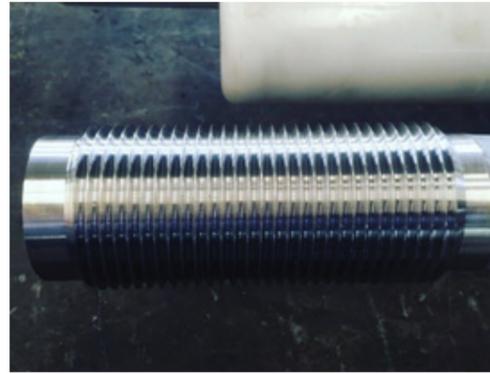


LONG AND FLAT PRODUCTS

# TIE RODS



Tie Rods provide load transfer from the main wall to the anchor wall. It can be mated onto varying main walls such as O-Pile Walls, Sheet Piles and Combination Walls. Due to the modular nature of Tie Rods, lengths can be customised and connected through turn buckles and connection plates.

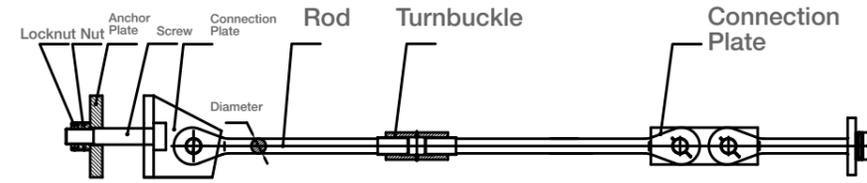
With industry leading forging technology, our Tie Rods are produced with Eyelets at the ends and threads are Upset End. Upset End production technology reduces wastage in the bar width compared to traditional tie rod techniques which cut threads into the round bars, reducing the effective diameter.

## SPECIFICATIONS

Tension Grade	Nominal Diameter mm	Min Tensile Strength MPa	Min Yield Strength Mpa	Minimum Elongation %	Reduction of Area %	Impacting Energy J				
						20°C	0°C	-20°C	-40°C	-50°C
345	20 - 210	470	345	21	50	34	34	34	27	-
460	20 - 210	610	460	19	50	-	50	45	34	27
550	20 - 180	750	550	17	50	-	39	39	27	27
650	20 - 150	850	650	15	45	-	34	34	27	27



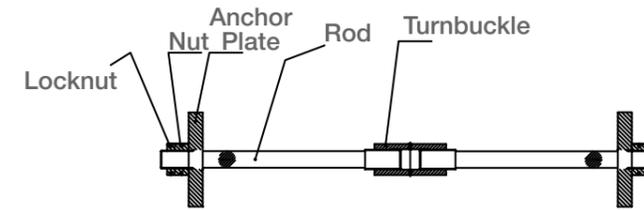
### TYPE D2 STEEL TIE RODS



Min Diameter : 35mm  
Max Diameter: 210mm  
Threads: Up to 410mm

Our flagship Type D2 Steel Tie Rods are made from upset ends with eyelets. The eyelets provides a hinge point for the rods to transfer loadings in the most efficient manner. The couplers, turnbuckles or articulated joints provide freedom in motion for the rods to tension at precise points required as per requirements.

### TYPE D2 STEEL TIE RODS



Min Diameter : 20mm  
Max Diameter: 210mm  
Threads: Up to 410mm

Our Type II Steel Tie Rods are made with upset ends. The whole cross section of the shaft can be stressed without any reduction due to notch factor. This equates to reduced weight, lower cost, easier handling and a more uniform elongation across the bar.

