



GEOHERMAL PRODUCTS

MINERAL EXPLORATION
ENVIRONMENTAL
GEOTECHNICAL
GEOHERMAL
ROTARY
SONIC
HDD



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GEOTHERMAL PRODUCTS



The earth provides the thermal energy required for geothermal heating and cooling.

Hole Products provides the tooling, supplies, and expertise required to harness that energy.

At Hole Products we provide top quality geothermal products with exceptional service and support. We are a proud member of the International Ground Source Heat Pump Association (IGSHPA) and employ IGSHPA certified staff to perform fusion welding.

We offer a complete line of quality geothermal products for both small and large projects, including HDPE loops, pipe, fittings and accessories, fusion equipment, custom manifolds, flow centers, flush carts, heat transfer fluids, grouts and sand, drill bits, mud pumps, and much more.

Hole Products is one of the only drilling suppliers who can provide quality products and solutions for both Geothermal installations and Geothermal drilling.

With Hole Products you get more than just a geothermal supplier. You get a partner whose goal is clear; to help our clients complete their projects on time and under budget.

Products listed in the catalog are representative of the most common industry sizes and styles. Please contact your Hole Products representative for additional product offerings.

HDPE PIPE



HDPE (high-density polyethylene) pipe is the preferred choice for geothermal heating and cooling systems. HDPE pipe is economical, durable, light weight, flexible, and weather resistant. In addition when properly fused, joints become as strong as or stronger than the pipe itself.

Hole Products offers a complete line of 3408/3608/4710 - ASTM D3035 HDPE pipe in psi rated SDR 9, SDR 11, and SDR 15.5.

Our HDPE pipe offering includes the following:

Loops: 3/4" – 1 1/4" nominal size, in numerous lengths.
Reverse wound loops are available.

Coils: 3/4" – 2" nominal size, in numerous lengths.
Custom lengths including bulk coil on steel reels are available.

Straight Pipe: 3/4" – 12" nominal size, in lengths of 20' and 40'.
Custom lengths are available on request.

All HDPE products carry a minimum 50 year manufacturer's warranty.

Please contact your Hole Products representative for additional details.

3608/3408 IPS HDPE PIPE SIZES

PRESSURE RATING	NOMINAL SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"
	ACTUAL O.D.	1.050"	1.315"	1.660"	1.900"	2.375"	3.500"	4.500"	6.625"	8.625"	10.750"	12.750"
SDR 7 (267 PSI)	MIN. WALL	0.150"	0.188"	0.237"	0.271"	0.339"	0.500"	N/A	N/A	N/A	N/A	N/A
	NOMINAL I.D.	0.750"	0.939"	1.189"	1.358"	1.697"	2.5"	N/A	N/A	N/A	N/A	N/A
	WEIGHT/FT	0.181	0.285	0.453	0.593	0.928	2.016	N/A	N/A	N/A	N/A	N/A
SDR 9 (200 PSI)	MIN. WALL	0.117"	0.146"	0.184"	0.211"	0.264"	0.389"	0.500"	0.736"	0.958"	1.194"	1.417"
	NOMINAL I.D.	0.818"	1.023"	1.292"	1.478"	1.847"	2.722"	3.500"	5.064"	N/A	N/A	N/A
	WEIGHT/FT	0.146	0.229	0.365	0.479	0.749	1.626	2.688	5.93	10.05	15.61	21.97
SDR 11 (160 PSI)	MIN. WALL	0.095"	0.120"	0.151"	0.173"	0.216"	0.318"	0.409"	0.602"	0.784"	0.977"	1.159"
	NOMINAL I.D.	0.860"	1.077"	1.358"	1.554"	1.943"	2.864"	3.692"	5.421"	N/A	N/A	N/A
	WEIGHT/FT	0.122	0.191	0.306	0.402	0.627	1.36	2.249	4.873	8.42	13.08	18.41
SDR 13.5 (128 PSI)	MIN. WALL	0.078"	0.097"	0.123"	0.141"	0.259"	0.259"	0.333"	0.491"	0.639"	0.796"	0.944"
	NOMINAL I.D.	0.894"	1.121"	1.414"	1.618"	2.023"	2.982"	3.834"	5.643"	N/A	N/A	N/A
	WEIGHT/FT	0.102	0.159	0.254	0.333	0.520	1.128	1.865	4.048	7.00	10.87	15.29
SDR 15.55 (110 PSI)	MIN. WALL	N/A	N/A	0.107"	0.123"	0.153"	0.226"	0.290"	0.427"	N/A	N/A	N/A
	NOMINAL I.D.	N/A	N/A	1.446"	1.654"	2.069"	3.048"	3.920"	5.771"	N/A	N/A	N/A
	WEIGHT/FT	N/A	N/A	.223	.294	.457	.994	1.641	3.560	N/A	N/A	N/A
SDR 17 (100 PSI)	MIN. WALL	0.062"	0.077"	0.098"	0.112"	0.140"	0.206"	0.265"	0.390"	0.507"	0.632"	0.750"
	NOMINAL I.D.	0.926"	1.161"	1.464"	1.676"	2.095"	3.088"	3.970"	N/A	N/A	N/A	N/A
	WEIGHT/FT	0.082	0.128	0.206	0.269	0.421	0.912	1.508	3.34	5.65	8.78	12.36

- Pressures are based on using water at 23°C (73.4°F) and are determined per ASTM D3035 or F714.
- Service factors should be utilized to compensate for the effect of substances other than water and for higher temperatures.
- Nominal inside diameter calculated using nominal O.D. and minimum wall plus 6% to estimate fluid flow. Actual I.D. will vary.
- Metric sizes are available as well as other pipe sizes and SDRs on request.

4710 IPS HDPE PIPE SIZES

PRESSURE RATING	NOMINAL SIZE	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"
	ACTUAL O.D.	1.315	1.60"	1.900"	2.375"	3.500"	4.500"	6.625"	8.625"	10.750"	12.750"
SDR 7 (267 PSI)	MIN. WALL	0.188"	0.237"	0.271"	0.339"	0.500"	0.643"	0.946"	1.232"	1.536"	1.821"
	NOMINAL I.D.	0.917"	1.157"	1.325"	1.656"	2.440"	3.137"	4.619"	6.013"	7.494"	8.889"
	WEIGHT/FT	0.288	0.459	0.600	0.939	2.040	3.732	7.305	12.385	19.245	27.062
SDR 9 (200 PSI)	MIN. WALL	0.146"	0.184"	0.211"	0.264"	0.389"	0.500"	0.736"	0.958"	1.194"	1.417"
	NOMINAL I.D.	1.005"	1.269"	1.452"	1.816"	2.676"	3.440"	5.064"	6.593"	8.218"	9.747"
	WEIGHT/FT	0.232	0.369	0.485	0.758	1.646	2.720	5.894	9.988	15.61	21.837
SDR 11 (160 PSI)	MIN. WALL	0.120"	0.151"	0.173"	0.216"	0.318"	0.409"	0.602"	0.784"	0.977"	1.159"
	NOMINAL I.D.	1.062"	1.340"	1.534"	1.917"	2.825"	3.633"	5.348"	6.963"	8.678"	10.293"
	WEIGHT/FT	0.195	0.310	0.406	0.634	1.376	2.275	4.930	8.359	12.983	18.267
SDR 13.5 (128 PSI)	MIN. WALL	N/A	N/A	N/A	0.176"	0.259"	0.333"	0.491"	0.639"	0.796"	0.944"
	NOMINAL I.D.	N/A	N/A	N/A	2.002"	2.950"	3.793"	5.585"	7.271"	9.062"	10.748"
	WEIGHT/FT	N/A	N/A	N/A	0.526	1.141	1.887	4.095	6.939	10.774	15.155
SDR 15.55 (110 PSI)	MIN. WALL	N/A	N/A	N/A	0.153"	0.226"	0.290"	0.427"	0.556"	0.694"	0.823"
	NOMINAL I.D.	N/A	N/A	N/A	2.050"	3.021"	3.885"	5.719"	7.445"	9.280"	11.006"
	WEIGHT/FT	N/A	N/A	N/A	0.462	1.006	1.660	3.599	6.100"	9.490"	13.348"
SDR 17 (100 PSI)	MIN. WALL	N/A	N/A	N/A	0.140"	0.169"	0.265"	0.390"	0.507"	0.632"	0.750"
	NOMINAL I.D.	N/A	N/A	N/A	2.079"	2.516"	3.939"	5.799"	7.549"	9.409"	11.160"
	WEIGHT/FT	N/A	N/A	N/A	0.425	0.622	1.526	3.307	5.597	8.695	12.238

- Pressures are based on using water at 23°C (73.4°F) and are determined per ASTM D3035 or F714.
- Service factors should be utilized to compensate for the effect of substances other than water and for higher temperatures.
- Nominal inside diameter calculated using nominal O.D. and minimum wall plus 6% to estimate fluid flow. Actual I.D. will vary.
- Metric sizes available as well as other pipe sizes and SDRs on request.

HDPE LOOPS

Hole Products offers a full line of HDPE loops. Loops are offered with multiple pressure ratings and in a wide variety of lengths and sizes. Custom lengths and reverse wound loops for HDD applications are available on request.

Please contact your Hole Products representative for additional details.

SDR 9* 3608 HDPE LOOPS			
LOOP LENGTH	NOMINAL SIZE		
	3/4"	1"	1-1/4"
310'	4221500	4221540	4221570
410'	4220915	4221545	4221575
510'	4221510	4221550	4221580
610'	4221515	4220310	4221585
710'	4221520	4220659	4220656
810'	4221525	4221555	4220080
910'	4221530	4221560	4221590
1010'	4221535	4221565	4220911

*Standard pressure rating is 200 psi

SDR 9* 4710 HDPE LOOPS			
LOOP LENGTH	NOMINAL SIZE		
	3/4"	1"	1-1/4"
310'	4222100	4222135	4222175
410'	4221505	4222140	4222180
510'	4222105	422145	4222185
610'	4222110	4222150	4222190
710'	4222115	4222155	4222195
810'	4222120	4222160	4220910
910'	4222125	4222165	4222195
1010'	4222130	4222170	4221595

*Standard pressure rating is 250 psi

SDR 11* 3608 HDPE LOOPS			
LOOP LENGTH	NOMINAL SIZE		
	3/4"	1"	1-1/4"
310'	4220010	4220020	4220023
410'	4220015	4220021	4220024
510'	4220018	4220019	4221635
610'	4220045	4220022	4220966
710'	4221600	4220605	4221645
810'	4221605	4221620	4220601
910'	4221610	4221625	4221650
1010'	4221615	4221630	4220958

*Standard pressure rating is 160 psi

SDR 11* 4710 HDPE LOOPS			
LOOP LENGTH	NOMINAL SIZE		
	3/4"	1"	1-1/4"
310'	4222200	4222240	4222260
410'	4222205	4222245	4221655
510'	4222210	4221000	4221640
610'	4222215	4221005	4221015
710'	4222220	4221010	4221020
810'	4222225	4222245	4221025
910'	4222230	4222250	4221030
1010'	4222235	4222255	4221035

*Standard pressure rating is 200 psi

HDPE COIL

Hole Products offers a full line of HDPE coil. Coil is offered in a wide range of sizes and multiple lengths. Coils are available with various pressure ratings to meet your project requirements. Custom coil lengths including bulk coil on steel reels are available on request.

Please contact your Hole Products representative for product details and availability of other sizes and SDRs.

SDR 9* 3608 HDPE COIL					
COIL LENGTH	NOMINAL SIZE				
	3/4"	1"	1 1/4"	1 1/2"	2"
100'	4220510	4220585	4220720	4220625	4221160
150'	4220515	4220590	4220725	4221090	4221165
200'	4220520	4220595	4220730	4221095	4221170
250'	4220525	4220665	4220735	7221100	4221175
300'	4220530	4220670	4220084	4221105	4221180
350'	4220535	4220675	4220740	4221110	4221185
400'	4220540	4220680	4220745	4221115	4221190
450'	4220545	4220685	4220775	4221120	4221195
500'	4220550	4220309	4220031	4221125	4221200
550'	4220555	4220690	4220805	4221130	4221205
600'	4220560	4220695	4221065	4221135	4221210
650'	4220565	4220700	4221070	4221140	4221215
700'	4220570	4220705	4221075	4221145	4221220
750'	4220575	4220710	4221080	4221150	4221225
800'	4220580	4220715	4221085	4221155	4221230

*Standard pressure rating is 200 psi

SDR 9* 4710 HDPE COIL					
COIL LENGTH	NOMINAL SIZE				
	3/4"	1"	1 1/4"	1 1/2"	2"
100'	4222545	4222620	4222700	4222775	4222850
150'	4222550	4222625	4222705	4222780	4222855
200'	4222555	4222630	4222710	4222785	4222860
250'	4222560	4222635	4222715	4222790	4222865
300'	4222565	4222640	4222720	4222795	4222870
350'	4222570	4222645	4222725	4222800	4222875
400'	4222575	4222650	4222730	4222805	4222880
450'	4222580	4222655	4222735	4222810	4222885
500'	4222585	4222660	4222740	4222815	4222890
550'	4222590	4222665	4222745	4222820	4222895
600'	4222595	4222670	4222750	4222825	4222900
650'	4222600	4222675	4222755	4222830	4222905
700'	4222605	4222680	4222760	4222835	4222910
750'	4222610	4222685	4222765	4222840	4222915
800'	4222615	4222690	4222770	4222845	4222920

*Standard pressure rating is 250 psi

SDR 11* 3608 HDPE COIL					
COIL LENGTH	NOMINAL SIZE				
	3/4"	1"	1 1/4"	1 1/2"	2"
100'	4220042	4220043	4220026	4220044	4221460
150'	4221235	4220939	4221340	4221400	4220607
200'	4221240	4220308	4220946	4220307	4220048
250'	4221245	4221295	4220940	4221405	4220793
300'	4221250	4220904	4220027	4220306	4220788
350'	4221255	4221300	4221355	4221410	4220794
400'	4220034	4220627	4221360	4221415	4221465
450'	4221260	4221305	4221365	4221420	4220796
500'	4220955	4220029	4220030	4221425	4220797
550'	4221270	4221310	4221370	4221430	4221470
600'	4220033	4221315	4221375	4221435	4221475
650'	4221275	4221320	4221380	4221440	4221480
700'	4220967	4221325	4221385	4221445	4221485
750'	4221285	4221330	4221390	4221450	4221490
800'	4220032	4221335	4221395	4221455	4221495

*Standard pressure rating is 160 psi

SDR 11* 4710 HDPE COIL					
COIL LENGTH	NOMINAL SIZE				
	3/4"	1"	1 1/4"	1 1/2"	2"
100'	4222925	4222990	4223065	4223130	4223205
150'	4222930	4222995	4223070	4223135	4223210
200'	4222935	4223000	4221345	4223140	4223215
250'	4222940	4223005	4221350	4223145	4223220
300'	4222945	4223010	4223075	4223150	4223225
350'	4222950	4223015	4223080	4223155	4223230
400'	4222955	4223020	4223085	4223160	4223235
450'	4222960	4223025	4223090	4223165	4223240
500'	4221265	4223030	4223095	4223170	4223245
550'	4222965	4223035	4223100	4223175	4223250
600'	4222970	4223040	4223105	4223180	4223255
650'	4222975	4223045	4223110	4223185	4223260
700'	4221280	4223050	4223115	4223190	4223265
750'	4222980	4223055	4223120	4223195	4223270
800'	4222985	4223060	4223125	4223200	4223275

*Standard pressure rating is 200 psi

HDPE STRAIGHT PIPE

Hole Products offer a complete line of HDPE straight pipe in 3/4" - 12" nominal sizes and lengths of 20' and 40'.

Please contact your Hole Products representative for product details and availability of additional sizes and SDRs.

SDR 9* 3608 HDPE STRAIGHT PIPE

PIPE LENGTH	NOMINAL SIZE										
	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"
20'	4220810	4220815	4220820	4220825	4220620	4220938	4220835	4220840	4220845	4220850	4220855
40'	4220920	4220919	4220918	4220921	4220917	4220916	4220890	4220895	4221050	4221055	4221060

*Standard pressure rating is 200 psi

SDR 9* 4710 HDPE STRAIGHT PIPE

PIPE LENGTH	NOMINAL SIZE										
	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"
20'	4222265	4222270	4222275	4222280	4222285	4222290	4222295	4222300	4222305	4222310	4222315
40'	4220860	4220865	4222320	4222325	4222330	4222335	4222440	4222445	4222450	4222455	4222460

*Standard pressure rating is 250 psi

SDR 11* 3608 HDPE STRAIGHT PIPE

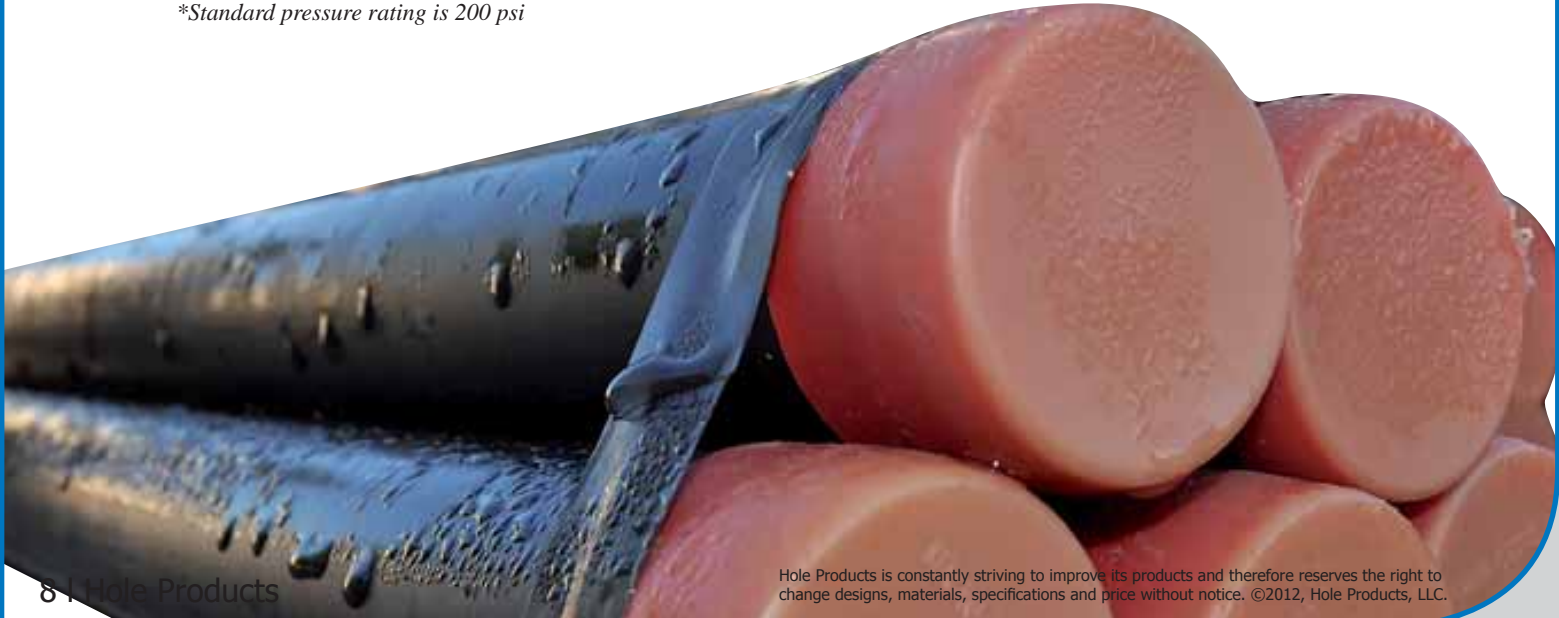
PIPE LENGTH	NOMINAL SIZE										
	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"
20'	4220125	4220107	4220108	4220109	4220110	4221660	4221665	4221670	4221675	4221680	4221685
40'	4221690	4220780	4221695	4220468	4220764	4220606	4220931	4220964	4220779	4221715	4221720

*Standard pressure rating is 160 psi

SDR 11* 4710 HDPE STRAIGHT PIPE

PIPE LENGTH	NOMINAL SIZE										
	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"
20'	4222465	4222470	4222475	4222480	4222485	4222490	4222495	4222500	4222505	4222510	4222515
40'	4222520	4222525	4220870	4222530	4220880	4220885	4221700	4221705	4221710	4222535	4222540

*Standard pressure rating is 200 psi



HDPE SOCKET & BUTT FITTINGS



Hole Products offers a large selection of HDPE socket and butt fittings including elbows, tees, couplings, caps, saddles, flange adapters, and more.

Fittings are offered in a variety of sizes and styles to meet all your specific project needs. Stab fittings are available on request.

Line drawings of common fittings and information regarding Hole Products standard product offering are outlined on the following pages.

Due to the vast number of HDPE fitting options available, part numbers are not listed in this section.

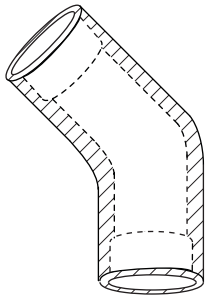
Please contact your Hole Products representative for product specifications and assistance selecting the fittings properly designed for your specific project application.

HDPE SOCKET & BUTT ELBOWS

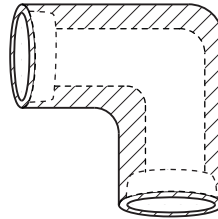
SOCKET FUSION ELBOW FITTINGS

Available from 3/4" to 2" nominal size.

45° ELBOWS



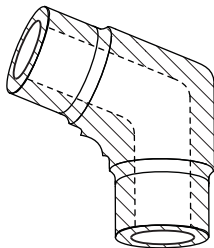
90° ELBOWS



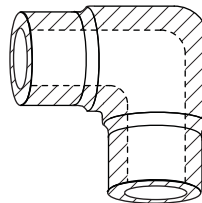
BUTT FUSION ELBOW FITTINGS

Available from 3/4" to 12" nominal size.

45° ELBOWS



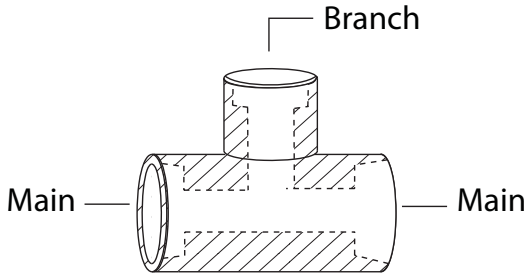
90° ELBOWS



HDPE SOCKET & BUTT TEES

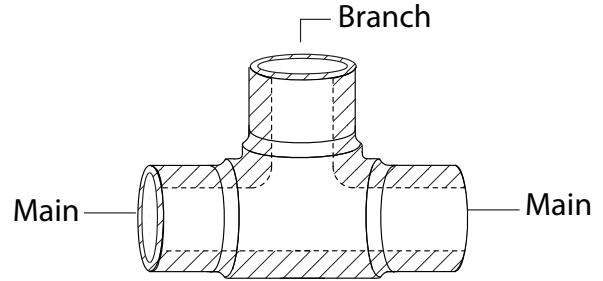
SOCKET FUSION TEES

Available from 3/4" to 2" nominal size.



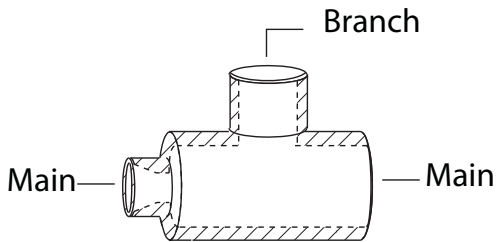
BUTT FUSION MOLDED TEES

Available from 3/4" to 12" nominal size.



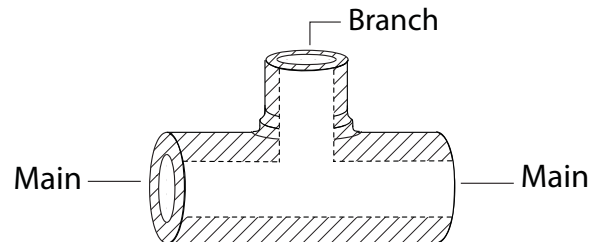
SOCKET FUSION REDUCING TEES

Available from 1" x 1" x 3/4" to 2" x 2" x 1 1/2" nominal size.



BUTT FUSION REDUCING TEES

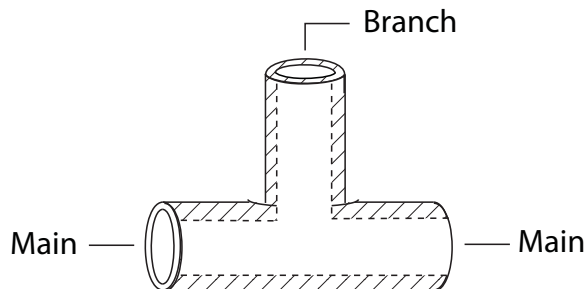
Available from 3" x 2" to 20" x 8" nominal size.



BUTT FUSION FABRICATED TEES - Two and three segment available

Butt x Butt x Butt available from 3" x 3" x 3/4" to 8" x 8" x 4" nominal size.

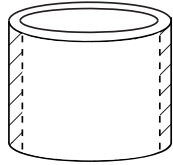
Butt x Butt x Socket available from 3" x 3" x 3/4" to 8" x 8" x 1 1/4" nominal size.



HDPE SOCKET COUPLINGS

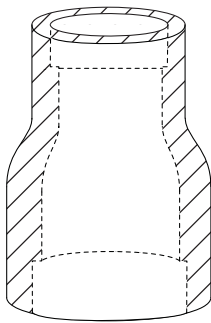
SOCKET FUSION COUPLING

Available from 3/4" to 2" nominal size.



SOCKET FUSION REDUCING COUPLING

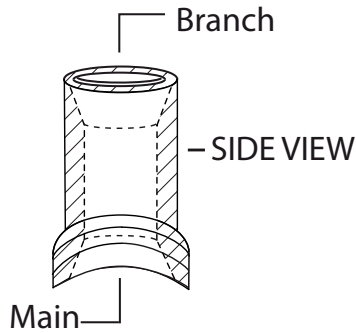
Available from 1" x 3/4" to 2" x 1 1/2" nominal size.



HDPE SOCKET & BUTT SADDLES

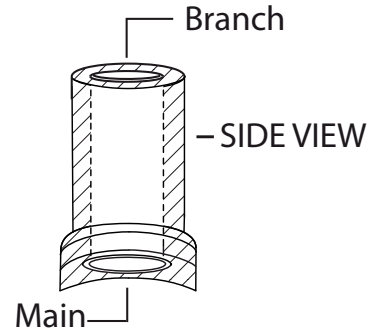
SOCKET FUSION BRANCH SADDLE

Available from 1 1/4" x 3/4" to 8" x 1" nominal size.



BUTT FUSION BRANCH SADDLE

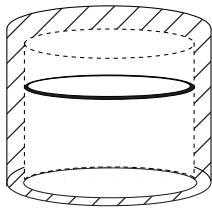
Available from 3" x 2" to 10" x 4" nominal size.



END CAPS

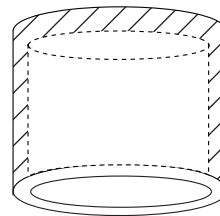
SOCKET FUSION END CAPS

Available from 3/4" to 2" nominal size.



BUTT FUSION END CAPS

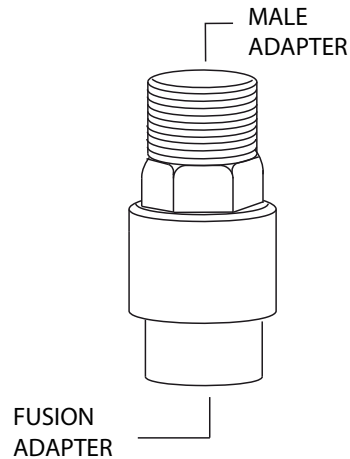
Available from 3/4" to 12" nominal size.



ADAPTERS

Hole Products offers a wide variety of adapters and transition fittings for butt and socket fusion.

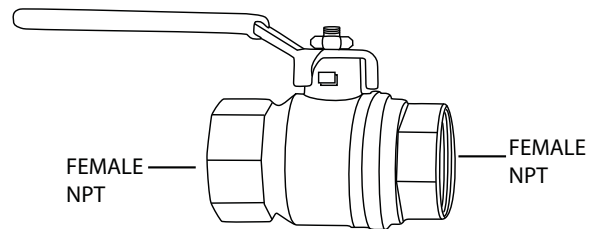
Please call for additional details and ordering assistance.



BALL VALVES

Ball valves are used with manifolds to isolate geothermal loop circuits for purging and filling. If a circuit becomes unusable for any reason, it can be shut off and isolated from the rest of the system.

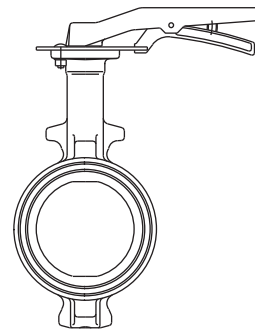
Please call for additional details and ordering assistance.



BUTTERFLY VALVES

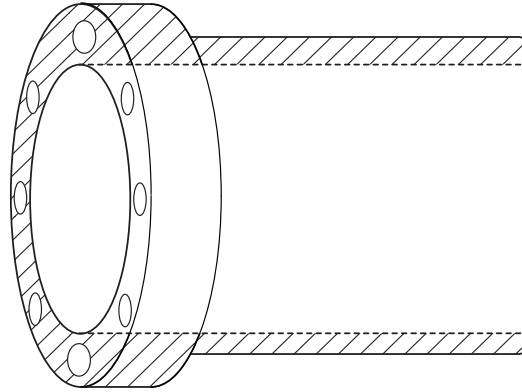
Butterfly valves can be used for isolating or regulating circulation of water. The butterfly valve is composed of two semicircular plates which are hinged on a common spindle, used to permit flow in one direction or the other.

Please call for additional details and ordering assistance.



FLANGE ADAPTERS

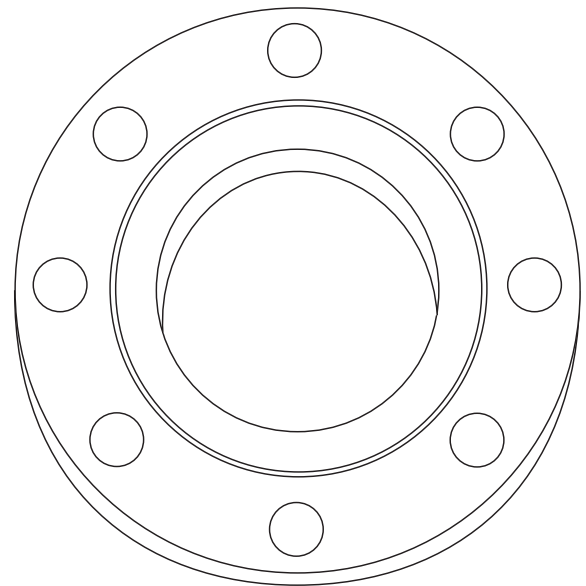
Available from 1 1/4" to 18" nominal size.



BACK UP RINGS

For use with flange adapters.

Available from 2" to 18" nominal size.



STANDARD MANIFOLDS & U-BENDS

Hole Products offers standard manifolds to fit the specifications of any project. Standard manifolds are fully customizable to ensure they meet the requirements of geothermal projects.



EZ FLOW FUSION MANIFOLDS

Hole Products' EZ Flow manifolds allow for multiple branches from one common source, while reducing reverse return issues and maximizing an even balance and flow. EZ Flow manifolds are available in multiple configurations including 3, 4, 5, and 6 zone.



HDPE U-BENDS

U-bends are designed to be fused with HDPE pipe to create loops used in vertical geothermal systems.

HDPE U-BENDS	
PART #	DESCRIPTION
4220072	ASSEMBLY 3/4"
4220111	ASSEMBLY 1"
4221755	ASSEMBLY 1 1/4 "



HDPE ELECTROFUSION FITTINGS



Electrofusion fittings incorporate an electrical heating wire. When activated for a specified period of time by an electrofusion processor, the surface of the pipe and the fitting melt together, thus creating one homogeneous pipe.

Electrofusion is a rapid and simple process that can save time and money when making joints in areas with limited access.

Hole Products offers a large selection of electrofusion fittings, including elbows, tees, couplings, caps, saddles, and more.

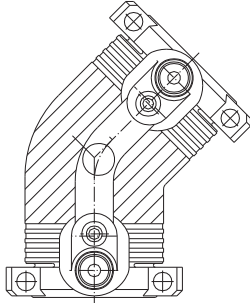
Due to the vast number of HDPE fitting options available, part numbers are not listed in this section.

Please contact your Hole Products representative for product specifications and assistance selecting the fittings properly designed for your specific project application.

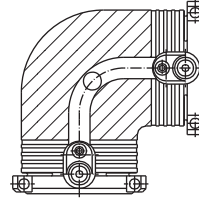
ELECTROFUSION ELBOWS

Available in 1" to 4" nominal size.

45° ELBOWS

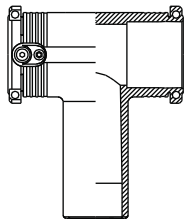


90° ELBOWS



ELECTROFUSION EQUAL TEES

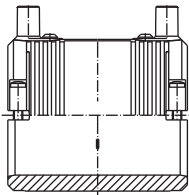
Available in 3/4" to 4" nominal size.



ELECTROFUSION COUPLINGS

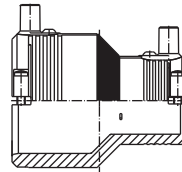
COUPLING

Available in 1" to 12" nominal size.
14" to 24" special order.



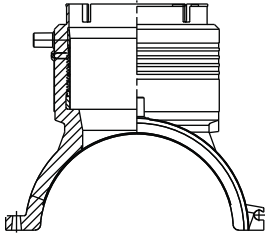
REDUCER COUPLING

Available in 3/4" to 3" nominal size.



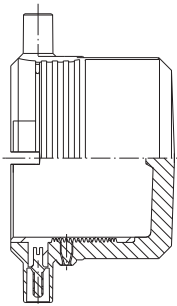
ELECTROFUSION SADDLES

Available in 2" to 12" nominal size.



ELECTROFUSION END CAPS

Available in 1" to 6" nominal size.



FUSION TOOLS & ACCESSORIES



Hole Products offers a complete line of fusion equipment, accessories, and speciality tooling. All fusion equipment is available to purchase or rent.

Overview:

Heat fusion is the process used to join two pieces of thermoplastic pipe. The process involves heating both pieces simultaneously to a specified temperature. When the proper temperature has been reached, the pipes are fused by pressing them together and applying constant and specific pressure. As the two pieces cool under pressure, they bond to form one indistinguishable pipe. When done properly, the fusion joints are as strong as or stronger than the original pipes.

Please contact your Hole Products representative for additional details, product availability, and assistance ordering the fusion equipment designed for your specific application.

NOTE: To ensure quality and safety, only persons properly trained should attempt the heat fusion process.

FUSION TOOLS & ACCESSORIES



Ritmo fusion welders feature an aluminium heating plate and a practical, heat insulated plastic handle.



The Pipe Fuser welder allows for edgewise use of the iron in four locations on the narrow side, also enabling the user to perform saddle fusion there, independent from socket fusion on the face.



McElroy® Socket Tooling will fuse 1/2" CTS to 4" IPS (16mm to 125mm) pipe and is perfect for installing fittings. Select the heater, heater adapter, depth gauge/chamfer tool, and a cold ring tool for your specific application.



McElroy® Sidewinder™ Fusion Machines give you the ability to saddle fuse 4" IPS and smaller branch saddles, tapping tees, and service saddle fittings onto 1 1/4" IPS and larger main sizes. The Sidewinder™ comes in two configurations: the Jaw Clamp and Chain Clamp. Jaw Clamp Sidewinder is used for fusing branch saddles, tapping tees and service saddle fittings onto 1 1/4" to 4" IPS main sizes. The Chain Clamp Sidewinder gives you the ability to fuse onto main sizes larger than 4" IPS. Both Sidewinders™ are DataLogger® compatible.

FUSION TOOLS & ACCESSORIES



The 2LC will butt fuse 1/2" CTS to 2" IPS (16mm to 60mm) pipe. It employs a semi-automatic locking cam (LC) system to maintain force during the cooling cycle. The 2LC incorporates McElroy's patented Centerline Guidance System and is designed to butt fuse tees, ells, and other fittings.



The McElroy® Pit Bull® 14 fuses 1" IPS to 4" DIPS (32mm to 110mm) pipe. It is a compact, lightweight, highly reliable, and rugged machine. The machine incorporates McElroy's patented Centerline Guidance System and is designed to butt fuse tees, ells, and other fittings with consistent, high-quality results. The machine's semi-automatic locking cam system maintains force during the cooling cycle.

FLUSH CARTS

Flush carts are designed for flushing and removing air from closed loop geothermal systems.

Hole Products' flush carts are available to purchase or as daily or weekly rentals.

Please contact your Hole Products representative for additional details and rental availability.



FLOW CENTERS

Hole Products offers a variety of flow centers for geothermal heating and cooling systems. Flow centers are unique for their canister that holds a large volume of water (or anti-freeze mixture) and the suction side of the circulating pump(s). This system allows for the force of gravity to maintain a flooded volute, assuring reliable pump operation. The use of one, two, or even three pumps in series can be utilized to achieve the required level of flow and overcome the frictional loss of the system.

Please contact your Hole Products representative for additional detail.



HEAT TRANSFER FLUIDS

Hole Products offers a full range of glycol, methanol, and ethanol heat transfer fluids. Heat transfer fluids are available as concentrate liquids or premixed solutions with de-ionized water to help prevent corrosion. Whether you require 5 gallons or a complete tanker, we can deliver.

Please contact your Hole Products representative for additional details.

GLYCOL	
PART #	PRODUCT
4220101	GLYCOL PROPYLENE H/T W/ INH 5 GAL
4220100	GLYCOL PROPYLENE H/T W/ INH 55 GAL
4220901	GLYCOL PROPYLENE H/T W/ INH 55 GAL 25% PREMIX
4220900	GLYCOL PROPYLENE H/T W/ INH 55 GAL 30% PREMIX
4221725	GLYCOL PROPYLENE H/T W/ INH 275 GAL
4221730	GLYCOL PROPYLENE H/T W/ INH 275 GAL 25% PREMIX
4221735	GLYCOL PROPYLENE H/T W/ INH 275 GAL 30% PREMIX
4221740	GLYCOL PROPYLENE H/T W/ INH 330 GAL
4221745	GLYCOL PROPYLENE H/T W/ INH 330 GAL 25% PREMIX
4221750	GLYCOL PROPYLENE H/T W/ INH 330 GAL 30% PREMIX




Note: Tanker deliveries for large projects are available. Please contact your Hole Products representative for further assistance.



METHANOL	
PART #	PRODUCT
4220106	METHANOL 5 GAL
4220105	METHANOL 55 GAL




ETHANOL	
PART #	PRODUCT
4220083	ETHANOL W/INH 55 GAL GBIP (APPROVED FOR VERTICAL APPLICATIONS)

THERMALLY ENHANCED GROUTS

Hole Products offers a complete line of thermally enhanced grouts with various thermal conductivity values from industry leading manufacturers including Baroid, Cetco, GeoPro, and more. Additional thermally enhanced grouts and additives are available to meet specific engineering requirements.

BAROID® THERMALLY ENHANCED GROUTS				
	PART #	UNIT SIZE	PRODUCT	PRODUCT DESCRIPTION
	3400140	50 lbs.	BAROTHERM® GOLD	BAROTHERM® GOLD a bentonite material designed for use in grouting boreholes containing ground source heat loops. When combined with silica sand at various concentrations yields grout w/thermal conductivity values ranging between 0.4 and 1.2 BTU/hr • ft • °F (0.69-2.08 watts/m - °C).
	3400142	50 lbs.	BAROTHERM® GOLD 550 1.0	BAROTHERM® GOLD 1.0 a preblended mixture of sodium bentonite and high-purity silica sand designed for grouting boreholes containing ground source heat loops. Thermal conductivity of 1.0 BTU/hr • ft • (1.73 watts/m - °C).
	3400143	50 lbs.	BAROTHERM® GOLD 523 1.2	BAROTHERM® GOLD 1.2 is designed for use in grouting boreholes containing ground source heat loops. Thermal conductivity of 1.2 BTU/hr • ft • (2.08 watts/m - °C).

CETCO® THERMALLY ENHANCED GROUTS				
	PART #	UNIT SIZE	PRODUCT	PRODUCT DESCRIPTION
	3400122	50 lbs.	GEO THERMAL GROUT™	GEO THERMAL GROUT is an easy pumping grout that has been carefully developed to efficiently suspend solids (silica sand) for enhanced thermal conductivity. When combined with silica sand at various concentrations yields grout w/thermal conductivity values ranging between 0.4 and 1.00 BTU/hr • ft • °F (0.68-1.69 watts/m - °C).
	3400240	50 lbs.	HIGH TC GEO THERMAL GROUT™	HIGH TC GEO THERMAL GROUT is an easy pumping grout that has been developed to efficiently suspend solids (silica sand) for enhanced thermal conductivity. When combined with silica sand at various concentrations yields grout w/thermal conductivity values ranging between 0.4 and 1.21 BTU/hr • ft • °F (0.68-2.05 watts/m - °C).

GEOPRO THERMALLY ENHANCED GROUTS				
	PART #	UNIT SIZE	PRODUCT	PRODUCT DESCRIPTION
	3400090	50 lbs.	BH 20 GROUT	BH 20 GROUT mixed as a 20% - 25% solids grout, BH20 sets into a semi-rigid plug well suited for sealing well casings, decommissioning abandoned wells, and for geothermal heating and cooling systems. Thermal conductivity of 0.40 - 0.42 BTU/hr • ft.
	3400095	50 lbs.	THERMAL GROUT LITE	THERMAL GROUT LITE is designed to optimize the performance of ground heat exchangers for the geothermal heating and cooling industry. Thermal conductivity of 0.45 - 1.00 BTU/hr • ft.
	3400100	50 lbs.	THERMAL GROUT SELECT	THERMAL GROUT SELECT is designed to optimize the performance of ground heat exchangers for the geothermal heating and cooling industry. Thermal conductivity of 0.45 - 1.20 BTU/hr • ft.

SILICA SAND

Hole Products offers a full line of premium quality silica sands available in 50 lb. or 100 lb. bags and 3,000 lb. super sacks. Silica sand is combined with geothermal grout at various concentrations to help yield a specific thermal conductivity rating.

Bulk dump loads and additional sand sizes are available on request.

SILICA SAND		
PART #	UNIT SIZE	PRODUCT
3500043	50 lbs.	4030 SILICA SAND
3500135	100 lbs.	4030 SILICA SAND
3500046	3,000 lb. SUPER SACK	4030 SILICA SAND
3500140	50 lbs.	4070 SILICA SAND
3500145	100 lbs.	4070 SILICA SAND
3500150	3,000 lb. SUPER SACK	4070 SILICA SAND
3500003	50 lbs.	5010 SILICA SAND
3500155	100 lbs.	5010 SILICA SAND
3500097	3,000 lb. SUPER SACK	5010 SILICA SAND
3500044	50 lbs.	5020 SILICA SAND
3500160	100 lbs.	5020 SILICA SAND
3500165	3,000 lb. SUPER SACK	5020 SILICA SAND
3500040	50 lbs.	5030 SILICA SAND
3500170	100 lbs.	5030 SILICA SAND
3500045	3,000 lb. SUPER SACK	5030 SILICA SAND
3500175	50 lbs.	5040 SILICA SAND
3500039	100 lbs.	5040 SILICA SAND
3500180	3,000 lb. SUPER SACK	5040 SILICA SAND



ACCESSORIES



Hole Products offers a complete line of premium quality geothermal accessories including GeoClips® , pipe cutters, underground detectable tape, tracer wire, loop conditioner, test caps, and much more, backed by our unparalleled service and support.

Accessories listed in the catalog are representative of the most common industry sizes and styles. If your project requires geothermal accessories not shown, we can get them.

Please contact your Hole Products representative for additional details.

GEOCLIPS®

GeoClips® are used to space piping in a manner that maximizes the effectiveness of heat transfer rate.

GEOCLIPS®	
PART #	DESCRIPTION
4221760	3/4"
4221765	1"
4221770	1 1/4"



RATCHET CUTTERS

Ratchet cutters reduce the amount of hand force required to cut through hard plastic material, providing a clean square cut.

RATCHET CUTTER		
PART #	DESCRIPTION	CAPACITY
4220013	RATCHET ACTION PLASTIC PIPE & TUBING CUTTER - RC 1625	1/2" - 1 5/8"
4220014	RATCHET CUTTER REPLACEMENT BLADE - RC 1625	-----
5151029	RATCHET ACTION PIPE & TUBING CUTTER - RC 2375	1/2" - 2 3/8"
4221775	RATCHET CUTTER REPLACEMENT BLADE - RC 2375	-----



SINKER BARS

Sinker bars are used to assist installers in lowering geothermal loops to the bottom of the borehole. Sinker bars are often necessary to lower loops through highly viscous drilling fluids or difficult ground conditions.

SINKER BARS		
PART #	NOMINAL SIZE	WEIGHT
4220500	1" X 10'	30 lbs.
4220501	1" X 25'	72 lbs.

UNDERGROUND DETECTABLE TAPE

Detectable tape is magnetic and is used for detecting and identifying buried geothermal lines. The tape is installed over the geothermal lines and bears a printed label identifying geothermal lines.

UNDERGROUND DETECTABLE TAPE	
PART #	NOMINAL SIZE
4221780	2" X 1,000'
4221785	3" X 1,000'
4221790	6" X 1,000'

TRACER WIRE

Tracer wire is used to detect, and locate geothermal lines in the event they need to be found.

Hole Products offers tracer wire with a variety of jacket colors, tensile strengths, and multiple lengths.

TRACER WIRE			
PART #	JACKET COLOR	TENSILE STRENGTH	LENGTH
2810163	BLUE	1,150 lbs.	500'
2810162	BLUE	1,150 lbs.	2,500'
2810161	GREEN	1,150 lbs.	500'
2810160	GREEN	1,150 lbs.	2,500'



LOOP CONDITIONER

Geothermal loop conditioner can be used to effectively seal leaks in the system or as preventative maintenance. Loop conditioner coats the surfaces it comes in contact with, thus reducing the formation of rust and corrosion.

LOOP CONDITIONER	
PART #	DESCRIPTION
4220755	8 OZ BOTTLE
4221795	1 CASE (12 - 8OZ BOTTLES)

TEST CAPS

Pressure testing of every thermo-loop and header is an important part of any geothermal job. Hole Products can supply you with a full line of test sizes from 3/4" to 3" IPS. Caps are constructed of corrosion resistant material, reusable, and designed for fast and easy air pressure testing.

ALUMINIUM TEST CAP			
PIPE SIZE	COMPLETE UNIT	O-RING	LANYARD ASSY
3/4"	4220062	4221810	4221835
1"	4220073	4221815	4221840
1 1/4"	4220060	4221820	4221845
1 1/2"	4221800	4221825	4221850
2"	4221805	4221830	4221855
3"	4221900	4221905	4221910



GEOPLASTIC TEST CAP		
PIPE SIZE	COMPLETE UNIT	O-RING
3/4"	4220502	4221860
1"	4220503	4221865
1 1/4"	4220504	4221870
1 1/2"	4220505	4221875
2"	4220506	4221880
3"	4220507	4221885



