



Pump-Out Burst Subs

Dual burst-plug circulating subs, built to any connection and pressure rating

OVERVIEW

A pump-out burst sub is a short drill string sub with two pressure-rated burst plugs set in its wall. Run above the bit, float sub or BHA, it stays sealed during normal drilling. If the string below it plugs, pressure from surface bursts the plugs at a set value and opens a path from the bore to the annulus, so the crew can circulate, condition the hole and pull the string dry. Burj Resources supplies burst subs in any connection, OD and burst rating, built and dressed to order, the same way we supply our float valves and float subs.

APPLICATIONS

WELL CONTROL

Plugged Bit or BHA

When the bit, motor or float below is plugged, burst the sub to regain circulation above the restriction.

- Circulate and condition mud
- Spot pills or kill fluid
- No balls, darts or wireline

Best for: lost-circulation material plugging, packed-off bits and failed floats.

TRIPPING

Pull a Dry String

An open port lets the string drain as it is pulled, instead of pulling a wet string full of mud.

- Faster, cleaner trips
- Less mud lost on the floor
- Safer for the floor crew

Best for: tripping out after a plugged string or with a float below.

MPD & FLOATS

Back-Up Circulation Path

Run above drill string float valves as a planned contingency when a float cannot be pumped through.

- Set rating above max. pump pressure
- Two offset plugs for redundancy
- Pairs with Burj float subs

Best for: MPD, underbalanced and high-risk sections.

COMMON SPECIFICATIONS

Design	One-piece sub body with a pair of offset burst plugs in steel carriers
Connections	Any API or premium connection, box x pin, to match the string
Body OD / ID	Built to suit the string, e.g. 5-1/4" OD (DUO 400) and 5-3/4" OD (DUO 480)
Burst pressure	3,000 to 10,000 psi (20.7 to 68.9 MPa), in 1,000 psi steps
Burst accuracy	Tested to burst within $\pm 5\%$ of the rated pressure
Burst discs	Brass, laser-engraved with the activation pressure
Seals & retention	O-ring sealed steel carriers held by an internal retainer ring
Redress	Replaceable carrier bushings and burst plug sets; re-dress at any rating

BURST PLUG RATINGS

Rated burst	MPa	Opens between (±5%)	Disc marking
3,000 psi	20.7	2,850 – 3,150 psi	Laser-engraved
4,000 psi	27.6	3,800 – 4,200 psi	Laser-engraved
5,000 psi	34.5	4,750 – 5,250 psi	Laser-engraved
6,000 psi	41.4	5,700 – 6,300 psi	Laser-engraved
7,000 psi	48.3	6,650 – 7,350 psi	Laser-engraved
8,000 psi	55.2	7,600 – 8,400 psi	Laser-engraved
9,000 psi	62.1	8,550 – 9,450 psi	Laser-engraved
10,000 psi	68.9	9,500 – 10,500 psi	Laser-engraved

Choose a rating safely above the highest expected circulating pressure at the sub, plus hydrostatic difference. Other ratings available on request.

SIZES & CONNECTIONS

Connection	Example body OD	Box × pin	Any rating
DUO 400	5-1/4"	●	●
DUO 480	5-3/4"	●	●
3-1/2" IF (NC38) · 4" FH	To suit string	●	●
4-1/2" IF (NC50) · 6-5/8" REG	To suit string	●	●
Other API & premium threads	Available on request		

Please provide connection, sub OD / ID, length requirement and burst rating when ordering.

KEY FEATURES

- Two offset plugs.** A redundant pair of burst plugs, offset in the wall, opened by internal pressure.
- Accurate opening.** Each rating tested to burst within ±5%.
- No intervention.** Opens from surface pressure alone; no ball, dart or wireline.
- Re-dressable.** Swap carriers and discs to reuse the sub or change its rating.

INSTALLATION & REDRESS

- Install O-rings in the sub and steel carriers first
- Install and tighten the steel carriers
- Fit the internal retainer ring, then the burst plugs
- Use the supplied wrenches for carriers, plugs and rings
- Check the engraved rating on each disc before running

SUPPLY OPTIONS

- Complete subs, dressed and ready to run
- Carrier bushing sets and burst disc sets
- Sale or rental packages

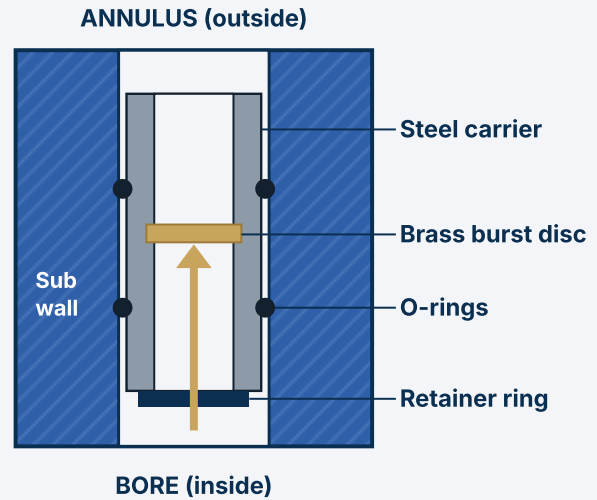
BURST SUBS



PHOTO

Pump-Out Burst Subs · DUO 400

Subs dressed with burst plugs, thread protectors on, ready to ship.

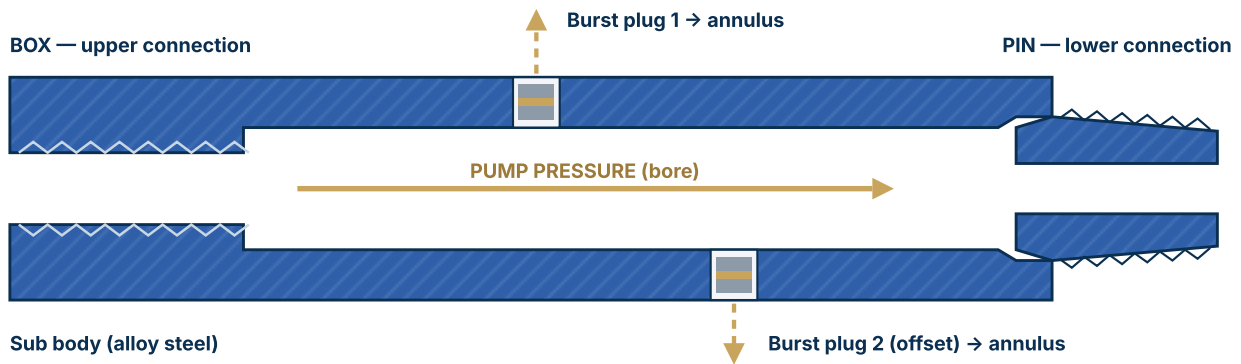


ILLUSTRATION

Burst Plug · Port Detail

Bore pressure acts on the brass disc. At the rated pressure the disc bursts and opens the port to the annulus.

BURST SUB ASSEMBLY



3-10K psi

Burst rating range

±5%

Burst accuracy

2 plugs

Offset, redundant

Any thread

API & premium

Illustrations are not to scale. Specifications subject to change without notice.



Need a burst sub built to your string?

Send the connection, sub OD / ID and burst rating, and we'll quote a dressed sub with spare plug sets.

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