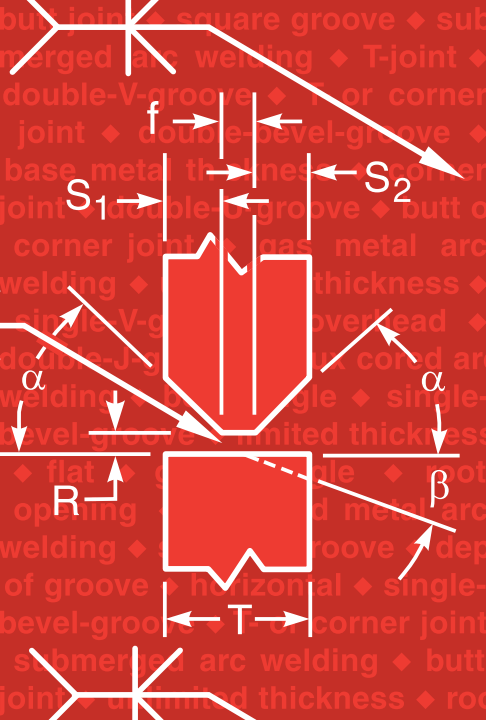




The Everyday Pocket Handbook on Welded Joint Details for Structural Applications



Number 3 in a series

Compiled as a useful tool for
on-the-job welding personnel by the
AWS Product Development Committee

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NOTE: Although care was taken in choosing and presenting the data in this guide, AWS cannot guarantee that it is error free. Further, this guide is not intended to be an exhaustive treatment of the topic and therefore may not include all available information, including with respect to safety and health issues. By publishing this guide, AWS does not insure anyone using the information it contains against any liability or injury to property or persons arising from that use.

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Introduction

This pocket handbook consists of selected welded joint details applicable to the welding of plate and shapes for structural applications. The joint details conform to the design and dimensions for Prequalified Joint Details in AWS D1.1/D1.1M:2004, *Structural Welding Code—Steel*. The user should consult AWS D1.1/D1.1M:2004 (or later edition) for joint dimensional tolerances that are permissible and for notes concerning application of the specific joint detail. The joint details shown in this pocket handbook are applicable for designing joints that are to be used in making complete joint penetration welds in plate and shapes.

Several of the joint details in this pocket handbook are applicable for welding joints in tubular products.

Submerged arc welding (SAW) is applicable for diameters greater than 24 in. (610 mm). Joints to be used for tubular connections should have a groove angle of not less than 60°.

These joint details specifically apply to welded joints made in low carbon construction steels. Several of these details may be applicable for welding alloy steels as well as structural aluminum. When applying the joint details in this pocket handbook to materials other than low carbon construction steels, the appropriate welding specifications for the specific material should be consulted.

Nomenclature of Groove Joint Details

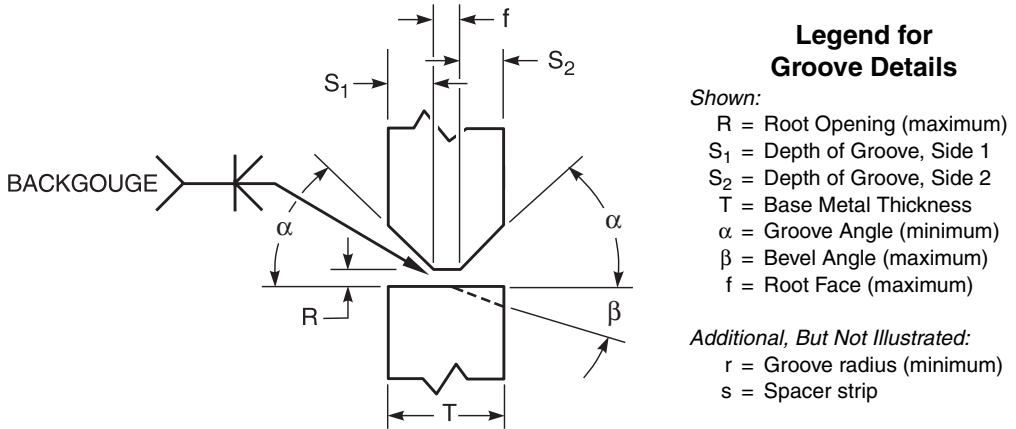


Figure 1—Example of Details for Illustrative Purpose