

Coffee Machine Parts & Specs Quick Reference

Field-measured component specifications for common consumer coffee machines. Data not published in any manufacturer documentation. Use for ordering parts and performing repairs.

GASKET SPECIFICATIONS

Machine	OD	ID	Thickness	Compound
Breville BES870XL (Barista Express)	54mm	42mm	8.0mm	Silicone
Breville BES500 (Bambino Plus)	54mm	42mm	8.0mm	Silicone
Breville BES980XL (Oracle)	58mm	49mm	8.5mm	Silicone
Gaggia Classic Pro (2019+)	58mm	49mm	8.5mm	Silicone*
Gaggia Classic (pre-2019)	56mm	47mm	8.0mm	EPDM OK
DeLonghi EC685 (Dedica)	51mm	40mm	7.0mm	Silicone

* Gaggia Classic Pro brass group head runs hotter — silicone extends service life vs EPDM.

NEEDLE / NOZZLE SPECIFICATIONS

Machine	Type	Bore Diameter	Cleaning Tool	Notes
Keurig K-Elite	Single needle	1.2mm ID	0.9mm wire (paperclip)	7° off-center bore
Keurig K-Supreme Plus	MultiStream ×5	0.8mm ID ea.	0.7mm wire (twist-tie)	Bayonet-removable disc
Keurig K-Duo	Single (pod side)	1.2mm ID	0.9mm wire	Same as K-Elite
Nespresso VertuoPlus	Centrifusion pin	N/A	Toothpick	Barcode reader above chamber
Nespresso Essenza	Single piercing	~0.8mm	Toothpick	Original Line system

O-RING SPECIFICATIONS

Machine / Location	OD	ID	Cross-Section	Material
Gaggia Classic Pro — steam valve stem	10mm	7mm	1.5mm	EPDM
Gaggia Classic Pro — wand base fitting	12mm	9mm	1.5mm	EPDM
Gaggia Classic Pro — solenoid body	14mm	11mm	1.5mm	EPDM
Breville BES870 — solenoid inlet	12mm	9mm	1.5mm	EPDM
Breville BES870 — boiler outlet	14mm	11mm	2.0mm	Silicone
Keurig — reservoir outlet valve	16mm	13mm	1.5mm	Silicone

PUMP SPECIFICATIONS

Machine	Pump Model	Power	Rated Pressure	Replacement
Gaggia Classic Pro	ULKA EP5	48W	15 bar	Direct fit ~\$22
Breville BES870XL	Ulka EX5	70W	15 bar	Direct fit ~\$30
Breville BES500 (Bambino)	ULKA EP5	48W	15 bar	Direct fit ~\$22
Keurig K-Elite	Vibration pump	—	~2 bar	Model-specific ~\$25
Nespresso VertuoPlus	Centrifugal	1260W	N/A	Not field-serviceable

THERMAL FUSE SPECIFICATIONS

■ Thermal fuses are one-time safety devices — they cannot be reset. A blown fuse almost always means a separate fault caused the overtemperature condition. Diagnose the root cause before replacing the fuse.

Machine	Rating	Current	Body Type	Notes
Breville BES870XL	240°C	15A	Axial lead, 6mm dia., 26mm spacing	In series with thermocoil
Gaggia Classic Pro	240°C	15A	Axial lead, 6mm dia., 26mm spacing	On boiler body
Keurig K-Elite	240°C	10A	Axial lead	On heating element

DESCALING SOLUTION CHEMISTRY REFERENCE

Solution	Active Compound	pH (2g/100ml)	Notes
Citric acid 1g/100ml	Citric acid ($\text{C}_6\text{H}_8\text{O}_7$)	~4.0	Nespresso-safe concentration
Citric acid 1.5g/100ml	Citric acid	~3.9	Gaggia brass max; moka safe
Citric acid 2g/100ml	Citric acid	~3.7	Standard for Keurig/Breville
Citric acid 2.5g/100ml	Citric acid	~3.5	Hard water; stainless only
White vinegar 25%	Acetic acid (CH_3COOH)	~2.9	Leaves residue — 5+ rinses
Keurig Descaler	Citric acid ~12%	~3.5	≈ 2g/100ml equivalent
Nespresso Descaler kit	Citric acid ~8%	~3.9	≈ 1g/100ml equivalent