

## ANCHORING SYSTEM - IMPROVING THE PULLOUT STRENGTH

As governments, cities and municipalities continue to deal with aging infrastructure and corrosion issues, many owners have realized V-ROD® GFRP reinforcement has answered the call in providing a long-term sustainable solution. Latest developments of the V-ROD® technology include products with very high tensile strength, in comparison with the conventionally available FRP materials. However, employing these new bars in construction as main reinforcement requires very long development length, which may be difficult to comply with in some structural members. Thus, providing the V-ROD® HM GFRP bars with headed studs at the end yields a satisfactory development length and enhances the mechanical anchorage, even more so now than before.

PULTRALL is today pleased to introduce the NEW AND IMPROVED composite anchor headed V-ROD®. We have painstakingly chosen the very best materials and components to develop a stronger anchoring system for our HM grade rods, providing also a suitable alternative to bent bars in some applications.



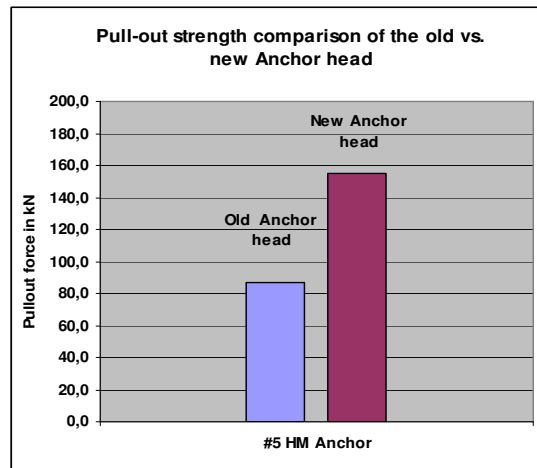
Concrete pullout results of the newly developed V-ROD® HM #5 (16M) and HM #6 (20M) headed bars.

Bar Size	Pullout Strength
#5 HM (16M)	148 kN
#6 HM (20M)	182 kN

Concrete pullout tests of the NEW headed anchors has shown an increase in strength of 75%, when compared to the former version of the anchor.



Headed V-ROD® in deck and barriers



PL-2 TYPE BARRIER WITH GFRP ALTERNATIVE 3 REINFORCEMENT (COVER = 40-100)

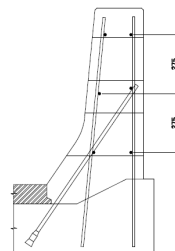


FIG. D-29

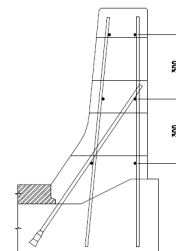


FIG. D-30

V-ROD® HM with anchoring heads is available in #5 (16M), #6 (20M) and #10 (32M) sizes and in bar lengths of up to 50 feet (15 meters). For all other sizes or more information, please contact us or drop by booth #101.