ADVANCED COMPONENTS | ADVANCED ENGINEERING GROUP

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STAFFA BRAKES · TECHNICAL DATA SHEET

Staffa multi-plate brakes

Spring applied, hydraulically released parking brakes for Staffa radial piston motors

Four sizes, F032 to F402, holding from 2,750 to 32,540 Nm. Each mounts directly to its Staffa motor frames and holds the load whenever pressure is removed. We are the original equipment manufacturer of Staffa brakes and the only source of them.

Made by us, only from us



Staffa brake on a Staffa HMB motor. Image representative only.

4	32,540 Nm	28 to 40 bar	70 bar	-40 to +80 °C
sizes F032 to F402	maximum static brake torque	minimum pressure for full release	maximum continuous pressure	operating temperature range

HOW IT WORKS

Spring applied, hydraulic release

Springs hold the brake on and hydraulic pressure at the brake port releases it. If the pressure is removed, by design or through a fault, the springs re-apply the brake and the load stays put. No electrical supply or operator action is needed to hold.

Direct fit to Staffa motors

Supplied mounted directly to a range of Staffa HMB and HMC frame sizes, with a choice of output shafts.

Compact multi-plate design

Oil-immersed plates give high holding torque in a compact unit.

Motor control and brake release

Our range of motor-mounted valves gives motor control with brake release.

Made and supported by us

Brakes built, serviced and repaired in Silsden, West Yorkshire, with original spares from the same team.

Applications

Sector	Typical duties
Marine and offshore	Deck and mooring winches, deck cranes, launch and recovery
Bulk handling and ports	Ship loaders, rotating chutes, hatch covers
Quarrying and mining	Conveyors and crushers
Tunnelling	Tunnel boring machines

Options and support

Option	Detail
Output shaft	Splined to BS 3550 or DIN 5480, or parallel key
Gearbox integration	Built into a planetary gearbox as a Combination Drive
Older brakes	F030, F101, F100, F200 still supplied
Service and spares	Servicing, repair and original spares

ADVANCED COMPONENT TECHNOLOGY LIMITED
Trading as Advanced Components and Advanced Drives
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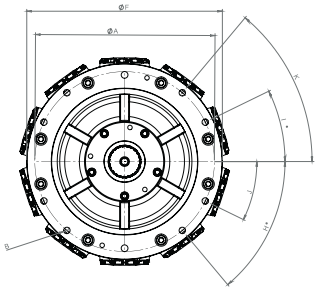
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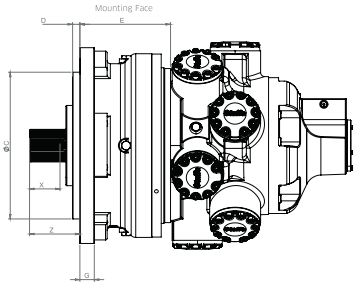
Performance by size

Brake	Static brake torque	Min. pressure for full release	Max. continuous pressure	Oil volume for full release	Operating temperature	Fits Staffa motor frames
	Nm	bar	bar	cc	°C	HMB / HMC
F032	**2,750** 2,028 lbf ft	**31** 450 psi	**70** 1,015 psi	**65** 4.0 in³	**-40 to +80**	HMB030, HMB045 HMC030, HMC045
F102	**6,200** 4,573 lbf ft	**40** 580 psi	**70** 1,015 psi	**117** 7.1 in³	**-40 to +80**	HMB060, HMB080, HMB100 HMC080
F202	**13,830** 10,200 lbf ft	**28** 406 psi	**70** 1,015 psi	**230** 14.0 in³	**-40 to +80**	HMB125, HMB150, HMB200 HMC125, HMC200
F402	**32,540** 24,000 lbf ft	**28** 406 psi	**70** 1,015 psi	**260** 15.9 in³	**-40 to +80**	HMB270, HMB325, HMB400, HMB500 HMC270, HMC325, HMC400

Static brake torque is the holding torque with the brake applied; minimum release pressure is the pressure at the brake port for full release. Imperial values are converted and rounded. Frame fits as listed by Kawasaki Precision Machinery; the 400 frame is the HMHDB400. Send us the motor model code and we will confirm the brake.

Installation dimensions





Output shaft splines

Spline	Spline detail	X	Z
1	BS 3550 17T, 8/16	67	130
2	DIN 5480, W55 x 3 x 17 x 7h	67	130
3	BS 3550 16T, 6/12	54	131
4	BS 3550 20T, 6/12	76.2	145
5	BS 3550 23T, 6/12	95	165
6	DIN 5480, W100 x 4 x 24 x 7h	95	165

X: spline length. Z: shaft length from the mounting face. Both in mm. Keyed and plain shafts: ask us.

Brake	P.C.D. A	Mounting holes B	Spigot C	Spigot face to mounting face D	Mounting face to back of brake E	Max. OD F	Brake port	Mounting face thickness G	Mounting hole angles H	I	J	K	Compatible splines
F032	325	5 x Ø18.5	179.91 179.96	13	161	365	¼" BSP	25	Equi-spaced, one hole at top centre				1 or 2
F102	415	4 x Ø20	301.500 301.576	19	252	450	¼" BSP	25	50°	26°	n/a		3
F202	560	4 x Ø20	380.87 380.95	22	260	615	½" BSP	30	50°	26°	n/a		4, 5 or 6
F402	560	8 x Ø20	457.15 457.07	22	282.5	615	½" BSP	45	50°	26°	50°	26°	4, 5 or 6

All dimensions in mm; spigot C is shown as its tolerance limits. HMB400 motor shown for reference. Confirm the installation drawing for your motor frame and shaft before designing the mounting.

Specifying a Staffa brake: send us

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- **Motor model code** from the nameplate, such as HMB100
- **Brake model** if replacing one, current or older
- **Holding torque** the static torque to be held
- **Valves** if you need motor control and brake release
- **Output shaft** spline number, or parallel key
- **Mounting** on the motor, or built into a gearbox
- **Duty** what it holds, and how often it applies

Images are representative only. Final model, configuration and dimensions are confirmed at order placement, and specifications may change without notice. Figures are taken from the Advanced Components Staffa brake technical sheet R1 (2023) and the Kawasaki Precision Machinery Staffa brakes sheet MYK6464 (2023). Staffa is a trade mark of Kawasaki Precision Machinery. Advanced Components is the manufacturer of Staffa brakes and a UK distributor for Kawasaki Precision Machinery.

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