

## Whipstock System with Mechanical Anchor “ANTEUS™” PL-WSMSA

Mechanical Anchor Whipstock System whipstock ensures precise deviation of the milling bottomhole assembly from the original wellbore axis during casing window milling. The mechanical anchor allows its deployment in casing strings with various wall thicknesses, enhancing the tool’s versatility. The system ensures accurate orientation and adaptability even in challenging milling environments.

### The equipment is used for

- creating a milling window in casing strings or open hole sections;
- deflecting the drill string in a predetermined direction;
- ensuring a controlled kickoff of a new wellbore;
- executing lateral sidetrack initiation;
- bypassing damaged or problematic intervals to eliminate stuck.

### Equipment set includes

- Whipstock with mechanical anchor;
- Window Mill;
- Watermelon Mill (Bottom);
- Watermelon Mill (Top) (wedge inclination angle 2°).

### Design Advantages

- independent from hydraulic pressure activation
- simple and robust design;
- quick and efficient setting procedure;
- increased reliability in wells with challenging downhole conditions.



Casing Size OD (in)	Wedge Section OD (in)	Anchor Section OD (in)	Window Mill OD (in)	Watermelon Mill OD (in)
5 ½	4 ⅓	4 ⅓	4 ¼ - 4 ⅞	4 ¼ - 4 ⅞
5 ¾	4 ⅔	4 ⅔	4 ⅔ - 4 ⅞	4 ⅔ - 4 ⅞
6 ⅝	5 ⅝ <sub>16</sub>	5 ⅝ <sub>16</sub>	5 ½ - 5 ¾	5 ½ - 5 ¾
7	5 ⅝ <sub>16</sub>	5 ⅝ <sub>16</sub>	5 ¾ - 6 ⅛	5 ¾ - 6 ⅛
9 ⅝	7 ⅞	7 ⅞	7 ½ - 8 ½	7 ½ - 8 ½
13 ⅜	11 ½	11 ½	11 ⅝-12 ¼	11 ⅝-12 ¼
13 ⅝	11 ½	11 ½	11 ⅝-12 ¼	11 ⅝-12 ¼

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## Operation

- Tool is run into the well as part of the bottom-hole assembly (BHA).
- At the target depth, axial set-down weight is applied.
- The axial load activates the mechanical setting mechanism, initiating anchor deployment without the use of hydraulic pressure.
- The Anchor slips expand and securely lock the anchor unit inside the casing string or open hole section.
- Once fixation is confirmed, the whipstock remains precisely oriented for subsequent operations.
- Window milling is then performed, after which the drilling assembly slides along the inclined wedge surface, providing controlled wellbore deviation and sidetrack initiation.