

## Overview

### Welding joint

A welding connection of the Jacket pipe on a District heating pipe means that PEH-materials in the pipe and sleeve are welded together at the touching surfaces.

#### Welding joint, Mittel

The sleeve consists of a slotted sleeve which are welded to the jacket pipe and extruder-welded longitudinally.

#### Welding joint, Shrink

The sleeve consists of a sleeve of PEH that first shrinks against the jacket pipe and then is welded to the pipe.

### Shrinkable casing

Shrinkable casing is a bond between the jacket pipes where the sleeve by shrinkage is joining the jacket pipe and produces a seal/power transmission. The seal consists of a layer of mastic between the sleeve and the pipe.

#### Double expanding PEH

The shrink sleeve is made of PEH and expanded in two stages.

#### Shrinkable casing, PEH, double sealing

The casing is made of PEH and is always fitted with shrink sleeves as an extra seal and are then called double sealing.

#### Shrinkable casing, PEX

The casing is made of PEX. This casing can be used without heat shrink sleeves.

### Oversized casing

Oversized casing is a bond between the jacket pipes where the sealing between the casing and pipe consists of shrinkable sleeves.

Oversized casing are primarily used at low density requirements. For example indoor.

### Material Requirements

- Casing
- Welding sleeve
- Welding plugs

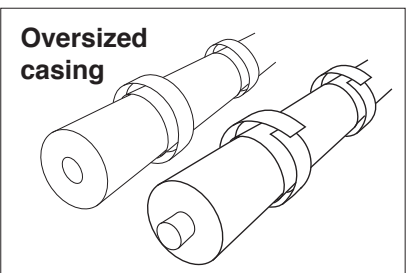
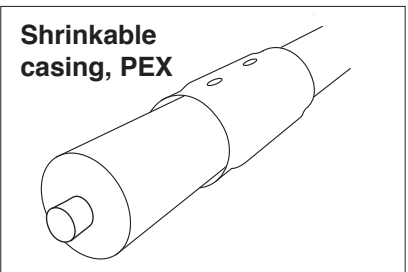
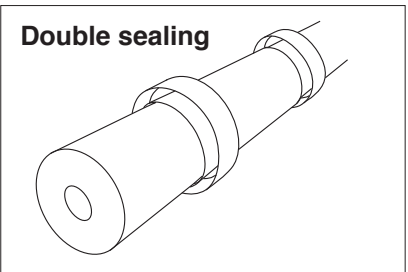
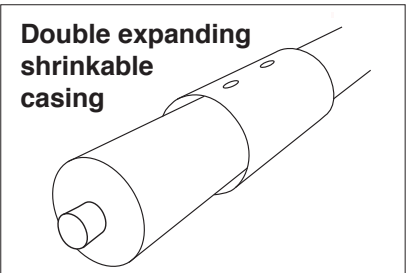
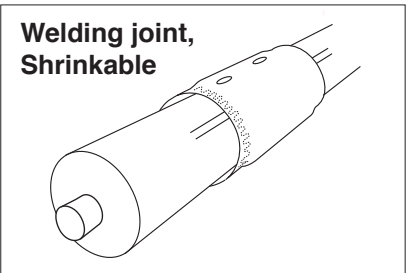
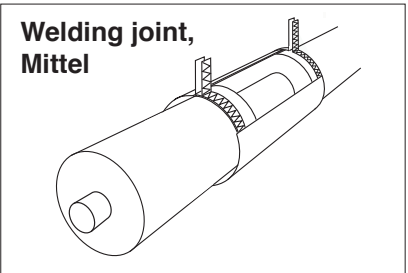
- Casing
- Welding sleeve
- Welding plugs

- Shrink casing DX
- Extra wide mastic band
- Welding plugs
- Fops

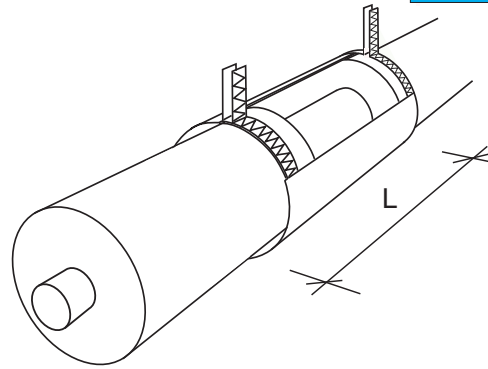
- Shrink casing DTK
- Mastic band
- Shrinkable sleeve
- Welding plugs
- Fops

- Shrink casing PEX
- Mastic band
- Welding plugs
- Fops

- Oversized casing
- Wedger
- Shrinkable sleeve
- Welding plugs
- Fops



## Electro welded joint Mittel



### ARTICLE NO 6110

Powerpipe offers a joint made by Mittel AB. The method involves a slotted sleeve assembled to the district heating pipe, which is surrounded by a conductive metal net. Connecting surfaces are welded together under pressure and under controlled temperature conditions. Finally, the longitudinal slit is welded together by a specially designed extruder equipment. The joint can be pressure tested before foaming.

### Joint set, Mittel

Article No.	Dim PEH jacket pipe [mm]
-------------	-----------------------------

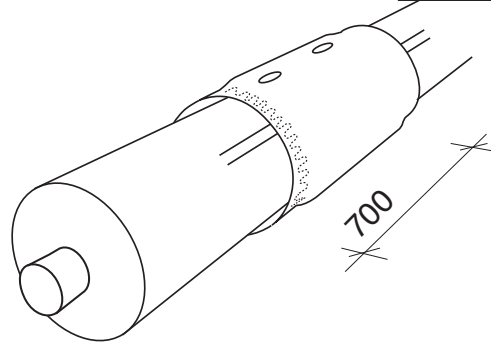
6110-DY jacket pipe	90-1000
---------------------	---------

For dimensions  $\text{Ø}500$  and bigger the joint is delivered slotted.

#### An example of how to order:

Welding joint set, Mittel for DN 500/710 (series 2)  
has Article No. 6110-710-000-000.

## Welding joint, shrinkable



### ARTICLE NO 6112

Powerpipe offers a joint named Welding joint, shrinkable. The method involves a shrinking sleeve assembled to the district heating pipe, which is surrounded by a conductive metal net between sleeve and jacket pipe. Connecting surfaces are, after the shrinking process welded together under pressure and under controlled temperature conditions. The joint can be pressure tested before foaming.

### Joint set Welding joint, shrinkable

Article No.	Dim PEH jacket pipe [mm]
-------------	-----------------------------

6112-DY jacket pipe	225-1000
---------------------	----------

#### An example of how to order:

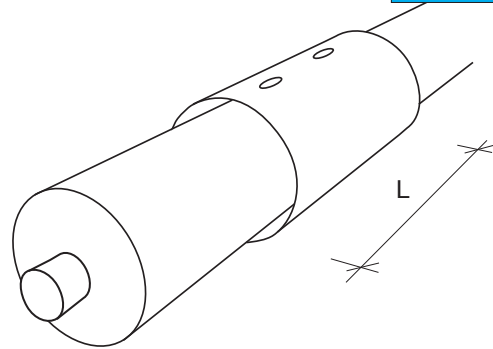
Welding joint, shrinkable for DN 500/710 (series 2)  
has Article No. 6112-710-000-000.

# JOINTS

6:201

## Double expanded shrinkable sleeve

### HDPE



#### ARTICLE NO 6361

**Double expanded shrinkable casing DX** is a shrinkable casing, made of HDPE. An extra wide sealant mastic strip positioned between the casing and jacket pipe. Installation is done with a soft gas torch and thanks to the double expanding sleeves large casing, a cohesive and reliable joint is obtained. The joint is pressure tested after cooling and after foam insulation, the foam- and air holes are welded.

#### Joint set, Double expanding shrinkable sleeve

HDPE jacket pipe DY [mm]	L[mm]	Max possible shrinking D[mm] (combined with shrink sleeve)
90	700	
110	700	90
125	700	110
140	700	125
160	700	140
180	700	160
200	700	180
225	730	200
250	730	225
280	730	250
315	730	280
355	730	315
400	730	355
450	730	400
500	730	450
560	730	500
630	730	560
710	730	630
800	730	710
900	730	800

#### Article No.

6361-DY jacket pipe-000-000

#### An exaple on how to order:

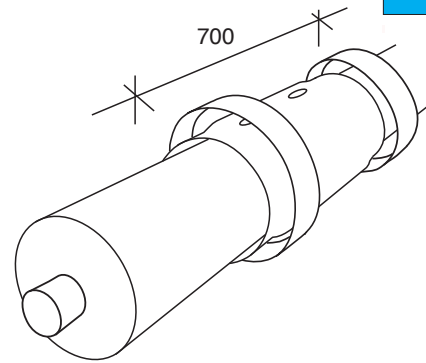
Shrinkable sleeve PEX to DN 80/180  
has Aricle No. 6362-180-000-000.

Required wide woven mastic band: See page 8:301

For casing dimensions  $< \text{Ø}315$   
increased thickness (4.5 mm) is  
obtained.  
State suffix 777.

## Double sealing shrinkable sleeve (kit)

### HDPE



#### ARTICLE NO 6364

**Double shrink DTK** is a shrinkable sleeve, made of HDPE. A wide sealant mastic strip is placed between the sleeve and jacket pipe. Installation is done with a gas torch. The shrinkable sleeve comes with shrink-sleeves and therefore the joint is double sealed.

The joint is pressure tested after cooling and after foam insulation, the foamholes are closed.

#### JOINT SET

Article No.	Jacket pipe DY [mm]	Shrinkable sleeve D [mm]	Tubular 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
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
6364-800	800	838	300
6364-900	900	949	300

Required mastic is supplied separately.

#### Article No.

6364 - Dy jacket pipe-000-000 includes two shrink sleeves / tubular sleeves.

For casing in dimensions  $< \varnothing 315$  increased thickness (4.5 mm) can be obtained.  
State suffix 777

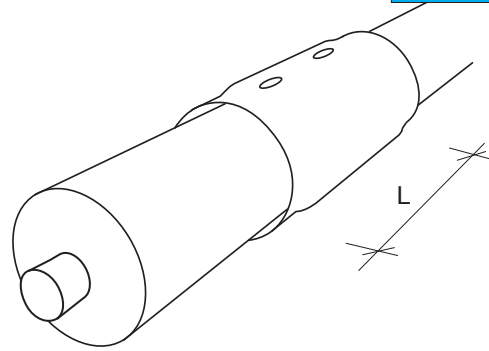
#### An exaple on how to order:

Double sealing shrink casing DN 80/180 has Aricle No. 6364-180-000-000.

Separate woven mastic strip (width approximately 60 mm, length 25 m) has Aricle No. 6550-012-000-000

## Heat-shrinkable sleeve,

## PEX



### ARTICLE NO 6362

**Shrinkable sleeve, PEX** is a heat-shrinkable oversized casing constructed of multiple, crosslinked, high density polyethylene layers. A wide sealant mastic strip is wrapped around the ends of the pipe under the sleeve. 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 sleeve can be used in combination with heat-shrinkable tubular casing as additional outside sealing. see 6:401.

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

### Joint set Heat shrinkable sleeve PEX

PEH jacket pipe DY [mm]	L[mm]	Sleeve as supplied D[mm]	Max possible shrunked D[mm]
90	700	103	90
110	700	125	110
125	700	140	125
140	700	156	140
160	700	177	160
180	700	197	180
200	700	218	200
225	730	244	212
250	730	270	230
280	730	300	256
315	730	335	285
355	730	378	327
400	730	425	366
450	730	478	413
500	730	530	460
560	730	592	510
630	730	672	592
710	730	755	665
800	730	845	753
900	730	944	851

The product is supplied in the kit with separate mastic and the required distances.

#### Article No.

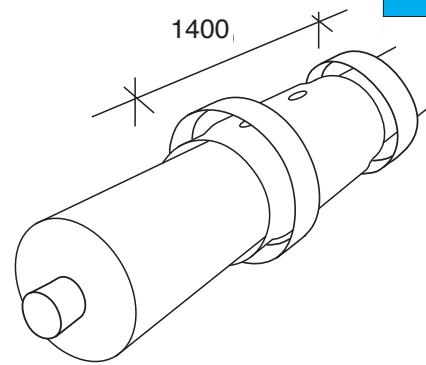
6362-DY jacket pipe-000-000

#### An exaple on how to order:

Heat shrinkable casing PEX to DN 80/180  
has Aricle No. 6362-180-000-000.

## Double sealing shrinkable sleeve (kit)

### HDPE



#### ARTICLE NO 6364

**Double sealing shrinkable sleeve DTK** is produced of HDPE. A wide sealant mastic strip is wrapped around the ends of the pipe under the sleeve. 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. Minimal wall thickness on the casing is 4,5 mm.

#### REPAIR KIT

Jacket pipe DY [mm]	Shrinkable sleeve D [mm]	Tubular sleeve width [mm]	
90	103	150	
110	125	150	
125	140	150	
140	156	150	
160	177	150	Tubular sleeve
180	197	150	
200	218	150	
225	244	150	
250	269	150	
280	300	150	
315	336	225	

Required mastic is supplied separately.

#### Article No.

6364 - Dy jacket pipe-140-000 for repair contains two shrinking sleeves.

#### An exaple on how to order:

Double sealing repair kit to DN 80/180 has Aricle No. 6364-180-140-000.

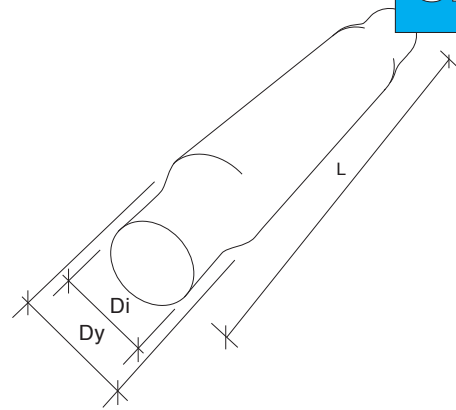
Required Extra wide voven mastic strip: see page 8:301

# JOINTS

6:205

## Double sealed Extended sleeve

For single use compensator and valve (kit)



### ARTICLE NO 6113

The **Extended sleeve** is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the sleeve. 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.

DY Jacket pipe [mm]	Di Sleeve [mm]	Dy [mm]	Length (L) [mm]	Tubular sleeve 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 **extended Sleeve** is shrinkable at both ends.  
Required voven mastic is supplied separately, see page 8:301

#### Extended Sleeve Article No.

6113 - DY includes two shrinkable sleeves/tubular sleeves

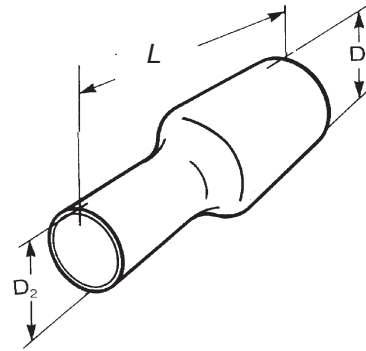
#### An exaple on how to order:

Extended sleeve for valve DN 200/355 (Seies 2) has Aricle No. 6113-355-000-000.



## Double sealed Reduction sleeve

The reduction sleeve is made of PEH and used to connect two district heating jacket pipes in different dim.



### ARTICLE NO 6124

**Reduction sleeve** is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the sleeve. 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.

Dimension connected pipe [mm]	Sleeve dimension D <sub>1</sub> -D <sub>2</sub> [mm]	Length [mm]
125 - 110	140 - 125	900
140 - 125	156 - 140	900
160 - 140	177 - 156	900
160 - 140	197 - 177	900
200 - 160	218 - 197	900
225 - 200	244 - 218	900
250 - 225	269 - 244	900
280 - 250	300 - 269	900
325 - 280	336 - 300	900
355 - 315	377 - 336	900
400 - 355	485 - 377	900
450 - 400	476 - 425	900
500 - 450	528 - 476	1100
560 - 500	591 - 528	1100
630 - 560	663 - 591	1200
710 - 630	746 - 663	1200
800 - 710	839 - 746	1200

*Reduction sleeve of multiple step and alternative length is manufactured against specific order. Required mastic is supplied separately, see page 8:301.*

#### Article No.

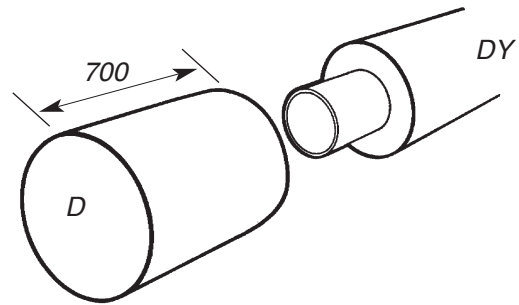
6124-D1-D2-000 include two shrinkable tubular sleeves

#### An exaple on how to order:

Reduction sleeve inclusive two tubular sleeves to DN 80/180-65/160 has Article no. 6124-180-160-000.

## Double sealed Termination sleeve (kit)

Termination sleeve is used for closing a district heating pipeline



### ARTICLE NO 6134

**The termination sleeve** is produced of HDPE; A wide sealant mastic strip is wrapped around the ends of the pipe under the sleeve. 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.

Jacket pipe DY [mm]	Termination sleeve D [mm]
---------------------	---------------------------

110	122
125	138
140	155
160	177
180	196
200	216
225	245
250	271
280	299
315	339
355	380
400	428
450	477
500	530
560	590
630	660
710	749
800	838
900	949

Required mastic is supplied separately. Sleeve can be supplied with length = 1100 mm. State suffix 110

#### Article No.

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

#### An example of how to order:

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

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

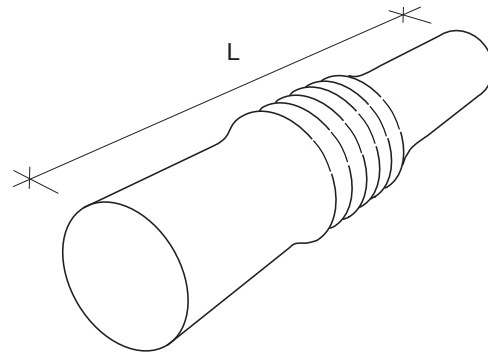
Extended termination sleeve for off valve has length 1100 mm

#### Article No.

6115-DY-000-000

## Heat shrinkable flexible joint (kit)

### PEX



#### ARTICLE NO 6200

**Flexible joint** is a shrinkable flexible sleeve, made of PEX. 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 sealed flexible joint

PEH jacket pipe DY [mm]	Sleeve as supplied Di [mm]	Radius steel pipe bend [mm]	Length [mm]
90	103	200	980
110	125	200	980
125	140	200	1050
140	156	240	1050
160	177	240	1050
180	197	240	1050
200	218	240	1120
225	244	300	1220
250	269	380	1340

Double sealed flexible sleeve (kit) are available for Series 2 and double pipes

#### Article No.

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

**NOTE!** For double pipe bend, a fixing plate between the steel pipes is needed.

#### An exaple on how to order:

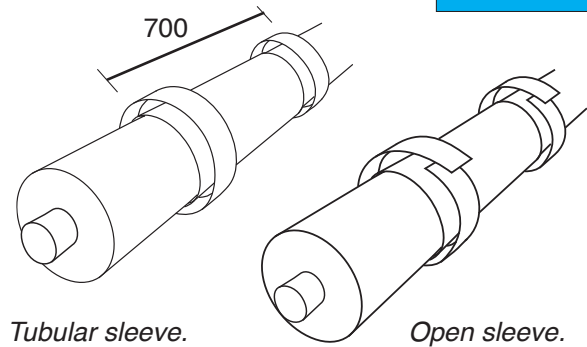
Flexible joint (kit) for double pipe DN 2 x 40/160 including details as above has Article No. 6500-040-160-000.

# JOINTS

6:301

## HDPE oversized casing

with shrinking sleeve



### ARTICLE NO 6110 + 2 pc 6241/6240

Casing is made of extruded PEH and in terms of dimension customized to the Powerpipe District Heating pipes. Shrink sleeve is thick-walled, internally coated with mastic and has high tensile strength.

For jacket pipe DY [mm]	DY Casing [mm]	Sleeve Width [mm]
90	110	225
110	125	225
125	140	225
140	153	225
160	174	225
180	193	225
200	215	225
225	242	225
250	267	225
280	299	225
315	336	300
355	377	300
400	425	300
450	477	300
500	533	300
560	595	300
630	666	300

Not in stock.

#### Article No.

6110 - DY jacket pipe-000-000 for oversized casing  
6240/6241-Dy jacket pipe-000-000 for 2 sleeves.

NOTE: The joint consists of:  
Article No. 1 pc. 6110  
2 x Art. No. 6240/6241

#### An exaple on how to order:

PEH-casing includes 2 pcs shrinking sleeve for DN80 in 180 mm jacket,  
Article No. 6110-180-000-000 + 2 pc. 6241-180-000-000

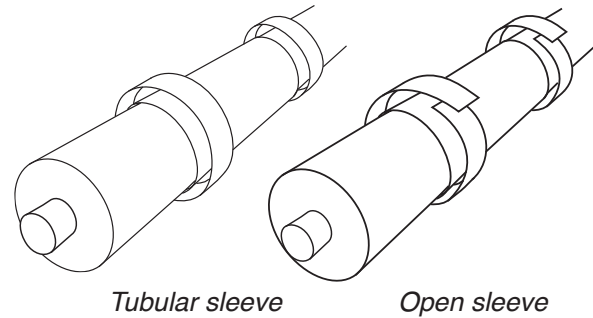
Other length on the sleeve can be produced to special order.

*For assembly required wedger is delivered by Powerpipe's Assembly Technician*

# JOINTS

6:401

## Tubular and open shrinking sleeve



Tubular sleeve

Open sleeve

### TUBULAR SHRINKING SLEEVE 6210, OPEN SHRINKING SLEEVE 6240

The **shrinking sleeves** are thick-walled, internally coated with mastic and has high tensile strength. Supplied individually wrapped in protective plastic, which protect it from contamination before assembly.

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

DY Jacket pipe [mm]	DY Casing [mm]	Width [mm]		Width [mm] Other sleeves Tubular/Open	Shrink ratio	
		Double sealing Tubular Art. no 6241	Open Art. no 6240		Tubular*	Open
90	110	150		225	121/81	25%
110	125	150		225	141/93	25%
125	140	150		225	156/104	25%
140	153	150		225	172/127	25%
160	174	150		225	196/153	25%
180	193	150		225	215/150	25%
200	215	150		225	230/170	25%
225	242	150		225	255/190	25%
250	267	150		225	300/225	25%
280	299	150		225	340/255	25%
315	336	225		300	380/285	25%
355	377	225		300	405/325	25%
400	425	225	225	300	460/360	25%
450	477	225	225	300	510/410	25%
500	533	225	225	300	565/450	25%
560	595	225	225	300	605/490	25%
630	666		300	300		25%
710	750		300	300		25%
800	846		300	300		25%
900	947		300	300		25%

\* Original / shrunk 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.

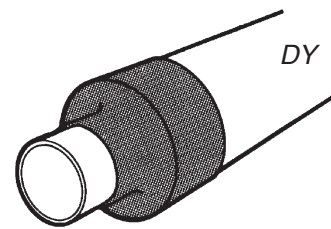
**Open shrink sleeve article no.**  
6240-OD jacket pipe-000-000

**An example of how to order**

Open shrink sleeve DN 200/400 has art. no. 6240-400-000-000.

## 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.



### ARTICLE NO 6291, 6292

The end caps are available for jacket pipe dimensions  $\varnothing 90$ – $\varnothing 500$

#### Single pipe

#### Double pipe

Article No. To be delivered	Intervall DI	Intervall DY	Article No. To be delivered	Intervall DI	Intervall DY
6291-010	30–10	105–47	6292-010	12-20	90-125
6291-020	30–15	140–75	6292-020	19-34	85-144
6291-030	40–24	105–75	6292-030	24-60	105-160
6291-040	55–24	135–75	6292-070	24-60	135-235
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			
6291-150	530–260	650–360			

#### 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 DN 80/180 has Article No. 6291-180-080-000.

## Hot tapping T-joint with or without a valve

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

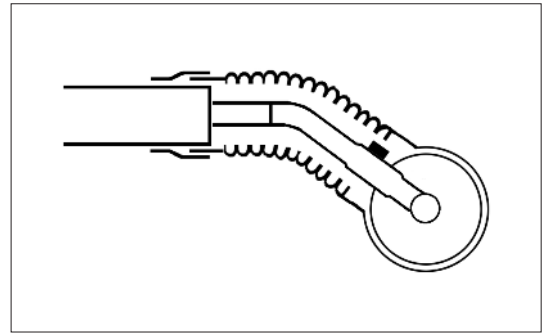
Details and instructions are available for

- 45° branches Single pipe DN 20 - DN 150
- Branches Double pipe DN 20 - DN 100

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

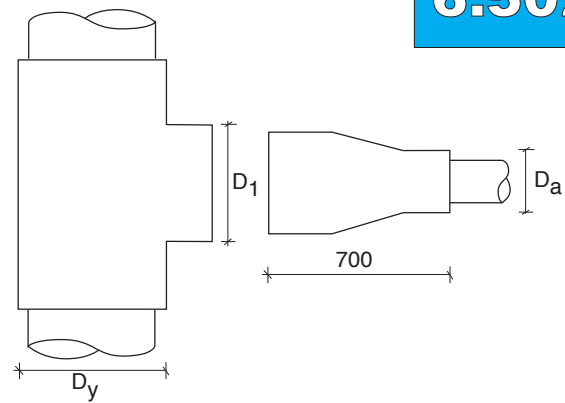
The casing to the main pipe is cut in axial direction before entering main pipe. The cut in the casing is extruder welded.

After shrinking the casing the sleeves are installed.



*Ordinary 45° T-joint*

## T-joint for connecting double pipe to double pipe



### ARTICLE NO 6530

**T-joint for connecting double pipe to double pipe** is a shrinkable sleeve, made of HDPE. A wide mastic strip is placed between the sleeve and jacket pipe. Installation is done by extruder welding the split casing and shrink with gas torch. Delivered with the required heat shrink tubular/open sleeves.

Dy1 = Outer diameter, main pipe in mm

Dy2 = Outer diameter, branch in mm

#### Article No.

6530-Dy<sub>1</sub>-Dy<sub>2</sub>-000 includes a shrinkable casing, two tubular and two open shrinkable sleeves.

#### An example on how to order:

joint double-double for the main pipe, two tubular and two open shrinkable sleeves  
DN 2x100/315 and branch DN 2x50/200 has Article No. 6530-315-200-000.

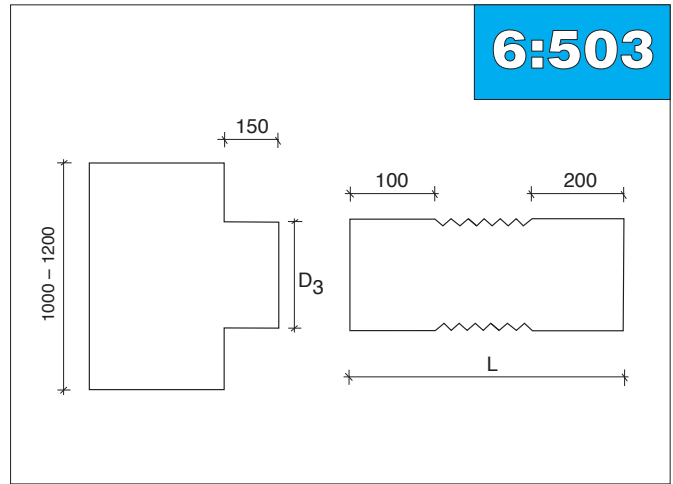


# JOINTS

6:503

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

### Double sealed type



#### ARTICLE NO 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 [mm] Jacket [mm]	Branch jacket [mm]													
	75		90		110		125		140		160		180	
	D <sub>3</sub>	L	D <sub>3</sub>	L	D <sub>3</sub>	L	D <sub>3</sub>	L	D <sub>3</sub>	L	D <sub>3</sub>	L	D <sub>3</sub>	L
90	103	690	125	690										
110			125	690	140	690								
125			125	690	156	820	156	820						
140			125	690	156	820	177	820	197	820				
160			125	690	156	820	177	820	218		218			
180			125	690	156	820	177	820	218		244		218	
200-710			125	690	156	820	177	820	218		244		269	

**OBS!** The corrugated pipe requires a carefully performed heating to be flexible. Space available to mount Naval's tapping valve for Series 2 and Series 3. The mounted steel bend radius shall be 5s or greater. c-c measure at drilling should be min. 650 mm.

#### Article No.

6540-DY main pipe avstick-000 includes a shrinkable casing and two tubular and shrinking sleeves.

#### An example of how to order:

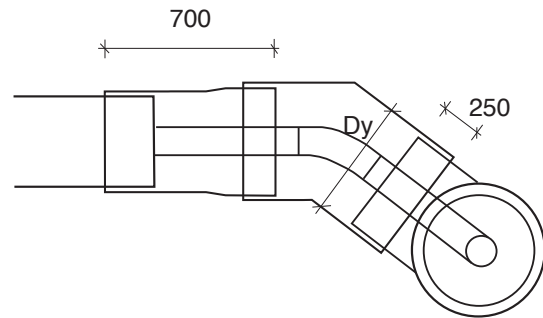
T-joint, 45°, flexible including two tubular and two open shrinkable sleeves for main pipe DN 400/630 and branch DN 80/180 has article no. 6540-630-180-000.

The branch must be at least one DN smaller than the main pipe.

*Tubular/open shrink sleeve, see 6:302*

## T-joint, 45° for branches $\geq$ OD 160

### Double sealed type



#### ARTICLE NO 6540

**T-joint 45° for branches** 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 main pipe [mm]	Branch jacket [mm]		
	225 Dy [mm]	250 Dy [mm]	280 Dy [mm]
225	280		
250	280		
280	280	355	
315	280	355	
355 - 710	280	355	355

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

#### Article No.

6540-DY main pipe-Dy branch-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.

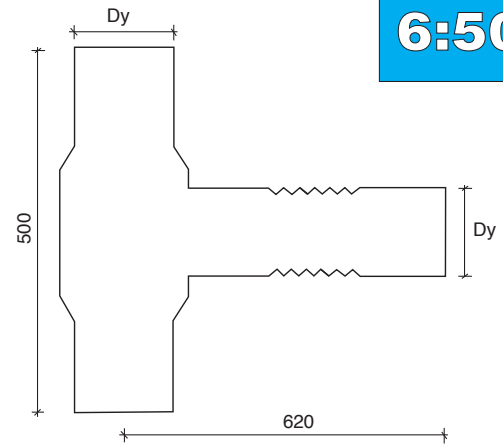
*Please see 8:401 regarding need of foaming liquids!*

# JOINTS

6:505

## Double sealed T-joint for flexible pipes

For branching from the flexible pipe to flexible pipe.



### ARTICLE NO 6540

**Joint for flexible pipes** is a heat shrinkable joint, 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 branch/main pipe [mm]	Dy [mm] shrinkable
6540-090	90	105
6540-110	110	125

T-joint for flexible pipes is designed for simple assembly of flexible pipes to flexible pipes.

**NOTE!** The corrugated pipe of PEH requires a carefully performed heating to be flexible.

#### Article No.

6540-DY main pipe-DY branch-395 includes joint, one tubular shrink sleeve and a two open shrink sleeves.

#### An exaple on how to order:

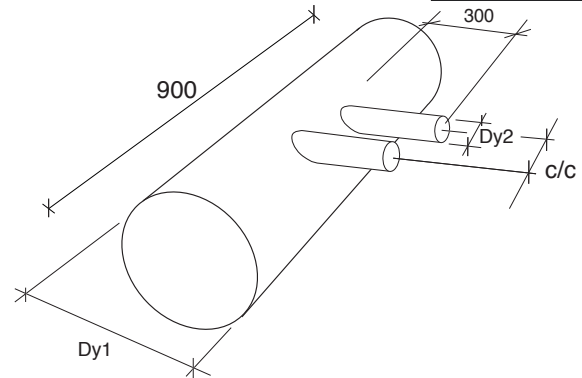
T-joint with main pipe Dy 110 for branch Dy 90 mm has Article No. 6540-110-090-395

# JOINTS

6:506

## T-joint for connecting single pipe to double pipe

### double sealed type



#### ARTICLE NO 6535

**T-joint for double/single pipe** 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 additional use of shrink sleeves make the joint double sealed. The joint is pressure tested after cooling and the holes are welded after foaming.

DN / DY main pipe	Dy1 [mm]	Dy branch [mm]	Dy2 [mm]	Dy2 (connection) [mm]	c/c [mm]
2 x 25 / 140	174	90	110	125	310
2 x 32 / 160	193	110	125	140	325
2 x 40 / 160	193	125	140	160	340
2 x 50 / 200	242	140	153	180	360
2 x 65 / 225	267	160	174	200	380
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				

*If T-sleeves are to be used for connected vale, please indicate this separately.*

#### 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:

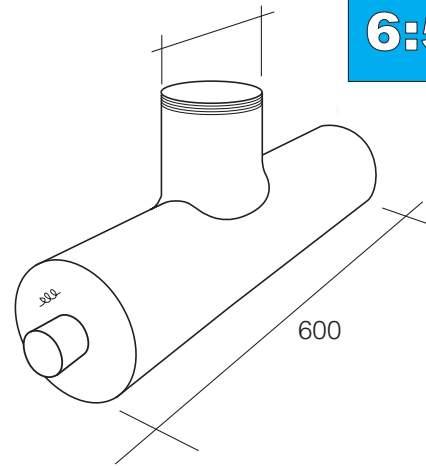
T-joint double/single including 2 tubular and 2 open sleeves DN 2x80/250 and branch DN 25/90 has Article No. 6535-250-090-000.

#### Please observe:

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

## Measure joint

Control unit for single pipes



### ARTICLE NO 6270

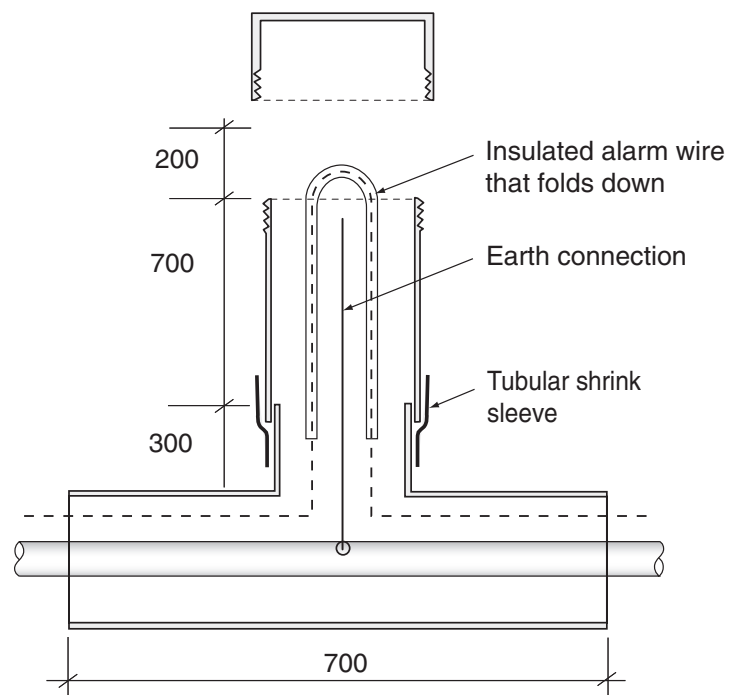
**Measure joint** is used when and where you want a simple access to the alarm wires to easily measure for any errors.

#### Article No.

6270-DY jacket pipe-000-000

#### An exaple on how to order:

Measure joint for DN 300/500 has Article No. 6270-500-000-000



*Example how to use*