



Whipstock Systems

Whipstock is an effective, cost-efficient tool for sidetracking from an existing wellbore. Sidetracking can be accomplished in open hole or throughout a single or more casing layer.

Application

- To avoid drilling new infill wells
- Reentry in existing well
- To drill small rathole for formation test
- To drill multi-lateral well
- Bypass obstacles such as fish and collapse point at the casing or liner



The HPOGC Whipstock available types are:

- Cased Hole Whipstock :
 - Hydraulic Set (Permanent or Retrivable).
 - Mechanical Set (Permanent or Retrivable).
- Open Hole Whipstock:
 - Expandable Anchor (can be used with cement for hard formation)
 - Inflatable type Whipstock.

Different types of whipstock systems

Hydraulic Set Whipstock

- Single trip operation, used in cased-hole wells.
- Can be installed without plug settings, doesn't set during RIH.

| Casing size | Whipface angel | Whipface length | Window Length | Hydraulic Set Retr. | Hydraulic Set Perm. | Shear Screw Shear Value | Max pump Pressure Required |
|-------------------|----------------|------------------|------------------|---------------------|---------------------|-------------------------|----------------------------|
| (in) | (Deg) | (cm) | (cm) | Yes/No | Yes/No | (klbs) | (Psi) |
| 5 To 13 3/8 | 3 | 200 To 533 | 243 To 688 | Yes | Yes | 20-25 To 80-100 | 3000 |

HPOGC Whipstock Hydraulic Set system Technical Specification





Mechanical Set Whipstock

- Single trip operation, used in cased-hole wells.

| Casing size | Whipface angel | Whipface length | Window Length | Mechanical Set Retr. | Mechanical Set Perm. | Shear Screw Shear Value |
|-------------|----------------|-----------------|---------------|----------------------|----------------------|-------------------------|
| (in) | (Deg) | (cm) | (cm) | Yes/No | Yes/No | (klbs) |
| 5 | 3 | 200 | 243 | Yes | Yes | 20-25 |
| To 13 3/8 | | To 533 | To 688 | | | To 80-100 |

HPOGC Whipstock Mechanical Set system Technical Specification

Expandable Anchor Whipstock

- Single trip operation, used in open-hole wells.
- Can be used as cement type in hard formation.

| Hole size | Anchor OD | Max Expansion | Shear Rating | Cement Type | Expandable | Permanent | Retrievable |
|-----------------|---------------|---------------|--------------|-------------|------------|-----------|-------------|
| (in) | (in) | (in) | (lbs) | Yes/No | Yes/No | Yes/No | Yes/No |
| 4-1/8 to 17-1/2 | 4.032 to 15.8 | 6/1/02 To 22 | adjustable | Yes | Yes | Yes | Yes |

HPOGC Whipstock Openhole Anchor Technical Specification

Inflatable Type Whipstock

- Single trip operation, used in cased-hole wells.
- Can be installed without plug settings, doesn't set during RIH.
- Provides greater clearance through restrictions in a well.

| Part Number | Thread connections | | Element seal length | Element | Dart seating I.D. | Minimum tool I.D. | Tool size |
|--------------------|--------------------|-----------|---------------------|------------|-------------------|-------------------|-----------|
| | pin | box | | O.D. | | | |
| Rotational release | pin | box | In | In | in | In | in |
| Pull release | | | M | mm | mm | mm | mm |
| 0630-055004-DA | 3-1/2" IF | 3-1/2" IF | 48 | 5.5, 6.75 | 2.06, 52 | 2.25, 57 | 5.5, 140 |
| 0631-055004-DA | | | 1.22 | 140, 171 | | | |
| 0630-075004-DA | 4-1/2" IF | 4-1/2" IF | 48 | 7.5, 11.25 | 2.06, 52 | 3, 76 | 7.5, 191 |
| 0631-075004-DA | | | 1.22 | 191, 286 | | | |
| 0630-095001-DA | | | 48 | 9.5, 15.75 | | | |
| 0631-095001-DA | | | 1.22 | 241, 400 | | | |

Inflatable Openhole Whipstock Packer Technical Specification

