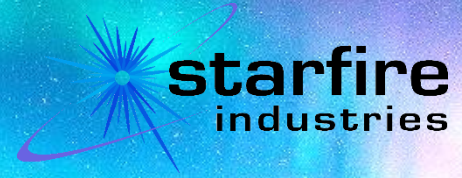


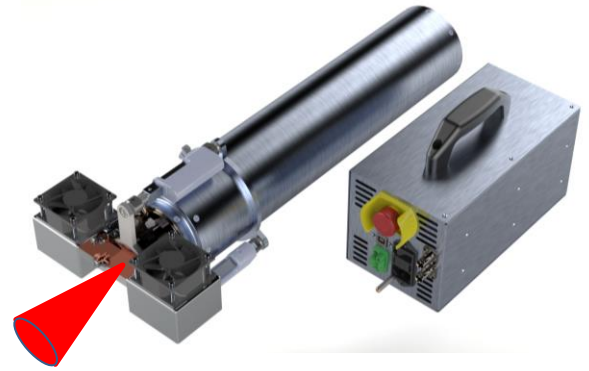
nGen™ -400 FOR PORTABLE NEUTRON IMAGING

Powered by Starfire Industries nGen™ technology



DESIGNED FOR FAST NEUTRON IMAGING

High neutron output combined with small source diameter results in high-resolution images for modest imaging times. The compact size allows in-field use and the ability to reposition the source around larger objects of interest for greater flexibility. This on-end neutron source takes advantage of the anisotropy of DD neutron production and has minimal material in the imaging cone for clear images.



nGen™-400-DD-VIPS (Very Intense Point Source)
Generator Head & Control Box

FAST NEUTRON ADVANTAGE

Fast neutron imaging provides complimentary advantages over x-ray imaging for demanding applications. In contrast to x-rays that are attenuated by high mass density and high-Z materials but not low-density or low-Z materials, fast neutrons interact with all materials in a similar way. This allows users to image low mass-density materials within high-density or high-Z enclosures. The small 2mm spot size enables image magnification.

FLEXIBLE DESIGN ENABLES OPTIONS

- Target heat sinks and fans can be replaced with fluid loop on an extended snout (ES) to spread beam for longer lifetime, simpler design, and compact moderator coupling
- DT option for higher neutron output with 50x yield, available in 2019
- Pulsed operation; Battery operation

SPECIFICATIONS

Neutron Output	>3e8 D-D n/s; >1e10 DT n/s
Neutron spot size	2 mm
Ion source	ECR-coupled plasma
Operating Voltage	200-250kV
Power	400 W _{AC}
Generator Head Size	<22 lbs, 22" OAL, 4" nominal OD
Control Box Size	5 lbs, 5x5x10"
Inputs	USB to computer, AC power cord
Options	-DD, -DT -VIPS, -ES

THE nGen™-400 KEY FEATURES

- Small spot size for fast neutron imaging
- Sealed tube generator
- Neutrons generated at tube end for higher available neutron flux
- Integrated, ultra-compact HV supply
- Minimal interfering material on axis
- Advanced air-cooled target
- Integrated safety features (EMO button, ground lug, safety interlock)
- Movable target for extended lifetime

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