



## MAGNESIUM EXTRUSIONS SUMMARY

### MAGNESIUM ELEKTRON EXTRUSIONS: A SUMMARY

Magnesium Elektron is a world leader in the development and supply of high quality magnesium alloy extruded products. Our lightweight magnesium alloys are used as forging feedstock, as base material from which to machine components or as custom shapes to integrate directly into a component. Magnesium Elektron operates two dedicated extrusion presses to supply a full range of extruded magnesium alloys and we continue to develop new alloys for future applications.

### PRODUCTS

- Round Bar
- Square/Rectangular Sections
- Hollow Tubes/Sections
- Multi-Hollow Sections

### APPLICATIONS

- Forging Feedstock
- Machining Feedstock
- Solid, Hollow or Multi-Hollow Custom Profile Shapes
- Near Net Shapes

### ALLOYS

Where appropriate, alloys are also available heat treated.

- Elektron® 43, Elektron® 675
- Elektron® 21, Elektron® WE43, Elektron® WE54
- ZK60A, ZW3
- AZ80A, AZ61A, AZ31B, AZM
- M1A, ZM21
- Pure Mg
- Custom Alloys

### SPECIFICATIONS

- ASTM B107
- ASTM B91
- AMS 4352H
- AMS 4350M
- AMS 4485
- Customer Defined Specifications

Ultrasonic Inspection to AMS 2154 Class B, A, AA and AAA.

Magnesium Elektron has state of the art, custom built immersion ultrasonic testing equipment.

### SIZES

**Lengths** 25mm to 6m  
1 inch to 20 ft

#### **Square/Rectangular Sections**

Thickness: 10mm to 280mm  
<sup>3</sup>/<sub>8</sub> inch to 11 inches

Width: 10mm to 280mm  
<sup>3</sup>/<sub>8</sub> inch to 11 inches

Thickness and width are inter-dependant. Please see Figure 1.

#### **Round Bar Diameters**

1.6 mm to 200 mm  
<sup>1</sup>/<sub>16</sub> inch to 8 inches

#### **Custom Profiles**

Magnesium Elektron manufactures complex solid and hollow profiles using the latest extrusion die technology within the scope of our size capability. Why not get in touch with us to discuss your exact requirements?

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## PROPERTIES

The minimum expected properties of common magnesium extrusion alloys are shown in the table below.

ASTM B107-13 Specification Minimums for Common Magnesium Extrusion Alloys – Solid Extrusions.

	UTS MPa	UTS ksi	Yield MPa	Yield ksi	Elongation %
Elektron 43-T5	340	49	225	33	12
Elektron 675 -T5a	350	51	230	33	5
ZK60A-T5	310	45	250	36	4
AZ80A-T5	310	45	205	30	2
AZ61A-F	275	40	150	22	7
AZ31B-F	220	32	140	20	7

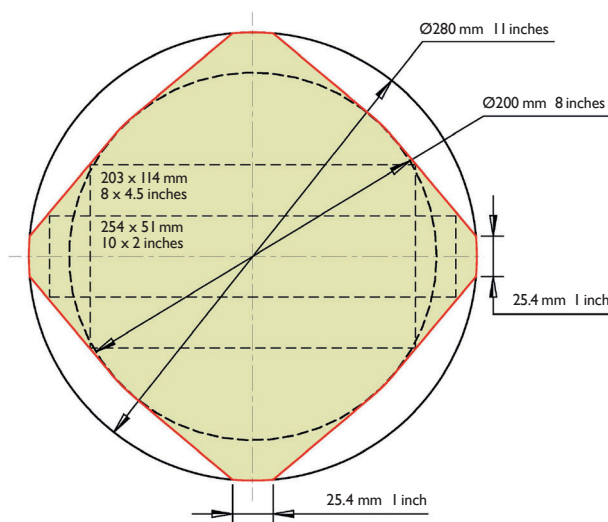


Figure 1. Extruded product envelope

## FURTHER INFORMATION

For more detailed information please contact:

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† The information contained within is meant as a guideline only

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