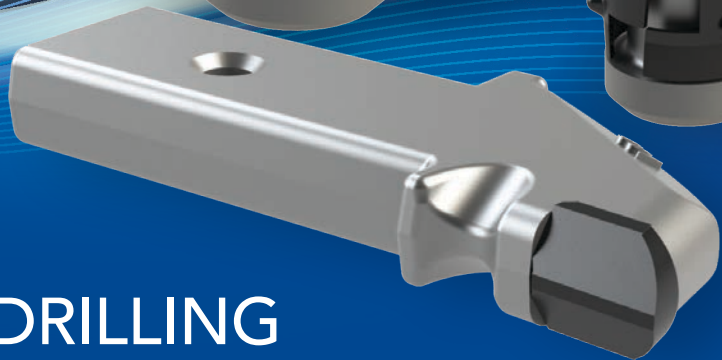
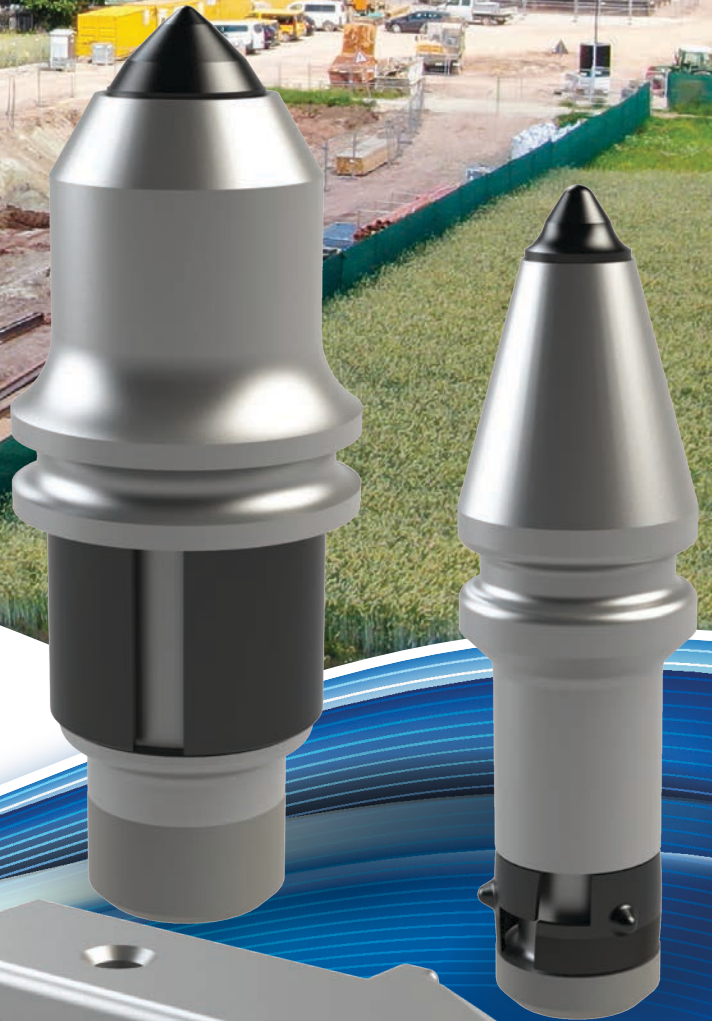




XCAL
TOOLS



DRILLING

All Locations

XCAL TOOLS of Clare

314 E. 4th Street
Clare, MI 48617
Ph: (989) 386-5376

XCAL TOOLS of Madisonville

3957 Anton Road
Madisonville, KY 42431
Ph: (270) 825-BITS (2487)

XCAL TOOLS of South Point

235 Commerce Drive
South Point, OH 45680
Ph: (740) 377-3354
Fax: (740) 377-3363

XCAL Industries

843 Lochgelly Road
Oak Hill, WV 25901
Ph: (304) 469-4721
Fax: (304) 469-4750

XCAL TOOLS of Beckley

256 Industrial Drive
Oak Hill, WV 25901
Ph: (304) 465-0651
Fax: (304) 465-5244

XCAL TOOLS of Bristol

15020 Industrial Park Road
Bristol, VA 24202
Ph: (276) 644-3520
Fax: (276) 644-3523





SUPERIOR QUALITY

XCAL TOOLS takes pride in manufacturing and selling a full line of road planing, soil stabilization, reclaiming, grading, trenching and foundation drilling bits and carbide tooling products that are American-made. Our inhouse operations gives us the flexibility to quickly test and adapt to changing environments and customer needs. Our cost effective production methods, allows us to provide a exceptional product of the highest quality.



SERVICE AND INNOVATION

For over 20 years, our carbide producer XCAL INDUSTRIES, has been producing high quality carbide for the mining, roof drilling, snow and ice removal, road planing, wear products and metal cutting blanks, producing over fifty grades of cemented carbide and the capability to develop extra coarse, tougher grades to meet the demands of the industry.

These affiliates of JENNMAR, in collaboration with each other, can provide you with superior quality products and unmatched customer service. Our commitment to the customer is guided by three words; SAFETY, SERVICE, and INNOVATION. It's these words that form the foundation of our business. It's who we are.





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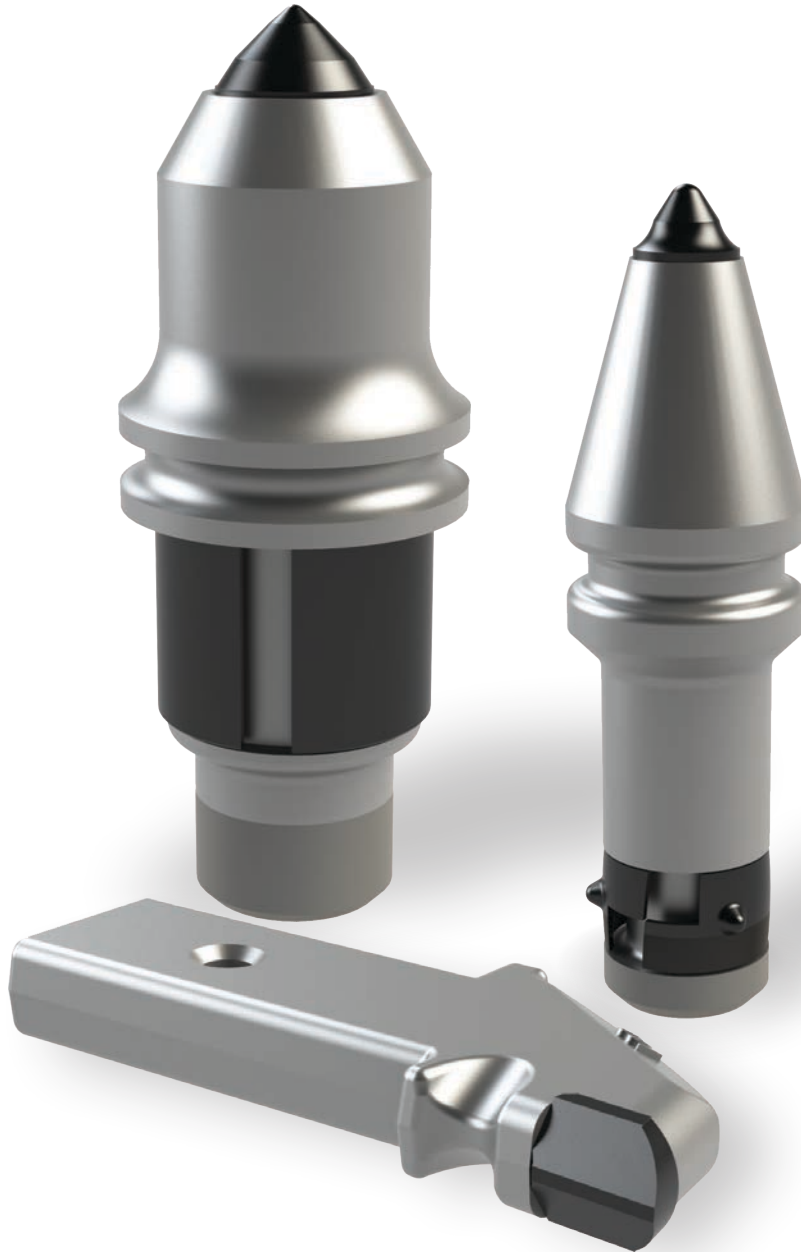
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Carbide Tips

We are an ISO 9001 certified facility that offers a wide range of carbide tips to match the various challenges that you might face. Producing over fifty grades of cemented carbide and the ability to create new ones, we can find a carbide grade to meet your needs. Our versatility helps us to check and respond easily to evolving conditions and customer needs. All of our tips provide superb penetration and maximum productivity – regardless of whether you work in soft, medium-hard or extremely hard and demanding conditions.



Retainers Selection

Our retainer selection keeps tool changes quick and reduces your downtime



Proudly made in the U.S.A.



The Hybrid Difference

XCAL TOOLS hybrid design gives you a blend of the efficient cutting characteristics of our CAP designs, combined with the durability and long life of a plug tip. Our design provides excellent penetration while retaining maximum strength, shear resistance and durability in challenging conditions, improves safety, efficiency and working conditions— leading to increased performance, productivity and lowered production costs.



Cap Carbide Tips

For superior penetration: the larger carbide shoulder provides excellent protection against steel wash.

Insert Carbide Tips

For high-impact conditions, or working with hard materials where steel wash is not an issue.

The Hybrid Carbide Tip

The tapered bottom design provides more strength where it's needed most, helping to prevent carbide fracture.



Cap Carbide Tips

Valve seat carbide tips are preferred over flat bottom tips providing a stronger bond between the carbide and steel giving more stability and support in highly abrasive conditions.



Insert Carbide Tips

Insert carbide tips are best for penetration applications where steel wash is not an issue. These tips provide a strong bond between carbide and steel giving more stability and support proving ideal for use in hard, high-impact conditions.



Hybrid Carbide Tips

Hybrid tips were developed for all cutting requirements – no matter how tough. You won't need to switch tools when your conditions change.



Wide-Top Carbide Tips

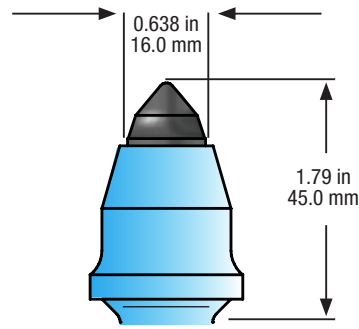
Wide-Top tip combines the abrasive resistance of a cap tip with the impact resistance of a plug tip to maximise strength and steel support for ultimate durability in the most challenging conditions.



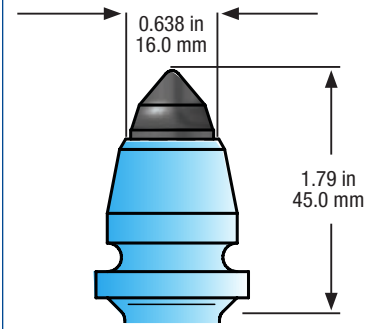
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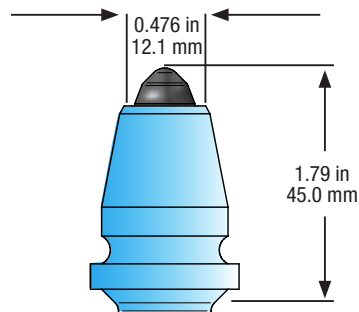
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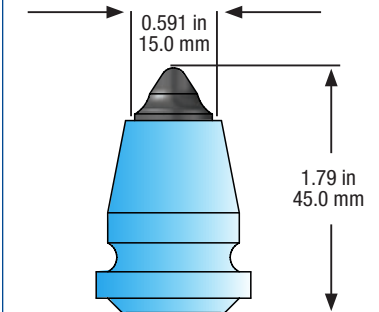
TB01C



TB01



TB03



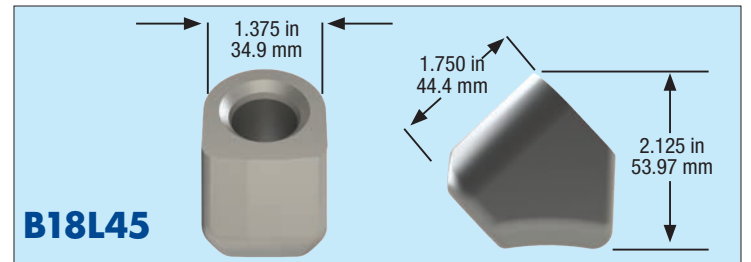
TB73

Features:

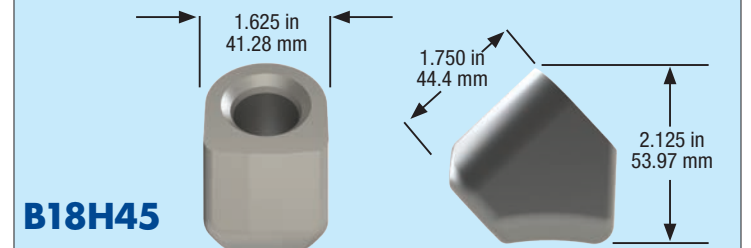
- Standard body design
- Used for Core Barrels and Augers
- Puller groove for easy tool removal
- Interchangeable series offers flexibly

Tool Part Number	Shank (in, mm)	Shoulder (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
TB01C	0.72 in 18 mm	1.0 in 25.4 mm	0.638 in 16.0 mm	1.79 in 45.0 mm	65	3900
TB01	0.72 in 18 mm	1.0 in 25.4 mm	0.638 in 16.0 mm	1.79 in 45.0 mm	65	3900
TB03	0.72 in 18 mm	1.0 in 25.4 mm	0.476 in 12.1 mm	1.79 in 45.0 mm	65	3900
TB73	0.72 in 18 mm	1.0 in 25.4 mm	0.591 in 15.0 mm	1.79 in 45.0 mm	65	3900

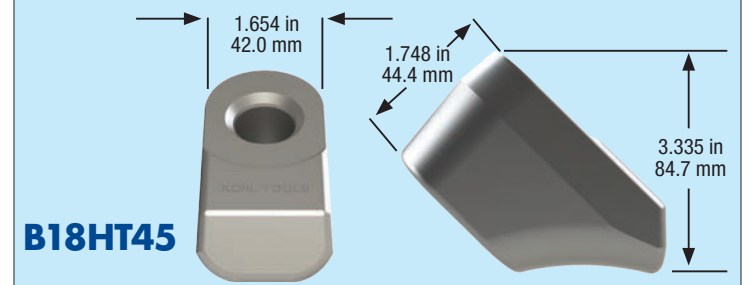
Block Part Number	Bore Hole Diameter (in, mm)	Width (in, mm)	Angle (degrees)	Internal Groove	Pieces per Box	Pieces per Pallet
B18L45	.750 in 19.05 mm	1.375 in 34.9 mm	45°	Yes	35	2100
B18H45	.750 in 19.05 mm	1.625 in 41.28 mm	45°	Yes	35	2100
B18HT45	.750 in 19.05 mm	1.654 in 42.0 mm	45°	Yes	20	900



B18L45



B18H45



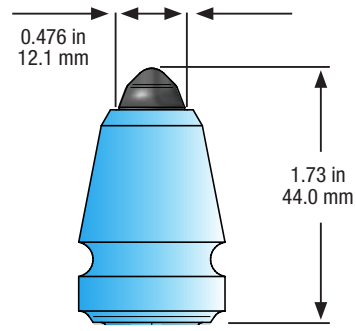
B18HT45



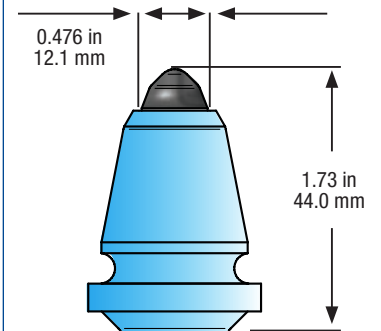
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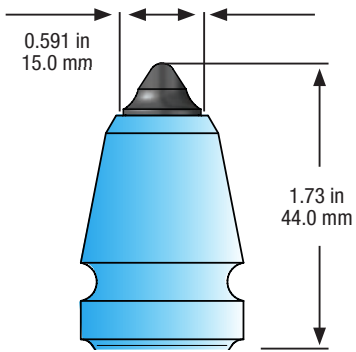
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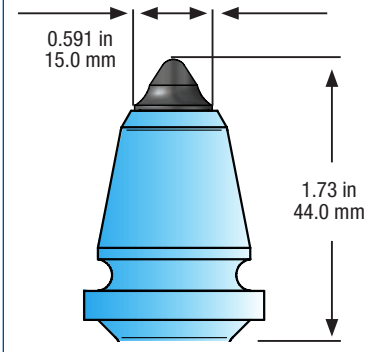
TC403L



TC403



TC473L



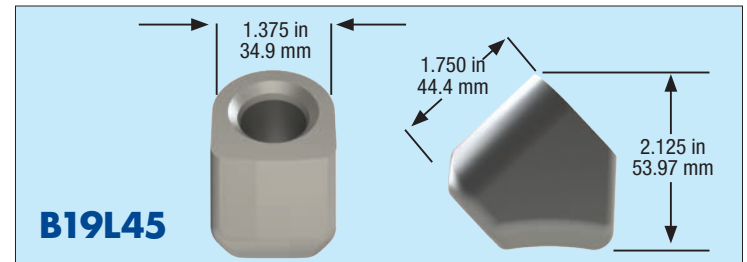
TC473

Features:

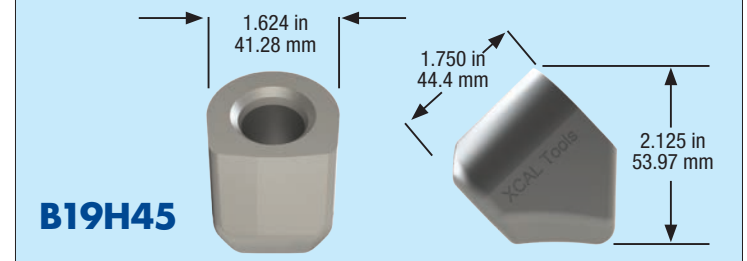
- Standard body design
- Used for Core Barrels and Augers
- Puller groove for easy tool removal
- Offered with a Wedding Band or Sleeve retainer

Tool Part Number	Shank (in, mm)	Shoulder (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
TC403L	0.74 in 19 mm	1.06 in 27 mm	0.476 in 12.1 mm	1.73 in 44.0 mm	65	3900
TC403	0.74 in 19 mm	1.25 in 31.75 mm	0.476 in 12.1 mm	1.73 in 44.0 mm	65	3900
TC473L	0.74 in 19 mm	1.06 in 27 mm	0.591 in 15.0 mm	1.73 in 44.0 mm	65	3900
TC473	0.74 in 19 mm	1.25 in 31.75 mm	0.591 in 15.0 mm	1.73 in 44.0 mm	65	3900

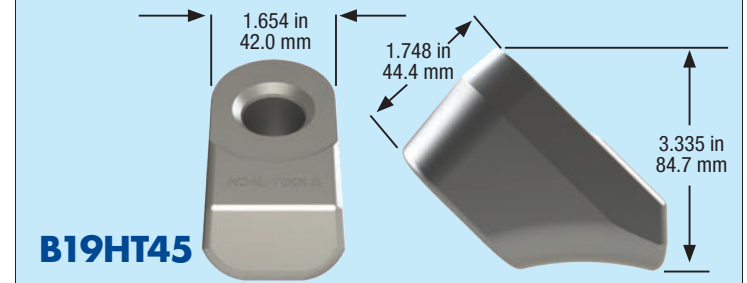
Block Part Number	Bore Hole Diameter (in, mm)	Width (in, mm)	Angle (degrees)	Internal Groove	Pieces per Box	Pieces per Pallet
B19L45	.782 in 19.87 mm	1.375 in 34.9 mm	45°	Yes	35	2100
B19H45	.782 in 19.87 mm	1.624 in 41.28 mm	45°	Yes	35	2100
B19HT45	.782 in 19.87 mm	1.654 in 42.0 mm	45°	Yes	20	900



B19L45



B19H45



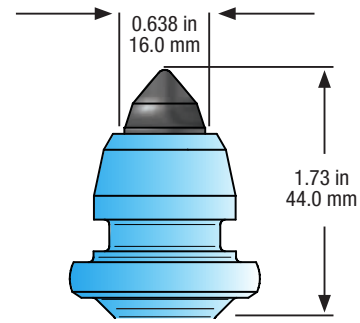
B19HT45



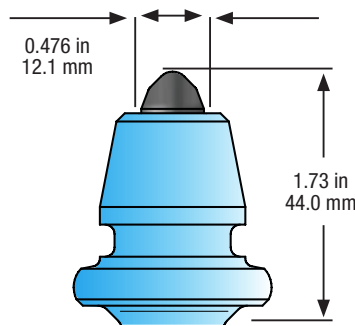
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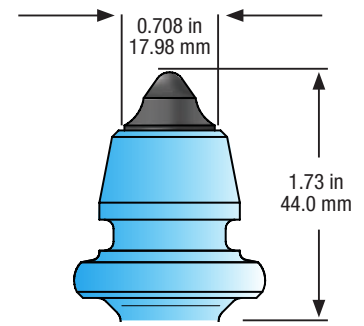
Drilling



TJ401



TJ403



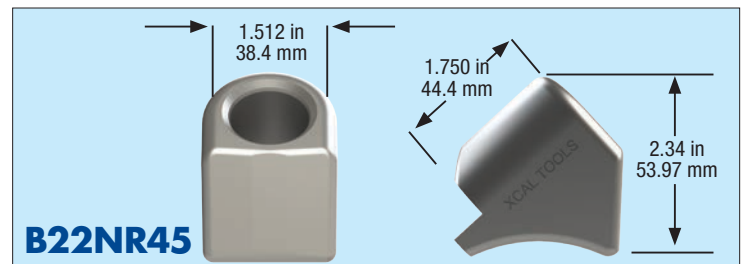
TJ474

Features:

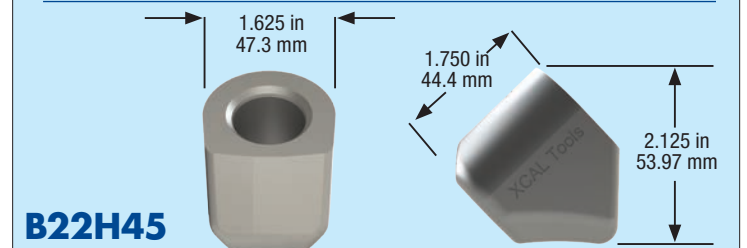
- Bumped sleeve for improved retention
- Puller Groove to aid in extraction
- Interchangeable series offers flexibly

Tool Part Number	Shank (in, mm)	Shoulder (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
TJ401	0.86 in 22 mm	1.5 in 38.1 mm	0.638 in 16.0 mm	1.73 in 44.0 mm	50	3000
TJ403	0.86 in 22 mm	1.5 in 38.1 mm	0.476 in 12.1 mm	1.73 in 44.0 mm	50	3000
TJ474	0.86 in 22 mm	1.5 in 38.1 mm	0.708 in 17.98 mm	1.73 in 44.0 mm	50	3000

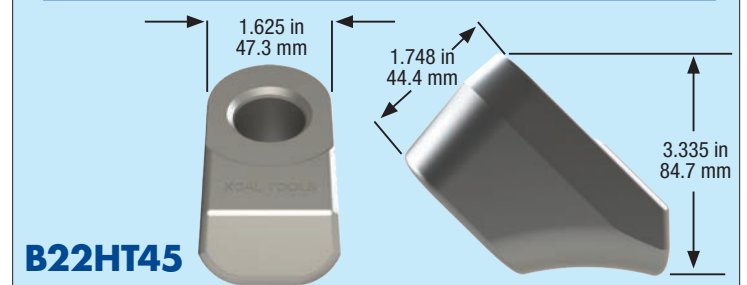
Block Part Number	Bore Hole Diameter (in, mm)	Width (in, mm)	Angle (degrees)	Internal Groove	Pieces per Box	Pieces per Pallet
B22NR45	0.885 in 22.48 mm	1.512 in 38.4 mm	45°	Yes	35	2100
B22H45	0.885 in 22.48 mm	1.625 in 47.3 mm	45°	Yes	35	2100
B22HT45	0.885 in 22.48 mm	1.625 in 47.3 mm	45°	Yes	35	2100



B22NR45



B22H45



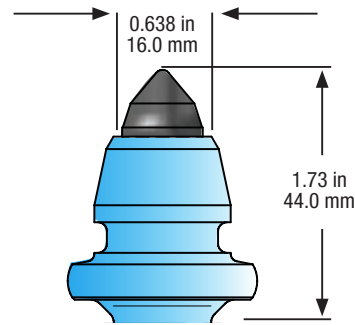
B22HT45



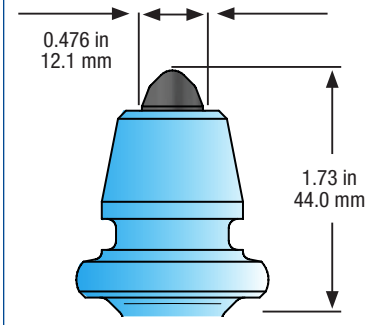
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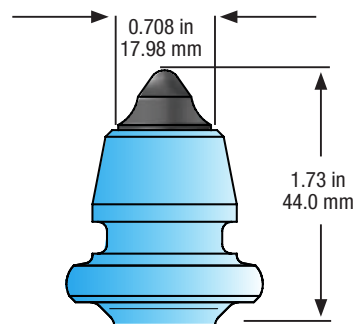
Drilling



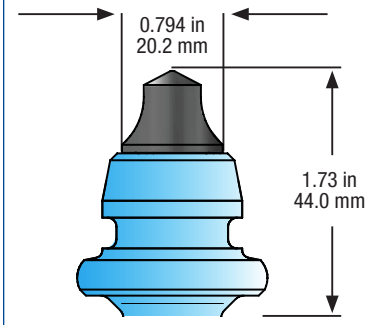
TJ401L



TJ403L



TJ474L



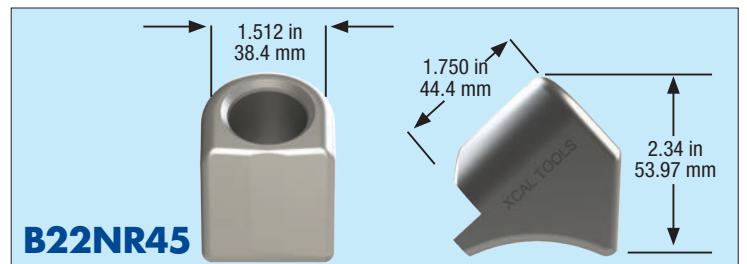
TJ486L

Features:

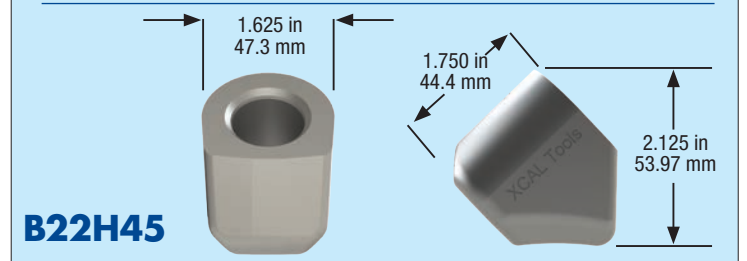
- Offered in a wide range of tips for impact and highly abrasive material
- Puller Groove to aid in extraction
- Interchangeable series offers flexibly

Tool Part Number	Shank (in, mm)	Shoulder (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
TJ401L	0.86 in 22 mm	1.5 in 38.1 mm	0.638 in 16.0 mm	1.73 in 44.0 mm	50	3000
TJ403L	0.86 in 22 mm	1.5 in 38.1 mm	0.476 in 12.1 mm	1.73 in 44.0 mm	50	3000
TJ474L	0.86 in 22 mm	1.5 in 38.1 mm	0.708 in 17.98 mm	1.73 in 44.0 mm	50	3000
TJ486L	0.86 in 22 mm	1.5 in 38.1 mm	0.794 in 20.2 mm	1.73 in 44.0 mm	50	3000

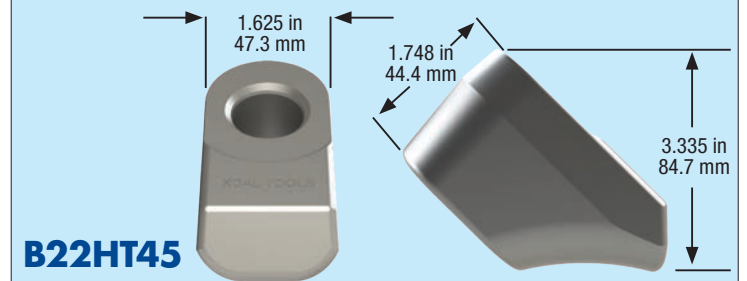
Block Part Number	Bore Hole Diameter (in, mm)	Width (in, mm)	Angle (degrees)	Internal Groove	Pieces per Box	Pieces per Pallet
B22NR45	0.885 in 22.48 mm	1.512 in 38.4 mm	45°	Yes	35	2100
B22H45	0.885 in 22.48 mm	1.625 in 47.3 mm	45°	Yes	35	2100
B22HT45	0.885 in 22.48 mm	1.625 in 47.3 mm	45°	Yes	35	2100



B22NR45



B22H45



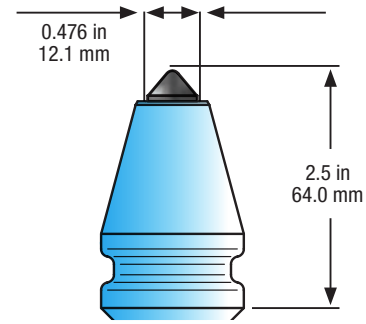
B22HT45



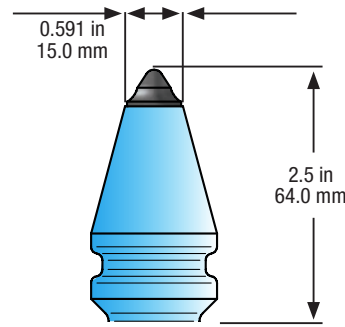
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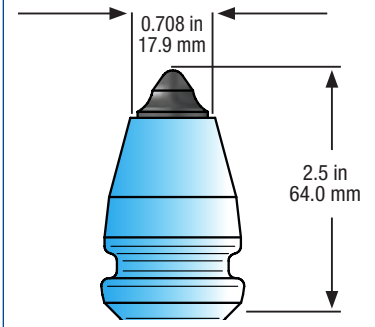
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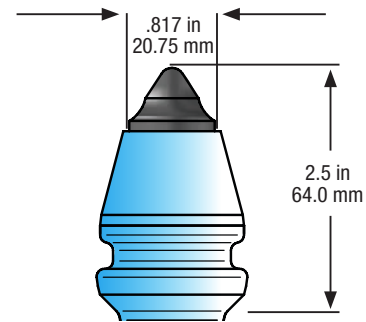
DR35



DR73



DR74



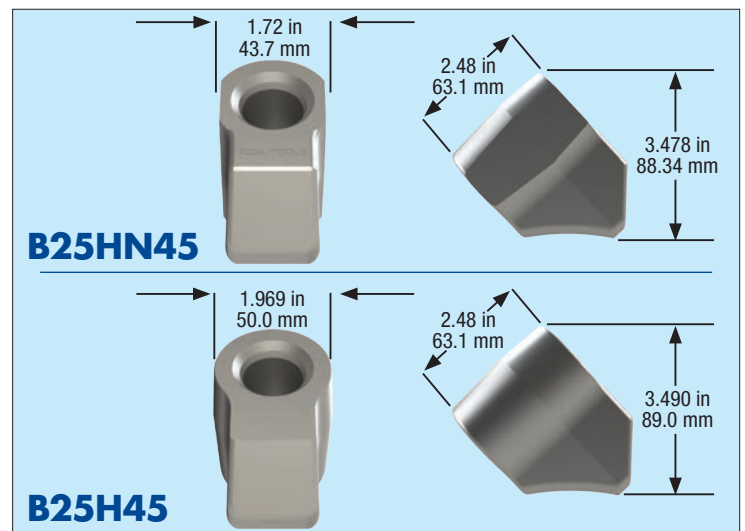
DR75

Features:

- Sharp nose for increased penetration
- Offered in a Hybrid tip, or Plug tip for impact and highly abrasive material
- Interchangeable series offers flexibility

Tool Part Number	Shank (in, mm)	Shoulder (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
DR35	1.0 in 25 mm	1.5 in 38.1 mm	0.476 in 12.1 mm	2.5 in 64.0 mm	35	2100
DR73	1.0 in 25 mm	1.5 in 38.1 mm	0.591 in 15.0 mm	2.5 in 64.0 mm	35	2100
DR74	1.0 in 25 mm	1.5 in 38.1 mm	0.708 in 17.9 mm	2.5 in 64.0 mm	35	2100
DR75	1.0 in 25 mm	1.5 in 38.1 mm	.817 in 20.75 mm	2.5 in 64.0 mm	35	2100

Block Part Number	Bore Hole Diameter (in, mm)	Width (in, mm)	Angle (degrees)	Internal Groove	Pieces per Box	Pieces per Pallet
B25HN45	1.012 in 25.71 mm	1.72 in 43.7 mm	45°	Yes	15	900
B25H45	1.012 in 25.71 mm	1.969 in 50.0 mm	45°	Yes	8	480



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Drilling

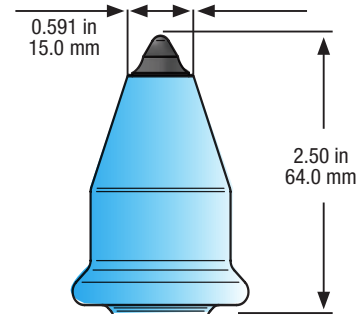


Features:

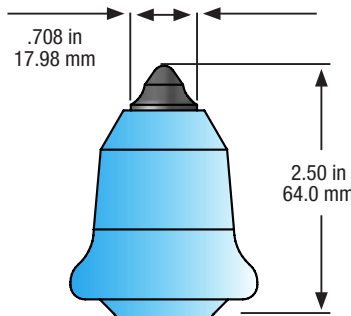
- Wide-flare shoulder provides maximum block and bore protection
- Offered in a Hybrid tip or Wide-Top tip for impact and highly abrasive material
- Interchangeable series offers flexibility

Tool Part Number	Shank (in, mm)	Shoulder (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
DRW73	1.0 in 25 mm	1.84 in 46.7 mm	0.591 in 15.0 mm	2.50 in 64.0 mm	30	1800
DRW74	1.0 in 25 mm	1.84 in 46.7 mm	.708 in 17.98 mm	2.50 in 64.0 mm	30	1800
DRW75	1.0 in 25 mm	1.84 in 46.7 mm	.817 in 20.75 mm	2.50 in 64.0 mm	30	1800
DRW76	1.0 in 25 mm	1.84 in 46.7 mm	0.930 in 23.62 mm	2.50 in 64.0 mm	30	1800

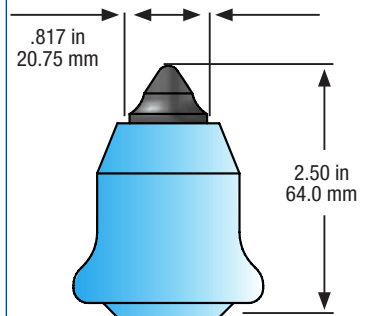
Block Part Number	Bore Hole Diameter (in, mm)	Width (in, mm)	Angle (degrees)	Internal Groove	Pieces per Box	Pieces per Pallet
B25HN45	1.012 in 25.71 mm	1.72 in 43.7 mm	45°	Yes	15	900
B25H45	1.012 in 25.71 mm	1.969 in 50.0 mm	45°	Yes	8	480



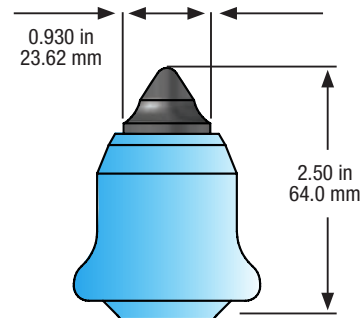
DRW73



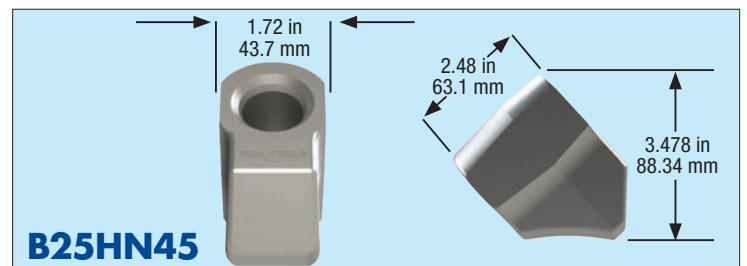
DRW74



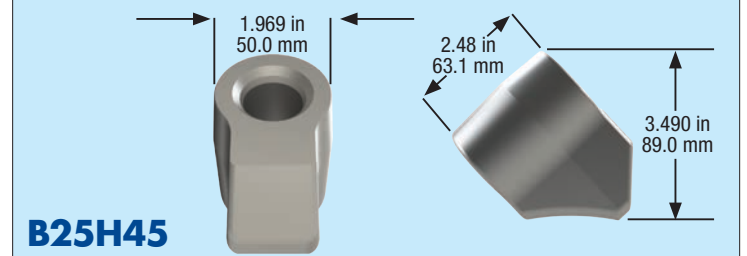
DRW75



DRW76



B25HN45



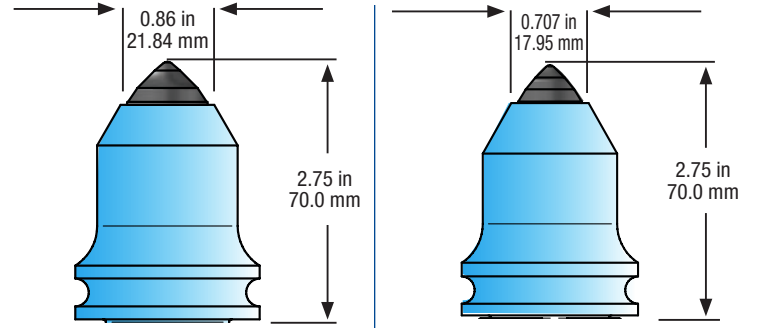
B25H45



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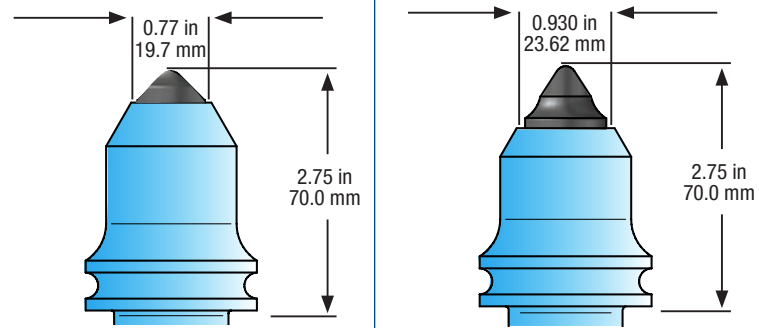


Drilling



DX19

DX21



DX39

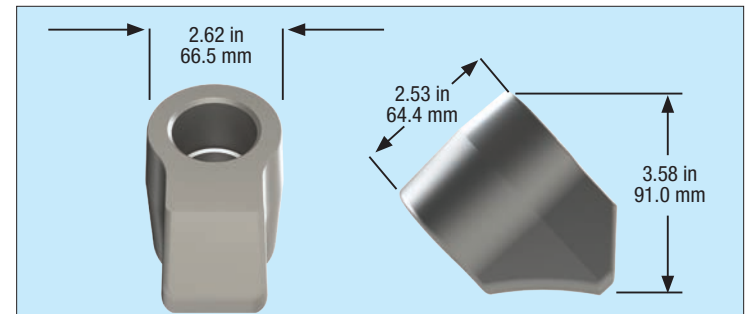
DX76

Features:

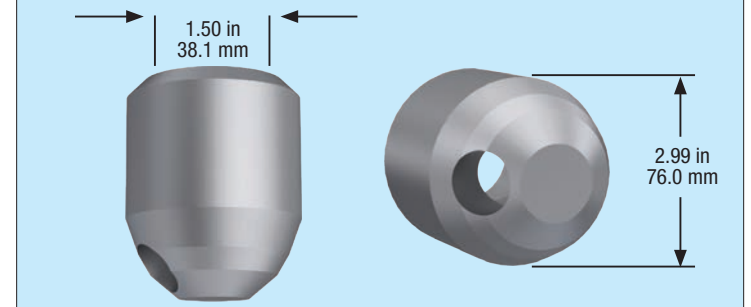
- Offered in Plugged tip, Hybrid tip and Large Cap tip for impact and highly abrasive material
- Offered with or without Puller groove for easy extraction
- Wide Shoulder tools offer maximum block, bore and seat protection

Tool Part Number	Shank (in, mm)	Shoulder (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
DX19	1.5 in 30 mm	1.96 in 49.7 mm	0.86 in 21.84 mm	2.75 in 70.0 mm	10	600
DX21	1.5 in 30 mm	1.96 in 49.7 mm	0.707 in 17.95 mm	2.75 in 70.0 mm	10	600
DX39	1.5 in 30 mm	1.96 in 49.7 mm	0.775 in 19.68 mm	2.75 in 70.0 mm	10	600
DX76	1.5 in 30 mm	1.96 in 49.7 mm	0.930 in 23.62 mm	2.75 in 70.0 mm	10	600

Block Part Number	Bore Hole Diameter (in, mm)	Width (in, mm)	Angle (degrees)	Internal Groove	Pieces per Box	Pieces per Pallet
B38H45	1.50 in 38.2 mm	2.62 in 66.5 mm	45°	Yes	8	480
B38R	1.50 in 38.1 mm	2.99 in 76.0 mm	N/A	Yes	15	900



B38H45



B38R



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Drilling

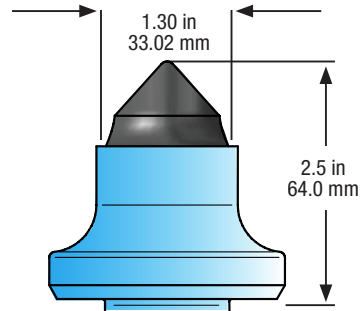


Features:

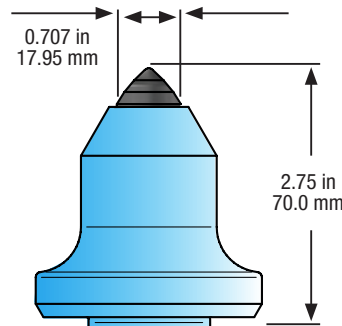
- Offered in Plugged tip, Hybrid tip and Large Cap tip for impact and highly abrasive material
- Offered with or without Puller groove for easy extraction
- Wide Shoulder tools offer maximum block, bore and seat protection

Tool Part Number	Shank (in, mm)	Shoulder (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
DXW20	1.5 in 30 mm	2.5 in 64.0 mm	1.30 in 33.02 mm	2.5 in 64.0 mm	10	600
DXW21	1.5 in 30 mm	2.5 in 64.0 mm	0.707 in 17.95 mm	2.75 in 70.0 mm	10	600
DXW31	1.5 in 30 mm	2.5 in 64.0 mm	0.817 in 20.75 mm	2.75 in 70.0 mm	10	600

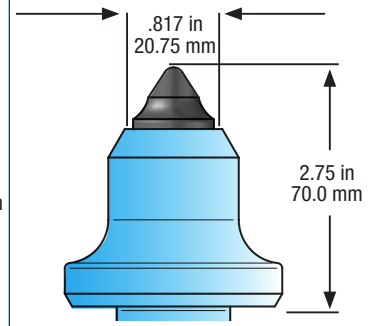
Block Part Number	Bore Hole Diameter (in, mm)	Width (in, mm)	Angle (degrees)	Internal Groove	Pieces per Box	Pieces per Pallet
B38H45	1.50 in 38.2 mm	2.62 in 66.5 mm	45°	Yes	8	480
B38R	1.50 in 38.1 mm	2.99 in 76.0 mm	N/A	Yes	15	900



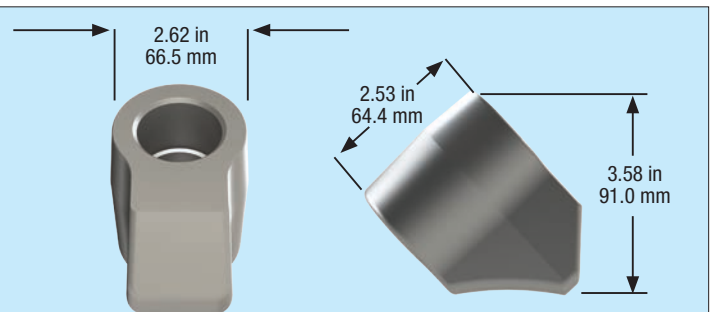
DXW20



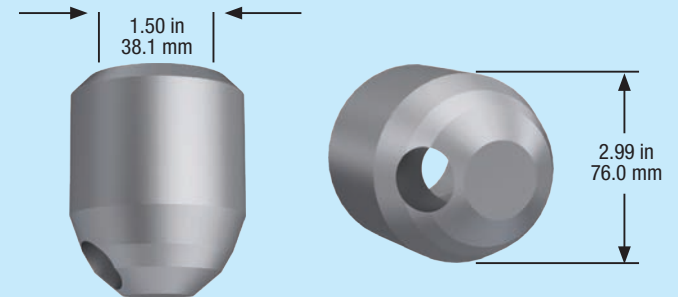
DXW21



DXW31



B38H45



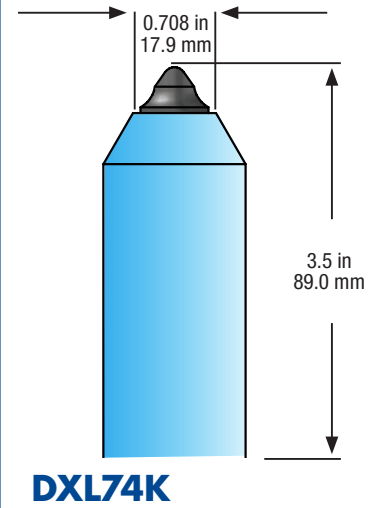
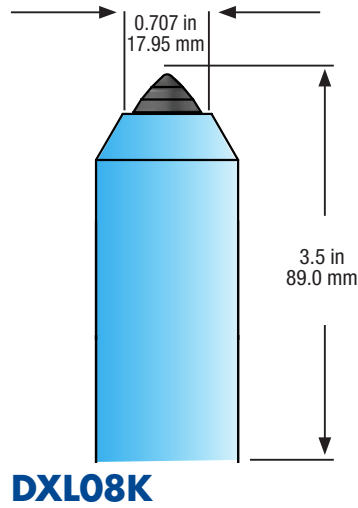
B38R



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Drilling

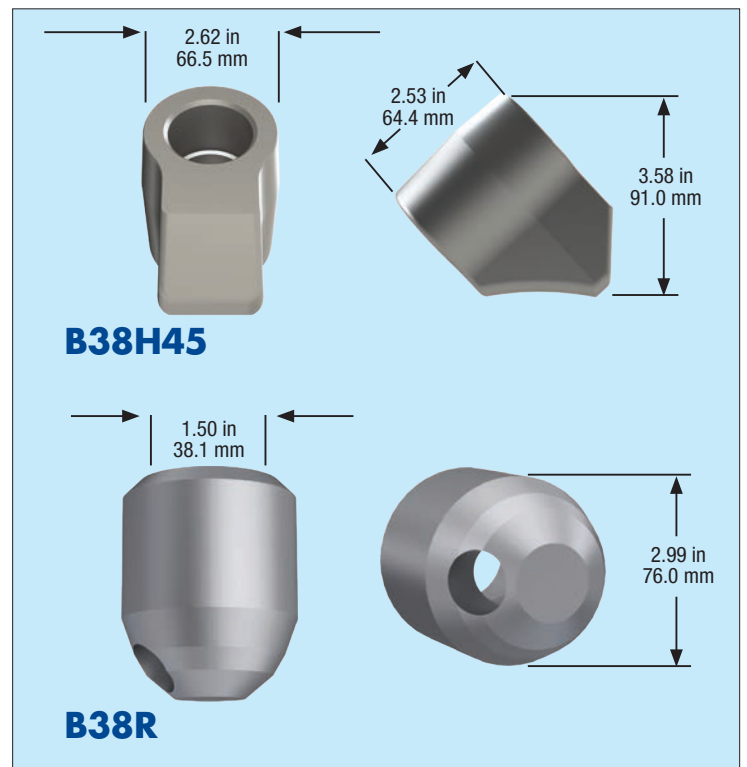


Features:

- Unique tool design provides superior penetration
- Offered in both Plugged tip or Hybrid tip for impact and highly abrasive material
- Utilizes Sleeve and/or Snap ring retainer to maintain maximum block bore and seat protection
- Offered with or without Puller groove for easy extraction

Tool Part Number	Shank (in, mm)	Shoulder (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
DXL08K	1.5 in 30 mm	NA	0.707 in 17.95 mm	3.5 in 89.0 mm	10	600
DXL74K	1.5 in 30 mm	NA	0.708 in 17.9 mm	3.5 in 89.0 mm	10	600

Block Part Number	Bore Hole Diameter (in, mm)	Width (in, mm)	Angle (degrees)	Internal Groove	Pieces per Box	Pieces per Pallet
B38H45	1.50 in 38.2 mm	2.62 in 66.5 mm	45°	Yes	8	480
B38R	1.50 in 38.1 mm	2.99 in 76.0 mm	N/A	Yes	15	900



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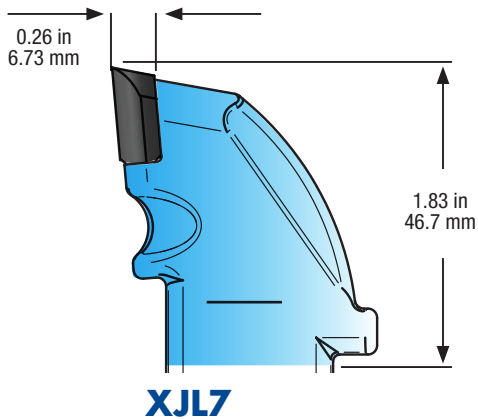


Drilling

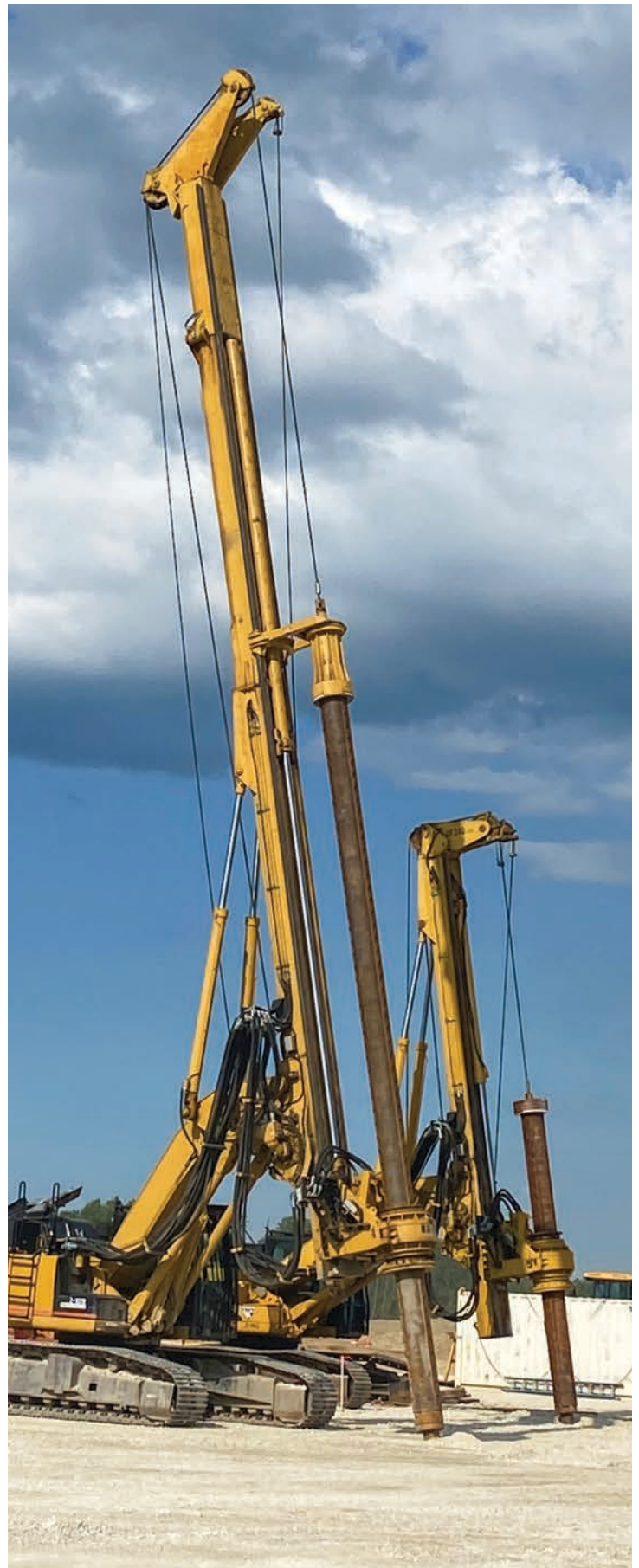


Features:

- Protruding nose for better penetration
- For use on Core Barrel and Casing Shoes



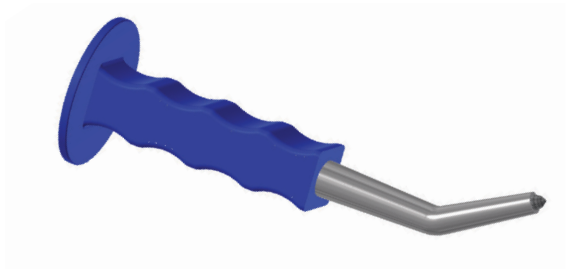
Tool Part Number	Shank (in, mm)	Tip Diameter (in, mm)	Gauge (in, mm)	Pieces per Box	Pieces per Pallet
XJL7	1.80 in 45 mm	0.26 in 6.7 mm	1.83 in 46.7 mm	60	3600



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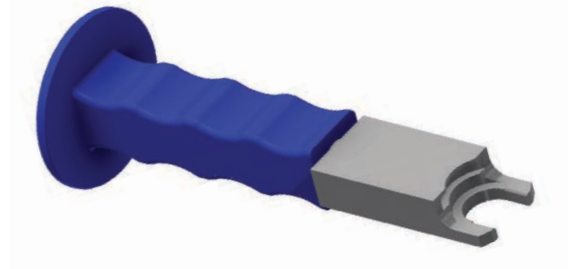
Accessories



CURVED KNOCK OUT PUNCH - Tool remover with carbide tip for extended life.

Part Number - Product Code

JMXA-CKP



INSTALLATION/REMOVAL - For removal of c-clip

Part Number - Product Code

JMXA-CC25

JMXA-CC30



FORKED PULLER - For removal of tools

Part Number - Product Code

JMXA-FP19

JMXA-FP22

JMXA-FP25

JMXA-FP38



WEDGE PULLER - For removal of shank tools with collars

Part Number - Product Code

JMXA-W25

WEDGE PULLER - For removal of step shank tools with collars

Part Number - Product Code

JMXA-W38



SNAP RING PLIERS - For removal of snap rings

Part Number - Product Code

JMXA-SRP86 - Ratchet Snap Ring Pliers

JMXA-SRT86 - Replaceable Tips

JMXA-SSRP86 - Standard Snap Ring Pliers for Retainers



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