FatHead™ Bits

Solid Carbide Head Carbide Drill Bits

USE IN

Rotary hammer with SDS chuck or SDS adapter

SIZE RANGE

3/16" x 4-1/4" to 9/16" x 18"

Powers FatHead combines an intelligent, innovative geometry with uncompromising quality in its detail. This is reflected in prolonged durability, precision drill holes and exceptional low vibration - even when the going gets tough. A premium tool for anyone who has to drill into reinforced concrete or natural stone.

FATHEAD CARBIDE DRILL BITS

CAT. NO.	SIZE	USABLE LENGTH	STD. TUBE
0701	3/16" x 4-1/2"	2"	1
0703	3/16" x 6-1/2"	4"	1
0705	3/16" x 8-1/2"	6"	1
0707	3/16" x 10-1/2"	8"	1
0709	3/16" x 12"	10"	1
0711	1/4" x 4-1/2"	2"	1
0713	1/4" x 6-1/2"	4"	1
0715	1/4" x 8-12"	6"	1
0717	1/4" x 10-1/4"	8"	1
0719	1/4" x 12"	10"	1
0721	5/16" x 6-1/2"	4"	1
0723	5/16" x 12"	10"	1
0727	3/8" x 6-1/2"	4"	1
0729	3/8" x 12"	10"	1
0731	3/8" x 18"	16"	1
0733	7/16" x 6-1/4"	4"	1
0735	7/16" x 12-1/4"	10"	1
0739	1/2" x 6-1/2"	4"	1
0741	1/2" x 12"	10"	1
0743	1/2" x 18"	16"	1
0745	9/16" x 6-1/2"	4"	1
0747	9/16" x 12-1/4"	10"	1
0751	5 Piece Drill Set Kit includes 3/16", 1/4", 5/16", 3/8" and 1/2" diameter bits (all 6" overall)		1

SDS-Plus / S-4 Plus SDS

Carbide Drill Bits

USE IN

Rotary hammer with SDS chuck or SDS adapter

SIZE RANGE

5/32" x 6" to 1" x 18"

S-4 Plus SDS Carbide Drill Bits are designed for use in a rotary hammer equipped with an SDS (slotted drive shaft) type chuck. The bits are manufactured to conform with ANSI Standard B212.15 and can be used to drill in concrete, block, brick, and soft stone.

SDS-PLUS / S-4 PLUS SDS CARBIDE DRILL BITS

CAT. NO.	SIZE	USABLE LENGTH	STD. POUCH
0302	5/32" x 6-1/2"	4-1/2"	1
0304	3/16" x 4-1/2"	2-1/2"	1
0306	3/16" x 6-1/2"	4-1/2"	1
0308	3/16" x 8-1/2"	6-1/2"	1
0310	3/16" x 10"	8"	1
0312	3/16" x 12"	10"	1
0314	3/16" x 14"	12"	1
0316	7/32" x 8-1/4"	6"	1
0317	7/32" x 11"	8"	1
0318	7/32" x 14"	12"	1
0319	7/32" x 16"	14"	1
0320	1/4" x 4-1/2"	2"	1
0321	1/4" x 6-1/2"	4"	1
0322	1/4" x 8-1/2"	6-1/2"	1
0323	1/4" x 11"	9"	1
0324	1/4" x 14"	12"	1
0325	1/4" x 16"	14"	1
0327	1/4" x 20"	18"	1
0329	5/16" x 6-1/4"	4-1/4"	1
0331	5/16" x 12"	10"	1
0333	3/8" x 6-1/2"	4-1/4"	1
0334	3/8" x 10-1/4"	8-1/4"	1
0336	3/8" x 12-1/4"	10-1/4"	1
0338	3/8" x 18"	16"	1
0339	3/8" x 24"	22"	1
0341	7/16" x 6-1/4"	4-1/4"	1
0343	7/16" x 12-1/4"	10-1/4"	1
0346	1/2" x 6-1/2"	4-1/4"	1
0348	1/2" x 10-1/4"	8-1/4"	1
0349	1/2" x 12-1/4"	10-1/4"	1
0351	1/2" x 18"	16"	1
0352	1/2" x 24"	22"	1
0354	9/16" x 6-1/4"	4-1/4"-	1
0355	9/16" x 10-1/4"	8"	1
0359	5/8" x 7-3/4"	6"	1
0361	5/8" x 12"	10"	1
0362	5/8" x 18"	16"	1
0364	11/16" x 8"	6"	1
0365	11/16" x 12"	10"	1
0368	3/4" x 8"	6"	1
0370	3/4" x 12"	10"	1
0371	3/4" x 18"	16"	1
0373	27/32" x 8"	6"	1
0375	7/8" x 8"	6"	1
0376	7/8" x 12"	10"	1
0377	7/8" x 18"	16"	1
0379	1" x 8"	6"	1
0380	1" x 10"	8"	1
0381	1" x 12"	10"	1
0382	1" x 18"	16"	1
0394†	Spline to SDS Adapter	-	1
0396†	SDS Max Adapter	-	1

† Use of SDS-Plus drill bit in larger rotary hammers with an adapter will reduce bit life.

SDS-PLUS / S-4 PLUS SDS CARBIDE DRILL BIT BULK PACKS			
CAT. NO.	SIZE	USABLE LENGTH	BITS PER PACK
0662	5/32" x 6-1/2"	4-1/4"	25
0664	3/16" x 4-1/2"	2-1/4"	25
0666	3/16" x 6-1/2"	4-1/4"	25
0668	3/16" x 8-1/2"	6-1/4"	25
0670	3/16" x 10"	8"	25
0675	7/32" x 6-1/4"	4"	25
0676	7/32" x 8-1/4"	6"	25
0677	7/32" x 11"	8"	25
0680	1/4" x 4-1/2"	2-1/4"	25
0681	1/4" x 6-1/2"	4-1/4"	25
0682	1/4" x 8-1/2"	6-1/4"	25
0683	1/4" x 11"	9"	25
0689	5/16" x 6-1/4"	4-1/4"	25
0693	3/8" x 6-1/2"	4-1/4"	25
0696	1/2" x 6-1/2"	4-1/4"	25
0697	5/8" x 7-3/4"	6-1/4"	25

Dropin

SDS-PLUS ACCU STOP BIT FOR DROPIN*			
CAT. NO.	SIZE	USABLE LENGTH	BITS PER PACK
00391	SDS-Plus 3/8" Concrete Accu-Bit	for 1/4" Dropin	1
00397	SDS-Plus 1/2" Concrete Accu-Bit	for 3/8" Dropin	1
00410	SDS-Plus 5/8" Concrete Accu-Bit	for 1/2" Dropin	1
00418	SDS-Plus 7/8" Concrete Accu-Bit	for 5/8" Dropin	1
00419	SDS-Plus 1" Concrete Accu-Bit	for 3/4" Dropin	1

For Smart DI+ Stop Bits see page 16.

Mini Dropin

SDS-PLUS ACCU STOP BIT FOR MINI DROPIN			
CAT. NO.	SIZE	USABLE LENGTH	BITS PER PACK
00392	SDS-Plus 3/8" Concrete Accu-Bit	for 1/4" Mini Dropin	1
00398	SDS-Plus 1/2" Concrete Accu-Bit	for 3/8" Mini Dropin	1
00411	SDS-Plus 5/8" Concrete Accu-Bit	for 1/2" Mini Dropin	1

Quatro Head SDS-Plus Carbide Drill Bits are designed to reduce vibration and noise. These bits produce rounder and more accurately located anchor holes.

QUATRO HEAD SDS-PLUS CARBIDE DRILL BITS			
CAT. NO.	SIZE	USABLE LENGTH	STD. POUCH
7094	1-1/8" x 18"	16"	1
7095	1-1/4" x 18"	16"	1

Industrial Grade Bits (Value Paks)

Carbide Drill Bits fits SDS®

USE IN

Rotary hammer with SDS chuck or SDS adapter

SIZE RANGE

5/32" x 6" to 5/8" x 8"

These carbide bits are designed to be used in rotary hammer equipment with a slotted drive shank. Available in bulk pack quantities only with the large volume user in mind. These bits meet are manufactured to conform with ANSI standard B212.15 and can be used in concrete, block, brick and soft stone.

INDUSTRIAL GRADE VALUE PAK BITS				
CAT. NO.	DESCRIPTION	USABLE LENGTH	STD. BOX	STD. CTN.
0801	5/32" x 6-1/4"	4"	25	500
0803	3/16" x 4-1/4"	2"	25	450
0805	3/16" x 6-1/4"	4"	25	500
0807	3/16" x 8-1/4"	6"	25	450
0809	3/16" x 10"	7-1/2"	25	300
0811	7/32" x 6-1/4"	4"	25	500
0813	7/32" x 8-1/4"	6"	25	450
0815	7/32" x 10"	7-1/2"	25	300
0817	1/4" x 4-1/4"	2"	25	450
0819	1/4" x 6-1/4"	4"	25	500
0821	1/4" x 8-1/4"	6"	25	450
0823	1/4" x 11"	8-1/2"	25	300
0825	5/16" x 6-1/4"	4"	25	500
0827	3/8" x 6-1/4"	4"	25	300
0829	1/2" x 6-1/4"	3-1/2"	15	180
0831	5/8" x 8"	5"	15	120

* SDS® is a registered trademark of Robert Bosch Co.

SDS-Max®

USE IN

Rotary hammer with SDS-Max chuck

SIZE RANGE

1/2" x 13" to 1-1/2" x 23"

SDS-Max Carbide Drill Bits are designed for use in a rotary hammer equipped with a SDS-Max type chuck. The bits are manufactured to conform with ANSI Standard B212.15 and can be used to drill in concrete, block, brick, and soft stone.

4-X CUTTER HEAD SDS-MAX DRILL BITS			
CAT. NO.	SIZE	USABLE LENGTH	STD. TUBE
8801†	1/2" x 13-1/2"	8"	1
8802†	1/2" x 21-1/2"	16"	1
8805†	9/16" x 13-1/2"	8"	1
8806†	9/16" x 21-1/2"	16-1/2"	1
8809	5/8" x 13-1/2"	8"	1
8810	5/8" x 21-1/2"	16"	1
8812	5/8" x 36"	31"	1
8815	11/16" x 21-1/2"	16"	1
8817	3/4" x 13-1/2"	8"	1
8818	3/4" x 21-1/2"	16"	1
8820	3/4" x 36"	31"	1
8829	7/8" x 13-1/2"	8"	1
8830	7/8" x 21-1/2"	16"	1
8833	1" x 13-1/2"	8"	1
8834	1" x 21-1/2"	16"	1
8836	1" x 36"	31"	1
8843	1-1/8" x 17"	10"	1
8844	1-1/8" x 22-1/2"	18"	1
8846	1-1/4" x 15"	10"	1
8847	1-1/4" x 22-1/2"	18"	1
8848	1-1/4" x 36"	31"	1
8853	1-3/8" x 22-1/2"	18"	1
8859	1-1/2" x 22-1/2"	18"	1

SDS-Max is a registered trademark of Robert Bosch Co.
† 1/2" and 9/16" sizes have a standard single cutter tip and standard helical fluting.

Spline

USE IN
Rotary hammer with Spline chuck
SIZE RANGE
3/8" x 8" to 2" x 23"

Spline Carbide Drill Bits are designed for use in a rotary hammer equipped with a spline type chuck. The bits are manufactured to conform with ANSI Standard B212.15 and can be used to drill in concrete, block, brick, and soft stone. Both 4-X Cutter and single tip head styles are available.

4-X CUTTER HEAD SPLINE DRILL BITS

CAT NO	SIZE	USABLE LENGTH	STD PACK
7017	5/8" x 10"	5"	1
7020	5/8" x 16"	11"	1
7021	5/8" x 22"	17"	1
7023	5/8" x 27"	22"	1
7028	11/16" x 16"	11"	1
7031	3/4" x 10"	5"	1
7033	3/4" x 16"	11"	1
7035	3/4" x 22"	17"	1
7036	3/4" x 27"	22"	1
7037	3/4" x 36"	31"	1
7043	7/8" x 16"	11"	1
7045	7/8" x 22"	17"	1
7049	1" x 16"	11"	1
7051	1" x 22"	17"	1
7053	1" x 36"	31"	1
7057	1-1/8" x 16"	11"	1
7059	1-1/8" x 22"	17"	1
7064	1-1/4" x 16"	11"	1
7066	1-1/4" x 22"	17"	1
7069	1-1/4" x 36"	31"	1
7072	1-3/8" x 22"	17"	1
7077	1-1/2" x 22"	17"	1

SINGLE TIP SPLINE CARABIDE DRILL BITS

CAT NO	SIZE	USABLE LENGTH	STD PACK
1401	3/8" x 10"	5"	1
1402	3/8" x 13"	5"	1
1403	3/8" x 16"	11"	1
1405	7/16" x 13"	8"	1
1407	1/2" x 10"	5"	1
1408	1/2" x 13"	8"	1
1409	1/2" x 16"	11"	1
1410	1/2" x 22"	17"	1
1412	1/2" x 27"	22"	1
1413	1/2" x 36"	31"	1
1415	9/16" x 10"	5"	1
1418	5/8" x 10"	5"	1
1419	5/8" x 13"	8"	1
1420	5/8" x 16"	11"	1
1421	5/8" x 22"	17"	1
1424	5/8" x 36"	31"	1
1427	11/16" x 13"	8"	1
1431	3/4" x 10"	5"	1
1433	3/4" x 16"	11"	1
1434	3/4" x 22"	17"	1
1436	3/4" x 27"	22"	1
1437	3/4" x 36"	31"	1
1443	7/8" x 16"	11"	1
1444	7/8" x 22"	17"	1
1446	7/8" x 36"	31"	1
1449	1" x 16"	11"	1
1450	1" x 22"	17"	1
1453	1" x 36"	31"	1
1457	1-1/8" x 16"	11"	1
1458	1-1/8" x 22"	17"	1
1464	1-1/4" x 16"	11"	1
1465	1-1/4" x 22"	18"	1
1470	1-3/8" x 16"	11"	1
1471	1-3/8" x 22"	17"	1
1477	1-1/2" x 22"	17"	1
1486	1-3/4" x 22"	17"	1
1490	2" x 22"	17"	1

HD Straight Shank Bits

USE IN
Hammer Drill
SIZE RANGE
1/8" x 3" to 3/4" x 24"

Heavy Duty Straight Shank Carbide Bits are designed for use in a hammer drill equipped with a 3 jaw Jacobs type chuck. The bits meet ANSI standards and can be used to drill in concrete, block, brick, and soft stone.

HD STRAIGHT SHANK BITS

CAT NO	DRILL SIZE	USABLE LENGTH	SHANK SIZE	STD PACK
0501	1/8" x 3"	2"	1/8"	1
0503	5/32" x 6"	4"	5/32"	1
0504	3/16" x 4"	2"	3/16"	1
0505	3/16" x 6"	4"	3/16"	1
0512	1/4" x 4"	2"	1/4"	1
0513	1/4" x 6"	4"	1/4"	1
0514	1/4" x 12"	7"	1/4"	1
0516	1/4" x 24"	22"	1/4"	1
0519	5/16" x 6"	4"	5/16"	1
0522	3/8" x 6"	4"	3/8"	1
0523	3/8" x 12"	10"	3/8"	1
0525	3/8" x 24"	22"	3/8"	1
0531	1/2" x 6"	4"	3/8"	1
0532	1/2" x 12"	10"	3/8"	1
0534	1/2" x 24"	22"	3/8"	1
0538	5/8" x 6"	4"	1/2"	1
0540	5/8" x 12"	10"	1/2"	1
0545	3/4" x 6"	4"	1/2"	1
0547	3/4" x 12"	10"	1/2"	1

BULK PACK

CAT NO	DRILL SIZE	BITS PER PACK
0593	1/4" x 4"	25
0594	1/4" x 6"	25
0595	3/8" x 6"	10

IG Straight Shank Bits

USE IN

Hammer Drill

SIZE RANGE

1/8" x 3" to 1" x 12"

Industrial Grade Straight Shank Carbide Bits are designed for use in a hammer drill equipped with a 3 jaw Jacobs type chuck. The bits meet ANSI standards and can be used to drill in concrete, block, brick, and soft stone.

IG STRAIGHT SHANK BITS				
CAT. NO.	DRILL SIZE	USABLE LENGTH	SHANK SIZE	STD. POUCH
0601	1/8" x 3"	2"	1/8"	1
0604	3/16" x 4"	2"	3/16"	1
0605	3/16" x 6"	4"	3/16"	1
0612	1/4" x 4"	2"	1/4"	1
0613	1/4" x 6"	4"	1/4"	1
0614	1/4" x 12"	10"	1/4"	1
0618	5/16" x 4"	2"	1/4"	1
0619	5/16" x 6"	4"	1/4"	1
0621	3/8" x 4"	2"	1/4"	1
0622	3/8" x 6"	4"	1/4"	1
0623	3/8" x 12"	10"	5/16"	1
0625	3/8" x 24"	22"	5/16"	1
0626	7/16" x 6"	4"	3/8"	1
0631	1/2" x 6"	4"	3/8"	1
0632	1/2" x 12"	10"	3/8"	1
0635	9/16" x 6"	4"	3/8"	1
0638	5/8" x 6"	4"	3/8"	1
0640	5/8" x 12"	10"	3/8"	1
0645	3/4" x 6"	4"	1/2"	1
0647	3/4" x 12"	10"	1/2"	1
0650	7/8" x 12"	10"	1/2"	1
0654	1" x 12"	10"	1/2"	1

BULK PACK		
CAT. NO.	DRILL SIZE	BITS PER PACK
0561	3/16" x 4"	50
0562	3/16" x 6"	50
0563	1/4" x 4"	25
0564	1/4" x 6"	25
0565	3/8" x 6"	10
0566	1/2" x 6"	10

"A" Taper Drill Bits

USE IN

Rotary Hammer with "A" Taper Chuck or Adapter

SIZE RANGE

1/4" x 6" to 3/4" x 12"

"A" Taper Drill Bits are designed for use in a rotary hammer equipped with an "A" Taper type chuck. The bits meet ANSI standards and can be used to drill in concrete, block, brick, and soft stone.

"A" TAPER BITS			
CAT. NO.	DRILL SIZE	USABLE LENGTH	STD. TUBE
0712	1/4" x 6"	4"	1

Rotary Carbide Drills

USE IN

Rotary Only Drill

SIZE RANGE

1/8" x 2-1/2" to 3/4" x 6"

Rotary Carbide Bits are designed for use in a rotation only drill equipped with a 3 jaw Jacobs type chuck. The bits meet ANSI standards with a positive rake tip and can be used to drill in soft or brittle masonry materials using rotation only. Fast spiral flutes are for fast drilling in soft to medium masonry materials such as block or brick. Deep fluted drills perform best in concrete where the wide fluting helps clean concrete chips and dust from the hole.

FAST SPIRAL ROTARY CARBIDE BITS					
CAT. NO.	DRILL SIZE	SHANK SIZE	USABLE LENGTH	OVERALL LENGTH	STD. TUBE
8500	1/8"	1/8"	1-3/4"	2-1/2"	1
8506	3/16"	3/16"	1-3/4"	3"	1
8508	1/4"	1/4"	1-3/4"	4"	1
8512	5/16"	1/4"	2-1/2"	4"	1
8514	3/8"	1/4"	2-1/2"	4"	1
8560	3/8"	1/4"	4-1/2"	6"	1
8520	1/2"	3/8"	4"	6"	1
8526	5/8"	1/2"	4"	6"	1
8570	5/8"	1/2"	10-1/2"	12"	1
8530	3/4"	1/2"	4"	6"	1

* Discontinued item once current stock exhausted.

DEEP FLUTE ROTARY CARBIDE BITS					
CAT. NO.	DRILL SIZE	SHANK SIZE	USABLE LENGTH	OVERALL LENGTH	STD. TUBE
8606	3/16"	3/16"	1-3/4"	3"	1
8608	1/4"	1/4"	1-3/4"	4"	1

Rebar Cutter

Carbide Drill Bits

USE IN

Rotation-only drill with standard 1/2" Jacobs style chuck

SIZE RANGE

1/2" to 1-1/4" diameter

Rebar cutter bits provide a quick, easy method for drilling through mesh or reinforcing bars embedded in concrete when the drilled hole cannot be relocated. The bits are used in the rotation only mode and are designed to fit in a standard rotary drill motor with a 1/2" Jacobs style chuck.

When drilling with a hammer drill or rotary hammer, it is important to stop drilling immediately when a standard carbide bit contacts steel reinforcing bar or wire mesh. If the drilled hole cannot be relocated, a rebar cutter bit is used to drill through the embedded steel. Insert the rebar cutter bit into the chuck of a standard 1/2" rotary drill. Place the bit into the partially drilled hole until it contacts the mesh or reinforcing bar. Drill through the embedded steel with the rebar cutter bit. Once the bit has drilled through the steel, remove the debris from the hole, then continue drilling with the standard carbide tipped bit using a hammer drill or rotary hammer.

REBAR CUTTER CARBIDE DRILL BITS			
CAT. NO.	SIZE	USABLE LENGTH	STD. BOX
0845	1/2" x 12"	11"	12
0844	9/16" x 12"	11"	12
0846	5/8" x 12"	11"	12
0847	11/16" x 12"	11"	12
0849	3/4" x 12"	11"	12
0851	7/8" x 12"	11"	12
0853	1" x 12"	11"	12
0855	1-1/4" x 12"	11"	12

Heavy Duty Chisels

USE IN

Combination Rotary Hammer / Chipping Tool with a Spline, SDS-Max® or 3/4" Hex Chuck

SIZE RANGE

Bull Point, Flat, Scaling and Bushing

Heavy Duty Chisels and accessories are designed for use in a combination rotary hammer / chipping tool equipped with a Spline, SDS-Max, or 3/4" Hex chuck. They can be used for chipping applications in concrete, block, brick, and soft stone

HEAVY DUTY CHISELS

CAT NO.	SHANK TYPE	DESCRIPTION	STD. BOX
0950	Spline	Bull Point Chisel 12"	1
0951	Spline	Bull Point Chisel 18"	1
0952	Spline	Flat Chisel 1" x 12"	1
0953	Spline	Flat Chisel 1" x 18"	1
0954	Spline	Scaling Chisel 1-1/2" x 12"	1
0955	Spline	Scaling Chisel 2" x 12"	1
0959	Spline	Ground Rod Driver 7/8" x 10-1/4"	1
0960	Spline	Bushing Tool 1-3/4" x 9-1/4"	1
0965	SDS-Max	Bull Point Chisel 12"	1
0966	SDS-Max	Bull Point Chisel 18"	1
0967	SDS-Max	Flat Chisel 1" x 12"	1
0968	SDS-Max	Flat Chisel 1" x 18"	1
0969	SDS-Max	Scaling Chisel 1-1/2" x 12"	1
0970	SDS-Max	Scaling Chisel 2" x 12"	1
0974	SDS-Max	Ground Rod Driver 7/8" x 10-1/4"1	1
0975	SDS-Max	Bushing Tool 1-3/4" x 9-1/2"	1
0982	3/4" Hex	Flat chisel 1" x 12"	1
0983	3/4" Hex	Flat chisel 1" x 18"	1

Heavy Duty One and Two Piece Core Bits

USE IN

Rotary Hammer with a Spline or SDS Max® chuck

SIZE RANGE

1-1/2" to 5"

Heavy Duty Core Bits are designed for use in a rotary hammer equipped with a spline or SDS-Max type chuck. The bits can be used to drill in concrete, block, brick, and soft stone.

ONE PIECE SPLINE CORE BITS - HEAVY WALL

CAT NO.	DRILL SIZE	DESCRIPTION	STD. TUBE
0260*	2-5/8"	Hollow Core Bit Spline 2-5/8" x 22"	1

One piece core bits are packaged with a centering bit and ejector pin.
* Discontinued item once current stock exhausted.

ONE PIECE SDS-MAX CORE BITS - HEAVY WALL

CAT NO.	DRILL SIZE	DESCRIPTION	STD. TUBE
0284	2-5/8"	Hollow Core Bit SDS-Max 2-5/8" x 22	1

One piece core bits are packaged with a centering bit and ejector pin.

Cups With External Male Rope Thread

TWO PIECE CORE BITS - HEAVY WALL

CAT NO.	DRILL SIZE	DESCRIPTION	STD. TUBE
0570	1-3/4"	Hollow Core Bit 1-3/4" x 4"	1
0571	2"	Hollow Core Bit 2" x 4"	1
0572	2-5/8"	Versio Core Cutter 2-5/8" x 4"	1
0573	3-1/8"	Versio Core Cutter 3-1/8" x 4"	1
0575	4"	Versio Core Cutter 4" x 4"	1
0576	5"	Versio Core Cutter 5" x 4"	1

Drive shanks with internal female Rope Thread

TWO PIECE CORE BITS

CAT NO.	SHANK TYPE	DESCRIPTION	OVERALL LENGTH	USABLE LENGTH	STD. TUBE
0578	Spline	Adaptor	7"	2"	1
0582	Universal	Extension	11"(w/o flute)	11"	1
0580	SDS-Max	Adaptor	7-3/4"	2-3/4"	1
0590	-	Centering Bit	6"	-	1

Carbide Drill Bit Warranty

Powers carbide tipped drill bits are warranted against failure due to manufacturing defects. This warranty does not apply to failure due to normal wear or where there is evidence of improper application or misuse.

ANSI Standard B212.15

Powers carbide tipped drill bits are manufactured to conform with the American National Standards Institute, Standard B212.15 as listed in the following table. Powers anchors, unless otherwise noted, are designed to be installed in holes drilled in the base material using carbide tipped bits meeting this specification.

NOMINAL DRILL O.D.	ANSI STANDARD	NOMINAL DRILL O.D.	ANSI STANDARD
1/8"	0.134-0.140"	11/16"	0.713-0.723"
5/32"	0.165-0.171"	3/4"	0.775-0.787"
11/64"	0.181-0.187"	27/32"	0.865-0.881"
3/16"	0.198-0.206"	7/8"	0.905-0.917"
7/32"	0.229-0.237"	15/16"	0.968-0.980"
1/4"	0.260-0.268"	1"	1.030-1.042"
9/32"	0.296-0.304"	1-1/8"	1.160-1.175"
5/16"	0.327-0.335"	1-1/4"	1.285-1.300"
3/8"	0.390-0.398"	1-3/8"	1.410-1.425"
7/16"	0.458-0.468"	1-1/2"	1.535-1.550"
1/2"	0.520-0.530"	1-5/8"	1.655-1.675"
9/16"	0.582-0.592"	1-3/4"	1.772-1.792"
5/8"	0.650-0.660"	2"	2.008-2.028"

Evaluation Procedure

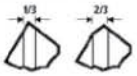
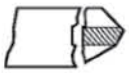
The following criteria is used to evaluate drill bits submitted for warranty. Warranty claims for carbide tipped drill bits should be submitted by the distributor to the local Powers branch from which the merchandise was purchased. Full or partial replacement of a drill bit is based on the amount of wear differential as measured between front and rear portion of the flute as shown below. To determine the wear differential, measure the diameter of flute at d_1 and d_2. The variation between d_1 and d_2 is the differential.

The allowable wear differential is listed in the table below. Bits which are worn beyond the differential have reached the maximum expected bit life and do not qualify for warranty.

DRILL BIT DIAMETER (INCH)	WEAR DIFFERENTIAL (INCH)	DRILL BIT DIAMETER (INCH)	WEAR DIFFERENTIAL (INCH)
3/16"	0.008"	3/4"	0.024"
1/4"	0.008"	7/8"	0.028"
5/16"	0.012"	1"	0.032"
3/8"	0.016"	1-1/8"	0.036"
7/16"	0.020"	1-1/4"	0.039"
1/2"	0.020"	1-3/8"	0.043"
9/16"	0.024"	1-1/2"	0.048"
5/8"	0.024"	1-3/4"	0.048"
11/16"	0.024"	2"	0.048"

Evaluation Criteria

The following chart shows typical drill bit damage associated with warranty claims, the probable cause, and the warranty policy. Warranty replacement credit will be adjusted based on the amount of drill bit wear. No replacement will be made for bits where the shank transition is polished or where flutes are full of foreign material such as tar.

EVALUATION CRITERIA	
DAMAGE	CAUSE
Carbide Insert Lip is Missing or Loose 	This is generally caused by poor brazing indicated by lack of brazing material at theBase of the tip or voids. Failure usually occurs within the first 10 to 20 holes. **Full/Partial Replacement based on wear.**
Carbide Tip Fractured 	Tip fractures will occur if reinforcing bars or other embedments are struck when drilling into concrete or masonry. These failures are easily identified because both the carbide insert and the tool steel will be damaged. **No Warranty Replacement.** Tip fractures may also occur if the carbide insert is out of tolerance, usually too hard. If this type of failure occurs, only the carbide tip will be fractured. **Full/Partial Replacement based on wear.**
Carbide Tip/Tool Body Breakage 	A failure such as this indicates that the brazing may not have been strong enough to resist the differences in thermal expansion between the carbide tip and the tool steel. **Full/Partial Replacement based on wear.**
Carbide Cutting Edge is Worn/Rounded 	If the cutting edge of the carbide tip is worn more than 2/3 of its width, the bit has reached the end of its useful life. **No Warranty Replacement.**
Loss of Carbide/Tool Tip 	A failure such as this indicates that the brazing may not have been strong enough to resist the differences in thermal expansion between the carbide tip and the tool steel. **Full/Partial Replacement based on wear.**
Shaft Breakage Behind Head 	Shaft breakage may occur if there is a defect in the tool steel. This will be indicated by a notch which is evident in the fracture area. **Full/Partial Replacement based on wear.** Breakage may occur if the bit has been over torqued by jamming it in the hole. This is indicated by the lack of a notch and an irregular / jagged fracture area. **No Warranty Replacement.**
Shaft Breakage Away from Tool Head 	Shaft breakage away from the tool head may occur if there is a defect in the tool steel. This will be indicated by a notch which is evident in the fracture area. **Full/Partial Replacement based on wear.** Breakage in the shaft away from the head or tip area may also occur if the bit has been over torqued by jamming it in the hole. This is indicated by an irregular or jagged fracture area. No notch is apparent. **No Warranty Replacement.**
Shaft Breakage - Clogged Flutes 	The bit has been used to drill through plastic, tar, adhesive, etc., and the flutes have been clogged. This is an indication that the bit could not clear dust and chips and broke from overload. **No Warranty Replacement.**
Shank Transition is Polished 	If the drill bit has been used to produce holes deeper than the length of the flute, the area between the flutes and the upper shank will become polished. Dust may also be packed into the flutes. **No Warranty Replacement.**
Tool Holder Slots Worn 	Wear in the tool holder area indicates that the drill motor used should be repaired or replaced. **No Warranty Replacement.**