

WELLBORE SERVICE TOOLS | RETRIEVABLE TOOLS

API 11D1 validated service tools

Field-proven design with industry-leading validation

API 11D1 REQUIREMENTS

- Quality-control requirements, to include material control, mechanical tests, documentation, and traceability
- Design verification requirements, to include design reviews, calculations, design margins, and comparison to similar proven designs
- Design validation tests
- Performance ratings, to include performance envelope
- Documentation and data control in accordance with API Q1
- Product identification/marketing
- Assembly verification
- Provide well and operational parameters
- Pass annual audits from API

Overview

After decades of success and run history with RTTS® and Model 3L™ service tools, Halliburton has certified them to industry API standards to offer premium retrievable service tools to the market. Under the guidelines of API, Halliburton products with an API 11D1 rating have undergone strict test validation and rigorous manufacturing controls to help ensure quality products are available to operators. Halliburton currently offers three distinct API 11D1 retrievable products, the RTTS® packer, Model 3L™ retrievable bridge plug, and the Intercept® retrievable bridge plug, available in sizes 7 to 18 in.

All Halliburton facilities that manufacture service tools have an API Q1 and 11D1 license and undergo annual audits to verify conformance to the rigor outlined in the specification. Halliburton has an internal regulatory department heavily involved in API 11D1 task groups and meetings. The regulatory team reviews all internal test reports and variation letters to help ensure compliance.



HAL121817

Intercept® retrievable bridge plug

Validation tests

Halliburton internal test facilities can test products up to 40,000 psi, at a temperature range of -115°F to 700°F, assemblies up to 45 ft in length, in both liquid and gas test mediums. Halliburton packers and bridge plugs not only undergo the rigor of pressure reversals and temperature swings to meet API 11D1 requirements, each point along the envelope is validated to confirm combined pressure and hang-weight loads can be supported. All ratings listed on Halliburton engineering data sheets (EDS) are actual tested points from API 11D1 validation tests. For example, the calculated tensile limit might be higher, but the EDS reflects actual test results. Ratings from various validation types are not intermixed (i.e., calculated or component level vs. API test points). Customer test reports are available upon request.



API 11D1 validated service tools

RTTS® Packer

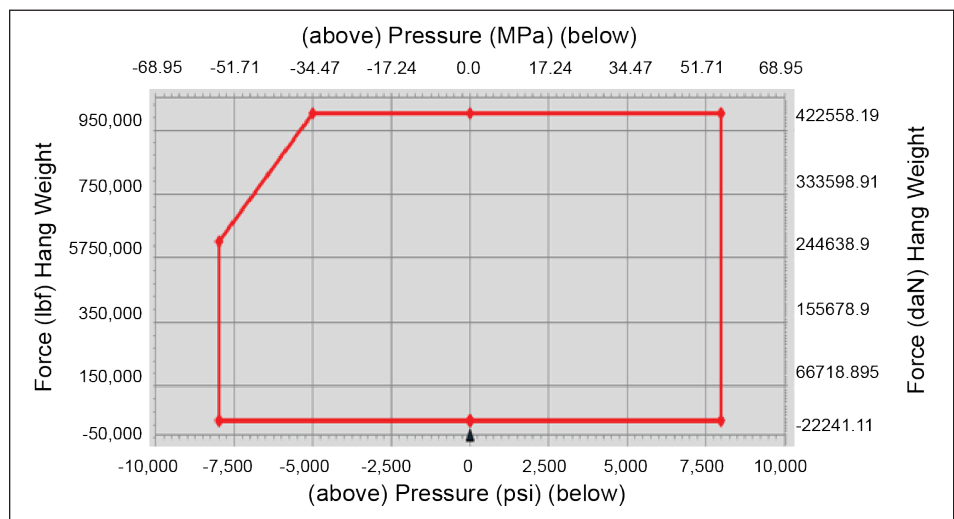
- V3 validated in sizes 7 to 18 in.
- Assembly tensile strength up to 1 million pounds available
- Validated with pressure and hang-weight combined loads

Model 3L™ Retrievable Bridge Plug

- V3 validated in sizes 7 and 9 5/8 in. with a 5,000-psi pressure rating

Intercept® Retrievable Bridge Plug

- V0 validated in sizes 9 5/8 to 14 in.
- Validated with combined pressure and hang-weight loads



For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

Sales of Halliburton products and services will be in accord solely with the terms and conditions contained in the contract between Halliburton and the customer that is applicable to the sale.

H014907 07/25 © 2025 Halliburton. All Rights Reserved.

halliburton.com

HALLIBURTON