

# HANDLE-TECH

**Handle-Tech is Your  
#1 SAFETY TOOL**



Part Number	Description	Fits Hose & Pipe Size (Outside Diameter)
<b>200SUC/PIPE</b>	2" Hose / Pipe	1.5" - 2.5"
<b>300SUC</b>	3" Hose	3.0" - 3.625"
<b>400SUC</b>	4" Hose	4.0" - 4.65"
<b>500SUC</b>	5" Hose (Custom)	5.0" - 5.75"
<b>600SUC</b>	6" Hose	6.0" - 6.75"
<b>700SUC</b>	7" Hose (Custom)	7.0" - 7.75"
<b>400PIPE</b>	4" Pipe (Custom)	3.75" - 4.75"
<b>600PIPE</b>	6" Pipe (Custom)	5.75" - 6.75"
<b>800PIPE</b>	8" Pipe (Custom)	7.75" - 8.75"
<b>900PIPE</b>	9" Pipe (Custom)	8.75" - 9.75"

**This ingenious tool makes picking up and carrying industrial pipes and hoses easier and safer.**

- Handle-Tech clamps onto hoses & pipes from 2" to 12"
- 400-pound lifting capacity
- #1 job safety tool – reduces back/hand/foot injuries
- Lightweight, durable long glass nylon won't wear down
- A well-designed, heavy-duty tool made in North America
- Use for: Drilling Mud Suction Hoses; Frac Pipe; Sewer Hoses; Bio-Waste Pump Out; Tanker Hose (Diesel & Jet Fuel) Rigid Pipe (ABS, PVC, Metal); Industrial / Agricultural Uses; Construction; Firefighting; and more.

**SEE HANDLE-TECH  
HANDLES IN ACTION!**

Visit: [www.handle-tech.com/vertycal](http://www.handle-tech.com/vertycal)

**BUY HANDLE-TECH HANDLES TODAY!**

**VERTYCAL**  
INDUSTRIAL TRADE

Web: [www.vertycal.cl](http://www.vertycal.cl)

Email: [contacto@vertycal.cl](mailto:contacto@vertycal.cl)

Phone: +56232903061



## SPECS & CONSTRUCTION MATERIAL INFORMATION

All our standard handles are composed of Long Glass Nylon which enhances the thermal properties compared to commonly used materials such as aluminum; in addition, this lightweight material is stronger and more wear-resistant. From temperatures of -40C to +50C, each handle is designed to battle the most hostile environments. The Handle-Tech Handle has a safe lifting capacity of 400lbs with a breaking point at 1125 lbs. \*Note that this device was designed for hand-use only and should only be used as designed. The following specifications apply to all Handle-Tech handles.

MECHANICAL PROPERTIES	METRIC	ENGLISH	COMMENTS
Hardness, Rockwell M	88.0 - 100	88.0 - 100	Average value: 94.0 Grade Count:4
Hardness, Rockwell R	115 - 122	115 - 122	Average value: 120 Grade Count: 16
Tensile Strength, Ultimate	165 - 318 MPa	23900 - 46100 psi	Average value: 237 MPa Grade Count:21
	127 - 353.701 MPa, @Temperature -40.0 - 121 °C	18400 - 51300.1 psi, @Temperature -40.0 - 250 °F	Average value: 147 MPa Grade Count:3
	95.0 - 130 MPa @Temperature 130 - 175 °C	13800 - 18900 psi @Temperature 266 - 347 °F	Average value: 147 MPa Grade Count:2
	95.0 - 130 MPa @Time 1.80e+7 - 7.20e+7 sec	13800 - 18900 psi @Time 5000 - 20000 hour	Average value: 147 MPa Grade Count:2
Tensile Strength, Yield	148 - 285 MPa	21500 - 41300 psi	Average value: 223 MPa Grade Count:21
	144.79 - 144.79 MPa @Temperature 93.3 - 93.3 °C	21000 - 21000 psi @Temperature 200 - 200 °F	Average value: 145 MPa Grade Count:1
Elongation at Break	1.20 - 4.00 %	1.20 - 4.00 %	Average value: 1.99 % Grade Count:37
	1.80 - 2.20 % @Temperature -40.0 - 121 °C	1.80 - 2.20 % @Temperature -40.0 - 250 °F	Average value: 1.98 % Grade Count:2
Modulus of Elasticity	10.3 - 23.2 GPa	1500 - 3360 ksi	Average value: 18.9 GPa Grade Count:20
	11.9 - 20.8566 GPa @Temperature -40.0 - 121 °C	1730 - 3025.05 ksi @Temperature -40.0 - 250 °F	Average value: 14.9 GPa Grade Count:2
Flexural Yield Strength	234 - 460 MPa	33900 - 66700 psi	Average value: 350 MPa Grade Count:39
	260 - 260 MPa @Temperature 80.0 - 80.0 °C	37700 - 37700 psi @Temperature 176 - 176 °F	Average value: 260 MPa Grade Count:1
Flexural Modulus	0.461 - 22.8 GPa	66.9 - 3300 ksi	Average value: 17.4 GPa Grade Count:39
	0.227527 - 19.3053 GPa @Temperature -40.0 - 121 °C	33.0005 - 2800.04 ksi @Temperature -40.0 - 250 °F	Average value: 9.78 GPa Grade Count:4
Izod Impact, Notched	0.950 - 6.62 J/cm	1.78 - 12.4 ft-lb/in	Average value: 2.27 J/cm Grade Count:33
	1.30 - 7.68816 J/cm @Temperature -40.0 - 149 °C	2.44 - 14.4031 ft-lb/in @Temperature -40.0 - 300 °F	Average value: 4.51 J/cm Grade Count:2
Izod Impact, Unnotched	10.7 - 5340 J/cm	20.0 - 10000 ft-lb/in	Average value: 26.4 J/cm Grade Count:16
Izod Impact, Notched (ISO)	11.0 - 30.0 kJ/m <sup>2</sup>	5.23 - 14.3 ft-lb/in <sup>2</sup>	Average value: 15.8 kJ/m <sup>2</sup> Grade Count:3
Charpy Impact Unnotched	6.50 - 15.0 J/cm <sup>2</sup>	30.9 - 71.4 ft-lb/in <sup>2</sup>	Average value: 10.0 J/cm <sup>2</sup> Grade Count:9
	6.00 - 9.70 J/cm <sup>2</sup> @Temperature -40.0 - 30.0 °C	28.6 - 46.2 ft-lb/in <sup>2</sup> @Temperature -40.0 - 86.0 °F	Average value: 8.05 J/cm <sup>2</sup> Grade Count:7
Charpy Impact, Notched	1.30 - 5.40 J/cm <sup>2</sup>	6.19 - 25.7 ft-lb/in <sup>2</sup>	Average value: 2.68 J/cm <sup>2</sup> Grade Count:9
	1.20 - 4.60 J/cm <sup>2</sup> @Temperature -30.0 - 30.0 °C	5.71 - 21.9 ft-lb/in <sup>2</sup> @Temperature -22.0 - 86.0 °F	Average value: 1.88 J/cm <sup>2</sup> Grade Count:6
Dart Drop, Total Energy	7.85 - 16.4 J @Temperature -20.0 - -20.0 °C	5.79 - 12.1 ft-lb @Temperature -4.00 - -4.00 °F	Average value: 12.1 J Grade Count:1
	7.85 - 16.4 J @Thickness 3.18 - 3.18 mm	5.79 - 12.1 ft-lb @Thickness 0.125 - 0.125 in	Average value: 12.1 J Grade Count:1

ELECTRICAL PROPERTIES	METRIC	ENGLISH	COMMENTS
Electrical Resistivity	1.00e+9 - 1.00e+16 ohm-cm	1.00e+9 - 1.00e+16 ohm-cm	Average value: 6.94e+14 ohm-cm Grade Count:15
Surface Resistance	1.00e+10 - 1.00e+16 ohm	1.00e+10 - 1.00e+16 ohm	Average value: 8.50e+14 ohm Grade Count:12
Dielectric Strength	19.7 - 22.0 kV/mm	500 - 559 kV/in	Average value: 19.9 kV/mm Grade Count:14

THERMAL PROPERTIES	METRIC	ENGLISH	COMMENTS
CTE, linear	10.0 - 27.0 µm/m-°C	5.56 - 15.0 µin/in-°F	Average value: 21.5 µm/m-°C Grade Count:18
Thermal Conductivity	0.300 - 0.548 W/m-K	2.08 - 3.80 BTU-in/hr-ft <sup>2</sup> -°F	Average value: 0.424 W/m-K Grade Count:4
Melting Point	220 - 262 °C	428 - 504 °F	Average value: 253 °C Grade Count:11
Deflection Temperature at 0.46 MPa (66 psi)	220 - 262 °C	428 - 504 °F	Average value: 254 °C Grade Count:11
Deflection Temperature at 1.8 MPa (264 psi)	210 - 263 °C	410 - 505 °F	Average value: 251 °C Grade Count:37
Flammability, UL94	HB	HB	Grade Count:12

**Custom Handles:** Custom sizes include some parts made from High Density Polyethylene (HDPE) and/or carbon fiber infused Polyethylene Terephthalate Glycol (PETG). Other requested materials can be used including Aluminum, Nylon, PVC, or Polypropylene, all with various material properties and priced at the time of order. Although this process is more expensive than ejection molding, these different materials can provide unique handle properties (high acid, extreme heat etc.). All the custom handles use common parts from the Handle-Tech product line. Only the front and rear curves are made from new materials. We will build molds for ejection molding long glass nylon as soon as quantities are at a level where we can justify the high cost involved with making permanent molds.



**Web:** [www.vertycal.com](http://www.vertycal.com)  
**Email:** [contacto@vertycal.com](mailto:contacto@vertycal.com)  
**Phone:** +56232903061