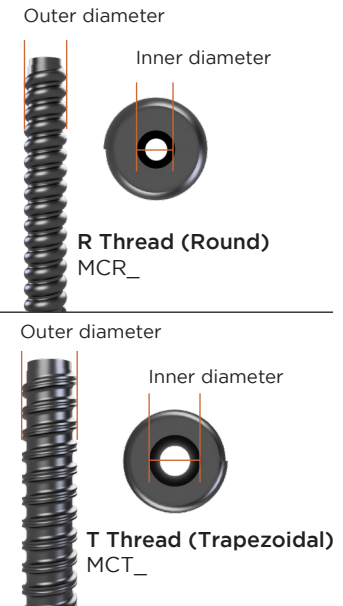
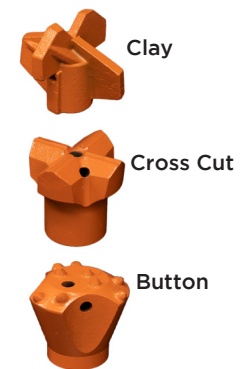


**TYPICAL LOAD CAPACITIES**

Bar Type	Outer Diameter	Inner Diameter	Recommended Maximum Bit Diameter <sup>4</sup>			Maximum Compression Load <sup>1,2</sup>			Maximum Tension Load <sup>1,3</sup>
			Clay	Cross Cut	Button	Clay	Cross	Button	
<b>MCR32/15</b>	1.26 in (32 mm)	0.59 in (15 mm)	4.53 in (115 mm)	3.94 in (100 mm)	3.94 in (100 mm)	53 kips (235 kN)	46 kips (204 kN)	46 kips (235 kN)	27 kips (120 kN)
<b>MCR38/18</b>	1.50 in (38 mm)	0.71 in (18 mm)	5.91 in (150 mm)	5.91 in (150 mm)	5.12 in (130 mm)	85 kips (378 kN)	85 kips (378 kN)	73 kips (324 kN)	40 kips (177 kN)
<b>MCR51/29</b>	2.01 in (51 mm)	1.14 in (29 mm)	7.87 in (200 mm)	6.89 in (175 mm)	5.91 in (150 mm)	136 kips (604 kN)	117 kips (520 kN)	100 kips (444 kN)	56 kips (249 kN)
<b>MCT40/20</b>	1.57 in (40 mm)	0.79 in (20 mm)	5.91 in (150mm)	5.91 in (150mm)	5.12 in (130mm)	83 kips (369 kN)	83 kips (369 kN)	71 kips (315 kN)	38 kips (169 kN)
<b>MCT40/16</b>	1.57 in (40 mm)	0.63 in (16 mm)	7.87 in (200 mm)	5.91 in (150 mm)	5.12 in (130 mm)	127 kips (564 kN)	91 kips (404 kN)	79 kips (351 kN)	47 kips (209 kN)
<b>MCT52/26</b>	2.05 in (52 mm)	1.02 in (26 mm)	7.87 in (200 mm)	6.89 in (175 mm)	5.91 in (150mm)	145 kips (644 kN)	125 kips (556 kN)	109 kips (484 kN)	65 kips (289 kN)
<b>MCT76/45</b>	2.99 in (76 mm)	1.77 in (45 mm)	7.87 in (200 mm)	7.87 in (200 mm)	7.87 in (200 mm)	211 kips (938 kN)	211 kips (938 kN)	211 kips (938 kN)	135 kips (600 kN)



1. The presented loads are design loads and serve as an approximation of the strength of the materials. These estimates are based solely on the products currently supplied by Intech and should not be extrapolated to other suppliers' materials. It is essential to consider maximum test loads and appropriate material strength reductions when determining the full structural capacity design. This table should not be used in place of a complete structural design, which should be assessed by a Professional Engineer. A comprehensive structural design, compliant with the prescribed design methodology, such as FHWA, PTI, IBC, AASHTO, and/or the methodology specified for the project, should be conducted per project and element. Moreover, it should be noted that the loads are established using a minimum f'c of 5,000 psi for the grout.
2. The presented loads are established using a Test Load Factor of Safety (FOS) of 2.0 x DL and a maximum grout column diameter determined by the bit diameters specified in the last three columns. Opting for lower acceptable Test Load Factors of Safety may require a reduced material section to attain the same strength. It is important to note that the actual structural capacity will depend on the Magnacore steel bars, any steel casing, and the grout column diameter utilized, as per a complete design methodology.
3. The loads presented here are established using a Test Load FOS of 2.0 x DL. It should be noted that opting for a lower Test Load Factor of Safety may necessitate a reduced material section to achieve the same level of strength. The steel section and methodology selected for design will govern the final outcome and are not influenced by the bit size or grout column diameter.
4. The presented bit diameters reflect Intech Anchoring Systems recommended maximums for each type of bar carried, based on typical industry practice and material stock. In cases where a larger bit diameter is desirable for a specific bar size, Intech can provide a larger bit size than those depicted here. It should be noted that the recommended maximums may vary depending on the hardness of the material being drilled. Softer materials may allow for larger bit diameters, while denser or harder materials may require a smaller bit diameter for effective penetration. The transfer of energy through the drill string from the top of the hole is crucial to the drilling process and may influence the selection of bit or material size.



**We're here to help!**  
Contact Intech Engineering for assistance in designing your next micropile project.