



Magnesium Elektron

SERVICE & INNOVATION IN MAGNESIUM

Magnesium Extrusions Summary

Datasheet 333 Summary

The information contained within is meant as a guideline only †

† Disclaimer: The information provided within this document is aimed to assist manufacturers and other interested parties in the machining and use of magnesium alloys. Magnesium Elektron accepts no liability in whole or in part from use and interpretation of the data herein.



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MAGNESIUM ELEKTRON EXTRUSIONS: A SUMMARY

Magnesium Elektron has supplied high quality magnesium extrusion into safety critical applications for the past 50 years. Recently, Magnesium Elektron has increased production capacity with a new 2750 tonne press. Both Magnesium Elektron's presses are predominantly dedicated to magnesium extrusions.

PRODUCTS:

- Round Bar
- Square / Rectangular Sections
- Hollow Tubes / Sections / Custom Profiles
- Multi-Hollow Sections / Custom Profiles
- Weld Rod / Weld Wire

APPLICATIONS:

- Forging Feedstock
- Machining Feedstock
- Solid, Hollow or Multi-Hollow custom profile shapes.

ALLOYS:

Where appropriate, alloys are also available heat treated.

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

SPECIFICATIONS:

- ASTM B107-07
- ASTM B91
- AMS 4352H
- AMS 4350M
- 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 4000mm

Round Bar Diameters:
1.6mm to 230mm

Square / Rectangular Sections:

Thickness: 10mm to 280mm

Width: 10mm to 280mm

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

Custom Profiles:

If the profile you wish to extrude fits within the red lines of the capability diagram (Figure 1), please contact Magnesium Elektron to discuss availability.

PROPERTIES:

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

ASTM B107-07 Specification Minimums for
Common Magnesium Extrusion Alloys – Solid
Extrusions

	UTS MPa	Yield MPa	Elongation %
Elektron 43 T5*	340	225	12
ZK60A-T5	310	250	4
AZ80A-T5	310	205	2
AZ61A-F	275	150	7
AZ31B-F	220	140	7

*soon to be entered into ASTM B107-07

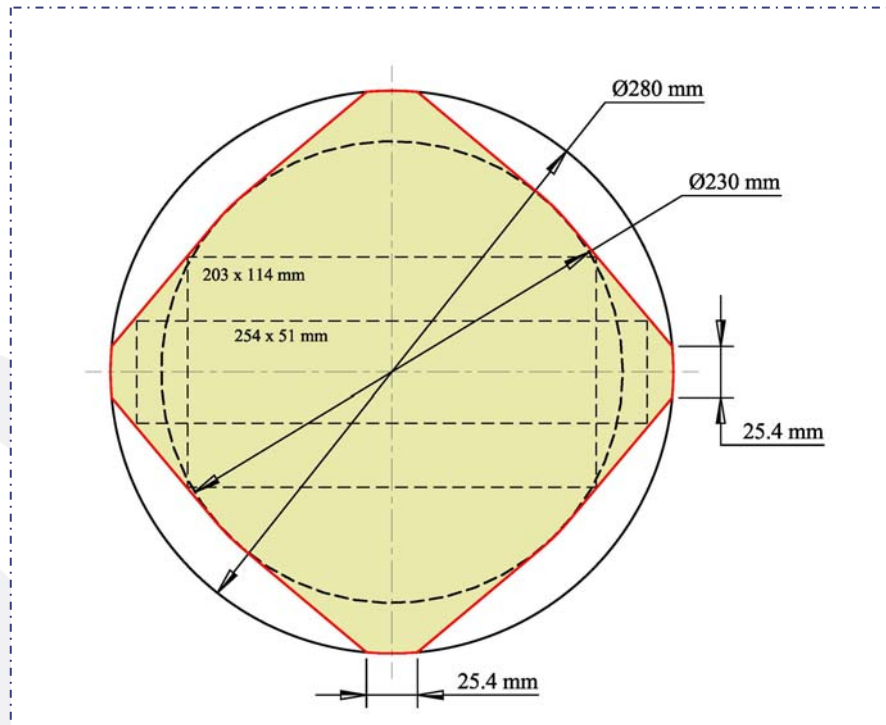


Figure 1: Extrusion Press Size Capability

FURTHER INFORMATION:

For more detailed information please contact:

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