

Fire main guidance



Contents

Understanding the Regulations	4
Why a single check valve assembly is required	4
Extending your private fire main system?	4
Do I need a pump or booster set?	4
What do I do if my fire main or installation is in contaminated land?	5
I'm storing fuels on site – do I still need barrier pipe?	5
Labelling barrier pipe	5
Installation checklist	6
Guidance diagrams	7
Questions and further guidance	10

Purpose of this document

This guidance outlines Welsh Water's policy regarding private dedicated fire mains and sprinkler systems. It is intended to support compliance with the Water Supply (Water Fittings) Regulations 1999 ('the Regulations').

What's included

The document provides:

- Key compliance requirements under the Regulations
- Installation guidance and schematic diagrams
- A checklist to support correct installation
- Frequently asked questions to assist with regulatory understanding

Who should use this document

This document should be shared with all parties responsible for the design, installation, and management of private fire mains and sprinkler systems. It forms part of the supporting information required for your new connection application and notification process.

To avoid delays to your new connection, it is essential that the following installation requirements are met.

The following points outline your legal responsibilities under the Water Supply (Water Fittings) Regulations 1999. Please ensure this information is shared with your installer or contractor as part of your new connection application.

These are supported by guidance diagrams to assist with correct installation:

- You must install a single check valve assembly on your side of the boundary. This includes an isolation valve positioned upstream of the single check valve. This arrangement allows for safe isolation during maintenance or repair. Please refer to the guidance diagrams for further clarity.
- The single check valve assembly must be located as close as possible to the connection point. Where this is not feasible externally (e.g. where the connection is directly in the footpath), the assembly must be installed internally. Again, please refer to the diagrams provided.
- The single check valve assembly must be installed regardless of what other apparatus you are installing as part of the private fire main or sprinkler system (e.g. pump/booster set and/or storage tank)
- All underground and above-ground pipework and fittings must be identifiable as being the fire main or sprinkler system, such as using black/black and green pipework and/or using marker tape laid on the private fire main or sprinkler system. The entire private system must be labelled in accordance with 'British Standard 1710 – Specification for identification of pipelines and services'
- Any pipework that runs through concrete, foundations or any other solid structure must be ducted. No pipework can be directly sealed in with concrete.
- The requirements for the private fire main are the same regardless of the diameter of the pipework you are installing
- The above points are required regardless of what Welsh Water install as part of the new connection.

Understanding the regulations

The Water Supply (Water Fittings) Regulations 1999 set out the national legal requirements for all private pipework and plumbing systems connected to a UK water company's supply. These Regulations are in place to protect public health and the integrity of the water supply by preventing waste, misuse, undue consumption, erroneous measurement, and contamination of the network.

Why a single check valve assembly is required

To comply with the Regulations, a single check valve assembly must be installed on your private pipework. This is a legal requirement designed to prevent stagnant or potentially contaminated water from being drawn back into the public drinking water network.

The assembly must include:

- A single check valve to prevent backflow.
- An isolation valve installed immediately upstream of the check valve to allow for safe maintenance or replacement.

Please note: This requirement applies to your private installation regardless of any fittings or devices installed by Welsh Water on our side of the network.

Extending your private fire main system?

If you plan to extend your private fire main network after receiving a connection from Welsh Water—for example, from Phase 1 to Phase 2 of a development—you are legally required to notify us in writing before any work begins.

You can submit your notification online via our Water Regulations portal: dwrcymru.com/firemain

If you are unsure whether notification is required, please contact our Water Regulations team on **01792 841 572** for guidance.

Do I need a pump or booster set?

Whether or not your private sprinkler system requires a pump, the installation of a single check valve assembly at the boundary remains a legal requirement and must be completed as outlined in this guidance.

If, after receiving your new connection, you determine that a pump or booster is necessary to ensure system performance, you must notify Welsh Water before installation.

Submit your notification here: dwrcymru.com/firemain

What do I do if my fire main or installation is in contaminated land?

If your private fire main or sprinkler system is to be installed in land that is contaminated—or has the potential to become contaminated due to the presence or storage of fuels, oils, or other hydrocarbons—you must ensure that all underground pipework and fittings are constructed from barrier pipe materials compliant with British Standard 8588. This is a legal requirement designed to prevent the ingress of contaminants into the potable water supply.

This requirement will be included in the conditions of consent issued as part of your new connection application.

I'm storing fuels on site – do I still need barrier pipe?

Yes, you still need to use barrier pipe.

If any contaminants (e.g. fuels, oils, or chemicals) are stored near the private fire main or sprinkler pipework, all underground pipework must be constructed from PE/AL/PE barrier pipe or an equivalent system approved for use in contaminated land. This is a mandatory requirement under the Water Supply (Water Fittings) Regulations 1999 and forms part of your legal consent conditions.

If you believe there is no contamination risk and intend to install standard (non-barrier) pipework, you must contact the Water Regulations team before any installation begins. Welsh Water will carry out a site-specific risk assessment to determine whether an exemption can be granted.

Labelling barrier pipe

All underground pipework, including barrier pipe, must be labelled in accordance with British Standard 1710. This labelling is required along the entire system and should clearly indicate what the pipework is being used for.

Private fire main installation check list

1	Single check valve assembly installed in accessible chamber as close as possible to connection point?	☐
2	Entire underground system made identifiable as required under BS1710 by either marker tape or appropriate pipework	☐
3	Compliant BS8588 barrier pipework and fittings have been installed in contaminated land (where required)	☐
4	Private fire main laid at a depth of 750mm below finished ground level	☐
5	Private pipework laid on and buried with suitable burial material	☐
6	Private pipework has been laid to connection point designated by Developer Services	☐
7	Private pipework is laid in a duct where it runs through any concrete or foundations (where required; see diagrams)	☐
8	Private pipework has isolation valve as it rises internally (where required; see diagrams)	☐
9	Private pipework has single check valve after isolation valve internally (where required; see diagrams)	☐

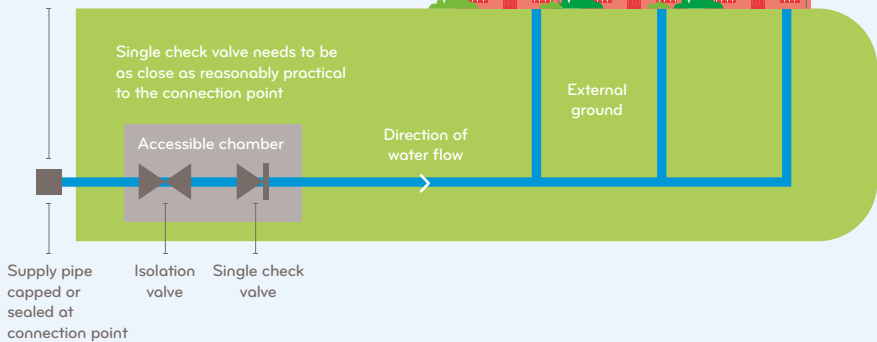
Non-compliance warning

Failure to meet the installation requirements outlined in this guidance—where applicable—will result in delays to your connection. In addition, enforcement action may be taken against the installer and/or developer in accordance with the Water Supply (Water Fittings) Regulations 1999.

Guidance diagrams

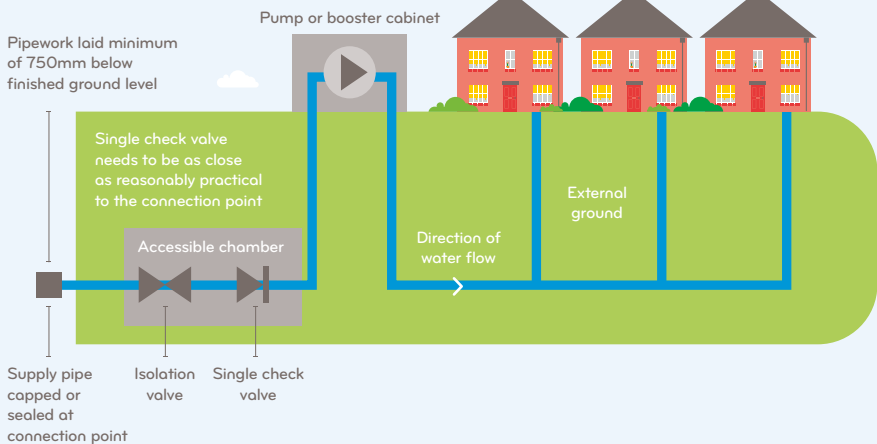
Private fire main with no storage or pump set

Pipework laid minimum of 750mm below finished ground level



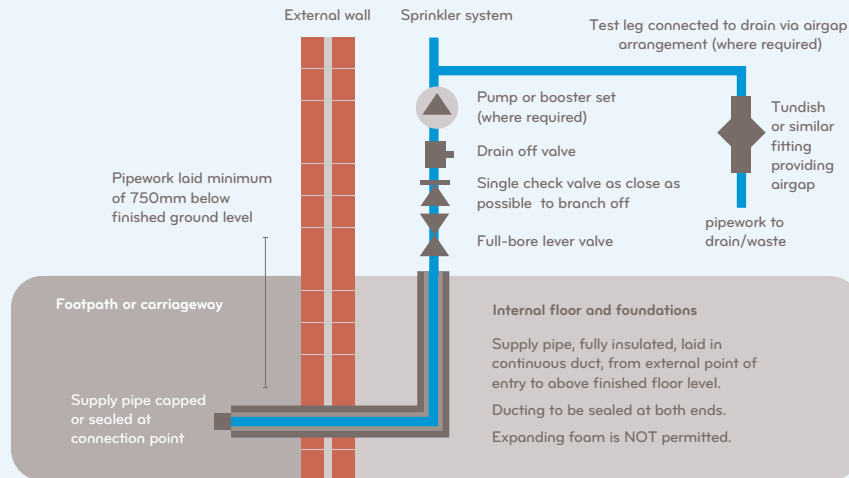
Private fire main with pump set and no storage

Pipework laid minimum of 750mm below finished ground level

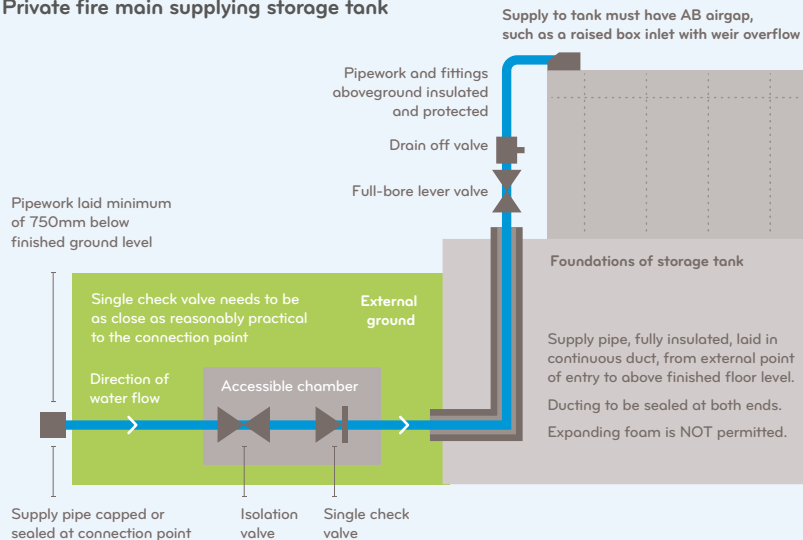


Guidance diagrams

Private fire main with no room for external check valve assembly



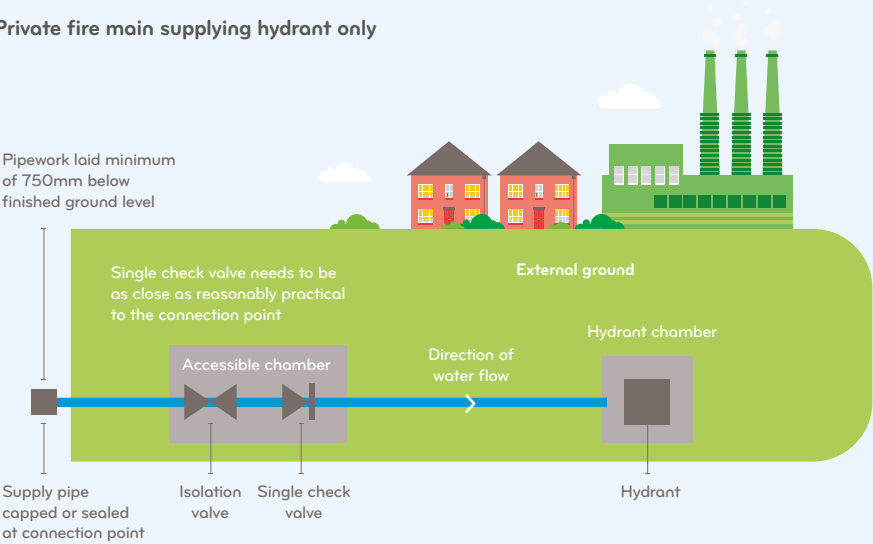
Private fire main supplying storage tank



Guidance diagrams

Private fire main supplying hydrant only

Pipework laid minimum of 750mm below finished ground level



Questions and further guidance

How to apply

Questions on the application process can be directed to our team by calling **0800 9172 652**.

You can also email developer.services@dwrcymru.com for any non-immediate queries.

Domestic fire sprinklers

We also have some useful guidance on domestic fire sprinklers which can be found on our website by visiting dwrcymru.com/domesticsprinklers or by searching 'Welsh Water domestic fire sprinklers'.

Water regulations

Questions relating to the water regulations or installation set-up requirements should be directed to waterregulations@dwrcymru.com or by calling **01792 841 572**.

Canllawiau ar y brif bibell diffodd tân



Contents

Deall y Rheoliadau	4
Pam y mae angen cydosod falf atal sengl	4
Ymestyn eich prif system diffodd tân preifat?	4
A oes angen pwmp neu set cyfnerthu?	4
Beth i'w wneud os bydd fy mhrif bibell neu osodiad diffodd tân ar dir hlogedig?	5
Rwy'n storio tanwyddau ar y safle – a oes angen pibell rwystr arnaf o hyd?	5
Labelu pibell rwystr	5
Rhestr wirio gosodiadau	6
Diagramau arwain	7
Cwestiynau a chanllawiau pellach	10

Pwrrpas y ddogfen hon

Mae'r canllaw hwn yn amlinellu polisi Dŵr Cymru mewn perthynas â phrif bibellau diffodd tân a systemau chwistrellu dynodedig preifat. Bwriedir iddo gefnogi'r broses o gydymffurfio â Rheoliadau Cyflenwi Dŵr (Ffritiadau Dŵr) 1999 ('y Rheoliadau').

Y gwaith

Mae'r ddogfen yn darparu'r canlynol:

- Gofynion cydymffurfiaeth allweddol o dan y Rheoliadau
- Canllawiau gosod a diagramau cynllunio
- Rhestr wirio i gefnogi gosodiadau cywir
- Cwestiynau cyffredin i helpu gyda dealltwriaeth reoliadol

Pwy ddylai ddefnyddio'r ddogfen hon

Dylid rhannu'r ddogfen hon â phob parti sy'n gyfrifol am ddylunio, gosod a rheoli prif bibellau diffodd tân a systemau chwistrellu preifat. Mae'n ffurfio rhan o'r wybodaeth ategol sydd ei hangen ar gyfer eich cais am gysylltiad newydd a'r broses hysbysu.

Er mwyn osgoi oedi i'ch cysylltiad newydd, rhaid bodloni'r gofynion gosod canlynol.

Mae'r pwyntiau canlynol yn amlinellu eich cyfrifoldebau cyfreithiol o dan Reoliadau Cyflenwi Dŵr (Ffitiadau Dŵr) 1999. Sicrhewch y caiff y wybodaeth hon ei rhannu â'ch gosodwr neu gontractwr fel rhan o'ch cais am gysylltiad newydd.

Caiff y rhain eu cefnogi gan ddiagramau arweiniad i'ch helpu i osod yn gywir:

- Rhaid i chi gydodod falf atal sengl ar eich ochr chi o'r ffin. Mae hyn yn cynnwys lleoli falf ynysu i fyny'r afon o'r falf atal sengl. Mae'r trefniant hwn yn golygu bod modd ynysu'n ddiogel wrth gynnal a chadw neu drwsio. Cyfeiriwch at y diagramau canllawiau i gael eglurhad pellach.
- Rhaid lleoli'r cydosodiad un falf atal mor agos â phosibl at y pwynt cysylltu. Lle nad yw hyn yn ymarferol ar y tu allan (e.e. lle mae'r cysylltiad yn y llwybr troed yn uniongyrchol), rhaid gosod y cydosodiad yn fewnol. Unwaith eto, cyfeiriwch at y diagramau a ddarparwyd.
- Rhaid gosod y cydosodiad falf atal sengl ni waeth pa gyfarpar eraill rydych yn eu gosod fel rhan o'r brif bibell diffodd tân neu system chwistrellu preifat (e.e. pwmp/ set cyfnerthu a/neu danc storio)
- Rhaid bod modd adnabod yr holl bibellau a ffitiadau o dan ac uwchlaw'r ddaear fel y brif bibell diffodd tân neu system chwistrellu, fel defnyddio pibellau du/du a gwyrdd a/neu defnyddio tâp marcio wedi'i osod ar y brif bibell diffodd tân neu system chwistrellu preifat. Rhaid labelu'r system breifat gyfan yn unol â 'Safon Brydeinig 1710 — Manyleb ar gyfer nodi piblinellau a gwasanaethau'
- Rhaid cael dwythellau o gwmpas unrhyw bibellau sy'n rhedeg trwy goncrit, sylfeini neu unrhyw strwythur solet arall. Ni ellir selio unrhyw bibellau i mewn yn uniongyrchol gyda choncrit.
- Mae'r gofynion ar gyfer y prif bibell diffodd tân preifat yr un peth, ni waeth beth yw diamedr y pibellau rydych yn eu gosod.
- Mae'r pwyntiau uchod yn ofynnol ni waeth beth mae Dŵr Cymru yn ei osod fel rhan o'r cysylltiad newydd.

Deall y rheoliadau

Mae Rheoliadau Cyflenwi Dŵr (Ffitiadau Dŵr) 1999 yn nodi'r gofynion cyfreithiol cenedlaethol ar gyfer yr holl bibellau a systemau plymwaith preifat sy'n gysylltiedig â chyflenwad cwmni dŵr yn y DU. Mae'r Rheoliadau hyn ar waith er mwyn diogelu iechyd y cyhoedd ac uniondeb y cyflenwad dŵr drwy atal gwastraff, camddefnydd, defnydd diangen, mesuriadau gwallus a holiogiad y rhwydwaith.

Pam y mae angen cydosod falf atal sengl

Er mwyn cydymffurfio â'r Rheoliadau, rhaid gosod cydosodiad falf atal sengl ar eich pibellau preifat. Mae hyn yn ofyniad cyfreithiol a ddyluniwyd i atal merddwr neu ddŵr sydd wedi'i halogi o bosibl rhag cael ei dynnu i mewn i'r rhwydwaith dŵr yfed cyhoeddus.

Rhaid i'r cydosodiad gynnwys:

- Falf atal sengl er mwyn atal ôl-lifiad.
- Falf ynysu a osodwyd i fyny'r afon o'r falf atal er mwyn gallu ei gynnal a chadw yn ddiogel neu ei newid.

Noder: Mae'r gofyniad hwn yn gymwys i'ch gosodiad preifat ni waeth pa ffitiadau neu ddyfeisiau a osodwyd gan Dŵr Cymru ar ein hochr ni o'r rhwydwaith.

Ymestyn eich prif system diffodd tân preifat?

Os bwriadwch ymestyn eich prif rwydwaith diffodd tân preifat ar ôl cael cysylltiad gan Dŵr Cymru — er enghraifft, o Gam 1 i Gam 2 datblygiad — mae'n gyfreithiol ofynnol i chi roi gwybod i ni yn ysgrifenedig cyn i unrhyw waith ddechrau.

Gallwch gyflwyno eich hysbysiad ar-lein trwy ein porth Rheoliadau Dŵr:

dwrcymru.com/bibelldân

Os nad ydych yn siŵr a oes angen hysbysiad, cysylltwch â'n tîm Rheoliadau Dŵr ar 01792 841 572 i gael arweiniad.

A oes angen pwmp neu set cyfnerthu arnaf?

P'un a oes angen pwmp ar eich system chwistrellu breifat neu beidio, bydd cydosod falf atal sengl wrth y ffin yn parhau i fod yn ofyniad cyfreithiol a rhaid iddo gael ei gwblhau fel yr amlinellir yn yr arweiniad hwn.

Os penderfynwch chi, ar ôl i chi gael eich cysylltiad newydd, bod angen pwmp neu set cyfnerthu arnoch i sicrhau perfformiad y system, rhaid i chi hysbysu Dŵr Cymru cyn gosod.

Cyflwynwch eich hysbysiad yma:

dwrcymru.com/bibelldân

Beth i'w wneud os bydd fy mhrif bibell diffodd tân neu osodiad ar dir halogedig?

Os bydd eich prif bibell diffodd tân neu system chwistrellu breifat yn cael ei gosod ar dir wedi'i halogi — neu os bydd ganddynt y potensial i gael eu halogi oherwydd bod tanwydd, olewau neu hydrocarbonau eraill yn bresennol neu'n cael eu storio — rhaid i chi sicrhau y caiff yr holl bibellau a ffitiadau tanddaearol eu hadeiladu o ddeunyddiau pibellau rhwystr sy'n cydymffurfio â Safon Brydeinig 8588. Mae hwn yn ofyniad cyfreithiol a ddyluniwyd i atal halogyddion rhag cyrraedd y cyflenwad dŵr yfady.

Bydd y gofyniad hwn yn cael ei gynnwys yn yr amodau cydsynio a gyhoeddwyd fel rhan o'ch cais am gysylltiad newydd.

Rwy'n storio tanwyddau ar y safle — a oes angen pibell rwystr arnaf o hyd?

Oes, mae dal angen pibell rwystr arnoch.

Os caiff unrhyw halogyddion (e.e. tanwydd, olew neu gemegion) eu storio gerllaw'r brif bibell diffodd tân neu bibellau chwistrellu preifat, rhaid i'r holl bibellau tanddaearol goel eu hadeiladu o bibell PE/AL/pibell rwystr PE neu system gyfatebol a gymeradwywyd i'w defnyddio ar dir halogedig. Mae hwn yn ofyniad gorfodol o dan Reoliadau Cyflenwi Dŵr (Ffitiadau Dŵr) 1999 ac mae'n ffurfio rhan o'ch amodau cydsynio cyfreithiol.

Os credwch nad oes risg o halogiad a'ch bod yn bwriadu gosod pibellau safonol (nad ydynt yn rhwystr), rhaid i chi gysylltu â'r tîm Rheoliadau Dŵr cyn i unrhyw osodiad ddechrau. Bydd Dŵr Cymru yn cyflawni asesiad risg penodol i'r safle er mwyn cadarnhau a ellir caniatáu eithriad.

Labelu pibell rwystr

Rhaid labelu'r holl bibellau tanddaearol, gan gynnwys pibell rwystr, yn unol â Safon Brydeinig 1710. Mae'r gwaith labelu hwn yn ofynnol ar hyd y system gyfan a dylid nodi'n glir at beth y defnyddir y pibellau.

Rhestr wirio ar osod y brif bibell diffodd tân preifat

1	A oes cydosodiad falf atal sengl wedi'i osod mewn siambr hygyrch mor agos â phosibl at y pwynt cysylltu?	☐
2	Gwnaed y system danddaearol gyfan yn adnabyddadwy fel y bo'n ofynnol o dan BS1710 naill ai gyda thâp marcio neu bibellau priodol.	☐
3	Pibellau rhwystr a ffitiadau sy'n cydymffurfio â BS8588 wedi'u gosod ar dir halogedig (lle y bo'n ofynnol)	☐
4	Prif bibell diffodd tân preifat wedi'u gosod i ddyfnder o 750mm islaw lefel orffenedig y ddaear.	☐
5	Pibellau preifat wedi'u gosod ar ddeunydd claddu addas a'u claddu oddi tano	☐
6	Pibellau preifat wedi'u gosod wrth bwynt cysylltu a ddynodwyd gan Wasanaethau'r Datblygwr	☐
7	Pibellau preifat wedi'u gosod mewn dwythell lle mae'n rhedeg trwy unrhyw goncrit neu sylfeini (lle y bo'n ofynnol; gweler diagramau)	☐
8	Pibell breifat falf ynysu wrth iddynt godi'n fewnol (lle y bo'n ofynnol; gweler diagramau)	☐
9	Pibell breifat falf atal sengl ar ôl y falf ynysu yn fewnol (lle y bo'n ofynnol; gweler diagramau)	☐

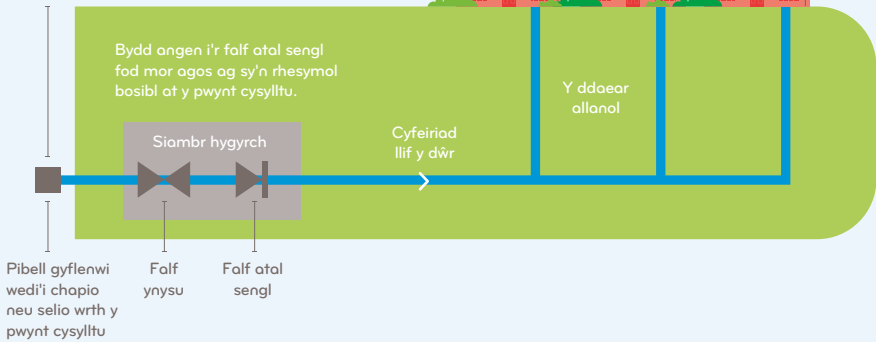
Rhybudd ynghylch diffyg cydymffurfiaeth

Bydd methu â bodloni'r gofynion gosod a amlinellir yn y canllawiau hyn – lle y bo'n gymwys – yn arwain at oedi i'ch cysylltiad. Yn ogystal, gellir cymryd camau gorfodi yn erbyn y gosodwr a/neu'r datblygwr yn unol â Rheoliadau Cyflenwi Dŵr (Ffitiadau Dŵr) 1999.

Diagramau arwain

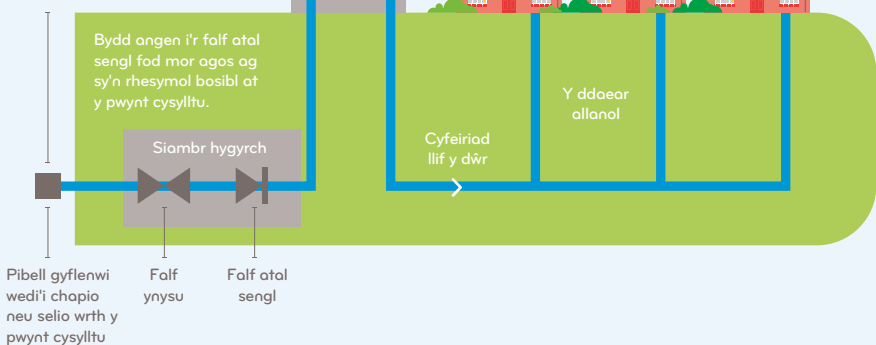
Prif bibell diffodd tân preifat heb le storio na set pwmpio

Gosod pibellau o leiaf 750mm islaw lefel offredig y ddaear



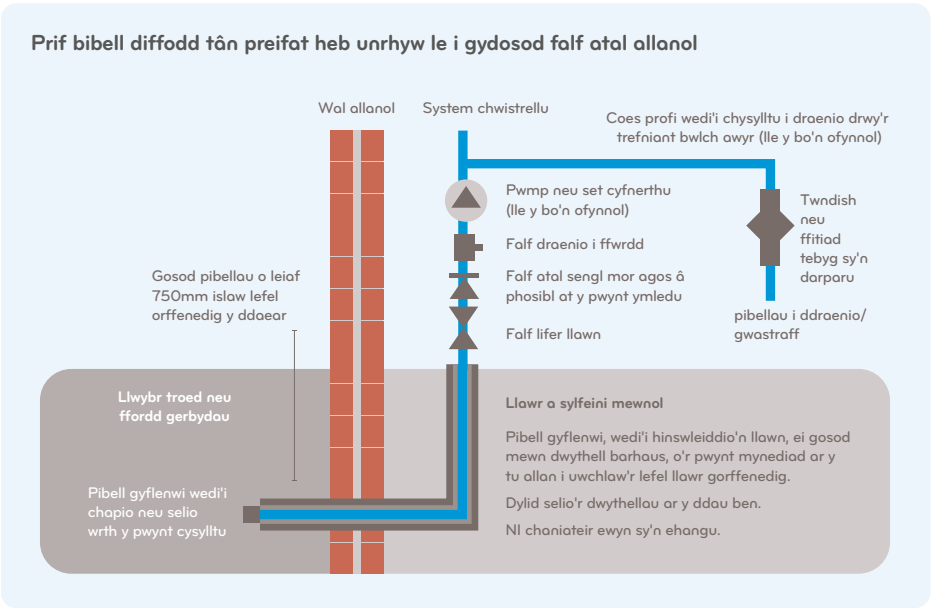
Prif bibell diffodd tân preifat gyda set pwmpio a dim lle storio

Gosod pibellau o leiaf 750mm islaw lefel offredig y ddaear

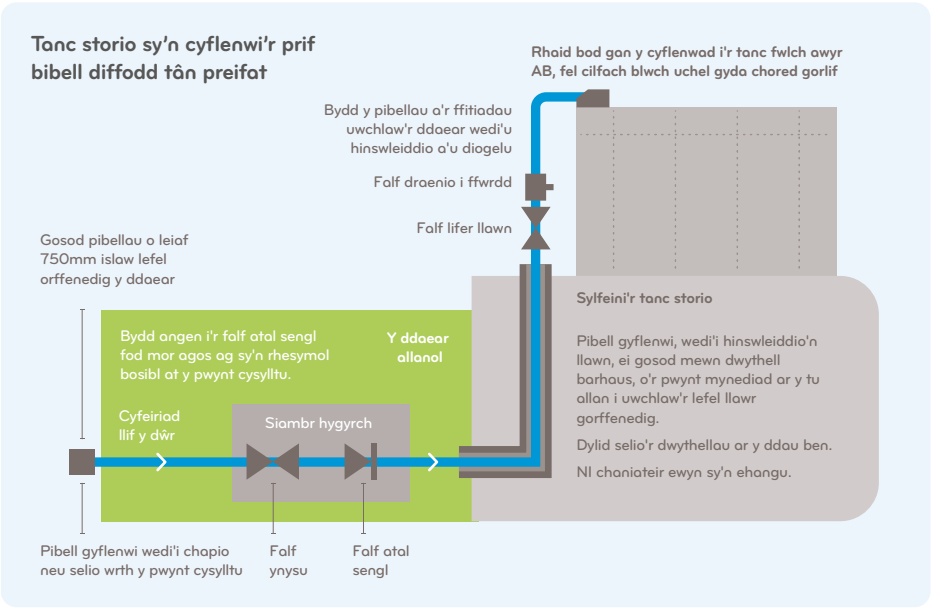


Diagramau arwain

Prif bibell diffodd tân preifat heb unrhyw le i gydosed falf atal allanol



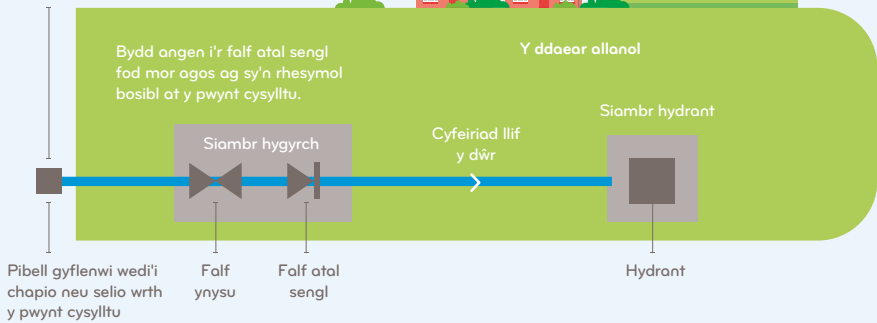
Tanc storio sy'n cyflenwi'r prif bibell diffodd tân preifat



Diagramau arwain

Prif bibell diffodd tân preifat sy'n cyflenwi'r hydrant yn unig

Gosod pibellau o leiaf
750mm islaw lefel
orffenedig y ddaeear



Cwestiynau a chanllawiau pellach

Sut i wneud cais

Gellir cyfeirio cwestiynau ar y broses gwneud cais at ein tîm drwy ffonio **0800 9172 652**.

Gallwch hefyd anfon e-bost at developer.services@dwrcymru.com ar gyfer ymholiadau nad ydynt yn rhai brys.

Systemau chwistrellu tân domestig

Mae gennym rywfaent o ganllawiau defnyddiol hefyd ar systemau chwistrellu tân domestig y gellir dod o hyd iddynt ar ein gwefan drwy fynd i dwrcymru.com/taenellwyr-tandomestig neu drwy chwilio 'Systemau Chwistrellu Domestig Dŵr Cymru'.

Rheoliadau Dŵr

Dylid cyfeirio cwestiynau yn ymwneud â'r rheoliadau dŵr neu'r gofynion sefydlu gosodiad at waterregulations@dwrcymru.com neu drwy ffonio **01792 841 572**.