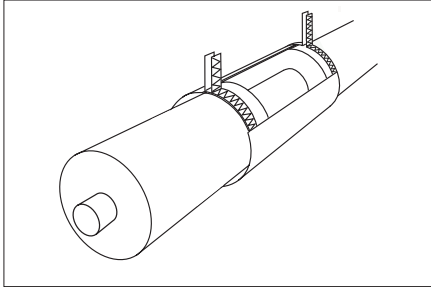


General information

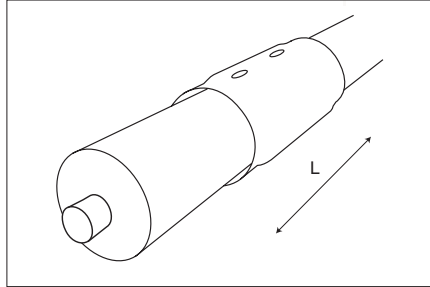
The field joints of preinsulated district heating pipes can be divided into 3 different types:



Electro welding joint

Electro welding joint

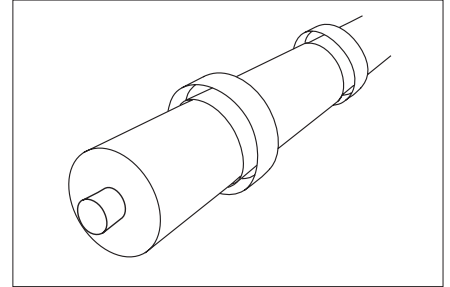
Power Weld is developed to resist even very severe physical loads. The joint consists of a longitudinally cut oversized extruded HDPE casing pipe. This casing is welded together with the preinsulated pipe casing around its periphery by feeding electric power to a resistance net placed between the preinsulated pipe casing and the HDPE joint casing. The longitudinal split is closed using an extruder weld. The installation is executed by specially trained staff.



Heat-shrinkable casing

Heat-shrinkable casing

A heat-shrinkable, tubular all-in-one joint gives casing pipe continuation and permanent sealing of the joint area. Can be used in combination with heat-shrinkable sleeves as additional outside sealing. The casing is produced in PEX or HDPE-material.

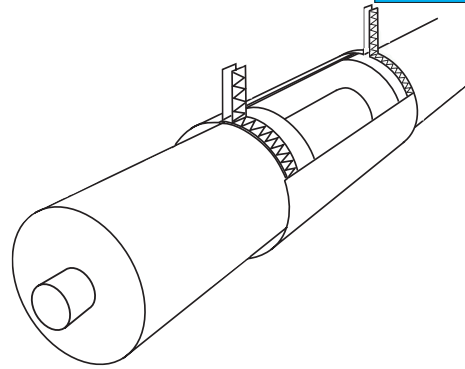


Oversized casing

Oversized casing

An oversized casing as pipe continuation installed together with heat-shrinkable sleeves as joint sealing. The sleeves can be either wraparound or tubular.

Electro welded joint Powerweld



POWERWELD, 6112

Powerpipe electro welded joint is based on the use of an extruded longitudinally spliced PEH casing which has the same physical data as the jacket pipe of the preinsulated pipe. This joint casing is applied to the jacket pipe after first a resistance net has been fitted around the periphery of jacket pipe. An outside pressure is applied to the casing joint and an electric power is fed to the resistance net. In this way the casings will melt together in a controlled process. Finally the longitudinal splice is closed using a special designed extruder welding equipment.

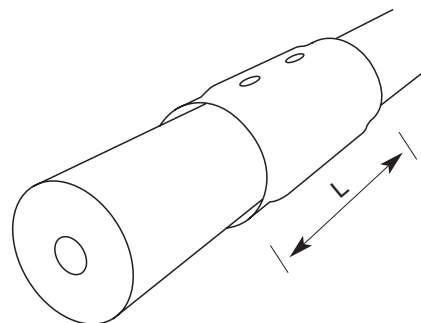
Joint set Power Weld

Article No.	Dimension PEH Jacket pipe (mm)	Lenght (mm)
6112-OD jacket pipe	90-1000	700

An example of how to order:

Power weld for a preinsulated pipe DN500 in 710 mm jacket pipe (Series 2),
Article No. 6112-710-000-000

Heat-shrinkable casing, PEX



POWERJOINT, 6362

Powerjoint is a heat-shrinkable oversized casing constructed of multiple, irradiation-crosslinked, high density polyethylene layers. A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch and due to the crosslinked material, both shrinking behaviour and shrink forces are predicted and controlled.

The shrinkable casing can be used in combination with heat-shrinkable tubular casing (art No. 6210) as additional outside sealing.

The joint is pressure tested after cooling and the holes are welded after foaming.

JOINT KIT POWERJOINT expanded casing PEX

Art No.	Nominal Jacket pipe OD (mm)	L (mm)	Casing as supplied ID min (mm)	Casing fully recovered ID max (mm)
6362-090	90	700	103	90
6362-110	110	700	125	110
6362-125	125	700	140	125
6362-140	140	700	156	140
6362-160	160	700	177	160
6362-180	180	700	197	180
6362-200	200	700	218	200
6362-225	225	730	244	212
6362-250	250	730	270	230
6362-280	280	730	300	256
6362-315	315	730	335	285
6362-355	355	730	378	327
6362-400	400	730	425	366
6362-450	450	730	478	413
6362-500	500	730	530	460
6362-560	560	730	592	510
6362-630	630	730	672	592
6362-710	710	730	755	665

Article No.

6362 – OD jacket pipe-000-000

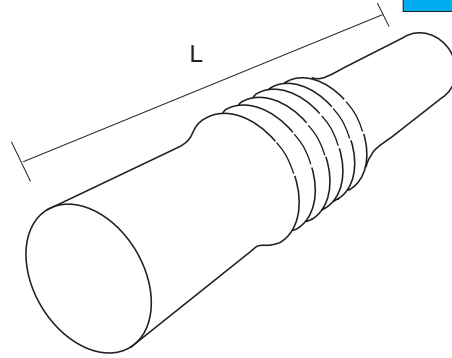
An example of how to order:

Powerjoint for a pre-insulated pipe DN80 in 180 mm jacket, Article No. 6362-180-000-000



Heat shrinkable flexible joint (kit)

PEX



DOUBLE SEALING FLEXIBLE SLEEVE, 6200, 6500

Flexible joint is a heat-shrinkable flexible casing constructed of multiple, irradiation-crosslinked, high density polyethylene layers. A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch and due to the crosslinked material, both shrinking behaviour and shrink forces are predicted and controlled.

The powerjoint is pressure tested after cooling and the holes are welded after foaming.

Double sealing flexible joint (kit)

Article no.	HDPE jacket pipe OD [mm]	Diameter as supplied Di [mm]	Radius steel bend [mm]	Length [mm]
6200-090	90	103	200	1000
6200-110	110	125	200	1000
6200-125	125	140	200	1000
6200-140	140	156	240	1100
6200-160*)	160	177	240	1100
6200-180*)	180	197	240	1100

Double flexible sleeve (kit) are available for Series 2 and double pipe as standard.

Article no.

6200 - DN steel pipe - Dy jacket pipe - 000 single pipe includes steel pipe bend, spacer, shrink sleeve and plug.

6500 - DN steel pipe - Dy jacket pipe - 000 double pipe includes steel pipe bend, spacer, shrink sleeve and plug.

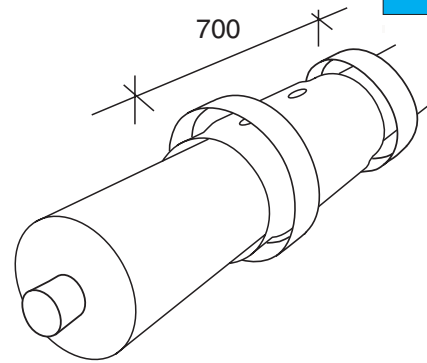
*) Please observe: Can be used for deflection 0-45°.

An example how to order:

Flexible sleeve (kit) to double pipe DN 2 x 40/160 including details as above has article no 6500-040-160-000.

Double sealing shrinkable casing (kit)

HDPE



DOUBLE SEALING SHRINKABLE CASING, 6364

Double sealing shrinkable casing is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch. The additional use of shrink sleeves make the joint double sealed.

The joint is pressure tested after cooling and the holes are welded after foaming.

JOINT KIT

Article no.	Nominal jacket pipe OD [mm]	Casing as supplied OD [mm]	Tubular/open sleeve width [mm]	
6364-090	90	103	150	
6364-110	110	125	150	
6364-125	125	140	150	
6364-140	140	156	150	
6364-160	160	177	150	Open sleeve
6364-180	180	197	150	
6364-200	200	218	150	
6364-225	225	244	150	
6364-250	250	269	150	
6364-280	280	300	150	
6364-315	315	336	225	
6364-355	355	377	225	
6364-400	400	425	225	
6364-450	450	474	225	
6364-500	500	530	225	
6364-560	560	590	225	
6364-630	630	660	300	
6364-710	710	749	300	Open sleeve
6364-800	800	838	300	
6364-900	900	949	300	

Article no.

6364 - OD jacket pipe-140-000 for repair includes two pcs tubular open shrink sleeve.

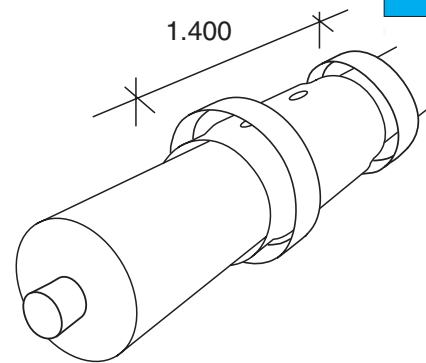
An example how to order:

Double sealing shrinkable casing to DN 80/180 has article no. 6364-180-140-000.

Separate mastic strip (width = 70 mm; lenght = 30 m) has article no. 6550-004-000-000

Double sealing shrinkable casing (repairkit)

HDPE



DOUBLE SEALING SHRINKABLE CASING FOR REPAIR, 6364

Double sealing shrinkable casing is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch. The additional use of shrink sleeves make the joint double sealed.

The joint is pressure tested after cooling and the holes are welded after foaming.

Minimum thickness of goods of the repair casing is 4,5 mm.

REPAIR KIT

Article no.	Nominal jacket pipe OD [mm]	Casing as supplied OD [mm]	Tubular/open sleeve width [mm]
6364-090	90	103	150
6364-110	110	125	150
6364-125	125	140	150
6364-140	140	156	150
6364-160	160	177	150
6364-180	180	197	150
6364-200	200	218	150
6364-225	225	244	150
6364-250	250	269	150
6364-280	280	300	150
6364-315	315	336	225

Repair kit article no.

6364 - OD jacket pipe-140-000 for repair includes two pcs tubular open shrink sleeve.

An example how to order:

Double sealing shrinkable casing to DN 80/180 has article no. 6364-180-140-000.

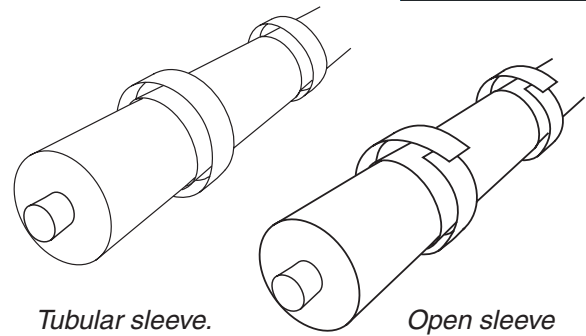
Separate mastic strip (width = 70 mm; length = 30 m) has article no. 6550-004-000-000

JOINTS

6:301

PEH oversized casing

with shrinking sleeve



HDPE OVERSIZED CASING INCLUDING SHRINKING SLEEVE 6310 (6110 + 2 PCS 6210/6240)

Extruded HDPE casing. Casing length 700 mm unless otherwise indicated. The shrinking sleeve has an internal cover of mastic which gives high peel strength.

Article no.	To be used for jacket pipe with OD (mm)	OD PEH casing sleeve [mm]	Sleeve width [mm]
6310-090	90	110	225
6310-110	110	125	225
6310-125	125	140	225
6310-140	140	153	225
6310-160	160	174	225
6310-180	180	193	225
6310-200	200	215	225
6310-225	225	242	225
6310-250	250	267	225
6310-280	280	299	225
6310-315	315	336	300
6310-355	355	377	300
6310-400	400	425	300
6310-450	450	477	300
6310-500	500	533	300
6310-560	560	595	300
6310-630	630	666	300
6310-710	710	750	300
6310-800	800	846	300
6310-900	900	947	300

Article No.

6310 – OD of preinsulated jacket pipe-000-000 includes HDPE casing and 2 pcs shrinking sleeves.

An example of how to order:

A HDPE casing includes 2 pcs shrinking sleeve for a preinsulated pipe DN80 in 180 mm jacket, Article No. 6310-180-000-000

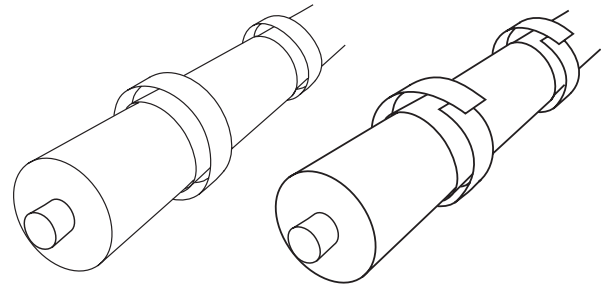
Please observe:

Needed wedge Art. no. 6550 (page 8:104) has to be ordered separately.

JOINTS

6:302

Tubular and open shrinking sleeve



Tubular sleeve.

Open sleeve

TUBULAR SHRINKING SLEEVE 6210, OPEN SHRINKING SLEEVE 6240

The **shrinking sleeves** are internal covered with mastic and has a high peel strength. The shrink sleeves are wrapped in a cover protecting from contamination.

The **open sleeve** is connected with a closural seal. The sleeve is delivered pre cut in a cover.

Article no.	OD jacket [mm]	OD casing [mm]	Width [mm]		Width [mm] Other sleeves Tubular/Open	Shrink ratio	
			Double sealing Tubular	Open		Tubular*	Open
6210- 90	90	110	150		225	121/81	25%
6210-110	110	125	150		225	141/93	25%
6210-125	125	140	150		225	156/104	25%
6210-140	140	153	150		225	172/127	25%
6210-160	160	174	150		225	196/153	25%
6210-180	180	193	150		225	215/150	25%
6210-200	200	215	150		225	230/170	25%
6210-225	225	242	150		225	255/190	25%
6210-250	250	267	150		225	300/225	25%
6210-280	280	299	150		225	340/255	25%
6210-315	315	336	225		300	380/285	25%
6210-355	355	377	225		300	405/325	25%
6210-400	400	425	225	225	300	460/360	25%
6210-450	450	477	225	225	300	510/410	25%
6210-500	500	533	225	225	300	565/450	25%
6210-560	560	595	225	225	300	605/490	25%
6240-630	630	666		300	300		25%
6240-710	710	750		300	300		25%
6240-800	800	846		300	300		25%
6240-900	900	947		300	300		25%

* Original / shrunked condition D [mm] / D [mm]

Tubular shrink sleeve article no.
6210-OD jacket pipe-000-000

An example of how to order:
Tubular shrink sleeve DN 80/180 has art. no. 6210-180-000-000.

Open shrink sleeve article no.
6240-OD jacket pipe-000-000

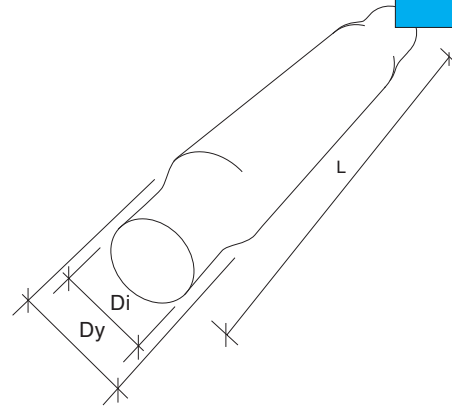
An example of how to order
Open shrink sleeve DN 200/400 has art. no. 6240-400-000-000.

Please observe; 2 pcs shrnking sleeve are needed for 1 pc casing.

JOINTS

6:303

Casing for single use compensator and valve (kit)



EXTENDED CASING OF DOUBLE SEALING TYPE, 6113

The **Extended casing** is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch. The additional use of shrink sleeves make the joint double sealed.

The joint is pressure tested after cooling and the holes are welded after foaming.

Jacket pipe CD [mm]	Sleeve Di [mm]	Sleeve Dy [mm]	Sleeve length [mm]	Sealing width [mm]
110	125	140	1150	150
125	140	160	1150	150
140	156	180	1200	150
160	177	200	1200	150
180	197	225	1250	150
200	218	250	1250	150
225	244	280	1330	150
250	269	315	1400	150
280	300	355	1400	150
315	336	400	1430	225
355	377	450	1430	225
400	425	500	1430	225
450	474	560	1500	225
500	530	637	1500	225
560	590	710	1500	225

The **HDPE casing** is shrinkable in both ends.

Extended casing of double sealing type Article no.

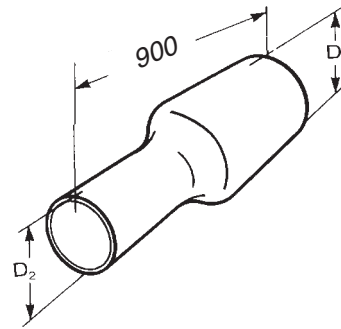
6113 - OD jacket pipe-000-000 includes 2 pcs shrinking sleeves.

An example of how to order:

Extended casing for DN 200/355 (Serie 2) Art. no. 6113-355-000-000.

Reduction casing kit

The reduction casing is made of HDPE and used to connect two distr. heating jacket pipes in different dim.



REDUCTION CASING OF DOUBLE SEALING TYPE, 6124

Reduction casing is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch. The additional use of shrink sleeves make the joint double sealed.

The joint is pressure tested after cooling and the holes are welded after foaming.

Article no.	Jacket pipe [mm]	Casing pipe D ₁ -D ₂ [mm]	Length [mm]
6124-125-110	125 - 110	140 - 125	900
6124-140-125	140 - 125	156 - 140	900
6124-160-140	160 - 140	177 - 156	900
6124-180-160	180 - 160	197 - 177	900
6124-200-180	200 - 180	218 - 197	900
6124-225-200	225 - 200	244 - 218	900
6124-225-180	225 - 180	269 - 244	900
6124-250-225	250 - 225	300 - 269	900
6124-315-280	315 - 280	336 - 300	900
6124-355-280	355 - 280	377 - 300	900
6124-400-355	400 - 355	476 - 377	900
6124-450-355	450 - 355	476 - 377	900
6124-500-450	500 - 450	528 - 476	1100
6124-560-500	560 - 500	591 - 528	1100
6124-630-500	630 - 500	663 - 520	1200
6124-710-630	710 - 630	746 - 663	1200
6124-800-710	800 - 710	839 - 746	1200

Reduction with two steps and in other lengths are non-standard and made upon special request only.

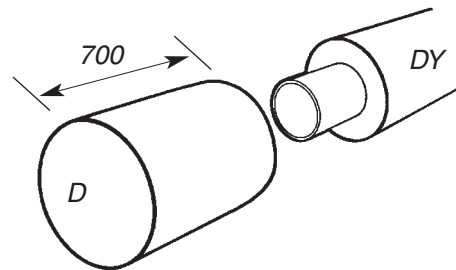
Article no.

6124-D1-D2-000 includes 1 pce casing and 2 pcs shrinking sleeves.

An example of how to order:

Reduction casing including 2 pcs shrinking sleeves to DN 80/180-65/160 has article no. 6124-180-160-000.

Termination casing kit



TERMINATION CASING 6134

The **termination casing** is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch. The additional use of shrink sleeves make the joint double sealed.

The joint is pressure tested after cooling and the holes are welded after foaming.

The casing can, as an alternative be insulated with halv shells.

Article no.	Jacket pipe DY [mm]	Termination casing D [mm]
6134-110	110	122
6134-125	125	138
6134-140	140	155
6134-160	160	177
6134-180	180	196
6134-200	200	216
6134-225	225	245
6134-250	250	271
6134-280	280	299
6134-315	315	339
6134-355	355	380
6134-400	400	428
6134-450	450	477
6134-500	500	530
6134-560	560	590
6134-630	630	660
6134-710	710	749
6134-800	800	838
6134-900	900	949

Article no.

6134-DY-000-000 shrinkable termination casing including shrinkable sleeve.

An example of how to order:

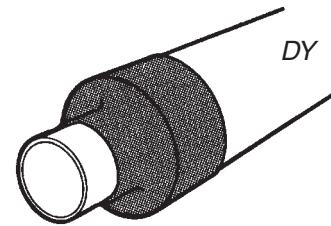
Termination casing with shrinkable sleeve DN 80/180 article no. 6134-180-000-000.

Half shell to termination casing see 8:104 Art. no 9604

Art.no. 9604-DN steel pipe-thickness of shell-000

End cap

Heat-shrinkable district heating end cap is installed at the pipe end and used to protect the thermal insulation between jacket and service pipes. It is coated with an adhesive, specially designed for performance at high temperature conditions.



END CAP, 6291, 6292

The end caps are available for jacket pipe dimensions 90–500 mm

Single pipe			Double pipe		
Article no.	Steel pipe OD [mm]	Jacket pipe OD [mm]	Article no.	Steel pipe OD [mm]	Jacket pipe OD [mm]
6291- 010	30– 10	105– 47	6292-060	48–24	200–135
6291- 020*	30– 15	140– 75	6292-070	60–24	235–135
6291- 030	40– 24	105– 75	6292-090	85–55	250–175
6291- 040	55– 24	135– 75			
6291- 050*	60– 24	148– 75			
6291- 060	60– 30	175–135			
6291- 070*	90– 40	150– 90			
6291- 080*	95– 50	195–130			
6291- 090	145– 68	240–145			
6291- 100*	150– 68	270–145			
6291- 110	180–120	295–220			
6291- 120	255–120	360–220			
6291- 130	280–200	420–340			
6291- 140*	415–200	540–340			

Article No.

6291 – OD jacket pipe-000-000 for single pipe

6292 – OD jacket pipe-000-000 for double pipe

An example of how to order:

An end cap for a preinsulated pipe DN80 in 180 mm jacket(Series 2) has article no. 6291-180

Hot tapping T-joint with or without a valve

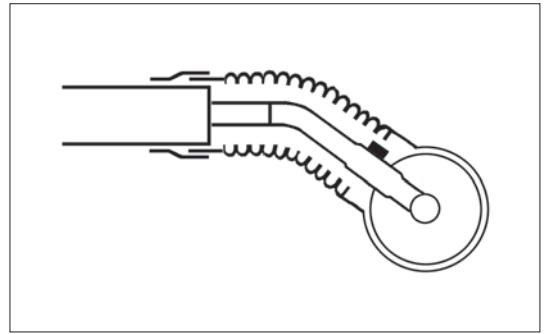
Powerpipe offers a complete system for installation of hot tapping T-joints.

Details and instructions are available for

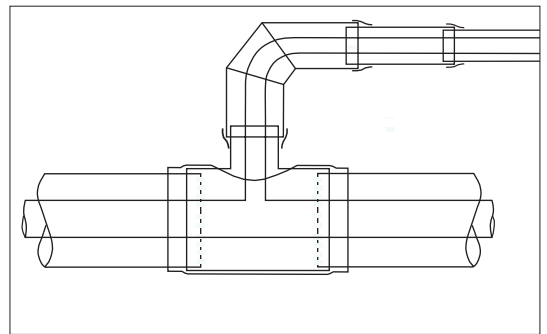
- 45° branches Single pipe DN20-DN80
- Parallel branches Single pipe DN20-DN40
- Branches Double pipe DN20-DN100

All details for hot tapping T-joints are delivered as double sealing system.

The casing to the main pipe is cut in axial direction before entering main pipe. The cut in the casing is extruder welded. After shrinking the casing the sleeves are installed.



Ordinary 45° T-joint

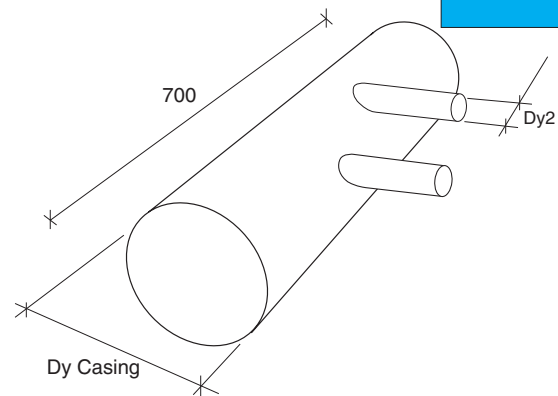


Parallel T-joint

JOINTS

6:602

T-joint for connecting single pipe to double pipe



T-JOINT DOUBLE/SINGLE, 6535

T-joint double/single is a shrinkable casing made of HDPE. A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. The splitted main casing is extruder welded and shrunk with a gas torch. The joint is pressure tested after cooling and the holes are welded after foaming.

DN / OD (Dy1) main pipe	Dy casing [mm]	Dy branch (Dy2) [mm]	Dy connection [mm]
2 x 25 / 140	174	75	90
2 x 25 / 140	174	90	110
2 x 32 / 160	193	110	125
2 x 40 / 160	193	125	140
2 x 50 / 200	242	140	153
2 x 65 / 225	267	160	174
2 x 80 / 250	299		
2 x 100 / 315	377		
2 x 125 / 400	477		
2 x 150 / 450	533		
2 x 200 / 560	660		

Article no.

6535-Dy1-Dy2-000 includes a shrinkable casing, two tubular shrinking sleeves and two open shrinking sleeves.

An example of how to order:

T-joint double/single including 2 tubular and 2 open sleeves DN 2x80/250 and branch DN 25/90 has article no. 6535-250-090-000.

Please observe:

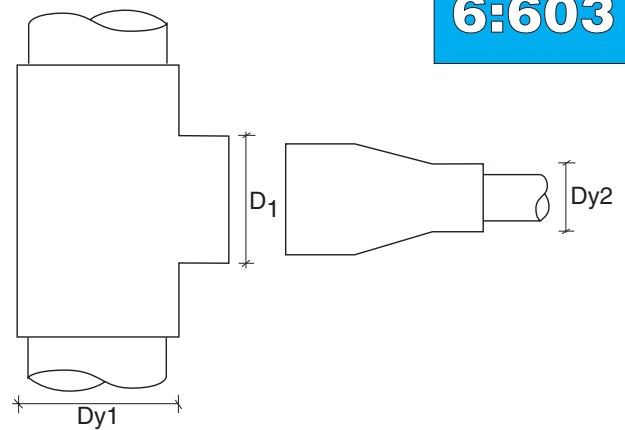
The branch has to be of a smaller dimension than the main pipe.

JOINTS

6:603

T-joint for connecting double pipe to double pipe

Double sealing type



T-JOINT DOUBLE/DOUBLE, 6530

T-joint double/double is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch. The additional use of shrink sleeves make the joint double sealed.

The joint is pressure tested after cooling and the holes are welded after foaming.

Dy1 = Outer diameter, main pipe in mm

Dy2 = Outer diameter, branch in mm

Article no.

6530-Dy-Da-000 includes a shrinkable casing, two tubular and two open shrinkable sleeves.

An example of how to order

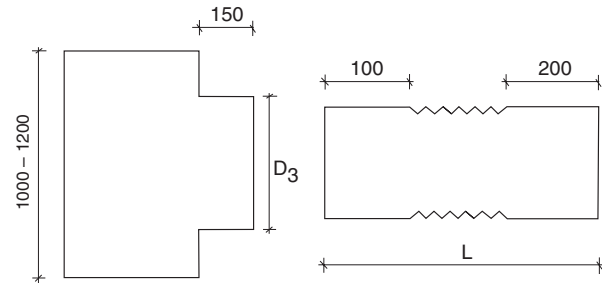
T-joint Double/Double for main pipe DN 2x100/315 and branch DN 2x50/200 has article no. 6530-315-200-000.

JOINTS

6:604

T-joint, 45° flexible, for branches ≤ OD 140

Double sealing type



T-JOINT, 45° FLEXIBLE, 6540

T-joint, 45° flexible is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch. The additional use of shrink sleeves make the joint double sealed.

The joint is pressure tested after cooling and the holes are welded after foaming.

Main pipe jacket Dy1	Branch jacket [mm] Dy2									
	75		90		110		125		140	
[mm]	D ₃	L	D ₃	L	D ₃	L	D ₃	L	D ₃	L
90	103	690	125	690						
110			125	690	140	690				
125			125	690	156	820	150	820		
140			125	690	156	820	177	820	177	820
160			125	690	156	820	177	820		
180			125	690	156	820	177	820		
200-710			125	690	156	820	177	820		

Please observe!

The flexible part of the casing needs a carefully made heating to be flexible. There is space for installing a hot tapping valve (Naval) for Series 2 and Series 3. The installed steelbend shall have radius of 5s or bigger.

Article no.

6540-6540-D₁-D₂-000 includes a shrinkable casing and two tubular and two open shrinkable sleeves.

An example of how to order:

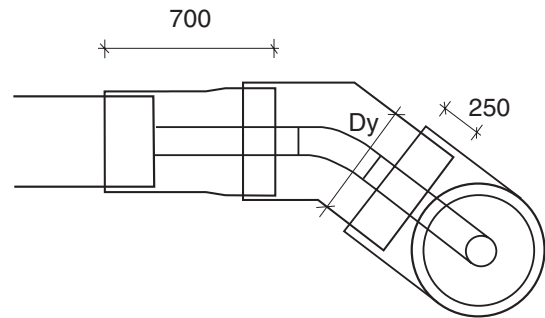
T-joint, 45°, flexible including two tubular and two open shrinkable sleeves for main pipe DN 400/630 and branch DN 80/180 has article no. 6540-630-180-000.

JOINTS

6:605

T-joint, 45° for branches ≥ OD 160

Double sealing type



T-JOINT, 45°, 6540

T-joint 45° is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the casing. Installation is made with a gas torch. The additional use of shrink sleeves make the joint double sealed. The joint is pressure tested after cooling and the holes are welded after foaming.

Main pipe jacket Dy1 [mm]	Branch jacket [mm] Dy2					
	140	160	180	225	250	280
	Dy [mm]	Dy [mm]	Dy [mm]	Dy [mm]	Dy [mm]	Dy [mm]
160	200					
180	200	225	250			
200	200	225	250			
225	200	225	250	280		
250	200	225	250	280		
280	200	225	250	280	355	
315	200	225	250	280	355	
355 - 710	200	225	250	280	355	355

Dimensions are adopted to hot tapping valves (Naval) for Series 2 and Series 3.

Article no.

6540-Dy₁-Dy₂-000 includes shrinkable main casing, 45° knee, reduction, three tubular and two open shrink sleeves.

An example of how to order:

T-joint for main pipe DN 400/630 and branch DN 200/355 has article no. 6540-630-355-000.

Please observe:

The branch has to be of a smaller dimension than the main pipe.

Please see 8:203 regarding need of foaming liquids!