series, C2 = 5C215H-.5925

Metric = 15,25 mm AM200, 15 Series, C2 = 5C215H-15.25

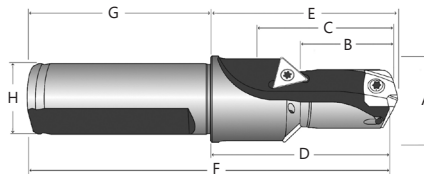
# GEN3SYS® and GEN3SYS® XT Holders

15 Series Range: 0.5906"-0.6298" (15,00mm-15,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60315S-075F	1-57/64"	2-61/64"	3-3/64"	YES	4-63/64"	2-1/32"	3/4"	1/8"
	5xD	60515S-075F	3-5/32"	4-7/32"	4-5/16"	YES	6-1/4"			1/8"
	7xD	60715S-075F	4-27/64"	5-31/64"	5-37/64"	YES	7-1/2"			1/8"
Helical	Stub	60115H-075F	11/16"	1-3/4"	1-27/32"	YES	3-25/32"	2-1/32"	3/4"	1/8"
	3xD	60315H-075F	1-57/64"	2-61/64"	3-3/64"	YES	4-63/64"			1/8"
		60315H-075C	1-57/64"	2-61/64"	3-3/64"	NO	4-63/64"			1/8"
	5xD	60515H-075F	3-5/32"	4-7/32"	4-5/16"	YES	6-1/4"			1/8"
		60515H-075C	3-5/32"	4-7/32"	4-5/16"	NO	6-1/4"			1/8"
	7xD	60715H-075F	4-27/64"	5-31/64"	5-37/64"	YES	7-1/2"			1/8"
		60715H-075C	4-27/64"	5-31/64"	5-37/64"	NO	7-1/2"			1/8"
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60315S-20FM	48,0	75,1	77,6	YES	125,1	50	20	1/8**
	5xD	60515S-20FM	80,0	107,0	109,6	YES	157,0			1/8**
	7xD	60715S-20FM	111,9	139,0	141,6	YES	189,0			1/8**
Helical	Stub	60115H-20FM	17,5	44,3	46,8	YES	94,3	50	20	1/8**
	3xD	60315H-20FM	48,0	75,1	77,6	YES	125,1			1/8**
		60315H-20CM	48,0	75,1	77,6	NO	125,1			1/8**
	5xD	60515H-20FM	80,0	107,0	109,6	YES	157,0			1/8**
		60515H-20CM	80,0	107,0	109,6	NO	157,0			1/8**
	7xD	60715H-20FM	111,9	139,0	141,6	YES	189,0			1/8**
		60715H-20CM	111,9	139,0	141,6	NO	189,0			1/8**



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60115C45-075F	1-1/16"	57/64"	1-1/16"	1-47/64"	1-27/32"	3-49/64"	2-1/32"	3/4"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60115C45-20FM	27,0	22,5	26,9	44,3	46,8	102,4	50	20	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

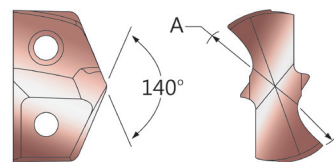
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
15	7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	7.4 in.-lbs	84 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

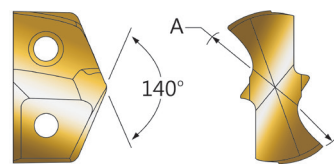
16 Series Range: 0.6299"-0.6692" (16,00mm-16,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	0.6299	16,00	5C116H-16	○	5C116H-16-LR	▲	5C216H-16	○	5C216H-16-CI	○	5C216H-16-LR	▲
	0.6331	16,08	5C116H-16.08	▲	5C116H-16.08-LR	▲	5C216H-16.08	▲	5C216H-16.08-CI	▲	5C216H-16.08-LR	▲
41/64"	0.6406	16,27	5C116H-.640	○	5C116H-.640-LR	▲	5C216H-.640	○	5C216H-.640-CI	○	5C216H-.640-LR	▲
	0.6496	16,50	5C116H-16.5	○	5C116H-16.5-LR	▲	5C216H-16.5	○	5C216H-16.5-CI	▲	5C216H-16.5-LR	▲
21/32"	0.6563	16,67	5C116H-0021	○	5C116H-0021-LR	▲	5C216H-0021	○	5C216H-0021-CI	○	5C216H-0021-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.6299	16,00	7C116P-16	○	7C116P-16LR	○	7C216P-16	○	7C216P-16CI	○	7C216P-16LR	▲	7C216P-16AS	○
	0.6331	16,08	7C116P-16.08	▲	7C116P-16.08LR	▲	7C216P-16.08	▲	7C216P-16.08CI	▲	7C216P-16.08LR	▲	7C216P-16.08AS	○
41/64"	0.6406	16,27	7C116P-.640	○	7C116P-.640LR	▲	7C216P-.640	○	7C216P-.640CI	○	7C216P-.640LR	▲	7C216P-.640AS	○
	0.6496	16,50	7C116P-16.5	○	7C116P-16.5LR	▲	7C216P-16.5	○	7C216P-16.5CI	▲	7C216P-16.5LR	▲	7C216P-16.5AS	○
21/32"	0.6563	16,67	7C116P-0021	○	7C116P-0021LR	▲	7C216P-0021	○	7C216P-0021CI	○	7C216P-0021LR	▲	7C216P-0021AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

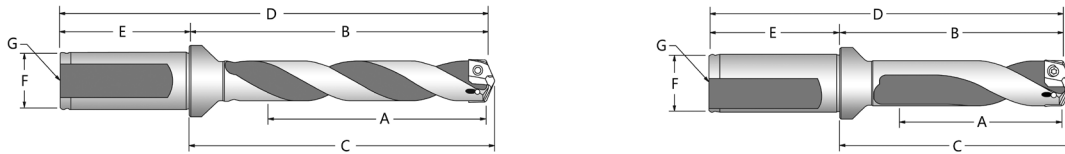
When ordering, please follow the examples shown below:

Decimals = .6300" AM200, 16 Series, C2 = 5C216H-.6300

Metric = 16,20 mm AM200, 16 Series, C2 = 5C216H-16.20

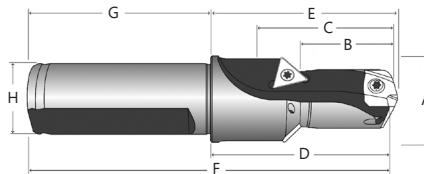
# GEN3SYS® and GEN3SYS® XT Holders

16 Series Range: 0.6299"-0.6692" (16,00mm-16,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60316S-075F	2-1/64"	3-13/64"	3-5/16"	YES	5-15/64"	2-1/32"	3/4"	1/8"
	5xD	60516S-075F	3-23/64"	4-35/64"	4-21/32"	YES	6-37/64"			1/8"
	7xD	60716S-075F	4-11/16"	5-29/32"	6"	YES	7-29/32"			1/8"
Helical	Stub	60116H-075F	13/16"	2"	2-7/64"	YES	4-1/32"	2-1/32"	3/4"	1/8"
	3xD	60316H-075F	2-1/64"	3-13/64"	3-5/16"	YES	5-15/64"			1/8"
		60316H-075C	2-1/64"	3-13/64"	3-5/16"	NO	5-15/64"			1/8"
	5xD	60516H-075F	3-23/64"	4-35/64"	4-21/32"	YES	6-37/64"			1/8"
		60516H-075C	3-23/64"	4-35/64"	4-21/32"	NO	6-37/64"			1/8"
	7xD	60716H-075F	4-11/16"	5-29/32"	6"	YES	7-29/32"			1/8"
		60716H-075C	4-11/16"	5-29/32"	6"	NO	7-29/32"			1/8"
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60316S-20FM	51,0	81,3	84,2	YES	131,3	50	20	1/8**
	5xD	60516S-20FM	84,9	115,3	118,2	YES	165,3			1/8**
	7xD	60716S-20FM	118,9	149,3	152,2	YES	199,3			1/8**
Helical	Stub	60116H-20FM	21,0	50,8	53,7	YES	100,8	50	20	1/8**
	3xD	60316H-20FM	51,0	81,3	84,2	YES	131,3			1/8**
		60316H-20CM	51,0	81,3	84,2	NO	131,3			1/8**
	5xD	60516H-20FM	84,9	115,3	118,2	YES	165,3			1/8**
		60516H-20CM	84,9	115,3	118,2	NO	165,3			1/8**
	7xD	60716H-20FM	118,9	149,3	152,2	YES	199,3			1/8**
		60716H-20CM	118,9	149,3	152,2	NO	199,3			1/8**



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60116C45-075F	1-1/16"	61/64"	1-19/64"	2"	2-7/64"	4-1/32"	2-1/32"	3/4"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60116C45-20FM	27,0	24,0	33,1	50,8	53,7	108,9	50	20	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

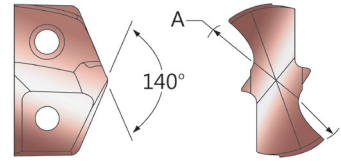
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
16	72556-IP8-1	72556N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in.-lbs	175 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

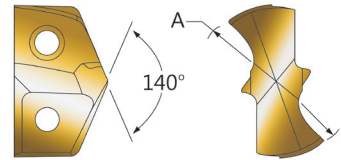
17 Series Range: 0.6693"-0.7086" (17,00mm-17,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	0.6693	17,00	5C117H-17	○	5C117H-17-LR	▲	5C217H-17	○	5C217H-17-CI	○	5C217H-17-LR	▲
43/64"	0.6719	17,07	5C117H-.671	○	5C117H-.671-LR	▲	5C217H-.671	○	5C217H-.671-CI	▲	5C217H-.671-LR	▲
	0.6732	17,10	5C117H-17.1	▲	5C117H-17.1-LR	▲	5C217H-17.1	▲	5C217H-17.1-CI	○	5C217H-17.1-LR	▲
	0.6772	17,20	5C117H-17.2	▲	5C117H-17.2-LR	▲	5C217H-17.2	▲	5C217H-17.2-CI	○	5C217H-17.2-LR	▲
11/16"	0.6875	17,46	5C117H-0022	○	5C117H-0022-LR	▲	5C217H-0022	○	5C217H-0022-CI	○	5C217H-0022-LR	▲
	0.6890	17,50	5C117H-17.5	○	5C117H-17.5-LR	▲	5C217H-17.5	○	5C217H-17.5-CI	○	5C217H-17.5-LR	▲
45/64"	0.7031	17,86	5C117H-.703	○	5C117H-.703-LR	▲	5C217H-.703	○	5C217H-.703-CI	○	5C217H-.703-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.6693	17,00	7C117P-17	○	7C117P-17LR	▲	7C217P-17	○	7C217P-17CI	○	7C217P-17LR	▲	7C217P-17AS	○
43/64"	0.6719	17,07	7C117P-.671	○	7C117P-.671LR	▲	7C217P-.671	○	7C217P-.671CI	▲	7C217P-.671LR	▲	7C217P-.671AS	○
	0.6732	17,10	7C117P-17.1	▲	7C117P-17.1LR	▲	7C217P-17.1	▲	7C217P-17.1CI	○	7C217P-17.1LR	▲	7C217P-17.1AS	▲
	0.6772	17,20	7C117P-17.2	▲	7C117P-17.2LR	▲	7C217P-17.2	▲	7C217P-17.2CI	○	7C217P-17.2LR	▲	7C217P-17.2AS	▲
11/16"	0.6875	17,46	7C117P-0022	○	7C117P-0022LR	○	7C217P-0022	○	7C217P-0022CI	○	7C217P-0022LR	▲	7C217P-0022AS	○
	0.6890	17,50	7C117P-17.5	○	7C117P-17.5LR	▲	7C217P-17.5	○	7C217P-17.5CI	○	7C217P-17.5LR	▲	7C217P-17.5AS	○
45/64"	0.7031	17,86	7C117P-.703	○	7C117P-.703LR	▲	7C217P-.703	○	7C217P-.703CI	○	7C217P-.703LR	▲	7C217P-.703AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

When ordering, please follow the examples shown below:

Decimals = .6800" AM200, 17 Series, C2 = 5C217H-.6800

Metric = 17,20 mm AM200, 17 Series, C2 = 5C217H-17.20

Revolution & Opening

APX

GEN3SYS & GEN3SYS XT

Original T-A & GEN2 T-A

AccuPort 432

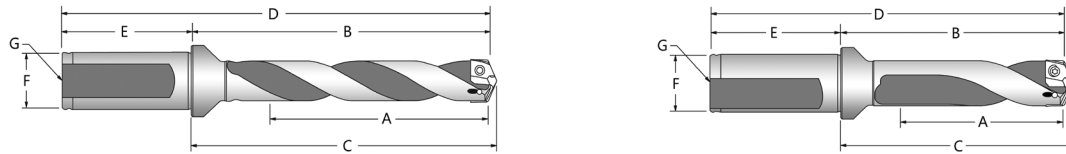
ASC 320

Special Tooling



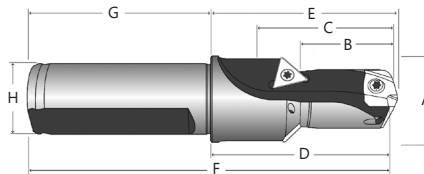
# GEN3SYS® and GEN3SYS® XT Holders

17 Series Range: 0.6693"-0.7086" (17,00mm-17,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	
Straight	3xD	60317S-075F	2-1/8"	3-5/16"	3-27/64"	YES	5-15/64"	2-1/32"	3/4"	1/8"
	5xD	60517S-075F	3-35/64"	4-47/64"	4-27/32"	YES	6-49/64"			1/8"
	7xD	60717S-075F	4-31/32"	6-9/64"	6-1/4"	YES	8-11/64"			1/8"
Helical	Stub	60117H-075F	13/16"	1-63/64"	2-7/64"	YES	4-1/64"	2-1/32"	3/4"	1/8"
	3xD	60317H-075F	2-1/8"	3-5/16"	3-27/64"	YES	5-15/64"			1/8"
		60317H-075C	2-1/8"	3-5/16"	3-27/64"	NO	5-15/64"			1/8"
	5xD	60517H-075F	3-35/64"	4-47/64"	4-27/32"	YES	6-49/64"			1/8"
		60517H-075C	3-35/64"	4-47/64"	4-27/32"	NO	6-49/64"			1/8"
	7xD	60717H-075F	4-31/32"	6-9/64"	6-1/4"	YES	8-11/64"			1/8"
		60717H-075C	4-31/32"	6-9/64"	6-1/4"	NO	8-11/64"			1/8"
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60317S-20FM	54,0	84,1	87,0	YES	134,1	50	20	1/8**
	5xD	60517S-20FM	89,9	120,0	122,9	YES	170,1			1/8**
	7xD	60717S-20FM	125,9	156,0	158,9	YES	206,0			1/8**
Helical	Stub	60117H-20FM	21,0	50,5	53,4	YES	100,5	50	20	1/8**
	3xD	60317H-20FM	54,0	84,1	87,0	YES	134,1			1/8**
		60317H-20CM	54,0	84,1	87,0	NO	134,1			1/8**
	5xD	60517H-20FM	89,9	120,0	122,9	YES	170,1			1/8**
		60517H-20CM	89,9	120,0	122,9	NO	170,1			1/8**
	7xD	60717H-20FM	125,9	156,0	158,9	YES	206,0			1/8**
		60717H-20CM	125,9	156,0	158,9	NO	206,0			1/8**



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60117C45-075F	1"	1"	1-5/16"	1-63/64"	2-7/64"	4-1/64"	2-1/32"	3/4"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60117C45-20FM	25,4	25,5	33,3	50,5	53,4	108,6	50	20	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

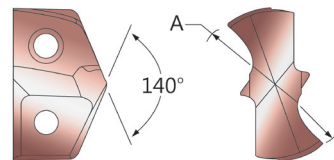
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
17	72567-IP8-1	72567N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in.-lbs	175 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

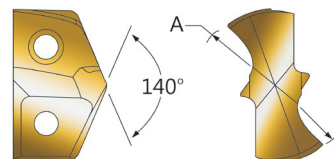
18 Series Range: 0.7087"-0.7873" (18,00mm-19,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	0.7087	18,00	5C118H-18	○	5C118H-18-LR	▲	5C218H-18	○	5C218H-18-CI	○	5C218H-18-LR	▲
23/32"	0.7188	18,26	5C118H-0023	○	5C118H-0023-LR	▲	5C218H-0023	○	5C218H-0023-CI	○	5C218H-0023-LR	▲
	0.7283	18,50	5C118H-18.5	○	5C118H-18.5-LR	▲	5C218H-18.5	○	5C218H-18.5-CI	○	5C218H-18.5-LR	▲
47/64"	0.7344	18,65	5C118H-.734	○	5C118H-.734-LR	▲	5C218H-.734	○	5C218H-.734-CI	▲	5C218H-.734-LR	▲
	0.7480	19,00	5C118H-19	○	5C118H-19-LR	▲	5C218H-19	○	5C218H-19-CI	▲	5C218H-19-LR	▲
3/4"	0.7500	19,05	5C118H-0024	○	5C118H-0024-LR	▲	5C218H-0024	○	5C218H-0024-CI	○	5C218H-0024-LR	▲
	0.7580	19,25	5C118H-.758	○	5C118H-.758-LR	▲	5C218H-.758	○	5C218H-.758-CI	○	5C218H-.758-LR	▲
49/64"	0.7656	19,45	5C118H-.765	○	5C118H-.765-LR	▲	5C218H-.765	○	5C218H-.765-CI	▲	5C218H-.765-LR	▲
	0.7677	19,50	5C118H-19.5	○	5C118H-19.5-LR	▲	5C218H-19.5	○	5C218H-19.5-CI	○	5C218H-19.5-LR	▲
	0.7795	19,80	5C118H-19.8	▲	5C118H-19.8-LR	▲	5C218H-19.8	▲	5C218H-19.8-CI	▲	5C218H-19.8-LR	▲
25/32"	0.7813	19,85	5C118H-0025	○	5C118H-0025-LR	▲	5C218H-0025	○	5C218H-0025-CI	○	5C218H-0025-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.7087	18,00	7C118P-18	○	7C118P-18LR	○	7C218P-18	○	7C218P-18CI	○	7C218P-18LR	▲	7C218P-18AS	○
23/32"	0.7188	18,26	7C118P-0023	○	7C118P-0023LR	▲	7C218P-0023	○	7C218P-0023CI	○	7C218P-0023LR	▲	7C218P-0023AS	○
	0.7283	18,50	7C118P-18.5	○	7C118P-18.5LR	▲	7C218P-18.5	○	7C218P-18.5CI	○	7C218P-18.5LR	▲	7C218P-18.5AS	○
47/64"	0.7344	18,65	7C118P-.734	○	7C118P-.734LR	▲	7C218P-.734	○	7C218P-.734CI	▲	7C218P-.734LR	▲	7C218P-.734AS	○
	0.7480	19,00	7C118P-19	○	7C118P-19LR	▲	7C218P-19	○	7C218P-19CI	▲	7C218P-19LR	▲	7C218P-19AS	○
3/4"	0.7500	19,05	7C118P-0024	○	7C118P-0024LR	▲	7C218P-0024	○	7C218P-0024CI	○	7C218P-0024LR	▲	7C218P-0024AS	○
	0.7580	19,25	7C118P-.758	○	7C118P-.758LR	○	7C218P-.758	○	7C218P-.758CI	○	7C218P-.758LR	▲	7C218P-.758AS	○
49/64"	0.7656	19,45	7C118P-.765	○	7C118P-.765LR	○	7C218P-.765	○	7C218P-.765CI	▲	7C218P-.765LR	▲	7C218P-.765AS	○
	0.7677	19,50	7C118P-19.5	○	7C118P-19.5LR	▲	7C218P-19.5	○	7C218P-19.5CI	▲	7C218P-19.5LR	▲	7C218P-19.5AS	▲
	0.7795	19,80	7C118P-19.8	▲	7C118P-19.8LR	▲	7C218P-19.8	▲	7C218P-19.8CI	▲	7C218P-19.8LR	▲	7C218P-19.8AS	▲
25/32"	0.7813	19,85	7C118P-0025	○	7C118P-0025LR	○	7C218P-0025	○	7C218P-0025CI	○	7C218P-0025LR	▲	7C218P-0025AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

When ordering, please follow the examples shown below:

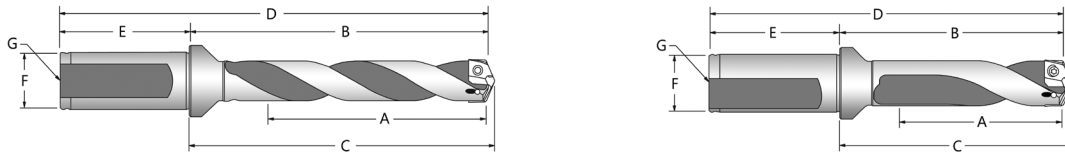
Decimals = .7350" AM200, 18 Series, C2 = 5C218H-.7350

Metric = 18,40 mm AM200, 18 Series, C2 = 5C218H-18.40

# GEN3SYS® and GEN3SYS® XT Holders

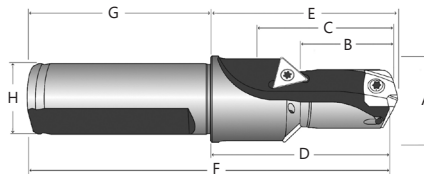


18 Series Range: 0.7087"-0.7873" (18,00mm-19,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60318S-100F	2-3/8"	3-45/64"	3-13/16"	YES	5-63/64"	2-9/32"	1"	1/8"
	5xD	60518S-100F	3-15/16"	5-9/32"	5-25/64"	YES	7-9/16"			1/8"
	7xD	60718S-100F	5-33/64"	6-55/64"	6-61/64"	YES	9-9/64"			1/8"
Helical	Stub	60118H-100F	7/8"	2-13/64"	2-5/16"	YES	4-31/64"	2-9/32"	1"	1/8"
	3xD	60318H-100F	2-3/8"	3-45/64"	3-13/16"	YES	5-63/64"			1/8"
		60318H-100C	2-3/8"	3-45/64"	3-13/16"	NO	5-63/64"			1/8"
	5xD	60518H-100F	3-15/16"	5-9/32"	5-25/64"	YES	7-9/16"			1/8"
		60518H-100C	3-15/16"	5-9/32"	5-25/64"	NO	7-9/16"			1/8"
	7xD	60718H-100F	5-33/64"	6-55/64"	6-61/64"	YES	9-9/64"			1/8"
		60718H-100C	5-33/64"	6-55/64"	6-61/64"	NO	9-9/64"			1/8"
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60318S-25FM	60,0	94,0	96,8	YES	150,0	56	25	1/8**
	5xD	60518S-25FM	99,9	134,0	136,8	YES	190,0			1/8**
	7xD	60718S-25FM	139,9	174,0	176,8	YES	230,0			1/8**
Helical	Stub	60118H-25FM	22,0	56,0	58,8	YES	111,9	56	25	1/8**
	3xD	60318H-25FM	60,0	94,0	96,8	YES	150,0			1/8**
		60318H-25CM	60,0	94,0	96,8	NO	150,0			1/8**
	5xD	60518H-25FM	99,9	134,0	136,8	YES	190,0			1/8**
		60518H-25CM	99,9	134,0	136,8	NO	190,0			1/8**
	7xD	60718H-25FM	139,9	174,0	176,8	YES	230,0			1/8**
		60718H-25CM	139,9	174,0	176,8	NO	230,0			1/8**



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60118C45-100F	63/64"	1-1/16"	1-25/64"	2-13/64"	2-5/16"	4-31/64"	2-9/32"	1"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60118C45-25FM	25,1	27,0	35,2	56,0	58,8	114,8	56	25	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

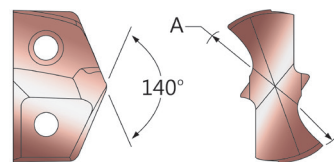
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
18	7375-IP9-1	7375N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in.-lbs	305 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

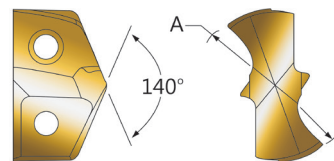
20 Series Range: 0.7874"-0.8660" (20,00mm-21,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	0.7874	20,00	5C120H-20	○	5C120H-20-LR	▲	5C220H-20	○	5C220H-20-CI	○	5C220H-20-LR	▲
51/64"	0.7969	20,24	5C120H-.796	○	5C120H-.796-LR	▲	5C220H-.796	○	5C220H-.796-CI	▲	5C220H-.796-LR	▲
	0.8071	20,50	5C120H-20.5	○	5C120H-20.5-LR	▲	5C220H-20.5	○	5C220H-20.5-CI	○	5C220H-20.5-LR	▲
13/16"	0.8125	20,64	5C120H-0026	○	5C120H-0026-LR	▲	5C220H-0026	○	5C220H-0026-CI	○	5C220H-0026-LR	▲
	0.8268	21,00	5C120H-21	○	5C120H-21-LR	▲	5C220H-21	○	5C220H-21-CI	○	5C220H-21-LR	▲
27/32"	0.8438	21,43	5C120H-0027	○	5C120H-0027-LR	▲	5C220H-0027	○	5C220H-0027-CI	○	5C220H-0027-LR	▲
	0.8465	21,50	5C120H-21.5	○	5C120H-21.5-LR	▲	5C220H-21.5	○	5C220H-21.5-CI	○	5C220H-21.5-LR	▲
55/64"	0.8594	21,83	5C120H-.859	○	5C120H-.859-LR	▲	5C220H-.859	○	5C220H-.859-CI	▲	5C220H-.859-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.7874	20,00	7C120P-20	○	7C120P-20LR	▲	7C220P-20	○	7C220P-20CI	○	7C220P-20LR	▲	7C220P-20AS	○
51/64"	0.7969	20,24	7C120P-.796	○	7C120P-.796LR	▲	7C220P-.796	○	7C220P-.796CI	▲	7C220P-.796LR	▲	7C220P-.796AS	○
	0.8071	20,50	7C120P-20.5	○	7C120P-20.5LR	▲	7C220P-20.5	○	7C220P-20.5CI	○	7C220P-20.5LR	▲	7C220P-20.5AS	○
13/16"	0.8125	20,64	7C120P-0026	○	7C120P-0026LR	○	7C220P-0026	○	7C220P-0026CI	○	7C220P-0026LR	▲	7C220P-0026AS	○
	0.8268	21,00	7C120P-21	○	7C120P-21LR	▲	7C220P-21	○	7C220P-21CI	○	7C220P-21LR	▲	7C220P-21AS	○
27/32"	0.8438	21,43	7C120P-0027	○	7C120P-0027LR	▲	7C220P-0027	○	7C220P-0027CI	○	7C220P-0027LR	▲	7C220P-0027AS	○
	0.8465	21,50	7C120P-21.5	○	7C120P-21.5LR	▲	7C220P-21.5	○	7C220P-21.5CI	▲	7C220P-21.5LR	▲	7C220P-21.5AS	○
55/64"	0.8594	21,83	7C120P-.859	○	7C120P-.859LR	▲	7C220P-.859	○	7C220P-.859CI	▲	7C220P-.859LR	▲	7C220P-.859AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

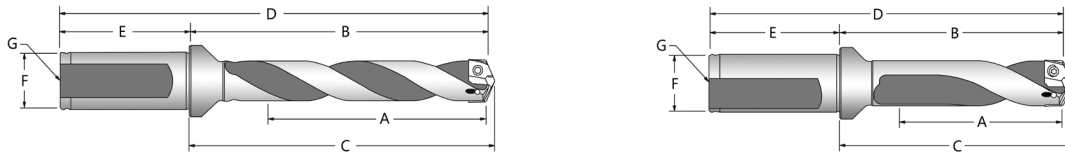
When ordering, please follow the examples shown below:

Decimals = .8025" AM200, 20 Series, C2 = 5C220H-.8025

Metric = 20,10 mm AM200, 20 Series, C2 = 5C220H-20.10

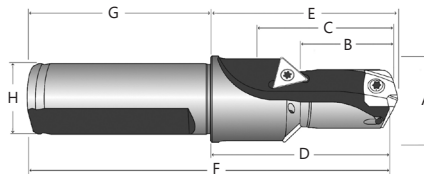
# GEN3SYS® and GEN3SYS® XT Holders

20 Series Range: 0.7874"-0.8660" (20,00mm-21,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60320S-100F	2-17/32"	3-61/64"	4-3/64"	YES	6-15/64"	2-9/32"	1"	1/8"
	5xD	60520S-100F	4-11/32"	5-11/16"	5-25/32"	YES	7-61/64"			1/8"
	7xD	60720S-100F	6-1/16"	7-13/32"	7-33/64"	YES	9-11/16"			1/8"
Helical	Stub	60120H-100F	15/16"	2-17/64"	2-3/8"	YES	4-35/64"	2-9/32"	1"	1/8"
	3xD	60320H-100F	2-17/32"	3-61/64"	4-3/64"	YES	6-15/64"			1/8"
		60320H-100C	2-17/32"	3-61/64"	4-3/64"	NO	6-15/64"			1/8"
	5xD	60520H-100F	4-11/32"	5-11/16"	5-25/32"	YES	7-61/64"			1/8"
		60520H-100C	4-11/32"	5-11/16"	5-25/32"	NO	7-61/64"			1/8"
	7xD	60720H-100F	6-1/16"	7-13/32"	7-33/64"	YES	9-11/16"			1/8"
		60720H-100C	6-1/16"	7-13/32"	7-33/64"	NO	9-11/16"			1/8"
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60320S-25FM	66,0	100,1	102,9	YES	156,1	56	25	1/8**
	5xD	60520S-25FM	110,0	144,1	146,9	YES	200,1			1/8**
	7xD	60720S-25FM	153,9	188,1	190,9	YES	244,0			1/8**
Helical	Stub	60120H-25FM	24,0	57,6	60,4	YES	113,6	56	25	1/8**
	3xD	60320H-25FM	66,0	100,1	102,9	YES	156,1			1/8**
		60320H-25CM	66,0	100,1	102,9	NO	156,1			1/8**
	5xD	60520H-25FM	110,0	144,1	146,9	YES	200,1			1/8**
		60520H-25CM	110,0	144,1	146,9	NO	200,1			1/8**
	7xD	60720H-25FM	153,9	188,1	190,9	YES	244,0			1/8**
		60720H-25CM	153,9	188,1	190,9	NO	244,0			1/8**



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60120C45-100F	1-5/64"	1-3/16"	1-29/64"	2-17/64"	2-3/8"	4-35/64"	2-9/32"	1"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60120C45-25FM	27,2	30,0	37,1	57,6	60,4	116,5	56	25	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

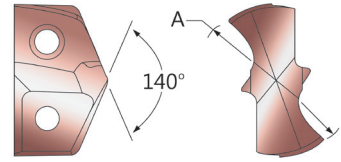
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
20	7375-IP9-1	7375N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in.-lbs	305 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

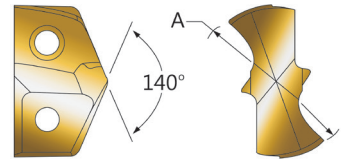
22 Series Range: 0.8661"-0.9448" (22,00mm-23,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	0.8661	22,00	5C122H-22	○	5C122H-22-LR	▲	5C222H-22	○	5C222H-22-CI	○	5C222H-22-LR	▲
7/8"	0.8750	22,23	5C122H-0028	○	5C122H-0028-LR	▲	5C222H-0028	○	5C222H-0028-CI	○	5C222H-0028-LR	▲
57/64"	0.8906	22,61	5C122H-.890	○	5C122H-.890-LR	▲	5C222H-.890	○	5C222H-.890-CI	▲	5C222H-.890-LR	▲
	0.9055	23,00	5C122H-23	○	5C122H-23-LR	▲	5C222H-23	○	5C222H-23-CI	○	5C222H-23-LR	▲
29/32"	0.9063	23,02	5C122H-0029	○	5C122H-0029-LR	▲	5C222H-0029	○	5C222H-0029-CI	▲	5C222H-0029-LR	▲
59/64"	0.9219	23,42	5C122H-.921	○	5C122H-.921-LR	▲	5C222H-.921	○	5C222H-.921-CI	○	5C222H-.921-LR	▲
15/16"	0.9375	23,81	5C122H-0030	○	5C122H-0030-LR	▲	5C222H-0030	○	5C222H-0030-CI	○	5C222H-0030-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.8661	22,00	7C122P-22	○	7C122P-22LR	○	7C222P-22	○	7C222P-22CI	○	7C222P-22LR	▲	7C222P-22AS	○
7/8"	0.8750	22,23	7C122P-0028	○	7C122P-0028LR	○	7C222P-0028	○	7C222P-0028CI	○	7C222P-0028LR	▲	7C222P-0028AS	○
57/64"	0.8906	22,61	7C122P-.890	○	7C122P-.890LR	▲	7C222P-.890	○	7C222P-.890CI	▲	7C222P-.890LR	▲	7C222P-.890AS	○
	0.9055	23,00	7C122P-23	○	7C122P-23LR	▲	7C222P-23	○	7C222P-23CI	○	7C222P-23LR	▲	7C222P-23AS	○
29/32"	0.9063	23,02	7C122P-0029	○	7C122P-0029LR	▲	7C222P-0029	○	7C222P-0029CI	▲	7C222P-0029LR	▲	7C222P-0029AS	○
59/64"	0.9219	23,42	7C122P-.921	○	7C122P-.921LR	▲	7C222P-.921	○	7C222P-.921CI	○	7C222P-.921LR	▲	7C222P-.921AS	○
15/16"	0.9375	23,81	7C122P-0030	○	7C122P-0030LR	○	7C222P-0030	○	7C222P-0030CI	○	7C222P-0030LR	▲	7C222P-0030AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

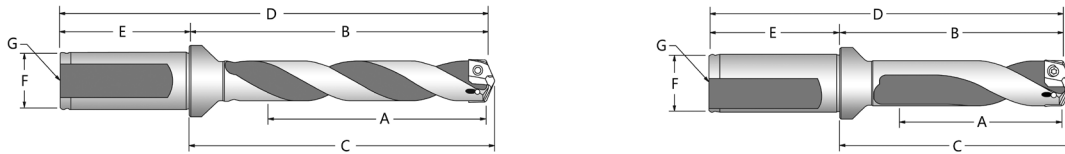
When ordering, please follow the examples shown below:

Decimals = .8750" AM200, 22 Series, C1 = 5C122H-.8750

Metric = 23,12 mm AM200, 22 Series, C1 = 5C122H-23.12

# GEN3SYS® and GEN3SYS® XT Holders

22 Series Range: 0.8661"-0.9448" (22,00mm-23,99mm)

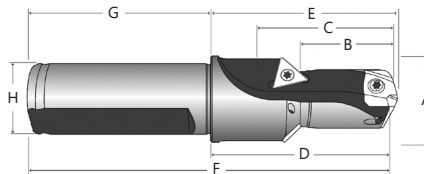


## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60322S-100F	2-53/64"	4-9/64"	4-17/64"	YES	6-27/64"	2-9/32"	1"	1/8"
	5xD	60522S-100F	4-23/32"	6-1/32"	6-5/32"	YES	8-5/16"			1/8"
	7xD	60722S-100F	6-39/64"	7-59/64"	8-3/64"	YES	10-13/64"			1/8"
Helical	Stub	60122H-100F	1-1/16"	2-23/64"	2-31/64"	YES	4-41/64"	2-9/32"	1"	1/8"
	3xD	60322H-100F	2-53/64"	4-9/64"	4-17/64"	YES	6-27/64"			1/8"
		60322H-100C	2-53/64"	4-9/64"	4-17/64"	NO	6-27/64"			1/8"
	5xD	60522H-100F	4-23/32"	6-1/32"	6-5/32"	YES	8-5/16"			1/8"
		60522H-100C	4-23/32"	6-1/32"	6-5/32"	NO	8-5/16"			1/8"
	7xD	60722H-100F	6-39/64"	7-59/64"	8-3/64"	YES	10-13/64"			1/8"
60722H-100C		6-39/64"	7-59/64"	8-3/64"	NO	10-13/64"	1/8"			

### METRIC (mm) \*Thread to BSP & ISO 7-1

Straight	3xD	60322S-25FM	72,0	105,3	108,3	YES	161,3	56	25	1/8**
	5xD	60522S-25FM	119,9	153,3	156,2	YES	209,3			1/8**
	7xD	60722S-25FM	167,9	201,3	204,2	YES	257,3			1/8**
Helical	Stub	60122H-25FM	27,0	60,1	63,0	YES	116,1	56	25	1/8**
	3xD	60322H-25FM	72,0	105,3	108,3	YES	161,3			1/8**
		60322H-25CM	72,0	105,3	108,3	NO	161,3			1/8**
	5xD	60522H-25FM	119,9	153,3	156,2	YES	209,3			1/8**
		60522H-25CM	119,9	153,3	156,2	NO	209,3			1/8**
	7xD	60722H-25FM	167,9	201,3	204,2	YES	257,3			1/8**
60722H-25CM		167,9	201,3	204,2	NO	257,3	1/8**			



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60122C45-100F	1-9/64"	1-19/64"	1-19/32"	2-23/64"	2-31/64"	4-41/64"	2-9/32"	1"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60122C45-25FM	29,0	33,0	40,5	60,0	63,0	119,0	56	25	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

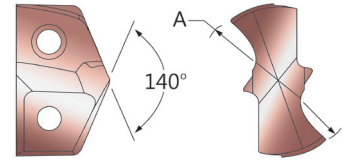
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
22	739-IP9-1	739N-IP9-1	8IP-9	8IP-9TL	8IP-9TB	27.0 in.-lbs	305 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

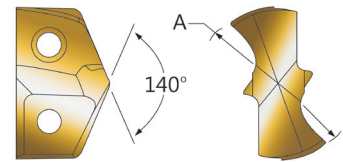
24 Series Range: 0.9449"-1.0235" (24,00mm-25,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	0.9449	24,00	5C124H-24	○	5C124H-24-LR	▲	5C224H-24	○	5C224H-24-CI	○	5C224H-24-LR	▲
31/32"	0.9688	24,61	5C124H-0031	○	5C124H-0031-LR	▲	5C224H-0031	○	5C224H-0031-CI	○	5C224H-0031-LR	▲
63/64"	0.9843	25,00	5C124H-25	○	5C124H-25-LR	▲	5C224H-25	○	5C224H-25-CI	○	5C224H-25-LR	▲
1"	1.0000	25,40	5C124H-0100	○	5C124H-0100-LR	▲	5C224H-0100	○	5C224H-0100-CI	○	5C224H-0100-LR	▲
	1.0080	25,60	5C124H-1.008	○	5C124H-1.008-LR	▲	5C224H-1.008	○	5C224H-1.008-CI	▲	5C224H-1.008-LR	▲
1-1/64"	1.0156	25,78	5C124H-1.015	○	5C124H-1.015-LR	▲	5C224H-1.015	○	5C224H-1.015-CI	○	5C224H-1.015-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	0.9449	24,00	7C124P-24	○	7C124P-24LR	○	7C224P-24	○	7C224P-24CI	○	7C224P-24LR	▲	7C224P-24AS	○
31/32"	0.9688	24,61	7C124P-0031	○	7C124P-0031LR	▲	7C224P-0031	○	7C224P-0031CI	○	7C224P-0031LR	▲	7C224P-0031AS	○
63/64"	0.9843	25,00	7C124P-25	○	7C124P-25LR	▲	7C224P-25	○	7C224P-25CI	○	7C224P-25LR	▲	7C224P-25AS	○
1"	1.0000	25,40	7C124P-0100	○	7C124P-0100LR	○	7C224P-0100	○	7C224P-0100CI	○	7C224P-0100LR	▲	7C224P-0100AS	○
	1.0080	25,60	7C124P-1.008	○	7C124P-1.008LR	○	7C224P-1.008	○	7C224P-1.008CI	▲	7C224P-1.008LR	▲	7C224P-1.008AS	○
1-1/64"	1.0156	25,78	7C124P-1.015	○	7C124P-1.015LR	○	7C224P-1.015	○	7C224P-1.015CI	○	7C224P-1.015LR	▲	7C224P-1.015AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

When ordering, please follow the examples shown below:

Decimals = 1.0102" AM200, 24 Series, C1 = 5C124H-1.0102

Metric = 25,74 mm AM200, 24 Series, C1 = 5C124H-25.74

Revolution & Opening

APX

GEN3SYS & GEN3SYS XT

Original T-A & GEN2 T-A

AccuPort 432

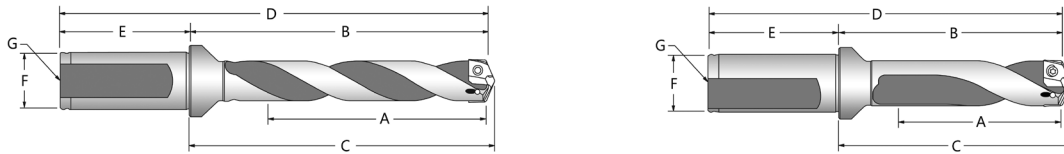
ASC 320

Special Tooling



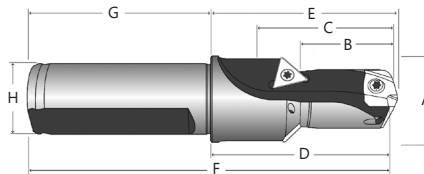
# GEN3SYS® and GEN3SYS® XT Holders

24 Series Range: 0.9449"-1.0235" (24,00mm-25,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	
Straight	3xD	60324S-100F	3-5/64"	4-31/64"	4-19/32"	YES	6-49/64"	2-9/32"	1"	1/8"
	5xD	60524S-100F	5-1/8"	6-17/32"	6-41/64"	YES	8-13/16"			1/8"
	7xD	60724S-100F	7-11/64"	8-37/64"	8-11/16"	YES	10-55/64"			1/8"
Helical	Stub	60124H-100F	1-1/8"	2-17/32"	2-41/64"	YES	4-13/16"	2-9/32"	1"	1/8"
		60324H-100F	3-5/64"	4-31/64"	4-19/32"	YES	6-49/64"			1/8"
	3xD	60324H-100C	3-5/64"	4-31/64"	4-19/32"	NO	6-49/64"			1/8"
		60524H-100F	5-1/8"	6-17/32"	6-41/64"	YES	8-13/16"			1/8"
	5xD	60524H-100C	5-1/8"	6-17/32"	6-41/64"	NO	8-13/16"			1/8"
		60724H-100F	7-11/64"	8-37/64"	8-11/16"	YES	10-55/64"			1/8"
7xD	60724H-100C	7-11/64"	8-37/64"	8-11/16"	NO	10-55/64"	1/8"			
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60324S-25FM	78,0	113,8	116,8	YES	169,8	56	25	1/8**
	5xD	60524S-25FM	129,9	165,8	168,7	YES	221,8			1/8**
	7xD	60724S-25FM	181,9	217,8	220,7	YES	273,8			1/8**
Helical	Stub	60124H-25FM	28,5	64,2	67,1	YES	120,1	56	25	1/8**
		60324H-25FM	78,0	113,8	116,8	YES	169,8			1/8**
	3xD	60324H-25CM	78,0	113,8	116,8	NO	169,8			1/8**
		60524H-25FM	129,9	165,8	168,7	YES	221,8			1/8**
	5xD	60524H-25CM	129,9	165,8	168,7	NO	221,8			1/8**
		60724H-25FM	181,9	217,8	220,7	YES	273,8			1/8**
7xD	60724H-25CM	181,9	217,8	220,7	NO	273,8	1/8**			



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60124C45-100F	1-7/32"	1-27/64"	1-51/64"	2-17/32"	2-41/64"	4-51/64"	2-9/32"	1"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60124C45-25FM	31,0	36,0	45,5	64,2	67,1	123,0	56	25	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

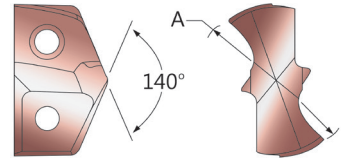
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
24	739-IP9-1	739N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in.-lbs	305 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

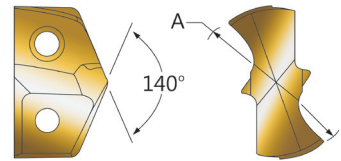
26 Series Range: 1.0236"-1.1416" (26,00mm-28,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	1.0236	26,00	5C126H-26	○	5C126H-26-LR	▲	5C226H-26	○	5C226H-26-CI	▲	5C226H-26-LR	▲
1-1/32"	1.0313	26,20	5C126H-0101	○	5C126H-0101-LR	▲	5C226H-0101	○	5C226H-0101-CI	▲	5C226H-0101-LR	▲
1-3/64"	1.0469	26,59	5C126H-1.046	○	5C126H-1.046-LR	▲	5C226H-1.046	○	5C226H-1.046-CI	▲	5C226H-1.046-LR	▲
1-1/16"	1.0625	26,99	5C126H-0102	○	5C126H-0102-LR	▲	5C226H-0102	○	5C226H-0102-CI	▲	5C226H-0102-LR	▲
	1.0630	27,00	5C126H-27	○	5C126H-27-LR	▲	5C226H-27	○	5C226H-27-CI	▲	5C226H-27-LR	▲
1-3/32"	1.0938	27,78	5C126H-0103	○	5C126H-0103-LR	▲	5C226H-0103	○	5C226H-0103-CI	▲	5C226H-0103-LR	▲
	1.1024	28,00	5C126H-28	○	5C126H-28-LR	▲	5C226H-28	○	5C226H-28-CI	▲	5C226H-28-LR	▲
1-7/64"	1.1094	28,17	5C126H-1.109	○	5C126H-1.109-LR	▲	5C226H-1.109	○	5C226H-1.109-CI	▲	5C226H-1.109-LR	▲
1-1/8"	1.1250	28,58	5C126H-0104	○	5C126H-0104-LR	▲	5C226H-0104	○	5C226H-0104-CI	○	5C226H-0104-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	1.0236	26,00	7C126P-26	○	7C126P-26LR	○	7C226P-26	○	7C226P-26CI	▲	7C226P-26LR	▲	7C226P-26AS	○
1-1/32"	1.0313	26,20	7C126P-0101	○	7C126P-0101LR	○	7C226P-0101	○	7C226P-0101CI	▲	7C226P-0101LR	▲	7C226P-0101AS	○
1-3/64"	1.0469	26,59	7C126P-1.046	○	7C126P-1.046LR	▲	7C226P-1.046	○	7C226P-1.046CI	▲	7C226P-1.046LR	▲	7C226P-1.046AS	○
1-1/16"	1.0625	26,99	7C126P-0102	○	7C126P-0102LR	○	7C226P-0102	○	7C226P-0102CI	▲	7C226P-0102LR	▲	7C226P-0102AS	○
	1.0630	27,00	7C126P-27	○	7C126P-27LR	○	7C226P-27	○	7C226P-27CI	▲	7C226P-27LR	▲	7C226P-27AS	○
1-3/32"	1.0938	27,78	7C126P-0103	○	7C126P-0103LR	▲	7C226P-0103	○	7C226P-0103CI	▲	7C226P-0103LR	▲	7C226P-0103AS	○
	1.1024	28,00	7C126P-28	○	7C126P-28LR	▲	7C226P-28	○	7C226P-28CI	▲	7C226P-28LR	▲	7C226P-28AS	○
1-7/64"	1.1094	28,17	7C126P-1.109	○	7C126P-1.109LR	▲	7C226P-1.109	○	7C226P-1.109CI	▲	7C226P-1.109LR	▲	7C226P-1.109AS	○
1-1/8"	1.1250	28,58	7C126P-0104	○	7C126P-0104LR	○	7C226P-0104	○	7C226P-0104CI	○	7C226P-0104LR	▲	7C226P-0104AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.  
 When ordering, please follow the examples shown below:  
 Decimals = 1.1416" AM200, 26 Series, C1 = 5C126H-1.1416  
 Metric = 28,18 mm AM200, 26 Series, C1 = 5C126H-28.18

Revolution & Opening

APX

GEN3SYS & GEN3SYS XT

Original T-A & GEN2-T-A

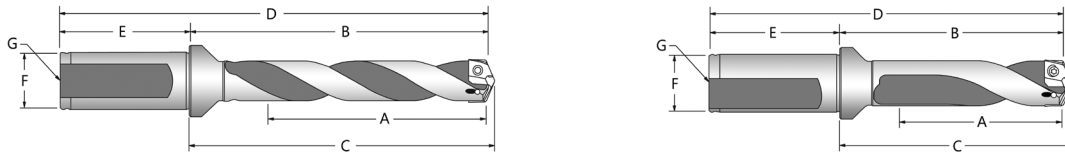
AccuPort 432

ASC 320

Special Tooling

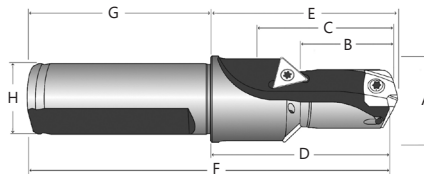
# GEN3SYS® and GEN3SYS® XT Holders

26 Series Range: 1.0236" - 1.1416" (26,00mm - 28,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60326S-125F	3-27/64"	5-1/16"	5-11/64"	YES	7-11/32"	2-9/32"	1-1/4"	1/8"
	5xD	60526S-125F	5-23/32"	7-11/32"	7-29/64"	YES	9-5/8"			1/8"
	7xD	60726S-125F	7-63/64"	9-5/8"	9-47/64"	YES	11-29/32"			1/8"
Helical	Stub	60126H-125F	1-1/4"	2-7/8"	2-63/64"	YES	5-5/32"	2-9/32"	1-1/4"	1/8"
	3xD	60326H-125F	3-27/64"	5-1/16"	5-11/64"	YES	7-11/32"			1/8"
		60326H-125C	3-27/64"	5-1/16"	5-11/64"	NO	7-11/32"			1/8"
	5xD	60526H-125F	5-23/32"	7-11/32"	7-29/64"	YES	9-5/8"			1/8"
		60526H-125C	5-23/32"	7-11/32"	7-29/64"	NO	9-5/8"			1/8"
	7xD	60726H-125F	7-63/64"	9-5/8"	9-47/64"	YES	11-29/32"			1/8"
		60726H-125C	7-63/64"	9-5/8"	9-47/64"	NO	11-29/32"			1/8"
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60326S-32FM	87,0	128,1	130,9	YES	188,1	60	32	1/8**
	5xD	60526S-32FM	145,0	186,1	188,8	YES	246,1			1/8**
	7xD	60726S-32FM	202,9	244,0	246,8	YES	304,1			1/8**
Helical	Stub	60126H-32FM	32,0	72,9	75,7	YES	133,0	60	32	1/8**
	3xD	60326H-32FM	87,0	128,1	130,9	YES	188,1			1/8**
		60326H-32CM	87,0	128,1	130,9	NO	188,1			1/8**
	5xD	60526H-32FM	145,0	186,1	188,8	YES	246,1			1/8**
		60526H-32CM	145,0	186,1	188,8	NO	246,1			1/8**
	7xD	60726H-32FM	202,9	244,0	246,8	YES	304,1			1/8**
		60726H-32CM	202,9	244,0	246,8	NO	304,1			1/8**



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60126C45-125F	1-11/32"	1-17/32"	2-3/64"	2-7/8"	2-63/64"	5-5/32"	2-9/32"	1-1/4"	TCMT-110204	7256-IP8-1
<b>METRIC (mm)</b>										
60126C45-32FM	34,0	39,0	52,1	72,9	75,7	135,1	60	32	TCMT-110204	7256-IP8-1

## Replacement TORX Plus Screws

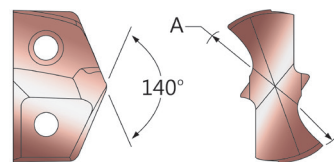
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
26	7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	61.0 in.-lbs	690 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® and GEN3SYS® XT Inserts

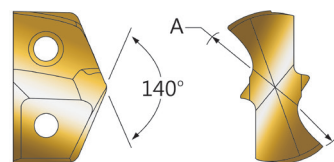
29 Series Range: 1.1417"-1.2597" (29,00mm-31,99mm)



## GEN3SYS Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry									
Fractional Equivalent	(inch)	(mm)	C1 AM200® Standard	①	C1 AM200 Low Rake	①	C2 AM200 Standard	①	C2 AM200 Cast Iron	①	C2 AM200 Low Rake	①
	1.1417	29,00	5C129H-29	○	5C129H-29-LR	▲	5C229H-29	○	5C229H-29-CI	▲	5C229H-29-LR	▲
1-5/32"	1.1563	29,37	5C129H-0105	○	5C129H-0105-LR	▲	5C229H-0105	○	5C229H-0105-CI	▲	5C229H-0105-LR	▲
	1.1811	30,00	5C129H-30	○	5C129H-30-LR	▲	5C229H-30	○	5C229H-30-CI	○	5C229H-30-LR	▲
1-3/16"	1.1875	30,16	5C129H-0106	○	5C129H-0106-LR	▲	5C229H-0106	○	5C229H-0106-CI	▲	5C229H-0106-LR	▲
	1.2008	30,50	5C129H-30.5	○	5C129H-30.5-LR	▲	5C229H-30.5	○	5C229H-30.5-CI	▲	5C229H-30.5-LR	▲
1-7/32"	1.2188	30,96	5C129H-0107	○	5C129H-0107-LR	▲	5C229H-0107	○	5C229H-0107-CI	▲	5C229H-0107-LR	▲
	1.2205	31,00	5C129H-31	○	5C129H-31-LR	▲	5C229H-31	○	5C229H-31-CI	○	5C229H-31-LR	▲
1-1/4"	1.2500	31,75	5C129H-0108	○	5C129H-0108-LR	▲	5C229H-0108	○	5C229H-0108-CI	○	5C229H-0108-LR	▲

- see page 90 for geometry details



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	①	C1 AM300 Low Rake	①	C2 AM300 Standard	①	C2 AM300 Cast Iron	①	C2 AM300 Low Rake	①	C2 AM300 Stainless	①
	1.1417	29,00	7C129P-29	○	7C129P-29LR	▲	7C229P-29	○	7C229P-29CI	▲	7C229P-29LR	▲	7C229P-29AS	○
1-5/32"	1.1563	29,37	7C129P-0105	○	7C129P-0105LR	▲	7C229P-0105	○	7C229P-0105CI	▲	7C229P-0105LR	▲	7C229P-0105AS	○
	1.1811	30,00	7C129P-30	○	7C129P-30LR	▲	7C229P-30	○	7C229P-30CI	▲	7C229P-30LR	▲	7C229P-30AS	○
1-3/16"	1.1875	30,16	7C129P-0106	○	7C129P-0106LR	○	7C229P-0106	○	7C229P-0106CI	▲	7C229P-0106LR	▲	7C229P-0106AS	○
	1.2008	30,50	7C129P-30.5	○	7C129P-30.5LR	▲	7C229P-30.5	○	7C229P-30.5CI	▲	7C229P-30.5LR	▲	7C229P-30.5AS	○
1-7/32"	1.2188	30,96	7C129P-0107	○	7C129P-0107LR	▲	7C229P-0107	○	7C229P-0107CI	▲	7C229P-0107LR	▲	7C229P-0107AS	○
	1.2205	31,00	7C129P-31	○	7C129P-31LR	○	7C229P-31	○	7C229P-31CI	○	7C229P-31LR	▲	7C229P-31AS	○
1-1/4"	1.2500	31,75	7C129P-0108	○	7C129P-0108LR	○	7C229P-0108	○	7C229P-0108CI	○	7C229P-0108LR	▲	7C229P-0108AS	○

- see page 90 for geometry details

- ① Availability Codes
- Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.

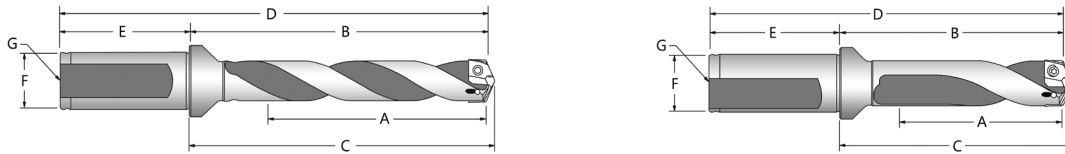
When ordering, please follow the examples shown below:

Decimals = 1.2569" AM200, 29 Series, C2 = 5C229H-1.2569

Metric = 31,82 mm AM200, 29 Series, C2 = 5C226H-31.82

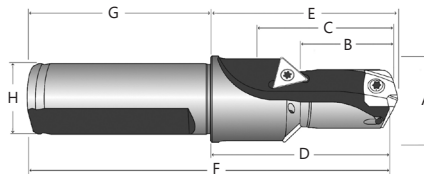
# GEN3SYS® and GEN3SYS® XT Holders

29 Series Range: 1.1417"-1.2597" (29,00mm-31,99mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60329S-125F	3-25/32"	5-3/8"	5-1/2"	YES	7-43/64"	2-9/32"	1-1/4"	1/4"
	5xD	60529S-125F	6-19/64"	7-29/32"	8-1/64"	YES	10-3/16"			1/4"
	7xD	60729S-125F	8-13/16"	10-27/64"	10-17/32"	YES	12-45/64"			1/4"
Helical	Stub	60129H-125F	1-3/8"	2-31/32"	3-5/64"	YES	5-1/4"	2-9/32"	1-1/4"	1/4"
	3xD	60329H-125F	3-25/32"	5-3/8"	5-1/2"	YES	7-43/64"			1/4"
		60329H-125C	3-25/32"	5-3/8"	5-1/2"	NO	7-43/64"			1/4"
	5xD	60529H-125F	6-19/64"	7-29/32"	8-1/64"	YES	10-3/16"			1/4"
		60529H-125C	6-19/64"	7-29/32"	8-1/64"	NO	10-3/16"			1/4"
	7xD	60729H-125F	8-13/16"	10-27/64"	10-17/32"	YES	12-45/64"			1/4"
		60729H-125C	8-13/16"	10-27/64"	10-17/32"	NO	12-45/64"			1/4"
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60329S-32FM	96,0	136,2	139,1	YES	196,2	60	32	1/4"
	5xD	60529S-32FM	159,9	200,1	203,1	YES	260,1			1/4"
	7xD	60729S-32FM	223,9	264,1	267,1	YES	324,1			1/4"
Helical	Stub	60129H-32FM	35,0	75,2	78,2	YES	135,2	60	32	1/4"
	3xD	60329H-32FM	96,0	136,2	139,1	YES	196,2			1/4"
		60329H-32CM	96,0	136,2	139,1	NO	196,2			1/4"
	5xD	60529H-32FM	159,9	200,1	203,1	YES	260,1			1/4"
		60529H-32CM	159,9	200,1	203,1	NO	260,1			1/4"
	7xD	60729H-32FM	223,9	264,1	267,1	YES	324,1			1/4"
		60729H-32CM	223,9	264,1	267,1	NO	324,1			1/4"



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60129C45-125F	1-29/64"	1-23/32"	2-13/64"	2-31/32"	3-5/64"	5-15/64"	2-9/32"	1-1/4"	TCMT-16T304	7359-IP15-1
<b>METRIC (mm)</b>										
60129C45-32FM	37,1	43,5	55,9	75,2	78,2	137,3	60	32	TCMT-16T304	7359-IP15-1

## Replacement TORX Plus Screws

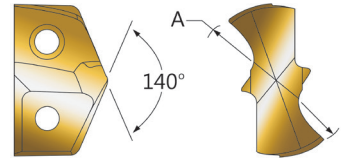
Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
29	7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	61.0 in.-lbs	690 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.



# GEN3SYS® XT Inserts

32 Series Range: 1.2598"-1.3780" (32,00mm-35,00mm)



## GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

A (Diameter)			Availability & Geometry											
Fractional Equivalent	(inch)	(mm)	C1 AM300® Standard	⓪	C1 AM300 Low Rake	▲	C2 AM300 Standard	⓪	C2 AM300 Cast Iron	▲	C2 AM300 Low Rake	⓪	C2 AM300 Stainless	▲
	1.2598	32,00	7C132P-32	⓪	7C132P-32LR	▲	7C232P-32	⓪	7C232P-32CI	▲	7C232P-32LR	▲	7C232P-32AS	⓪
1-17/64"	1.2658	32,15	7C132P-32.15	⓪	7C132P-32.15LR	▲	7C232P-32.15	⓪	7C232P-32.15CI	▲	7C232P-32.15LR	▲	7C232P-32.15AS	▲
	1.2795	32,50	7C132P-32.5	⓪	7C132P-32.5LR	▲	7C232P-32.5	⓪	7C232P-32.5CI	▲	7C232P-32.5LR	▲	7C232P-32.5AS	▲
1-9/32"	1.2813	32,55	7C132P-0109	⓪	7C132P-0109LR	▲	7C232P-0109	⓪	7C232P-0109CI	▲	7C232P-0109LR	▲	7C232P-0109AS	▲
	1.2992	33,00	7C132P-33	⓪	7C132P-33LR	⓪	7C232P-33	⓪	7C232P-33CI	▲	7C232P-33LR	▲	7C232P-33AS	⓪
1-5/16"	1.3125	33,34	7C132P-0110	⓪	7C132P-0110LR	⓪	7C232P-0110	⓪	7C232P-0110CI	▲	7C232P-0110LR	▲	7C232P-0110AS	⓪
	1.3189	33,50	7C132P-33.5	⓪	7C132P-33.5LR	▲	7C232P-33.5	⓪	7C232P-33.5CI	▲	7C232P-33.5LR	▲	7C232P-33.5AS	▲
	1.3386	34,00	7C132P-34	⓪	7C132P-34LR	▲	7C232P-34	⓪	7C232P-34CI	▲	7C232P-34LR	▲	7C232P-34AS	⓪
1-11/32"	1.3438	34,13	7C132P-0111	⓪	7C132P-0111LR	▲	7C232P-0111	⓪	7C232P-0111CI	▲	7C232P-0111LR	▲	7C232P-0111AS	▲
	1.3583	34,50	7C132P-34.5	⓪	7C132P-34.5LR	▲	7C232P-34.5	⓪	7C232P-34.5CI	▲	7C232P-34.5LR	▲	7C232P-34.5AS	▲
1-3/8"	1.3750	34,93	7C132P-0112	⓪	7C132P-0112LR	⓪	7C232P-0112	⓪	7C232P-0112CI	▲	7C232P-0112LR	▲	7C232P-0112AS	⓪
	1.3780	35,00	7C132P-35	⓪	7C132P-35LR	▲	7C232P-35	⓪	7C232P-35CI	▲	7C232P-35LR	▲	7C232P-35AS	▲

- see page 90 for geometry details

- ⓪ Availability Codes
- ⓪ Stocked
- ▲ Non-Stocked - 10 work day lead time

All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (non-standard diameters) are available in all coatings.  
**When ordering, please follow the examples shown below:**  
 Decimals = 1.2825" AM300, 32 Series, C2 = 7C232P-1.2825  
 Metric = 34,20 mm AM300, 32 Series, C2 = 7C232P-34.20

Revolution & Opening

APX

GEN3SYS & GEN3SYS XT

Original T-A & GEN2 T-A

AccuPort 432

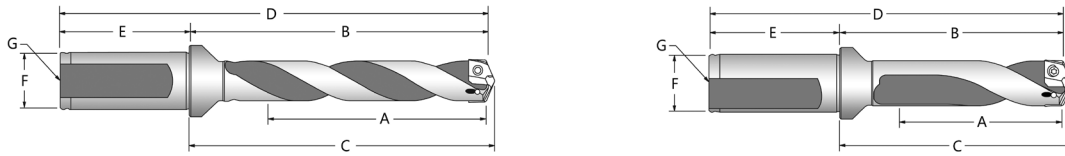
ASC 320

Special Tooling

# GEN3SYS® XT Holders

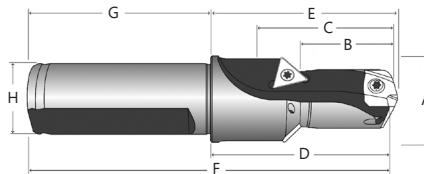


32 Series Range: 1.2598"-1.3780" (32,00mm-35,00mm)



## GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A	B	C	Flat	D	E	F	G
			Drill Depth	Body Length	Reference Length		Overall Length	Shank Length	Shank Diameter	Pipe Tap
Straight	3xD	60332S-150F	4-9/64"	6-29/64"	6-11/32"	YES	8-57/64"	2-11/16"	1-1/2"	1/4"
	5xD	60532S-150F	6-59/64"	8-31/32"	9-7/64"	YES	11-21/32"			1/4"
	7xD	60732S-150F	9-41/64"	11-23/32"	11-55/64"	YES	14-13/32"			1/4"
Helical	Stub	60132H-150F	1-1/2"	3-37/64"	3-45/64"	YES	6-17/64"	2-11/16"	1-1/2"	1/4"
	3xD	60332H-150F	4-9/64"	6-29/64"	6-11/32"	YES	8-57/64"			1/4"
		60332H-150C	4-9/64"	6-29/64"	6-11/32"	NO	8-57/64"			1/4"
	5xD	60532H-150F	6-59/64"	8-31/32"	9-7/64"	YES	11-21/32"			1/4"
		60532H-150C	6-59/64"	8-31/32"	9-7/64"	NO	11-21/32"			1/4"
	7xD	60732H-150F	9-41/64"	11-23/32"	11-55/64"	YES	14-13/32"			1/4"
		60732H-150C	9-41/64"	11-23/32"	11-55/64"	NO	14-13/32"			1/4"
<b>METRIC (mm) *Thread to BSP &amp; ISO 7-1</b>										
Straight	3xD	60332S-40FM	105,0	157,7	161,3	YES	227,7	70	40	1/4"
	5xD	60532S-40FM	175,0	227,7	231,3	YES	297,7			1/4"
	7xD	60732S-40FM	244,9	297,7	301,3	YES	367,7			1/4"
Helical	Stub	60132H-40FM	38	90,7	94,2	YES	160,7	70	40	1/4"
	3xD	60332H-40FM	105,0	157,7	161,3	YES	227,7			1/4"
		60332H-40CM	105,0	157,7	161,3	NO	227,7			1/4"
	5xD	60532H-40FM	175,0	227,7	231,3	YES	297,7			1/4"
		60532H-40CM	175,0	227,7	231,3	NO	297,7			1/4"
	7xD	60732H-40FM	244,9	297,7	301,3	YES	367,7			1/4"
		60732H-40CM	244,9	297,7	301,3	NO	367,7			1/4"



## Drill / Chamfer Holders

Item Number	A	B	C	D	E	F	G	H	Chamfer Insert	Insert Screw (10 pack)
	Step Diameter	Step Length	Drill Depth	Body Length	Tool Ref. Length	Overall Length	Shank Length	Shank Diameter		
60132C45-150F	1-37/64"	1-57/64"	2-29/64"	3-37/64"	3-23/32"	5-1/4"	2-11/16"	1-1/2"	TCMT-16T304	7359-IP15-1
<b>METRIC (mm)</b>										
60132C45-40FM	40,1	48,0	62,4	90,7	94,2	160,6	70	40	TCMT-16T304	7359-IP15-1

## Replacement TORX Plus Screws

Series	TORX Plus Screws (10 pack)	Nylon Locking TORX Plus Screws (10 pack)	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch	Metric
						TORX Plus Screw Admissible Tightening Torque	TORX Plus Screw Admissible Tightening Torque
32	7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	61.0 in.-lbs	690 N-cm

Tightening torques are calculated with a friction coefficient of  $\mu = 0.14$  and develop 90% of ultimate yield strength.











Recommended Speeds and Feeds - Metric

IMPORTANT: The speeds and feeds listed below are a general starting point for all applications. Refer to the Coolant Recommendation charts for coolant requirements to run at the recommended speeds and feeds. Factory technical assistance is also available through our Application Engineering Team. For 7xD Diameter tools, see adjustment example at bottom of Speed & Feed chart.

Table with columns for Material, Hardness (BHN), Grade, SPEED (AM300 M/min), and FEED (mm/rev) for diameters 11 through 32 mm. Rows include various materials like Free Machining Steel, Low Carbon Steel, Medium Carbon Steel, Alloy Steel, High Strength Alloy, Structural Steel, Tool Steel, High Temp. Alloy, Titanium Alloy, Aerospace Alloy, Stainless Steel, Super Duplex Stainless Steel, Wear Plate, Hardened Steel, SG / Nodular Cast Iron, Grey / White Iron, Cast Aluminum, Wrought Aluminum, Aluminum Bronze, Brass, and Copper.

.80 Adjustment for 7 x Diameter / Example: 61 M/min • 0.80 = 48.8 M/min 0.20 mm/rev • 0.80 = 0.16 mm/rev

Recommended Speed and Feed Example: If recommended speed and feed is 61M/min and 0.20 mm/rev for a 3 x diameter or 5 x diameter holder, then the speed and feed using a 7 x diameter holder in the same application would be 48.8 M/min and 0.16 mm/rev.

Revolution & Opening, APX, GEN3SYS & GEN3SYS XT, Original T-A & GEN2 T-A, AccuPort 432, ASC 320, Special Tooling



# GEN3SYS® and GEN3SYS® XT

Technical Information - Inch

## TAP DRILL INFORMATION

### AMERICAN - Unified Inch Screw Thread

Tap Size	Tap Drill Size	Decimal Equivalent	* Theo % Thread	Prob Mean Oversize	Prob Hole Size	** Prob % Thread
1/2 - 20	29/64"	.4531"	72%	.003"	.4561"	68%
9/16 - 12	12.0 mm	.4724"	72%	.003"	.4754"	69%
	31/64"	.4844"	83%	.003"	.4874"	80%
9/16 - 18	1/2"	.5000"	87%	.003"	.5030"	82%
	13.0 mm	.5118"	70%	.003"	.5148"	66%
	31/64"	.5156"	65%	.003"	.5186"	61%
5/8 - 11	17/32"	.5313"	79%	.003"	.5343"	77%
5/8 - 12	35/64"	.5469"	72%	.003"	.5499"	69%
5/8 - 18	9/16"	.5625"	87%	.003"	.5655"	82%
	14.5 mm	.5709"	75%	.003"	.5739"	71%
	37/64"	.5781"	65%	.003"	.5811"	61%
11/16 - 12	39/64"	.6094"	72%	.003"	.6124"	69%
3/4 - 10	41/64"	.6406"	84%	.003"	.6436"	82%
	16.5 mm	.6496"	77%	.003"	.6526"	75%
	21/32"	.6563"	72%	.003"	.6593"	70%
3/4 - 12	43/64"	.6719"	72%	.003"	.6749"	69%
3/4 - 16	11/16"	.6875"	77%	.003"	.6905"	73%
	17.5 mm	.6890"	75%	.003"	.6920"	71%
7/8 - 9	49/64"	.7656"	76%	.003"	.7686"	74%
	25/32"	.7813"	65%	.003"	.7843"	63%
7/8 - 14	51/64"	.7969"	84%	.003"	.7999"	81%
	13/16"	.8125"	67%	.003"	.8155"	64%
15/16 - 12	55/64"	.8594"	72%	.003"	.8624"	69%
15/16 - 20	57/64"	.8906"	72%	.003"	.8936"	68%
1 - 8	22.0 mm	.8661"	82%	.003"	.8691"	81%
	7/8"	.8750"	77%	.003"	.8780"	75%
	57/64"	.8906"	67%	.003"	.8936"	65%
1 - 12	29/32"	.9063"	87%	.003"	.9093"	84%
	59/64"	.9219"	72%	.003"	.9249"	69%
1 - 14	15/16"	.9375"	67%	.003"	.9405"	64%
1-1/8 - 12	1-1/32"	1.0313"	87%	.003"	1.0343"	84%
	1-3/64"	1.0469"	72%	.003"	1.0499"	69%
1-1/4 - 7	1-7/64"	1.1094"	76%	.003"	1.1124"	74%

Taper Pipe Thread (NPT)						
Tap Size	Tap Drill Size	Decimal Equivalent	* Theo % Thread	Prob Mean Oversize	Prob Hole Size	** Prob % Thread
1/4 - 18	7/16"	.4375"	N/A	.003"	.4405"	N/A
3/8 - 18	9/16"	.5625"	N/A	.003"	.5655"	N/A
1/2 - 14	45/64"	.7031"	N/A	.003"	.7061"	N/A
3/4 - 14	29/32"	.9063"	N/A	.003"	.9093"	N/A

Based on nominal tap drill diameter. \*\* Based on .003" probable mean oversize. To calculate percent of full thread for a given hole diameter:

$$\% \text{ Thread} = \# \text{ of Threads per inch} \times \frac{\text{Basic Major Dia. of thread (inch)} - \text{Drill Hole Size (inch)}}{.0130}$$

The above tap drill information represents probable thread percentages for the standard tap drills stocked at Allied Machine. Special insert diameters may be required in order to meet a user specific percentage of thread requirements.

The .003" probable mean oversize hole condition is based on optimum cutting conditions. Probable % of full thread may vary based on less ideal cutting conditions.

## Formulas

$$1. \text{ RPM} = \frac{3.82 \cdot \text{SFM}}{\text{DIA}}$$

where:  
 RPM = revolutions per minute (rev/min)  
 SFM = speed (ft/min)  
 DIA = diameter of drill (in)

$$2. \text{ IPM} = \text{RPM} \cdot \text{IPR}$$

where:  
 IPM = inches per minute (in/min)  
 RPM = revolutions per minute (rev/min)  
 IPR = feed rate (in/rev)

$$3. \text{ SFM} = \text{RPM} \cdot 0.262 \cdot \text{DIA}$$

where:  
 SFM = speed (ft/min)  
 RPM = revolutions per minute (rev/min)  
 DIA = diameter of drill (in)

$$4. \text{ Thrust} = 153,700 \cdot \text{IPR} \cdot \text{DIA} \cdot \text{Km}$$

where:  
 Thrust = axial thrust (lbs)  
 IPR = feed rate (in/rev)  
 DIA = diameter of drill (in)  
 Km = specific cutting energy (lbs/in<sup>2</sup>)

$$5. \text{ Tool Power} = .6911 \cdot \text{IPR} \cdot \text{RPM} \cdot \text{Km} \cdot \text{DIA}^2$$

where:  
 Tool Power = tool power (HP)  
 IPR = feed rate (in/rev)  
 RPM = revolutions per minute (rev/min)  
 Km = specific cutting energy (lbs/in<sup>2</sup>)  
 DIA = diameter of drill (in)

## MATERIAL CONSTANTS

Type of Material	Km (lbs/in <sup>2</sup> )
Plain Carbon and Alloy Steel	
85 - 200 BHN	0.79
200 - 275 BHN	0.94
275 - 375 BHN	1.00
375 - 425 BHN	1.15
High Temperature Alloys	1.44
Stainless Steel:	
135-275 BHN	0.94
30 - 45 RC	1.08
Copper Alloy	
20 - 80 RB	0.43
80 - 100 RB	0.72
Titanium Alloy	0.72
Aluminum Alloy	0.22
Magnesium Alloy	0.16
Cast Iron	
100 - 200 BHN	0.50
200 - 300 BHN	1.08

Note: The above table and equations are found in the Machinery's Handbook. Permission to simplify and print the equations is granted by the Editor of the Machinery's Handbook.



### TAP DRILL INFORMATION

Tap Size	Tap Drill Size	Decimal Equivalent	* Theo % Thread	Prob Mean Oversize	Prob Hole Size	** Prob % Thread
12 X 1,25	27/64"	.4219"	79%	0,075 mm	10,79 mm	74%
	10,8 mm	.4252"	74%	0,075 mm	10,88 mm	69%
14 X 2,0	15/32"	.4688"	81%	0,075 mm	11,98 mm	78%
	12,0 mm	.4724"	77%	0,075 mm	12,08 mm	74%
14 X 1,5	12,5 mm	.4921"	77%	0,075 mm	12,58 mm	73%
16 X 2,0	14,0 mm	.5512"	77%	0,075 mm	14,08 mm	74%
16 X 1,5	14,5 mm	.5709"	77%	0,075 mm	14,58 mm	73%
	37/64"	.5781"	68%	0,075 mm	14,76 mm	64%
18 X 2,5	15,5 mm	.6102"	77%	0,075 mm	15,58 mm	75%
18 X 1,5	16,5 mm	.6496"	77%	0,075 mm	16,58 mm	73%
	21/32"	.6563"	68%	0,075 mm	16,75 mm	64%
20 X 2,5	11/16"	.6875"	78%	0,075 mm	17,54 mm	76%
	17,5 mm	.6890"	77%	0,075 mm	17,58 mm	74%
20 X 1,5	18,5 mm	.7283"	77%	0,075 mm	18,58 mm	73%
	47/64"	.7344"	69%	0,075 mm	18,66 mm	65%
22 X 2,5	49/64"	.7656"	79%	0,075 mm	19,52 mm	76%
	19,5 mm	.7677"	77%	0,075 mm	19,58 mm	75%
22 X 1,5	20,5 mm	.8071"	77%	0,075 mm	20,58 mm	73%
	13/16"	.8125"	70%	0,075 mm	20,71 mm	66%
24 X 3	13/16"	.8125"	86%	0,075 mm	20,71 mm	84%
	21,0 mm	.8268"	76%	0,075 mm	21,08 mm	75%
24 X 2	22,0 mm	.8661"	77%	0,075 mm	22,08 mm	74%
	7/8"	.8750"	68%	0,075 mm	22,30 mm	65%
27 X 3	24,0 mm	.9449"	77%	0,075 mm	24,08 mm	75%

Tap Size	Tap Drill Size	Decimal Equivalent	* Theo % Thread	Prob Mean Oversize	Prob Hole Size	** Prob % Thread
1/4-19	7/16"	.4375"	N/A	0,075 mm	11,19 mm	N/A
3/8-19	37/64"	.5781"	N/A	0,075 mm	14,76 mm	N/A
1/2-14	23/32"	.7188"	N/A	0,075 mm	18,33 mm	N/A
3/4-14	15/16"	.9375"	N/A	0,075 mm	23,89 mm	N/A

Based on nominal tap drill diameter. \*\* Based on 0,075 mm probable mean oversize. To calculate percent of full thread for a given hole diameter:

$$\% \text{ Thread} = \frac{76,93}{\text{Pitch (mm)}} * \left( \text{Basic Major Diameter (mm)} - \text{Drill Hole Size (mm)} \right)$$

### Formulas

$$1. \text{ RPM} = \frac{318,47 \cdot \text{M/min}}{\text{DIA}}$$

where:

RPM = revolutions per minute (rev/min)  
M/min = speed (M/min)  
DIA = diameter of drill (mm)

$$2. \text{ mm/min} = \text{RPM} \cdot \text{mm/rev}$$

where:

mm/min = mm per minute (mm/min)  
RPM = revolutions per minute (rev/min)  
mm/rev = feed rate (mm/rev)

$$3. \text{ M/min} = \text{RPM} \cdot 0,003 \cdot \text{DIA}$$

where:

M/min = speed (M/min)  
RPM = revolutions per minute (rev/min)  
DIA = diameter of drill (mm)

$$4. \text{ Thrust} = 154 \cdot (\text{mm/rev}) \cdot \text{DIA} \cdot \text{Km}$$

where:

Thrust = axial thrust in newtons (N)  
mm/rev = feed rate (mm/rev)  
DIA = diameter of drill (mm)  
Km = specific cutting energy (bar)

$$5. \text{ Tool Power} = \frac{(\text{mm/rev}) \cdot \text{RPM} \cdot \text{Km} \cdot \text{DIA}^2}{218604,8}$$

where:

Tool Power = tool power (HP)  
mm/rev = feed rate (mm/rev)  
RPM = revolutions per minute (rev/min)  
Km = specific cutting energy (bar)  
DIA = diameter of drill (mm)

### MATERIAL CONSTANTS

Type of Material	Km (kPa)
Plain Carbon and Alloy Steel	
85 - 200 BHN	5,45
200 - 275 BHN	6,48
275 - 375 BHN	6,89
375 - 425 BHN	7,93
High Temperature Alloys	9,93
Stainless Steel:	
135-275 BHN	6,48
30 - 45 RC	7,45
Copper Alloy	
20 - 80 RB	2,96
80 - 100 RB	4,96
Titanium Alloy	4,96
Aluminum Alloy	1,52
Magnesium Alloy	1,10
Cast Iron	
100 - 200 BHN	3,45
200 - 300 BHN	7,45

Note: The above table and equations are found in the Machinery's Handbook. Permission to simplify and print the equations is granted by the Editor of the Machinery's Handbook.



# GEN3SYS® and GEN3SYS® XT

## Coolant Recommendations - Inch and Metric

**IMPORTANT:** The coolant pressure and flow rate recommendations below represent a good approximation to obtain optimum tool life and chip evacuation at Allied recommended speeds and feeds. If lower coolant capabilities exist in a drilling application, the GEN3SYS High Penetration Drilling System will still function at reduced penetration rates. Contact our Application Engineering Department for a more specific recommendation of coolant requirements and/or speeds and feeds.

### Stub, 3xD, 5xD, Holder Lengths

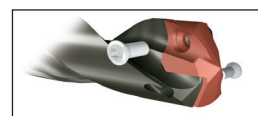
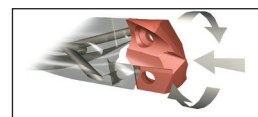
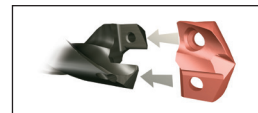
Series	Pressure		Flow Rate	
	PSI	BAR	GPM	LPM
11 mm	500	35	5	19
12 mm	500	35	5	19
13 mm	475	33	5.5	21
14 mm	450	32	6	23
15 mm	430	30	7	27
16 mm	410	29	8	31
17 mm	385	27	8.5	33
18 mm	360	25	9	35
20 mm	300	21	10	38
22 mm	300	21	11	42
24 mm	300	21	11	42
26 mm	300	21	12	46
29 mm	300	21	12	46
32 mm	300	21	12	46

### 7xD Holder Length

Series	Pressure		Flow Rate	
	PSI	BAR	GPM	LPM
11 mm	750	53	7,5	29
12 mm	750	53	7,5	29
13 mm	713	50	8,25	32
14 mm	675	48	9	35
15 mm	645	45	10,5	40
16 mm	615	44	12	46
17 mm	578	40	12,75	49
18 mm	540	38	13,5	52
20 mm	450	32	15	57
22 mm	450	32	16,5	63
24 mm	450	32	16,5	63
26 mm	450	32	18	69
29 mm	450	32	18	69
32 mm	450	32	18	69

#### Assembly of GEN3SYS and GEN3SYS XT Tools:

1. Align the flats on the GEN3SYS or GEN3SYS XT Drill Insert with the flats on the ears of the GEN3SYS Holder.
2. Slide the GEN3SYS or GEN3SYS XT Drill Insert into the precision ground locating pocket on the GEN3SYS Holder. The drill insert should not be turned, rotated, or twisted for locking purposes. The holder pocket and locating pads on the drill insert assure optimum fit and repeatability.
3. Place a generous amount of E-Z Break (provided in the packaging) onto the supplied TORX Plus Screws.
4. Tighten the TORX Plus Screws to the recommended torque value specified in the catalog by series. A preset torx driver is available to assure that the proper torque is applied.



Revolution & Opening

APX

GEN3SYS & GEN3SYS XT

Original T-A & GEN2 T-A

AccuPort 432

ASC 320

Special Tooling



	Potential Problem																				
	Accelerated corner wear	Barber pole	Bell mouth hole	Insert chipping	Blue chips	Build Up Edge (BUE)	Chatter	Chip packing	Chipping of point	Damaged or broken tools	Excessive margin wear	High flank wear	Hole lead off	Hole out of position	Hole out of round	Overize hole	Poor hole finish	Poor tool life	Power spikes - Load meter	Retract spiral	
Setup Condition	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Possible Solutions
Worn or misaligned spindle (lathe, screw machine, chucker)	1		3				7		9	10	11		13			16	17			20	<ul style="list-style-type: none"> <li>Align spindle and turret or tailstock.</li> <li>Repair spindle.</li> </ul>
Use of low rigidity machine tools.		2	3	4			7		9	10			13	14						20	<ul style="list-style-type: none"> <li>Reduce penetration rate to fall within the physical limits of the machine or setup (<b>NOTICE:</b> Do not reduce feed below threshold of good chip formation.)</li> </ul>
Poor work piece support		2		4			7			10	11				15		17			20	<ul style="list-style-type: none"> <li>Provide additional support for the work piece. Reduce penetration rate to fall within the physical limits of the machine or setup (<b>NOTICE:</b> Do not reduce feed below threshold of good chip formation.)</li> </ul>
Flood coolant, low coolant pressure or low coolant volume	1				5	6		8		10		12				16	17	18	19		<ul style="list-style-type: none"> <li>Run coolant through tool holder when drilling greater than one times diameter.</li> <li>Increase coolant pressure and volume through the tool holder.</li> <li>Reduce penetration rate to fall within the coolant limitations (<b>NOTICE:</b> Do not reduce feed below threshold of good chip formation.)</li> <li>Add a peck cycle to help clear chips.</li> </ul>
Interrupted cuts. Entry or exit surfaces that are not perpendicular to the spindle. (draft angles, parting lines, curved or stepped surfaces, cross holes and cast or forged surfaces).				4			7		9	10	11		13	14	15	16	17	18			<ul style="list-style-type: none"> <li>Pre-mill (spot face) entry or exit surface to remove interruption.</li> <li>Decrease feed as much as 50% through entry or exit interruption.</li> <li>Use short holders in low impact entry cuts.</li> </ul>
Material harder than expected or running tools beyond recommended speed.	1				5	6				10		12							18		<ul style="list-style-type: none"> <li>Reduce speed.</li> <li>Increase coolant pressure and volume.</li> <li>Improve coolant condition by use of quality products and regular maintenance.</li> </ul>
Poor material micro-structure or foreign particles: (forgings and castings that have not been normalized or annealed, poorly prepared steel, flame cut parts and sand casting).				4		6				10		12	13						18		<ul style="list-style-type: none"> <li>Compare performance of other tools for similar wear problems, which may indicate poor micro-structure. Anneal or normalize parts to improve micro-structure for machining.</li> <li>Reduce feeds. (<b>NOTICE:</b> Do not reduce feed below threshold of good chip formation.)</li> </ul>
Poor chip control.								8		10	11		13			16	17	18	19		<ul style="list-style-type: none"> <li>Increase feed to recommended levels. Contact Allied Application Engineering Group for technical recommendations.</li> <li>Increase coolant pressure and volume.</li> <li>Improve coolant condition by use of quality products and regular maintenance.</li> </ul>
Spot drilled holes with included angle less than that matching GEN3SYS or cored holes.	1			4			7						13						18		<ul style="list-style-type: none"> <li>Spot hole with short tool of same or greater included angle as GEN3SYS Drill Insert.</li> <li>Reduce feed. (<b>NOTICE:</b> Do not reduce feed below threshold of good chip formation.) If possible, drill from solid.</li> </ul>



# GEN3SYS® and GEN3SYS® XT

## Geometry and Substrate Options

### C1 Carbide (K35)

The primary application for this carbide grade is in steel applications. In addition to exceptional wear resistance, C1 carbide is considerably more durable when compared to other carbide grades. The higher toughness allows this grade to function in applications not suitable for other carbides.

### C2 Carbide (K20)

The primary application for this carbide grade is in non-ferrous applications (high temperature alloys, stainless steels, aluminums, cast irons). It offers exceptionally high wear resistance. Tool life increases in steel applications can be realized; however, high machine tool rigidity is required.

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### GEN3SYS Standard Geometry

An excellent choice for general purpose high penetration drilling. This geometry is available as a standard in both C1 and C2 substrates with Allied's superior AM200® coating. The standard GEN3SYS geometry is recommended when drilling free machining, carbon, and softer alloy steels.

### GEN3SYS Cast Iron Geometry (-CI)

Specifically designed to improve hole quality, exit, and increase tool life in all cast irons. This specialized geometry contains unique edge and corner preparations to maximize performance in cast irons when combined with Allied Machine's C2 substrate.

### GEN3SYS Low Rake Geometry (-LR)

Designed to increase reliability in harder steels or lower rigidity applications. This geometry contains increased edge and corner strength combined with C1 carbide substrate to maximize insert fracture resistance in more difficult drilling applications.

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### GEN3SYS XT Standard Geometry

Allied Machine's next generation of high penetration drilling utilizes corner and cutting edge enhancements combined with our AM300® coating to deliver more durability, reliability, and productivity. The new GEN3SYS XT geometry is designed to increase penetration rates and tool life, providing the lowest cost per hole among high penetration drill lines. This geometry is available in both C1 and C2 carbide substrates.

### GEN3SYS XT Stainless Steel Geometry (AS)

Designed with a specific geometry, C2 carbide substrate, and Allied Machine's AM300 coating to provide unmatched chip control and tool life in austenitic and PH stainless steels, as well as high temperature alloys such as Inconel, Hastelloy, and titanium alloys.

### GEN3SYS XT Cast Iron Geometry (CI)

Combination of a cutting edge enhancement and Allied Machine's AM300 coating delivers increased durability and tool life in ductile, nodular, and grey cast irons. This geometry is recommended in C2 carbide substrate.

### GEN3SYS XT Low Rake Geometry (LR)

Allied Machine's GEN3SYS XT Low Rake is the toughest GEN3SYS geometry Allied offers and is designed for harder steels and less than ideal machining applications. This geometry is recommended in either a C1 or C2 substrate and AM300 coating.