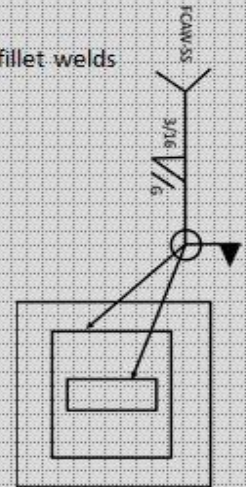
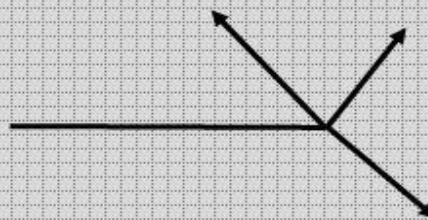
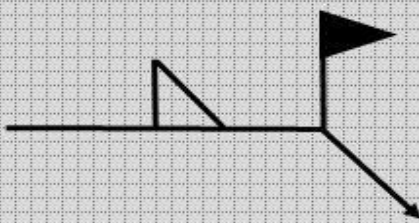


Staggered intermittent fillet weld symbol

3" long Intermittent fillet welds on 7" centers



WA  **Welding** Answers

Welding Symbols Guide for Fillet Welds

Easy to follow charts to interpret fillet welding symbols

Welding Answers

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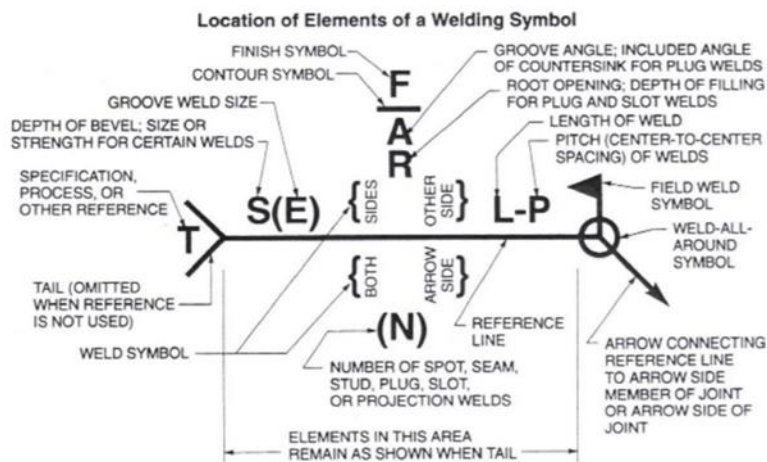
Printed in the United States of America

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HOW TO USE THIS GUIDE

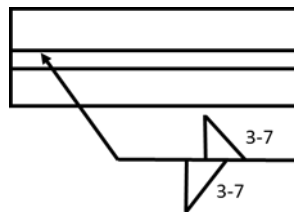
This guide is designed to help you interpret welding symbols for fillet welds easily and quickly. Learning welding symbols is not too complicated, but you don't need to take a course to make sense out of a few symbols you see in a shop drawing. By providing examples of fillet weld symbols, weld locations, sizes, and other notations you'll be able to interpret any welding symbol that comes your way.

There are plenty of resources out there, including charts from the American Welding Society. However, this is typically what you will see:



This reference chart has all the information you need to decipher welding symbols. But if you have limited experience with welding symbols there is no way this is going to be of any help.

If you see this symbol:

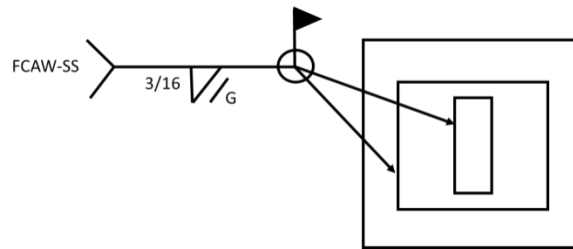


Instead of trying to make sense out of it by studying the chart above, simply go to the Symbols Key provided and find a symbol that looks just like this one. You would find something like this:

Symbol	Symbol Key	Graphical Representation

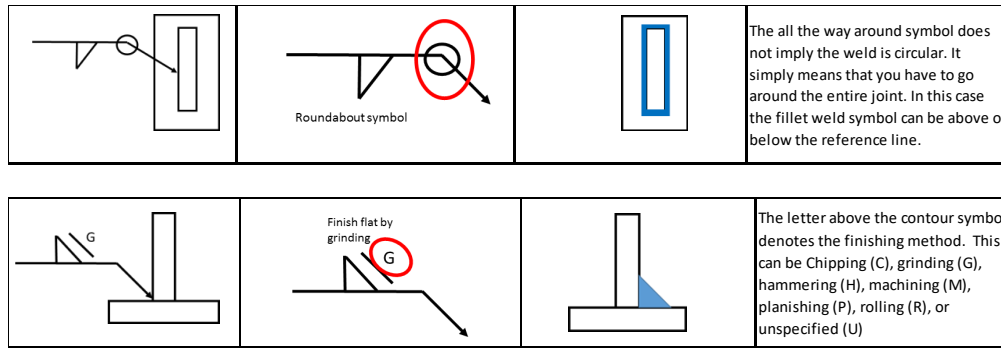
The symbols and graphical representations are in logical order, so that you can take these charts and teach yourself how to read fillet weld symbols.

You may need to combine two or more symbols from the key to get your answer. If you see this on a shop drawing...



...you would need to reference the following symbols in the key:

			<p>The tail section can also have information about the welding process to be used (GMAW, SMAW, GTAW, etc.) and the level application method - manual (MA), semiautomatic (SA), or automatic (AU)</p>
			<p>The flag denotes that the weld must be done in the field. The flag may point left or right and can also be upside down.</p>



The great thing about welding symbols language is its consistency. A symbol will not mean different things in different drawings.

So, in this example you found what each of the four symbols meant: information in the tail section provides additional details related to the process and level of automation, field weld denoted by the flag, all-the-way-around weld denoted by the circle and finish contour must be flat by grinding.

There are many symbols and notations shown with fillet welds that are the same for other types of welds such as spot welds, slot welds, plug welds, groove welds and others. Things like contour finishes, finishing methods, multiple arrow lines, field weld symbol, etc. If you work with these other weld symbols and want the complete Welding Symbols Key, simply [click here](#).

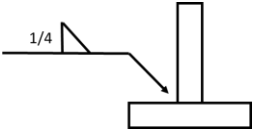
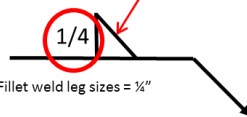
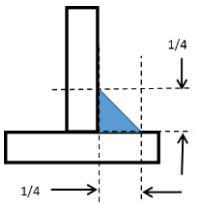
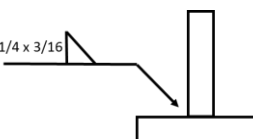
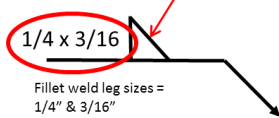
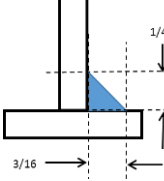
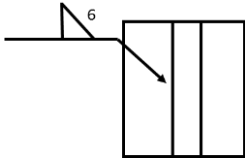
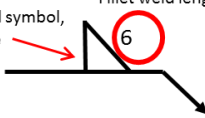
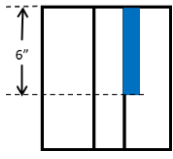
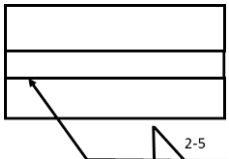
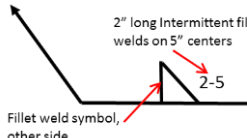
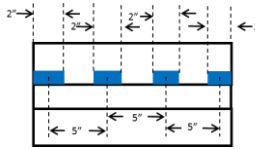
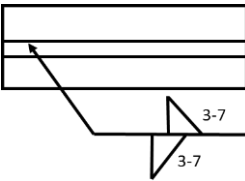
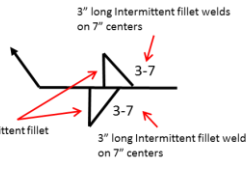
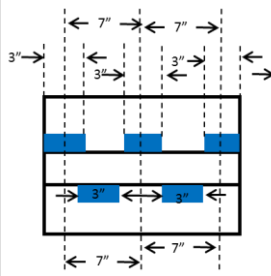
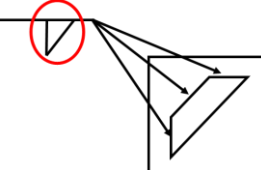
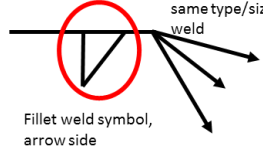
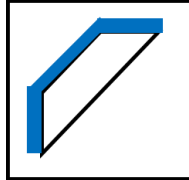
If all you want are fillet welding symbols use the next few pages whenever you need to interpret shop drawings. Good luck!

WELDING SYMBOLS FOR FILLET WELDS & SUPPLEMENTARY SYMBOLS

FILLET WELDING SYMBOLS KEY

Symbol	Symbol Key	Graphical Representation	Notes
	 Fillet weld symbol, arrow side		The vertical line of the triangle in the fillet weld symbol should always be to the left.
	 Fillet weld symbol, arrow side		Same as above, now showing top view
	 Fillet weld symbol, other side		Placing the fillet weld symbol on top or below the reference line and having the arrow pointing to either side of the joint is usually a question of how the weldng symbol best fits the within the drawing.
	 Fillet weld symbol, other side		Same as above, now showing top view
	 Fillet weld symbol, both sides		Front view
	 Fillet weld symbol, both sides		Top view
	 Roundabout symbol		The all the way around symbol does not imply the weld is circular. It simply means that you have to go around the entire joint. In this case the fillet weld symbol can be above or below the reference line.
	 Roundabouts symbol		The all the way around symbol does not imply the weld is circular. It simply means that you have to go around the entire joint. In this case the fillet weld symbol can be above or below the reference line.

FILET WELDING SYMBOLS KEY

Symbol	Symbol Key	Graphical Representation	Notes
	Fillet weld symbol, other side  Fillet weld leg sizes = 1/4"		The leg size of a fillet weld will always be noted on the left side of the fillet weld symbol. When only one dimension appears the fillet weld has equal leg sizes.
	Fillet weld symbol, other side  Fillet weld leg sizes = 1/4" & 3/16"		IMPORTANT: The welding symbol will not convey which leg size is the larger size and which is the smaller size. This should be specified on the print or by other means. 1/4" x 3/16" and 3/16" x 1/4" are the same in the welding symbol
	Fillet weld symbol, other side  Fillet weld length 6		IMPORTANT: The welding symbol will not convey the start and end location of the weld, only the total length. The start location should be specified on the print.
	 2" long Intermittent fillet welds on 5" centers Fillet weld symbol, other side		When numbers separated by a dash appear on the right of the fillet weld symbol it indicates an intermittent fillet weld. The first number is the length of each weld and the second is the pitch (distance between weld centers).
	 3" long Intermittent fillet welds on 7" centers Staggered intermittent fillet weld symbol 3" long Intermittent fillet welds on 7" centers		Length and pitch can be different for each side.
	 Multiple arrows, same type/size weld Fillet weld symbol, arrow side		There can be multiple arrows originating from the same reference line in order to indicate that all of these joints will have the exact same type and size of weld.

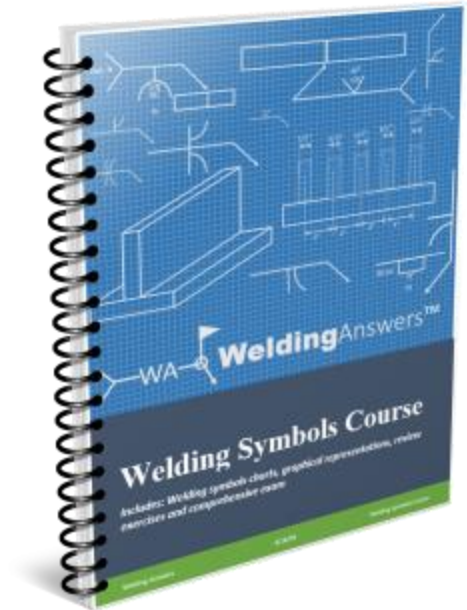
FILET WELDING SYMBOLS KEY

Symbol	Symbol Key	Graphical Representation	Notes
			If not specified in the welding symbol or elsewhere, any finishing method is acceptable. If the weld has a flat face after welding no additional finishing is necessary.
			If not specified in the welding symbol or elsewhere, any finishing method is acceptable. If the weld has a convex face after welding no additional finishing is necessary.
			If not specified in the welding symbol or elsewhere, any finishing method is acceptable. If the weld has a concave face after welding no additional finishing is necessary.
			The letter above the contour symbol denotes the finishing method. This can be Chipping (C), grinding (G), hammering (H), machining (M), planishing (P), rolling (R), or unspecified (U)
			The flag denotes that the weld must be done in the field. The flag may point left or right and can also be upside down.
		VARIES	Different kinds of information may appear in the tail of the welding symbol. TYP usually denotes typical. TYP is intended as an alternative to repeating identical symbols on the same drawing, but only when the joints represented are identical in all details.
			The tail section can also have information about the welding process to be used (GMAW, SMAW, GTAW, etc.) and the level application method - manual (MA), semiautomatic (SA), or automatic (AU)
			The tail section can make reference to a WPS that dictates the welding variables to make the noted weld. It can call drawings for additional details or reference additional information on another document.

COMING SOON: WELDING SYMBOLS COURSE

This comprehensive welding symbols course will help the user interpret welding symbols for:

- Groove welds
- Fillets welds
- Spot welds
- Seam welds
- Stud welds
- Edge welds
- Slot welds
- Brazing symbols
- Nondestructive examination symbols
- General provisions for welding symbols



This course is comprised of modules which will provide complete details on all types of weld and supplementary symbols.

It will include a key and graphical representation of each type of weld symbol and supplementary symbols just like the one in this document for fillet welds.

This guide can be used a self-taught course, or it can be used to instruct others. Practice problems will be provided at the end of every section as well as a comprehensive exam to test your knowledge or that of your employees or students.

We have been teaching this class to many of our customers and we are now making it available electronically to our readers.

To learn more about this course click the button below.

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