

Nook Industries expertly manufactures precision acme screws through thread rolling, thread milling, or thread grinding processes. Each process produces unique

qualities in precision screws. Nook acme screw products feature centralizing thread forms for smooth, no-wedging performance.



ROLLED ACME SCREWS

Nook rolled thread acme screws offer the largest selection of size and pitch choices in the industry. Rolled thread screws are cost effective and are stocked for quick delivery.

	THREAD CLASS	LEAD ACCURACY	SCREW DIAMETERS	SCREW LENGTHS
ALLOY	Centralizing 2C or Stub	± .0003"/" up to 2-1/2" diameter	1/4" to 6"	limited only by material availability
STAINLESS	Centralizing 2C or Stub	± .0003"/" up to 1-1/2" diameter	1/4" to 1-1/2"	limited only by material availability



MILLED ACME SCREWS

Milled thread screws allow more variety in journal machining, particularly where a design requires the journal O.D. to be larger than the screw major diameter.

THREAD CLASS	LEAD ACCURACY	SCREW DIAMETERS	SCREW LENGTHS
Centralizing 2C or 3C	± .002"/ft.	1/2" to 3" (Single Starts)	up to 96"
General Purpose 2G or 3G			



GROUND ACME SCREWS

Ground thread screws offer higher lead accuracy performance for applications where positioning tolerances are extremely critical.

THREAD CLASS	LEAD ACCURACY	SCREW DIAMETERS	THREAD LENGTH
Centralizing 3C or 4C	± .0005"/ft.	5/8" to 3"	up to 69"
General Purpose 3G or 4G			

ACME NUT AND SCREW MATERIALS

Materials used in Nook acme nuts have been selected for low friction, minimum wear, long life, and clean operation.

Nut specifications can be found in the Quick References on pages 39-40 and 77-78. Flange and nut dimensions are listed with the appropriate screw data on pages 18-38 and 50-76.



BRONZ/AC™ ACME & ISO NUT

Special high tensile bronze is selected for our smooth running, anti-wedging BRONZ/AC™ nuts.

BRONZ/AC™ BRONZE NUT	
MATERIAL	NOOK BRONZE
TENSILE YIELD	50,000 psi
TENSILE ULTIMATE	65,000 psi
HARDNESS	RB75
DYNAMIC CO-EFFICIENT OF FRICTION	0.125 with NOOK Lubricant



PLAST/AC™ ACME, ISO TRAPEZOIDAL AND SPEEDY™ NUT

The high strength and inherent lubricity of PLAST/AC™ Acme, ISO Trapezoidal and Speedy™ material can result in product life that can equal or exceed conventional nut materials.

ACME & ISO PLASTIC NUT SPECIFICATIONS	
TENSILE STRENGTH @ 70°F	8,000 psi
COMPRESSIVE STRENGTH @ 70°F	16,000 psi
PV LIMIT @ ft-lbs./in ² -min	10,000
CO-EFFICIENT OF FRICTION	0.10
SPEEDY™ PLASTIC NUT SPECIFICATIONS	
TENSILE STRENGTH @ 70°F	9,500 psi
COMPRESSIVE STRENGTH @ 70°F	15,000 psi
PV LIMIT @ ft-lbs./in ² -min	2,700
CO-EFFICIENT OF FRICTION	0.17



ACME, ISO & SPEEDY™ SCREW SPECIFICATIONS	ACME & ISO ALLOY	STAINLESS STEEL	SPEEDY™ ALLOY
MATERIAL	4140 Series	300 Series	420 Series
MINIMUM HARDNESS	200 Brinell	170 Brinell	240 Brinell
TENSILE ULTIMATE STRENGTH	95,000 psi	85,000 psi	100,000 psi
FINISH	Black Oxide	Natural	Natural

POWERAC™ FLANGES FOR BRONZ/AC™ & PLAST/AC™ NUTS

Made of black oxidized carbon steel. See page 5 for Mounting and Pinning Acme Nut flange installation instructions.



With over thirty years of experience manufacturing precision acme screws, Nook Industries has expanded the PowerAc™ offering to include metric lead screws providing design engineers a globally accepted product. Metric lead screws are available in many diameters, leads, and pitches in both ISO Trapezoidal

and Speedy™ styles. The ISO trapezoidal screws use bronze or plastic nuts with optional steel flanges. Speedy products use plastic or bronze nuts with integral mounting flanges. All Nook metric products can be assembled with anti-backlash nut systems.

METRIC LEAD SCREW AND NUT TECHNICAL DATA



ISO TRAPEZOIDAL SCREW AND NUT

Similar in construction and materials to PowerAc™ Inch Acme Screws and Nuts, the ISO Trapezoidal thread form has been enhanced to include a centralizing thread form to prevent wedging and binding. See the PowerAc™ technical data on pages 50-76 for additional screw and nut details.

Standard lead accuracy: is $\pm 6.25\mu\text{m} / 25\text{mm}$

Temperature Range: Plastic Nuts: -9° to $+79^\circ$ C
Bronze Nuts: -9° to $+177^\circ$ C



SPEEDY™ SCREW AND NUT

Designed to move light loads at high travel rates and have lead-to-diameter ratios of up to 6:1, these metric screws are extremely efficient and cost effective when compared to other methods of high-speed actuation.

Speedy™ screws are available with durable wear-resistant plastic nuts and are manufactured from corrosion resistant alloy steel or stainless steel. For higher loads, bronze nuts are available. Special plastic materials can be ordered for demanding applications.

Standard lead accuracy: is $\pm 17.5\mu\text{m} / 25\text{mm}$
Accuracy of $\pm 8.3\mu\text{m} / 25\text{mm}$ available on request

Temperature Range: Plastic Nuts: -40° to $+60^\circ$ C
Bronze Nuts: -40° to $+200^\circ$ C

Lubrication: An initial oil lubrication is generally sufficient for plastic. Lubrication intervals should be adjusted to address the application, environment and duty cycle. Bronze nuts must be lubricated regularly.