

METALS

MATERIALS FOR INSPIRATIONAL DESIGN Chris Lefteri

Foreword by Ron Arad

RotoVision

Metals

Materials for Inspirational Design

Chris Lefteri

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Extrusion

040

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Profile designs

Extrusion is another common process applied to a range of metallic and non-metallic materials. The key aspect of this manufacturing process is that it allows you to produce a long strip of a profile, which can then be sliced into the desired lengths. Aluminum is a popular material for extrusions, as it has a low melting point. This is an essential characteristic of all extrusion materials, which include copper, stainless steels, medium and low carbon steels, and magnesium.

Extrusion is often combined with other methods, for example, extrusion blow-molding for plastics, or impact extrusion for metals. For standard metal extrusion however, there are two main forms: direct extrusion, where the metal is forced through a stationary die, allowing for longer lengths to be produced; and indirect extrusion, where the die compresses the metal producing less friction but shorter lengths.

Dimensions	2250mm wide overall
Key Features	Allows for production of long, continuous lengths of the same shape
	Allows for both solid and hollow shapes
	Low cost
	Can be applied to a range of materials
More	www.aluminium-extrusion.hydro.com
	www.omkdesign.co.uk
	www.aec.org
Typical Applications	The process is universal and can be applied to most areas of design and engineering, including tubing, sheet materials, structures and body frames for motor vehicles, furniture, and components for consumer electronics

Saville Bench
Designer: Rodney Kinsman
Manufacturer: OMK Design
Date: 1992