



Production Equipment > Downhole

## Hi-Bypass Torque Anchor

The high bypass area torque anchor is a multi-lobe active anchor no-turn tool designed to resist clockwise rotation of the tubing string by anchoring it to the casing. The modular design significantly increases the annular bypass area of a standard Dynamic Torque Anchor

### Design

The anchor consists of an alloy tube body with a number of drag block lobes affixed to it. Each lobe consists of a drag block, energizing spring and drag block carrier. Each drag block carrier fits into a precision-machined slot on the body.

Modularizing the drag block assemblies accomplishes two tasks: it increases the annular flow area between the OD of the anchor and ID of the casing as compared to other multi-block high flow design; and, makes assembly and redressing much easier than existing ring-type torque anchors.

### Construction

The torque anchor body is manufactured from AISI 4140 HTSR material meeting the requirements of API L80. The drag blocks are a hardened alloy steel and the drag block carriers are cast steel. Springs and retaining screws are Inconel X750 and 316 SS respectively.

### Flexibility

The standard anchor will feature three drag block modules, which in testing has resisted 2200 ft-lbs of torque in a controlled setting.

Currently available for 7.00 x 17 lb/ft to 32 lb/ft casing with 3-1/2 EUE connections.

Three anchor lobes are standard, with up to 5 lobes available on the 7.00 x 3-1/2 size tool.

### Ordering Information

- 1.) Specify Hawkeye High-Bypass Modular Torque Anchor
- 2.) Specify number of lobes (3 standard).

Note: Only 7.00 x 3-1/2 EUE available at this time.



**Above:** Modular high-bypass torque anchor with EUE connections and 3 drag block modules.

[www.hawk-eye.com](http://www.hawk-eye.com)

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# Hi-Bypass Torque Anchor

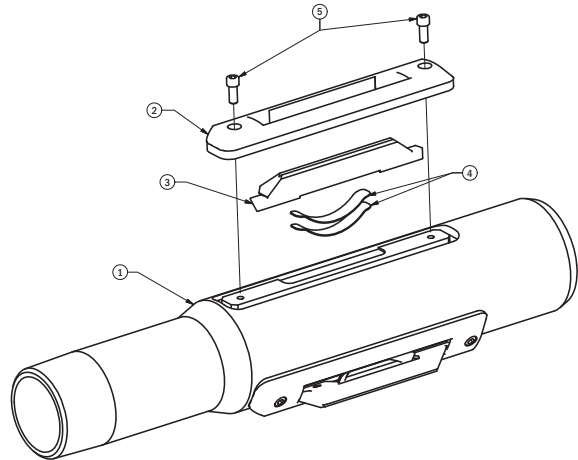
## Dimensions

Part Number	Lobes	Casing Size (in)	Casing Weight (lb/ft)	Total Length <sup>1</sup> (in)	Connections (EUE)	ID (in)	Est. Weight (lb)
TAM-700-350-3	3	7.00	17 - 32	24	3-1/2	2.992	52
TAM-700-350-4	4	7.00	17 - 32	24	3-1/2	2.992	55
TAM-700-350-5	5	7.00	17 - 32	24	3-1/2	2.992	58

<sup>1</sup>Due to manufacturing tolerance and material variability, length may vary ± 2.0 in.

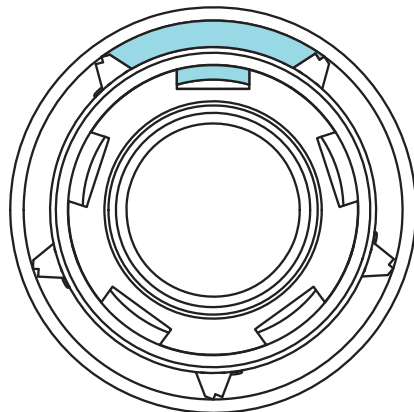
## Materials of Construction

Component	Material
1.) Body	AISI 4140 L80 (std.)
2.) Anchor Carrier	ASTM A216 WCB
3.) Anchor Block	AISI 8620, Heat Treated
4.) Energizing Springs	Inconel X-750
5.) Screws	AISI 316 Stainless Steel

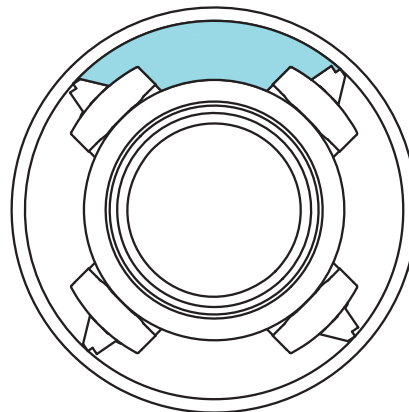


## Bypass Area Comparison

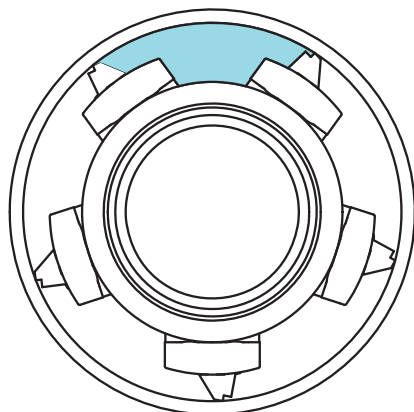
All Anchors shown are 7.00 x 3-1/2 EUE shown in 7.00 x 17 (6.54 in. ID) Casing.



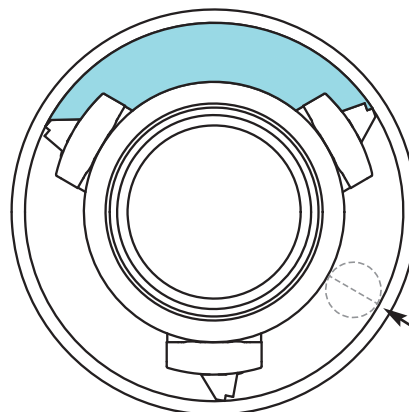
**Dynamic-type Anchor**  
Annular Flow Area  
 Highlighted: 1.873 in<sup>2</sup>  
 Total: 9.365 in<sup>2</sup>  
 \* BASELINE \*



**Hawkeye Modular:**  
**4 Lobe**  
Annular Flow Area  
 Highlighted: 3.298 in<sup>2</sup>  
 Total: 13.192 in<sup>2</sup>  
 40.9% increase over Dynamic



**Hawkeye Modular:**  
**5 Lobe**  
Annular Flow Area  
 Highlighted: 2.407 in<sup>2</sup>  
 Total: 12.035 in<sup>2</sup>  
 28.5% increase over Dynamic



**Hawkeye Modular:**  
**3 Lobe (Standard)**  
Annular Flow Area  
 Highlighted: 4.764 in<sup>2</sup>  
 Total: 14.292 in<sup>2</sup>  
 52.6% increase over Dynamic

**Maximum Annular Circular Clearance**  
**(All Hi-Bypass Models)**  
 Dashed Line: 1.02 in  
 In 7.00 x 17 Casing