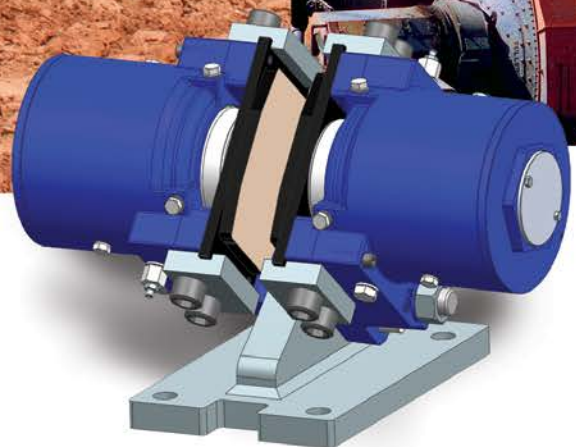


VCSD Disc Brake Caliper for Industrial & Mining



 **Twiflex**[®]
Limited

An Altra Industrial Motion Company

VCSD DISC BRAKE CALIPER

DESCRIPTION

The VCSD and VCSD-FL (floating) calipers are spring applied, hydraulically released disc brakes which have been designed for use in harsh environments whilst offering superior performance in heavy duty dynamic and emergency stopping applications. Both standard pad and large pad versions are available.

With the brake in the “parked off” position, disc spring load and hydraulic pressure are zero, allowing pads to be removed in safety. This feature also permits brake installation without the need for hydraulic pressure.

The VCSD comprises two spring modules which are installed either side of a mounting plate. Both modules are fully sealed against moisture and dirt ingress.

The VCSD-FL (floating) comprises a single spring module fitted to a floating half to provide up to 10mm axial movement.

Brake adjustment is carried out in situ, by removing the spindle locking plate and rotating the hexagon adjusting bar by using standard tools. Minimum adjustment is 1/6th turn for 0.5mm movement of the brake pad.

FEATURES

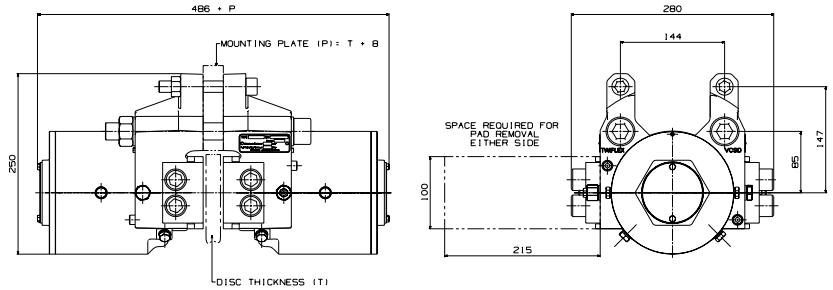
- Weight: 80 kg (2 modules)
- Minimum disc thickness: 20 mm
- Working Fluid: Mineral Oil Based
- Maximum operating pressure: 160 bar
- Pressure port sizes: G1/4 (1/4" BSP)
- Drain port sizes: G1/8 (1/8" BSP)
- Brake pad area (per pad): 15700 mm²
- Swept brake pad path: 100 mm
- Volume displacement per 1mm stroke: 6.7 ml each module
- Working temperature range: -20°C to 70°C (-40°C optional)
- Pad wear allowance: 10mm (VCSD) ; 7mm (VCSD-FL)
- Min. disc diameter: 600 mm
- VCSD-FL: Spacer (S) = Disc Thk. (mm) - 20
- Effective disc radius Re: Actual radius (m) – 0.055
- Braking Torque (Nm): Braking Force (N) x Re

Pedestal / Bracket is optional on request

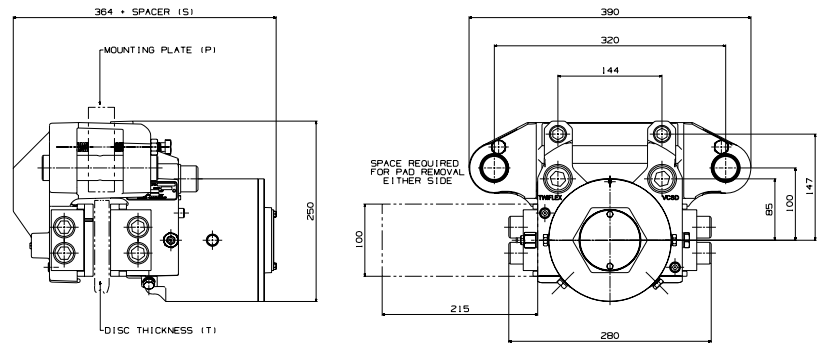
“EXTREME SPECIFICATIONS”

- Stainless steel Piston and Lock Plate
- Stainless Steel fittings and fasteners
- EN Plated Bolts
- External Surfaces Painted to ISO 12944-5:2007 - C5 environment specification.

VCSD



VCSD-FL



PERFORMANCE

VCSD Model	Air Gap (mm)	Braking Force (kN)	Brake Release Pressure (bar)	Full Retraction Pressure (bar)	Specific Pad Pressure (N/mm ²)
60	2	60.6	124	138	4.82
50	2	45.7	94	100	3.64
40	2	39.2	80	88	3.12
30	2	28.9	59	65	2.30
25	2	25.4	52	56	2.02
20	2	21.2	44	49	1.69
15	2	15.7	32	35	1.25
10	2	10.9	22	24	0.87

Braking forces in the table are at the stated air gap

Braking force increases with a reduction in air gap setting.

Nom. braking force assumes fully bedded in pads, coefficient of friction $\mu = 0.4$



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