

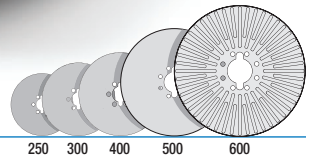
V-Series

High Performance Single Disc Brakes



V-Series High Performance Single Disc Brakes

TSC™ System Component → TS



Montalvo's V-Series brakes feature industry-standard high heat dissipation friction discs combined with all-new patented "no-tools" friction modules for quick and easy pad changes. From flexible packaging, to paper, to corrugated, the V250, V300, V400, V500 and V600 sizes offer the application range necessary for virtually any web process. Available in a variety of configurations, these brakes are easy to install. They are ideal for installing on new equipment as well as for retrofitting existing unwind stands. For extra heat capacity, V-Series brakes are available with an integral cover and cooling fan.

Features

- ▶ Integral fan/cover
- ▶ Compact, modular design
- ▶ Choose from a wide torque range of **1.4** to **16,726** in-lb
- ▶ Custom milled for shafts from **0.875"** to **4.500"**
- ▶ Patented NO TOOLS easy friction pad maintenance
- ▶ Compatible with Montalvo's **TS** Torque Sensor → TS and the Montalvo **TSC™** Open Loop Torque Control System

V500 with low profile cover on an unwind stand.



V250 with integral fan cover ready to install.

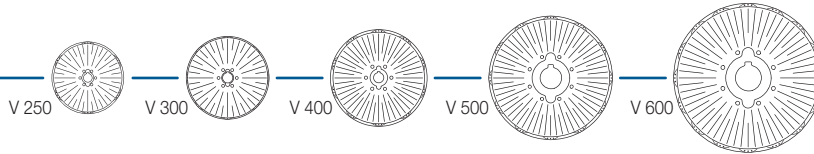


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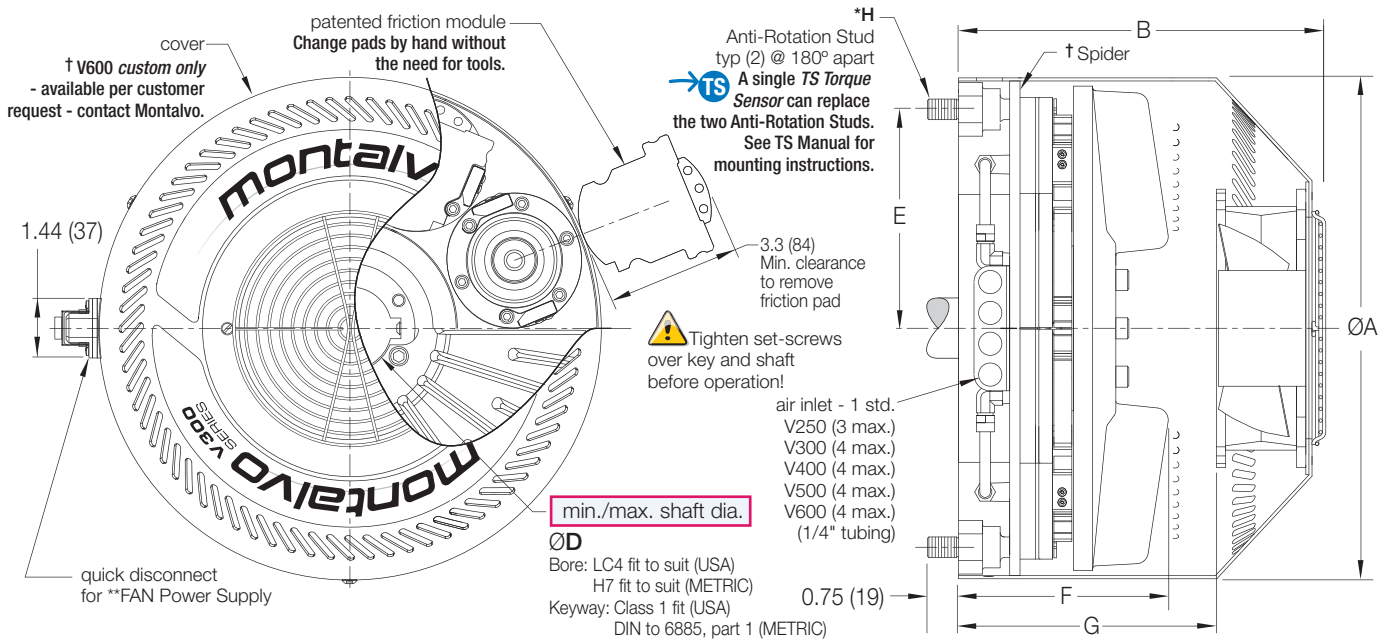
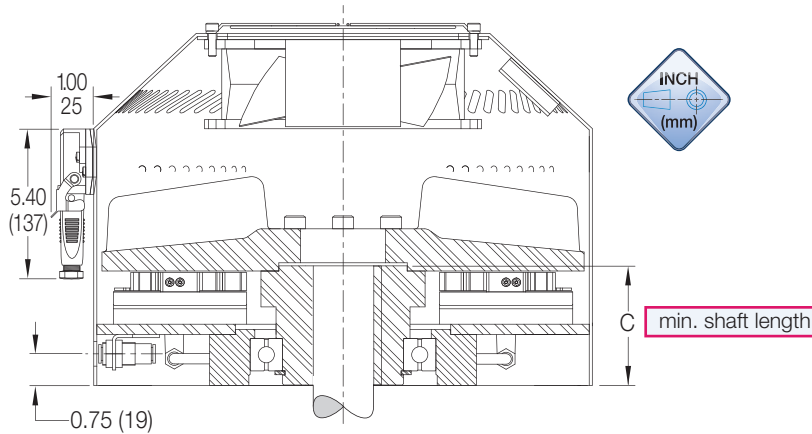
V-Series

High Performance Single Disc Brakes

The V brake



With Integral Fan Cover



Size	A	B	C	D(min.)	D(max.)	E	F	G	*H	*TS Size
V250	10.7 (273)	8.8 (224)	2.92 (74)	7/8 (22)	1-1/2 (40)	3.75 (95)	4.75 (121)	6.25 (159)	1/2-13 *(M12x1.75)	TS1
V300	12.2 (309)	8.8 (224)	2.97 (75)	1-1/4 (32)	2 (50)	5.31 (135)	5.09 (129)	6.25 (159)	1/2-13 *(M12x1.75)	TS1
V400	14.2 (359)	8.8 (224)	3.04 (77)	1-3/8 (35)	2-1/2 (65)	6.38 (162)	5.30 (135)	6.25 (159)	1/2-13 *(M12x1.75)	***TS2
V500	18.2 (461)	9.5 (242)	3.15 (80)	2 (50)	3-3/4 (100)	8.19 (208)	5.77 (147)	6.92 (176)	3/4-10 *(M20x2.5)	NA
V600	† 22.0 (559)	†	5.39 (137)	2-1/2 (65)	4-1/2 (115)	8.76 (222.5)	7.56 (192)	†	3/4-10 *(M20x2.5)	NA

* Metric thread available upon request.

** FAN Power Supply **standard** - 115V 50/60 Hz (38 W) **optional** - 230V 50/60 Hz (38 W)

*** TS2 requires a 3/4-10 (M20x2.5 option) tapped mounting hole.

† V600 cover is only available as a custom design and is per customer request. Contact Montalvo for details. Dimension A refers to spider diameter (not cover).

→ **TS** A single TS Torque Sensor can replace the Anti-Rotation Studs. See TS datasheet and manual for sizing, mounting and calibration instructions.

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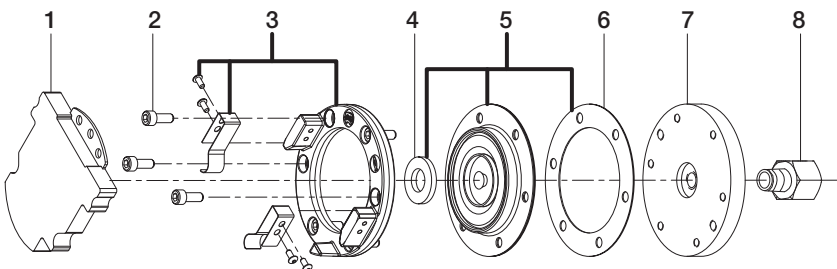
Better Web Control®

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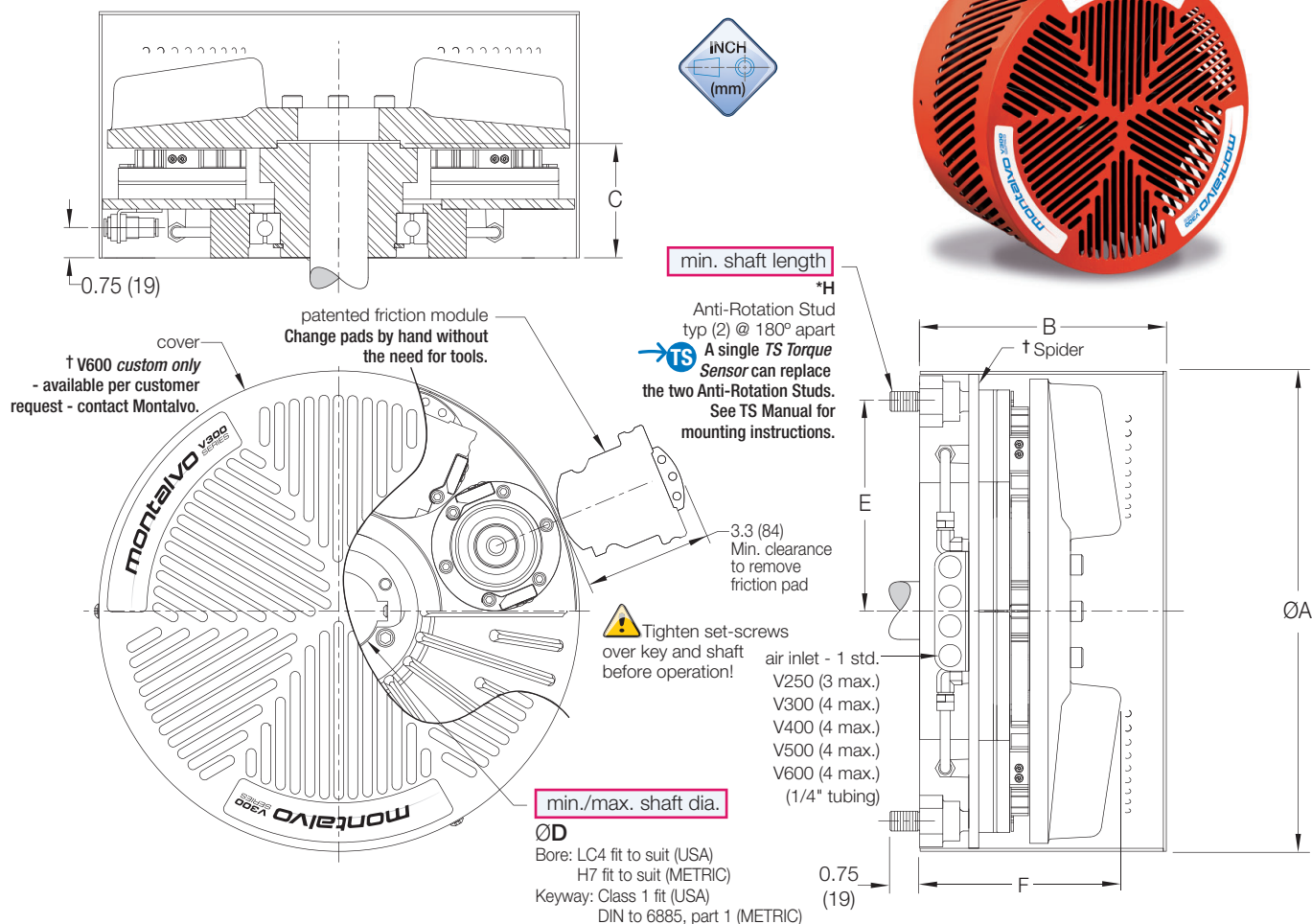
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V Friction Module

Description	Ordering Part #
1 V Friction Pad (several types available).....	call
2 SHCS M5x12 DIN912	18000489
3 V Torque Collar Kit.....	27000018
4 Standard Magnet.....	10000266
5 V Piston Kit (includes magnet & gasket).....	27000430
6 Standard Gasket	10000270
7 V Base Plate.....	27000010
8 NPT male to female adapter (V400-500 only).....	18000305
Complete Friction Module.....	Contact Montalvo



With Low Profile Cover



Size	A	B	C	D(min.)	D(max.)	E	F	*H	*TS Size
V250	10.7 (273)	6.3 (160)	2.92 (74)	7/8 (22)	1-1/2 (40)	3.75 (95)	4.75 (121)	1/2-13 (M12x1.75)	TS1
V300	12.2 (309)	6.3 (160)	2.97 (75)	1-1/4 (32)	2 (50)	5.31 (135)	5.09 (129)	1/2-13 (M12x1.75)	TS1
V400	14.2 (359)	6.3 (160)	3.04 (77)	1-3/8 (35)	2-1/2 (65)	6.38 (162)	5.30 (135)	1/2-13 (M12x1.75)	***TS2
V500	18.2 (461)	7.0 (178)	3.15 (80)	2 (50)	3-3/4 (100)	8.19 (208)	5.77 (147)	3/4-10 (M20x2.5)	NA
V600	† 22.0 (559)	†	5.39 (137)	2-1/2 (65)	4-1/2 (115)	8.76 (222.5)	7.56 (192)	3/4-10 *(M20x2.5)	NA

* Metric thread available upon request.

*** TS2 requires a 3/4-10 (M20x2.5 option) tapped mounting hole.

† V600 cover is only available as a custom design and is per customer request. Contact Montalvo for details. Dimension A refers to spider diameter (not cover).

→ **TS** A single TS Torque Sensor can replace the Anti-Rotation Studs. See TS datasheet and manual for sizing, mounting and calibration instructions.

V-Series

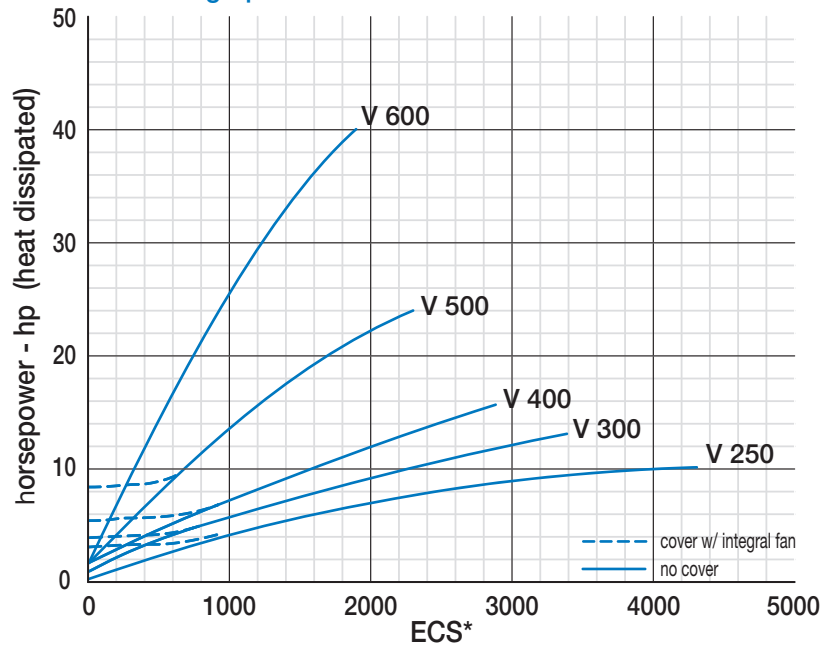
High Performance Single Disc Brakes

Torque†

	Max. - Min. (in-lb)					
	LOW Friction		MEDIUM Friction		HIGH Friction	
	(Max. @ 75 psi) - (Min. @ 1 psi x 1 cylinder)					
V 250						
V251	107	320	480			
V252	213	640	960			
V253	320	960	1440	1.4	4.3	6.4
V254	427	1280	1920			
V255	533	1600	2400			
V256	640	1920	2880			
V 300						
V301	130	391	587			
V302	261	783	1174			
V303	391	1174	1761			
V304	522	1565	2348	1.7	5.2	7.8
V305	652	1957	2935			
V306	783	2348	3522			
V307	913	2740	4109			
V308	1044	3131	4696			
V 400						
V401	156	468	702			
V402	312	936	1404			
V403	468	1404	2106			
V404	624	1872	2808			
V405	780	2340	3510	2.1	6.2	9.4
V406	936	2808	4212			
V407	1092	3276	4915			
V408	1248	3744	5617			
V409	1404	4212	6319			
V410	1560	4681	7021			
V 500						
V501	198	594	891			
V502	396	1188	1782			
V503	594	1782	2673			
V504	792	2376	3564			
V505	990	2970	4455			
V506	1188	3564	5346	3.0	8.0	12.0
V507	1386	4158	6237			
V508	1584	4752	7128			
V509	1782	5346	8019			
V510	1980	5940	8910			
V511	2178	6534	9801			
V512	2376	7128	10692			
V 600						
V601	230	695	1045			
V602	465	1395	2090			
V603	695	2090	3135			
V604	930	2788	4180			
V605	1161	3485	5225			
V606	1393	4180	6273			
V607	1623	4878	7315			
V608	1858	5575	8363	3.1	9.1	14.0
V609	2090	6273	9408			
V610	2323	6965	10453			
V611	2555	7661	11499			
V612	2788	8358	12544			
V613	3020	9055	13589			
V614	3252	9751	14635			
V615	3485	10448	15680			
V616	3717	11144	16726			

† Friction values are nominal. Rated torque may vary depending on operating temperature.

Effective Cooling Speed*



*Effective Cooling Speed (ECS)
The equivalent constant speed with regards to heat dissipation.

$$ECS = \frac{2 (rpm \text{ min.}) + rpm \text{ max.}}{3}$$

Testing

The brakes were mounted as recommended in the Brakes Installation Instruction Manual. No guard or cover was used. Addition of machine guarding, fan or blower cooling, differences in ambient conditions, location, mounting method, etc. will affect heat (hp) dissipation capacity of any air cooled brake. Careful consideration should be given to all conditions surrounding installation. Please consult The Montalvo Corporation for help in application sizing.

Size	Max. Speed* (rpm)	Inertia W ² of disc-hub (lb-ft ²)	Weight disc-hub (lb)
V250	4300	2.2	38
V300	3400	5.4	59
V400	2900	10.5	98
V500	2300	35.6	175
V600	1940	94	211

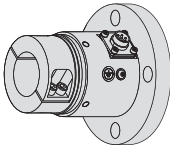

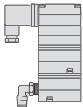

* Do not use to calculate horsepower.

Conditions: Ambient temp. 55-60°F (13 -16°C)
Cast Iron Bulk 350°F (177°C)
Humidity 65 - 70%

Note:

Montalvo Brakes are called upon to operate within a wide speed range when used in converting applications They do not carry "nominal" ratings.

Related Montalvo Products

<p>Load Cells</p>  <p>Measure web tension with precision strain gauge sensing.</p>	<p>Tension Controls</p>  <p>Process load cell/sensor input and regulate web tension with brake torque output.</p>	<p>I/P Converter</p>  <p>Convert electrical input from control to regulated air output to brake.</p>	<p>Range Expander</p>  <p>Connection to friction modules to produce multiple torque ranges.</p>
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The Montalvo Corporation

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