

Holemaking Solutions for Today's Manufacturing



North America

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ThreadMills USA™

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Allied Machine

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Wohlhaupter® India

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Allied Machine & Engineering is a worldwide leader in holemaking and finishing solutions. We are committed to providing practical and dependable solutions to our customers through innovative designs and superior customer and technical support.

We continue to expand our product offering in order to provide new and different solutions. With Field Sales Engineers located around the world, we position ourselves to provide technical support on site, right at your spindle.



Holemaking Solutions for Today's Manufacturing

www.alliedmachine.com

The Foundation

Since 1941, Allied Machine & Engineering has provided dependable and practical holemaking solutions to the world. What was once a small job shop in Ohio is now a worldwide leader in cutting tool technology. With three manufacturing facilities in Ohio, one in Georgia, another in Germany and headquarters in both the United States and Europe, Allied Machine is positioned to bring innovative solutions and technical expertise directly to the customers' hands.



The Beginning

Harold E. Stokey founded Allied Machine & Engineering to aid the war effort, manufacturing taper bearing lock nuts for the production of M1 tanks. Years later, after a sales meeting gone wrong, Stokey possessed a warehouse stocked with spade drill inserts. He set forth into the industry that would become Allied Machine's thriving identity: holemaking.



The T-A®

When Harold's son, William H. Stokey, became the president and CEO, he developed the Throw Away, or T-A®, spade drill insert system. The T-A® revolutionised the holemaking industry, launching Allied Machine ahead of the competition. Since then, numerous innovations and advancements have been created from the T-A®'s inspiration.



The Innovation

Since the development of the T-A®, Allied Machine has expanded its product offering to support a vast range of customer applications, including large diameter and deep hole drilling, boring, reaming, burnishing, porting and threading.

The People

Allied Machine understands that high quality products are only one facet of success. Our customer support is crucial to what we do and that's why we make sure the best engineers and customer service associates are in place to assist our customers around the world.

The Future

With over 75 years of experience, Allied Machine has encountered the challenges of growth and success. By investing in cutting edge technology and the brightest and sharpest minds, our knowledge and capabilities continue to expand and grow every day.



Steve Stokey
Executive Vice President
Allied Machine & Engineering Corp.

Frank-M. Wohlhaupter

Managing Director

Wohlhaupter GmbH

Paul Crawford Managing Director AMEC Europe **Mike Stokey** Executive Vice President Allied Machine & Engineering Corp.







Holemaking Solutions for Today's Manufacturing









Structural Steel Drilling Solutions

Replaceable Insert Drilling System | GEN3SYS® XT Pro ST | T-A® Original and GEN2 T-A® Structural Steel

- ► GEN3SYS®XT Pro ST and XT ST Diameter Range: 12.00mm 35.00mm (0.4331" 1.3780")
- ► T-A® Structural Steel Diameter Range: 12.98mm 47.80mm (0.511" 1.882")



Take on Tough Drilling

Allied Machine's Structural Steel Drilling System is designed for maximum performance in structural steel materials and applications. These solutions utilise the GEN3SYS XT Pro, XT ST, T-A Original, and GEN2 T-A Structural Steel designs and capabilities.

With multiple geometries and coatings, you're sure to find the solution that is right for you. Tough drilling is tough no more.

Excellent chip control	Improves hole quality and	Provides maximum durability
	surface finish	and stability

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



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

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

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

⚠ WARNING

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

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

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

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

Applicable Industries



Reference Icons

The following icons will appear throughout the catalog to help you navigate between products.





Corresponding T-A Inserts

Refers to the corresponding T-A insert items that connect with each specific holder series



Corresponding T-A Holders

Refers to the corresponding T-A holder items that connect with each specific insert series



Setup / Assembly Information

Detailed instructions and information regarding the corresponding part(s)



Recommended Cutting Data

Speed and feed recommendations for optimum and safe drilling

	GEN3SYS XT Pro ST Diameter Range					
Series	Metric (mm)	Imperial (inch)				
12	12.00 - 12.99	0.4724 - 0.5117				
13	13.00 - 13.99	0.5118 - 0.5511				
14	14.00 - 14.99	0.5512 - 0.5905				
15	15.00 - 15.99	0.5906 - 0.6298				
16	16.00 - 16.99	0.6299 - 0.6692				
17	17.00 - 17.99	0.6693 - 0.7086				
18	18.00 - 19.99	0.7087 - 0.7873				
20	20.00 - 21.99	0.7874 - 0.8660				
22	22.00 - 23.99	0.8661 - 0.9448				
24	24.00 - 25.99	0.9449 - 1.0235				
26	26.00 - 28.99	1.0236 - 1.1416				
29	29.00 - 31.99	1.1417 - 1.2597				
32	32.00 - 35.00					

	T-A Structural Steel Diameter Range					
Series	Metric (mm)	Imperial (inch)				
0	12.98 - 17.65	0.511 - 0.695				
1	17.53 - 24.38	0.690 - 0.960				
2	24.41 - 35.05	0.961 - 1.380				
3	34.36 - 47.80	1.353 - 1.882				

Structural Steel Drilling Solutions Contents

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GEN3SYS® XT PRO ST

GEN3SYS® XT Pro ST Structural Steel Drilling System

REPLACEABLE TIP **HIGH PENETRATION** STRUCTURAL STEEL **SOLUTION**

The challenge of drilling structural steel materials is about to get a whole lot easier. Developed through a rigorous and thorough testing process, the modified and improved XT Pro ST is a product of innovation.

Achieve the **consistent performance** you need and exceed your current parameters.





GEN3SYS® XT Pro ST Structural Steel Drilling System

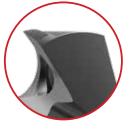




New Point Design Increases stability without hindering penetration



Redesigned Insert
Provides consistent
performance and adds
durability



Improved Geometry
Extends tool life and increases
insert strength without increasing
horsepower consumption



AM420 Coating
Increases heat threshold and
extends tool life



Get the Consistency You Need

The challenge of drilling structural steel materials is about to get a whole lot easier. Developed through a rigorous and thorough testing process, the modified and improved XT ST insert is a product of innovation.

Achieve the *consistent performance* you need while matching or even exceeding your current parameters.

Tough Drilling is Tough No More

Structural steel applications can prove to be difficult to machine, so you need a drill that's been put through the fire to ensure it can conquer those challenging applications.

Rigorous testing and countless hours of design and programming make the XT Pro ST the optimal drill for structural steel applications.

- Diameter range: 12mm 35mm
- Holders available in 3xD, 5xD, and 7xD lengths
- Flanged shank with flat
- Through Tool Coolant
- Fits on to existing GEN3SYS®XT ST holders

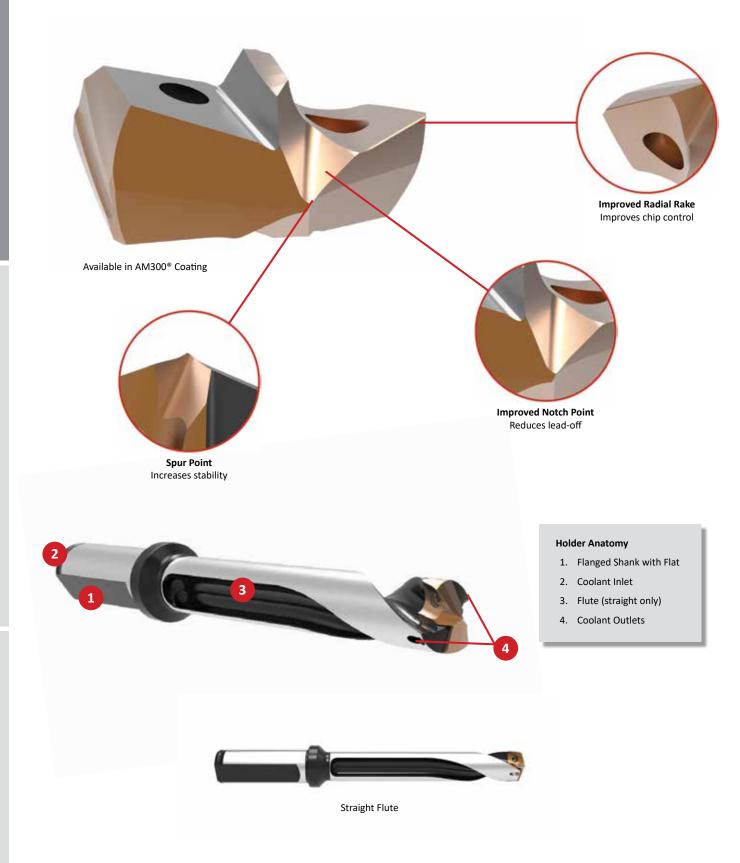




GEN3SYS® XT Structural Steel Drilling System

STRUCTURAL STEEL

GEN3SYS®XT ST



Structural Steel Drilling

Achieving Optimal Results in Structural Steel

Drilling in structural steel materials can be a difficult process, and achieving optimal results becomes a major issue. Allied Machine's structural steel drilling solutions have been specifically designed to produce the best results in the toughest materials. With solutions in both the T-A® and GEN3SYS® XT Pro product lines, you have multiple options to solve your application problems.



Insert Style Comparison

insert Style Comparison					
	GEN3SYS® XT Pro ST GEN3SYS®XT ST	Original T-A® Thin Wall	Original T-A® Notch Point®	Original T-A® 150° Structural Steel	GEN2 T-A® High Efficiency
High penetration					
Material less than 6mm thick					
Material over 6mm thick					
Reduced exit burr					
Includes Notch Point® geometry					
Available from carbide					
Stocked in common sizes for the Structural Steel industry					





GEN3SYS® XT Pro ST / GEN3SYS® XT ST Drill Insert Nomenclature

GEN3SYS®XT Pro Drill Inserts

XT	ST	
1	2	

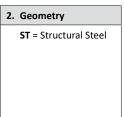
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20.00



1. XT Pro ST Drill Insert

XT = XT Pro insert

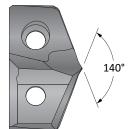


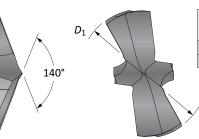
3. Series		
12 = 12 series	17 = 17 series	26 = 26 series
13 = 13 series	18 = 18 series	29 = 29 series
14 = 14 series	20 = 20 series	32 = 32 series
15 = 15 series	22 = 22 series	
16 = 16 series	24 = 24 series	

4. Diameter (mm) For complete list of diameter ranges by series, see contents page.

Reference Key

Symbol Attribute Insert diameter D_1





Sizes not shown are available upon request. When ordering, please follow the example below:

Metric: 20.10mm, 20 series = use Part No. **XTST20-20.10** Imperial: 0.7913", 20 series = use Part No. **XTST20-20.10**

GEN3SYS®XT ST Drill Inserts



C2

14

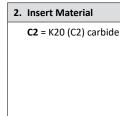
0018

ST



1. XT Drill Insert

7 = XT insert



3. Series = 12 series = 14 series = 15 series

16 = 16 series

 = 17 series = 24 series 18 = 18 series = 26 series = 20 series 29 = 29 series = 22 series = 32 series 4. Coating **P** = AM300®

5. Diameter

18 = Metric

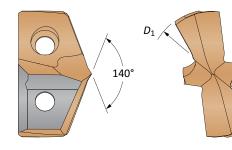
0102 = Inch

6. Geometry

ST = Structural steel

Reference Key

Attribute Symbol D_1 Insert diameter



GEN3SYS® XT Structural Steel Drill Holder Nomenclature

GEN3SYS®XT Structural Steel Drill Holders



03	
2	

12

FM



1. Holder

ST = Structural steel holder

2. Length

03 = 3x Diameter

05 = 5x Diameter

07 = 7x Diameter

3. Series

12 = 12 series **13** = 13 series

17 = 17 series

26 = 26 series

29 = 29 series 18 = 18 series

14 = 14 series **20** = 20 series **32** = 32 series

15 = 15 series 22 = 22 series

16 = 16 series

24 = 24 series

4. Body Diameter

0 = Standard

5 = Oversized

5. Shank Diameter

20 = 20mm

25 = 25mm

Metric (mm)

16 = 16mm **32** = 32mm

40 = 40mm

063 = 5/8" **125** = 1-1/4"

Imperial (in)

150 = 1-1/2"

075 = 3/4"

100 = 1"

6. Shank Style

F = Flanged with flat

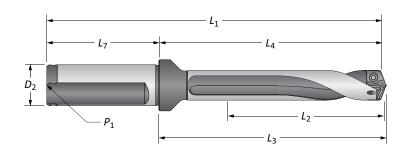
FM = Flanged metric with flat

C = Cylindrical (no flat)

CM = Cylindrical metric (no flat)

Reference Key

Symbol	Attribute
D ₂	Shank diameter
<i>L</i> ₁	Overall length
L ₂	Drill depth
L ₃	Holder reference length
L ₄	Holder body length
L ₇	Shank length
P_1	Rear pipe tap

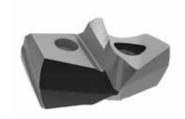


NOTICE: GEN3SYS®XT Structural Steel Holders are suitable for both GEN3SYS®XT Pro ST and GEN3SYS®XT ST Inserts ONLY.

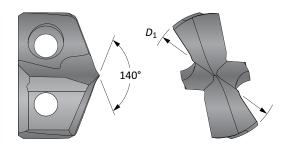


GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

12 Series | Diameter Range: 12.00mm - 12.99mm (0.4724" - 0.5117")

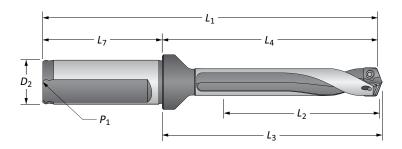






Insert		66		
D_1 mm	D ₁ inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
12.00	0.4724	_	XTST12-12.00	7C212P-12ST





Holders

T-A® Structural Steel

		Body				Shank				
	Length	L ₂	L ₄	L ₃	L ₁	L ₇	D ₂	P ₁	Flat	Part No.
	3xD	39.0	66.6	68.6	116.6	50	20	3.18*	YES	ST03120-20FM
@	5xD	65.0	92.6	94.8	142.6	50	20	3.18*	YES	ST05120-20FM
	7xD	91.0	118.5	120.8	168.5	50	20	3.18*	YES	ST07120-20FM
	3xD	1-17/32	2-5/8	2-45/64	4-21/32	2-1/32	3/4	1/8	YES	ST03120-075F
0	5xD	2-9/16	3-41/64	3-47/64	5-43/64	2-1/32	3/4	1/8	YES	ST05120-075F
	7xD	3-37/64	4-43/64	4-3/4	6-45/64	2-1/32	3/4	1/8	YES	ST07120-075F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	84 N-cm (7.4 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



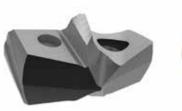
1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

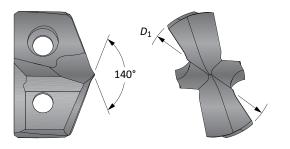
T-A[®] Structural Stee

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

13 Series | Diameter Range: 13.00mm - 13.99mm (0.5118" - 0.5511")



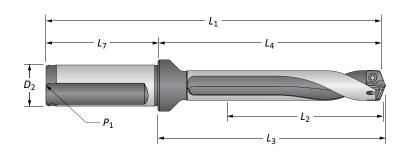




Inserts

	Insert		66	10 D
D ₁ mm	D ₁ inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
13.00	0.5118	-	XTST13-13.00	7C212P-13ST





Holders

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	L ₁	L ₇	D ₂	P ₁	Flat	Part No.
	3xD	39.0	66.6	68.6	116.6	50	20	3.18*	YES	ST03120-20FM
(1)	5xD	65.0	92.6	94.8	142.6	50	20	3.18*	YES	ST05120-20FM
	7xD	91.0	118.5	120.8	168.5	50	20	3.18*	YES	ST07120-20FM
								,		
	3xD	1-17/32	2-5/8	2-45/64	4-21/32	2-1/32	3/4	1/8	YES	ST03120-075F
0	5xD	2-9/16	3-41/64	3-47/64	5-43/64	2-1/32	3/4	1/8	YES	ST05120-075F
	7xD	3-37/64	4-43/64	4-3/4	6-45/64	2-1/32	3/4	1/8	YES	ST07120-075F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	84 N-cm (7.4 in-lbs)

NOTICE: GEN3SYS XT Structural Steel holders are specifically designed to be used only with XT Pro ST or XT ST geometry inserts. Using other GEN3SYS XT Pro or XT insert geometries



m = Metric (mm) 1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

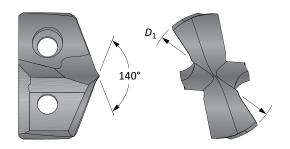
^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

14 Series | Diameter Range: 14.00mm - 14.99mm (0.5512" - 0.5905")



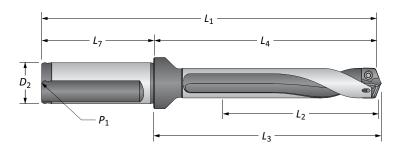




Inserts

	Insert		бЬ	<u>ob</u>
D ₁ mm	D_1 inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
14.00	0.5512	-	XTST14-14.00	7C214P-14ST
14.29	0.5625	9/16	XTST14-14.29	7C214P-0018ST





Holders

T-A® Structural Steel

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	L ₁	L ₇	D ₂	P ₁	Flat	Part No.
	3xD	45.0	72.4	75.0	122.4	50	20	3.18*	YES	ST03140-20FM
(ii)	5xD	75.0	102.4	104.9	152.4	50	20	3.18*	YES	ST05140-20FM
	7xD	104.9	132.3	134.9	182.3	50	20	3.18*	YES	ST07140-20FM
	3xD	1-25/32	2-27/32	2-61/64	4-7/8	2-1/32	3/4	1/8	YES	ST03140-075F
0	5xD	2-61/64	4-1/32	4-1/8	6-1/16	2-1/32	3/4	1/8	YES	ST05140-075F
	7xD	4-9/64	5-13/64	5-5/16	7-15/64	2-1/32	3/4	1/8	YES	ST07140-075F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	84 N-cm (7.4 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



m = Metric (mm)

1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

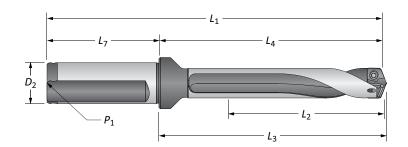
15 Series | Diameter Range: 15.00mm - 15.99mm (0.5906" - 0.6298")



Inserts

	Insert		бЬ	
D ₁ mm	D ₁ inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
15.00	0.5906	-	XTST15-15.00	7C215P-15ST
15.88	0.6250	5/8	XTST15-15.88	7C215P-0020ST





Holders

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	<i>L</i> ₁	L ₇	D ₂	P ₁	Flat	Part No.
	3xD	48.0	75.1	77.6	125.1	50	20	3.18*	YES	ST03150-20FM
(1)	5xD	80.0	107.0	109.6	157.0	50	20	3.18*	YES	ST05150-20FM
	7xD	111.9	139.0	141.6	189.0	50	20	3.18*	YES	ST07150-20FM
	3xD	1-57/64	2-61/64	3-3/64	4-63/64	2-1/32	3/4	1/8	YES	ST03150-075F
0	5xD	3-5/32	4-7/32	4-5/16	6-1/4	2-1/32	3/4	1/8	YES	ST05150-075F
	7xD	4-27/64	5-15/32	5-37/64	7-1/2	2-1/32	3/4	1/8	YES	ST07150-075F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	84 N-cm (7.4 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



m = Metric (mm)

1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

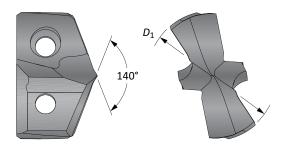
DRILLING | Structural Steel Replaceable Insert Drilling System

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

16 Series | Diameter Range: 16.00mm - 16.99mm (0.6299" - 0.6692")



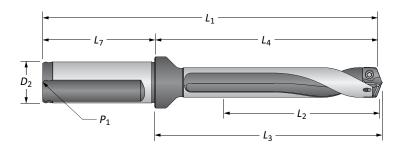




Inserts

	Insert		66	6b
D ₁ mm	D ₁ inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
16.00	0.6299	-	XTST16-16.00	7C216P-16ST





Holders

T-A® Structural Steel

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	L ₁	L ₇	D ₂	P ₁	Flat	Part No.
	3xD	51.0	81.3	84.2	131.3	50	20	3.18*	YES	ST03160-20FM
(ii)	5xD	84.9	115.3	118.2	165.3	50	20	3.18*	YES	ST05160-20FM
	7xD	118.9	149.3	152.2	199.3	50	20	3.18*	YES	ST07160-20FM
								,		
	3xD	3-1/64	3-13/64	3-5/16	5-15/64	2-1/32	3/4	1/8	YES	ST03160-075F
0	5xD	3-23/64	4-17/32	4-21/32	6-9/16	2-1/32	3/4	1/8	YES	ST05160-075F
	7xD	4-11/16	5-7/8	5-63/64	7-29/32	2-1/32	3/4	1/8	YES	ST07160-075F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
72556-IP8-1	72556N-IP8-1	8IP-8	8IP-8TL	8IP-8B	175 N-cm (15.5 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



m = Metric (mm)

1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

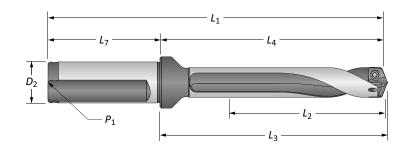
17 Series | Diameter Range: 17.00mm - 17.99mm (0.6693" - 0.7086")



Inserts

	Insert		OD	б
D ₁ mm	D ₁ inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
17.00	0.6693	-	XTST17-17.00	7C217P-17ST
17.46	0.6875	11/16	XTST17-17.46	7C217P-0022ST





Holders

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	L ₁	L ₇	D ₂	P_1	Flat	Part No.
	3xD	54.0	84.1	87.0	134.1	50	20	3.18*	YES	ST03170-20FM
(1)	5xD	89.9	120.0	122.9	170.0	50	20	3.18*	YES	ST05170-20FM
	7xD	125.9	156.0	158.9	206.0	50	20	3.18*	YES	ST07170-20FM
	3xD	2-1/8	3-5/16	3-27/64	5-11/32	2-1/32	3/4	1/8	YES	ST03170-075F
0	5xD	3-35/64	4-23/32	4-27/32	6-3/4	2-1/32	3/4	1/8	YES	ST05170-075F
	7xD	4-31/32	6-9/64	6-1/4	8-11/64	2-1/32	3/4	1/8	YES	ST07170-075F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
72567-IP8-1	72567N-IP8-1	8IP-8	8IP-8TL	8IP-8B	175 N-cm (15.5 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



m = Metric (mm)
f = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

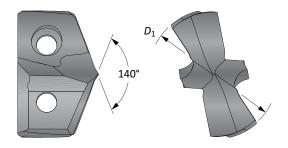
DRILLING | Structural Steel Replaceable Insert Drilling System

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

18 Series | Diameter Range: 18.00mm - 19.99mm (0.7087" - 0.7873")



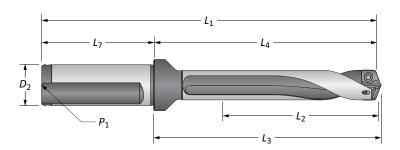




Inserts

	Insert		66	6b
D ₁ mm	D_1 inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
18.00	0.7087	_	XTST18-18.00	7C218P-18ST
19.00	0.7480	_	XTST18-19.00	7C218P-19ST





Holders

T-A® Structural Steel

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	L ₁	L ₇	D ₂	P_1	Flat	Part No.
	3xD	60.0	94.0	97.1	144.0	50	20	3.18*	YES	ST03180-20FM
(1)	5xD	99.9	134.0	137.1	184.0	50	20	3.18*	YES	ST05180-20FM
	7xD	139.9	174.0	177.1	224.0	50	20	3.18*	YES	ST07180-20FM
	3xD	2-3/8	3-45/64	3-53/64	5-63/64	2-9/32	1	1/8	YES	ST03180-075F
0	5xD	3-15/16	5-9/32	5-25/64	7-9/16	2-9/32	1	1/8	YES	ST05180-075F
	7xD	5-33/64	6-27/32	6-31/32	9-1/8	2-9/32	1	1/8	YES	ST07180-075F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
7375-IP9-1	7375N-IP9-1	8IP-9	8IP-9TL	8IP-9B	305 N-cm (27.0 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



m = Metric (mm) 1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

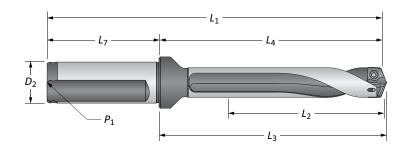
20 Series | Diameter Range: 20.00mm - 21.99mm (0.7874" - 0.8660")



Inserts

	Insert		66	б
D ₁ mm	D ₁ inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
20.00	0.7874	_	XTST20-20.00	7C220P-20ST
20.64	0.8125	13/16	XTST20-20.64	7C220P-0026ST
21.00	0.8268	-	XTST20-21.00	7C220P-21ST
21.82	0.8594	55/64	XTST20-21.82	7C220P-0026ST





Holders

Holu	CIS									
			Во	ody		Shank				
	Length	L ₂	L ₄	L ₃	L ₁	L ₇	D ₂	P ₁	Flat	Part No.
	3xD	66.0	100.1	103.3	156.1	56	25	3.18*	YES	ST03200-25FM
0	5xD	110.0	144.1	147.2	200.1	56	25	3.18*	YES	ST05200-25FM
	7xD	153.9	188.1	191.2	244.1	56	25	3.18*	YES	ST07200-25FM
	3xD	2-17/32	3-15/16	4-1/16	6-7/32	2-9/32	1	1/8	YES	ST03200-100F
0	5xD	4-11/32	5-43/64	5-51/64	7-61/64	2-9/32	1	1/8	YES	ST05200-100F
	7xD	6-1/16	7-13/32	7-17/32	9-11/16	2-9/32	1	1/8	YES	ST07200-100F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
7375-IP9-1	7375N-IP9-1	8IP-9	8IP-9TL	8IP-9B	305 N-cm (27.0 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



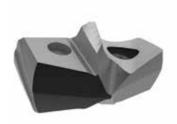
m = Metric (mm)

1 = Imperial (in)

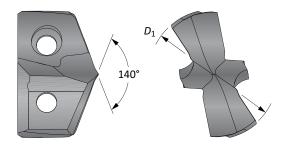
Inserts sold in multiples of 1 | Screws sold in multiples of 10

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

22 Series | Diameter Range: 22.00mm - 23.99mm (0.8661" - 0.9448")



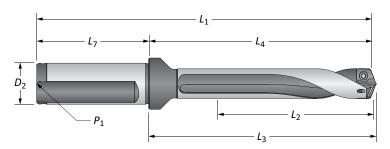




Inserts

	Insert		66	
D_1 mm	D_1 inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
22.00	0.8661	_	XTST22-22.00	7C222P-22ST
22.23	0.8750	7/8	XTST22-22.23	7C222P-0028ST
23.00	0.9055	-	XTST22-23.00	7C222P-23ST
23.81	0.9375	15/16	XTST22-23.81	7C222P-0030ST





Holders

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	<i>L</i> ₁	L ₇	D ₂	P ₁	Flat	Part No.
	3xD	72.0	105.3	108.7	161.3	56	25	3.18*	YES	ST03220-25FM
	3xD	72.0	105.3	108.7	161.3	56	25	3.18*	YES	ST03225-25FM**
a	5xD	119.9	153.3	156.7	209.3	56	25	3.18*	YES	ST05220-25FM
w	5xD	119.9	153.3	156.7	209.3	56	25	3.18*	YES	ST05225-25FM**
	7xD	167.9	201.3	204.7	257.3	56	25	3.18*	YES	ST07220-25FM
	7xD	167.9	201.3	204.7	257.3	56	25	3.18*	YES	ST07225-25FM**
								,		
	3xD	2-53/64	4-9/64	4-9/32	6-27/64	2-9/32	1	1/8	YES	ST03220-100F
	3xD	2-53/64	4-9/64	4-9/32	6-27/64	2-9/32	1	1/8	YES	ST03225-100F**
0	5xD	4-23/32	6-1/32	6-11/64	8-5/16	2-9/32	1	1/8	YES	ST05220-100F
U	5xD	4-23/32	6-1/32	6-11/64	8-5/16	2-9/32	1	1/8	YES	ST05225-100F**
	7xD	6-39/64	7-59/64	8-1/16	10-13/64	2-9/32	1	1/8	YES	ST07220-100F
	7xD	6-39/64	7-59/64	8-1/16	10-13/64	2-9/32	1	1/8	YES	ST07225-100F**

^{*}Thread to BSP and ISO 7-1 | **Oversized body holder (minimum drill diameter = 23mm)

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
739-IP9-1	739N-IP9-1	8IP-9	8IP-9TL	8IP-9B	305 N-cm (27.0 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

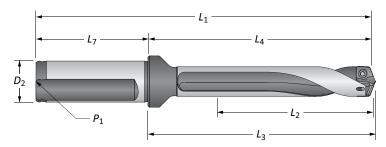
24 Series | Diameter Range: 24.00mm - 25.99mm (0.9449" - 1.0235")



Inserts

	Insert			66
D ₁ mm	D_1 inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
24.00	0.9449	-	XTST24-24.00	7C224P-24ST
24.60	0.9685	-	XTST24-24.60	-
25.00	0.9843	_	-	7C224P-25ST
25.40	1.0000	1	XTST24-25.40	7C224P-0100ST
25.78	1.0150	-	XTST24-25.78	-





Holders

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	<i>L</i> ₁	L ₇	D ₂	P_1	Flat	Part No.
	3xD	78.0	113.8	117.3	169.8	56	25	3.18*	YES	ST03240-25FM
0	5xD	129.9	165.8	169.2	221.8	56	25	3.18*	YES	ST05240-25FM
	7xD	181.9	217.8	221.2	273.8	56	25	3.18*	YES	ST07240-25FM
	3xD	3-5/64	4-31/64	4-5/8	6-49/64	2-9/32	1	1/8	YES	ST03240-100F
0	5xD	5-1/8	6-17/32	6-21/32	8-13/16	2-9/32	1	1/8	YES	ST05240-100F
	7xD	7-11/64	8-37/64	8-45/64	10-55/64	2-9/32	1	1/8	YES	ST07240-100F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
739-IP9-1	739N-IP9-1	8IP-9	8IP-9TL	8IP-9B	305 N-cm (27.0 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

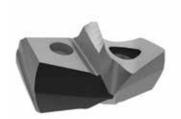


Inserts sold in multiples of 1 | Screws sold in multiples of 10

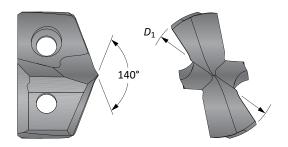
DRILLING | Structural Steel Replaceable Insert Drilling System

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

26 Series | Diameter Range: 26.00mm - 28.99mm (1.0236" - 1.1416")



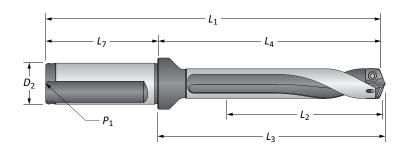




Inserts

	Insert		6b	
D_1 mm	D ₁ inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
26.00	1.0236	-	XTST26-26.00	7C226P-26ST
26.99	1.0625	1-1/16	XTST26-26.99	7C226P-0102ST
27.00	1.0630	-	XTST26-27.00	7C226P-27ST
28.00	1.1024	-	XTST26-28.00	7C226P-28ST
28.58	1.1250	1-1/8	XTST26-28.58	7C226P-0104ST





Holders

T-A® Structural Steel

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	L ₁	L ₇	D ₂	P ₁	Flat	Part No.
	3xD	87.0	128.1	131.4	188.1	60	32	6.35*	YES	ST03260-32FM
0	5xD	145.0	186.1	189.4	246.1	60	32	6.35*	YES	ST05260-32FM
	7xD	202.9	244.0	247.4	304.0	60	32	6.35*	YES	ST07260-32FM
	3xD	3-27/64	5-1/16	5-3/16	7-11/32	2-9/32	1-1/4	1/4	YES	ST03260-125F
0	5xD	5-23/32	7-11/32	7-31/64	9-5/8	2-9/32	1-1/4	1/4	YES	ST05260-125F
	7xD	7-63/64	9-5/8	9-49/64	11-29/32	2-9/32	1-1/4	1/4	YES	ST07260-125F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	690 N-cm (61.0 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



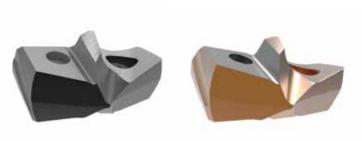
m = Metric (mm)

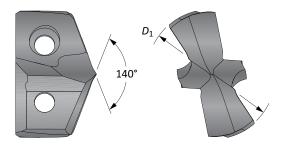
1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

29 Series | Diameter Range: 29.00mm - 31.99mm (1.1417" - 1.2597")

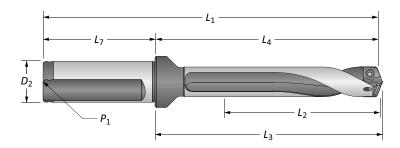




Inserts

	Insert 		66	
D ₁ mm	D ₁ inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.
29.00	1.1417	_	XTST29-29.00	7C229P-29ST
30.00	1.1811	_	XTST29-30.00	7C229P-30ST
30.16	1.1875	1-3/16	XTST29-30.16	7C229P-0106ST
30.50	1.2007	_	-	7C229P-30.5ST
31.00	1.2205	_	XTST29-31.00	7C229P-31ST
31.75	1.2500	1-1/4	XTST29-31.75	7C229P-0108ST





Holders

			Во	dy		Shank				
	Length	L ₂	L ₄	L ₃	<i>L</i> ₁	L ₇	D ₂	P_1	Flat	Part No.
	3xD	96.0	136.2	139.7	196.2	60	32	6.35*	YES	ST03290-32FM
(1)	5xD	159.9	200.1	203.7	260.1	60	32	6.35*	YES	ST05290-32FM
	7xD	223.9	264.1	267.7	324.1	60	32	6.35*	YES	ST07290-32FM
	3xD	3-25/32	5-3/8	5-33/64	7-21/32	2-9/32	1-1/4	1/4	YES	ST03290-125F
0	5xD	6-19/64	7-29/32	8-3/64	10-3/16	2-9/32	1-1/4	1/4	YES	ST05290-125F
	7xD	8-13/16	10-27/64	10-9/16	12-45/64	2-9/32	1-1/4	1/4	YES	ST07290-125F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	690 N-cm (61.0 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



m = Metric (mm)
1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10

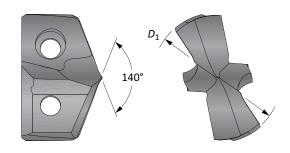
DRILLING | Structural Steel Replaceable Insert Drilling System

GEN3SYS® XT Pro ST / GEN3SYS® XT ST Structural Steel Drilling System

32 Series | Diameter Range: 32.00mm - 35.00mm (1.2598" - 1.3780")

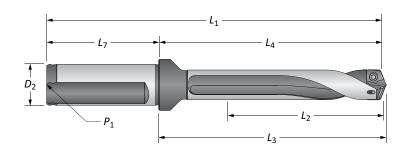






	Insert		66	66	
D ₁ mm	D ₁ inch	Fractional Equivalent	XT Pro ST Part No.	XT ST Part No.	
32.00	1.2598	_	XTST32-32.00	7C232P-32ST	
33.00	1.2992	-	XTST32-33.00	7C232P-33ST	
33.34	1.3125	1-5/16	XTST32-33.34	7C232P-0110ST	
34.00	1.3386	-	XTST32-34.00	7C232P-34ST	
34.93	1.3750	1-3/8	XTST32-34.93	7C232P-0112ST	





Holders

T-A® Structural Steel

			Во	ody		Shank				
	Length	L ₂	L ₄	L ₃	<i>L</i> ₁	L ₇	D ₂	P ₁	Flat	Part No.
	3xD	105.0	157.7	162.0	217.7	60	32	6.35*	YES	ST03320-32FM
	3xD	105.0	157.7	162.0	227.7	70	40	6.35*	YES	ST03320-40FM
@	5xD	175.0	227.7	232.0	287.7	60	32	6.35*	YES	ST05320-32FM
w	5xD	175.0	227.7	232.0	297.7	70	40	6.35*	YES	ST05320-40FM
ĺ	7xD	244.9	297.7	302.2	357.7	60	32	6.35*	YES	ST07320-32FM
	7xD	244.9	297.7	302.2	367.7	70	40	6.35*	YES	ST07320-40FM
	3xD	4-9/64	6-7/32	6-3/8	8-29/32	2-11/16	1-1/2	1/4	YES	ST03320-150F
0	5xD	6-59/64	8-31/32	9-1/8	11-21/32	2-11/16	1-1/2	1/4	YES	ST05320-150F
	7xD	9-41/64	11-23/32	11-57/64	14-13/32	2-11/16	1-1/2	1/4	YES	ST07320-150F

^{*}Thread to BSP and ISO 7-1

Connection Accessories

					Admissible
Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Tightening Torque*
7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	690 N-cm (61.0 in-lbs)

^{*}Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength



m = Metric (mm) 1 = Imperial (in)

Inserts sold in multiples of 1 | Screws sold in multiples of 10