

PLUMBER'S GUIDE

# HDPE TRADE WASTE

## A RELIABLE SOLUTION

**KNOW  
HOW  
INSTALLED**



# GEBERIT HDPE TRADE WASTE

The first exposure to HDPE (High Density Polyethylene) piping systems that most new plumbers will get outside of trade school will be in the application of Commercial or Trade Waste. This is the drainage of retail, commercial and/or industrial systems containing greases, fats or chemicals at varying temperatures that need to be treated prior to being discharged back into our waste water systems. Installations can vary from a local coffee shop or school science block to major city hospitals or manufacturing plants.

HDPE suits the trade waste application perfectly due to its higher working temperature, flexible yet robust material properties, processing that require no noxious chemicals or solvents whilst being fully recyclable and environmentally inert.

## IDEAL FOR HEAVY DUTY COMMERCIAL WASTE



**High resistance to temperature**  
(-40°C to 100°C if short burst, 80°C long term)



**High resistance to chemicals**  
Geberit HDPE is insoluble in all solutions at 2°C. Find out more information on Geberit HDPE installation guide



**Permanently leakproof**  
The welding joints of Geberit HDPE ensure 100% water tightness, providing a very durable system



**Resistant to impact**  
Geberit HDPE pipes are virtually indestructible. The tough material is shockproof even at -40°C

## EASY INSTALL



**Maximum flexibility**  
Geberit pipe and fittings ranging in size from Ø40 to 315mm



**Inside walls and floors**  
The tough and robust Geberit HDPE pipes can be safely embedded in concrete or installed in the ground



**Tools available**  
Safe, reliable tools for preparation and welding of HDPE available for purchase or hire from Reece stores nationally



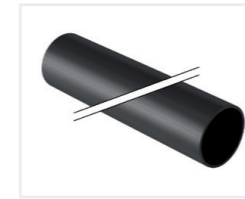
**Connection to different materials**  
Geberit Adapters are available to suit both size and material changes



**Geberit services**  
Geberit Specialists and the Reece team will be supporting you throughout your project

## PIPES AND FITTINGS FOR TRADE WASTE

World leaders in HDPE piping systems for over 50 years, Geberit offers a complete system of HDPE piping and complementary tools and products. For peace of mind, Geberit HDPE has a 10 year system warranty and 2 year on processing tools.



**GEBERIT HDPE PIPE**  
Available in sizes ø40 to 315mm. Length: 5m



**GEBERIT ELECTROFUSION COUPLING**  
Available in sizes ø40 to 160mm



**GEBERIT HDPE BENDS**  
Can be welded on both sides with electrofusion coupling. Multiple radius and sizes available to suit Geberit pipe sizes.



**GEBERIT HDPE EXPANSION SOCKETS**  
Available in sizes ø56 to 315mm.



**GEBERIT HDPE INSPECTION OPENINGS**  
Available in sizes ø63 to 315mm.



**GEBERIT HDPE ECCENTRIC REDUCERS**  
Available in sizes ø50 to 315mm



**GEBERIT S AND P TRAP + GEBERIT CAP & LINING EXTENSION**



**GEBERIT LIP SEAL SOCKETS**  
Use for connecting to different materials. Refer to Adapter page. Available in sizes ø40 to 160mm



**GEBERIT HDPE ADAPTER CLAMPING CONNECTOR**  
For connecting pipes of different material. Available in sizes ø56 to 160mm



**GEBERIT HDPE SLAB REPAIRS**  
Available in size ø56, 75, and 110mm



**GEBERIT HDPE STRAIGHT ADAPTER (MALE) TO COPPER**  
For connection of Type B copper pipe with inner diameter of 98 mm to d110 PE pipe. Available in size ø110mm



**GEBERIT HDPE STRAIGHT ADAPTER (FEMALE) TO COPPER**  
For connection of copper pipe with outer diameter of 101.6mm to d110 PE pipe. Available in size ø110mm



**FINISHED FLOOR LEVEL ADAPTER**  
Geberit HDPE to multiple sizes and materials.



**GEBERIT HDPE COLLECTOR DRAIN**  
Trap insert can be removed for easy cleaning access to drain.

Product code: 1433065

Full range of Geberit HDPE fitting is available in [geberit.com.au/services/download-centre](http://geberit.com.au/services/download-centre) (Geberit Piping Catalogue)

## TOOLS AND EQUIPMENT

Geberit offers safe and reliable tools for preparation and welding of HDPE. It includes the ESG3 Electrofusion Welder, and Pipe Scraper. All tools are available for purchase or hire through Reece Plumbing stores nationally.

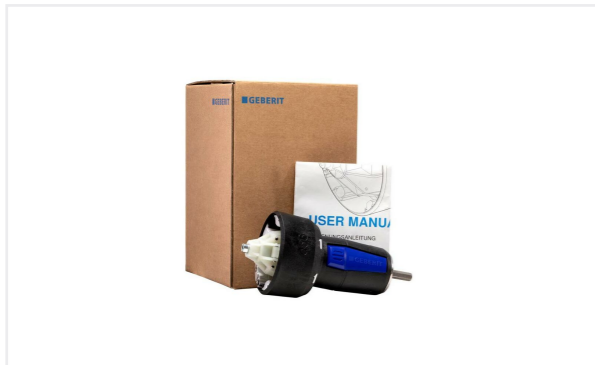


### GEBERIT ELECTROFUSION WELDER ESG3

- For electrofusion welding of Geberit HDPE pipes and fittings up to Ø315mm
- Up to three electrofusion couplings ≤ Ø110mm simultaneously
- Integrated fall impact cushioning
- Remote control
- Data readout function available

### GEBERIT PIPE SCRAPER D110

- For removing the oxide layer on Geberit HDPE pipes and fittings of size Ø110mm
- For use with cordless screwdrivers
- Case to store pipe scraper



### GEBERIT PIPE SCRAPER D56 - D90

- Available in sizes Ø56, 63, 75, and 90mm
- For use with cordless screwdrivers

### GEBERIT PIPE SCRAPER D56 - D110 SET

- Available in sizes Ø56, 63, 75, 90 and 110mm
- One pipe scraper per dimension
- Case to store all pipe scrapers and spare parts

## TIPS AND TRICKS ON WELDING

# DO'S AND DONT'S OF ESG3 WELDER

### DO'S

- Ensure that only Geberit pipe and fittings are used.
- Ensure all connections are made properly. Plugged into mains and the leads are properly connected to the controller.
- Ensure leads are plugged in all the way prior to welding.
- Store in a cool environment. Storage temperature is -20 to +40°C.
- Give the welder a break to cool down in high ambient temperatures.
- Follow the step by step guide in the ESG3 Welder Service Manual when conducting a software upgrade or clearing errors.
- Check that the welder works again following the software upgrade and/or clearing of errors.
- If using a generator follow the requirements of use with a generator.
- Carry a spare controller in case you need to check/replace a faulty controller.
- Follow the guidelines for pipe diameter when conducting serial welds or general malfunction LED will display on controller
- Check the extension leads. We recommend that they are not left out overnight.
- If the extension leads are left out in the open overnight, check the leads to ensure it's in good condition and free of damage or moisture.
- Contact your local Reece Branch or Geberit Piping Specialist for assistance or further training on the welder if required.

### DONT'S

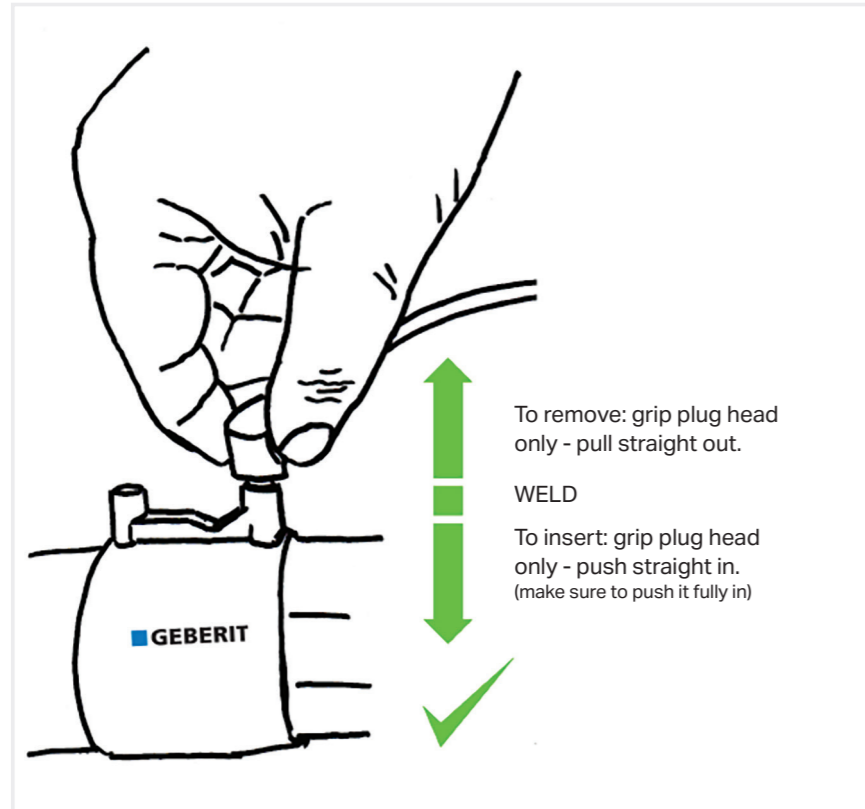
- Don't try to use with other plastic pipe or materials such as metal
- Don't leave the welder in the sun and avoid exposing it to high environmental temperatures
- Avoid using with a generator over 5 years old
- Don't drill into the welder leads
- Don't force the leads into the sockets
- Don't touch/remove the plugs during the welding process
- Don't interrupt the welding process in any way

### REQUIREMENTS FOR POWER GENERATOR 230V

- Rated voltage 200-240VAC
- Minimum power of 2.5 kW (do not connect additional tools if generator works on performance limit)
- CE Conformity (Declaration of Conformity with test standard can be claimed at supplier/importer of generator)
- Conformance with EN 12601. No voltage peaks higher than 750Vpp (peak to peak)
- Grounding cable/connection

**NOTE:** If the generator does not meet the above requirements, it can lead to irreparable damage.

## CORRECT USE OF THE ESG3 ELECTROFUSION WELDER



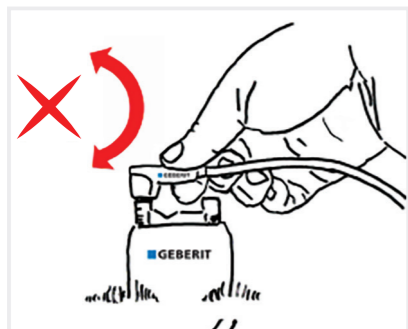
Weld only Geberit EF couplings.

Use blue leads for couplings 40-160mm.

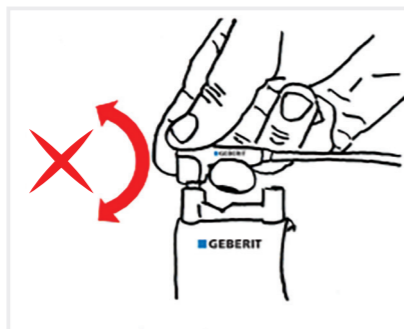
Use blue multi-weld leads up to 110mm only.

Use grey leads for couplings 200-315mm.

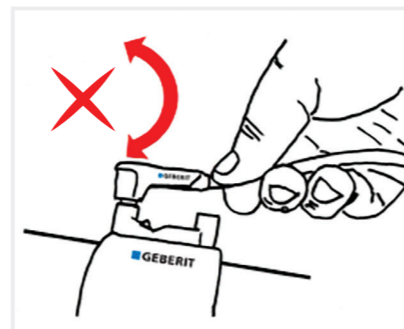
### DO NOT:



**DO NOT:** use plug offset as a handle.



**DO NOT:** roll plugs in and out.



**DO NOT:** use lead as a handle.

## INFORMATION ON GEBERIT TRADE WASTE SYSTEM

# FAQ

### WHAT ARE THE DIAMETER MEASUREMENTS FOR GEBERIT HDPE PIPES AND FITTINGS?

Geberit pipe and fittings are measured in outside diameter measurements. For example:

- Geberit 56mm = 50mm PVC in outside dimension size
- Geberit 110mm = 100mm PVC
- Geberit 160mm = 150mm PVC
- Geberit 250mm = 225mm PVC
- Geberit 315mm = 300mm PVC

Please note, Geberit pipe lengths comes in 5 metres.

Geberit Tradewaste sizes are 56mm, 75mm, 110mm & 160mm in outer dimension.

Geberit pipe sizes 40mm, 63mm, 90mm & 125mm in outer dimension, are usually for siphonic stormwater drainage.

### WHAT IS THE UV RESISTANCE OF GEBERIT PIPE AND FITTINGS?

Geberit HDPE pipes are protected against ageing and embrittlement caused by UV rays by the addition of stabiliser. Consider the heat and expansion in exposed areas.

### IS GEBERIT HDPE RESISTANT TO CHEMICALS?

Geberit HDPE is highly resistant to chemicals due to its structure. For details of the full chemical resistance list, please refer to Geberit HDPE Drainage Catalogue.

### IS GEBERIT HDPE RECYCLABLE?

Geberit HDPE is very durable due to its chemical resistance. Its resistance to ageing is much more than 100 years. Although Geberit HDPE is not naturally degradable, it is 100% recyclable. With a professional installation and disposal, Geberit HDPE is thus an environmentally friendly product material.

### WHERE CAN I BUY GEBERIT HDPE PIPE AND FITTINGS?

Geberit pipe, fittings, couplings and associated tooling are available exclusively from Reece Plumbing stores.

## INSTALLATION

### DO I HAVE TO ALLOW FOR EXPANSION JOINTS WHEN INSTALLING GEBERIT HDPE PIPE WORK?

Geberit recommendation is expansion socket every 6 metres.

### CAN I USE EXPANSION SOCKETS UNDERGROUND?

Expansion sockets are permitted for use underground.

### WHAT ARE GEBERIT'S BRACKETING RECOMMENDATIONS?

The Geberit bracketing system is unavailable in Australia and so localised, approved bracketing system should be used. Geberit does however recommend that clip spacings (rule of thumb) be 10 times the diameter of the pipe on horizontal and 15 times the diameter on the vertical installations.

### DO I NEED TO CLEAN OUT THE RESIDUAL LEFT OVER FROM THE PIPE SCRAPING PROCESS?

The small amounts of HDPE residue left over from this process will not affect the quality of the connection. No further cleaning procedures are required.

### CAN I USE ANY WELDER ON THE GEBERIT COUPLINGS?

No, only Geberit welders can be used to weld Geberit Electrofusion (EF) couplings. Welders are available to buy or hire from Reece plumbing stores all around Australia.

### HOW DEEP CAN I BURY GEBERIT PIPE?

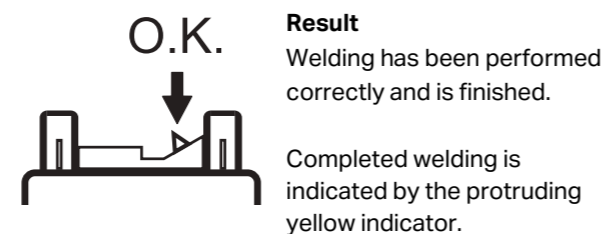
Max covering of up to 6m. Please refer to the Geberit HDPE Catalogue for detailed information or alternatively please contact your local Geberit Piping Specialist for further information or advice.

### HOW STRONG DOES ELECTROFUSION COUPLING WELD?

Geberit Electrofusion coupling weld is as strong as the pipe itself.

### ONCE CONNECTED TO THE WELDER, HOW LONG DOES THIS WELDING PROCESS TAKE?

It takes approximately 1 minute for sizes 40mm to 160mm. And approx 7 minutes for the larger sizes.



### HOW LONG DO I HAVE TO LEAVE AN ELECTROFUSION WELD AFTER THE WELD IS COMPLETE?

Wait for at least 15 minutes after weld has been completed.

### HOW DO I KEEP COUPLINGS IN THE BEST CONDITION UNTIL USE?

Couplings should be stored in boxes free from dust until ready to use.

## TECHNICAL

### WHAT IS THE RESISTANCE TO HOT WATER?

Geberit HDPE can be safely used as waste pipe with no mechanical load, up to 80°C. Temperatures of up to 100°C for short periods (e.g. surge of steam) are permissible.

### CAN I INSTALL GEBERIT HDPE DIRECTLY INTO CONCRETE?

Geberit HDPE can be embedded into concrete. Please check with your local Geberit Piping Specialist for more information.

### DO FIRE COLLARS WORK ON HDPE?

There are many localised fire collar distributors who supply to the market fire collars approved for Geberit HDPE. Please seek advice from your Fire Collar supplier.

### WHAT ARE THE PERMITTED INTERNAL PRESSURES FOR GEBERIT HDPE?

The Geberit HDPE product range was essentially designed for drainage systems. Geberit has configured the maximum permitted load values for the low pressure range (e.g. pump pressure pipes) to ensure a service life of 10 years. For details of the maximum internal pressures for each individual pipe size please refer to the full Geberit Piping Manual.

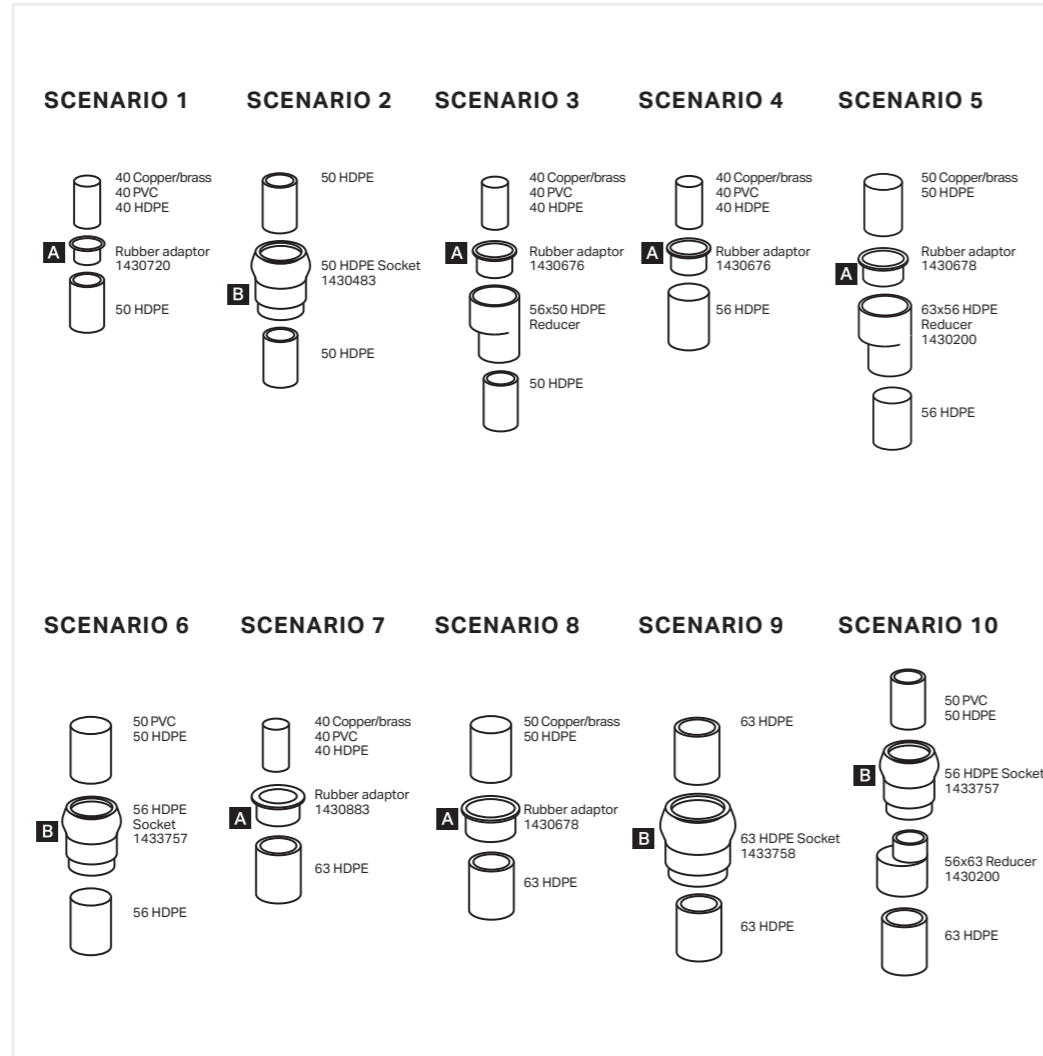
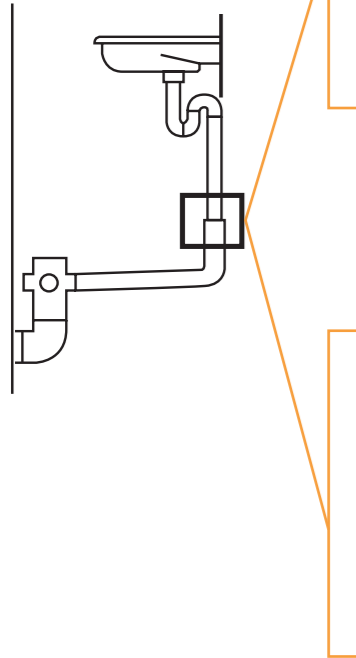
### IS FURTHER ASSISTANCE OR TRAINING AVAILABLE?

Geberit has representation right across Australia. Many piping related enquires are answered through phone contact with local representatives. Where possible, training is also available. Please feel free to contact your local Geberit Piping Specialist or your nearest Reece branch.

# ADAPTERS

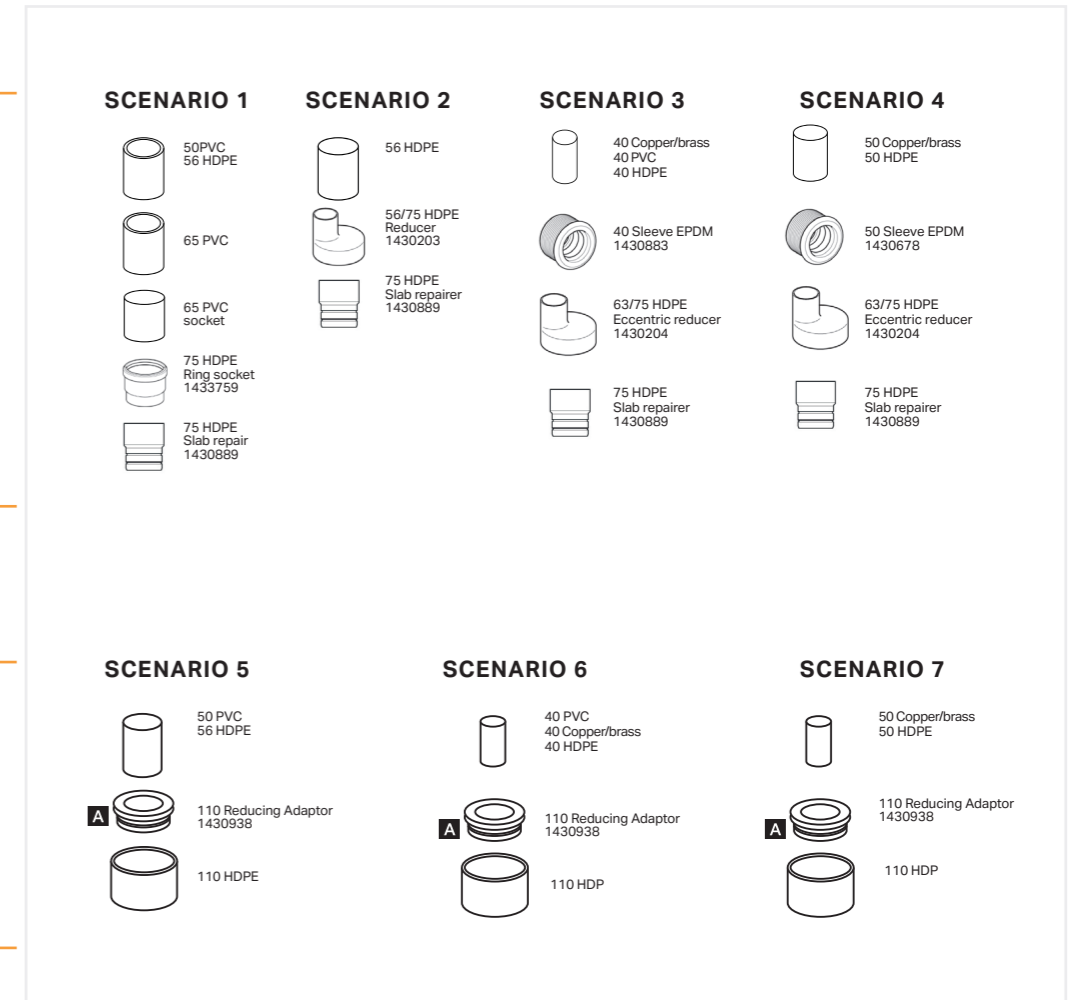
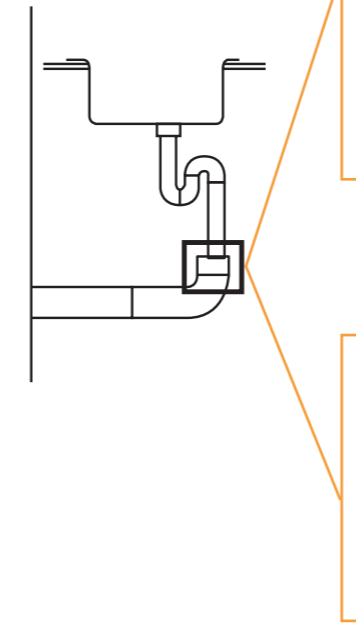
## REFERENCE TABLE

### ADAPTORS FROM 50, 56, 63MM HDPE TO THE FIXTURE TRAP OR TUNDISH



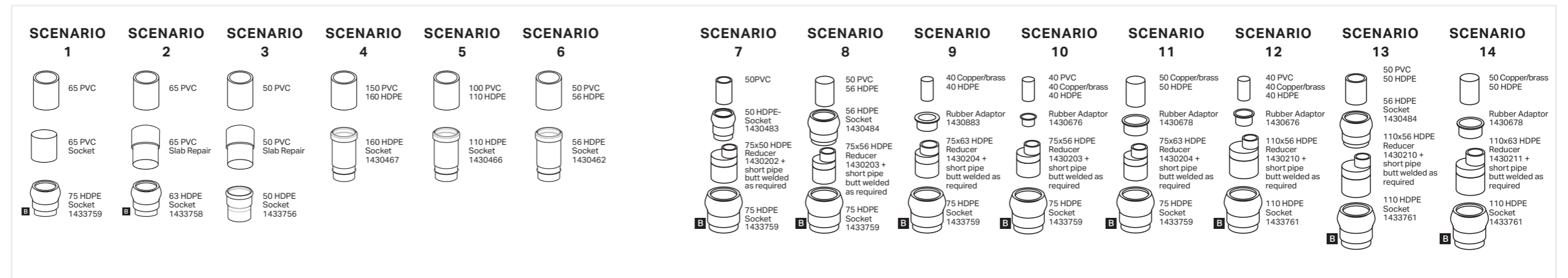
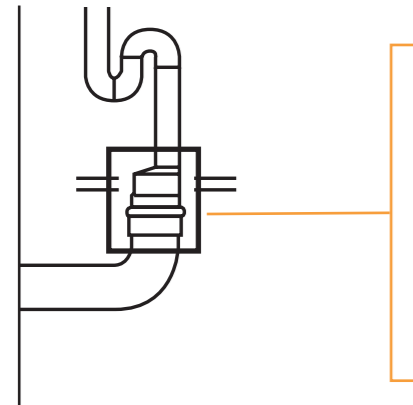
**A:** Can generally be fitted after the main pipe work has been installed, but before the floor coverings.  
**B:** Must be installed at the same time as the main pipework

### ADAPTORS FROM 75, 110MM HDPE TO FIXTURE TRAPS OR TUNDISH



**A:** Can generally be fitted after the main pipe work has been installed, but before the floor coverings.  
**B:** Must be installed at the same time as the main pipework

### ADAPTORS FROM 50, 56, 63, 75, 110 AND 160MM HDPE TO FIXTURE TRAPS OR TUNDISH VIA RING SEAL SOCKET



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