

# Tornar® String Magnet (Non-Rotating)

## Clean and solids-free Wellbore

Tornar® String Magnet is a mechanical tool that collects metallic debris in the casing or liner IDs from any wellbore. It is designed to capture a large volume of metallic debris while maintaining large flow volumes.

The Tornar® String Magnet can be integrated as a part of a complete wellbore cleaning tool string during the displacement process prior to running completion. It can be rotated and reciprocated without damaging the casing or tool. This is due to its rugged design and the fact that it does not contain external bolts that could become loose under extreme conditions.

As the Tornar® String Magnet is run in hole the high capacity magnets remove debris from the casing ID and drilling fluid. The non-rotating stabilizers on the Tornar® String Magnet provide a standoff as well as a generous flow area for fluid by-pass around the tool. The non-rotating stabilizers also reduce any possible casing wear. The non-rotation magnet sleeve ensures no debris is washed away during rotation. Rotation up to 150 rpm may be applied to create turbulent flow and remove cutting bed.

The Tornar® String Magnet should be run when significant ferrous debris may potentially exist.

### Benefits

- Large debris capacity
- High strength single pole magnets
- Eliminates casing wear
- High strength mandrel
- Simple to run
- Multiple run possible
- Withstand drilling and milling operations

### Features

- One piece mandrel
- Non rotating stabilizers
- Non rotating magnet sleeve
- No external nuts or bolts
- Extra Large bypass areas for eliminating flow restrictions
- Fluted spiral stabilizer sleeves for generous fluid and debris bypass

### Specifications

Casing/liner sizes	4 1/2" to 14"
Thread	API and Premium
ID	1 3/4" to 4"
Maxi. rotation speed	150 rpm
Working temperature	150°C / 302°F
Max. trip speed in casing	Limited by rig equipment
Max. pump rate	Limited only by surface equipment
Material (main body)	AISI 4145M 110 KSI
Burst pressure	690 bar - 10 000 psi
Debris capacity	Up to 94 kg / 207 lbs
Magnet force	Up to 1850 kg

Specifications may be subject to change.