

**VCB-Series** Individual Tow Tension Creel Brakes



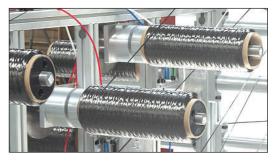
## Montalvo VCB Series Individual Tow Tension Creel Brakes

The all new Vanguard Creel Brake - VCB (a component of the Montalvo Vanguard System) is a specifically designed brake for providing precise, repeatable tension/torque control of individual creel positions. A compact profile and a range of torque options ensures the VCB Series meets the requirements of practically any process running tows or single strand materials (carbon, glass, textile, wire, etc).

Designed and built for the unique and often low-tension requirements of these materials, to achieve smooth, repeatable torque control from start to finish for higher quality end product and less scrap.

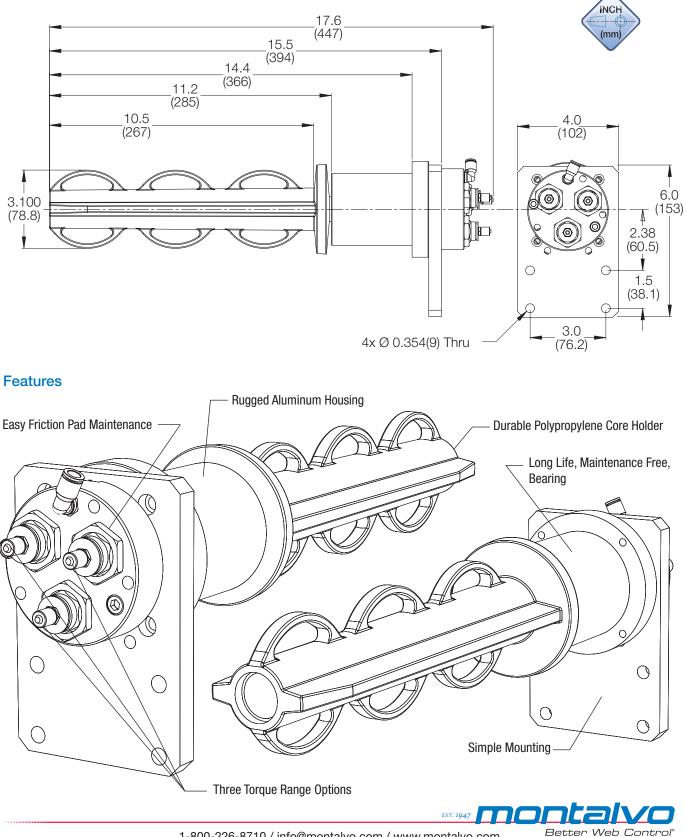
#### **Features and Benefits**

- Wide Torque Ranges and Tension Profiles
- Fully Assembled Just Install and Go!
- Long Service Life Friction Material
- Precise, Smooth, Repeatable Torque Control of Individual Positions
- Integrated Core Holders to Accept Multiple Material Types
- Compact Design to Meet Process Space Requirements
- Used for Providing Continuous Tension Indication or Connect to a Control Scheme to Produce Automated, Continuous Closed Loop Tension Control System





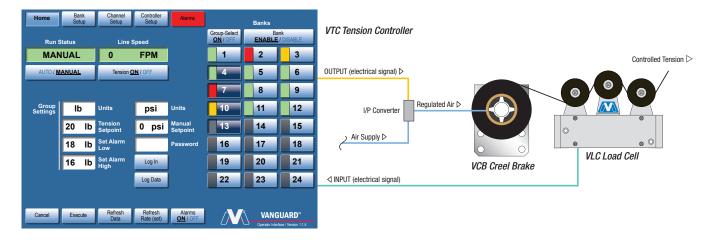
## Dimensions



1-800-226-8710 / info@montalvo.com / www.montalvo.com Technical details subject to change without notice. VCB-US-01 © Montalvo



### How It Works



| Torque                  |              |           |                 |           |               |           |
|-------------------------|--------------|-----------|-----------------|-----------|---------------|-----------|
| Friction Material / COF | Teflon / Low |           | Carbon / Medium |           | Carbon / High |           |
|                         | Max.         | Min.      | Max.            | Min.      | Max.          | Min.      |
| Air Supply psi (bar)    | 72 (5)       | 5 (0.3)   | 72 (5)          | 5 (0.3)   | 72 (5)        | 5 (0.3)   |
|                         | in-lb (mN/m) |           |                 |           |               |           |
| 1 Cylinder active       | 0.91 (103)   | 0.10 (11) | 2.74 (310)      | 0.30 (34) | 4.10 (463)    | 0.45 (51) |
| 2 Cylinders active      | 1.64 (185)   | 0.12 (14) | 4.92 (556)      | 0.35 (40) | 7.39 (835)    | 0.52 (59) |
| 3 Cylinders active      | 2.37 (268)   | 0.13 (15) | 7.10 (802)      | 0.39 (44) | 10.66 (1204)  | 0.59 (67) |

| Specifications             |                                      |
|----------------------------|--------------------------------------|
| Air Supply Max.            | 72 psi (5 bar)                       |
| Core ID                    | 3 in (76.2 mm)                       |
| Max. Torque of Core Holder | 40 in-lb (4.5 Nm) @ core (cardboard) |
| Max. Package Weight        | 35 lb (16 kg)                        |
| Max. Operating Temperature | 160°F (70°C)                         |
| Max. Speed                 | 500 rpm                              |
| Weight - Disc/Shaft        | 0.4/2.4 lb (0.182/1.09 kg)           |
| Weight - Brake Total       | 7 lb (3.18 kg)                       |
| Body Finish                | Aluminum                             |
| Core Holder Material       | Polypropylene                        |





# The Montalvo VANGUARD™ System (MVS)

The patented **VANGUARD™** System is Montalvo's flagship closed loop tow and tape tension control technology system, leading the way in precise, uniform, consistent, automated tension control.

### **Tension Measurement (input)**

Continuous, precise tension measurement directly from your tow. The VANGUARD Load Cells (VLC) feature Montalvo's industry-leading load cell technology for sensitivity, reliability, and repeatability.

- Wide Sensing Ranges from 20g up to 10kg
- Pre-Calibrated (Just Install & Go)
- Built-In Amplifier for Easy Connection to Existing I/O
- High Overload Protection
- Precise Tension Measurement



Channel

0

Units

Set Alarm

Refresh Data

Ib Set Alarm

Home

Group Settings

Run Status

MANUAL

AUTO / MANUAL

lb

20 Ib Tension

18 lb

16

Execute

Controller

FPM

psi

Log In

Log Data

Units

Password

Alarms ON / OF

0 psi Manual

Tension ON / OF

Group-Select

1

13

16

19

22

Bank ENABLE / [

3

6

9

12

15

18

21

24

**VANGUARD**<sup>™</sup>

2

5

8

11

14

17

20

23

### **Tension Control (process)**

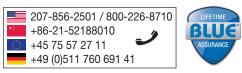
A single interface for automated control, indication, and data collection of every tow in your process. Montalvo's VANGUARD Tension Controller (VTC) is easy to set up and operate, automatically and precisely maintaining set tension from start to finish.

- Low/High Tension and Tow Break Alarms
- Pre-Configured for Your Application
- Single Interface for Managing Every Tow in Your Process
- Adjustable and Expandable Tow Counts

# **Torque Control (output)**

Smooth, consistent, precise torque control for maximum process capability. Montalvo's VANGUARD Torque Control offers three different torque control options depending on the requirements of your application.

- Wide Torque Ranges and Tension Profiles Capable of a Wide Variety of Materials and Tensions
- Easy, Hassle-Free Installation
- Long-Lasting, High-Quality Performance
- Retrofit Capable Upgrade Your Existing Creels





The Montalvo Corporation



50 Hutcherson Drive, Gorham, Maine 04038 USA Fax: 1-800-644-5097 / 207-856-2509 1-800-226-8710 / info@montalvo.com / www.montalvo.com Technical details subject to change without notice. VCB-US-01 © Montalvo