

**TUFLOW PRODUCTS SOFTWARE LICENCE AGREEMENT  
SCHEDULE B (FM-GBP): TUFLOW FLEXIBLE MESH MODELLING  
GBP PRICE LIST  
August 25<sup>th</sup>, 2020**

Please contact [sales@tuflow.com](mailto:sales@tuflow.com) for a written quote. To help us assist you, please specify any preferences you have on:

- **Whether a Perpetual, Yearly Subscription, Monthly Rental or Cloud Service purchase.**
- **Lock Type (Hardware or Software).**
- **Licence Type (Local or Network) and number of licenses (1, 2, 4 etc).**
- **Any optional modules (GPU, AD, 3D, ST, PT or WQ) and number of module licences.**

**Purchase Options:**

Licences can be purchased as:

- **Perpetual:** Indefinite expiry date plus an optional annual software upgrade and support fee.
- **Yearly Subscription:** One year expiry and one year of software upgrades and support.
- **Monthly Rental:** Rent licences month by month.
- **Cloud Simulation Service:** TUFLOW FV licence plus hardware at an hourly rate.

**Lock Types:**

TUFLOW Products are licenced via locks, available in two forms:

1. **Hardware Lock:** Licences are assigned to a dongle (e.g. USB lock) that can be attached to any computer. Licences on the Hardware Lock can be updated at any time (for example, to upscale with rental or additional new perpetual licences).
2. **Software Lock:** Licences are assigned to a computer. Perpetual Licence Software Locks have a one year expiry that are annually updated at no cost. Interim licence updates prior to the one year reset are not possible for Software Lock licences (for example, upscaling with additional rental licences is not possible). Software Locks are recognised by the 2019 Release onwards.

**Licence Types:**

1. **Local Licence:** TUFLOW FV simulations can only be run on the computer hosting the Lock.
2. **Network Licence:** The Lock is hosted on any computer (e.g. a server). Other computers check out licences from the host computer via a company's network. There are no regional restrictions associated with Network licences.

**How many simulations can be run at the same time?**

The number of licences reflect how many TUFLOW FV simulations can be run in parallel at any given time. For example, a Local 4 can run 4 simulations at the same time on the one computer. A Network 5 allows up to 5 simulations at any one time across an organisation's network. If all licences are in use when a TUFLOW FV simulation starts, the simulation enters a holding pattern until a free licence is available.

**Are there ongoing costs?**

Yes, if you wish to access our support services and keep your perpetual licence maintained to access the latest software upgrades and releases, an annual invoice for 15% of the value of your perpetual licences is issued in June of each year. At the time of the initial purchase, the annual fee is pro-rated to next June.

**Are discounts available for multiple licences?**

Our price structure heavily discounts purchases of multiple licences. The more licences you own, the cheaper the per licence rate. In addition, a discount is provided for multiple Local Licences of the same product by the same Licensee (i.e. one point of contact for all invoicing).

**What TUFLOW functionality is included?**

TUFLOW FV is the flexible mesh solver. It can be used to model domains comprising of a mesh of quadrilateral and triangular elements. Licences are 1D and 2D enabled. 1D components in TUFLOW FV are presently limited to 1D culverts (full 1D functionality is available in TUFLOW's fixed grid solvers). TUFLOW FV functionality is expansive, using a 2D or 3D explicit finite volume (FV) solution scheme and supplemented with a range of structure options. Graphical Processing Unit (GPU), Advection-Dispersion (AD), Particle Tracking (PT), 3D, Sediment Transport (ST) and Water Quality (WQ) are available as optional modules- refer to the Optional Modules Section for information on these advanced features. Key features are:

- Unlimited 1D culverts, 2D elements and 3D Layer (z, sigma or sigma hybrid)
- TUFLOW FV's 2D or 3D explicit solver.
- An open model design, suitable for bespoke add-ons.
- TUFLOW FV is parallelised, allowing a single simulation to utilise more than one thread (i.e. more than one CPU or core).
- User controlled 1<sup>st</sup> or 2<sup>nd</sup> Order solution scheme.
- Wide ranging 2D boundary conditions for coastal, flooding and estuarine water quantity and quality applications.
- Structures including culverts, bridges, weirs, gates, pumps and more.
- Numerous output options, styles and formats.
- Supporting Matlab and Python functions for advanced 2D and 3D result visualisation.

## TUFLOW Pricing (GBP)

### TUFLOW FV Engine Price

Item	Description	Yearly Subscription <sup>1</sup>	Perpetual Licence <sup>2</sup>
<b>Local Licences</b> Allows the Licensee to run one simulation per licence on the computer with the Lock.	Local 1 – Up to 1 Simulation	£1,460.00	£3,650.00
	Local 2 – Up to 2 Simulations	£1,940.00	£4,850.00
	Local 4 – Up to 4 Simulations	£2,400.00	£6,000.00
	Local 6 – Up to 6 Simulations	£3,080.00	£7,700.00
	Local 8 – Up to 8 Simulations	£3,880.00	£9,700.00
	Local 12 – Up to 12 Simulations	£5,260.00	£13,150.00
	Local 16 – Up to 16 Simulations	£6,280.00	£15,700.00
	Other local lock options	Price upon request	
	<p><u>Additional Local Licence Locks:</u> The price for each additional Local Licence Lock of the same product purchased by the same Licensee (i.e. same office and same organisation) is discounted. The largest discounts apply to the cheapest locks.</p> <p>Discount Rate:            - 10% for the 2<sup>nd</sup> Local Lock            - 20% for the 3<sup>rd</sup> and subsequent Local Locks</p>		
<b>Network Licences</b> Allows multiple users and simulations across the licensee's local area network (LAN).	Network 1 – Up to 1 Simulation	£2,200.00	£5,500.00
	Network 3 – Up to 3 Simulations	£4,600.00	£11,500.00
	Network 5 – Up to 5 Simulations	£6,080.00	£15,200.00
	Network 8 – Up to 8 Simulations	£8,440.00	£21,100.00
	Network 10 – Up to 10 Simulations	£9,880.00	£24,700.00
	Network 15 – Up to 15 Simulations	£12,400.00	£31,000.00
	Network 20 – Up to 20 Simulations	£14,920.00	£37,300.00
	Network 30 – Up to 30 Simulations	£20,000.00	£50,000.00
	Network 50 – Up to 50 Simulations	£30,000.00	£75,000.00
	Network 75 – Up to 75 Simulations	£40,200.00	£100,500.00
	Network 100 – Up to 100 Simulations	£51,200.00	£128,000.00
	Network 200 – Up to 200 Simulations	£98,000.00	£245,000.00
	Other network licence options	Price upon request	
<p><u>Additional Locks:</u> Organisations who purchase a Network 20 or greater are entitled to a second Lock to distribute their Network licences. This provides contingency for host computer outages. Note that a request to reduce the number of licences on a lock may require the lock to be returned for re-coding as part of a redistribution.</p>			

<sup>1</sup> Yearly subscription licences are more restrictive than perpetual licences. New engine and module licences can only be added to them annually at the time of their renewal. Monthly rental licences upgrades are not permitted.

<sup>2</sup> Perpetual licences are the most flexible licence type. Upgrades can be made to add new engine and module licences at any time. Monthly rentals can also be added to periodically up/downscale

## Optional TUFLOW Modules

### Computational Modules

<b>TUFLOW FV AD Module</b>	Provides access to the <a href="#">TUFLOW FV AD Module</a> . Can be used to performs simulate plumes, flushing studies, saline intrusion, etc. Includes a heat exchange formulation for thermal studies.	50% of the equivalent TUFLOW Engine Licence Price.
<b>TUFLOW FV GPU Module</b>	Provides access to a GPU device for TUFLOW FV's heavily parallelised GPU Solver, thereby substantially reducing simulation times.	50% of the equivalent TUFLOW Engine Licence Price.
<b>TUFLOW FV 3D Module</b>	Provides access to the <a href="#">TUFLOW FV 3D Module</a> .	50% of the equivalent TUFLOW Engine Licence Price.
<b>TUFLOW FV ST / MORPH Module</b>	Provides access to the <a href="#">TUFLOW FV ST Module</a> . Can be used to carry out sediment transport simulations, including morphological update.	50% of the equivalent TUFLOW Engine Licence Price.
<b>TUFLOW FV PT Module</b>	Provides access to the TUFLOW FV PT Module. Can be used to carry out particle tracking simulations.	50% of the equivalent TUFLOW Engine Licence Price.
<b>TUFLOW FV WQ Module</b>	Provides access to the <a href="#">TUFLOW FV WQ Module</a> .	Please contact <a href="mailto:sales@tuflow.com">sales@tuflow.com</a> for a quotation.

The number of Module licences on a lock can be the same or less than the number of TUFLOW licences. Additional Local Module Licences are discounted at the same rates as for Additional Local Licence Locks. Modules can be purchased at a later date, and changes to Locks can be carried out remotely.

#### Example Module Price Calculation

**Local 4 TUFLOW Licence + Local 1 AD Module: £6,000 + (0.5 x £3,650) = £7,825.00**

## Monthly Rental Licences and Conditions

Rental of Local and Network Licences on a monthly basis is available to existing TUFLOW Licensees.

#### **Rental Price = R + NL**

R = Number of months times 10% of the Purchase Price of the Perpetual Licence Price. A minimum of £300 applies.

NL = New Lock Purchase (if required) of £120. Hardware Locks may be retained indefinitely for any future rentals or purchases. Software Locks can be recoded for future purchases for the life of the computer. If the rental licensing is to an existing (non-Perpetual) Lock previously purchased by the Licensee, NL equals zero.

#### **Monthly Rental Conditions:**

- Rental of additional Local or Network Licences are priced based on the price difference between the Licensee's Perpetual Licence and the value of the Perpetual + Rental Licences.
- Local Licence Rentals are not subject to the multi-Local Licence discounts.
- Licensees may purchase and indefinitely retain Locks for Rental Licences. Refer to page B-5.
- Rental of additional Local or Network Licences are only compatible with existing Perpetual Licences. They are **NOT** compatible with existing Yearly Subscription Licences.

**Note:** Perpetual and Rental Locks can be attached to the same computer to access licences from both Locks.

## TUFLOW FV Threads

TUFLOW FV is parallelised allowing a single simulation to utilise more than one thread (i.e. more than one CPU or core). The maximum total threads activated by TUFLOW FV simulations is limited to four times the maximum number of TUFLOW FV licences available across all accessible dongles, unless additional threads have been purchased. For example, for a Local 4 licence allowable combinations are: 1 simulation utilising 16 cores; or 1 simulation using 8 cores and 2 simulations using 4 cores each; or 4 simulations each utilising 4 cores each.

## Cloud Simulation Options

Client Cloud Permissions	TUFLOW Cloud Simulation Service
<p>Organisations with access to Cloud hardware may host Network Licences within their Cloud domain provided these licences are only available to users who have access to the Licensee's LAN.</p> <p>The following page of the TUFLOW Wiki includes a detailed report discussing some benefits, challenges and solutions relating to Cloud computing to help people who are setting up their own system.</p> <p>Note, rental licences can be used to up/downscale your licence volume on a monthly basis.</p> <p><a href="#">Click for further details</a></p>	<p>BMT offer a Cloud Simulation Service for TUFLOW. For Cloud based simulations, BMT will supply the TUFLOW licences, provide access to cloud hardware and run the simulations. This Cloud Simulation Service is quoted at a per hour rate, which varies depending on the licence type, hardware selected (CPU and GPU) and order size.</p> <p>This ideally suited to short term bulk simulations. For example, Monte Carlo simulations, where very large numbers of simulations are to be completed within a short timeframe.</p> <p><a href="#">Click for further details</a></p>

## Annual Software Upgrades and Support Fee (GBP)

<p><b>Annual Software Upgrades and Support (Maintenance) Fee</b></p>	<p>The annual software upgrades and support, or software maintenance fee provides access to new releases and software updates. It also grants the Licensee access to software support via <a href="mailto:support@tuflow.com">support@tuflow.com</a>.</p> <p>The fee is highly recommended for Perpetual Licences and is compulsory for Yearly Subscription Licences.</p> <p>For unmaintained Perpetual Licences a surcharge of 25% on all unpaid annual fees applies should annual maintenance be commenced or reinstated at a later date.</p> <p>There is no annual maintenance fee applied to monthly rental purchases.</p>	<p>15% of the TUFLOW licence value including any purchased modules.</p> <p>The first instalment is pro-rated to the end of next June using the following factors:</p> <p><u>Order Date:</u></p> <table style="margin-left: 20px;"> <tr> <td>Jul to Sep</td> <td>0.75</td> </tr> <tr> <td>Oct to Dec</td> <td>0.50</td> </tr> <tr> <td>Jan to Mar</td> <td>0.25</td> </tr> <tr> <td>Apr to Jun</td> <td>1.00 (to June next year)</td> </tr> </table> <p>Thereafter, an invoice is issued around June each year to cover software upgrades and support for the next 12-month period from July to June.</p>	Jul to Sep	0.75	Oct to Dec	0.50	Jan to Mar	0.25	Apr to Jun	1.00 (to June next year)
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<b>Miscellaneous</b>		
<b>Academic Licence Discount</b>	Licences and the annual software upgrades and support fee are discounted for academic institutions for non-commercial, educational use.	50% discount on Perpetual and Yearly Subscription Licences
<b>Upgrade of an Existing Licence</b>	<p>Additional engine licences can be added at a later date after the initial purchase. Modules can also be purchased at a later date after initial purchase of engine licences.</p> <p>Local Licences can be converted to Network Licences and vice versa.</p> <p>Upgrades can be made to a perpetual licence at any time. Upgrades to yearly subscription licences only be completed annually at the time of their renewal.</p> <p>Changes to Locks can be carried out remotely.</p>	<p>The difference in price between the two licences.</p> <p>The upgraded licence(s) value must be of similar or greater value than the existing licence(s). No refunds are issued.</p>
<b>New Lock Purchase</b>	New lock purchase	£120
<b>Transfer or Replacement of an Existing Lock</b>	If a Lock becomes faulty through normal use, there is no replacement charge - please contact <a href="mailto:sales@tuflow.com">sales@tuflow.com</a> .	No Cost
	Damaged Hardware Locks that are returned and need to be replaced.	£120
	Software Locks that need to be transferred to another computer.	£60
<b>Loss of an Existing Hardware Lock or Transfer of a Software Lock Not Possible</b>	<p>The Licensee is responsible for taking out insurance against the loss, theft or disappearance of Hardware Locks, or if a Software Lock cannot be transferred (e.g. computer is stolen or no longer functional).</p> <p>The cost to replace a lost or stolen licence is equal to the Licence Fee of the TUFLOW Software payable at the time of the replacement of the lost Licence Lock.</p>	

This Price List is to be read in conjunction with the latest TUFLOW PRODUCTS SOFTWARE LICENCE AGREEMENT available from <http://www.tuflow.com/Prices.aspx>.

The applicable currency is the currency of the country of the Licensee's invoicing address. TUFLOW Prices are available in AUD, EUR, GBP and USD from <http://www.tuflow.com/Prices.aspx>. For countries, whose official currency is not accounted for by these currencies, the AUD rate applies unless otherwise quoted in writing.

Any applicable non-Australian government taxes are the responsibility of the Licensee.

BMT reserves the right to vary the Prices in this Schedule from time to time without notice to the Licensee.