**FASTENER REFERENCE GUIDE**

**TYPES OF BOLT AND SCREW HEADS**

- **Flat Head**: Supplied is standard dimensions with an 80° to 82° angle to be driven with a flat or hex wrench. The head can be driven into a flush finishing unit. The counterbore portion offers good centering possibilities.
- **Rounded Head**: Not recommended for new design (one part head). The head was the most commonly used design in the past.
- **COUNTERSUNK**: Fully specified in 'old counternats', the head is identical to the standard flat head, but possesses, in addition, a reamed, more apparent upper surface for positioning or adjusting of devices.
- **FLAT/FLAT ROUND**: The standard cross slot head has a smaller diameter than the round head but is higher with a corresponding sharper point. The smaller diameter head increases the pressure applied on the outer area and can be as deep as the slot head. Round head screw is a circular hole with a conical head. It is frequently used in the over head position, where it can be driven once thanks to the countersunk head.
- **FLAT HEAD**: Generally used in connection and radius heads except with countersunk head. Provides the perfect flush and assembly with a one-third or less, countersunk portion removed to facilitate production of extremely short screws. Used where a closed fit between screw and hole is required. A force fit requiring the application of a slight tapping edge along the outer periphery of the head, where driving action is most effective. Used for applications requiring smooth, finished outer surfaces. Under surface of head is designed for perfect electrical contact.
- **Round Head**: A thread cutting screw for wood with a coarse tapping screw thread and a special point. It is designed for efficiently welding and anode contact. It is the standard type of hardware used in electrical and radio equipment. Most generally used in electrical and radio equipment requiring maximum thread cutting efficiency. This design can frequently solve costly assembly problems. Manufactured with amazing economy in productive quantities, this simple but rugged design can be used with a standard screwdriver, eliminating the need for a special wrench head. Phillips-Head or 8 slot head is now a standard design.
- **Washer Head**: An over head screw, round head, and flat slotting head. A low, near appearing large diameter head having excellent design and efficiency. Also can be used to cover larger diameter hole, provide better positioning of material, with a positively driven assembly in an existing tapped hole. Suggested for pan head or as a replacement for countersunk head.
- **Hexagon Head**: Designed as a neat appearance product for the electronic industry. Serves as the standard hexagon head, except that an integral hexagonal design is incorporated into the head. This head is normally used in electrical, electronic, and precision product industries. Serves as the standard indented hexagon head but with a washer section at the base. The washer section is used for maximum torque. This is the standard head design.

**PHILLIPS FINISHING WASHERS**: Designed as a neat appearance product for the electronic and appliance trade with all standard threads.

**ACORN HEAD (FULL UNDERCUT)**: This is the standard type of wrench applied to acorn heads. The head is completely cold upset on a counterbored head and has an identifying depression in the top surface.

**ACORN HEAD**: Recommended for new designs requiring smooth, finished outer surfaces. Under surface of head is designed for perfect electrical contact.

**ACORN HEAD**: Made by acorn hexagon head fastener with an integral hexagon head. This is the hexagonal head, characterized by clean, sharp corners trimmed to close tolerances. This head provides for efficient welding and anode contact. This is the most commonly used type of head. This is the standard type of fastener used in the past. A force fit requiring the application of a slight tapping edge along the outer periphery of the head, where driving action is most effective.

**ACORN HEAD (TRIMMED)**: This is the standard, flat, or oval head 80° to 82° counterbore screw which has the lower portion of the thread forming portion removed to facilitate production of extremely short lengths. An acorn head is a standard counterbore with a small diameter at the base. This is the standard head design.

**FLAT HEAD (EQUAL CUT)**: This is the standard, flat head 80° to 82° counterbore screw which has the lower portion of the thread forming portion removed to facilitate production of extremely short lengths. This is the standard head design.

**BLOCKHEAD**: Designed as a neat appearance product for the electronic industry. Serves as the standard hexagon head, except that an integral hexagonal design is incorporated into the head. This head is normally used in electrical, electronic, and precision product industries. Serves as the standard indented hexagon head but with a washer section at the base. The washer section is used for maximum torque. This is the standard head design.

**ROUND HEAD**: A thread cutting screw for wood with a coarse tapping screw thread and a special point. It is designed for efficiently welding and anode contact. It is the standard type of hardware used in electrical and radio equipment. Most generally used in electrical and radio equipment requiring maximum thread cutting efficiency. This design can frequently solve costly assembly problems. Manufactured with amazing economy in productive quantities, this simple but rugged design can be used with a standard screwdriver, eliminating the need for a special wrench head. Phillips-Head or 8 slot head is now a standard design.

**FLAT HEAD**: Generally used in connection and radius heads except with countersunk head. Provides the perfect flush and assembly with a one-third or less, countersunk portion removed to facilitate production of extremely short screws. Used where a closed fit between screw and hole is required. A force fit requiring the application of a slight tapping edge along the outer periphery of the head, where driving action is most effective. Used for applications requiring smooth, finished outer surfaces. Under surface of head is designed for perfect electrical contact.

**Countersunk Screw**: A thread forming screw for use in heavier metal .050 to .200 thick. Larger root diameter of thread forms first pilot point for light and heavy metal and metal forging. Castings, plastic, die castings, cast iron, brass and plastic. Recommended for long life. Slightly different head contour where supplied with a partial head. This is the standard type of wrench applied at the time of heading. This is the standard type of wrench applied at the time of heading. This is the standard type of wrench applied at the time of heading.

**Flanged Head**: A thread forming screw with high Helix thread for driving or hammering into sheet metal. Provides a low large diameter head, but with characteristically high outer diameter. Used where a closed fit between screw and hole is required. A force fit requiring the application of a slight tapping edge along the outer periphery of the head, where driving action is most effective. Used for applications requiring smooth, finished outer surfaces. Under surface of head is designed for perfect electrical contact.

**HEAD STYLES (WELDING SCREWS)**: The welding screw has been developed to provide a stringer permanent threaded fastener which becomes an integral part of the assembly. It utilizes the principle of projection welding by means of multiple tips applied to various head surfaces. Also can be used with a standard screwdriver, eliminating the need for a special wrench head. This is the standard type of wrench applied at the time of heading. This is the standard type of wrench applied at the time of heading. This is the standard type of wrench applied at the time of heading.

**HEAD STYLES (WELDING SCREWS)**: The welding screw has been developed to provide a stringer permanent threaded fastener which becomes an integral part of the assembly. It utilizes the principle of projection welding by means of multiple tips applied to various head surfaces. Also can be used with a standard screwdriver, eliminating the need for a special wrench head. This is the standard type of wrench applied at the time of heading. This is the standard type of wrench applied at the time of heading. This is the standard type of wrench applied at the time of heading.

**HEAD STYLES (WELDING SCREWS)**: The welding screw has been developed to provide a stringer permanent threaded fastener which becomes an integral part of the assembly. It utilizes the principle of projection welding by means of multiple tips applied to various head surfaces. Also can be used with a standard screwdriver, eliminating the need for a special wrench head. This is the standard type of wrench applied at the time of heading. This is the standard type of wrench applied at the time of heading. This is the standard type of wrench applied at the time of heading.

**HEXAGON HEAD**: Designed as a neat appearance product for the electronic industry. Serves as the standard hexagon head, except that an integral hexagonal design is incorporated into the head. This head is normally used in electrical, electronic, and precision product industries. Serves as the standard indented hexagon head but with a washer section at the base. The washer section is used for maximum torque. This is the standard head design.