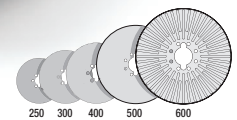


V-Series

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.



V500 with low profile cover on an unwind stand.

Features

- ▶ Integral fan/cover
- ▶ Compact, modular design
- ▶ Choose from a wide torque range of **0.1 to 1890 Nm**
- ▶ Custom milled for shafts from **22 to 115 mm**
- ▶ Patented NO TOOLS easy friction pad maintenance
- ▶ Compatible with Montalvo's **TS** Torque Sensor → TS and the Montalvo **TSC™** Open Loop Torque Control System

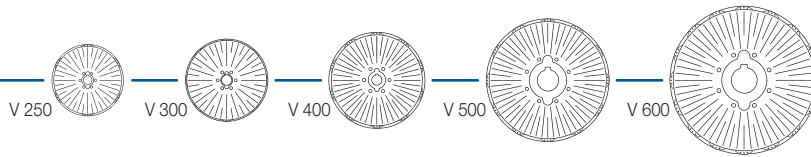
V250 with integral fan cover ready to install.



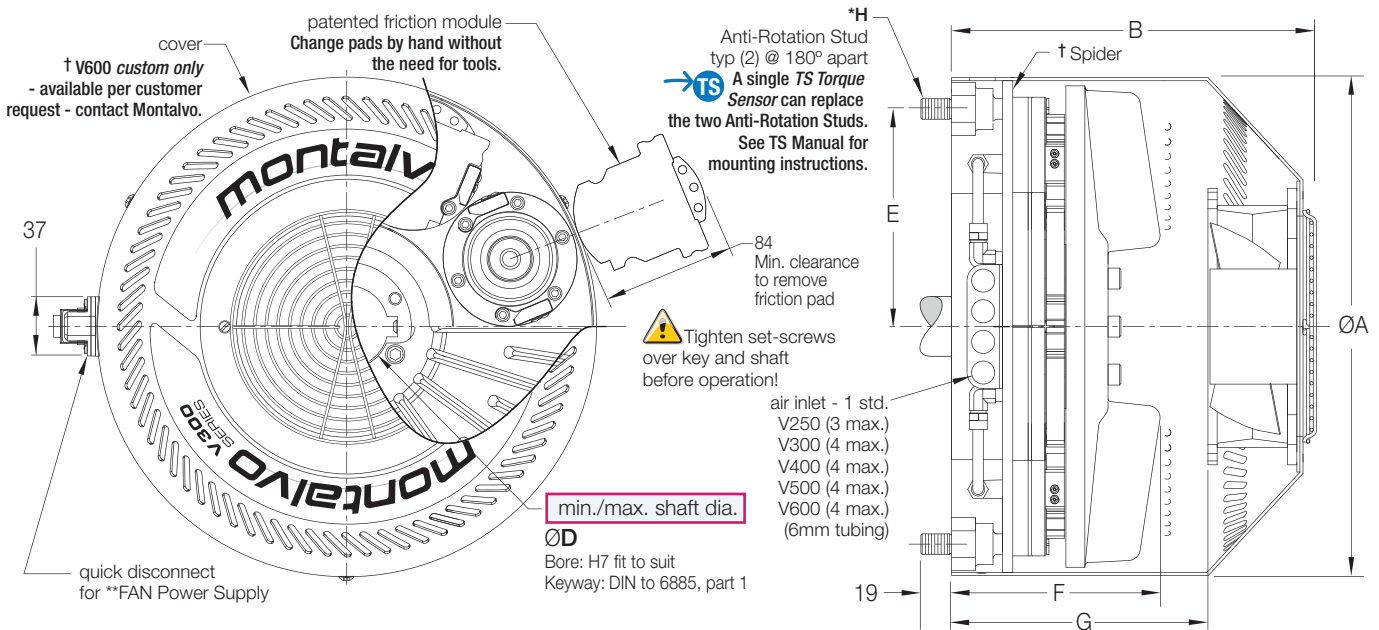
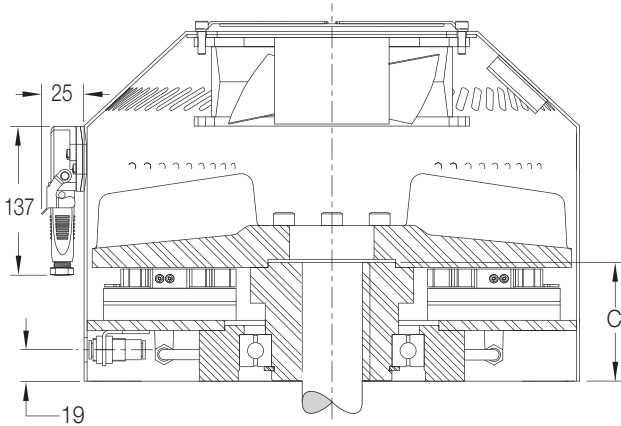
V-Series

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	273	224	74	22	40	95	121	159	*M12x1.75	TS1
V300	309	224	75	32	50	135	129	159	*M12x1.75	TS1
V400	359	224	77	35	65	162	135	159	*M12x1.75	***TS2
V500	461	242	80	50	100	208	147	176	*M20x2.5	NA
V600	† 559	†	137	65	115	222.5	192	†	*M20x2.5	NA

* Metric thread option (listed). Available upon request.

** FAN Power Supply (3 options) 115VAC 50/60Hz (40W), 230VAC 50/60Hz (45/39W) or 24VDC 0.79A (19W)

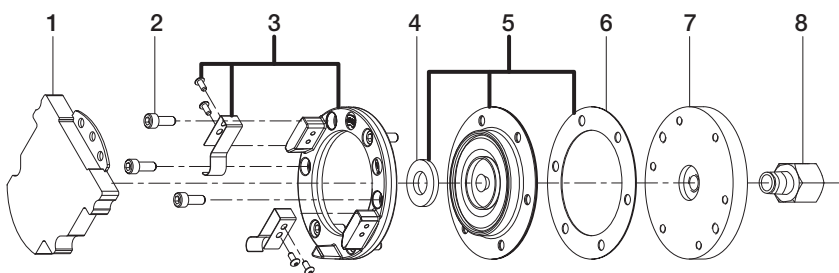
*** TS2 requires an M20x2.5 tapped mounting hole.

† 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).

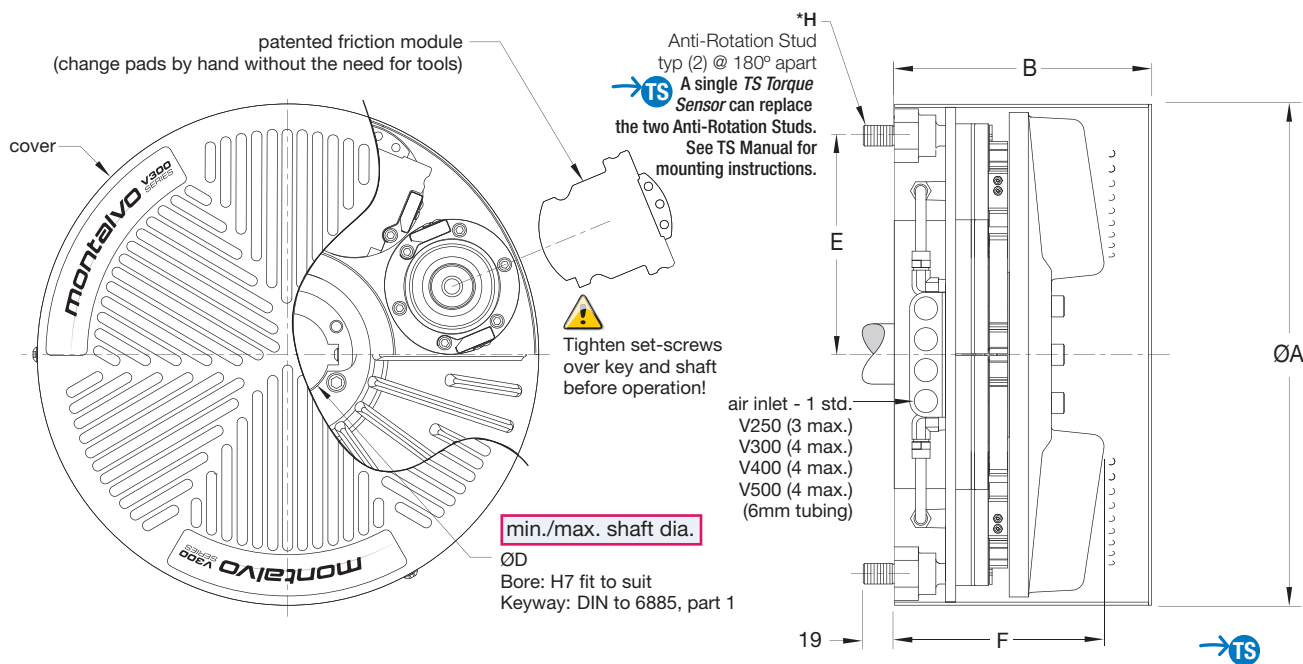
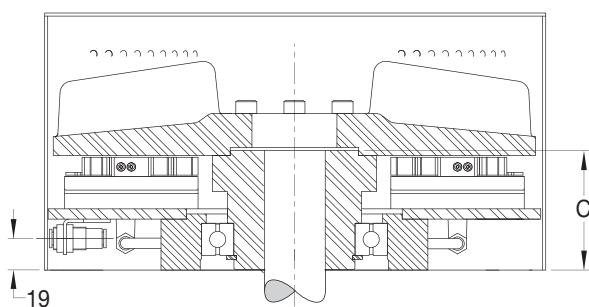
→ TS A single TS Torque Sensor can replace the Anti-Rotation Studs. See TS datasheet and manual for sizing, mounting and calibration instructions.

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	273	160	74	22	40	95	121	M12x1.75	TS1
V300	309	160	75	32	50	135	129	M12x1.75	TS1
V400	359	160	77	35	65	162	135	M12x1.75	**TS2
V500	461	178	80	50	100	208	147	M20x2.5	NA

** TS2 requires an M20x2.5 tapped mounting hole

→ **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

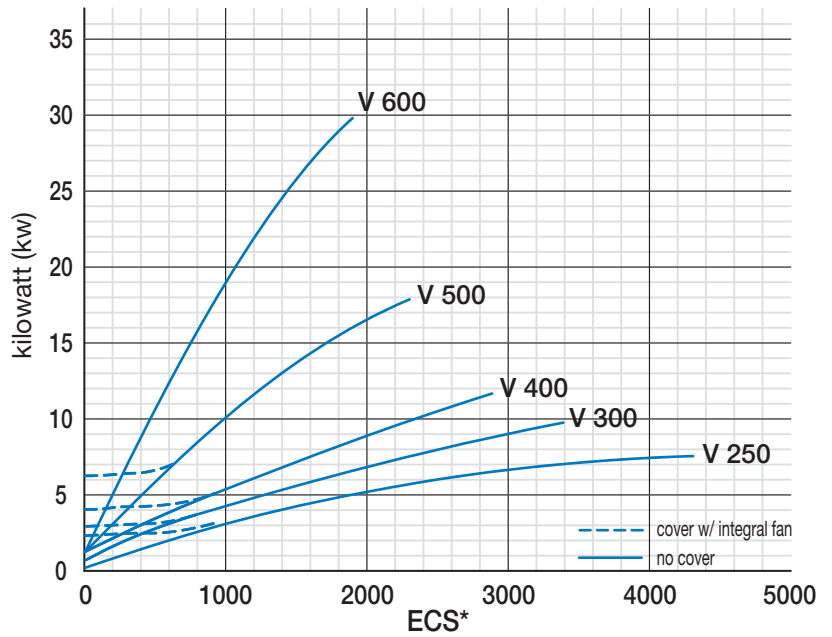
High Performance Single Disc Brakes

Torque†

	Max. - Min. (Nm)					
	LOW Friction		MEDIUM Friction		HIGH Friction	
V 250						
V251	11	33	54			
V252	22	66	108			
V253	33	99	162	0.1	0.4	0.7
V254	44	133	216			
V255	55	166	270			
V256	66	199	324			
V 300						
V301	13	40	66			
V302	26	79	132			
V303	40	119	198			
V304	53	159	264	0.2	0.5	0.8
V305	66	198	329			
V306	79	238	396			
V307	93	279	462			
V308	106	318	527			
V 400						
V401	17	50	77			
V402	33	99	154			
V403	50	149	230			
V404	66	198	307			
V405	83	248	384	0.2	0.7	1.0
V406	99	297	461			
V407	116	347	538			
V408	132	396	615			
V409	149	446	691			
V410	165	495	768			
V 500						
V501	22	67	101			
V502	45	134	201			
V503	67	201	302			
V504	89	268	403			
V505	112	336	503			
V506	134	403	604	0.3	0.9	1.4
V507	157	470	705			
V508	179	537	805			
V509	201	604	906			
V510	224	671	1007			
V511	246	738	1107			
V512	268	805	1208			
V 600						
V601	26	79	118			
V602	53	158	236			
V603	79	236	354			
V604	105	315	472			
V605	131	394	590			
V606	157	472	709			
V607	183	551	827			
V608	210	630	945	0.4	1.0	1.6
V609	236	709	1063			
V610	262	787	1181			
V611	289	866	1299			
V612	315	944	1417			
V613	341	1023	1536			
V614	367	1102	1654			
V615	394	1181	1772			
V616	420	1259	1890			

† 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. r/min.*	Moment of Inertia (kgm ²)	Total Weight (kg)
V250	4300	0.09	17
V300	3400	0.23	27
V400	2900	0.44	45
V500	2300	1.50	80
V600	1940	3.96	96

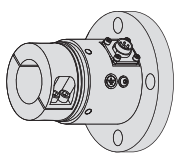

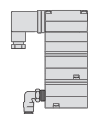

* Do not use to calculate kilowatt.





Conditions: Ambient temp. 13 -16°C
Cast Iron Bulk 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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