

Push-in joint products


































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ducpur® pressure pipe with push-in socket

Made of ductile cast iron using the centrifugal casting process with **PUR (polyurethane) internal lining, outer side zinc sprayed and coated with bitumen**

Minimal pressure loss thanks to hydraulically smooth surface, economic.

Application: Drinking water, soft and aggressive water as well as media with pH-values between 1 and 14.

SVGW certification for water and gas pipelines.

Manufactured to ISO 2531 and EN 545 standards.

Pipe-class standard K9; other classes on request.

Permissible system pressure: See "permissible pressures", page 6/4.3.

A thrust-resisting ring fig. 2505, 2506, 2806, 2807 can be fitted.

Deflection: see "Installation handbook for push-in joint piping".

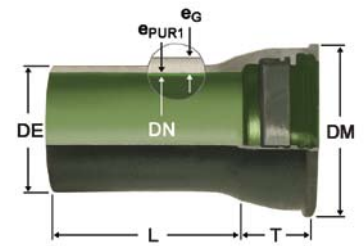
Pipes and adapter fittings – DN 400-600 with standard supporting collar – are delivered with Tyton seal but without thrust-resisting ring.



Pipe with double-chamber socket

Fig. 2817

DN	L	DE	e _G	e _{PUR1}	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	mm	kg/m		
80	6000	98	6	1.3	167	119	14.0	260424	214.118
100	6000	118	6	1.3	188	120	16.3	260425	214.119
125	6000	144	6	1.3	215	123	20.2	260426	214.121
150	6000	170	6	1.3	242	126	24.0	260427	214.122
200	6000	222	6.3	1.5	295	131	33.4	260428	214.123
250	6000	274	6.8	1.5	352	131	45.0	260429	214.124
300	6000	326	7.2	1.5	410	130	56.3	260430	214.125

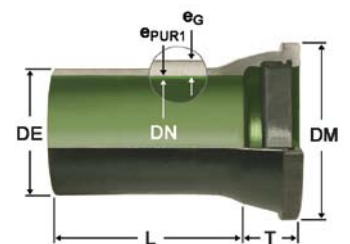


The double-chamber pipe can be fitted with internal thrust-resisting ring (fig. 2807) or external thrust-resisting ring (fig. 2806).

Pipe with single-chamber socket

Fig. 2815

DN	L	DE	e _G	e _{PUR1}	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	mm	kg/m		
350	6000	378	7.7	1.5	464	110	70.0	260431	212.126
400	6000	429	8.1	1.5	518	115	83.6	260432	212.127
500	6000	532	9	1.5	636	115	113.0	260433	-
600	6000	635	9.9	1.5	750	120	149.0	260434	-
700	6000	738	10.8	1.5	863	150	190.0	260435	-



Pressure pipe with push-in socket

Pressure pipes and adapter fittings

ecopur® pressure pipe with push-in socket

Made of ductile cast iron using the centrifugal casting process with **PUR (polyurethane) internal lining, external PUR coating.**

Application: For demanding corrosion conditions. Secure, long service life, minimal pressure loss thanks to hydraulically smooth surface, economic.

SVGW certification for water and gas pipelines.

Manufactured to ISO 2531 and EN 545 standards.

Pipe-class standard K9; other classes on request.

Permissible system pressure: See "permissible pressures", page 6/4.3.

A thrust-resisting ring fig. 2505, 2506, 2806, 2807 can be fitted.

Deflection: see "Installation handbook for push-in joint piping".

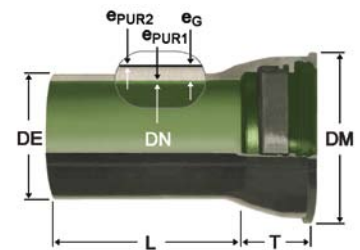
Pipes and adapter fittings – DN 400-600 with standard supporting collar – are delivered with Tyton seal but without thrust-resisting ring.



Pipe with double-chamber socket

Fig. 2817

DN	L	DE	e _G	e _{PUR1}	e _{PUR2}	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	mm	mm	kg/m		
80	6000	98	6	1.3	0.9	167	119	14.2	260024	212.178
100	6000	118	6	1.3	0.9	188	120	16.8	260025	212.179
125	6000	144	6	1.3	0.9	215	123	20.9	260026	212.181
150	6000	170	6	1.3	0.9	242	126	24.8	260027	212.182
200	6000	222	6.3	1.5	0.9	295	131	34.4	260028	212.183
250	6000	274	6.8	1.5	0.9	352	131	46.5	260029	212.184
300	6000	326	7.2	1.5	0.9	410	130	57.8	260030	212.185

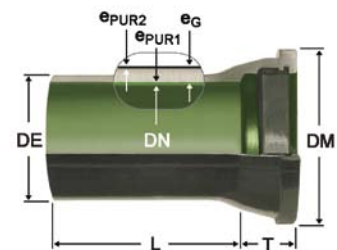


The double-chamber pipe can be fitted with internal thrust-resisting ring (fig. 2807) or external thrust-resisting ring (fig. 2806).

Pipe with single-chamber socket

Fig. 2815

DN	L	DE	e _G	e _{PUR1}	e _{PUR2}	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	mm	mm	kg/m		
350	6000	378	7.7	1.5	0.9	464	110	71.7	260031	212.166
400	6000	429	8.1	1.5	0.9	518	115	85.6	260032	212.167
500	6000	532	9	1.5	0.9	636	115	115.0	260033	-
600	6000	635	9.9	1.5	0.9	750	120	152.0	260034	-
700	6000	738	10.8	1.5	0.9	863	150	194.0	260035	-



Subject to alteration without notice

Sewage pipe with push-in socket

Sewage pipes

geopur® sewage pipe with push-in socket

Made of ductile cast iron using the centrifugal casting process with **PUR (polyurethane) internal lining, outer side zinc sprayed and coated with bitumen**

Minimal pressure loss thanks to hydraulically smooth surface, economic.

Application: Water and wastewater as well as media with pH-values between 1 and 14.

Manufactured to EN 598 standards.

Pipe-class standard; K7, other classes on request.

Permissible system pressure: please contact us.

A thrust-resisting ring fig. 2505, 2506, 2806, 2807 can be fitted.

Deflection: see "Installation handbook for spigot and socket piping".

Pipes and adapter fittings – DN 400-600 with standard supporting collar – are delivered with Tyton seal but without restraint clamp.

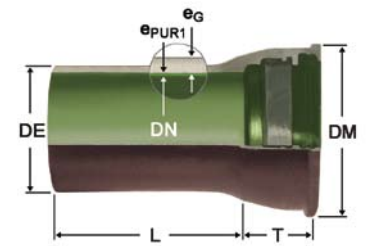


2

Pipe with double-chamber socket

Fig. 1817

DN	L	DE	e _G	e _{PUR1}	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	mm	kg/m		
100	6000	118	6	1.3	188	120	14.0	260800	-
125	6000	144	6	1.3	215	123	17.4	260801	-
150	6000	170	6	1.3	242	126	20.7	260802	-
200	6000	222	6	1.5	295	131	35.9	260803	-
250	6000	274	6.4	1.5	352	131	45.2	260804	-
300	6000	326	6.4	1.5	410	130	56.3	260805	-

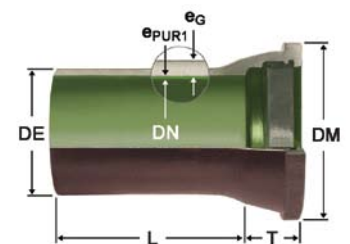


The double-chamber pipe can be fitted with internal restraint clamp (fig. 2807) or external restraint clamp (fig. 2806).

Pipe with single-chamber socket

Fig. 1815

DN	L	DE	e _G	e _{PUR1}	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	mm	kg/m		
350	6000	378	6.4	1.5	464	110	56.2	260806	-
400	6000	429	6.4	1.5	518	115	67.1	260807	-
500	6000	532	7.0	1.5	636	115	92.5	260808	-
600	6000	635	7.7	1.5	750	120	121.6	260809	-
700	6000	738	8.4	1.5	863	150	152.5	260810	-
800	7000	842	9.1	1.5	974	145	188.9	-	-
900	7000	945	9.8	1.5	1082	145	228.7	-	-
1000	7000	1048	10.5	1.5	1191	155	272.2	-	-
1200	8260	1255	13.6	1.5	1412	165	395.8	-	-



Subject to alteration without notice

vonRollrock® pressure pipes with rock-protection coating ducpur®

vonRollrock® pressure pipes with rock-protection coating. These coated cast-iron pipes are outstandingly suitable for use in rocky ground and are **protected** against damage by rocks when back-filling.

The **robust** and hard-wearing coating offers **unique performance**.

The **lightweight** under cast-iron pipes (see table) is proven to be **economical** during installation in difficult ground conditions and presents no problems when coping with the most difficult pipe-laying conditions.

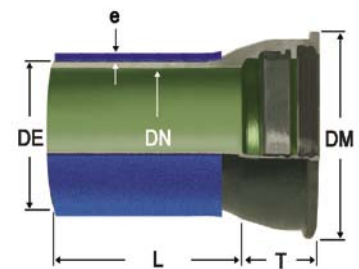
The protective coating can **easily** be removed with a knife so that the piping can be **shortened** to the required length or can be **tapped** or a building connection without encountering any problems.



Pipe with double-chamber socket

Fig. 2816

DN	L	DE	e	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	kg/m		
80	6000	98	8	167	119	14.3	-	214.118
100	6000	118	8	188	120	16.7	-	214.119
125	6000	144	8	215	123	20.7	-	214.121
150	6000	170	8	242	126	24.5	-	214.122
200	6000	222	8	295	131	34.1	-	214.123
250	6000	274	8	352	131	45.9	-	214.124
300	6000	326	8	410	130	57.3	-	214.125

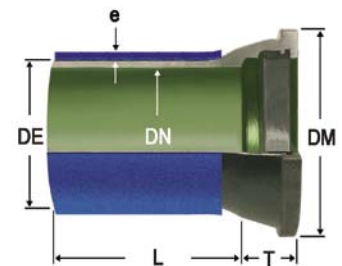


The double-chamber pipe can be fitted with internal restraint clamp (fig. 2807) or external restraint clamp (fig. 2806).

Pipe with single-chamber socket

Fig. 2819

DN	L	DE	e	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	kg/m		
350	6000	378	8	464	110	71.2	-	212.126
400	6000	429	8	518	115	84.9	-	212.127
500	6000	532	8	636	115	114.7	-	-
600	6000	635	8	750	120	151.0	-	-
700	6000	738	8	863	150	192.3	-	-



Pressure pipe with push-in socket

Pressure pipes and adapter fittings

vonRollrock® pressure pipes with rock-protection coating ecopur®

vonRollrock® pressure pipes with rock-protection coating. These coated cast-iron pipes are outstandingly suitable for use in rocky ground and are **protected** against damage by rocks when back-filling.

The **robust** and hard-wearing coating offers **unique performance**.

The **lightweight** under cast-iron pipes (see table) is proven to be **economical** during installation in difficult ground conditions and presents no problems when coping with the most difficult pipe-laying conditions.

The protective coating can **easily** be removed with a knife so that the piping can be **shortened** to the required length or can be **tapped** or a building connection without encountering any problems.

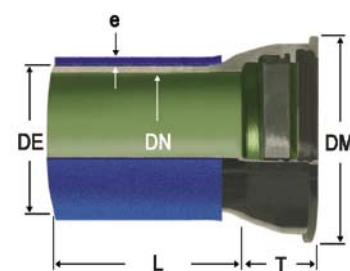


2

Pipe with double-chamber socket

Fig. 2816

DN	L	DE	e	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	kg/m		
80	6000	98	8	167	119	14.5	-	212.178
100	6000	118	8	188	120	17.2	-	212.179
125	6000	144	8	215	123	21.4	-	212.181
150	6000	170	8	242	126	25.3	-	212.182
200	6000	222	8	295	131	35.1	-	212.183
250	6000	274	8	352	131	47.5	-	212.184
300	6000	326	8	410	130	58.8	-	212.185

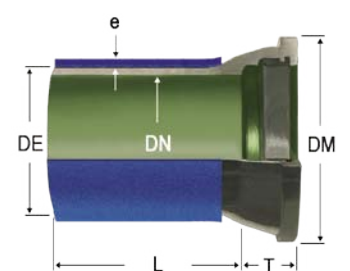


The double-chamber pipe can be fitted with internal restraint clamp (fig. 2807) or external restraint clamp (fig. 2806).

Pipe with single-chamber socket

Fig. 2819

DN	L	DE	e	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	kg/m		
350	6000	378	8	464	110	72.9	-	212.166
400	6000	429	8	518	115	86.9	-	212.167
500	6000	532	8	636	115	116.7	-	-
600	6000	635	8	750	120	154.0	-	-
700	6000	738	8	863	150	196.3	-	-



Subject to alteration without notice

Sewage pipe with push-in socket

Sewage pipes

vonRollrock® sewage pipes with rock-protection coating geopur®

vonRollrock® pressure pipes with rock-protection coating. These coated cast-iron pipes are outstandingly suitable for use in rocky ground and are **protected** against damage by rocks when back-filling.

The **robust** and hard-wearing coating offers **unique performance**.

The **lightweight** under cast-iron pipes (see table) is proven to be **economical** during installation in difficult ground conditions and presents no problems when coping with the most difficult pipe-laying conditions.

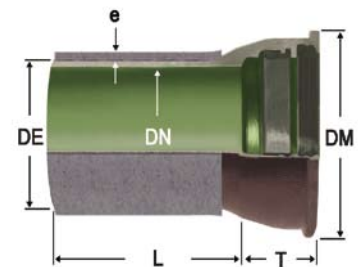
The protective coating can **easily** be removed with a knife so that the piping can be **shortened** to the required length or can be **tapped** or a building connection without encountering any problems.



Pipe with double-chamber socket

Fig. 1816

DN	L	DE	e	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	kg/m		
100	6000	118	8	188	120	14.4	-	-
125	6000	144	8	215	123	17.9	-	-
150	6000	170	8	242	126	21.2	-	-
200	6000	222	8	295	131	36.6	-	-
250	6000	274	8	352	131	46.1	-	-
300	6000	326	8	410	130	57.3	-	-

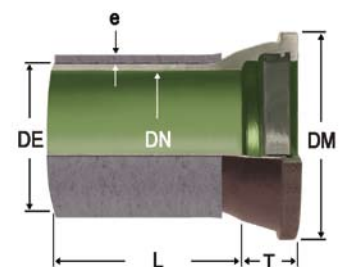


The double-chamber pipe can be fitted with internal restraint clamp (fig. 2807) or external restraint clamp (fig. 2806).

Pipe with single-chamber socket

Fig. 1819

DN	L	DE	e	DM	T	weight	item no.	suissetec
	mm	mm	mm	mm	mm	kg/m		
350	6000	378	8	464	110	57.4	-	-
400	6000	429	8	518	115	68.4	-	-
500	6000	532	8	636	115	94.2	-	-
600	6000	635	8	750	120	123.6	-	-
700	6000	738	8	863	150	154.8	-	-
800	7000	842	8	974	145	191.5	-	-
900	7000	945	8	1082	145	231.7	-	-
1000	7000	1048	8	1191	155	275.5	-	-
1200	8260	1255	8	1412	165	399.7	-	-



ecofit® bend with push-in sockets

Adapter fittings made of ductile cast iron (EN-GJS) to EN 545 standard.

Epoxy-resin coating (min. 250 µm) to DIN 3476 standard

Single-chamber socket

Pipes and adapter fittings – DN 400-600 with standard supporting collar – are delivered with Tyton seal but without thrust-resisting ring.



Fig. 2820a.90

90°-bend, 2 sockets (MMQ)

DN	t mm	weight kg	item-no.	suissetec
80	100	8.0	325011	231.318
100	125	10.2	325012	231.319
125	150	14.5	325013	231.321
150	175	19.1	325014	231.322
200	225	30.5	325015	231.323
250	280	45.7	325016	231.324
300	330	63.7	325017	231.325
350	410	140.0	325022	231.326
400	420	128.0	325018	231.327
500	520	230.0	325019	-
600	620	330.0	325020	-
700	720	486.2	325021	-



45°-bend, 2 sockets (MMK 45)

DN	t mm	weight kg	item-no.	suissetec
80	55	7.1	325036	231.358
100	65	8.8	325037	231.359
125	75	12.3	325038	231.361
150	85	15.9	325039	231.362
200	110	24.6	325040	231.363
250	130	35.7	325041	231.364
300	155	48.7	325042	231.365
350	175	64.9	325047	231.366
400	195	105.0	325043	231.367
500	240	139.0	325044	-
600	285	202.0	325045	-
700	330	296.0	325046	-



Fig. 2822a.45

Subject to alteration without notice

30°-bend, 2 sockets (MMK 30)

Fig. 2823a.30

DN	t mm	weight kg	item-no.	suissetec
80	45	6.8	325062	231.378
100	50	8.3	325063	231.379
125	55	11.6	325064	231.381
150	65	14.8	325065	231.382
200	80	22.0	325066	231.383
250	95	32.0	325067	231.384
300	110	43.2	325068	231.385
350	125	54.5	325073	231.386
400	150	98.0	325069	231.387
500	185	125.0	325070	-
600	200	182.0	325071	-
700	230	254.0	325072	-



22°-bend, 2 sockets (MMK 22)

Fig. 2824a.22

DN	t mm	weight kg	item-no.	suissetec
80	40	6.7	325088	231.418
100	45	8.1	325089	231.419
125	50	11.2	325090	231.421
150	55	14.2	325091	231.422
200	65	21.0	325092	231.423
250	75	30.7	325093	231.424
300	90	40.4	325094	231.425
350	100	50.7	325099	231.426
400	110	78.0	325095	231.427
500	130	111.0	325096	-
600	150	157.0	325097	-
700	180	232.0	325098	-



11°-bend, 2 sockets (MMK 11)

Fig. 2825a.11

DN	t mm	weight kg	item-no.	suissetec
80	30	6.5	325114	231.438
100	35	7.8	325115	231.439
125	35	10.6	325116	231.441
150	40	13.4	325117	231.442
200	45	24.9	325118	231.443
250	50	34.2	325119	231.444
300	60	43.0	325120	231.445
350	65	44.9	325125	231.446
400	65	72.0	325121	231.447
500	75	96.0	325122	-
600	85	134.0	325123	-
700	110	200.0	325124	-



5°-bend, 2 sockets (MMK 5)

Fig. 2826a.5

DN	t mm	weight kg	item-no.	suissetec
100	30	13.3	325139	231.459
125	35	17.4	325140	231.461
150	35	24.5	325141	231.462
200	40	34.7	325142	231.463
250	50	53.9	325143	231.464
300	55	69.3	325144	231.465



ecofit® bend with socket and spigot

Adapter fittings made of ductile cast iron (EN-GJS) to EN 545 standard.
 Epoxy-resin coating (min. 250 µm) to DIN 3476 standard
 Single-chamber socket
 Pipes and adapter fittings are delivered with Tyton seal but without thrust-resisting ring.



90°-bend, socket and spigot (MQ)

Fig. 2820.90

DN	t mm	t ₁ mm	weight kg	item-no.	suissetec
80	100	312	10.2	325000	231.118
100	125	333	11.2	325001	231.119
125	150	374	16.1	325002	231.121
150	175	419	21.5	325003	231.122
200	225	491	35.0	325004	231.123



45°-bend, socket and spigot (MK 45)

Fig. 2822.45

DN	t mm	t ₁ mm	weight kg	item-no.	suissetec
80	55	265	7.7	325025	231.158
100	65	274	9.8	325026	231.159
125	75	301	13.8	325027	231.161
150	85	331	18.3	325028	231.162
200	110	374	28.5	325029	231.163



30°-bend, socket and spigot (MK 30)

Fig. 2823.30

DN	t mm	t ₁ mm	weight kg	item-no.	suissetec
80	45	253	7.4	325051	231.178
100	50	260	9.4	325052	231.179
125	55	283	13.1	325053	231.181
150	65	309	17.2	325054	231.182
200	80	345	26.5	325055	231.183



22°-bend, socket and spigot (MK 22)

Fig. 2824.22

DN	t mm	t ₁ mm	weight kg	item-no.	suissetec
80	40	248	7.3	325077	231.218
100	45	253	9.2	325078	231.219
125	50	274	12.7	325079	231.221
150	55	299	16.7	325080	231.222
200	65	331	25.5	325081	231.223



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11°-bend, socket and spigot (MK 11)

Fig. 2825.11

DN	t mm	t ₁ mm	weight kg	item-no.	suissetec
80	30	240	7.1	325103	231.238
100	35	243	8.8	325104	231.239
125	35	261	12.1	325105	231.241
150	40	284	15.7	325106	231.242
200	45	311	24.0	325107	231.243



ecofit® adapter fittings (1 branch) with push-in joints

Adapter fittings made of ductile cast iron (EN-GJS) to EN 545 standard.

Thick epoxy-resin coating (min. 250 µm) to DIN 3476 standard

Single-chamber socket (Fig. 2854 double-chamber)

Pipes and adapter fittings – DN 400-600 with standard supporting collar – are delivered with Tyton seal but without thrust-resisting ring.



UNIVERSAL push-in joint tee, double-chamber (UA)

DN ₁	DN ₂	PN bar	L mm	h mm	weight kg	item-no.	suissetec
100	50	10,16,25,40	176	100	20.0	261000	234.159
100	100	10,16	176	100	23.0	261002	234.119
125	50	10,16,25,40	173	110	24.0	261003	234.161
125	100	10,16	173	110	25.0	261005	234.241
150	50	10,16,25,40	170	120	27.0	261007	234.162
150	100	10,16	170	120	28.0	261009	234.242
200	50	10,16,25,40	148	145	38.0	261012	234.163
200	100	10,16	163	145	38.0	261014	234.243

Fig. 2854

To factory standards



Construction:
Double-chamber.

Supply includes the adapter fitting with sealing gaskets, stud bolts with nuts and protective caps.

Can be fitted with internal thrust-resisting ring (fig. 2807) or external thrust-resisting ring (fig. 2806).

Tee-connector with 3 sockets (MMB)

Fig. 2856

DN ₁	DN ₂	L mm	h mm	weight kg	item-no.	suissetec
80	80	170	85	11.4	325145	232.418
100	80	170	95	13.1	325149	232.519
100	100	190	95	14.1	325150	232.419
125	80	170	105	16.5	325146	232.521
125	100	195	110	17.8	325151	232.541
125	125	225	110	19.9	325152	232.421
150	80	170	120	19.9	325245	232.522
150	100	195	120	20.9	325153	232.542
150	125	255	125	29.0	325154	232.562
150	150	255	125	25.2	325155	232.422
200	80	175	145	27.2	325246	232.523
200	100	200	145	28.6	325156	232.543
200	125	255	145	31.4	325147	232.563
200	150	255	150	33.4	325157	232.583
200	200	315	155	38.2	325158	232.423
250	100	200	170	37.9	325247	232.544
250	125	200	175	39.9	355265	232.564
250	150	260	175	43.6	325148	232.584
250	200	315	180	49.3	325249	232.624
250	250	375	190	56.0	325159	232.424
300	100	205	195	47.7	325250	232.545
300	125	205	200	48.7	355266	232.565
300	150	260	200	54.3	325251	232.585
300	200	320	205	61.0	325160	232.625
300	250	430	210	80.0	325252	232.645
300	300	435	220	75.0	325161	232.425
400	150	270	270	100.0	325253	232.587
400	200	325	270	110.0	325162	232.627
400	300	440	290	130.0	325163	232.667
400	400	560	280	160.0	325164	232.427
500	100	215	295	108.4	325255	-
500	150	350	345	151.0	325404	-
500	200	425	350	166.0	325165	-
500	250	390	315	185.0	325256	-
500	300	580	350	201.0	325166	-
500	400	565	335	199.2	325257	-
500	500	680	340	244.0	325167	-
600	200	340	355	201.0	325168	-
600	300	460	365	215.0	325259	-
600	400	570	390	250.4	325169	-
600	600	800	400	355.0	325171	-
700	200	345	400	270.6	325260	-
700	400	575	430	345.2	355262	-
700	600	925	430	468.4	325264	-



Tee-connector with 2 sockets and a flanged branch (MMA)

Fig. 2857

DN ₁	DN ₂	PN bar	L mm	h mm	weight kg	item-no.	suissetec
80	80	10,16,25,40	170	165	12.8	325177	233.418
100	80	10,16,25,40	170	175	14.5	325178	233.519
100	100	10,16	190	180	15.8	325174	233.419
125	80	10,16,25,40	170	190	17.9	325290	233.521
125	100	10,16	195	195	19.3	325175	233.541
125	125	10,16	225	200	21.6	325176	233.421
150	80	10,16,25,40	170	205	21.3	325179	233.522
150	100	10,16	195	210	22.7	325180	233.542
150	125	10,16	255	220	30.0	325181	233.562
150	150	10,16	255	250	27.4	325182	233.422
200	80	10,16,25,40	175	235	28.6	325183	233.523
200	100	10,16	200	240	30.4	325184	233.543
200	125	10,16	255	250	32.0	325291	233.563
200	150	10,16	255	250	36.1	325185	233.583
200	200	10	315	260	42.2	325186	233.423
200	200	16	315	260	41.7	325187	-
250	100	10,16	200	270	39.7	325188	233.544
250	150	10,16	260	280	46.3	325189	233.584
250	200	10	315	290	42.9	325292	233.624
250	200	16	315	290	42.9	325380	-
250	250	10	375	300	61.0	325190	233.424
250	250	16	375	300	60.5	325191	-
300	100	10,16	205	300	50.0	325192	233.545
300	150	10,16	260	310	57.0	325193	233.585
300	200	10	320	320	65.0	325293	233.625
300	200	16	320	320	65.0	325381	-
300	250	10	430	330	74.5	325294	233.645
300	250	16	430	330	74.5	325382	-
300	300	10	435	340	83.6	325194	233.425
300	300	16	435	340	83.1	325195	-
350	100	10,16	205	330	59.3	325305	233.546
350	200	10	325	350	77.2	325306	233.626
350	200	16	325	350	77.0	325307	-
350	300	10	495	370	110.0	325308	233.666
350	300	16	495	370	110.0	325309	-
400	100	10,16	210	360	72.0	325402	233.547
400	150	10,16	270	370	81.4	325196	233.587
400	200	10	325	380	91.1	325197	233.627
400	200	16	325	380	90.6	325198	-
400	300	10	440	400	113.5	325295	233.667
400	300	16	440	400	113.5	325383	-
400	400	10	560	420	135.6	325199	233.427
400	400	16	560	420	140.6	325200	-
500	100	10,16	215	420	116.0	325201	-
500	150	10,16	275	430	141.0	325404	-
500	200	10	330	440	142.0	325202	-
500	200	16	330	440	141.0	325203	-
500	300	10	450	460	188.2	325297	-
500	300	16	450	460	182.0	325384	-
500	400	10	565	480	199.0	325204	-



Subject to alteration without notice

Tee-connector with 2 sockets and a flanged branch (MMA)

Fig. 2857

DN ₁	DN ₂	PN bar	L mm	h mm	weight kg	item-no.	suissetec
500	400	16	565	480	205.0	325205	-
500	500	10	680	500	232.0	325206	-
500	500	16	680	500	247.0	325207	-
600	100	10,16	220	480	171.0	325208	-
600	150	10,16	280	490	187.0	325405	-
600	200	10	340	500	189.0	325209	-
600	200	16	340	500	189.0	325210	-
600	250	10	395	510	221.0	325406	-
600	250	16	395	510	220.0	325412	-
600	300	10	455	520	240.0	325298	-
600	300	16	455	520	239.0	325413	-
600	400	10	570	540	258.0	325211	-
600	400	16	570	540	263.0	325212	-
600	500	10	685	560	316.0	325299	-
600	500	16	685	560	331.0	325414	-
600	600	10	800	580	340.0	325213	-
600	600	16	800	580	366.0	325214	-
700	200	10	345	525	225.0	325215	-
700	200	16	345	525	366.0	325216	-
700	400	10	575	555	286.0	325301	-
700	400	16	575	555	292.7	325385	-
700	600	10	925	585	457.0	325302	-
700	600	16	925	585	481.0	325386	-
700	700	10	925	600	381.0	325219	-
700	700	16	925	600	396.0	325220	-

Tee-connector with 2 sockets and a screw branch

Fig. 2858

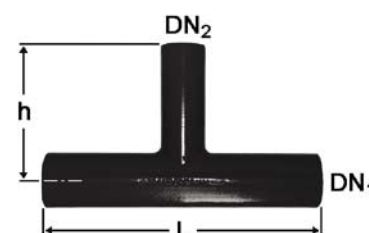
DN	G	L mm	h mm	weight kg	item-no.	suissetec
100	2"	161	100	15.3	325370	234.819
125	2"	180	120	20.0	325371	234.821
150	2"	224	130	26.0	325372	234.822
200	2"	215	160	34.0	325373	234.823



Spigot Tee-connector (IT)

Fig. 2859

DN ₁	DN ₂	L mm	h mm	weight kg	item-no.	suissetec
80	80	540	270	6.5	155324	234.418
100	100	550	275	14.1	155325	234.419
150	100	620	320	23.4	155326	234.542
150	150	620	320	24.3	155327	234.422
200	200	650	325	35.1	155323	234.423



Subject to alteration without notice

ecofit® taper with push-in joints

Adapter fittings made of ductile cast iron (EN-GJS) to EN 545 standard.

Thick epoxy-resin coating (min. 250 µm) to DIN 3476 standard

Single-chamber sockets

Pipes and adapter fittings – DN 400-600 with standard supporting collar – are delivered with Tyton seal but without thrust-resisting ring.



Taper with 2 sockets (MMR)

Fig. 2883

DN ₁	DN ₂	L mm	weight kg	item-no.	suissetec
100	80	90	7.5	325267	236.519
125	80	140	9.9	325268	236.521
125	100	100	9.8	325269	236.541
150	80	190	12.3	325270	236.522
150	100	150	12.3	325271	236.542
150	125	100	12.6	325272	236.562
200	100	250	18.3	325273	236.543
200	125	200	18.7	325274	236.563
200	150	150	18.7	325275	236.583
250	125	300	26.3	325360	236.564
250	150	250	26.5	325276	236.584
250	200	150	25.8	325277	236.624
300	150	350	35.9	325278	236.585
300	200	250	35.7	325279	236.625
300	250	150	34.6	325280	236.645
350	200	360	47.8	325361	236.626
350	250	260	46.8	325362	236.646
350	300	160	45.1	325281	236.666
400	250	360	66.0	325363	236.647
400	300	260	64.0	325364	236.667
500	300	500	95.2	325365	-
500	400	260	94.0	325282	-
600	400	460	142.0	325283	-
600	500	260	131.0	325284	-
700	600	280	180.3	325285	-



Adapter fittings with push-in joints

Pressure pipes and adapter fittings

ecofit® add-in adapter, flange adapter (with push-in joint)

Adapter fittings made of ductile cast iron (EN-GJS) to EN 545 standard.

Thick epoxy-resin coating (min. 250 µm) to DIN 3476 standard

Single-chamber sockets

Pipes and adapter fittings – DN 400-600 with standard supporting collar – are delivered with Tyton seal but without thrust-resisting ring.



Fig. 2870

Collars (U)

DN	PN	L mm	weight kg	item-no.	suissetec
80	16	160	8.9	461050	-
100	16	160	10.8	461051	-
125	16	165	13.6	461052	-
150	16	165	16.7	461053	-
200	16	170	23.0	461054	-
250	16	175	31.5	461055	-
300	16	180	40.5	461056	-



Flange – socket adapter, adjustable (EU)

Fig. 2877b

DN	PN bar	L mm	z mm	weight kg	item-no.	suissetec
80	10,16,25,40	130	86 ± 40	7.5	325225	235.818
100	10,16	130	87 ± 40	9.1	325226	235.819
125	10,16	135	91 ± 40	11.4	325227	235.821
150	10,16	135	92 ± 40	15.3	325228	235.822
200	10	140	97 ± 40	19.8	325229	235.823
200	16	140	97 ± 40	19.8	325230	235.843
250	10	145	102 ± 40	29.2	325231	235.824
250	16	145	102 ± 40	29.2	325232	235.844
300	10	150	107 ± 40	36.5	325233	235.825
300	16	150	107 ± 40	36.0	325234	235.845
350	10	155	112 ± 40	43.0	325243	235.826
350	16	155	112 ± 40	46.0	325244	235.846
700	10	190	147 ± 40	142.1	325241	-
700	16	190	147 ± 40	142.1	325242	-



Flange – socket adapter (EU)

Fig. 2888

DN	PN bar	L mm	weight kg	item-no.	suissetec
400	10	160	52.1	325235	235.827
400	16	160	57.1	325236	235.847
500	10	170	76.6	325237	-
500	16	170	76.6	325238	-
600	10	180	106.2	325239	-
600	16	180	106.2	325240	-



Subject to alteration without notice

Flange – spigot adapter (F)

Fig. 2890

DN	PN bar	L mm	weight kg	item-no.	suissetec
80	10,16,25,40	350	7.8	155340	237.318
100	10,16	360	9.7	155341	237.319
125	10,16	370	12.5	155342	237.321
150	10,16	380	16.0	155343	237.322
200	10	400	22.8	155344	237.323
200	16	400	23.0	155345	237.343
250	10	420	32.0	155346	237.324
250	16	420	32.0	155347	237.344
300	10	440	43.0	155348	237.325
300	16	440	42.0	155349	237.345
350	10	460	52.3	155338	237.326
350	16	460	55.3	155339	237.346
400	10	480	65.0	155350	237.327
400	16	480	65.0	155351	237.347
500	10	520	95.0	155352	-
500	16	520	95.0	155353	-
600	10	560	135.0	155354	-
600	16	560	135.0	155355	-
700	10	600	183.0	155356	-
700	16	600	183.0	155357	-



Thrust-resisting rings and sealing gaskets

Pipes, adapter fittings and valves can be connected to pipes using thrust-resisting rings that take up longitudinal forces.

Thrust-resisting ring (external) for vonRoll support collar, with welded bead, not electrically conducting

Fig. 2505

DN	PN bar	DF mm	weight kg	item-no.	suissetec
400	16	595	47.1	201001	238.867
500	16	710	58.6	201002	-
600	16	826	79.8	201003	-

"Permissible pressures for thrust-resisting rings" page 6/4.4



2

Thrust-resisting ring (external), not electrically conducting

Fig. 2506

DN	PN bar	DF mm	weight kg	item-no.	suissetec
400	16	595	43.8	211508	238.867

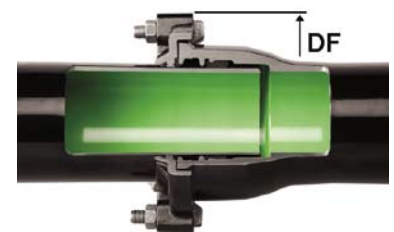
"Permissible pressures for thrust-resisting rings" page 6/4.4



Thrust-resisting ring (external), not electrically conducting

Fig. 2806

DN	PN bar	DF mm	weight kg	item-no.	suissetec
80	40	235	4.7	262000	238.838
100	40	256	5.1	262001	238.839
125	40	287	5.7	262002	238.841
150	40	310	6.9	262003	238.842
200	16	325	8.9	262004	238.843
200	40	325	10.1	262008	-
250	16	421	13.9	262005	238.844
250	40	421	15.5	262009	-
300	16	479	19.6	262006	238.845
300	40	479	21.6	262010	-
350	16	534	25.5	262007	238.846
350	25	534	27.5	262011	-



External thrust-resisting ring for push-in joint connections.

Epoxy-resin coated thrust-resisting ring.

For pressures > 40 bar, piping of pipe-class K10 or higher should be used.

See table "Permissible pressures for thrust-resisting rings" page 6/4.4.

Subject to alteration without notice

Thrust-resisting ring Tyton-Sit for water (internal)

Fig. 2504-1

DN	PN* bar	weight kg	item-no.	suissetec
80	16	0.2	451999	238.618
100	16	0.2	452100	238.619
125	16	0.3	452101	238.621
150	16	0.3	452102	238.622
200	16	0.5	452103	238.623
250	16	0.6	452104	238.624
300	16	1.0	452105	238.625
400	16	1.6	452107	238.625



* 10 bar for ecopur® pipes
Tyton-Sit PLUS on request

Thrust-resisting ring (internal)

Fig. 2807

DN	PN bar	weight kg	item-no.	suissetec
80	25	0.2	455440	238.518
100	25	0.3	455441	238.519
125	25	0.3	455442	238.521
150	25	0.4	455443	238.522
200	25	0.6	455444	238.523
250	16	0.7	455445	238.524
300	16	0.8	455446	238.525



Internal thrust-resisting ring for double-chamber socket connections.

System pressures: see "Permissible pressures for thrust-resisting rings" page 6/4.4.

Tyton seal for water

Fig. 2810

DN	weight kg	item-no.	suissetec
80	0.1	454976	238.118
100	0.1	454963	238.119
125	0.2	454964	238.121
150	0.2	454965	238.122
200	0.3	454966	238.123
250	0.5	454967	238.124
300	0.6	454968	238.125
350	0.8	454969	238.126
400	1.0	454970	238.127
500	1.6	451014	-
600	2.2	451015	-
700	3.1	451017	-



Rubber sealing ring for push-in joints for water, fulfils EN 681-1.

Tyton seal for gas

Fig. 2811

DN	weight kg	item-no.	suissetec
80	0.1	454152	238.138
100	0.1	454153	238.139
125	0.2	454154	238.141
150	0.2	454155	238.142
200	0.3	454156	238.143
250	0.5	454157	238.144
300	0.6	454158	238.145



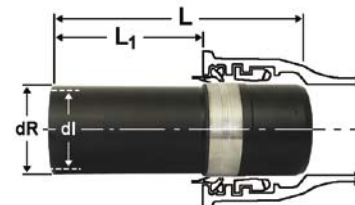
Rubber sealing ring for push-in joints for gas, fulfils EN 682.

Connecting pieces

PE-100 connecting piece (for use in water piping)

Fig. 5468

DN	dR mm	dI mm	L mm	L ₁ mm	weight kg	item-no.	suissetec
80	90	73.6	286 ±3	170	1.5	95670	237.518
100	110	90	310 ±3	194	2.2	95671	237.519
100	125	102.2	330 ±3	214	2.6	95672	237.519
125	140	114.6	330 ±3	214	3.8	95673	237.521
150	160	130.8	354 ±5	234	4.8	95674	237.522
150	180	147.2	380 ±5	260	5.1	95675	237.522
200	200	163.6	395 ±5	270	8.0	95676	237.523
200	225	184	413 ±5	288	8.9	95677	273.523
200	250	204.6	395 ±5	270	8.6	95678	237.524



For use when making connections between slide-valves or piping components with push-in joints (double-chamber system) and plastic piping: The push-in joint must be fitted with a thrust-resisting ring (Fig. 2807).

Installation material for push-in joint pipes

Neutrex T lubricant

Fig. 270

weight g	item-no.	suissetec
250.0	452533	-



Lubricant for the installation of pipes made of ductile cast iron

Transparent corrosion-protection film

Fig. 300 - 1

DN	b mm	weight kg/m	item-no.	suissetec
80	350	0.1	450541	281.118
100	350	0.1	450541	281.119
125	400	0.2	450542	281.121
150	500	0.2	450543	281.122
200	600	0.2	450544	281.123
250	700	0.3	450545	281.124
300	800	0.3	450546	281.125
350	800	0.3	450546	281.126
400	950	0.4	450547	-
500	1150	0.5	450548	-
600	1300	0.5	450549	-



Scotchrap

Fig. 300 - 2

B mm	length per roll m	weight kg	item-no.	suissetec
50	30	0.5	452552	-



ducpurPLUS corrosion-protection film

Fig. 310 - 1

DN	b mm	weight kg/m	item-no.	suissetec
80	350	0.1	450532	281.118
100	350	0.1	450532	281.119
125	400	0.2	450533	281.121
150	500	0.2	450534	281.122
200	600	0.2	450535	281.123
250	700	0.3	450536	281.124
300	800	0.3	450537	281.125
350	800	0.3	450537	281.126
400	950	0.4	450538	-
500	1150	0.5	450539	-
600	1300	0.5	450540	-



Subject to alteration without notice

Accessories for push-in joint piping

Pressure pipes and adapter fittings

Repair-set RESICOAT® RS

RESICOAT® RS is a ready-to-use, two-component solvent free epoxy-repair material packed in the correct mixing ratio of 2:1.

Colour: blue



Double-chamber cartridge

Fig. 284

weight g	item-no.	suissetec
100	451223	-



Dispenser

Fig. 285

weight g	item-no.	suissetec
180	451224	-



Mixing tube

Fig. 286

weight	item-no.	suissetec
1	451225	-



Accessories for push-in joint piping

Pressure pipes and adapter fittings

Set of assembly and laying tools, complete

Fig. 254 / 1-5

DN	weight kg	item-no.	suissetec
400	56.8	201118	-
500	59.4	201121	-
600	62.7	201123	-
700	75.0	201125	-

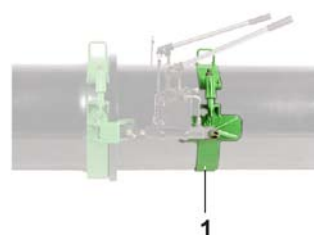


DN 300 auf Anfrage

Spigot collar

Fig. 254 - 1

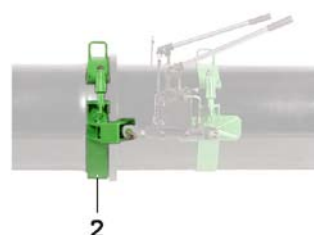
DN	weight kg	item-no.	suissetec
400	12.6	451118	-
500	12.8	451121	-
600	14.0	451123	-
700	20.3	451125	-



Socket collar

Fig. 254 - 2

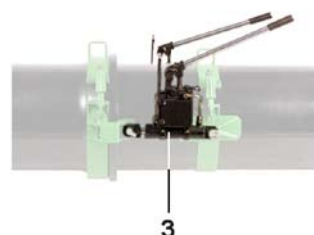
DN	weight kg	item-no.	suissetec
400	15.0	451119	-
500	17.4	451122	-
600	19.5	451124	-
700	25.5	451126	-



Hydraulic unit (1 pair)

Fig. 254 - 3

DN	weight kg	item-no.	suissetec
400 - 700	28.9	451120	-



Groove scraper

Fig. 254 - 4

DN	weight kg	suissetec
400	0.1	-
500 - 700	0.1	-



Checking rule

Fig. 254 - 5

DN	weight kg	item-no.	suissetec
400 - 700	0.1	451048	-



Subject to alteration without notice

Accessories for push-in joint piping

Pressure pipes and adapter fittings

Hammering accessory

Fig. 255 - 1

DN	weight kg	item-no.	suissetec
80 - 100	0.7	456577	-
125 - 150	0.7	456578	-
200 - 300	0.7	456579	-



Dismantling leaf

Fig. 255 - 2

DN	Number	weight kg	item-no.	suissetec
80	4	0.1	456581	-
100	5	0.1	456581	-
125	6	0.1	456581	-
150	7	0.1	456581	-
200	9	0.1	456581	-
250	12	0.1	456581	-
300	15	0.1	456581	-



Set of assembly and laying tools, complete

Fig. 293 / 1-6

DN	weight kg	item-no.	suissetec
80	18.7	201180	-
100	19.0	201181	-
125	19.2	201182	-
150	19.5	201183	-
200	20.5	201184	-
250	21.0	201185	-
300	22.5	201186	-
350	23.0	201187	-



Spigot collar

Fig. 293 - 1

DN	weight kg	item-no.	suissetec
80	5.0	451180	-
100	5.5	451181	-
125	5.5	451182	-
150	5.5	451183	-
200	6.0	451184	-
250	6.0	451185	-
300	7.3	451186	-
350	7.5	451187	-



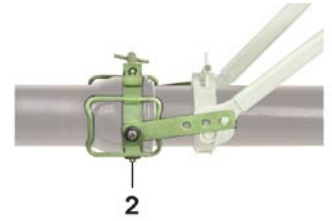
Accessories for push-in joint piping

Pressure pipes and adapter fittings

Socket collar

Fig. 293 - 2

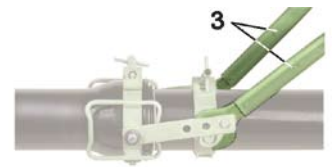
DN	weight kg	item-no.	suissetec
80	5.0	451270	-
100	5.5	451271	-
125	5.7	451272	-
150	6.0	451273	-
200	6.4	451274	-
250	6.8	451275	-
300	7.1	451276	-
350	7.5	451277	-



Open-ended spanner (1 pair)

Fig. 293 - 3

DN	weight kg	item-no.	suissetec
80 - 350	7.8	451106	-



Groove scraper

Fig. 293 - 4

DN	weight kg	suissetec
80 - 150	0.1	-
200 - 350	0.1	-



Checking rule

Fig. 293 - 5

DN	weight kg	item-no.	suissetec
80 - 350	0.1	451048	-



Extensions for the installation of VS 5000 slide-valves (1 pair)

Fig. 293 - 6

DN	weight kg
80 - 200	0.0



Accu screwdriver PIW 14.4SD

Fig. 294

weight kg	item-no.	suissetec
2.1	451400	-

Technical data

14.4.Volt / 1.4 – 2.4 Ah
 Idling speed 0 –2200 rpm
 Hammer 0-2500 blows/min
 Torque 158 Nm
 Weight – without accu-pack 1.6 kg
 Weight with accu-pack 2.1 kg
 Length 193 mm
 Chuck 1/2" square

Standard scope of supply:

2x 14.4 V / 1.4 Ah NiCd flatpack accu-pack
 RCA 7224MB charger
 ABS system case
 M20 hexagonal socket-wrench insert



Installation instructions for push-in joint piping

1. General remarks

Following the instructions below will guarantee professional and correct installation work.

2. Removal of caps and dummy plugs

Only remove caps and dummy plugs on-site just before the pipe is laid.



Environmental protection:

The caps and dummy plugs are designed to be one-way material. They are made of environment-friendly plastics (green polyethylene and black ethylene-propylene).

A practical way to reuse them is to use them as a protective cushion between the pipe body and trench bottom or levelling (e.g. cement slabs). If they are disposed of in an appropriate waste incineration plant, no poisonous or corrosive pollutants are produced.

3. Cleaning the sockets

Check that the insides of the socket around the retainer groove (A) and the sealing chamber (B) are clean. For ducpur® pipes, bitumen residue and/or other deposits can be removed using the groove scraper.

ecopur® pipes, adapter fittings and slide-valves are only to be cleaned with a cloth.

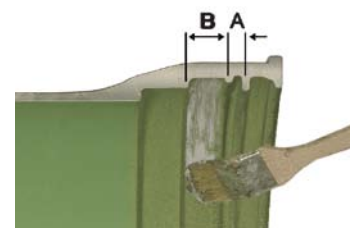
The use of groove scrapers is forbidden.



4. Lubricating the sockets

Using a brush, apply the lubricant specially suitable for push-in joint connections to the sealing chamber (B).

The retainer groove (A) should not be lubricated.



5. Inserting the sealing rings (Fig 2810 / 2811)

- 5.1 The sealing ring is inserted by hand.
- 5.2 Press any bulge remaining flat.
- 5.3 If you have trouble pressing the seal flat, make a second bulge on the opposite side. These two smaller bulges can then be easily pressed flat.



5.1



5.2



5.3

The hard edge of the sealing ring should not be allowed to jut out above the aligning ridge



right

wrong

Note:

Sealing rings should be stored away from sunlight and moisture (see "transport and storage"). They should only be fitted in the sockets just before pipe installation. In winter, it is recommended that the sealing rings be stored in a warm room – this makes their fitting easier.

6. Cleaning and lubricating the spigots of pipes and adapter fittings and the socket

6.1 Cleaning

ducpur[®]-pipes should be cleaned with a triangular scraper. If necessary, accumulations of coating material and/or other deposits should be removed from the spigots. **ecopur**[®]-pipes, adapter fittings and slide-valves are only to be cleaned using cloths and sponges.



6.2 Lubricating

The spigots and the sealing ring in the socket should be evenly covered with installation lubricant.



7. Centring and alignment of push-in joint joints

Attention!

If the connection is to be secured with an optional thrust-resisting ring, this must first be installed as described in section 12.

- Using a wooden roller, insert the spigot of the pipe into the socket so that it is centred in the sealing ring.
In this position, the pipes will centre themselves automatically.
- The axes of the pipeline components (pipes, adapters and fittings) must all lie on a straight line.



2

8. Assembly

After centring as described in section 7, the final assembly of the pipes can be carried out by using various different methods.

The various methods described below are suitable for push-in joint joints with or without thrust-resisting rings.

During and after assembly, the depth of insertion must be checked. See sections 9 and 10

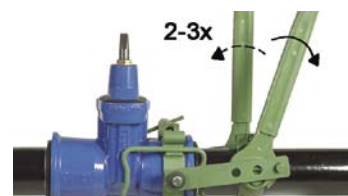
8.1 Assembly using the assembling and laying tool (Fig. 293) for DN 80 – 350 pipes and adapter fittings

After centring, the pipeline components can be quickly and easily put together using the assembling and laying tool (Fig. 293). Two open-ended spanners are used to operate the appliance.



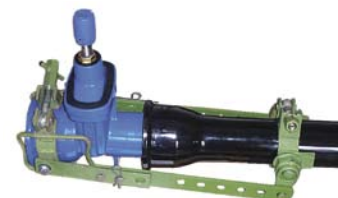
Attention!

When assembling a push-in joint connection with an internal thrust-resisting ring (Fig. 2807), interlocking is achieved by making two or three jerky movements with the spanners in opposite directions.



8.2 Assembly using the assembling and laying tool (Fig. 293) for DN 80 – 200 slide-valves with spigot

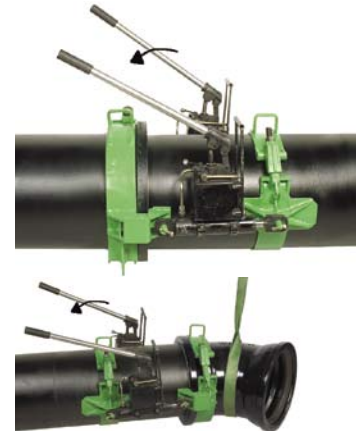
For this, two extension pieces, 2 bolts and 2 split pins are needed.



8.3 Assembly using the assembling and laying tool (Fig. 254) for DN 400 – 700 pipes and adapter fittings

The assembling and laying tool is operated hydraulically and is designed for putting push-in joints together.

Assembly of adapter fittings and slide-valves with socket connections using the assembling and laying tool (Fig. 254).



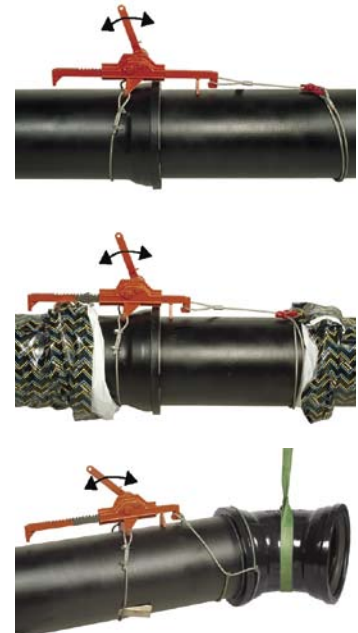
8.4 Assembly using the assembling and laying tool (Fig. 252) for DN 200 – 600 pipes and adapter fittings

The appliance is protected against overload by a torque-limiter on its crank.

For ecopur® pipes, sheathed wire rope slings must be used.

If the pipeline is protected using ducpurPLUS protective film, installation should be carried out as shown.

Assembly of adapter fittings and slide-valves with socket connections using the assembling and laying tool (Fig. 252). (sheathed wire rope slings should be used)



8.5 Assembly without assembly and laying tool

Installation using a digger shovel or winch

A square piece of timber should always be used to protect the pipe from damage.

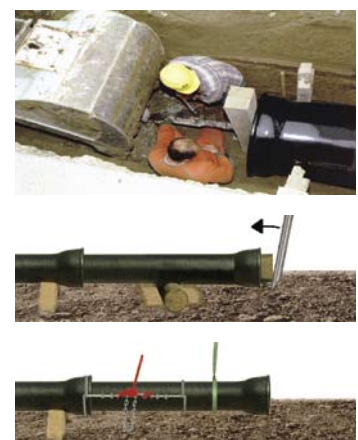
Assembly using a crowbar for DN 80 – 100

For the installation of push-in joint pipes, adapter fittings (except bends) and slide-valves. The crowbar is not included in delivery.

Assembly using two chain-hoists in opposition

To be used under difficult conditions or for large diameters.

For ecopur® pipes only sheathed wire rope slings and stirrups and textile belts may be used.



8.6 Assembly of shortened DN 80– 700 pipes with push-in joints

Installation as in sections 8.1 to 8.5.

Pipes should be shortened to the required length as described under "Shortening pipes".

The short pipes can be prevented from getting out of line when being installed as follows:

- **For DN 80 – 150** by using an extension (e.g. pipe, piece of timber etc.) and balancing out using body weight.
- **For DN 200 – 700** by installing a brace across the top of the short pipe.

After the completion of installation work, all pieces of timber etc. used are unconditionally to be removed!

9. Inspection during and after installation

During and after installation, the insertion depth should be monitored. The distance between the spigot and the bottom of the socket should be kept within a tolerance (S) of 5 – 10 mm.

9.1 Push-in joints with double-chamber socket DN 80 – 300 (pipes)

The position of the silver-grey marking lines for socket connections are as follows:

Without thrust-resisting joints

If the end of the socket is flush with the first marking line, the spigot is positioned correctly in the socket.

With internal thrust-resisting ring Fig. 2807

If the edge of the rubber sleeve of the restraining ring is flush with the second marking line, the spigot is positioned correctly in the socket.

With external thrust-resisting ring Fig. 2806

If the end of the socket is flush with the first marking line, the spigot is positioned correctly in the socket. The thrust-resisting ring may only be fitted after the sealing ring has been checked according to section 10.

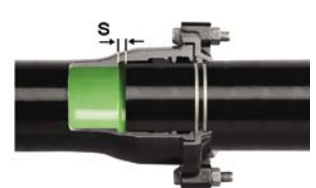
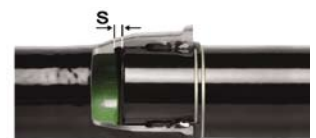
9.2 Push-in joints with single-chamber socket DN 350 – 700 (pipes and adapter fittings) DN 80 – 300 (adapter fittings) with external thrust-resisting rings Figs. 2806, 2505, 2506

DN 350 – 700 pipes and adapter fittings with and without thrust-resisting rings

If the end of the socket is flush with the first marking line, the spigot is positioned correctly in the socket.

DN 80 – 300 adapter fittings

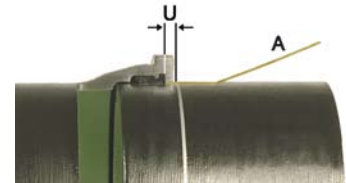
Measure insertion depth and apply a marking line on the spigot as described in section 12.2



10. Correct positioning of the sealing ring

Immediately after installation as described in section 8, the distance (U) between the end of the socket and the sealing ring should be checked using the control gauge (A). The distance (U) must be consistent over the whole of the pipe's circumference.

If the measured distance (U) is not consistent, the push-in joint connection must be dismantled and installed anew.



11. Deflection of the connection for installations without thrust-resisting joints

After assembling and checking have been completed, the pipe can be deflected.

The permissible angles of deviation are as follows:

$\geq 5^\circ$ for DN 80 – 300	(with Tyton seal)
$\geq 4^\circ$ for DN 350 – 400	(with Tyton seal)
$\geq 3^\circ$ for DN 500 – 700	(with Tyton seal)

For connection deviation for installations with thrust-resisting rings see section 12.



12. Fitting of external and internal thrust-resisting rings

External and internal thrust-resisting rings can be additionally fitted to the push-in joint.

These thrust-resisting rings provide a secure connection under high operating pressure.

For permissible operating pressures see "Information for planners and piping installers".

Thrust-resisting rings may only be fitted to pipes and adapter fittings with spigots that are made of ductile cast iron.

12.1 Internal thrust-resisting rings (Fig. 2807)

Preparation and installation of sealing ring as described in sections 1 – 6.

- Lubrication of the thrust-resisting ring chamber.

- Make a bulge in the thrust-resisting ring (C) by pinching it by hand.

Attention!

The bulge must lie between two locking segments.



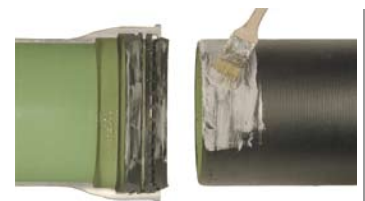
Fit the thrust-resisting ring (C) into its chamber. The number of stainless-steel segments varies depending on the size of the thrust-resisting ring.

The rubber lip must be on the outside

The spigot end, the sealing ring and the thrust-resisting ring should be coated evenly with installation lubricant.

Installation and checking of the push-in joint connection as described in sections 7 – 10.

If necessary, the pipes can be deflected (α max. 3°) after installation.



2

12.2 External thrust-resisting rings (Fig. 2806)

Preparation and installation of sealing ring as described in sections 1 – 6

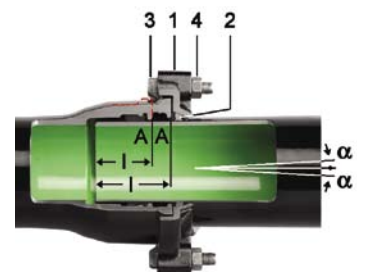
Using the appropriate template, the insertion depth (l) for adapter fittings (single-chamber socket) is as follows:

80 mm	for	DN 80/100/125
85 mm	for	DN 150
90 mm	for	DN 200/250
100 mm	for	DN 300/350

or, for pipes, UN1 and slide-valves (double-chamber socket):

110 mm	for	DN 80/100/125
115 mm	for	DN 150
120 mm	for	DN 200/250/300

Mark insertion depth at (A).



- Slide thrust-resisting ring (1) and retainer ring (2) onto the end of the pipe.
- Insert the pipe using the assembling and laying tool (Fig. 293) up to the mark (A).
- Slide parts (1) and (2) up to the end of the socket to position (A).
- Tighten up the fang bolts (3) and nuts (4) diagonally to 120 Nm. (With spanner or accu percussion screwdriver Fig. 294)
- After completing installation and checking, the pipes may be deflected. The permissible angle of deviation α is max. 3°.

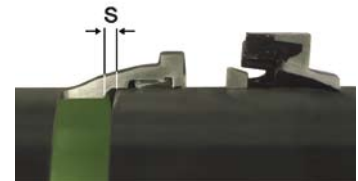
12.3 External thrust-resisting rings (Fig. 2506)

Preparation and installation of sealing ring as described in sections 1 – 6.

- Slide thrust-resisting ring (A) and retainer ring (B) onto the spigot of the pipe.

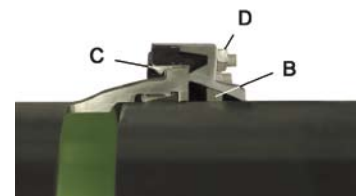


- Centre as described in section 7. Using the installation appliance, slide the spigot into the socket (as described in section 8) so that the end of the inserted pipe is at a distance (S) of 5 – 10 mm from the bottom of the socket.



- Make checks during the installation as described in sections 9 – 10.

- Slide the retainer ring (B) up to the end of the socket. Slide the thrust-resisting ring over the retainer ring.



- Insert the fang bolts (C) from the rear of the thrust-resisting ring and screw on the nuts as tightly as possible by hand. (Pay attention that the contact areas of the screws are positioned correctly on the socket bell and the restraint-clamp ring).

- Tighten up the fang bolts (C) and nuts (D) diagonally to 120 Nm. (With spanner or accu percussion screwdriver Fig. 294)

- After completing installation and checking, the pipes may be deflected. The permissible angle of deviation α is max. 3° .



12.4 External thrust-resisting rings (Fig. 2505) for pipes with welded bead

Preparation and installation of sealing ring as described in sections 1 – 6.

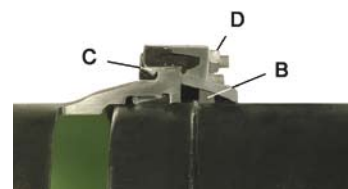
- Slide thrust-resisting ring (A) and retainer ring (B) onto the spigot of the pipe.



- Centre as described in section 7. Using the installation appliance, slide the spigot into the socket (as described in section 8) up to the line marked on the pipe.



- Make checks during the installation as described in sections 9 – 10.
- Slide the retainer ring (B) up to the end of the socket and centre it (e.g. with two hard-wood wedges).
- Insert the fang bolts (C) from the rear of the thrust-resisting ring and screw on the nuts as tightly as possible by hand. (Pay attention that the contact areas of the screws are positioned correctly on the socket bell and the restraint-clamp ring).
- Tighten up the fang bolts (C) and nuts (D) diagonally to 120 Nm. (With spanner or accu percussion screwdriver Fig. 294)
- After completing installation and checking, the pipes may be deflected. The permissible angle of deviation α is max. 3°.



2

13. Dismantling push-in joints

The dismantling method varies depending on if the connection is fitted with a thrust-resisting ring or not.

13.1 Dismantling a push-in joint without thrust-resisting rings

- **With the help of the assembling and laying tool Fig. 293**
Press the open-ended spanners in the direction of the connection.
- **With the help of the assembling and laying tool Fig. 254**
Reverse the oil-flow in the hydraulics by changing over the valve levers. The cylinders are pushed out by pumping the levers and the connection will be released.

Dismantling of push-in joint connections that were made a long time ago:

Push metal dismantling leaves (Fig. 255-2) between the spigot and the sealing ring using the special hammering accessory (Fig. 255-1)



Used sealing rings should never be reused.

- With the help of the assembling and laying tool Fig. 252

Place the steel cables and the winch as shown,
Dismantle the connection by driving the rack out.
In difficult cases, this appliance can also be used for pipe-
diameters under DN 200

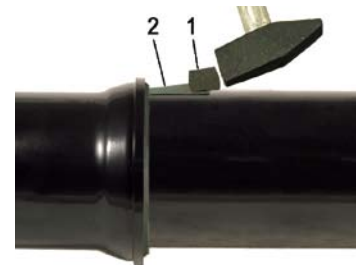


13.2 Dismantling a push-in joint with internal thrust-resisting ring Fig. 2807

- With the help of the assembling and laying tool Fig. 293, pull in the spigot until it touches the bottom of the socket.
- Push metal dismantling leaves (2), Fig. 255-2, between the spigot and the sealing ring using the special hammering accessory (1), Fig. 255-1.

The following number of dismantling leaves are need per dismantling operation:

DN	Pcs.
80	4
100	5
125	6
150	7
200	9
250	12
300	15



Attention!

Used thrust-resisting rings can be reused if they display no visual signs of damage (no broken locking elements).

13.3 Dismantling a push-in joint with external Fig. 2806/2505/2506 thrust-resisting ring

External thrust-resisting rings are to be dismantled in the reverse order of their installation.
Afterwards, dismantle the joint using the installation appliances as described above.

Attention!

Used restraint-clamp rings can be reused if they display no visual signs of damage.