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Servicio de Att. al Cliente

APEX®

Industrial Fastener Tools





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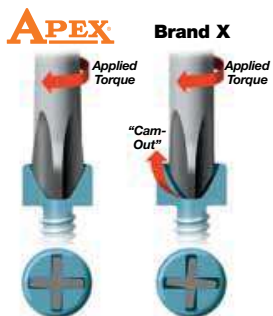


The Apex heritage of qual

For more than half a century Apex has maintained a position of leadership in industrial fastening tools. Today, Apex stands ready to improve the productivity of assembly operations around the world with unsurpassed tool performance and customer service.

Precision Fit

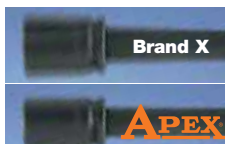
Apex quality begins with select raw materials. Only carefully chosen, high grade tool steel is used. Each tool is manufactured to the tightest tolerances in the industry...most are even tighter than licensing agreement requirements. Our bits meet the most stringent government and military specifications where applicable (ie. MIL-B-9946/5 for HTS Hi-Torque® bits used in aerospace assembly).



Precision fit of Apex tools eliminates "cam-out" and premature bit failure.

Apex sockets, nutsetters and universal wrenches have hex tolerances that are on average 48% tighter than DIN and 35% tighter than ANSI requirements. With Apex you are assured of an exact, sure fit.

All Apex sockets and extensions have the tightest tolerances for straightness and concentricity in the



Precision-manufactured Apex tools are virtually wobble-free.

industry. Tools that run true perform better and last longer.

Lasting Performance

Each Apex tool is tempered with our proprietary heat treating process that lets you select the degree of hardness your particular application requires. Choose from tough, non-brittle durability that stands up to torque, to the hardest heat treat available in the industry for the ultimate in wear resistance.



Apex bits & sockets last ten times longer than most of our competitors.

Apex offers a choice of three heat treat hardness levels in many of our screwdriver bits to match the application. These heat treats are specified by a letter suffix as follows:

- X - Hardest heat treat in the industry**
- I - Intermediate hardness**
- R - Lowest hardness**

Our experienced staff can help in selecting the best heat treat for your particular application.



lv



ity, delivery and support.

Innovative Solutions

Throughout our history Apex has partnered with the leading fastener manufacturers to assist in the development of new fastening technologies. Today, many of these new tools that are now common can trace their history back to Apex engineering.

Recently Apex introduced **µ-Guard™** protective covers to satisfy the growing demand for products that prevent in-system damage.



Unsurpassed Offering

This catalog contains 3,000+ of the most frequently requested bits, sockets and fastening accessories. Our entire active offering approaches 10,000 sellable part numbers. If the tool you need does not appear in this catalog, give us a call. The odds are, we may have what you need as a non-catalog item. If not, our



experienced staff of tooling experts can design and manufacture "specials" to meet the needs of your specific applications. You can even submit special requests on-line at our website www.apex-tools.com by completing the simple forms.

This flexibility has helped make Apex the only manufacturer which is a market and technology leader in all of the following industrial product categories: Bits & Bit Holders, Impact Sockets, Extensions and Universal Wrenches.

Availability & Service

Apex has approximately 2,000 authorized distributor locations globally to provide product off-the-shelf as well as knowledgeable service and support. Apex stocks over 1,000 part numbers and a multitude of blanks to manufacture several thousand more in order to support our strong global distribution network.





Important Notes

User safety tips

- Always wear safety glasses when using any tool.
- Always visually inspect tool for damage and cracking. Immediately replace all damaged tools.
- Do not modify or alter any tool.
- Do not use tools beyond their limit or useful life.
- Contact Apex for the recommended operating torque of any tool.

Selecting the proper heat treat for bits

Choosing the proper heat treat for screwdriver tools is important in achieving long tool life. Different applications, different operators, and different power tools require different heat treats. Apex offers a choice of three heat treat hardness levels in many of our screwdriver bits to match the particular customer's application. These heat treats are specified by a letter suffix as follows:

X - The hardest heat treat in the industry

I - Intermediate hardness

R - Lowest hardness

Selecting the heat treat best suited for a particular application may require some trial and error. The proper heat treat depends on the failure mode. If the bit breaks or shatters, select a bit with less hardness. If the failure mode is wear, select a harder bit. Many times both breakage and wear may occur within the same application. This can be due to a number of factors such as different operators, different torque values, and different power tool settings.

In general, high torque applications require "R" heat treats to withstand twisting and resist breakage. The "X" heat treat is most suitable for low torque applications, particularly if hardened screws are used.

If a failure occurs, a change in hardness may result in better service. The "X" heat treat is most common and should be selected unless the specifics of an application or an existing problem would suggest using "I" or "R" hardness.

To specify a particular heat treat, add a letter suffix to the part number. For example, to specify "X" hardness in a #2 Phillips insert, the part number would be 440-2X. Not all Apex bits are available in all heat treats. Special heat treats can be supplied for a particular application.

Contact your Apex representative for specific recommendations.

Since "X" hardness is the most popular with our customers, it is our default product where "X" designation may be omitted from the part number. For all other hardness designations, the product packaging will be marked with the appropriate hardness designation letter.

Warning

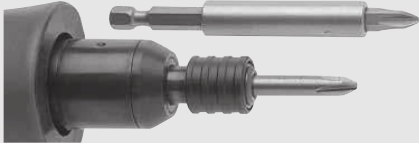
- Using any adapter may result in a torque overload and failure in the adapter, socket or fastener.
- Do not use thin wall sockets with impact power tools.

Warning

- Using any adapter may result in a torque overload and failure in the adapter, socket or fastener.
- Do not use thin wall sockets with impact power tools.
- Do not use universal wrenches with impact power tools.

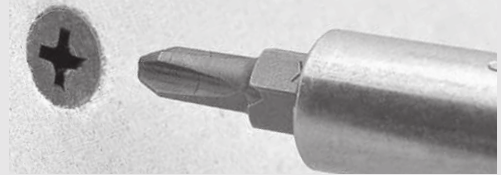


APEX® Solutions



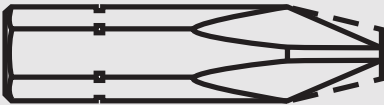
What's the difference between an insert and a power bit?

Insert bits are commonly used with a bit holder in power tool applications. This combination is economical, provides flexibility and allows a fastener to be magnetically held by the bit. Power bits are placed directly into the power tool chuck. See pages 25-26 for a complete listing of Apex bit holders.



What's the advantage of reduced diameter bits?

Reduced diameter bits are ideal for driving screws below the surface of drywall.

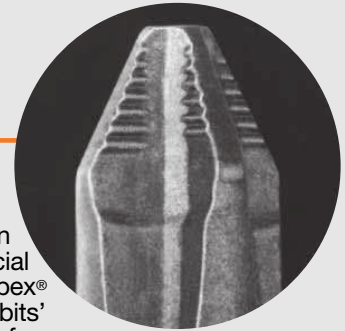


What's the advantage of 27 Series bits?

27 Series bits are ideal for poorly recessed Phillips screws. A wider tip design fills out an inexact recess to make better contact.

What's the advantage of Apex® ACR® bits?

Painted, coated or corroded fasteners can present special problems. Apex® ACR® insert bits' special wing-face ribs grip screw recesses to reduce stripping and cam-out which can result in damage to the surrounding workpiece. Choose from bits ribbed for screw removal, driving or both. They're also available in both insert bits and power drives.



Why do Apex bits last so much longer?

Apex's premium tool alloys and proprietary heat treat help avoid typical problems such as shattering and premature bit wear. Most Apex bits are available in three different heat treat hardnesses. Refer to page vi for information on selecting the proper heat treat.



If the tool you need does not appear in this catalog, give us a call. The odds are, we may have what you need as a non-catalog item. If not, our experienced staff of tooling experts can design and manufacture "specials" to meet the needs of your specific application. Give us a call at 1-800-845-5629 or visit our website www.apex-tools.com.



In this section...

Insert and Power Drive Bits



For all these fastener styles:

- Phillips®
- Slotted
- Torx®
- Torx Plus®
- Torx® Tamper Resistant
- Torx Plus® Tamper Resistant
- Poizidriv®
- Sel-o-fit®
- Quadrex®
- Frearson
- B.N.A.E.
- Socket Head
- Square Recess
- Torq-Set®
- MorTorq®
- Tri-Wing®
- Hi-Torque®
- Triple Square

Bit Holders, Nutsetters, Extensions and Universal Wrenches



Bit holders adapt hex drive and female square drive power tools to a variety of insert bits. Hex drive nutsetters, extensions and universal wrenches allow nutrunning in all types of applications.

Selecting the correct Phillips point size

Apex bits in these five point sizes will drive ANY Phillips screw

Point Size	Wood Screws Body Dia.	Flat, Oval	Round	Flat, Oval, Binding	Machine Screws Round, Round, Fillister	Truss, Brazier, Button	Sheet Metal Screws Flat, Round, Oval, Stove, Binding
0	0	0	0	0	0	0	
1	3/16	2	2	2	2	2	2
	3	3	3	3	3	3	
	4	4	4	4	4	4	
2	1/4	5	5	5	5	5	5
	6	6	6	6	8	6	
	7	7	8	8	10	7	
	8	8	10	10	8		
	9	9	10				
3	5/16	10	12	12	12	12	12
	12	14	1/4	1/4	1/4	14	
	14	16	5/16				
	16						
4	3/8	18	18	5/16	3/8	5/16	
	20	20	3/8	7/16	3/8		
	24	24	7/16	1/2	7/16		
	1/2	1/2					

IMPORTANT The table above will enable you to determine the Phillips point size required for any Phillips screws or bolts. The No. 2 and No. 3 point sizes cover the range of Phillips screws most commonly used. The Apex Phillips bits on the following pages are available in point sizes to drive any Phillips screw.