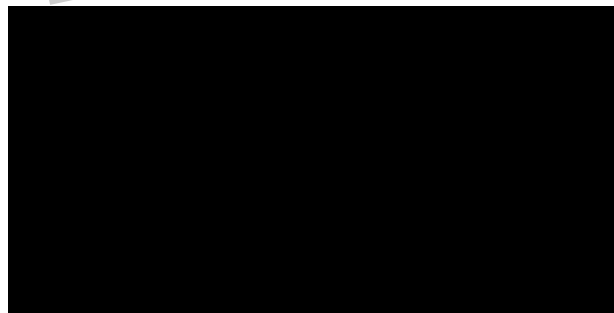
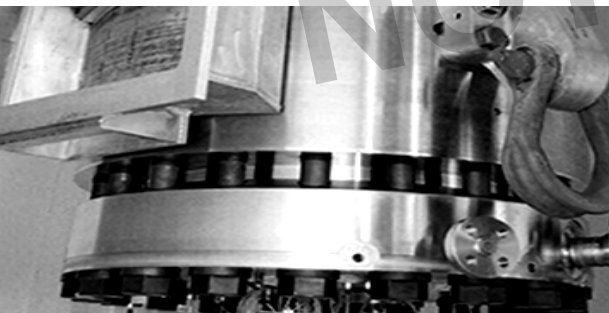
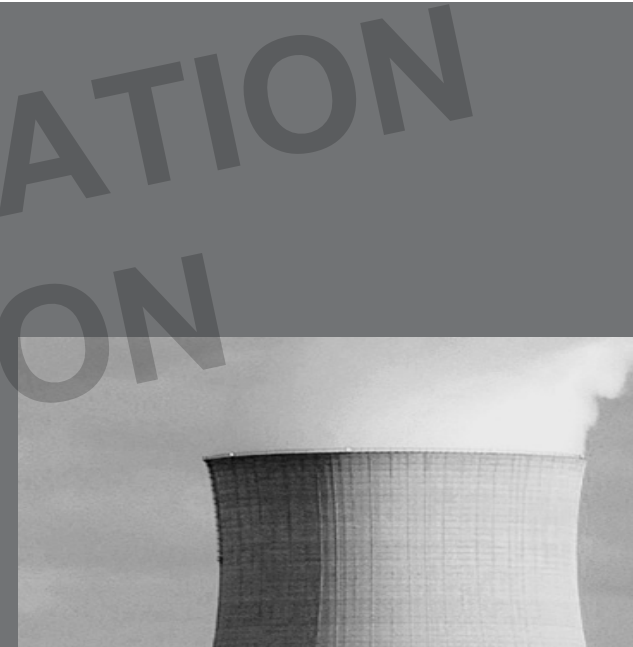




EST Group

2025 Sales Partner Meeting – EMEA
D-Series Tool Overview



History of the D-Series Tools

- **After the Cold War ended**
 - Nuclear facilities no longer needed
- **Rocky Flats History**
 - Came to EST
 - Saved decades for demolition
- **With initial success EST began actively pursuing more business**
 - DOE sites: LANL, INL, ORNL, etc.

What is the D-Series Tapping Tool



D-Series D2 Model

What is the D-Series Tapping Tool

- **The D-Series tool was developed to meet the needs of the Decontamination and Decommissioning community by providing with an inexpensive, lightweight tool used for:**
 - Tapping into an existing piping system
 - Serve as a point through which to sample and characterize the contents of a pipe
 - Serve as a point through which to drain the contents of the piping system
- **The tool is made of stainless steel and Teflon construction**
 - Makes the tool compatible with most fluids encountered in a DOE site including:
 - Enrichment, reduction, and refining of uranium and plutonium
- **Can be used up to five times, however inexpensive enough to be scrapped with the line**

Design Objectives

- Create a tapping tool and saddle that would create a clean access point/penetration in horizontal carbon steel and stainless-steel pipes ranging from ½” to 2” NPS
- The tool and its components had to be compatible with:
 - 12Mo Nitric Acid; solvents, including methyl ethyl ketone; cutting oils; Plutonium, Americium, and Beryllium; gaseous Hydrogen
- Operating pressures up to 285 PSI
- The method used could not create a ridge or a burr internally to the pipe
- The penetration method could not generate heat that would cause H2 to ignite
- Lightweight, and simple installation process to be done with a technician wearing PPE
- Meet QA programs ISO-9001 and ASME NQA-1

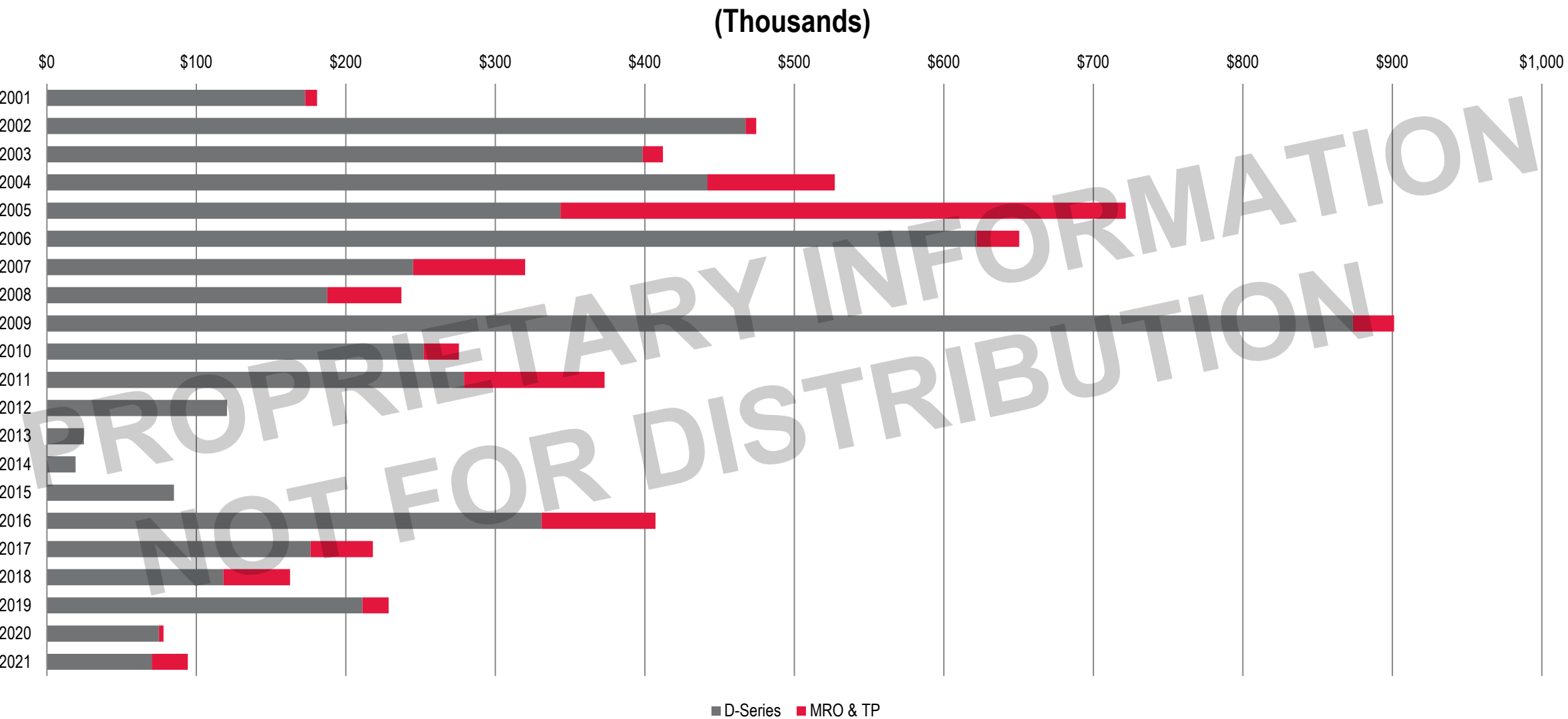
Successes and Opportunities

- **Our biggest and current successes to date include:**
 - Rocky Flats, Savannah River, Oak Ridge, Idaho National Labs, Los Alamos, Knolls Atomic Power, NASA Sandusky, West Valley, and Sellafield in the UK.
- **D-series sales exist at any opportunity where material processing facilities are undergoing D&D operations.**
 - DOE sites (LANL, INL) are our biggest customers, but interest from nuclear power plants and chemical processing facilities has also risen.
 - The best contact at a site is a D&D engineer.
 - ALARA engineers and Health & Safety communities are interested in these tools because it means significantly reduced worker exposure time.

Other Opportunities and Channels to Market

- D&D engineers, D&D subject matter experts, D&D project engineers, D&D project planners
- Our most successful path to market for DOE has been the direct sales approach
 - However, would like to use reps in the future due to the amount of small business funding each DOE site needs to use

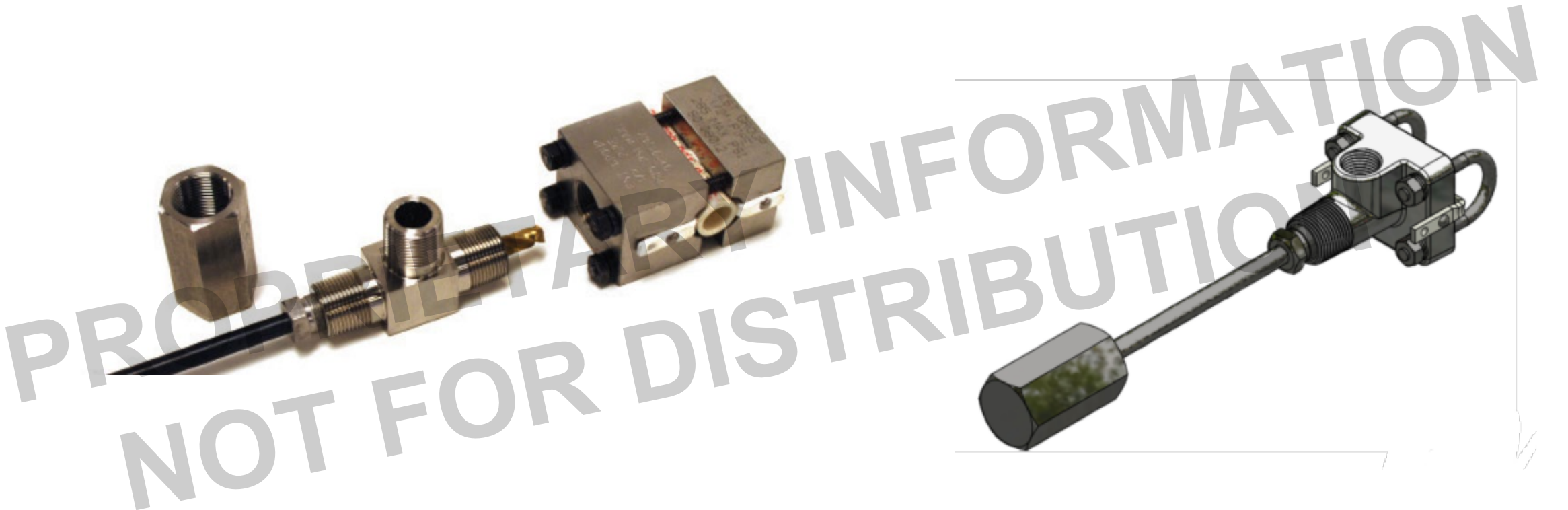
D-Series Revenue by Year



Engineering has redesigned the D-Series Tool

- Lead time cut down from 9 weeks to 2
- Less material used
- Casted, which cuts cost
- Saddle and T are all one piece
- U-Bolts are now slots to universalize saddles for different pipe sizes

New Design Comparison



D-Series Future

- **D-Series has been pushed at weaponry facilities and decommissioning sites across the US**
- **Europe has many of these facilities throughout the continent; which will be shown over the next few slides**
- **Push for other applications in other markets**
 - O&G, Chemical, Renewable, etc.

Fortum

- Nuclear Decommissioning
- Decommissioning Planning
- Licensing and Safety Engineering in Decommissioning
- Decommissioning Execution and Waste Management
- 10 Countries
- [Services for Nuclear Decommissioning | Fortum](#)



International Atomic Energy Agency (IAEA)

- Nuclear Power Fuel Cycle
- Nuclear Waste Management
- Decommissioning of Nuclear Installations
- Environmental Remediation
- Vienna Headquartered
- Division of Nuclear Fuel Cycle and Waste Technology | IAEA



JAVYS

- Nuclear and Decommissioning Company
- V1 NPP Decommissioning
- Processing, Treatment, Transport of Nuclear Waste
- EMEA and APAC affiliation
- Slovakia Headquartered
- [Homepage - Javys, a.s.](#)



Nuclear Decommissioning Authority (NDA)

- Eliminate Site Hazards
- Develop Waste Solutions
- Ensure high standards in safety, security, and environmental management
- Child Agencies:
 - International Nuclear Services; Direct Rail Services; Radioactive Waste Management



European Weaponry and Nuclear D&D Sites

Sites owned by NDA in UK

- **Scotland**

Dounreay; Hunterston A; Chapelcross

- **England**

Sellafield; LLW Repository; Springfields; Capen Hurst; WYLFA; Trawsfynydd; Sizewell A; Bradwell; Berkeley; Harwell; Dungeness A; Winfrith; Oldbury; Hinkley Pink A



Other European D&D Nuclear Sites

- **La Hague; Contentin Peninsula; France**
 - Treated nuclear fuel from almost a dozen countries around Europe
- **Krummel Nuclear Power Plant; Germany**
 - Nuclear Power Reactor
- **Marcoule; France**
 - Radioactive waste processing center; Melox MOX fuel fabrication plant

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