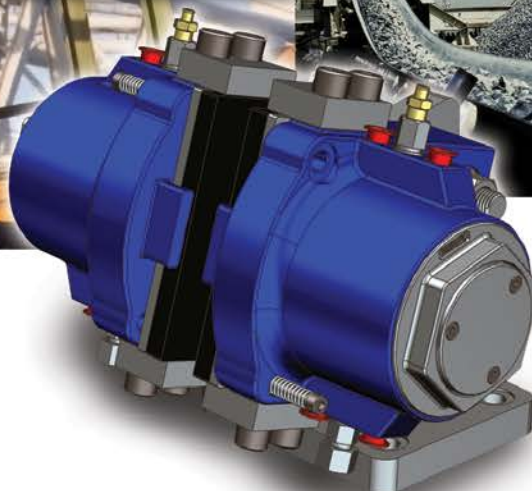


# VBS Disc Brake Caliper for Mining & Conveyor Applications



 **Twiflex**<sup>®</sup>  
Altra Industrial Motion



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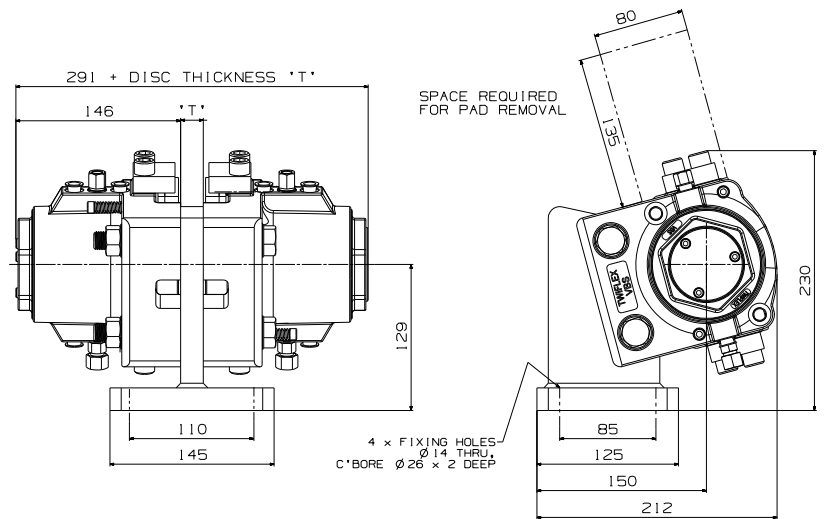
# VBS DISC BRAKE CALIPER

## DESCRIPTION

The VBS caliper is a spring applied, hydraulically retracted disc brake caliper consisting of two halves, or modules that are mounted each side of a central mounting plate equal in thickness to the brake disc. The spring module is sealed against moisture and dirt ingress at either end of the brake.

With the VBS 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.

Brake adjustment is carried out in situ by removing the water sealed end cover plate, spindle lock, and rotating the hex drive spindle. Minimum adjustment is 1/6th turn for 0.25 mm. Pad wear is visible from the side of the brake or with up to two optional side mounted monitoring switches.



## FEATURES

Weight:	24.5 kg (2 modules)
Minimum disc thickness:	12.7 mm minimum
Working Fluid:	Mineral Oil Based
Maximum operating pressure:	130 bar
Pressure and drain port sizes:	G1/8 (1/8" BSP)
Brake pad area (per pad):	10283 mm <sup>2</sup>
Swept brake pad path:	76 mm
Volume displacement per 1mm stroke	3.6 ml at both pads
Working temperature range:	-20°C to 70°C (Optional -40°C)
Pad wear allowance:	10 mm
Min. disc diameter:	360 mm
Max outer hub diameter:	125 mm
Effective Disc Radius:	Actual Radius(m) -0.045

## 'EXTREME' SPECIFICATION

- Stainless steel piston and cover plate
- 'End Cover' and 'Cover Plate' sealed with Nitrile O-Rings.
- Threads on 'Adjustment Screw' protected by Wiper Seal.
- Piston sealing surface protected on exposed side of unit by Wiper Seal.
- Stainless Steel fittings and fasteners.
- EN Plated Bolts
- External Surfaces Painted to ISO 12944-5:2007 - C5 environment specification

VBS Model	Air Gap setting each side (mm)	Braking Force (kN)	Brake Release Pressure (bar)	Full Retraction Pressure (bar)	Specific Pad Pressure (N/mm <sup>2</sup> )
10	2	10.9	88	96	1.32
	4	9.5	77		1.15
7	2	7.5	60	69	0.91
	4	6.3	51		0.76
6	2	6.3	51	58	0.76
	4	5.3	43		0.64
4	2	4.6	38	42	0.56
	4	4.0	32		0.49
3	2	3.0	25	28	0.36
	4	2.6	21		0.32
2	2	2.4	19	22	0.29
	4	2.0	16		0.24
1	2	1.6	13	14	0.19
	4	1.4	11		0.17

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 pads with a coeff. of friction  $\mu = 0.4$

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