



C.W. CARRY LTD.

STEEL SERVICE CENTRE

AND STRUCTURAL STEEL FABRICATOR



ESSAR STEEL ALGOMA HEAT TREATED PLATE

OFFERS EXCELLENT WORKABILITY

Algoma's modern heat treating facility produces low alloy, high strength and abrasion resistant steel plate with superior formability and weldability characteristics. With the faster cooling rates possible on the roller quench unit, carbon and/or alloy levels can be reduced allowing the production of high performance plate from mild steel type chemistry. The result is Q&T plate characterized by good ductility, excellent low temperature performance, improved wear resistance and excellent formability and weldability.

WELDABILITY

Algoma 100/130 steel plate is readily weldable by all major plate welding processes, provided that proper welding procedures are used. Algotuf 400F and Algotuf 450F can be welded satisfactorily provided that good shop and field welding practices are followed. For all grades, special attention should be given to electrode selection. In addition, preheat may be required. See the Algoma Spec sheet for more information.

CUTTING

All grades of Algoma quench and tempered steel plate can be gas cut using proper shop and field practices. Shearing is possible with proper consideration of the tensile strength of the plate and the capacities of the shear and knives.

FORMABILITY

As a result of the generally low carbon and alloy levels, Algoma 100 can be cold formed satisfactorily. A minimum inside radius of 2t should be used when bending plate up to 25mm (1") in thickness, and a 3t radius for plate over 25mm to 50mm (1" to 2") thick. Suitable precautions should be taken to control fabrication procedures since Algoma 100 has two to three times the yield strength of common structural grades. Hot forming of Algoma 100 steel may impair the physical properties of the as-received plate. If hot forming is considered necessary, please consult Essar Steel Algoma.

Moderate forming of the Algotuf 400F and Algotuf 450F grades can be accomplished in a direction transverse to the final rolling direction provided that a minimum radius of 6t for Algotuf 400F or 8t for Algotuf 450F is used. Longitudinal bending is not recommended. Due to the inherent hardness of these steels, extra precautions should be taken to minimize the possibility of fracture during bending. More information can be found on the Essar Steel Algoma pamphlet.

***Disclaimer:** Availability of plate size, grades and thicknesses vary. Required specs should be confirmed before using in any design specs.*
