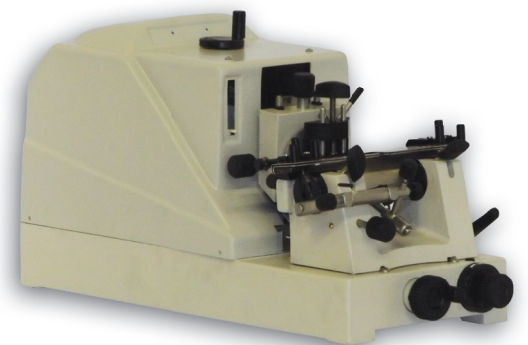


# Bright 5040 Wax/Cryostat Microtome

At the cutting edge of  
sectioning technology

**Bright**  
Instruments



## Introduction

The popular 5040 microtome is of rotary retracting, self-lubricating design and has a heavy cast alloy base and cutting arm. Its robust construction makes it accurate and incredibly reliable. The use of fixed beryllium hinges means that all lateral motion is controlled and allows no slop or play that can be experienced in other, lesser designs which can result in 'chatter' and 'thick and thinning'. It's pawl and ratchet wheel and head-advance design ensures absolute calibration for section thickness accuracy and repeatability.

It is well suited to cutting hard specimens such as undecalcified bone and acrylic resins, while routine wax sections can be produced simply and swiftly. Its use in the OTF5000 Cryostats makes it the 'workhorse' of the Bright range.

Based on Bright's previous model 5030 microtome, the 5040 microtome is now extensively used world-wide in pathology/histology laboratories and many life sciences teaching and research laboratories. Other applications include materials testing, food science and botanical research.

The 5040 is available in three versions (see ordering information), for wax sections with fine adjustment specimen orientation, for wax sections without specimen orientation and the cryostat version. Strong, rigid and almost maintenance free, the 5040 will give many years of reliable service.

## Main Features

- Easy to use rotary retracting microtome with a wide range of options
- Choice of advance/rewind handle positions
- Motor drive with zone control is available - power is simply, yet precisely controlled
- Hard wearing construction and almost maintenance free
- Standard knife holder accepts most conventional knives and the Lever Release Feather Blade Holder or, alternatively, the Quick Release Feather Blade Holder can be fitted
- Standard vice clamp or quick release cassette holder
- Specimen feed indicator
- Safety features include fitted knife guards and locking handwheel
- Cover and debris shields to prevent section debris entering mechanism
- Debris tray with holder for brushes and forceps

# A Versatile Microtome

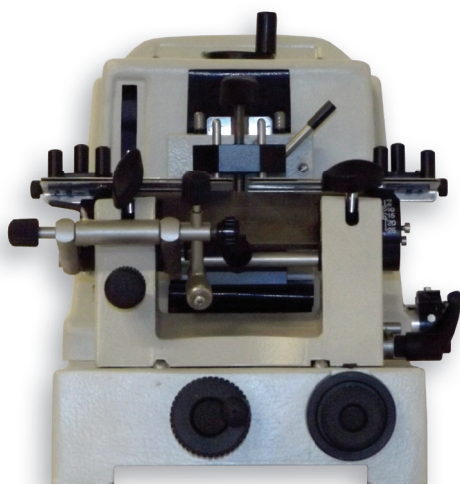
A wide range of options and accessories increase versatility and widen the scope and ease of use of the microtome. Motorised drive is available which, whilst still permitting manual control, facilitates extra slow cutting for added power free from vibration, and allows ultra-repeatability of sections. Motorised advance/rewind is also available; this function has two speeds for accurate and rapid alignment of the specimen to the knife.

It has a knife holder block that can be fitted with many different types of knives including tungsten carbide tipped knives and a special quick release holder block is available that accepts Feather™ disposable blades, also an angled knife block is available for extra hard specimens. Other items include mechanical or electronic section counters and a 'hands-free' foot pedal.

The 5040 is available with or without specimen orientation and orientation may be coarse or fine. A quick release cassette holder can replace the standard vice clamp if required and a version is also available to take 'supercassettes'.

The unique design of the 5040 allows different feed screws to be fitted to change the operating range of the section thickness control, thus giving choices between 0.2µm and 300µm section thicknesses. Using the combination of 0.2µm - 12µm advance and a triangular or Ralph glass knife, it is possible to cut sections of plastic embedded tissue down to 1 - 2µm.

When used in its cryostat form, the 5040 is complimented by the Easi-Set anti-roll plate which enables the easiest of all setting up procedures and cutting preparation times are kept to an absolute minimum.



## Specification

Construction	<ul style="list-style-type: none"> <li>Rotary rocking design of cast alloys, with detergent and solvent resistant epoxy-polyester finish</li> </ul>
Section thickness range	<ul style="list-style-type: none"> <li>Standard range 1-60µm in 1µm steps for wax microtomes and 0.5-30µm in 0.5µm steps for the cryostat version.</li> </ul>
Specimen advance	<ul style="list-style-type: none"> <li>Total specimen advance is 5600µm.</li> </ul>
Knife block movement	<ul style="list-style-type: none"> <li>Total knife block movement is 44mm.</li> </ul>
Retraction	<ul style="list-style-type: none"> <li>Approximately 50µm</li> </ul>
Cutting stroke	<ul style="list-style-type: none"> <li>56mm</li> </ul>
Specimen orientation	<ul style="list-style-type: none"> <li>± 8° horizontal and vertical (standard on 5040-01)</li> </ul>
Remaining feed indicator	<ul style="list-style-type: none"> <li>Visual display</li> </ul>
Knife holders	<ul style="list-style-type: none"> <li>Standard knife holder accepts conventional steel knives; tungsten carbide tipped knives, glass knives and disposable blade holders. Sliding knife carriage with central lock. Alternatively, the quick release Feather blade holder is available as an optional feature either in addition to or in place of the standard knife holder block.</li> </ul>
Motorised section cutting	<ul style="list-style-type: none"> <li>(Optional) With variable speed, variable cutting zone, single or continuous modes, hands off footswitch and emergency stop.</li> </ul>
Safety features	<ul style="list-style-type: none"> <li>Counter-balance handwheel with safety lock. Integral knife guards, sliding both ways to cover knife edges</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>H300 x D500 x W300</li> <li>Net weight (manual): 20kg</li> <li>Net weight (motorised): 30kg</li> <li>Gross weight (manual): 25kg</li> <li>Gross weight (motorised): 35kg</li> <li>Shipping volume: 0.158m<sup>3</sup></li> <li>Packing dimensions: 580 x D680 x W400mm</li> </ul>
<p>Note: Weights vary according to specification of instrument</p>	

# Ordering Information

Order Code	Description
5040-01	5040 Rotary Microtome with fine adjustment specimen orientation
5040-02	5040 Rotary Microtome without specimen orientation
5040-CV	5040 Rotary Microtome for Cryostats

The Bright Instrument Company has a policy of constantly seeking improvements to its products and therefore reserves the right to change specifications without notice and to incorporate such changes as convenient during manufacture.

# Optional Features

Order Code	Description
215	Knife carriage feed screw mechanism
217	Micro-adjustable knife angle mechanism
318	Quick release holder
53613	Supercassette quick release holder
225MR	Robomatic motor drive for 220/240V AC, 50/60Hz
226MR	Robomatic motor drive for 110/115V AC, 50/60Hz
225MR(S)	Robomatic motor drive as 225MR but for very hard specimens
226MR(S)	Robomatic motor drive as 226MR but for very hard specimens
/C	Electronic section counter
/C(M)	Mechanical section counter
/V	Foot switch for motor drive
/Ma/r	Motorised advance rewind
/LHS	Advance/rewind handle on left-hand side front
/FTA	Fine trim adjuster control
/LC	Cryostat type handwheel lock (not available with motor drive)
53430	Quick Release Feather Blade Holder
57903	Lever Release Feather Blade Holder

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