







JEBENS
MASSARBEIT IN STAHL

PICTUREBOOK

FLAME CUTTING

	<h2>1 Weight / Dimensions</h2>	<p>Page 4 – 7</p>
<p>Large and heavy flame-cut parts are our speciality. Unit weights of up to 54 tons – with the aid of a mobile crane up to 80 tons – are no problem for us. We process heavy plates in widths of up to 5m and thicknesses of up to 1,400 mm – in the case of materials like S690, up to 350 mm. We keep heavy plates in stock in thicknesses ranging from 8 to 650mm.</p>		
	<h2>2 Technology</h2>	<p>Page 8 – 15</p>
<p>Whatever the product – simple, highly complex or finished – Jebens always provides precision steelwork. We even flame cut multidimensional contours with tight radii in a wide range of different cutting heights, widths and depths, and in this way reduce the need for mechanical processing. Our high-performance machinery includes machines for plasma and oxygen cutting as well as chamfering robots. In the case of simple flame-cut parts, we also take on high-speed jobs with ultra-fast delivery.</p>		

	<h2>3 Tolerances</h2>	<p>Page 16 – 19</p>
<p>When it comes to precision, we never compromise. So the most stringent demands for flatness and tightest tolerances over the total length of a part are completely self-evident to us. The reproducible premium quality of our profiles is our guarantee for maximum reliability. We can cut with a precision that is tighter than the tolerances stipulated in the EN ISO 9013 standard.</p>		
	<h2>4 Materials</h2>	<p>Page 20 – 23</p>
<p>Our stock programme encompasses structural the steel types S235JR+N and S355J2+N as well as the pressure vessel steel types P355NL2 and SA516Gr70. In addition, we also stock the alloyed steel types C45, 16MnCr5 and 42CrMo4, the high-tensile steels S690 and S960, as well as ballast materials. All other grades are available as new production from Dillinger. We maintain a continuous stock of 30,000 tons of primary materials in widths of up to 3,500 mm – mostly sourced from Dillinger quality production.</p>		



1

WEIGHT / DIMENSIONS



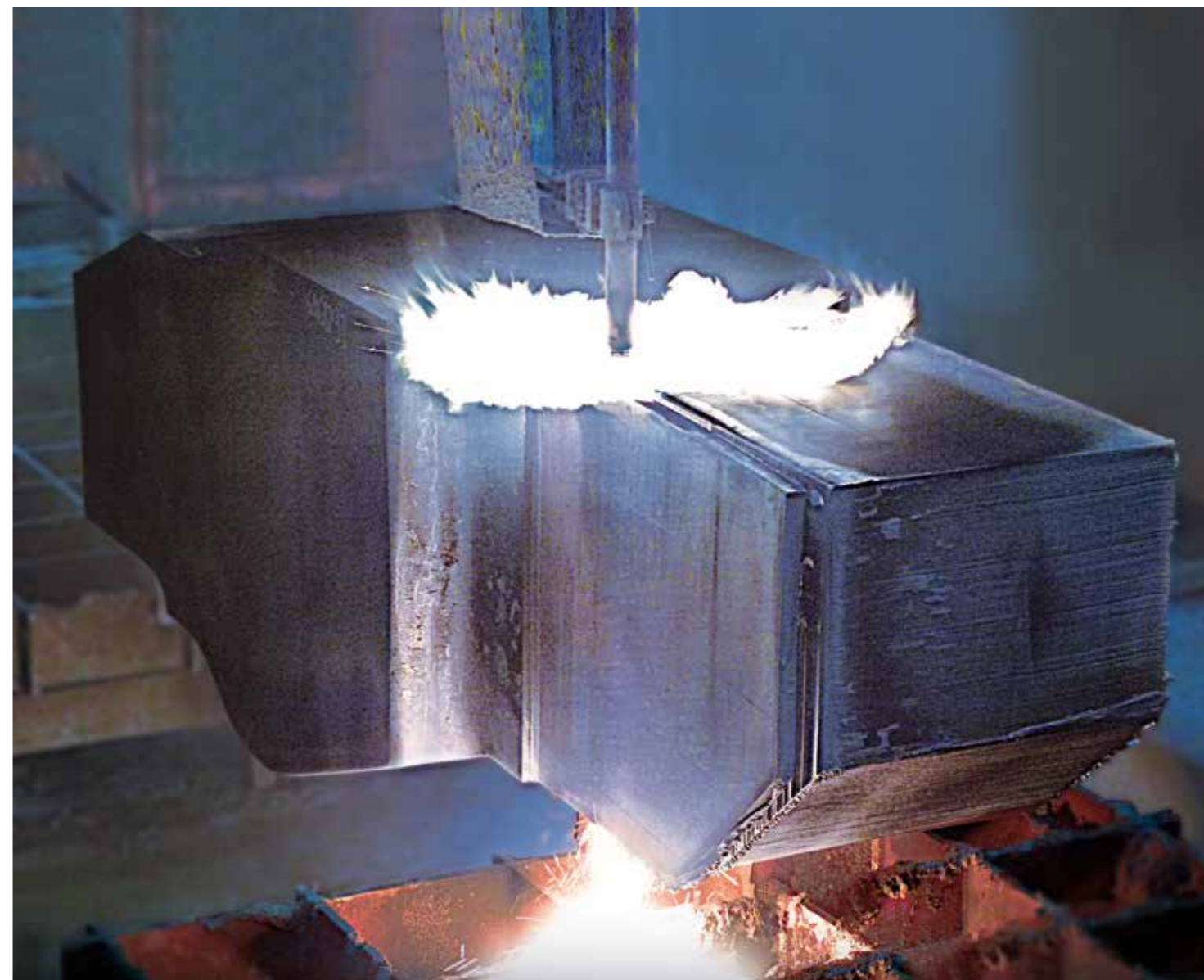
Deep cuts, large lengths, narrow bars or small holes – we can flame cut intricate geometries, even in the case of extreme weights and large widths and thicknesses.



1.1

Weight /
Dimensions
FLAME CUTTING

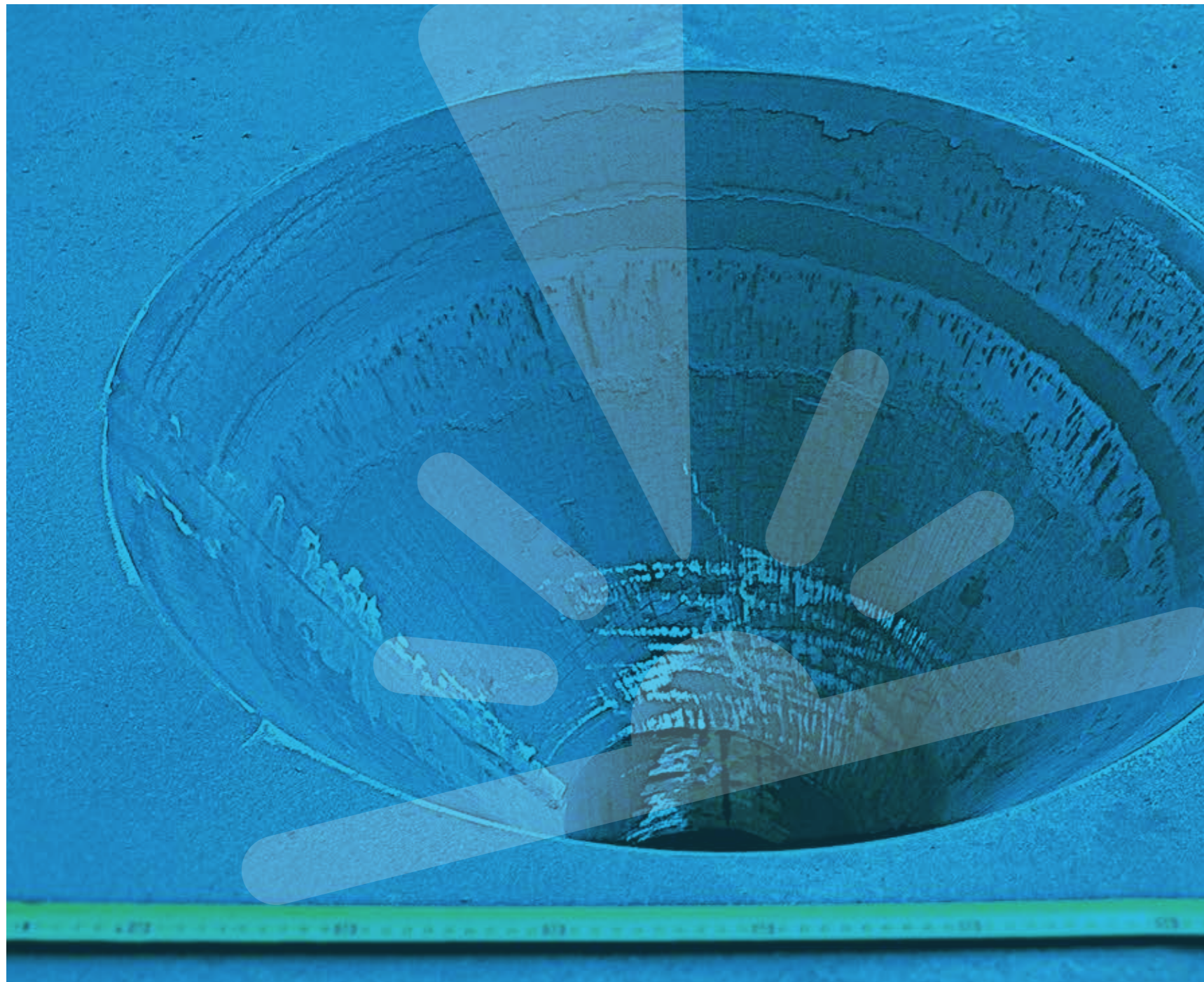
Application: Part of an aluminium injection mould machine
Steelgrade: S355J2+N
Weight / Dimensions: 37 to / 665 x 2,510 x 3,023 mm
Particularity: Very deep conical inner out-cut with a length of 630 mm



1.2

Weight /
Dimensions
FLAME CUTTING

Application: Lever
Steelgrade: S355J2G3
Weight / Dimensions: 15 to / 960 x 1,100 x 3,300 mm
Particularity: Very important cutting length (960 mm) with small holes (diameter 180 mm) and narrow remaining bars (80 mm)



2

TECHNOLOGY



Enormous weights, intricate geometries, multidimensional cuts and varying bevel angles – thanks to sophisticated flame and temperature control, we can often make the impossible possible.



2.1

Technology
FLAME CUTTING

Application: Part for a plastic injection mould machine
Steelgrade: S355JR+AR
Weight / Dimensions: 28,456 kg / 622 x 2,367 x 2,536 mm
Particularity: Conical cut-out oxycut with a diameter of 250 mm and depth of 580 mm



2.2

Technology
FLAME CUTTING

Application: Part for an offshore-crane
Steelgrade: E40
Weight / Dimensions: 1,800 kg per piece
Particularity: Very flat chamfer top and bottom with a length of 370 mm



2.3

Technology
FLAME CUTTING

Application: Spare part for a steel mill
Steelgrade: S355JR+AR
Weight / Dimensions: 6,318 kg / 450 x 1,300 x 1,350 mm
Particularity: Extreme chamfer with a length of 710 mm



2.4

Technology
FLAME CUTTING

Application: Spare part of a steel converter
Steelgrade: P355NH
Weight / Dimensions: 218 kg per piece / 120 x 245 x 928 mm
Particularity: The chamfering angle is changing constantly over the total length of the piece



2.5

Technology
FLAME CUTTING

Application: Work of Art
Steelgrade: S355J2+N
Weight / Dimensions: Thickness: 140 mm / Length: 1,800 mm
Particularity: Chamfer angle pivots from +45° to -45° and back



2.6

Application: Press part
Steelgrade: S235
Weight / Dimensions: 3,1 to / 600 x 700 x 1,200 mm
Particularity: Cut in 3 dimensions, very narrow holes and remaining

Technology
FLAME CUTTING



3

TOLERANCES



Exceptional flatness over the whole surface with score-free cut quality in spite of enormous widths and lengths – absolute precision is part of our daily routine.



3.1

Tolerances
FLAME CUTTING

Application: Part of a press
Steelgrade: S355J2+N
Weight / Dimensions: 3,100 kg per piece / 85 x 1,050 x 12,445 mm
Particularity: Extreme precision requirements flatness of 3 mm on total length and the cutting quality, edges had to be reworked to keep the notch factor for the component as low as possible



3.2

Tolerances
FLAME CUTTING

Application: Press frame
Steelgrade: S355J2+N
Weight / Dimensions: 11 to / 80 x 4,070 x 7,550 mm
Particularity: Very large frame plates with extreme flatness requirements (3 mm on total surface)



4

MATERIALS



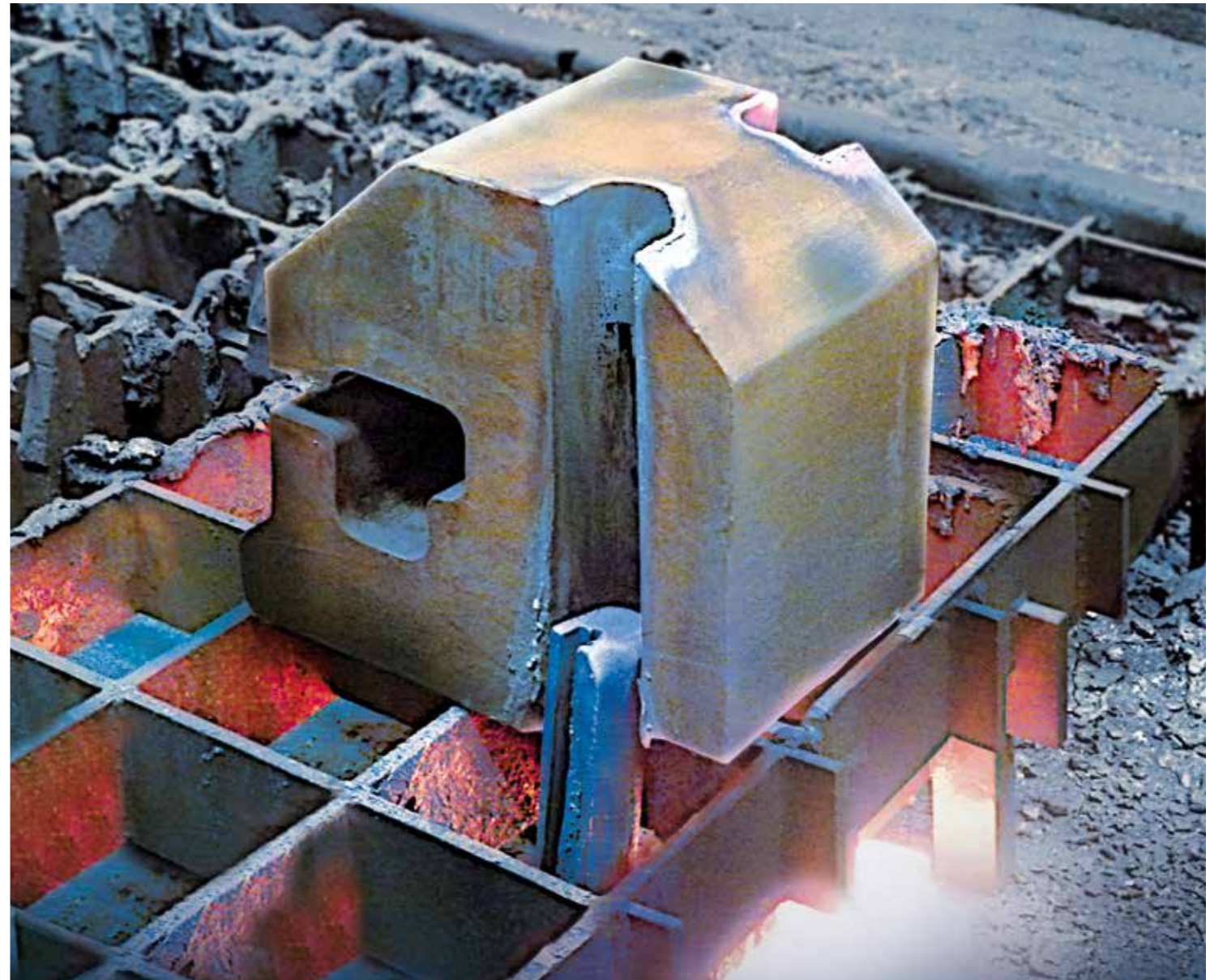
We have one of Europe's largest stocks of steel plate over 200 mm thick, also in high-strength materials, and we have access to Dillinger quality products – in other words the best preconditions for high-speed order processing.



4.1

Materials
FLAME CUTTING

Application: Parts of huge sun umbrellas
Steelgrade: S960QL+Z25
Weight / Dimensions: 238 kg per piece / 70 x 172 x 3,434 mm – 2,000 pieces
Particularity: High flatness requirements, machining of this high strength steel to achieve length tolerance of +/- 0,1 mm



4.2

Materials
FLAME CUTTING

Application: Hydraulic component
Steelgrade: 34CrNiMo6+QT
Weight / Dimensions: 1,074 kg / 680 x 460 x 660 mm
Particularity: Cut in 4 dimensions

JEBENS

MASSARBEIT IN STAHL

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