ELITE MAGNETS

ENGINEERING WORKSHEET
UPDATED JULY 2026

Magnetization Drawing Specification Worksheet

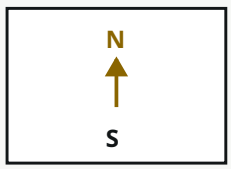
A drawing-ready guide and printable worksheet for defining direction, pole pattern, physical references, delivery state, and magnetic acceptance.

APPLICATION NOTE
Use this guide to prepare an engineering discussion. Final material, grade, coating, magnetization, tolerance, and inspection requirements must be confirmed for the actual application.

Three patterns that require different drawing references

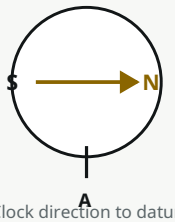
The magnet shape does not fully define the magnetization. Connect the magnetic direction or pole pattern to a physical feature that manufacturing, assembly, and inspection can identify in the same way.

AXIAL



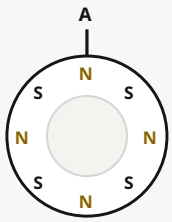
Tie polarity to a named face

DIAMETRICAL



Clock direction to datum A

MULTIPOLE RING



Define poles, start and view

Pattern	Minimum drawing information	Inspection question
Axial	Axis, controlled face, polarity if orientation matters	Which face is N and at what measurement position?
Diametrical	Cross-diameter direction plus flat, notch, key, mark, or datum	How is angular clocking verified?
Radial	Inside/outside polarity and assembly state	Is the loose ring or final assembly inspected?
Multipole	Pole count, sequence, pitch or angle, start datum, and viewing direction	How are pole position and waveform acceptance defined?

Before releasing the drawing

- State whether the part is delivered magnetized, unmagnetized, or magnetized after assembly.
- Define any polarity or orientation mark and whether it is informational or acceptance-controlled.
- Tie the magnetic reference to datums, flats, keys, notches, bores, or assembly features.
- Define measurement position, air gap, orientation, characteristic, equipment or method, and sampling.
- Freeze the pole sketch, note, inspection plan, and drawing revision together.

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PRINTABLE WORKSHEET

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APPLICATION NOTE
Complete what is known. Mark open items clearly instead of using phrases such as 'standard magnetization' or 'north side' without a physical reference.

Project / part number	
Drawing revision	
Material / grade intent	
Part geometry	[ ] Disc [ ] Ring [ ] Cylinder [ ] Arc [ ] Rotor / assembly [ ] Other
Magnetization pattern	[ ] Axial [ ] Diametrical [ ] Radial [ ] Multipole [ ] Custom map
Polarity requirement	
Physical datum / clocking feature	
Pole count / sequence / viewing direction	
Delivery state	[ ] Magnetized [ ] Unmagnetized [ ] Magnetized after assembly
Orientation mark	Type, location, permanence, and acceptance status:

Magnetic acceptance definition

Measured state	[ ] Loose magnet [ ] Rotor [ ] Final assembly [ ] Other
Characteristic	[ ] Polarity [ ] Field [ ] Flux [ ] Pole position [ ] Waveform [ ] Functional result
Measurement position / air gap	
Mechanical orientation during test	
Method / equipment	
Acceptance / sampling / record	

Engineering review note: feasibility depends on material orientation, geometry, fixture access, assembly sequence, magnetized handling, and the selected inspection method. This worksheet is not a universal drawing standard.