

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 20°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



Many connection types available
Geberit HDPE system can be connected in several ways from electrofusion welding to butt welding, flange and screw fittings



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



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



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



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.



GEBERIT HDPE PIPE
Available in sizes Ø40mm to 315mm. Length: 5m.



GEBERIT ELECTROFUSION COUPLING
Available in sizes Ø40mm to 315mm.



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 Ø56mm to 315mm.



GEBERIT HDPE INSPECTION OPENINGS
Available in sizes Ø63mm to 315mm.



GEBERIT HDPE ECCENTRIC REDUCERS
Available in sizes Ø50mm to 315mm.



GEBERIT S AND P TRAP



GEBERIT LIP SEAL SOCKETS
Use for connecting to different materials. Refer to Adapter page. Available in sizes Ø40mm to 160mm.



GEBERIT HDPE ADAPTER CLAMPING CONNECTOR
Available in sizes Ø56mm to 160mm. For permanent connections, for wet connections.



GEBERIT HDPE SLAB REPAIRS
Available in size Ø110mm.



GEBERIT HDPE STRAIGHT ADAPTER (MALE) TO COPPER
For connection of Type B copper pipe with inner diameter of 98mm to Ø110mm 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 Ø110mm PE pipe. Available in size Ø110mm.



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



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

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

TOOLS AND EQUIPMENT

Geberit offers safe and reliable tools for preparation and welding of Geberit HDPE including the ESG3 and ESG Light Electrofusion Welders and Pipe Scrapers in various sizes. All tools are available for purchase or hire through Reece Plumbing stores nationally.



GEBERIT ELECTROFUSION MACHINE ESG3

- For electrofusion welding of Geberit HDPE pipes and fittings up to Ø315mm
- Weld up to three electrofusion couplings ≤Ø110mm simultaneously
- Integrated fall impact cushioning
- Remote control
- Data readout function available
- Can be used with compatible portable generators



GEBERIT PIPE SCRAPER D56 – D90

- For removing the oxide layer on Geberit HDPE pipes and fittings
- Available in sizes Ø56mm, Ø63mm, Ø75mm and Ø90mm
- For use with cordless driver drills



GEBERIT ELECTROFUSION MACHINE ESG LIGHT

- For electrofusion welding of Geberit HDPE pipes and fittings up to Ø160mm
- Compact and lightweight
- Easy handling and operation
- Robust impact resistance cushioning
- Adjustable shoulder strap
- Mains power only, not compatible with generators
- Single weld only



GEBERIT PIPE SCRAPER D56 – D110 SET

- For removing the oxide layer on Geberit HDPE pipes and fittings
- Includes sizes Ø56mm, Ø63mm, Ø75mm, Ø90mm and Ø110mm pipe scraper
- Also includes spare parts: blade, button, drive shaft, 5 sliding segments and grease pen
- One pipe scraper per dimension
- Case to store all pipe scrapers and spare parts



GEBERIT PIPE SCRAPER D110

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

TIPS AND TRICKS ON WELDING

DO'S AND DONT'S OF ELECTROFUSION WELDING

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.
- When removing leads during a weld, always push stop before removing the leads.
- 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 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 (only applicable to ESG3).
- Carry a spare controller in case you need to check/replace a faulty controller (only applicable to ESG3).
- Follow the guidelines for pipe diameter when conducting serial welds or general malfunction LED will display on controller (only applicable to ESG3).
- Check the extension leads. Encourage that they are not left out overnight.
- Contact your local Reece Branch or Geberit Sales Rep for assistance or further training on the welder if required.

DONT'S

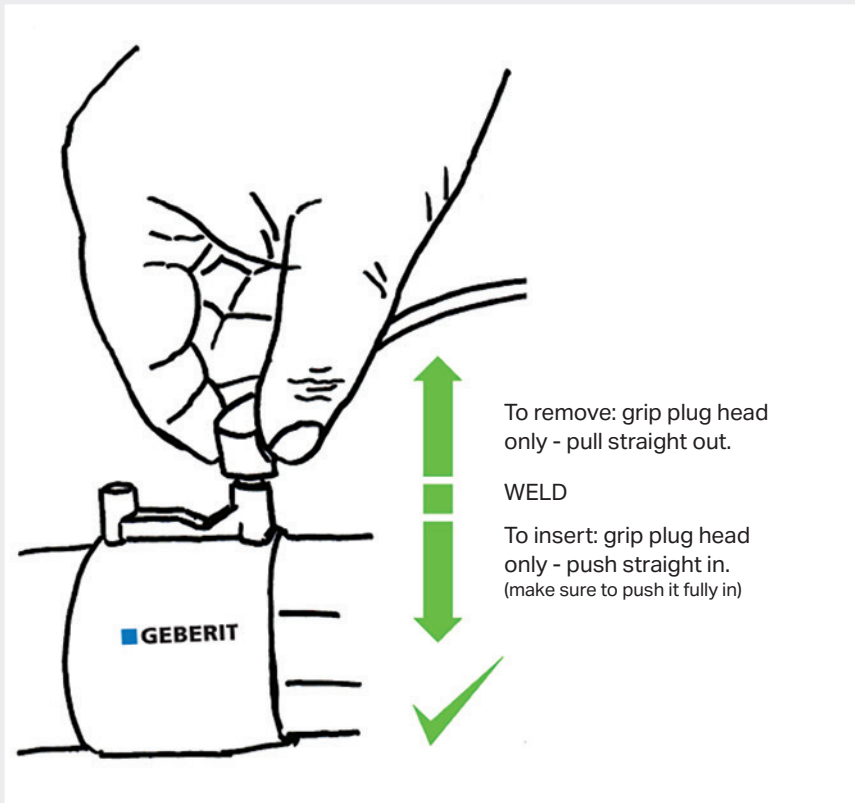
- Don't try to use with other plastic pipe or materials such as metal
- Don't leave the welder in the sun and avoid exposing it to high environmental temperatures
- Avoid using with a generator over 5 years old
- Don't drill into the welder leads
- Don't force the leads into the sockets
- Don't touch/remove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

REQUIREMENTS FOR POWER GENERATOR 230V (ONLY APPLICABLE TO ESG3)

- 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 ELECTROFUSION WELDER



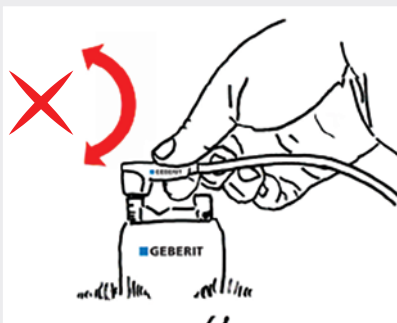
Weld only Geberit EF couplings.

Use blue leads for couplings 40mm - 160mm.

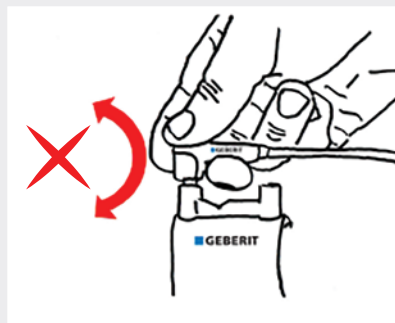
Use blue multi-weld leads up to 110mm (ESG3 only).

Use grey leads for couplings 200mm - 315mm (ESG3 only).

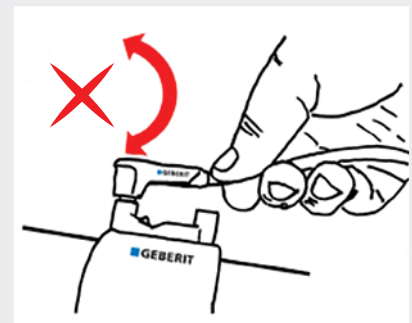
DO NOT:



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 of (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 I CAN BURIED GEBERIT PIPE?

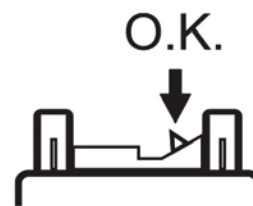
Max covering of up to 6m. Please refer to the Geberit HDPE Catalogue for detailed information or alternatively please contact your local Geberit Piping Specialist for further information or advice.

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.



Result

Welding has been performed correctly and is finished.

Completed welding is indicated by the protruding yellow indicator.

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.

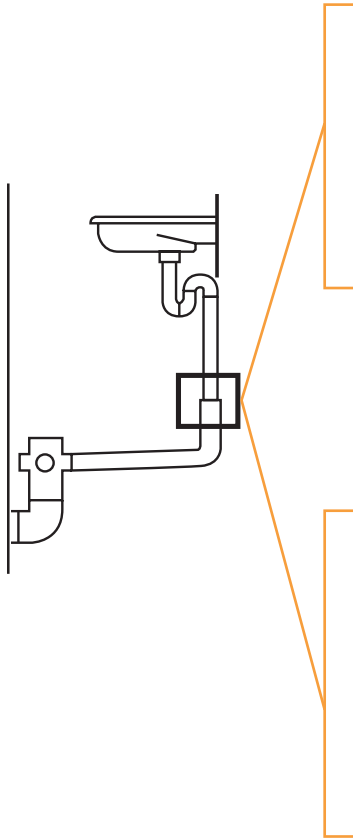
IS FURTHER ASSISTANCE OR TRAINING AVAILABLE?

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

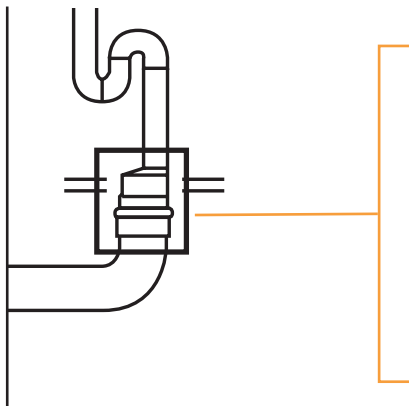
ADAPTORS FROM 50, 56, 63MM HDPE TO THE FIXTURE TRAP OR TUNDISH



SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5
 A Rubber adaptor 1430720 50 HDPE	50 HDPE B 50 HDPE Lip Seal Socket 1433756 50 HDPE	 A Rubber Adaptor 1430676 56x50 HDPE Reducer 50 HDPE	 A Rubber Adaptor 1430676 56 HDPE	 A Rubber Adaptor 1430678 63x56 HDPE Reducer 1430200 56 HDPE
SCENARIO 6	SCENARIO 7	SCENARIO 8	SCENARIO 9	SCENARIO 10
 B 56 HDPE Lip Seal Socket 1433757 56 HDPE	 A Rubber Adaptor 1430883 63 HDPE	 A Rubber Adaptor 1430678 63 HDPE	 B 63 HDPE Lip Seal Socket 1433758 63 HDPE	 B 56 HDPE Lip Seal Socket 1433757 56x63 Reducer 1430200 63 HDPE

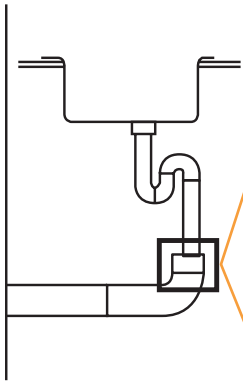
A: Can generally be fitted after the main pipe work has been installed, but before the floor coverings.
B: Must be installed at the same time as the main pipework

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

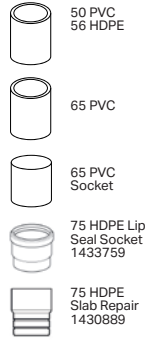


SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6
 65 PVC Socket B 75 HDPE Lip Seal Socket 1433759	 65 PVC Slab Repair B 63 HDPE Lip Seal Socket 1433758	 50 PVC Slab Repair B 50 HDPE Lip Seal Socket 1433756	 160 HDPE Socket 1430467 OR B 160 HDPE Lip Seal Socket 1433762	 110 HDPE Socket 1430466 OR B 110 HDPE Lip Seal Socket 1433761	 56 HDPE Socket 1430462 OR B 56 HDPE Lip Seal Socket 1433757

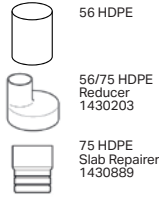
**ADAPTORS FROM 75,
110MM HDPE TO FIXTURE
TRAPS OR TUNDISH**



SCENARIO 1



SCENARIO 2



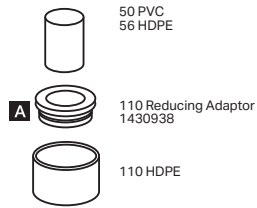
SCENARIO 3



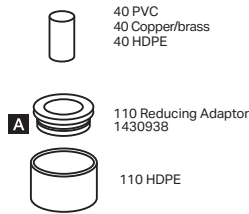
SCENARIO 4



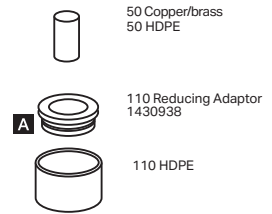
SCENARIO 5



SCENARIO 6

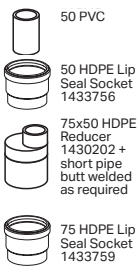


SCENARIO 7

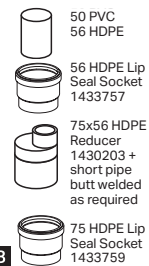


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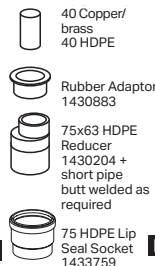
SCENARIO 7



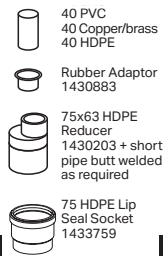
SCENARIO 8



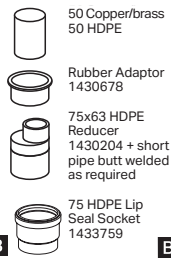
SCENARIO 9



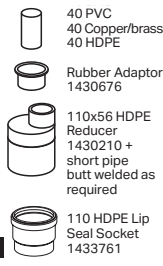
SCENARIO 10



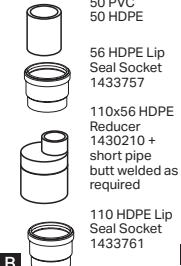
SCENARIO 11



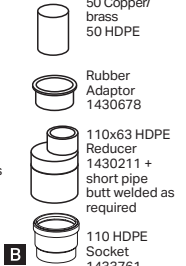
SCENARIO 12



SCENARIO 13



SCENARIO 14



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