



HOT-ROLLED STEEL PLATES, SHEETS AND COILS
Prefabrication, flat cut shapes

Manufacture and the throughput time of installation will decrease using flat cut shapes. The customer will receive the needed components ready for installation, and can thus avoid unnecessary material and storing costs. If ordered, the products are delivered as shop-primed, bevelled and bent.

● **Applications**

- Mechanical engineering
- Steel construction
- End and shell plates
- Conical tank and tower structures
- End components for plate heat exchangers
- Casings of large gear boxes

● **Product description**

Flat cut shapes are manufactured either as oxy-propane jet cut or plasma cut, table 1. Radial and curved shapes can be cut either along the outer edge or the inner part of the flat plate. In addition to this, plates can be bevelled in accordance with the technical brochure Precision cut lengths and precision cut plates with bevelled edge, depending on the shapes and tolerances of the plate product. A flat cut shape can be marked with aligning markings in accordance with the customer’s demands, for further assembly and installation of the products. In connection with oxypropane cutting it is possible to use powder and gauge point marking, and with plasma cutting, powder or plasma marking.

The steel grade range available is based on Ruukki’s hot rolled plates, sheets and coils production programme with its dimension ranges. The minimum weight of the heavy plate to be cut into shapes is 2000 – 5000 kg, depending on plate thickness. In addition to this, on request our customers can also choose other materials and dimension ranges.

Table 1
Dimensional ranges, tolerances and the quality class of the cut surface

Quantity of the plate	Cutting of flat shapes		Oxy-propane cutting	
	Plasma cutting Dimensions mm	Tolerance	Dimensions mm	Tolerance
Thickness	5 – 25	1)	10 – 150	1)
Width	≤ 3250	2)	≤ 3250	2)
Length	≤ 23000	2)	≤ 23000	2)
Tolerance class	2	2)	1	2)
Quality class of the cut surface 2)	u (range 5) and R _z 5 (range 4)		u (range 4) and R _z 5 (range 3)	

1) EN 10029 – Class A or by agreement.

2) As a rule, tolerances are in accordance with Standard EN ISO 9013 (31.3.2003). Deviating from this, tolerances will be in accordance with a separate agreement for plate products with a length/width ration of more than 4:1.

The variable u = tolerance for perpendicularity and gradient (mm); the variable R_z5 = average value (µm) of the cutting surface profile depth. An example of the surface quality and degree of accuracy in a drawing: ISO 9013-431, where 4 stands for the tolerance of perpendicularity of the cutting surface u, 3 stands for the cutting surface profile depth R_z5 and 1 is the tolerance class.

● **Delivery and material certificate**

Cutting plates into shapes increases the delivery time by one (1) week compared to the delivery of a hot rolled plate. According to the order requirements, a Test Report EN 10204-2.2 or an Inspection Certificate EN 10204-3.1 are granted for flat cut shapes.

● **Marking**

Appropriate plate number data and any other markings agreed with the Buyer are hard stamp marked or marked with paint or ink on flat cut shapes. More information on technical brochure Packing and Markings.

Ruukki is a metal expert you can rely on all the way, whenever you need metal based materials, components, systems or total solutions. We constantly develop our product range and operating models to match your needs.

RUUKKI
more with metals

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