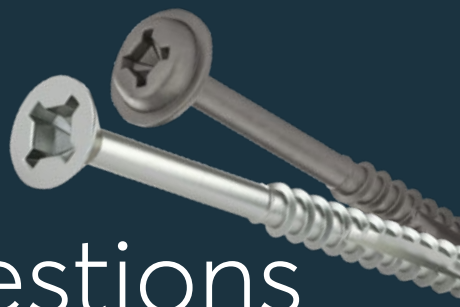
Fastener
Frequently Asked Questions



Why are our 2 1/2" and 3" assembly screws listed as #9 and not #8?

To prevent breakage issues, our Type 17 assembly screws 2-1/2" and longer have a #9 body with a #8 head. This configuration has been successfully sold to the cabinet and general woodworking industry for almost 20 years by both Chair City Supply with zero rejections due to the size.

When it comes to drive size on our website, what does Size #0 (yellow), Size #1 (green), Size #2 (Red) and Size #2 (Phillips) mean?

This refers to the size of bit it takes to drive the screw. The ones with colors are all square drive and just numbers - Size #1 & #2 Phillips are both Phillips drive.

Why do screws have a dash and number after the gauge? (example: 8-11 or 8-9)

The first number is the gauge or size of the screw. The second number (after the dash) is the number of threads per inch.

What is a lube or dry lube finish?

Most furniture screws are manufactured with a dry lube finish. The lubricant is wet when applied at the factory and is then heat dried. This provides a minimal corrosion resistance as a screw with nothing on it would rust very quickly and also makes the screws easier to drive as the dry lube reduces the driving torque required.

Dry lube finish

Some companies call their Euro Screws 5 mm and ours are normally 6.3 mm. What is the difference?

The difference is in the terminology only. Some companies refer to their Euro screws as 5 mm because that is the size hole they are designed to insert into. We call ours a 6.3 mm because we are referring to the thread size. Both ours and theirs are meant to be used in a 5 mm hole unless otherwise stated.

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What is the difference between a hex tap bolt and a hex cap screw?

Hex tap bolts are fully threaded while hex cap screws are partially threaded and have a shoulder.
To determine the amount of thread on a hex cap screw, use this formula:

2 times the diameter + 1/4".

So for a 1/4-20 hex cap screw, it is 2 times 1/4 = 1/2" + 1/4" = 3/4" thread.
For a 5/16-18 hex cap screw, it is 2 x 5/16 = 5/8" + 1/4" = 7/8".

Why use a hex cap screw versus a hex tap bolt?

Hex cap screws are stronger than hex tap bolts so if strength is an issue – use the cap screw.
If you require more thread length – use the hex tap bolt.

What is a Hafele Varianta screw?

Varianta
(depending upon the translator used is either Romanian or Czech in origin)

Variant
(something that is slightly different from a type or norm)

The Hafele Varianta screws are their line of what everyone else would refer to as Euro Screws. This line includes the standard euro screws like we stock but also includes some variants (varianta) with a cylinder head or smaller thread diameters to match up with their Rasant type connectors.

How is Pozi Drive different than Phillips?

Pozi drive is an improvement over the basic Phillips design and is recognizable by what appears to be a crossline stamping on top of the Phillips drive. When used with a Pozi drive bit, it provides less cam-out and more driving torque than a standard Phillips drive screw. It can be driven with a Phillips bit, but you lose the advantages by doing so. It is most often seen on Euro Screws or European hinge screws where a fair amount of torque may be required to turn the hinge adjustments.

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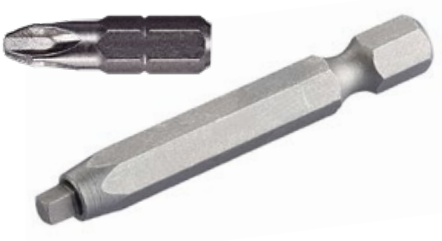
Why is square drive or combination square/Phillips drive a superior drive when used in production settings?



Square drive bits fit better into the screw and reduces cam-out and strip-out better than a Phillips drive. The reason is that square drive transfers the turning power (torque) from the bit to the screw at 90-degree angles (a square in a square) and a Phillips bit transfers it with lower degree angles (more like two triangles fitting together). The triangles tend to push each other apart and the squares tend to lock each other together as turning power is applied. To maintain a tight fit, the Phillips drive requires more downward force to keep the bit engaged with the screw. Without enough downward force, the bit slips in the head and can either strip-out the head or slip-out and damage the surface you are working with or your fingers/hand if they are too close. The extra downward force required to maintain drive engagement means more stress on the worker's hands which equals lower productivity.

Will any brand of screwdriver bit work with Reliable screws?

Yes they will. But our bits are designed to fit well in our screws and provide long bit life. We cannot guarantee the bit fit or life of other brands.

Why have 6 types of pocket hole screws?

We offer 6 types to address different substrates and different production requirements. Simply stated:

For hardwoods
Use the fine thread or the cutter thread. The harder the substrate, the more you would recommend the cutter

For particleboard or plywood or softer woods
Recommend the coarse thread
(NOTE: this is the most widely used thread type)

For extremely soft substrates (like pine)
Recommend the Xtra-Coarse thread

For a mixture of substrates
recommend the hi-lo thread

I recommend the Round Washer head for softer materials where the head might pull in or for harder materials if you want more pull-down power.

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Can I use Sheet Metal Screws (tapping screws) in wood applications?

Generally speaking, the answer is yes. Compared to Deep Thread Wood Screws, Type A Sheet metal screws have threads that are not quite as deep, and the points are not quite as sharp. As a result, they will not drive as easily and may tend to split the wood. An advantage is that they come in a lot more diameters and sizes than wood screws.

Why do heads break off the screws I am using?

There is not a single answer to this question, but head breakage can be caused by any of these reasons:

1. Too much torque is being applied by the screwdriver. If the driver has a torque adjustment, try reducing the driving torque.
2. An impact type driver is being used. Woodscrews are not designed to be driven with this type of driver.
3. The screws are not hardened or are hardened improperly.
4. The screw being used is not designed for your application. An example would be using drywall screws in wood construction. Sometimes it will work if the substrates are soft, but drywall screws were not designed for that application.

Fine thread vs coarse thread. When is one better than another?

Fine thread screws were the standard in furniture and cabinet construction for many years because they were strong and worked well in solid woods, particularly hardwoods like oak or maple. As the substrates being used changed from hardwoods to manmade products like MDF, particleboard or plywood, the coarse thread screw became the fastener of choice. The extra deep threads provided better pull-out values than the fine thread screws. By adding Type 17 cutting tips to coarse thread screws, they perform well in both manmade substrates and solid woods and are now the #1 thread style being used. Fine thread screws are still a good choice in extremely hard materials.

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Screws are screws – regardless of brand, all are pretty much the same- right?

Generally speaking, this is a true statement but there are differences that should be noted.

1. The number of threads per inch. This can affect how quickly a screw drives and the holding power (pull-out strength) that the screw will have.
2. The breaking torque value. The higher the value, the more torque that can be applied to the screw without it breaking apart.
3. The type of lubricant or plating applied. We use a dry lubricant on our lube screws that is not oily so no oil will be transferred to the substrates. This is important because oils transferred to the substrate can cause problems in finishing.
4. Labeling. Our label contains the production lot number so that if there are any quality issues we can easily segregate the questionable materials until testing can be done to confirm the problem.
5. Packaging. Our bulk cartons are 3 wall construction and there is a heavy weight plastic bag inside. This ensures that even if the carton fails, the screws inside will probably arrive without loss.

Forward any other questions you may have to **wunderwood@richelieu.com**

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