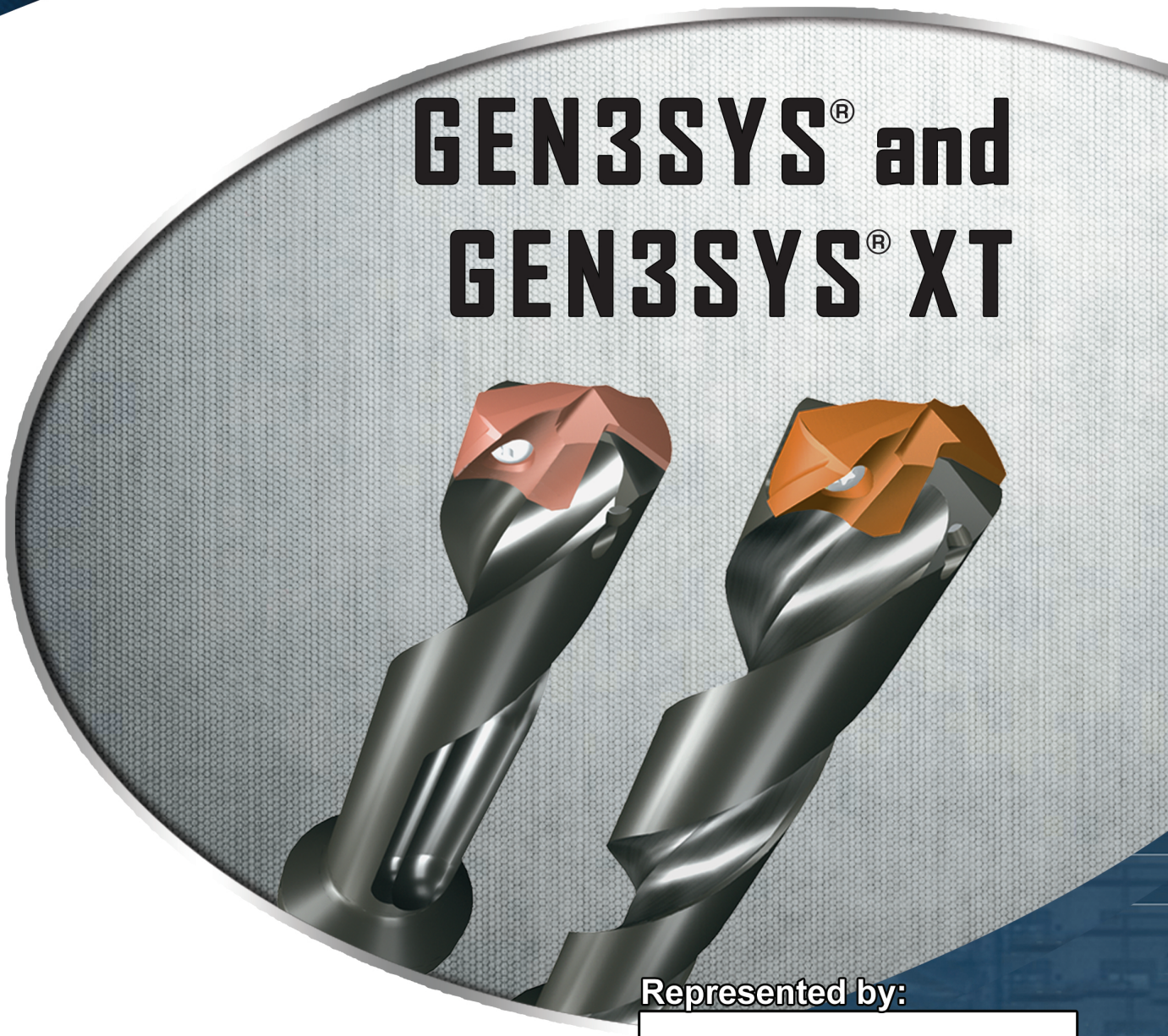
ALLIED MACHINE & ENGINEERING CORP.

GEN3SYS® and GEN3SYS® XT



Represented by:

www.alliedmachine.com

ALLIED MACHINE & ENGINEERING CORP.

Our focus on product excellence and service to the customer enable us to deliver outstanding results in a diverse range of manufacturing, production and process engineering industries. As a result, Allied's high performance tooling is helping countless businesses across the world to produce better products with greater accuracy, increased speed, and higher quality.

Precision, performance, and productivity are core features of Allied tooling. Our commitment to innovation in all aspects of hole making technology means we continually set new industry standards in production efficiency, tool life, and manufacturing cost improvements.

This product catalog provides detailed information on products in a comprehensive, easy to use, and informative single source reference guide. However, we recognize that every company's needs are unique, which is why our customer service and technical support teams are always available to provide help and advice, should you need it.

Whatever you need, Allied Machine & Engineering Corp. delivers high performance tooling on the cutting edge.

⚠ WARNING

Tool failure during use can cause serious injury. Follow safety precautions and instructions that accompany machinery and all tools.

Wear safety glasses and appropriate safety equipment at all times when machinery is operating.

This catalog contains important messages that pertain to proper use of the products shown in this catalog. Always read and follow all precautions that use these words.

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

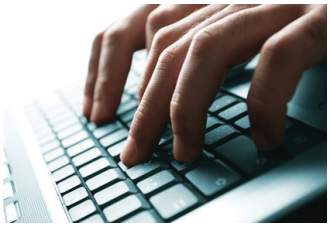
IMPORTANT is also used. It is important that you read and follow but are not safety-related.

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

Services and Support

AMEC's success is not just a result of our quality products and high performance solutions, but also the level of technical support and expertise we provide on a constant basis to all of our customers through a range of dedicated services.

Online Services



AMEC's website hosts a number of key features for distributors, one being our online ordering service that simplifies and speeds up the ordering process and can also be used for checking inventory and pricing. Available to distributors and end-users is our fast response **Insta-Quote**™ online quoting system that provides quotes and drawings for special purpose tooling online in a matter of minutes.

All of our case studies, product literature, industry sector information and a wealth of other data is also available through our website, which is constantly updated with the latest details to ensure up-to-date information is available for download. Visit **www.alliedmachine.com**.

Customer Service

The most important aspect of our business is our customers. Our customer care processes and support operations are vital and integral parts of our commitment.

Sometimes, all that's needed is a helpful and friendly voice at the end of a telephone to check an order, answer a question, or just point you in the right direction, and our fully trained team is always available to help. No matter what your requirement, we'll have someone who can handle your question quickly and effectively.

Technical Support

Our technical department is staffed by AMEC experts who have years of experience in helping customers meet demanding application challenges with high performance AMEC tooling. They are also able to provide technical support on a wide range of industry sectors via our technical helpline, which can help customers save time and money when a solution is needed quickly.

We also have an excellent and unique reference library of technical case studies and cutting data, which is compiled from information and experience gained from our global applications base. The chances are that if you have an application issue or problem, we've probably already solved it somewhere in the world.

Training

AMEC holds regular Technical Education Seminar (TES) training courses in our training facility in Dover, Ohio. These classes allow customers to experience the advanced AMEC hole-making solutions and gain deeper knowledge on their applications. The seminars cover technical data, cutting technology, tool application, and benefits of all AMEC products as well as extensive and detailed on-machine training to demonstrate the tools in action. Details and listings for TES courses can be found at **www.alliedmachine.com/TES.aspx**.

T.E.S.
Technical Education Seminar

External Support

Our Field Sales Engineers (FSE's) provide a constant "on-the-ground" support network, helping solve manufacturing problems on site and provide the most effective solutions.

GEN3SYS® and GEN3SYS® XT

Reference Page

GEN3SYS Drill Insert Item Number

5	C1	12	H	-	.484	-	CI
Insert	Material	Series	Coating		Diameter		Geometry
	C1	12 18	H - AM200®		Inch - 0017		CI - Cast Iron
	C2	13 20	A - TiAlN		Decimal - .515		LR - Low Rake
		14 22	N - TiCN		Metric - 13		
		15 24	T - TiN				
		16 26					
		17 29					

GEN3SYS XT Drill Insert Item Number

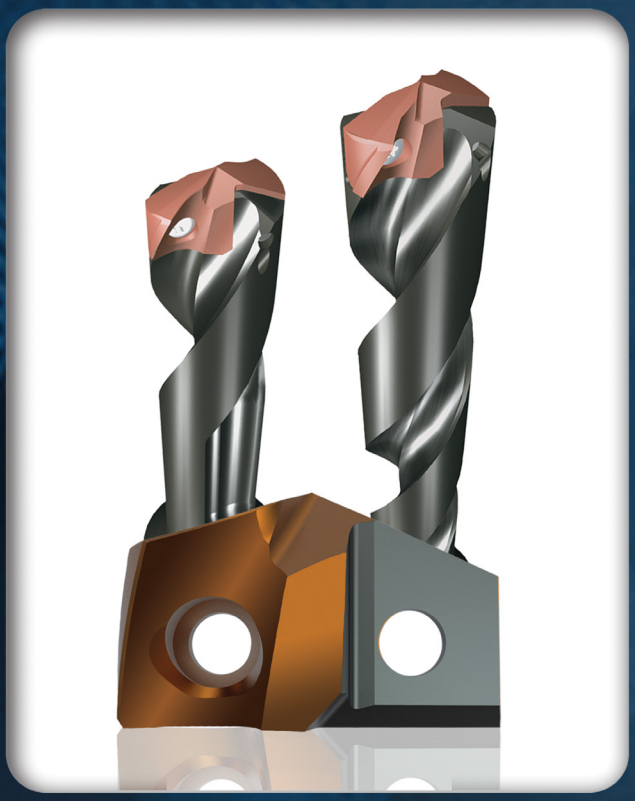
7	C1	11	P	-	.484	CI
Insert	Material	Series	Coating		Diameter	Geometry
	C1	11 18	P - AM300®		Inch - 0017	CI - Cast Iron
	C2	12 20			Decimal - .515	LR - Low Rake
		13 22			Metric - 13	AS - Stainless Steel
		14 24				
		15 26				
		16 29				
		17 32				

GEN3SYS and GEN3SYS XT Drill Holder Item Number

6	03	11	H	-	20FM
Holder	Length	Series	Flute		Shank Style
	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			

GEN3SYS® and GEN3SYS® XT

High Penetration Drilling Systems



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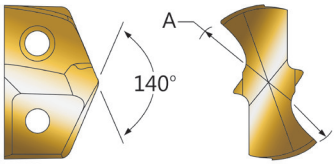
Features & Benefits

- **The unique geometry of the GEN3SYS Drilling System enables excellent chip control while drilling**
- **The unique design increases hole quality, surface finish, and true position when compared to other competitive products**
- **The helical margin design enables maximum durability and stability when cutting forces are applied**
- **Backed by Allied's highly experienced technical staff**

GEN3SYS® XT Inserts

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



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

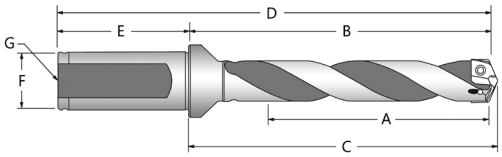
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

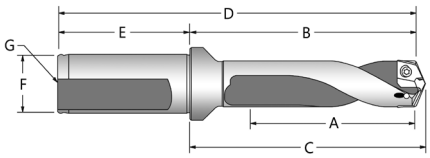
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

GEN3SYS® XT Holders

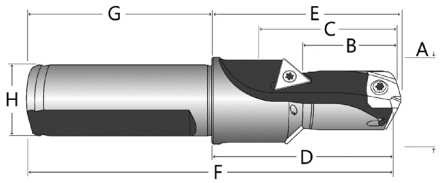
11 Series Range: 0.4331"-0.4723"(11,00mm-11,99mm)





GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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-063F	36,0	62,6	64,7	YES	110,6	48	16	1/16"*
	5xD	60511S-063F	59,9	86,6	88,6	YES	134,6			1/16"*
	7xD	60711S-063F	83,9	110,6	112,6	YES	158,6			1/16"*
Helical	Stub	60111H-063F	16,0	42,6	44,7	YES	90,7	48	16	1/16"*
	3xD	60311H-063F	36,0	62,6	64,7	YES	110,6			1/16"*
		60311H-063C	36,0	62,6	64,7	NO	110,6			1/16"*
	5xD	60511H-063F	59,9	86,6	88,6	YES	134,6			1/16"*
		60511H-063C	59,9	86,6	88,6	NO	134,6			1/16"*
	7xD	60711H-063F	83,9	110,6	112,6	YES	158,6			1/16"*
		60711H-063C	83,9	110,6	112,6	NO	158,6			1/16"*



Drill / Chamfer Holders

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

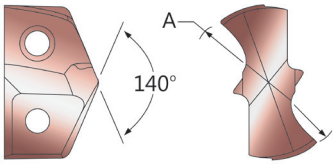
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
					Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
11	71843-IP6-10	8IP-6	8IP-6TL	8IP-6B	0.4331-0.4723	4.4 in-lbs	11,00-11,99	50 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

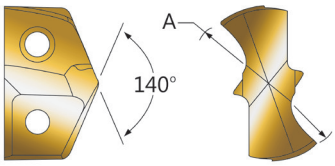
12 Series Range: 0.4724"-0.5117" (12,00mm-12,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

Diameter			Availability & Geometry											
Fractional Equivalent	(mm)	(inch)	C1 AM300 Standard	❶	C1 AM300 Low Rake	LR	C2 AM300 Standard	❶	C2 AM300 Cast Iron	CI	C2 AM300 Low Rake	LR	C2 AM300 Stainless	AS
	12,00	0.4724	7C112P-12	❍	7C112P-12LR	▲	7C212P-12	❍	7C212P-12CI	❍	7C212P-12LR	▲	7C211P-11AS	❍
31/64"	12,30	0.4844	7C112P-.484	❍	7C112P-.484LR	▲	7C212P-.484	❍	7C212P-.484CI	▲	7C212P-.484LR	▲	7C211P-0014AS	❍
	12,50	0.4921	7C112P-12.5	❍	7C112P-12.5LR	▲	7C212P-12.5	❍	7C212P-12.5CI	❍	7C212P-12.5LR	▲	7C211P-11.5AS	❍
1/2"	12,70	0.5000	7C112P-0016	❍	7C112P-0016LR	▲	7C212P-0016	❍	7C212P-0016CI	▲	7C212P-0016LR	▲	7C211P-.453AS	❍

- see page 43 for geometry details

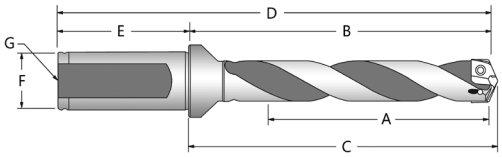
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

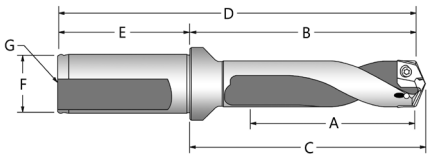
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

GEN3SYS® and GEN3SYS® XT Holders

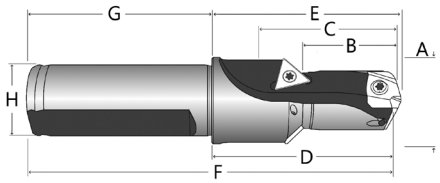
12 Series Range: 0.4724"-0.5117" (12,00mm-12,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
60223C45-075F	31/32"	45/64"	63/64"	1-45/64"	1-25/32"	3-47/64"	2-1/32"	3/4"	TCMT-110204
METRIC (mm)									
60223C45-20FM	24,8	18,0	35,2	43,2	45,4	101,3	50	20	TCMT-110204

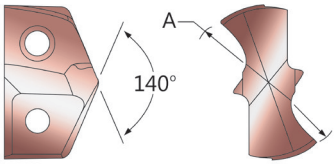
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
12	7247-IP7-10	7247N-IP7-10	8IP-7	8IP-7TL	8IP-7B	0.4724-0.5117	7.4 in-lbs	12,00-12,99	84 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

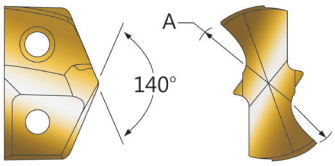
13 Series Range: 0.5118"-0.5511" (13,00mm-13,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

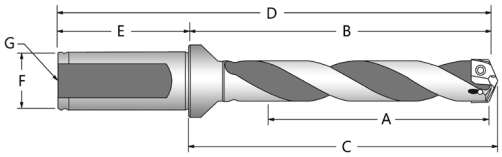
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

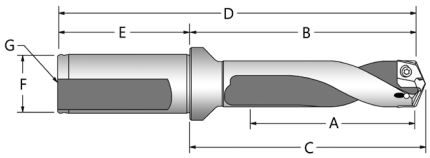
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

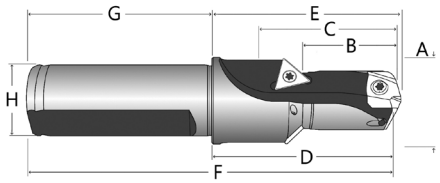
13 Series Range: 0.5118"-0.5511" (13,00mm-13,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
60113C45-075F	1-1/64"	49/64"	1"	1-11/16"	1-25/32"	3-23/32"	2-1/32"	3/4"	TCMT-110204
METRIC (mm)									
60113C45-20FM	25,8	19,5	25,4	43,0	45,2	101,3	50	20	TCMT-110204

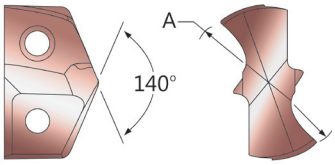
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
13	7247-IP7-10	7247N-IP7-10	8IP-7	8IP-7TL	8IP-7B	0.5118-0.5511	7.4 in.-lbs	13.00-13.99	84 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

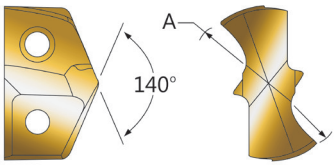
14 Series Range: 0.5512"-0.5905" (14,00mm-14,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

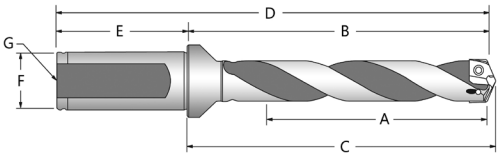
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

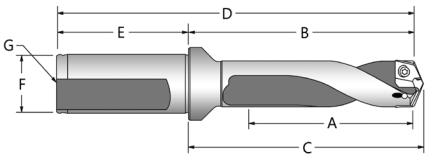
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

GEN3SYS® and GEN3SYS® XT Holders

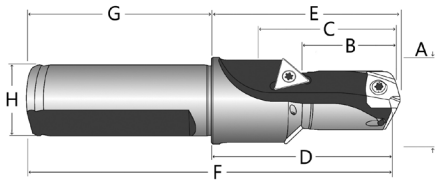
14 Series Range: 0.5512"-0.5905" (14,00mm-14,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G Pipe Tap
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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
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
METRIC (mm)									
60114C45-20FM	26,7	21,0	26,8	44,6	47,2	102,7	50	20	TCMT-110204

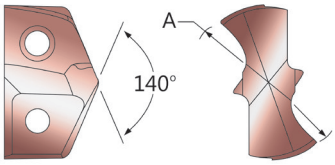
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
14	7247-IP7-10	7247N-IP7-10	8IP-7	8IP-7TL	8IP-7B	0.5512-0.5905	7.4 in.-lbs	14.00-14.99	84 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

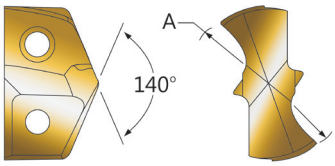
15 Series Range: 0.5906"-0.6298" (15,00mm-15,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

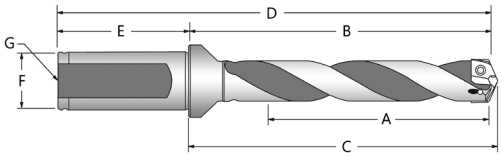
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

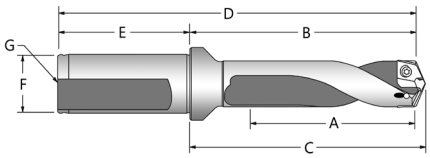
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

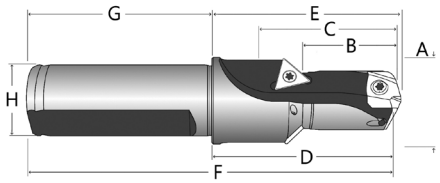
15 Series Range: 0.5906"-0.6298" (15,00mm-15,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
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
METRIC (mm)									
60115C45-20FM	27,0	22,5	26,9	44,3	46,8	102,4	50	20	TCMT-110204

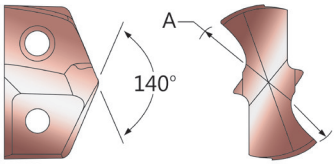
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
15	7247-IP7-10	7247N-IP7-10	8IP-7	8IP-7TL	8IP-7B	0.5906-0.6298	7.4 in.-lbs	15.00-15.99	84 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

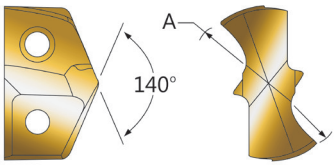
16 Series Range: 0.6299"-0.6692" (16,00mm-16,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

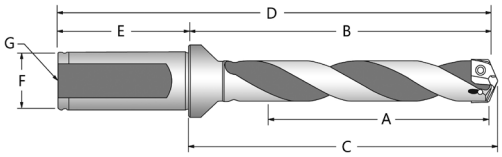
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

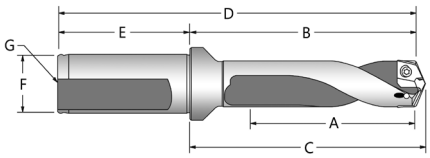
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

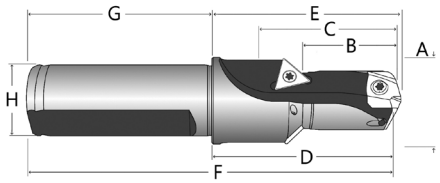
16 Series Range: 0.6299"-0.6692" (16,00mm-16,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
60116C45-075F	1-1/16"	61/64"	1-19/64"	2"	2-7/64"	4-1/32"	2-1/32"	3/4"	TCMT-110204
METRIC (mm)									
60116C45-20FM	27,0	24,0	33,1	50,8	53,7	108,9	50	20	TCMT-110204

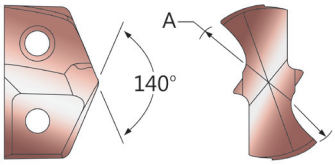
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
16	72556-IP8-10	72556N-IP8-10	8IP-8	8IP-8TL	8IP-8B	0.6299-0.6692	15.5 in.-lbs	16.00-16.99	175 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

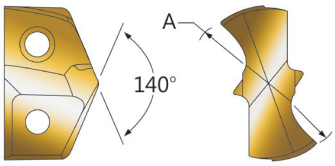
17 Series Range: 0.6693"-0.7086" (17,00mm-17,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

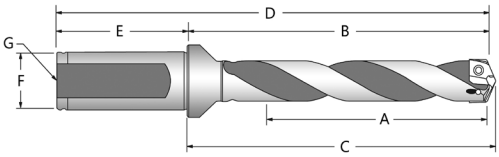
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

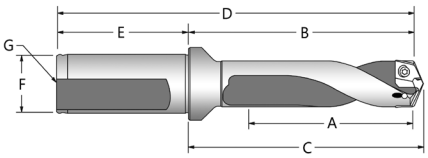
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

GEN3SYS® and GEN3SYS® XT Holders

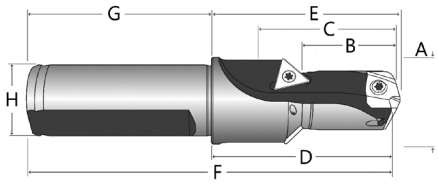
17 Series Range: 0.6693"-0.7086" (17,00mm-17,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G Pipe Tap
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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
60117C45-075F	1"	1"	1-5/16"	1-63/64"	2-7/64"	4-1/64"	2-1/32"	3/4"	TCMT-110204
METRIC (mm)									
60117C45-20FM	25,4	25,5	33,3	50,5	53,4	108,6	50	20	TCMT-110204

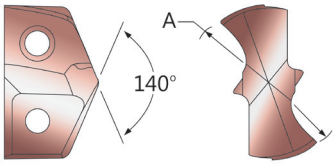
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
17	72567-IP8-10	72567N-IP8-10	8IP-8	8IP-8TL	8IP-8B	0.6693-0.7086	15.5 in.-lbs	17.00-17.99	175 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

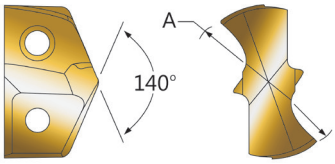
18 Series Range: 0.7087"-0.7873" (18,00mm-19,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

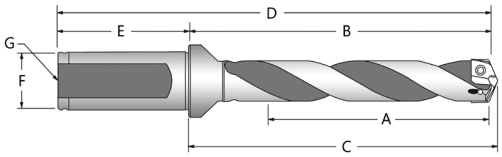
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

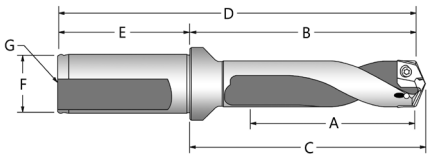
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

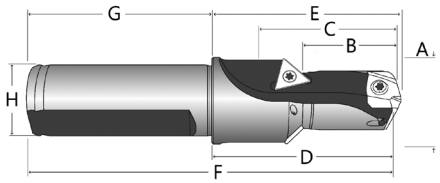
18 Series Range: 0.7087"-0.7873" (18,00mm-19,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
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
METRIC (mm)									
60118C45-25FM	25,1	27,0	35,2	56,0	58,8	114,8	56	25	TCMT-110204

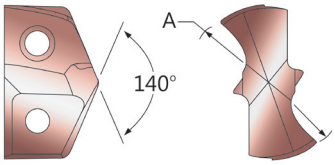
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
18	7375-IP9-10	7375N-IP9-10	8IP-9	8IP-9TL	8IP-9B	0.7087-0.7873	27.0 in.-lbs	18.00-19.99	305 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

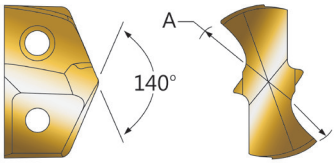
20 Series Range: 0.7874"-0.8660" (20,00mm-21,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

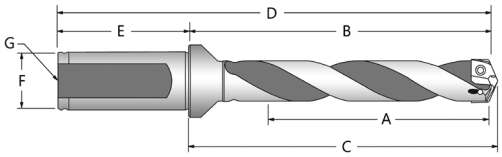
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

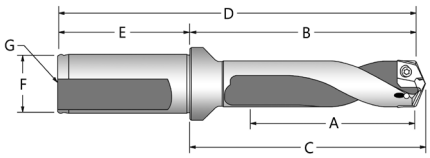
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

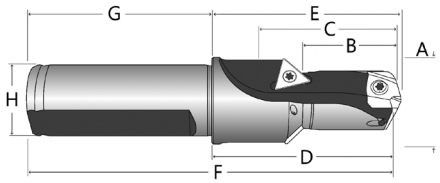
20 Series Range: 0.7874"-0.8660" (20,00mm-21,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
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
METRIC (mm)									
60120C45-25FM	27,2	30,0	37,1	57,6	60,4	116,5	56	25	TCMT-110204

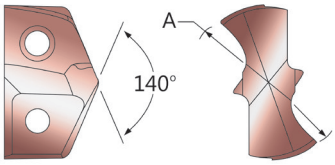
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
20	7375-IP9-10	7375N-IP9-10	8IP-9	8IP-9TL	8IP-9B	0.7874-0.8660	27.0 in.-lbs	20.00-21.99	305 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

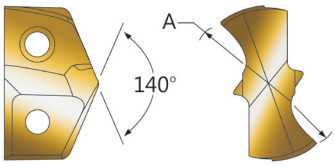
22 Series Range: 0.8661"-0.9448" (22,00mm-23,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

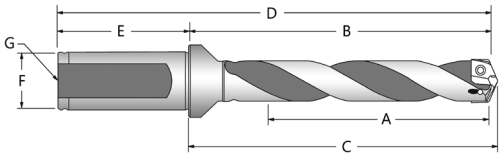
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

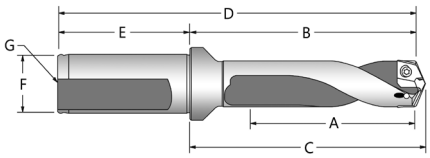
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

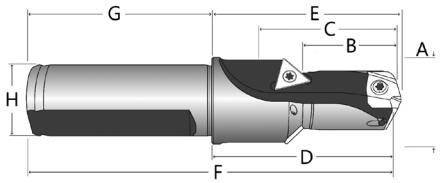
22 Series Range: 0.8661"-0.9448" (22,00mm-23,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
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
METRIC (mm)									
60122C45-25FM	29,0	33,0	40,5	60,0	63,0	119,0	56	25	TCMT-110204

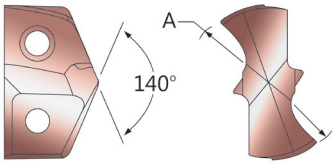
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
22	739-IP9-10	739N-IP9-10	8IP-9	8IP-9TL	8IP-9TB	0.8661-0.9448	27.0 in.-lbs	22.00-23.99	305 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

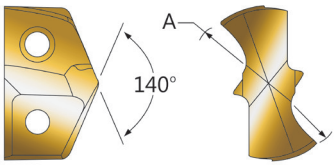
24 Series Range: 0.9449"-1.0235" (24,00mm-25,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

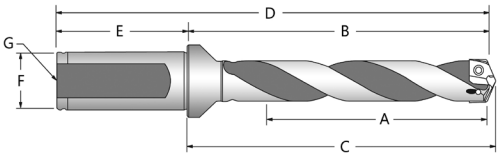
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

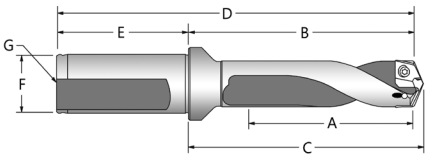
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

GEN3SYS® and GEN3SYS® XT Holders

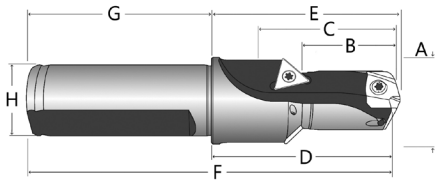
24 Series Range: 0.9449"-1.0235" (24,00mm-25,99mm)





GEN3SYS and GEN3SYS XT Holders

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



Drill / Chamfer Holders

Item Number	A Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
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
METRIC (mm)									
60124C45-25FM	31,0	36,0	45,5	64,2	67,1	123,0	56	25	TCMT-110204

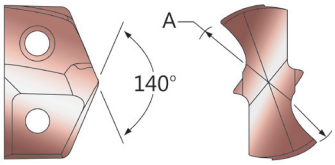
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
24	739-IP9-10	739N-IP9-10	8IP-9	8IP-9TL	8IP-9B	0.9449-1.0235	27.0 in.-lbs	24.00-25.99	305 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

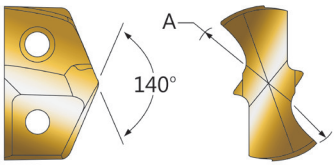
26 Series Range: 1.0236"-1.1416" (26,00mm-28,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

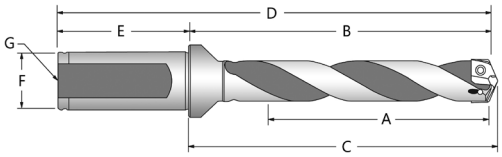
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

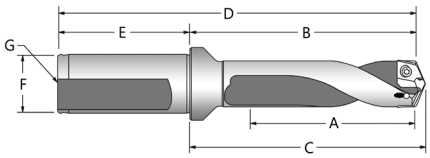
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

GEN3SYS® and GEN3SYS® XT Holders

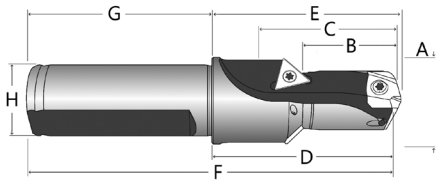
26 Series Range: 1.0236"-1.1416" (26,00mm-28,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
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
METRIC (mm)									
60126C45-32FM	34,0	39,0	52,1	72,9	75,7	135,1	60	32	TCMT-110204

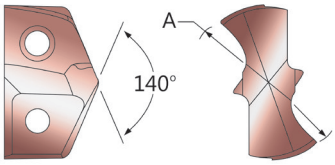
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
26	7495-IP15-10	7495N-IP15-10	8IP-15	8IP-15TL	8IP-15B	1.0236-1.1416	61.0 in.-lbs	26.00-28.99	690 N-cm

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

GEN3SYS® and GEN3SYS® XT Inserts

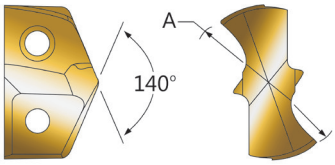
29 Series Range: 1.1417"-1.2597" (29,00mm-31,99mm)



GEN3SYS Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details



GEN3SYS XT Drill Inserts (supplied in 1 piece packages)

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

- see page 43 for geometry details

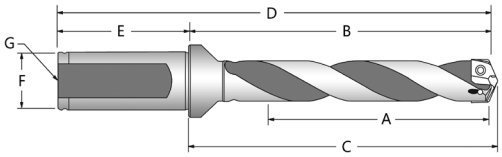
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

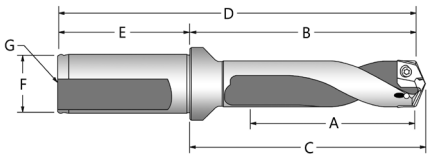
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

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

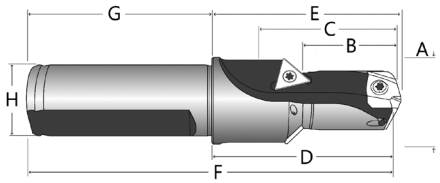
29 Series Range: 1.1417"-1.2597" (29,00mm-31,99mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G 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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
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
METRIC (mm)									
60129C45-32FM	37,1	43,5	55,9	75,2	78,2	137,3	60	32	TCMT-16T304

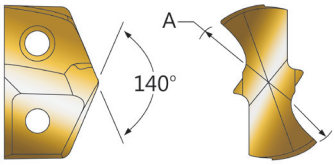
Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
29	7495-IP15-10	7495N-IP15-10	8IP-15	8IP-15TL	8IP-15B	1.1417-1.2597	61.0 in.-lbs	29.00-31.99	690 N-cm

Tightening torques are calculated with a friction coefficient of μ = 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)

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

- see page 43 for geometry details

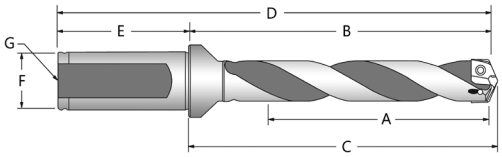
❶ Availability Codes
❍ Stocked
▲ Non-Stocked - 10 work day lead time

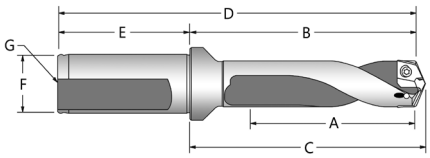
All other coatings are non-stocked standards - 10 day delivery and process fee applies.

Sizes not shown (Non-standard Diameters) are available in all coatings.
When ordering, please follow the examples shown below:
Decimals = 1.2825" AM300®, 32 Series, C2 = 7C232H-1.2825
Metric = 34,20 mm AM300®, 32 Series, C2 = 7C232H-34.20

GEN3SYS® XT Holders

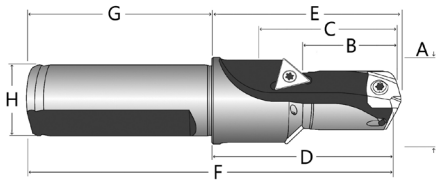
32 Series Range: 1.2598"-1.3780" (32,00mm-35,00mm)





GEN3SYS and GEN3SYS XT Holders

Style	Length	Item Number	A Drill Depth	B Body Length	C Reference Length	Flat	D Overall Length	E Shank Length	F Shank Diameter	G Pipe Tap
Straight	3xD	60332S-150F	4-9/64"	6-29/64"	6-11/32"	YES	8-59/64"	2-11/16"	1-1/2"	1/4"
	5xD	60332S-150F	6-59/64"	8-31/32"	9-7/64"	YES	11-21/32"			1/4"
	7xD	60332S-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	8-59/64"			1/4"
		60332H-150C	4-9/64"	6-29/64"	6-11/32"	NO	8-59/64"			1/4"
	5xD	60532H-150F	6-59/64"	8-31/32"	9-7/64"	YES	11-21/32"			1/4"
		6032H-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"
METRIC (mm) *Thread to BSP & ISO 7-1										
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 Step Diameter	B Step Length	C Drill Depth	D Body Length	E Tool Ref. Length	F Overall Length	G Shank Length	H Shank Diameter	Chamfer Insert
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
METRIC (mm)									
60132C45-40FM	40,1	48,0	62,4	90,7	94,2	160,6	70	40	TCMT-16T304

Replacement TORX Plus Screws

Series	TORX Plus Screws 10 Pieces	Nylon Locking TORX Plus Screws 10 Pieces	TORX Plus Hand Driver	Preset Torque TORX Plus Hand Driver	Replacement TORX Plus Tips	Inch		Metric	
						Drill Range Used With	TORX Plus Screw Admissible Tightening Torque	Drill Range Used With	TORX Plus Screw Admissible Tightening Torque
32	7495-IP15-10	7495N-IP15-10	8IP-15	8IP-15TL	8IP-15B	1.2598-1.3780	61.0 in.-lbs	32.00-35.00	690 N-cm

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

GEN3SYS®

Recommended Speeds and Feeds - Inch

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.

Material	Hardness (BHN)	Grade	SPEED	FEED											
				12	13	14	15	16	17	18	20	22	24	26	29
			AM200® SFM	0.4724" to 0.5117"	0.5118" to 0.5508"	0.5512" to 0.5905"	0.5906" to 0.6295"	0.6299" to 0.6689"	0.6693" to 0.7083"	0.7087" to 0.7870"	0.7874" to 0.8657"	0.8661" to 0.9375"	0.9449" to 1.0150"	1.0236" to 1.1250"	1.1417" to 1.2597"
Free Machining Steel 1118, 1215, 12L14, etc.	100-150	C1	480	0.012	0.013	0.014	0.015	0.016	0.017	0.019	0.021	0.022	0.023	0.024	0.025
	150-200	C1	415	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.019	0.020	0.021	0.022	0.023
	200-250	C1	390	0.009	0.010	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.021	0.022
Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	85-125	C1	450	0.012	0.013	0.014	0.015	0.016	0.017	0.019	0.021	0.022	0.023	0.024	0.025
	125-175	C1	390	0.011	0.012	0.013	0.014	0.015	0.016	0.018	0.019	0.020	0.021	0.022	0.023
	175-225	C1	355	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.018	0.019	0.020	0.021	0.022
	225-275	C1	310	0.008	0.009	0.010	0.011	0.012	0.013	0.015	0.016	0.017	0.018	0.019	0.020
Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	125-175	C1	390	0.011	0.012	0.013	0.014	0.015	0.016	0.018	0.020	0.021	0.022	0.023	0.024
	175-225	C1	355	0.01	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.021	0.022	0.023
	225-275	C1	310	0.009	0.010	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.021	0.022
	275-325	C1	265	0.008	0.009	0.010	0.011	0.012	0.013	0.015	0.016	0.017	0.018	0.019	0.020
Alloy Steel 4140, 5140, 8640, etc.	125-175	C1	375	0.011	0.015	0.013	0.014	0.015	0.016	0.018	0.020	0.021	0.022	0.023	0.024
	175-225	C1	345	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.021	0.022	0.023
	225-275	C1	310	0.009	0.010	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.021	0.022
	275-325	C1	285	0.007	0.008	0.009	0.010	0.011	0.012	0.014	0.015	0.016	0.017	0.018	0.019
	325-375	C1	255	0.006	0.007	0.008	0.009	0.010	0.011	0.013	0.014	0.015	0.016	0.017	0.018
High Strength Alloy 4340, 4330V, 300M, etc.	225-300	C1	230	0.009	0.010	0.011	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.019
	300-350	C1	205	0.007	0.008	0.009	0.010	0.011	0.011	0.012	0.013	0.014	0.015	0.016	0.017
	350-400	C1	185	0.006	0.007	0.008	0.009	0.010	0.010	0.011	0.012	0.013	0.014	0.015	0.016
Structural Steel A36, A285, A516, etc.	100-150	C1	355	0.011	0.012	0.013	0.013	0.015	0.015	0.017	0.019	0.021	0.022	0.023	0.024
	150-250	C1	285	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.021	0.022
	250-350	C1	265	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.021
Tool Steel H-13, H-21, A-4, 0-2, S-3, etc.	150-200	C1	255	0.007	0.007	0.008	0.008	0.009	0.009	0.010	0.011	0.012	0.013	0.014	0.015
	200-250	C1	195	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.010	0.011	0.012	0.013	0.014
High Temp. Alloy Hastelloy B, Inconel 600, etc.	140-220	C2	120	0.007	0.007	0.008	0.008	0.009	0.009	0.010	0.011	0.011	0.012	0.012	0.013
	220-310	C2	95	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.010	0.010	0.011	0.011	0.012
Titanium Alloy	140-220	C2	140	0.006	0.007	0.008	0.008	0.009	0.009	0.010	0.011	0.011	0.012	0.012	0.013
	220-310	C2	110	0.005	0.006	0.007	0.007	0.008	0.008	0.009	0.010	0.010	0.011	0.011	0.012
Aerospace Alloy S82	185-275	C2	145	0.004	0.005	0.005	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.010	0.011
	275-350	C2	120	0.003	0.004	0.005	0.005	0.006	0.006	0.006	0.007	0.008	0.008	0.009	0.010
Stainless Steel 400 Series 416, 420, 303, etc.	185-275	C2	240	0.007	0.007	0.008	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.016
	275-350	C2	185	0.006	0.006	0.007	0.007	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.015
Stainless Steel 300 Series 304, 316, 17-4PH, etc.	135-185	C1	220	0.005	0.005	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.009	0.010	0.010
	185-275	C1	160	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.009
Super Duplex Stainless Steel	135-185	C2	125	0.003	0.003	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.008	0.008	0.008
	185-275	C2	100	0.002	0.003	0.003	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.007	0.008
Wear Plate Hardox, AR400, T-1, etc.	400	C1	145	0.005	0.006	0.006	0.007	0.008	0.009	0.010	0.010	0.010	0.011	0.011	0.012
	500	C1	110	0.004	0.005	0.006	0.006	0.007	0.008	0.009	0.010	0.010	0.010	0.010	0.011
	600	C2	80	0.004	0.004	0.005	0.006	0.006	0.007	0.008	0.009	0.009	0.010	0.010	0.010
Hardened Steel	300-400	C1	155	0.005	0.006	0.006	0.007	0.008	0.008	0.009	0.010	0.010	0.010	0.010	0.011
	400-500	C1	120	0.004	0.005	0.006	0.006	0.007	0.008	0.008	0.009	0.009	0.010	0.010	0.010
SG / Nodular Cast Iron	120-150	C2	500	0.012	0.013	0.014	0.015	0.016	0.018	0.020	0.020	0.022	0.022	0.024	0.025
	150-200	C2	480	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.020	0.022	0.022	0.024
	200-220	C2	430	0.01	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.020	0.022	0.022
	220-260	C2	370	0.009	0.01	0.011	0.012	0.013	0.015	0.017	0.018	0.019	0.020	0.020	0.022
	260-320	C2	335	0.008	0.009	0.01	0.011	0.012	0.014	0.015	0.017	0.018	0.019	0.020	0.020
Grey / White Iron	120-150	C2	500	0.013	0.014	0.015	0.016	0.017	0.019	0.021	0.022	0.023	0.024	0.025	0.026
	150-200	C2	480	0.012	0.013	0.014	0.015	0.016	0.018	0.020	0.021	0.022	0.023	0.024	0.025
	200-220	C2	430	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.021	0.022	0.023	0.024
	220-260	C2	370	0.01	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.021	0.022	0.023
	260-320	C2	335	0.01	0.011	0.012	0.013	0.014	0.015	0.017	0.018	0.019	0.020	0.021	0.022
Cast Aluminum	30	C2	1000	0.013	0.014	0.015	0.016	0.017	0.018	0.019	0.020	0.021	0.022	0.023	0.024
	180	C2	75	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.019	0.020	0.021	0.022	0.023
Wrought Aluminum	30	C2	1400	0.015	0.016	0.017	0.018	0.019	0.020	0.022	0.023	0.024	0.026	0.027	0.029
	180	C2	1000	0.014	0.015	0.016	0.017	0.018	0.019	0.021	0.022	0.023	0.025	0.026	0.028
Aluminum Bronze	100-200	C2	360	0.011	0.012	0.012	0.013	0.014	0.015	0.015	0.016	0.017	0.018	0.019	0.019
	200-250	C2	295	0.009	0.010	0.011	0.012	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.018
Brass	100	C2	660	0.012	0.013	0.014	0.015	0.016	0.017	0.019	0.020	0.022	0.023	0.024	0.026
Copper	60	C2	425	0.003	0.004	0.005	0.006	0.006	0.007	0.008	0.008	0.008	0.010	0.010	0.010

.80 Adjustment for 7 x Diameter / Example: 200 SFM • 0.80 = 160 SFM 0.008 IPR • 0.80 = 0.0064 IPR

Recommended Speed and Feed Example: If recommended speed and feed is 200 SFM and 0.008 IPR 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 160 SFM and 0.0064 IPR.

GEN3SYS®

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.

Material	Hardness (BHN)	Grade	SPEED	FEED											
				12	13	14	15	16	17	18	20	22	24	26	29
			AM200® M/mm	12,00mm to 12,99mm	13,00mm to 13,99mm	14,00mm to 14,99mm	15,00mm to 15,99mm	16,00mm to 16,99mm	17,00mm to 17,99mm	18,00mm to 19,99mm	20,00mm to 21,99mm	22,00mm to 23,99mm	24,00mm to 25,99mm	26,00mm to 28,99mm	29,00mm to 31,99mm
Free Machining Steel 1118, 1215, 12L14, etc.	100-150	K35	146	0,30	0,33	0,36	0,38	0,41	0,43	0,48	0,53	0,56	0,58	0,61	0,64
	150-200	K35	127	0,28	0,30	0,33	0,36	0,38	0,41	0,43	0,48	0,51	0,53	0,56	0,58
	200-250	K35	119	0,23	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56
Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	85-125	K35	137	0,30	0,33	0,36	0,38	0,41	0,43	0,48	0,53	0,56	0,58	0,61	0,64
	125-175	K35	119	0,28	0,30	0,33	0,36	0,38	0,41	0,46	0,48	0,51	0,53	0,56	0,58
	175-225	K35	108	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,46	0,48	0,51	0,53	0,56
	225-275	K35	95	0,20	0,23	0,25	0,28	0,30	0,33	0,38	0,41	0,43	0,46	0,48	0,51
Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	125-175	K35	119	0,28	0,30	0,33	0,36	0,38	0,41	0,46	0,51	0,53	0,56	0,58	0,61
	175-225	K35	108	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56	0,58
	225-275	K35	95	0,23	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56
	275-325	K35	81	0,20	0,23	0,25	0,28	0,30	0,33	0,38	0,41	0,43	0,46	0,48	0,51
Alloy Steel 4140, 5140, 8640, etc.	125-175	K35	114	0,28	0,30	0,33	0,36	0,38	0,41	0,46	0,51	0,53	0,56	0,58	0,61
	175-225	K35	105	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56	0,58
	225-275	K35	95	0,23	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56
	275-325	K35	87	0,18	0,20	0,23	0,25	0,28	0,30	0,36	0,38	0,41	0,43	0,46	0,48
	325-375	K35	78	0,15	0,18	0,20	0,23	0,25	0,28	0,33	0,36	0,38	0,41	0,43	0,46
High Strength Alloy 4340, 4330V, 300M, etc.	225-300	K35	70	0,23	0,25	0,28	0,28	0,30	0,33	0,36	0,38	0,41	0,43	0,46	0,48
	300-350	K35	63	0,18	0,20	0,23	0,25	0,28	0,28	0,30	0,33	0,36	0,38	0,41	0,43
	350-400	K35	56	0,15	0,18	0,20	0,23	0,25	0,25	0,28	0,30	0,33	0,36	0,38	0,41
Structural Steel A36, A285, A516, etc.	100-150	K35	108	0,28	0,30	0,33	0,33	0,38	0,38	0,43	0,48	0,53	0,56	0,58	0,61
	150-250	K35	87	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56
	250-350	K35	81	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,52
Tool Steel H-13, H-21, A-4, 0-2, S-3, etc.	150-200	K35	78	0,18	0,18	0,20	0,20	0,23	0,23	0,25	0,28	0,30	0,33	0,36	0,38
	200-250	K35	59	0,15	0,15	0,18	0,18	0,20	0,20	0,23	0,25	0,28	0,30	0,33	0,36
High Temp. Alloy Hastelloy B, Inconel 600, etc.	140-220	K20	37	0,18	0,18	0,20	0,20	0,23	0,23	0,25	0,28	0,28	0,30	0,30	0,33
	220-310	K20	29	0,15	0,15	0,18	0,18	0,20	0,20	0,23	0,25	0,25	0,28	0,28	0,30
Titanium Alloy	140-220	K20	42	0,15	0,17	0,20	0,20	0,22	0,22	0,25	0,28	0,28	0,30	0,30	0,33
	220-310	K20	33	0,12	0,15	0,17	0,17	0,20	0,20	0,22	0,25	0,25	0,28	0,28	0,30
Aerospace Alloy S82	185-275	K20	45	0,10	0,12	0,14	0,15	0,16	0,18	0,18	0,20	0,22	0,24	0,26	0,28
	275-350	K20	37	0,09	0,10	0,12	0,14	0,15	0,16	0,16	0,18	0,20	0,22	0,24	0,26
Stainless Steel 400 Series 416, 420, 303, etc.	185-275	K20	73	0,18	0,18	0,20	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,41
	275-350	K20	56	0,15	0,15	0,18	0,18	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,38
Stainless Steel 300 Series 304, 316, 17-4PH, etc.	135-185	K20	64	0,13	0,13	0,15	0,15	0,18	0,18	0,20	0,20	0,23	0,23	0,25	0,25
	185-275	K20	47	0,10	0,10	0,13	0,13	0,15	0,15	0,18	0,18	0,20	0,20	0,23	0,23
Super Duplex Stainless Steel	135-185	K20	38	0,07	0,09	0,10	0,11	0,12	0,13	0,15	0,16	0,18	0,20	0,20	0,22
	185-275	K20	30	0,06	0,08	0,09	0,10	0,11	0,12	0,14	0,15	0,16	0,18	0,18	0,20
Wear Plate Hardox, AR400, T-1, etc.	400	K35	45	0,13	0,15	0,17	0,19	0,21	0,23	0,25	0,27	0,27	0,29	0,29	0,31
	500	K35	37	0,11	0,13	0,15	0,17	0,19	0,21	0,23	0,25	0,25	0,27	0,27	0,29
	600	K20	25	0,10	0,11	0,13	0,15	0,17	0,19	0,21	0,23	0,23	0,25	0,25	0,27
Hardened Steel	300-400	K35	47	0,13	0,15	0,17	0,19	0,21	0,22	0,23	0,25	0,25	0,27	0,27	0,29
	400-500	K35	37	0,11	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,23	0,25	0,25	0,27
SG / Nodular Cast Iron	120-150	K20	146	0,30	0,33	0,36	0,38	0,41	0,46	0,51	0,53	0,56	0,58	0,61	0,64
	150-200	K20	138	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56	0,58	0,61
	200-220	K20	123	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56	0,58
	220-260	K20	108	0,23	0,25	0,28	0,30	0,33	0,38	0,43	0,46	0,48	0,51	0,53	0,56
	260-320	K20	97	0,21	0,23	0,25	0,28	0,30	0,36	0,38	0,43	0,46	0,48	0,51	0,53
Grey / White Iron	120-150	K20	152	0,33	0,36	0,38	0,41	0,43	0,48	0,53	0,56	0,58	0,61	0,64	0,66
	150-200	K20	146	0,30	0,33	0,36	0,38	0,41	0,46	0,51	0,53	0,56	0,58	0,61	0,64
	200-220	K20	131	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56	0,58	0,61
	220-260	K20	113	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56	0,58
	260-320	K20	102	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,46	0,48	0,51	0,53	0,56
Cast Aluminum	30	K20	300	0,33	0,35	0,38	0,40	0,43	0,45	0,48	0,50	0,53	0,56	0,58	0,61
	180	K20	225	0,30	0,33	0,35	0,38	0,40	0,43	0,45	0,48	0,51	0,53	0,56	0,58
Wrought Aluminum	30	K20	425	0,38	0,40	0,43	0,45	0,48	0,50	0,55	0,58	0,61	0,66	0,68	0,74
	180	K20	300	0,35	0,38	0,40	0,43	0,45	0,48	0,50	0,55	0,58	0,63	0,66	0,71
Aluminum Bronze	100-200	K20	110	0,28	0,30	0,32	0,34	0,36	0,38	0,40	0,42	0,44	0,46	0,48	0,48
	200-250	K20	90	0,24	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,42	0,43	0,46	0,46
Brass	100	K20	200	0,30	0,33	0,36	0,38	0,41	0,43	0,48	0,53	0,56	0,60	0,63	0,66
Copper	60	K20	130	0,08	0,09	0,11	0,13	0,15	0,16	0,18	0,20	0,20	0,22	0,25	0,25

.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.

GEN3SYS® XT

Recommended Speeds and Feeds - Inch

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.

Material	Hardness (BHN)	Grade	SPEED	FEED													
				11	12	13	14	15	16	17	18	20	22	24	26	29	32
			AM300® SFM	0.4331" to 0.4723"	0.4724" to 0.5117"	0.5118" to 0.5508"	0.5512" to 0.5905"	0.5906" to 0.6295"	0.6299" to 0.6689"	0.6693" to 0.7083"	0.7087" to 0.7870"	0.7874" to 0.8657"	0.8661" to 0.9375"	0.9449" to 1.0150"	1.0236" to 1.1250"	1.1417" to 1.2597"	1.2598" to 1.3780"
Free Machining Steel 1118, 1215, 12L14, etc.	100-150	C1	550	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.019	0.021	0.022	0.023	0.024	0.025	0.026
	150-200	C1	475	0.010	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.019	0.020	0.021	0.022	0.023	0.024
	200-250	C1	425	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.021	0.022	0.023
Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	85-125	C1	520	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.019	0.021	0.022	0.023	0.024	0.025	0.026
	125-175	C1	450	0.010	0.011	0.012	0.013	0.014	0.015	0.016	0.018	0.019	0.020	0.021	0.022	0.023	0.024
	175-225	C1	410	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.018	0.019	0.020	0.021	0.022	0.023
	225-275	C1	350	0.007	0.008	0.009	0.010	0.011	0.012	0.013	0.015	0.016	0.017	0.018	0.019	0.020	0.021
Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	125-175	C1	450	0.010	0.011	0.012	0.013	0.014	0.015	0.016	0.018	0.020	0.021	0.022	0.023	0.024	0.025
	175-225	C1	410	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.021	0.022	0.023	0.024
	225-275	C1	350	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.021	0.022	0.023
	275-325	C1	300	0.007	0.008	0.009	0.010	0.011	0.012	0.013	0.015	0.016	0.017	0.018	0.019	0.020	0.021
Alloy Steel 4140, 5140, 8640, etc.	125-175	C1	415	0.010	0.011	0.012	0.013	0.014	0.015	0.016	0.018	0.020	0.021	0.022	0.023	0.024	0.025
	175-225	C1	380	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.021	0.022	0.023	0.024
	225-275	C1	340	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.021	0.022	0.023
	275-325	C1	310	0.006	0.007	0.008	0.009	0.010	0.011	0.012	0.014	0.015	0.016	0.017	0.018	0.019	0.020
	325-375	C1	280	0.006	0.006	0.007	0.008	0.009	0.010	0.011	0.013	0.014	0.015	0.016	0.017	0.018	0.019
High Strength Alloy 4340, 4330V, 300M, etc.	225-300	C1	250	0.008	0.009	0.010	0.011	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.019	0.020
	300-350	C1	225	0.006	0.007	0.008	0.009	0.010	0.011	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.018
	350-400	C1	200	0.005	0.006	0.007	0.008	0.009	0.010	0.010	0.011	0.012	0.013	0.014	0.015	0.016	0.017
Structural Steel A36, A285, A516, etc.	100-150	C1	410	0.010	0.011	0.012	0.013	0.013	0.015	0.015	0.017	0.019	0.021	0.022	0.023	0.024	0.025
	150-250	C1	330	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.021	0.022	0.023
	250-350	C1	305	0.007	0.008	0.009	0.01	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.021	0.022
Tool Steel H-13, H-21, A-4, 0-2, S-3, etc.	150-200	C1	265	0.006	0.007	0.007	0.008	0.008	0.009	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.016
	200-250	C1	205	0.005	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.015
High Temp. Alloy Hastelloy B, Inconel 600, etc.	140-220	C2	130	0.006	0.007	0.007	0.008	0.008	0.009	0.009	0.010	0.011	0.011	0.012	0.012	0.013	0.014
	220-310	C2	100	0.005	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.010	0.010	0.011	0.011	0.012	0.013
Titanium Alloy	140-220	C2	140	0.005	0.006	0.007	0.008	0.008	0.009	0.009	0.010	0.011	0.011	0.012	0.012	0.013	0.014
	220-310	C2	110	0.004	0.005	0.006	0.007	0.007	0.008	0.008	0.009	0.010	0.010	0.011	0.011	0.012	0.012
Aerospace Alloy S82	185-275	C2	165	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.010	0.011	0.012
	275-350	C2	135	0.003	0.003	0.004	0.005	0.005	0.006	0.006	0.006	0.007	0.008	0.008	0.009	0.010	0.011
Stainless Steel 400 Series 416, 420, 303, etc.	185-275	C2	240	0.006	0.007	0.007	0.008	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.016	0.017
	275-350	C2	182	0.005	0.006	0.006	0.007	0.007	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.016
Stainless Steel 300 Series 304, 316, 17-4PH, etc.	135-185	C2	220	0.004	0.005	0.005	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.009	0.010	0.010	0.011
	185-275	C2	160	0.003	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.009	0.010
Super Duplex Stainless Steel	135-185	C2	125	0.003	0.003	0.003	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.008	0.008	0.008	0.010
	185-275	C2	100	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.007	0.008	0.008
Wear Plate Hardox, AR400, T-1, etc.	400	C1	160	0.005	0.005	0.006	0.006	0.007	0.008	0.009	0.010	0.010	0.010	0.011	0.011	0.012	0.012
	500	C1	130	0.004	0.004	0.005	0.006	0.006	0.007	0.008	0.009	0.010	0.010	0.010	0.010	0.011	0.011
	600	C2	90	0.004	0.004	0.004	0.005	0.006	0.006	0.007	0.008	0.009	0.009	0.010	0.010	0.010	0.010
Hardened Steel	300-400	C1	170	0.005	0.005	0.006	0.006	0.007	0.008	0.008	0.009	0.010	0.010	0.010	0.010	0.011	0.011
	400-500	C1	130	0.004	0.004	0.005	0.006	0.006	0.007	0.008	0.008	0.009	0.009	0.010	0.010	0.010	0.010
SG / Nodular Cast Iron	120-150	C2	550	0.010	0.012	0.013	0.014	0.015	0.016	0.018	0.020	0.020	0.022	0.022	0.024	0.025	0.026
	150-200	C2	520	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.019	0.020	0.020	0.022	0.022	0.024	0.024
	200-220	C2	465	0.008	0.010	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.020	0.022	0.022	0.023
	220-260	C2	405	0.008	0.009	0.010	0.011	0.012	0.013	0.015	0.017	0.018	0.019	0.020	0.020	0.022	0.022
	260-320	C2	365	0.008	0.008	0.009	0.010	0.011	0.012	0.014	0.015	0.017	0.018	0.019	0.020	0.020	0.021
Grey / White Iron	120-150	C2	575	0.012	0.013	0.014	0.015	0.016	0.017	0.019	0.021	0.022	0.023	0.024	0.025	0.026	0.027
	150-200	C2	550	0.011	0.012	0.013	0.014	0.015	0.016	0.018	0.020	0.021	0.022	0.023	0.024	0.025	0.026
	200-220	C2	495	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.020	0.020	0.021	0.022	0.023	0.024	0.025
	220-260	C2	425	0.009	0.010	0.011	0.012	0.013	0.014	0.016	0.018	0.019	0.020	0.021	0.022	0.023	0.024
	260-320	C2	380	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.018	0.019	0.020	0.021	0.022	0.023
Cast Aluminum	30	C2	1150	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.019	0.020	0.021	0.022	0.023	0.024	0.025
	180	C2	860	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.019	0.020	0.021	0.022	0.023	0.023
Wrought Aluminum	30	C2	1600	0.013	0.015	0.016	0.017	0.018	0.019	0.020	0.022	0.023	0.024	0.026	0.027	0.029	0.030
	180	C2	1150	0.012	0.014	0.015	0.016	0.017	0.018	0.019	0.021	0.022	0.023	0.025	0.026	0.028	0.029
Aluminum Bronze	100-200	C2	415	0.010	0.011	0.012	0.012	0.013	0.014	0.015	0.015	0.016	0.017	0.018	0.019	0.019	0.019
	200-250	C2	335	0.008	0.009	0.010	0.011	0.012	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.018	0.019
Brass	100	C2	755	0.010	0.012	0.013	0.014	0.015	0.016	0.017	0.019	0.020	0.022	0.023	0.024	0.026	0.026
Copper	60	C2	490	0.003	0.003	0.003	0.004	0.005	0.006	0.006	0.007	0.008	0.008	0.008	0.010	0.010	0.011

.80 Adjustment for 7 x Diameter / Example: 200 SFM • 0.80 = 160 SFM 0.008 IPR • 0.80 = 0.0064 IPR

Recommended Speed and Feed Example: If recommended speed and feed is 200 SFM and 0.008 IPR 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 160 SFM and 0.0064 IPR.

GEN3SYS® XT

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.

Material	Hardness (BHN)	Grade	SPEED	FEED													
				11	12	13	14	15	16	17	18	20	22	24	26	29	32
			AM300® M/min	11,00mm to 11,99mm	12,00mm to 12,99mm	13,00mm to 13,99mm	14,00mm to 14,99mm	15,00mm to 15,99mm	16,00mm to 16,99mm	17,00mm to 17,99mm	18,00mm to 18,99mm	20,00mm to 21,99mm	22,00mm to 23,99mm	24,00mm to 25,99mm	26,00mm to 28,99mm	29,00mm to 31,99mm	32,00mm to 35,00mm
Free Machining Steel 1118, 1215, 12L14, etc.	100-150	K35	168	0,28	0,30	0,33	0,36	0,38	0,41	0,43	0,48	0,53	0,56	0,58	0,61	0,64	0,66
	150-200	K35	145	0,25	0,28	0,30	0,33	0,36	0,38	0,41	0,43	0,48	0,51	0,53	0,56	0,58	0,61
	200-250	K35	130	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56	0,58
Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	85-125	K35	158	0,28	0,30	0,33	0,36	0,38	0,41	0,43	0,48	0,53	0,56	0,58	0,61	0,64	0,66
	125-175	K35	137	0,25	0,28	0,30	0,33	0,36	0,38	0,41	0,46	0,48	0,51	0,53	0,56	0,58	0,61
	175-225	K35	125	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,42	0,46	0,48	0,51	0,53	0,56	0,58
	225-275	K35	107	0,18	0,20	0,23	0,25	0,28	0,30	0,33	0,38	0,41	0,42	0,46	0,48	0,51	0,53
Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	125-175	K35	137	0,25	0,28	0,30	0,33	0,36	0,38	0,41	0,46	0,51	0,53	0,56	0,58	0,61	0,64
	175-225	K35	125	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56	0,58	0,61
	225-275	K35	107	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56	0,58
	275-325	K35	91	0,18	0,20	0,23	0,25	0,28	0,30	0,33	0,38	0,41	0,43	0,46	0,48	0,51	0,53
Alloy Steel 4140, 5140, 8640, etc.	125-175	K35	126	0,25	0,28	0,30	0,33	0,36	0,38	0,41	0,46	0,51	0,53	0,56	0,58	0,61	0,64
	175-225	K35	116	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56	0,58	0,61
	225-275	K35	104	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56	0,58
	275-325	K35	94	0,15	0,18	0,20	0,23	0,25	0,28	0,30	0,36	0,38	0,41	0,43	0,46	0,48	0,51
	325-375	K35	85	0,15	0,15	0,18	0,20	0,23	0,25	0,28	0,33	0,36	0,38	0,41	0,43	0,46	0,48
High Strength Alloy 4340, 4330V, 300M, etc.	225-300	K35	76	0,20	0,23	0,25	0,28	0,28	0,30	0,33	0,36	0,38	0,41	0,43	0,46	0,48	0,51
	300-350	K35	69	0,15	0,18	0,20	0,23	0,25	0,28	0,28	0,30	0,33	0,36	0,38	0,41	0,43	0,46
	350-400	K35	61	0,13	0,18	0,18	0,20	0,23	0,25	0,25	0,28	0,30	0,33	0,36	0,38	0,41	0,43
Structural Steel A36, A285, A516, etc.	100-150	K35	125	0,25	0,28	0,30	0,33	0,33	0,38	0,38	0,43	0,48	0,53	0,56	0,58	0,61	0,64
	150-250	K35	101	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56	0,58
	250-350	K35	93	0,18	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56
Tool Steel H-13, H-21, A-4, 0-2, S-3, etc.	150-200	K35	81	0,15	0,18	0,18	0,20	0,20	0,23	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,41
	200-250	K35	62	0,13	0,15	0,15	0,18	0,18	0,20	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,38
High Temp. Alloy Hastelloy B, Inconel 600, etc.	140-220	K20	40	0,15	0,18	0,18	0,20	0,20	0,23	0,23	0,25	0,28	0,28	0,30	0,30	0,33	0,36
	220-310	K20	30	0,13	0,15	0,15	0,18	0,18	0,2	0,2	0,23	0,25	0,25	0,28	0,28	0,3	0,33
Titanium Alloy	140-220	K20	43	0,13	0,15	0,18	0,20	0,20	0,23	0,23	0,25	0,28	0,28	0,30	0,30	0,33	0,33
	220-310	K20	34	0,10	0,13	0,15	0,18	0,18	0,20	0,20	0,23	0,25	0,25	0,28	0,28	0,30	0,30
Aerospace Alloy S82	185-275	K20	50	0,10	0,10	0,12	0,14	0,15	0,16	0,18	0,18	0,20	0,22	0,24	0,26	0,28	0,31
	275-350	K20	41	0,09	0,09	0,10	0,12	0,14	0,15	0,16	0,16	0,18	0,2	0,22	0,24	0,26	0,29
Stainless Steel 400 Series 416, 420, 303, etc.	185-275	K20	73	0,15	0,18	0,18	0,20	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,41	0,43
	275-350	K20	56	0,13	0,15	0,15	0,18	0,18	0,20	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,41
Stainless Steel 300 Series 304, 316, 17-4PH, etc.	135-185	K20	67	0,10	0,13	0,13	0,15	0,15	0,18	0,18	0,20	0,20	0,23	0,23	0,25	0,25	0,28
	185-275	K20	49	0,08	0,10	0,10	0,13	0,13	0,15	0,15	0,18	0,18	0,20	0,20	0,23	0,23	0,25
Super Duplex Stainless Steel	135-185	K20	38	0,07	0,07	0,09	0,10	0,11	0,12	0,13	0,15	0,16	0,18	0,20	0,20	0,22	0,25
	185-275	K20	30	0,06	0,06	0,08	0,09	0,10	0,11	0,12	0,14	0,15	0,16	0,18	0,18	0,20	0,22
Wear Plate Hardox, AR400, T-1, etc.	400	K35	50	0,13	0,13	0,15	0,17	0,19	0,21	0,23	0,25	0,27	0,27	0,29	0,29	0,31	0,31
	500	K35	40	0,11	0,11	0,13	0,15	0,17	0,19	0,21	0,23	0,25	0,25	0,27	0,27	0,29	0,29
	600	K20	27	0,10	0,10	0,11	0,13	0,15	0,17	0,19	0,21	0,23	0,23	0,25	0,25	0,25	0,27
Hardened Steel	300-400	K35	51	0,13	0,13	0,15	0,17	0,19	0,21	0,22	0,23	0,25	0,25	0,27	0,27	0,29	0,29
	400-500	K35	40	0,11	0,11	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,23	0,25	0,25	0,27	0,27
SG / Nodular Cast Iron	120-150	K20	168	0,27	0,30	0,33	0,36	0,38	0,41	0,46	0,51	0,53	0,56	0,58	0,61	0,64	0,66
	150-200	K20	159	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,48	0,51	0,53	0,56	0,58	0,61	0,63
	200-220	K20	141	0,22	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56	0,58	0,60
	220-260	K20	124	0,20	0,23	0,25	0,28	0,30	0,33	0,38	0,43	0,46	0,48	0,51	0,53	0,56	0,58
	260-320	K20	112	0,20	0,21	0,23	0,25	0,28	0,30	0,36	0,38	0,43	0,46	0,48	0,51	0,53	0,55
Grey / White Iron	120-150	K20	175	0,30	0,33	0,36	0,38	0,41	0,43	0,48	0,53	0,56	0,58	0,61	0,64	0,66	0,69
	150-200	K20	168	0,28	0,30	0,33	0,36	0,38	0,41	0,46	0,51	0,53	0,56	0,58	0,61	0,64	0,66
	200-220	K20	151	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,51	0,51	0,53	0,56	0,58	0,61	0,64
	220-260	K20	130	0,23	0,25	0,28	0,30	0,33	0,36	0,41	0,46	0,48	0,51	0,53	0,56	0,58	0,61
	260-320	K20	116	0,23	0,25	0,28	0,30	0,33	0,36	0,38	0,43	0,46	0,48	0,51	0,53	0,56	0,58
Cast Aluminum	30	K20	351	0,30	0,33	0,36	0,38	0,41	0,43	0,46	0,48	0,51	0,53	0,56	0,58	0,61	0,64
	180	K20	262	0,28	0,30	0,33	0,36	0,38	0,41	0,43	0,46	0,48	0,51	0,53	0,56	0,58	0,58
Wrought Aluminum	30	K20	488	0,33	0,38	0,41	0,43	0,46	0,48	0,51	0,53	0,56	0,61	0,66	0,69	0,74	0,76
	180	K20	351	0,30	0,36	0,38	0,41	0,43	0,46	0,48	0,53	0,56	0,58	0,64	0,66	0,71	0,74
Aluminum Bronze	100-200	K20	126	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,40	0,42	0,44	0,46	0,48	0,48	0,50
	200-250	K20	103	0,22	0,24	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,42	0,46	0,46	0,46	0,48
Brass	100	K20	230	0,29	0,30	0,33	0,36	0,38	0,41	0,43	0,48	0,53	0,56	0,60	0,63	0,66	0,66
Copper	60	K20	149	0,07	0,08	0,09	0,11	0,13	0,15	0,16	0,18	0,20	0,20	0,22	0,25	0,25	0,28

.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.

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"	.4874"	69%
	31/64"	.4844"	83%	.003"	.4754"	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:

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

The above tap drill information represents probable thread percentages for the standard tap drills stocked at Allied. 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. $RPM = \frac{3.82 \cdot SFM}{DIA}$

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

2. $IPM = RPM \cdot IPR$

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

3. $SFM = RPM \cdot 0.262 \cdot DIA$

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

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

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

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

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

MATERIAL CONSTANTS

Type of Material	Km (lbs/in^2)
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%

Taper Pipe Thread (BSP & ISO 7-1)						
Tap Size	Tap Drill Size	Decimal Equivalent	* Theo % Thread	Prob Mean Oversize	Prob Hole Size	** Prob % Thread
1/4/19	7/16"	.4325"	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. $\text{RPM} = \dfrac{318{,}47 \cdot \text{M/min}}{\text{DIA}}$

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

2. mm/min = RPM • mm/rev
where:
mm/min = mm per minute (mm/min)
RPM = revolutions per minute (rev/min)
mm/rev = feed rate (mm/rev)

3. M/min = = RPM • 0,003 • DIA
where:
M/min = speed (M/min)
RPM = revolutions per minute (rev/min)
DIA = diameter of drill (mm)

4. Thrust = 154 • (mm/rev) • DIA • 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. $\text{Tool Power} = \dfrac{(\text{mm/rev}) \cdot \text{RPM} \cdot \text{Km} \cdot \text{DIA}^2}{218604{,}8}$

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.

Coolant Recommendations

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

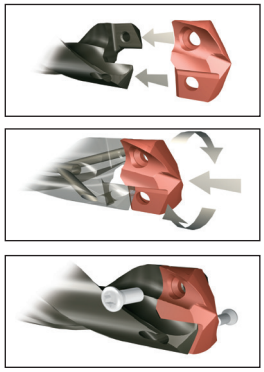
Series	Pressure		Flow Rate	
	PSI	BAR	GPM	LPM
11 mm	500	35	5	19
12 mm	500	35	5	19
13 mm	475	33	5.5	21
14 mm	450	32	6	23
15 mm	430	30	7	27
16 mm	410	29	8	31
17 mm	385	27	8.5	33
18 mm	360	25	9	35
20 mm	300	21	10	38
22 mm	300	21	11	42
24 mm	300	21	11	42
26 mm	300	21	12	46
29 mm	300	21	12	46
32 mm	300	21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



Troubleshooting Guide

	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	Oversize 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 mis-aligned spindle (lathe, screw machine, chucker)	1		3				7		9	10	11		13			16	17			20	• Align spindle and turret or tailstock. • Repair spindle.
Use of low rigidity machine tools.		2	3	4			7		9	10			13	14						20	• Reduce penetration rate to fall within the physical limits of the machine or setup (**NOTICE:** Do not reduce feed below threshold of good chip formation.)
Poor work piece support		2		4			7			10	11				15		17			20	• Provide additional support for the work piece. Reduce penetration rate to fall within the physical limits of the machine or setup (**NOTICE:** Do not reduce feed below threshold of good chip formation.)
Flood coolant, low coolant pressure or low coolant volume	1				5	6		8		10		12				16	17	18	19		• Run coolant through tool holder when drilling greater than one times diameter. • Increase coolant pressure and volume through the tool holder. • Reduce penetration rate to fall within the coolant limitations (**NOTICE:** Do not reduce feed below threshold of good chip formation.) • Add a peck cycle to help clear chips.
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			• Pre-mill (spot face) entry or exit surface to remove interruption. • Decrease feed as much as 50% through entry or exit interruption. • Use short holders in low impact entry cuts.
Material harder than expected or running tools beyond recommended speed.	1				5	6				10		12						18			• Reduce speed. • Increase coolant pressure and volume. • Improve coolant condition by use of quality products and regular maintenance.
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			• 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. • Reduce feeds. (**NOTICE:** Do not reduce feed below threshold of good chip formation.)
Poor chip control.								8		10	11		13			16	17	18	19		• Increase feed to recommended levels. Contact Allied Application Engineering Group for technical recommendations. • Increase coolant pressure and volume. • Improve coolant condition by use of quality products and regular maintenance.
Spot drilled holes with included angle less than that matching GEN3SYS® or cored holes.	1			4			7						13					18			• Spot hole with short tool of same or greater included angle as GEN3SYS® Drill Insert. • Reduce feed. (**NOTICE:** Do not reduce feed below threshold of good chip formation.) If possible, drill from solid.

Guaranteed Test/Demo Application Form

Distributor PO# _____

The Following must be filled out completely before test will be considered

Distributor:		End User:	
Contact:		Contact:	
Account Number:		Industry:	
Phone:		Phone:	
Email:		Email:	

Test Objective List what would make this a successful test. (i.e. Performance, Chip Control, etc.)

_____

_____

Application Information

Hole Diameter: _____ in/mm Depth of Cut: _____ in/mm Tolerance: _____

Material: _____ (4150/A36/Cast Iron, etc.) Hardness: _____ BHN/Rc Required Finish: _____ RMS

Material State: _____ (Flat Stock/Casting/Tube Stock/Hot Rolled/Forging)

Machine Information

Machine Type: _____ (Lathe/Screw Machine/Machine Center, etc.) Builder: _____ (Haas/Mori Seiki, etc.) Model#: _____

Power: _____ HP/KW Thrust: _____ Lbs./N Orientation: ☐ Vertical ☐ Horizontal

Shank Required: _____ (3/4" Straight/#4 Morse Taper, etc.) Rigidity: ☐ Excellent ☐ Good ☐ Poor Tool Rotating: ☐ Yes ☐ No

Coolant Information

Coolant Delivery: _____ (Through Tool/Flood) Coolant Pressure: _____ PSI/bar

Coolant Type: _____ (Air Mist/Oil/Synthetic/Water Soluble, etc.) Coolant Volume: _____ GPM/LPM

Current Process List all tooling, coatings, substrates, speeds and feeds, tool life and any problems.

_____

_____

Requested Tooling

QTY	Item Number	QTY	Item Number

Allied Machine & Engineering Corp.
120 Deeds Drive
Dover, OH 44622
Ph. (330) 343-4283
Toll Free USA & Canada (800) 321-5537
Fax. (330) 602-3400
Toll Free USA & Canada (800) 223-5140
International Country Code: 01
Website: www.alliedmachine.com
Email: aesupport@alliedmachine.com

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.

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'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.

GEN3SYS® XT Standard Geometry
Allied's next generation of high penetration drilling utilizes corner and cutting edge enhancements combined with our new 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's new 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's new 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'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.

Warranty

Allied Machine & Engineering Corp. warrants to original equipment manufacturers, distributors, industrial and commercial users of its products that each new product manufactured or supplied by Allied Machine shall be free from defects in material and workmanship.

Allied's obligation under this warranty is limited to furnishing without additional charge a replacement or, at its option repairing or issuing credit for any product which shall within one year from the date of sale be returned freight prepaid to the plant designated by an Allied representative and which upon inspection is determined by Allied to be defective in materials or workmanship.

Complete information as to operating conditions, machine, set-up, and application of cutting fluid should accompany any product returned for inspection. The provisions of this warranty shall not apply to any Allied products which have been subjected to misuse, improper operating conditions, machine set-up or application of cutting fluid or which have been repaired or altered if such repair or alteration in the judgment of Allied would adversely affect performance of the product.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Allied shall have no liability or responsibility on any claim of any kind, whether in contract, tort or otherwise, for any loss or damage arising out of, connected with, or resulting from the manufacture, sale, delivery or use of any product sold hereunder, in excess of the cost of replacement or repair as provided herein.

ALL PRICES, DELIVERIES, DESIGNS, AND MATERIALS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Regional Distribution Warehouse Locations

USA

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(800) 223-5140 (*Toll Free USA & Canada*)
(330) 364-7666 (*Engineering*)

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Kingswinford, West Midlands
DY6 7FR ENGLAND

Ph: 011 -44-1384-400900
Fax: 011 -44-1384-400105

Member USCTI
United States Cutting Tool Institute

ISA INDUSTRIAL SUPPLY ASSOCIATION

UL REGISTERED FIRM

Allied Machine & Engineering *Corp.*
Registered to ISO 9001:2008
10001329

Also available

Allied Drilling Products

Allied Drilling Products are designed and manufactured by Allied Machine & Engineering Corp. The combination of premium materials, along with unique geometry and coatings allows for the finest drilling systems in the metal cutting industry, resulting in the lowest cost per hole.

Literature Order Number: ADP-13

AccuThread 856®

AccuThread 856® specific Thread Mills conform with J1926 and SAE AS5202 and have a thicker core and a helical flute which offers increased strength and rigidity when cutting forces are applied. AccuThread 856® provides superior thread forms compared to other competitive thread mills and taps.

Literature Order Number: TMC-13

High Performance & Universal

This catalog lists the widest variety of spade drills and holders in our industry. Our TiN, TiAlN, and TiCN coated high performance spade drills (31/32" to 5") offer a 100% to 500% increase in productivity and an extended tool life of 3 to 20 times over uncoated tools.

Literature Order Number: HPU-13

ALVAN® Reamers

The ALVAN® product line includes monobloc, ring style, and replaceable head reamers, offered with carbide, cermet, PCD, and CBN cutting edges.

Literature Order Number: ALV-13

APX™ Drill

The APX™ Drill is capable of drilling to depths up to 10xD. The head diameter ranges from 1.50" – 4.00" using only 10 holder series. APX™ offers multiple pilot inserts and geometries, T-A, GEN2 T-A, GEN3SYS, and GEN3SYS XT. All outboard inserts use AM300 coating for maximum performance.

Literature Order Number: APX-13

i-Form

Custom indexable drill/form tool system that allows you to design forms for any style hole with increased productivity in mind.

Literature Order Number: IFFL

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Literature Order Number: GEN3-13