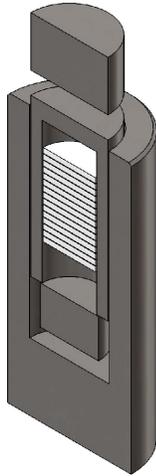


# SPEC Iridium-192 Sources

Iridium-192 is the most commonly used isotope for industrial radiography. Iridium-192 is versatile and ideal for most industrial radiography applications especially pipelines and petrochemical plants. Iridium-192 provides better contrast sensitivity for thicker materials (1 inch; 25.4mm) in comparison to Selenium-75, which tests relatively thin materials. SPEC also offers enriched Iridium-192 as an alternative for customers who require smaller focal sizes and provides similar contrast sensitivity.



*SPEC <sup>192</sup>Iridium Sources have an optimized focal size and are doubly encapsulated.*

## IRIDIUM-192 SOURCE MODEL INFORMATION

| EXPOSURE DEVICES                 | THE ABOVE CABLE END REQUIRES THE BELOW FAIL-SAFE SOURCE CONNECTOR | THE ABOVE CABLE END REQUIRES THE BELOW BALL & SOCKET SOURCE CONNECTOR | NO SOURCE CONNECTOR REQUIRED | MAX ACTIVITY | SOURCE EXCHANGER |
|----------------------------------|---|---|------------------------------|--------------|------------------|
| SPEC-150                         | G-60  | N/A   |                              | 150          | SPEC C-1         |
| Sentinel® (QSA Global) 660B      | T-5F  | T-5   |                              | 140          | SPEC C-1         |
| Sentinel® (QSA Global) 880 Delta | T-5F  | T-5   |                              | 150          | SPEC C-1         |
| Sentinel® (QSA Global) 880 Elite | T-5F  | T-5   |                              | 50           | SPEC C-1         |
| IR-100                           | G-40F   | G-40T   |                              | 120          | SPEC C-1         |
| SPEC 2-T                         | G-1F or G-3F  | G-1T  |                              | 220          | SPEC C-1         |
| Gamma Century, S & S Universal   | G-1F, G-3F  | N/A   |                              | 100          | SPEC C-1         |
| Gamma Pipeliner 1                |   |   | G-23                         | 100          | N/A              |
| Gamma Pipeliner 201              |   |   | G-38                         | 200          | N/A              |
| Automation 520                   | B-16F   | B-16T   |                              | 100          | SPEC C-1         |
| Sentinel® (QSA Global) 660, 660A | T-5F  | T-5   |                              | 120          | SPEC C-1         |
| Sentinel® (QSA Global) 533       | T-1, T-1F   |   |                              | 120          | SPEC C-1         |
| Sentinel® (QSA Global) 683       |   |   | T-6                          | 100          | SPEC C-1         |
| Gulf Nuclear 20V                 | G-1F, G-3F  | G-1T  |                              | 100          | SPEC C-1         |
| Gulf Nuclear 40V                 | G-1F, G-3F  | G-1T  |                              | 200          | SPEC C-1         |
| Magnaflux MX-IC-100              | G-41F   | G-41T   |                              | 100          | SPEC C-1         |

## IRIDIUM-192 PHYSICAL DATA

|                        |                             |
|------------------------|-----------------------------|
| Half-life:             | 73.83 days                  |
| Exposure Rate Constant | 400mR-m <sup>2</sup> /hr-Ci |
| Energy Range           | 295-612 keV                 |

## AVAILABLE SOURCE SIZES AND ACTIVITIES

| EXPECTED ACTIVITY (Ci) | NATURAL FOCAL SIZE (in) | ENRICHED FOCAL SIZE (in) |
|------------------------|-------------------------|--------------------------|
| 50                     | 0.117                   | 0.089                    |
| 80                     | 0.133                   | 0.099                    |
| 100                    | 0.146                   | 0.109                    |
| 120                    | 0.160                   | 0.120                    |
| 140                    | 0.176                   | 0.135                    |
| 150                    | 0.184                   | 0.140                    |

