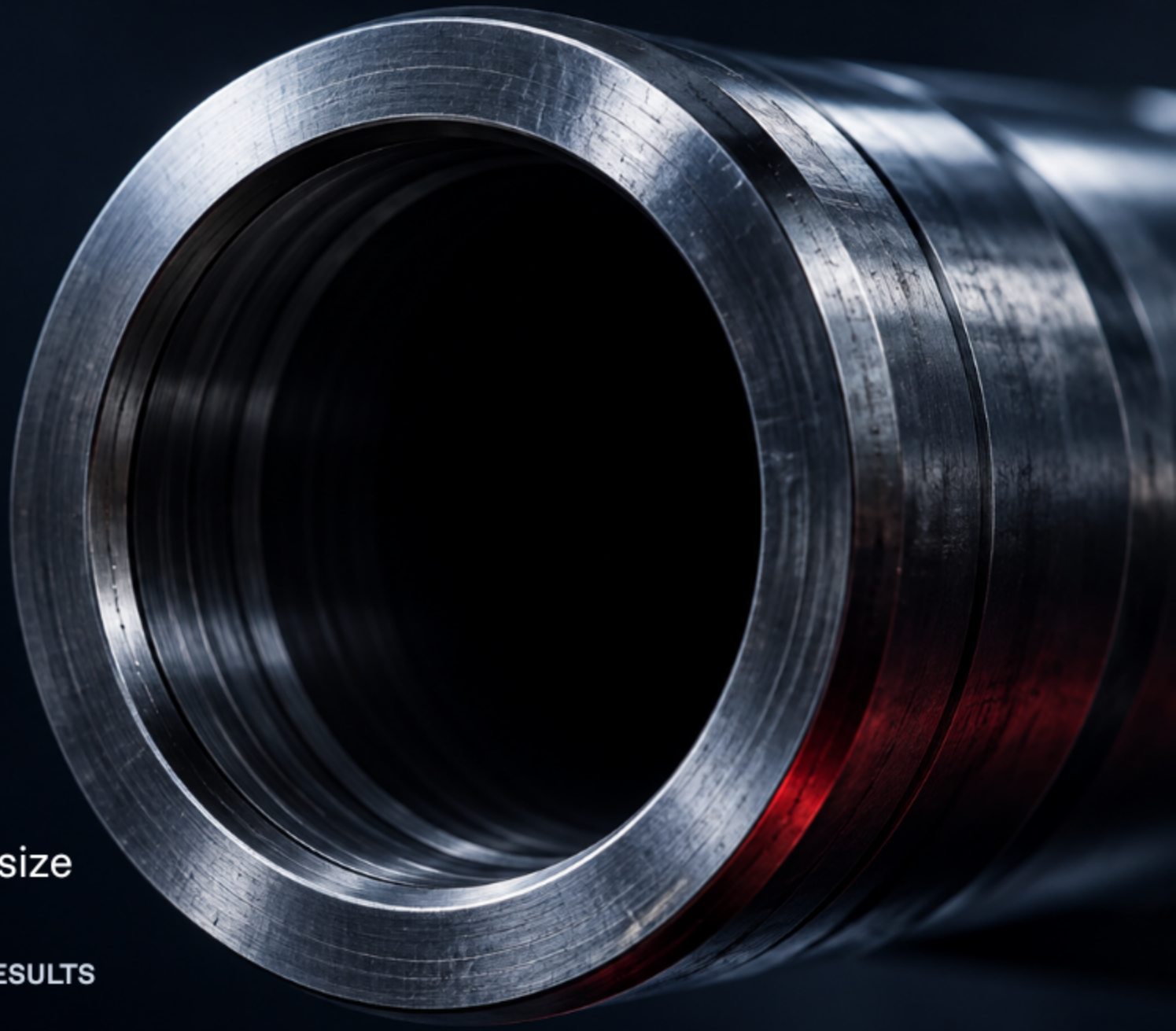
1776 DOWN HOLE TOOLS

Frac plug
No separate slips



Custom engineered for your casing size

UPDATED WITH NOVEMBER 6, 2026 BENCH TEST RESULTS

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The job is stage isolation

A frac plug creates a barrier between stages during a plug-and-perf completion.



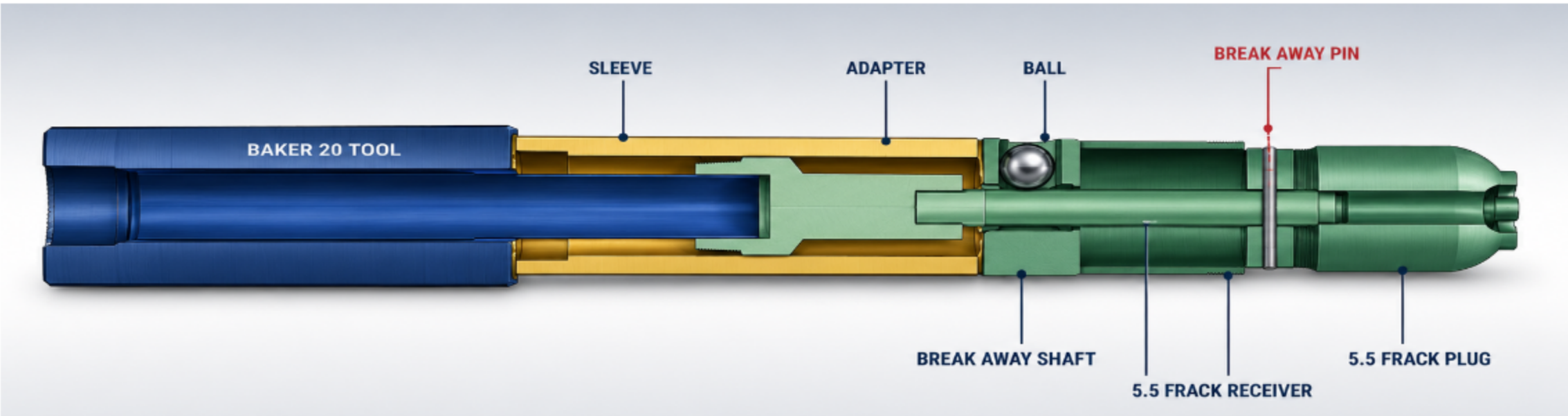
The customer objective

Keep treatment focused on the intended stage, then remove the barrier as the completion program requires.

Application, deployment and removal must follow the approved program for the specific well.

A wedge and expandable receiver

Axial movement drives radial expansion

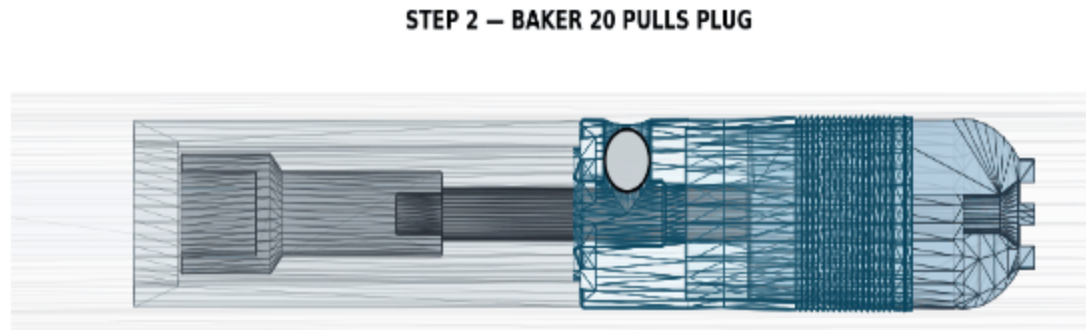


Concept illustration. The selected setting-tool interface and final assembly require confirmation.

Sealing without separate slips

Wedge movement expands the receiver against the casing to form a seal and resist axial movement.

The receiver combines sealing and casing engagement without separate slips.



The receiver integrates sealing and engagement without separate slips. Confirm the configuration and operating limits for the intended well.

Controlled deployment and setting

Resistance to premature setting

The intended sequence uses a deliberate setting action to expand the receiver.

Flow-through geometry supports pumpdown placement.



Resistance to premature setting and efficient pumpdown are design objectives. Validate deployment performance for the intended conditions.

Drillout efficiency by design

5086

DOCUMENTED ALUMINUM MATERIAL

Aluminum construction and the design without separate slips support the design objective of efficient drillout.



The bench test did not measure drillout times, pumpdown efficiency or comparative savings. Review removal method, BHA, debris and wear for the application.

Witnessed bench test: November 6

10,000 psi

No leakage or slippage observed during a short hold.

One set plug in P-110 casing. Pressure above a seated ball. Lower side open to atmosphere.

Witness: Charles (Chuck) Wright, NOV Corporate R&D Manager. Quick ramp and short hold. This specimen and setup only. Confirm job-specific limits.

1776 DOWN HOLE TOOLS

A technical conversation about your next well

1776 custom engineers the plug for your casing size. Bring the actual ID, operating conditions and removal plan.

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Design reference and latest test

Design item	Design and test reference
Example casing design	5.5-inch, 20 lb/ft, P-110
Plug material	5086 aluminum
Mechanism	Wedge-driven receiver deformation
Setting arrangement	Baker 20 charge used in November 6 test
Latest bench test	November 6, 2026: 10,000 psi, short hold

The November 6 witnessed bench result applies to the specimen and setup tested. Confirm job-specific pressure, temperature and configuration limits.

Setting sequence and training scope

01	**Initial position**	Components begin in the illustrated arrangement
02	**Axial movement**	Setting action draws the wedge into the receiver
03	**Receiver expansion**	Receiver deforms outward toward the casing
04	**Release**	Setting equipment separates; ball reaches final position

The demonstration shows ball-in and mentions a separate ball-out configuration. The learning guide is educational and is not an approved field operating procedure.

Configuration and application review

Fit and anchoring	Configuration sized to actual casing ID, weight, grade and condition
Deployment	Pumpdown conditions and resistance to premature setting
Setting and isolation	Baker 20 tested. Confirm 3.5 Shorty or Fortress interface and job limits
Removal	Comparable BHA, flow, drillout time, debris and wear
Well outcome	Isolation verification and appropriately matched production evidence

1776 reviews casing fit, setting equipment and the completion program together. Confirm the selected configuration and approved job procedure before deployment.

Sources and technical contacts

Product and mechanism

1776downholetools.com/technology/
1776downholetools.com/frac-plug/

Assembly education

Assembly Overview V2 and Plug Assembly Learning Guide
Available under Training on the frac-plug page

Field operations

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Test source: signed Plug Test Report, November 6, 2026. Images and logo: existing 1776 assets. Use current approved documentation for field decisions.