

**TUFLOW PRODUCTS SOFTWARE LICENCE AGREEMENT
SCHEDULE B (FG-PKR): TUFLOW FIXED GRID MODELLING
PKR PRICE LIST
9th April 2024**

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

- Whether a Perpetual, Annual 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 (M2D, AD or GPU Hardware) 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.
- **Annual Subscription:** One year expiry and one year of software upgrades and support.
- **Monthly Rental:** Rent licences month by month.
- **Cloud Simulation Service:** TUFLOW 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 2017 Release onwards.

Licence Types:

1. **Local Licence:** TUFLOW 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 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 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 purchase 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?

A TUFLOW licence is 1D and 2D enabled and includes both an implicit (Classic) and the explicit (HPC) solver. All the 1D and 2D functionality listed below are included with a standard licence. Multiple 2D Domains (M2D), Advection-Dispersion (AD) and access to GPU Hardware are not included – refer to the Optional Modules Section for information on these advanced features.

- Unlimited 1D elements, including open channels, structures, pipes, pits, and manholes.
- Wide range of structures including culverts, bridges, weirs, gates, pumps and more.
- Advanced stormwater network features for modelling inlet pits, pipes, and manholes.
- Wide range of 1D and 2D boundary conditions.
- Powerful 1D operational controls for structures.
- Expansive model quality control check outputs.
- Wide range of output options, styles and formats.
- Unlimited 2D elements.
- TUFLOW Classic's 2D Implicit Solver.
- HPC Heavily Parallelised 2D Solver on CPU (the GPU Module is needed to run HPC on GPU cards).
- Unlimited 1D/2D links for Classic and HPC Solvers.
- 2D direct rainfall functionality and time-varying spatial rainfall inputs (distributed hydrology).
- Several infiltration loss options including Green-Ampt.
- Dynamic embankment breaches.
- Flood evacuation route tracking.

TUFLOW Pricing (PKR excluding taxes)

TUFLOW Engine Price

Item	Description	Annual Subscription ^{1 3}	Perpetual Licence ^{2 3}
Local Licences Allows the Licensee to run one simulation per licence on the computer with the Lock. For example, a Local 8 allows for up to 8 simulations to be run at one time on a single computer.	Local 1	Rs 541,000 (Rs 541,000 / licence)	Rs 1,182,000 (Rs 1,182,000 / licence)
	Local 2	Rs 777,000 (Rs 388,500 / licence)	Rs 1,818,000 (Rs 909,000 / licence)
	Local 4	Rs 1,018,000 (Rs 254,500 / licence)	Rs 2,527,000 (Rs 631,750 / licence)
	Other	Price upon request	
	Additional Local Licence Locks: The price for each additional Perpetual 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. Discount Rate: - 10% for the 2 nd Local Lock - 20% for the 3 rd and subsequent Local Locks		
Network Licences Allows multiple users and simulations across the licensee's local area network (LAN). For example, a Network 8 allows for up to 8 simulations to be run at one time on computers connected to the licensee's local area network (LAN).	Network 1	Rs 786,000 (Rs 786,000 / licence)	Rs 1,727,000 (Rs 1,727,000 / licence)
	Network 3	Rs 1,930,000 (Rs 643,333 / licence)	Rs 4,345,000 (Rs 1,448,333 / licence)
	Network 5	Rs 2,620,000 (Rs 524,000 / licence)	Rs 6,382,000 (Rs 1,276,400 / licence)
	Network 8	Rs 3,712,000 (Rs 464,000 / licence)	Rs 8,891,000 (Rs 1,111,375 / licence)
	Network 10	Rs 4,324,000 (Rs 432,400 / licence)	Rs 10,345,000 (Rs 1,034,500 / licence)
	Network 15	Rs 5,460,000 (Rs 364,000 / licence)	Rs 13,182,000 (Rs 878,800 / licence)
	Network 20	Rs 6,595,000 (Rs 329,750 / licence)	Rs 15,782,000 (Rs 789,100 / licence)
	Network 30	Rs 8,910,000 (Rs 297,000 / licence)	Rs 21,327,000 (Rs 710,900 / licence)
	Network 50	Rs 13,540,000 (Rs 270,800 / licence)	Rs 32,418,000 (Rs 648,360 / licence)
	Other	Price upon request	
Additional Locks: 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.			

¹ Annual subscription licences are more restrictive than perpetual licences. New engine and module licences can only be added annually at the time of the licence renewal. Monthly rental licence upgrades are not permitted during the period of rental. Annual subscription licences are not subject to the multi-Local Licence discounts.

² 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.

³ Perpetual Purchase from Annual Subscription: If at the end of a subscription period an Annual Subscription is purchased as a Perpetual Licence, 50% (ex taxes) of the last one-year's subscription fees are deducted from the perpetual licence price. This offer is only valid at the time of the annual subscription renewal.

Optional TUFLOW Modules

Computational Modules

Quadtree (QT) and Multiple 2D Domain (M2D) Module	Provides access to the TUFLOW HPC Quadtree and TUFLOW Classic M2D functionality. This allows varying 2D cell sizes within a single model.	50% of the equivalent TUFLOW Engine Licence Price.
Advection Dispersion (AD) Module	Provides access to the TUFLOW AD Module , for the simulation of conservative constituents. Available for HPC and Classic.	50% of the equivalent TUFLOW Engine Licence Price.

QT/M2D and AD Module licences must be paired with TUFLOW Engine licences. The number of QT/M2D and AD Modules licences on a lock can be the same or less than the number of TUFLOW licences.

Example Module Price Calculation

Local 4 TUFLOW Licence + Local 1 QT Module: Rs 2,527,000 + (0.5 x Rs 1,182,000) = Rs 3,118,000

Hardware Modules

GPU Hardware Module	Provides access to a GPU device for TUFLOW's heavily parallelised HPC 2D Solver for fixed grid and Quadtree meshes, thereby substantially reducing simulation times. The number of GPU Hardware Module licences reflects the maximum number of GPU devices that can be accessed by a simulation. Note that for a GPU with dual cards, each card is treated as a separate device.	50% of the equivalent TUFLOW Engine Licence Price.
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GPU Hardware licences must be paired with at least one (1) TUFLOW Engine licence (page B-2). The number of GPU Hardware licences can be more or less than the number of TUFLOW Engine licences. For example:

- Two GPU Hardware licences paired with a single TUFLOW Engine licence allows access to two GPU devices on a computer by a single simulation (further reducing simulation times), or
- Two GPU Hardware licences paired with two TUFLOW Engine licences will allow two simulations in parallel with each simulation using its own GPU device.

Example Module Price Calculation

Local 4 TUFLOW licence + Local 1 GPU Hardware Module: Rs 2,527,000 + (0.5 x Rs 1,182,000) = Rs 3,118,000

Monthly Rental Licences and Conditions

Monthly Rental of Local and Network Licences is available to existing TUFLOW Licensees.

Rental Price = R + NL

R = Number of months times 10% of the Perpetual Licence Price.

NL = New Lock Purchase (if required) of Rs 11,600. 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.

Note:

- 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.
- Rental of additional Local or Network Licences are only compatible with existing Perpetual Licences. They are **NOT** compatible with existing Annual Subscription Licences.
- Perpetual and Rental Locks can be attached to the same computer to access licences from both Locks.

Perpetual Purchase from Rental: If at the end of the rental period the Rental Licence is purchased as a Perpetual Licence, 50% (ex taxes) of the consecutively accrued rental fees (maximum of 6 months) of R in the Rental Price formula are deducted from the purchase price. Offer valid for 1 month following last rental expiry.

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 link below provides 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>Click for further details</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>The service is 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>Click for further details</p>

Annual Software Upgrades and Support Fee		
<p>Annual Software Upgrades and Support (Maintenance) Fee</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 support@tuflow.com.</p> <p>The fee is highly recommended for Perpetual Licences and is compulsory for Annual 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> Jul to Sep 0.75 Oct to Dec 0.50 Jan to Mar 0.25 Apr to Jun 1.00 (to June next year)</p> <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>

Miscellaneous		
Academic Licence Discount	Licences and the annual software upgrades and support fee are discounted for academic institutions for non-commercial, educational use.	50% discount on Perpetual and Annual Subscription Licences
Upgrade of an Existing Licence	<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 fully maintained perpetual licence at any time. Upgrades to annual 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 current list 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>
New Lock Purchase	New lock purchase	Rs 40,000
Transfer or Replacement of an Existing Lock	If a Lock becomes faulty through normal use, there is no replacement charge - please contact sales@tuflow.com .	No Cost
	Damaged Hardware Locks that are returned and need to be replaced.	Rs 40,000
	Software Locks that need to be transferred to another computer.	Rs 20,000
Loss of an Existing Hardware Lock or Transfer of a Software Lock Not Possible	<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 <https://www.tuflow.com/downloads/>.

The applicable currency is the currency of the country of the Licensee's invoicing address. TUFLOW Prices are available in AUD, NZD, EUR, GBP, USD, INR and PKR from <https://www.tuflow.com/pricing/>. 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.