



Product Catalogue

# FLOW MANAGEMENT

Electrofusion | Butt Fusion | Socket Fusion |  
Compression joint | Threaded joint



Since 1972, NDS has been producing plastic drainage and landscape products. From the beginning, our commitment to leading the industry has been unwavering, leading to remarkable innovations and state-of-the-art products that fit every environment, every schedule, every need.

Today, our commitment to providing one-source solutions has led to the development of superior quality drainage products, landscape products, fittings, valve and meter boxes, drip and micro irrigation products as well as agriculture products and construction products, delivering optimal solutions for your needs. We now offers all our business partners exceptionally efficient flow solutions. No product is added to our line without meeting exhaustive testing and extensive research requirements.

## THE NDS BRAND PROMISE

NDS is your knowledgeable and trusted partner for the best in water management solutions.

Our products are engineered and produced for performance, durability, ease of installation and the efficient use of resources.

We provide the service and support to ensure that you are successful.

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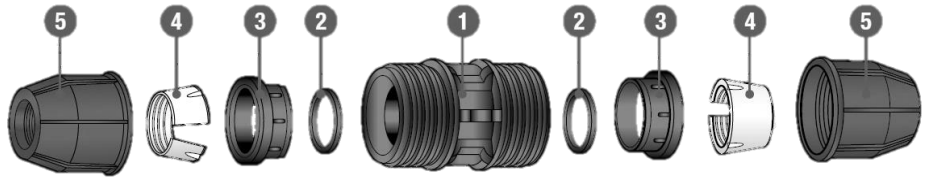


# FISH Compression Fittings



## Advantages at a glance

- ✓ Perfect water tightness
- ✓ High UV and temperature resistance
- ✓ Compatibility with metric pipe
- ✓ No requirements to remove the end caps during installation
- ✓ Tested to meet potable water standards



## Applications

Ideally suited for higher demanding irrigation applications like public parks, sports fields, golf courses and high-end agriculture-based irrigation. It is also suited for industrial application.

Materials	
Product	Material
1. Body	Polypropylene
2. O-Ring	NBR
3. Holder	Polypropylene
4. Clinching ring	Acetyl
5. Nut	Polypropylene

## Fittings specifications

- Pressure range: 16 bar for the complete range from d20 to d110 mm
- Temperature range: -10°C to 45 °C
- Attention: Pressure rates refer to operating temperatures at 20°C. Higher temperatures and aggressive flow media reduce pressure load. Pressure load capacity must be determined in consideration with safety demands of the respective applications and calculated in accordance.
- Compliance to SIRIM 11 & ISO 17885

\*Standards & Approval:



\*Standards and approvals certification available upon request.

## FISH Compression Fittings

### MALE THREADED ADAPTOR (MTA) - BSPT

Colour: Black | Water application | PN 16



#### MALE THREADED ADAPTOR (MTA) - BSPT

Product Code	d x t [mm; inch]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960400050	20 x 1/2"	46	72	38	500	400
07960400051	20 x 3/4"	46	73	39	500	400
07960400052	20 x 1"	46	78	42	500	400
07960400053	25 x 1/2"	54	81	59	300	250
07960400054	25 x 3/4"	54	81	59	300	250
07960400055	25 x 1"	54	86	63	300	250
07960400056	32 x 1/2"	64	93	86	200	160
07960400057	32 x 3/4"	64	95	87	200	160
07960400058	32 x 1"	64	100	90	200	160
07960400059	32 x 1 1/4"	64	105	94	200	160
07960400060	40 x 3/4"	77	112	150	120	100
07960400061	40 x 1"	77	117	155	120	100
07960400062	40 x 1 1/4"	77	121	156	120	100
07960400063	40 x 1 1/2"	77	125	163	120	100
07960400064	50 x 1 1/4"	92	128	237	60	50
07960400065	50 x 1 1/2"	92	132	240	60	50
07960400066	50 x 2"	92	137	244	60	50
07960400067	63 x 1 1/2"	111	143	346	40	32
07960400068	63 x 2"	111	149	347	40	32
07960100107	75 x 2"	125	155	500	30	25
07960100108	75 x 2 1/2"	125	158	513	30	25
07960100109	90 x 3"	148	170	799	20	16
07960100110	110 x 4"	175	175	1292	12	8

### FEMALE THREADED ADAPTOR (FTA) - BSPT

Colour: Black | Water application | PN 16



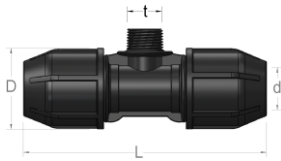
#### FEMALE THREADED ADAPTOR (FTA) - BSPT

Product Code	d x t [mm; inch]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960400069	20 x 1/2"	46	72	38	500	400
07960400070	20 x 3/4"	46	77	39	500	400
07960400072	25 x 1/2"	54	80	59	300	250
07960400073	25 x 3/4"	54	82	59	300	250
07960400071	25 x 1"	54	89	63	300	250
07960400076	32 x 3/4"	64	93	87	200	160
07960400074	32 x 1"	64	95	90	200	160
07960400075	32 x 1 1/4"	64	99	94	200	160
07960400077	40 x 1"	77	105	155	120	100
07960400079	40 x 1 1/4"	77	108	156	120	100
07960400078	40 x 1 1/2"	77	113	163	100	80
07960400080	50 x 1 1/2"	92	129	240	60	50
07960400081	50 x 2"	92	132	244	60	50
07960400082	63 x 1 1/2"	111	151	346	40	32
07960400083	63 x 2"	111	158	347	40	32
07960100171	75 x 2"	125	175	500	30	25
07960100172	75 x 2 1/2"	125	180	513	30	25
07960100173	90 x 3"	148	195	799	20	16
07960100174	110 x 4"	175	208	1292	12	8

## FISH Compression Fittings

### MALE TEE (MT) - BSPT

Colour: Black | Water application | PN 16

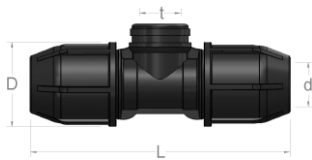


#### MALE TEE (MT) - BSPT

Product Code	d x t [mm; inch]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960400115	20 x 1/2"	46	130	79	200	160
07960400116	20 x 3/4"	46	130	80	200	160
07960400118	25 x 1/2"	54	143	117	150	100
07960400119	25 x 3/4"	54	143	118	150	100
07960400117	25 x 1"	54	143	124	150	100
07960400121	32 x 3/4"	64	170	184	80	64
07960400120	32 x 1"	64	170	185	80	64
07960400122	40 x 1"	77	192	335	40	32
07960400123	40 x 1 1/4"	77	192	335	40	32
07960400125	50 x 1 1/4"	92	232	488	30	24
07960400124	50 x 1 1/2"	92	232	494	30	24
07960400126	63 x 2"	111	260	761	20	15
07960100141	75 x 2"	125	290	1073	15	10
07960100142	75 x 2 1/2"	125	290	1168	15	10
07960100143	90 x 3"	148	315	1824	8	6
07960100144	110 x 4"	175	381	2808	5	3

### FEMALE TEE (FT) - BSPT

Colour: Black | Water application | PN 16



#### FEMALE TEE (MT) - BSPT

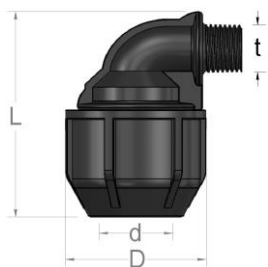
Product Code	d x t [mm; inch]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960400127	20 x 1/2"	46	130	79	200	160
07960400128	20 x 3/4"	46	130	80	200	160
07960400130	25 x 1/2"	54	143	117	150	100
07960400131	25 x 3/4"	54	143	118	150	100
07960400129	25 x 1"	54	143	124	150	100
07960400134	32 x 3/4"	64	170	184	80	64
07960400132	32 x 1"	64	170	185	80	64
07960400133	32 x 1 1/4"	64	170	210	80	64
07960400135	40 x 1"	77	192	335	40	32
07960400137	40 x 1 1/4"	77	192	335	40	32
07960400136	40 x 1 1/2"	77	192	340	40	32
07960400138	50 x 1 1/2"	92	232	494	30	24
07960400139	50 x 2"	92	232	518	30	24
07960400140	63 x 1 1/2"	111	260	791	20	15
07960400141	63 x 2"	111	260	761	20	15
07960100210	75 x 2 1/2"	125	290	1168	15	10
07960100211	90 x 3"	148	315	1824	8	6
07960100212	110 x 4"	175	381	2808	5	3

\*Stainless steel ring & reinforced cap are supplied for size of 50mm – 110mm

## FISH Compression Fittings

### MALE BEND 90° (MB) - BSPT

Colour: Black | Water application | PN 16

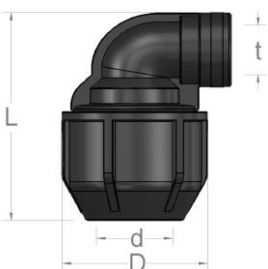


#### MALE BEND 90° (MB) - BSPT

Product Code	d x t [mm; inch]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960400084	20 x 1/2"	46	91	42	400	300
07960400085	20 x 3/4"	46	93	45	400	300
07960400087	25 x 1/2"	54	97	65	250	200
07960400088	25 x 3/4"	54	99	68	250	200
07960400086	25 x 1"	54	101	76	250	200
07960400090	32 x 3/4"	64	107	97	150	120
07960400089	32 x 1"	64	109	107	150	120
07960400091	40 x 1"	77	128	164	80	64
07960400093	40 x 1 1/4"	77	132	186	80	64
07960400092	40 x 1 1/2"	77	137	191	80	64
07960400095	50 x 1 1/4"	92	155	285	50	40
07960400094	50 x 1 1/2"	92	156	285	50	40
07960400096	50 x 2"	92	158	308	50	40
07960400097	63 x 2"	111	170	410	30	24
07960100125	75 x 2"	125	182	619	24	16
07960100126	75 x 2 1/2"	125	189	616	24	16
07960100127	90 x 3"	148	210	997	12	10
07960100128	110 x 4"	175	255	1696	8	6

### FEMALE BEND 90° (FB) - BSPT

Colour: Black | Water application | PN 16



#### FEMALE BEND 90° (FB) - BSPT

Product Code	d x t [mm; inch]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960400098	20 x 1/2"	46	91	48	400	300
07960400099	20 x 3/4"	46	95	52	400	300
07960400101	25 x 1/2"	54	98	67	250	200
07960400102	25 x 3/4"	54	98	71	250	200
07960400100	25 x 1"	54	100	78	250	200
07960400105	32 x 1/2"	64	108	108	150	120
07960400106	32 x 3/4"	64	110	110	150	120
07960400103	32 x 1"	64	112	113	150	120
07960400104	32 x 1 1/4"	64	115	117	150	120
07960400107	40 x 1"	77	130	178	80	64
07960400109	40 x 1 1/4"	77	133	187	80	64
07960400108	40 x 1 1/2"	77	137	284	80	64
07960400111	50 x 1 1/4"	92	142	443	50	40
07960400110	50 x 1 1/2"	92	148	446	50	40
07960400112	50 x 2"	92	159	452	50	40
07960400113	63 x 1 1/2"	111	178	438	30	24
07960400114	63 x 2"	111	185	443	30	24
07960100192	75 x 2 1/2"	125	194	641	24	16
07960100193	90 x 3"	148	215	1060	12	10
07960100194	110 x 4"	175	270	1799	8	6

## FISH Compression Fittings

### STRAIGHT COUPLER (SC)

Colour: Black | Water application | PN 16



STRAIGHT COUPLER (SC)							
Product Code	d [mm]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]	
07960400007	20	46	98	65	300	250	
07960400008	25	54	111	102	180	150	
07960400009	32	64	128	155	120	100	
07960400010	40	77	155	274	60	50	
07960400011	50	92	178	417	40	32	
07960400012	63	111	208	610	30	20	
07960100256	75	125	224	886	20	14	
07960100257	90	148	250	1374	12	12	
07960100258	110	175	270	2206	8	5	

### EQUAL BEND 90° (EB)

Colour: Black | Water application | PN 16



EQUAL BEND 90° (EB)							
Product Code	d [mm]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]	
07960400019	20	46	70	71	300	250	
07960400020	25	54	97	112	180	150	
07960400021	32	64	105	173	100	80	
07960400022	40	77	115	297	60	50	
07960400023	50	92	138	459	40	32	
07960400024	63	111	167	715	20	15	
07960100007	75	125	179	1008	18	12	
07960100008	90	148	215	1590	10	8	
07960100009	110	175	265	2523	6	4	

### EQUAL TEE (ET)

Colour: Black | Water application | PN 16

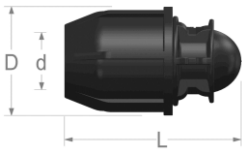


EQUAL TEE (ET)							
Product Code	d [mm]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]	
07960400013	20	46	130	106	180	150	
07960400014	25	54	145	164	120	100	
07960400015	32	64	170	253	60	50	
07960400016	40	77	198	440	40	32	
07960400017	50	92	230	667	25	20	
07960400018	63	111	275	1047	15	12	
07960100025	75	125	288	1473	10	8	
07960100026	90	148	315	2295	6	5	
07960100027	110	175	381	3592	4	3	

## FISH Compression Fittings

### END CAP (EC)

Colour: Black | Water application | PN 16



#### END CAP (EC)

Product Code	d [mm]	D [mm]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960400001	20	46	98	36	500	400
07960400002	25	54	112	58	300	250
07960400003	32	64	128	85	200	160
07960400004	40	77	163	148	120	100
07960400005	50	92	175	232	60	50
07960400006	63	111	200	336	40	32
07960100016	75	125	225	493	30	25
07960100017	90	148	245	774	20	16
07960100018	110	175	250	1223	12	8

### REDUCING COUPLER (RC)



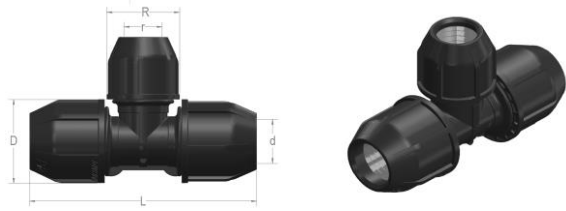
Colour: Black | Water application

#### REDUCING COUPLER (RC) Compression Fitting [PN12.5 & PN16]

Product Code	d x r [mm]	D [mm]	L [mm]	r [mm]	R [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960400025	25 X 20	54	100	20	46	84	200	200
07960400026	32 X 20	64	115	20	46	112	150	120
07960400038	32 X 25	64	118	25	54	130	150	120
07960400027	40 X 20	77	125	20	46	179	60	60
07960400028	40 X 25	77	132	25	54	193	60	60
07960400029	40 X 32	77	139	32	64	220	60	60
07960400030	50 X 20	92	145	20	46	261	50	50
07960400031	50 X 25	92	149	25	54	275	50	50
07960400032	50 X 32	92	153	32	64	296	50	50
07960400033	50 X 40	92	158	40	77	349	40	32
07960400034	63 X 25	111	160	25	54	384	30	30
07960400035	63 X 32	111	166	32	64	407	30	24
07960400036	63 X 40	111	180	40	77	456	30	24
07960400037	63 X 50	111	192	50	92	518	30	24
07960100227	75 X 40	125	200	40	77	608	24	16
07960100228	75 X 50	125	210	50	92	675	24	16
07960100229	75 X 63	125	218	63	111	753	24	16
07960100230	90 X 63	148	230	63	111	1036	15	12
07960100231	90 X 75	148	239	75	125	1150	15	12
07960103681	110 X 63	175	250	63	111	1750	10	6
07960100232	110 X 90	175	260	90	148	1826	9	6

## FISH Compression Fittings

### REDUCING TEE (RT)



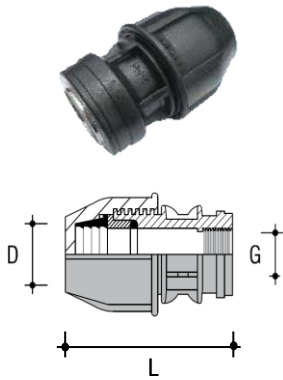
Colour: Black | Water application

#### REDUCING TEE (RT) Compression Fitting [PN16]

Product Code	d x r [mm]	D [mm]	L [mm]	r [mm]	R [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960400039	25 x 20	54	145	20	46	145	120	100
07960400619	25 x 32	54	145	32	64	205	80	64
07960400040	32 x 20	64	170	20	46	207	80	64
07960400041	32 x 25	64	170	25	54	222	80	64
07960400042	40 x 25	77	198	25	54	374	40	32
07960400043	40 x 32	77	198	32	64	395	40	32
07960400044	50 x 25	92	230	25	54	528	30	24
07960400045	50 x 32	92	230	32	64	550	30	24
07960400046	50 x 40	92	230	40	77	592	25	20
07960400047	63 x 32	111	275	32	64	829	20	15
07960400048	63 x 40	111	275	40	77	869	20	15
07960400049	63 x 50	111	275	50	92	921	15	12
07960100244	75 x 40	125	288	40	77	1186	12	8
07960100245	75 x 50	125	288	63	111	1232	12	8
07960100246	75 x 63	125	288	50	77	1375	12	8
07960100247	90 x 63	148	315	63	111	2025	8	6
07960100248	90 x 75	148	315	75	125	2148	8	6
07960103682	110 x 63	175	381	50	111	3150	6	4
07960100249	110 x 90	175	381	90	148	3264	5	3

## FISH Compression Fittings

### FEMALE BRASS THREADED ADAPTOR

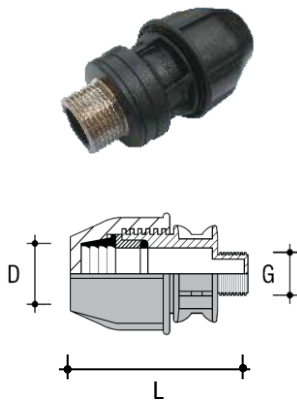


Colour: Black | Water application | PN 16

#### FEMALE BRASS THREADED ADAPTOR (FTA) - BSPT

Product Code	D x G [mm; inch]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]
07960400172	20 x 1/2"	74	40	500
07960400173	25 x 3/4"	84	61	300
07960400174	25 x 1"	91	65	300
07960400175	32 x 1"	97	92	200

### MALE BRASS THREADED ADAPTOR

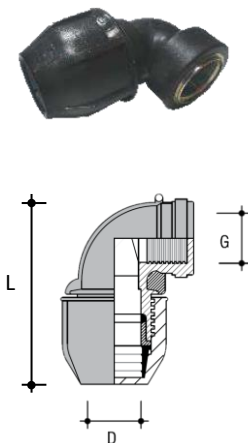


Colour: Black | Water application | PN 16

#### MALE BRASS THREADED ADAPTOR (MTA) - BSPT

Product Code	D x G [mm; inch]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]
07960400179	20 x 1/2"	89	42	500
07960400180	25 x 3/4"	98	63	300
07960400181	25 x 1"	103	67	300
07960400182	32 x 1"	110	93	200

### FEMALE BRASS THREADED BEND 90°



Colour: Black | Water application | PN 16

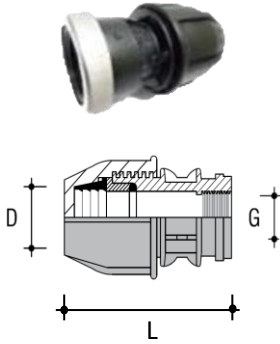
#### FEMALE BRASS THREADED BEND 90° (FB) - BSPT

Product Code	D x G [mm; inch]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]
07960400176	20 x 3/4"	97	60	400
07960400177	25 x 3/4"	100	79	250
07960400178	32 x 1"	114	121	150

## FISH Compression Fittings

### FEMALE THREADED ADAPTOR WITH STAINLESS STEEL REINFORCE CAP

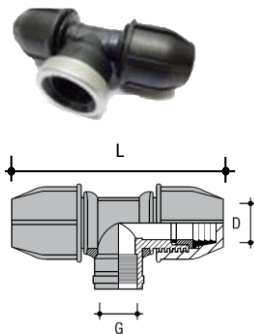
Colour: Black | Water application | PN 16



FEMALE THREADED ADAPTOR (FTA) - BSPT				
Product Code	D x G [mm; inch]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]
07960400183	20 x 1/2"	69	42	500
07960400184	20 x 3/4"	74	43	500
07960400185	25 x 1/2"	80	63	300
07960400186	25 x 3/4"	82	63	300
07960400187	25 x 1"	90	67	300
07960400188	32 x 3/4"	93	91	200
07960400189	32 x 1"	93	94	200
07960400190	32 x 1 1/4"	99	98	200
07960400191	40 x 1"	110	159	120
07960400192	40 x 1 1/4"	113	160	120
07960400193	40 x 1 1/2"	118	167	100

### FEMALE THREADED TEE WITH STAINLESS STEEL REINFORCE CAP

Colour: Black | Water application | PN 16

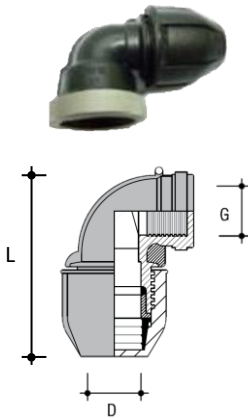


FEMALE TEE (MT) - BSPT				
Product Code	d x t [mm; inch]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]
07960400213	20 x 1/2"	122	82	200
07960400214	20 x 3/4"	122	83	200
07960400215	25 x 1/2"	145	120	150
07960400216	25 x 3/4"	145	121	150
07960400217	25 x 1"	145	127	150
07960400507	32 x 3/4"	163	187	80
07960400219	32 x 1"	163	188	80
07960400220	32 x 1 1/4"	163	213	80
07960400221	40 x 1"	204	338	40
07960400222	40 x 1 1/4"	204	338	40
07960400223	40 x 1 1/2"	204	348	40

## FISH Compression Fittings

### FEMALE THREADED BEND 90° WITH STAINLESS STEEL REINFORCE CAP

Colour: Black | Water application | PN 16



#### FEMALE BEND 90° (FB) - BSPT

Product Code	d x t [mm; inch]	L [mm]	Approx. Wt. gm [pc]	pcs / bag [qty]
07960400198	20 x 1/2"	79	50	400
07960400199	20 x 3/4"	82	55	400
07960400200	25 x 1/2"	93	70	250
07960400201	25 x 3/4"	95	74	250
07960400202	25 x 1"	100	81	250
07960400203	32 x 1/2"	107	111	150
07960400204	32 x 3/4"	107	113	150
07960400205	32 x 1"	112	116	150
07960400206	32 x 1 1/4"	115	120	150
07960400207	40 x 1"	127	180	80
07960400208	40 x 1 1/4"	133	190	80
07960400209	40 x 1 1/2"	133	287	80

### FLANGE ADAPTOR



Colour: Black | Water application | PN 10

Product Code	D [mm]	d [mm]	Bolts (Nos)	Bolt size	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960100067	63	50	4	M16	684	30	20
07960100068	90	80	8	M16	1171	15	9
07960100069	110	100	8	M16	1748	10	6

### POP-UP EQUAL BEND



Colour: Black | Water application | PN 10

Product Code	d x t [mm; inch]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960101291	20 x 1/2"	72	300	200
07960101292	25 x 1/2"	114	180	120
07960101293	32 x 3/4"	169	100	80

### WALL PLATE ELBOW

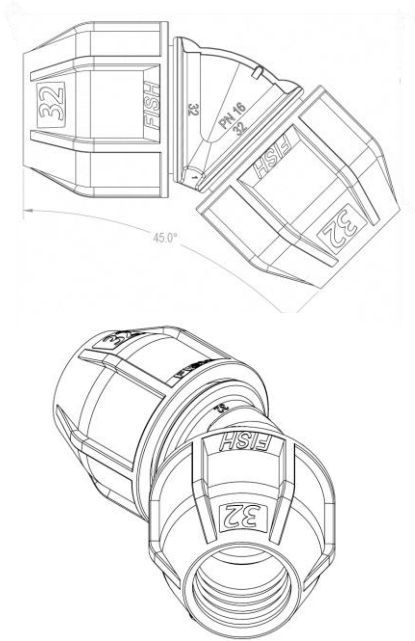


Colour: Black | Water application | PN 10

Product Code	d x t [mm; inch]	Approx. Wt. gm [pc]	pcs / bag [qty]	pcs / box [qty]
07960101483	25 x 3/4"	85	200	150

# FISH Compression Fittings

## EQUAL BEND 45° (EB)

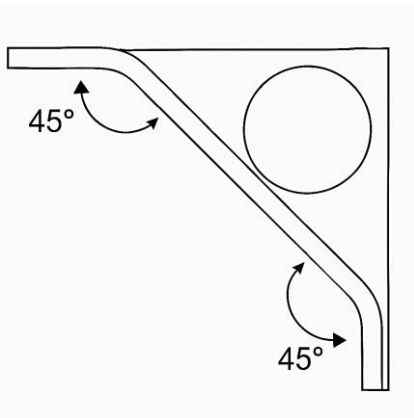


### Flow better. Fit smarter.

FISH® compression fitting Equal Bend 45° - Designed for less erosion in high velocity pipeline, reduced flow resistance.

Use of two combined 45° bend to create a 90° transition fitting provides efficient directional changes, reduces pressure drops, and prevents unnecessary stress on your system.

- Available in 2 popular sizes; 25mm and 32mm
- Leakage free connection, tested to 1.5 times working pressure
- FISH quality and reliability that you come to expect from FISH compression fittings



### Improved Fluid Dynamics. Space Optimization.

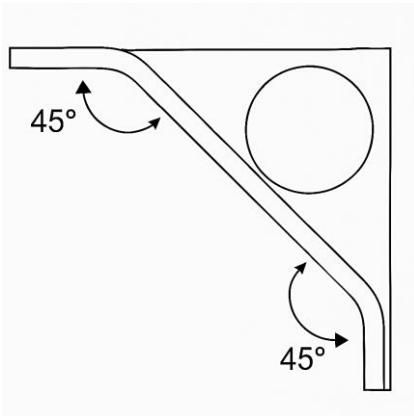
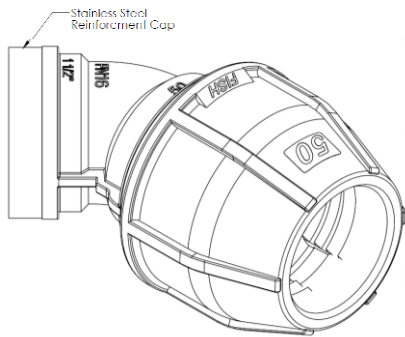
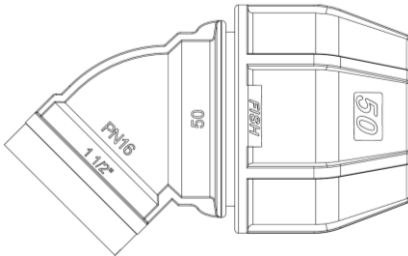
The Equal Bend 45° fitting allows for smoother transitions compared to a 90° bend fitting, minimizing turbulence and reducing pressure loss in the piping system. With the better flow characteristics, it can enhance the overall efficiency. The 45° bend fitting can be used in tighter space, allowing for more flexible design layouts.

#### Equal Bend 45° Compression Fitting [PN16]

Product Code	Size [mm]	Length [mm]	Nut size [mm]	pcs / bag [qty]	pcs / box [qty]
07960400505	25 x 25	120.3	54.0	180	150
07960400506	32 x 32	136.3	63.8	100	80

# FISH Compression Fittings

## FEMALE BEND 45°



### Flow better. Fit smarter.

FISH® compression fitting Female Bend 45° – Designed for less erosion in high velocity pipeline, reduced flow resistance.

Use of two combined 45° bend to create a 90° transition fitting provides efficient directional changes, reduces pressure drops, and prevents unnecessary stress on your system.

- Available in 50mm x 1 1/2"
- Leakage free connection, tested to 1.5 times working pressure
- FISH quality and reliability that you come to expect from FISH compression fittings

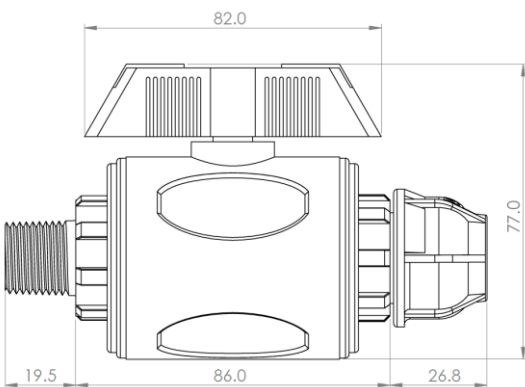
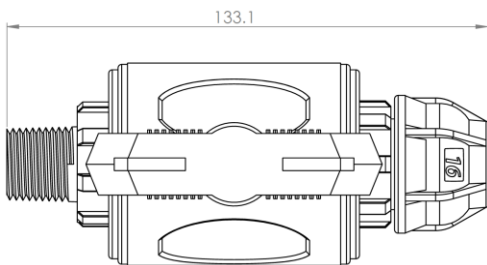
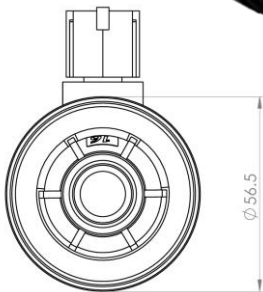
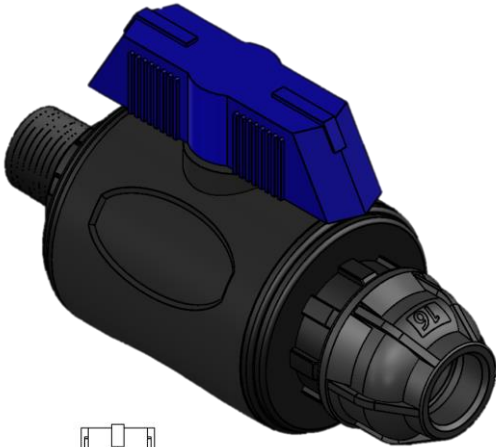
### Improved Fluid Dynamics. Space Optimization.

The Equal Bend 45° fitting allows for smoother transitions compared to a 90° bend fitting, minimizing turbulence and reducing pressure loss in the piping system. With the better flow characteristics, it can enhance the overall efficiency. The 45° bend fitting can be used in tighter space, allowing for more flexible design layouts.

Female Bend 45° Compression Fitting [PN16]						
Product Code	Size [mm]	Length [mm]	Nut size [mm]	Thread End OD (mm)	pcs / bag [qty]	pcs / box [qty]
07960300527	50 x 1 1/2"	162.7	92.0	62.8	50	40

# FISH Compression Fittings

## Compression Joint & BSP Thread



### Nylon Ball Valve with Compression Joint & BSP Thread

The ball valve offers a smooth open and close action to allow or stop the flow of water. The option of a compression joint and male BSP thread version eliminates the need for additional fittings. It is manufactured from materials that meet potable water standards that are also non-corrosive and UV stabilised, making them suitable for use in harsh sunlight. It has interchangeable handles to comply with international colour coding for fluid: blue - general or lilac - grey water.

#### Specifications

- Maximum operating temperature of 60°C
- Pressure rating PN16

#### Male / Compression Joint Variation

- Reduces the amount of fittings use in an installation.

#### Potable Water Standard Materials

- Manufactured from materials that meet potable water standards.

#### UV Stabilised

- Will continue to perform, even in harsh sunlight conditions.

#### Long BSP Threads

- Better engagement with opposing threads.

#### Corrosion Resistant

- Constructed from non-corrosive materials.

### Nylon Ball Valve with Compression Joint & BSP Thread

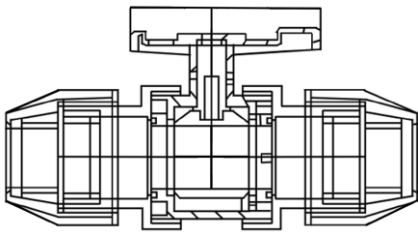
Product Code	Part Name	BSP Thread	Size (mm)	Pressure Rating	pcs / box [qty]
07960103675	GMCBV15	1/2"	16	PN16	100

## FISH Compression Ends Ball Valves



### Advantages at a glance

- ✓ Quick & smooth on/off response
- ✓ Versatile – suitable in various plumbing applications
- ✓ Minimal maintenance requirements
- ✓ Easy installation
- ✓ Tested to 1.5 times working pressure



Materials	
Product	Material
Compression Ball Valve	Polypropylene

FISH Polypropylene Compression Ends Ball Valves - designed for durability, reliability, and ease of installation, provide a shut off solution for many inline HDPE pipe applications. They can be used for both PN10, PN12.5 and PN16 pipes and provide maintenance free connection and flow control. Available in 20mm, 25mm, and 32mm sizes, these valves offer a secure, leak-proof solution for irrigation, water transfer applications where installing an inline valve in a HDPE pipe is the most convenient solution. Made from high-quality polypropylene, they are resistant to corrosion, chemicals, and UV exposure, ensuring long-lasting performance even in challenging environments. The compression end design allows for quick and tool-free installation, making them the perfect choice for both professional plumbers and DIY projects.

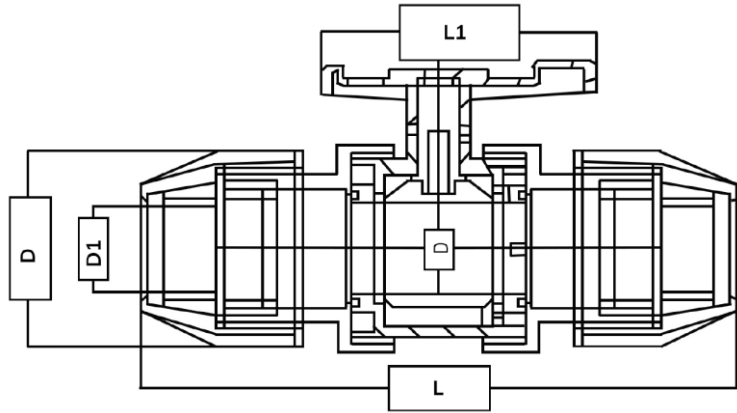
### Specification

Material	Polypropylene
Body colour	Black
Handle colour	Blue
Joint type	Compression ends
Pressure rating	16 bar @ 20°C
Surge pressure	max 1.5 times
Feature	Resistant to many inorganic chemicals
Packaging	Fittings are bagged
Marking and labeling	To ensure traceability, all fittings are permanently marked with identification during the production process. <ul style="list-style-type: none"> <li>• Brand name</li> <li>• Material and designation</li> <li>• Dimensions</li> </ul>

# FISH Compression Ends Ball Valves

PP Compression End Ball Valves for inline HDPE pipe

Material: PP | Colour: Black | Water application | PN16



## Compression Ends Ball Valves

Product Code	Compression Ends [mm]	Ball Size [inch]	L [mm]	L1 [mm]	D [mm]	D1 [mm]	Pcs/Box [qty]
27966000001	20	1/2"	180	76	56	26	130
27966000002	25	3/4"	200	87	65	33	95
27966000003	32	1"	238	102	80	41	55

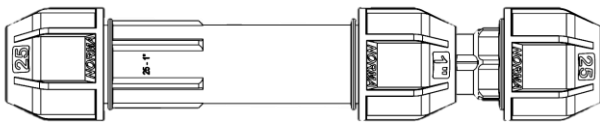
Other sizes are available upon request.

## FISH Telescopic Fittings



### Advantages at a glance

- ✓ No additional components required for fixing the pipe
- ✓ No need to dig as far to perform a repair job
- ✓ Easy repair of damage pipe sections
- ✓ UV stabilized to perform even in harsh sunny conditions
- ✓ Speed up the process of repairing a broken pipe



Materials	
Parts	Material
Nut	Polypropylene
Bodies	Polypropylene
Clinching Ring	Acetal (POM)
O-Rings	NBR

### Description

FISH Compression fittings are made of polypropylene with telescopic function for the repair or replacement of for high- and-low density polyethylene tubing, diameters 25 to 50 mm. Maximum service pressure: PN 12.5. Does not include hot water application. These products are not certified as compliant with international sanitary regulations for transport of potable water and liquid foods.

### Fittings specifications

#### Specification

Material	Polypropylene
Body colour	Black
Nut	Black
Joint type	Compression ends
Pressure rating	12.5 bar @ 20°C
Surge pressure	max 1.5 times
Feature	Compression fitting with telescopic adjustment of body length
Packaging	Fittings are bagged
Marking and labeling	<p>To ensure traceability, all fittings are permanently marked with identification during the production process.</p> <ul style="list-style-type: none"> <li>• Brand name</li> <li>• Material and designation</li> <li>• Dimensions</li> </ul>

## FISH Telescopic Fittings

### TELESCOPIC FITTINGS

Colour: Black, Blue | Water application | PN 12.5



TELESCOPIC STRAIGHT COUPLER				
Product Code	d x D [mm]	Cut area [mm]	Max. insertion depth [mm]	Std packing* [qty]
07960200685	25 x 25	265	65	5
07960200686	32 x 32	315	70	3
07960200687	40 x 40	350	80	2
07960200688	50 x 50	390	90	2

Colour: Black, Blue | Water application | PN 12.5



TELESCOPIC MALE THREADED ADAPTOR				
Product Code	d x D [mm / inch]	Cut area [mm]	Max. insertion depth [mm]	Std packing* [qty]
07960200690	25 x 1"	265	65	5
07960200691	32 x 1 1/4"	315	70	3
07960200692	40 x 1 1/2"	350	80	2
07960200693	50 x 2"	390	90	2

Colour: Black, Blue | Water application | PN 12.5



TELESCOPIC EQUAL TEE				
Product Code	d [mm]	Cut area [mm]	Max. insertion depth [mm]	Std packing* [qty]
07960200695	25 x 25 x 25	265	65	2
07960200696	32 x 32 x 32	315	70	2
07960200697	40 x 40 x 40	350	80	1
07960200698	50 x 50 x 50	390	90	1

Colour: Black, Blue | Water application | PN 12.5



TELESCOPIC MALE THREADED TEE				
Product Code	d x D [mm / inch]	Cut area [mm]	Max. insertion depth [mm]	Std packing* [qty]
07960200700	25 x 1" x 25	265	65	2
07960200701	32 x 1 1/4" x 32	315	70	2
07960200702	40 x 1 1/2" x 40	350	80	1
07960200703	50 x 2"	390	90	1



# FISH Clamp Saddle

## Advantages at a glance



- ✓ Robust design and weathering protection
- ✓ Outstanding hydraulic performance
- ✓ Perfect adherence to pipe
- ✓ Enhanced durability with reinforcement ring
- ✓ Products are tested to meet water standards.



Materials	
Product	Material
Body	Reinforced Polypropylene
Reinforced ring	Stainless Steel SS304
Gasket	Nitrile Butadiene Rubber

Clamp saddles from d32mm up to d225mm, threaded outlet from 1/2" to 2", products are provided with 2 or 4 bolts according to clamping diameter. Choice of zinc plated mild steel bolts and nuts, or SS 316 bolts and nuts depending on application scenario.

Application: suitable for water works



## Fittings specifications

### Specification

Material	Polypropylene Homopolymer
Density	900 kg/m <sup>3</sup>
Tensile Strength at Yield	360 kg/cm <sup>2</sup>
Elongation at Yield	12%
Flexural Modulus	17500 kg/cm <sup>2</sup>
Colour	Black
Reinforcement ring	SS 304
Bolt and nuts	Stainless steel or galvanized
Gasket	Nitrile Butadiene Rubber
Pressure range	PN 16
Standard	Spesifikasi JKR No. 1 -95(BA)
Marking and labeling	<p>To ensure traceability, all fittings are permanently marked with identification during the production process.</p> <ul style="list-style-type: none"> <li>• Brand name</li> <li>• Material and designation</li> <li>• Dimensions</li> <li>• Pressure rating</li> </ul>

## FISH® Clamp Saddles Installation Manual

### Step 1

- Identify the installation point and ensure the pipe's outer surface is clean and smooth in the gasket contact area.
- Fit the gasket into the saddle seat.
- Insert screws from below (the bottom part of the saddle has rib design to receive the screw head)
- Position the saddle base on the selected point, then align and attach the upper (branch) part.
- Attach washer before the nut. Tighten the nuts according to recommended torque (Nm).

Bolt size	Recommended Torque (Nm)
M8	10 – 15 Nm
M10	20 – 25 Nm

- Drill through the pipe wall carefully to avoid damaging the saddle threads or O-ring. Use a spacer to prevent drilling through the opposite side. A milling drill is recommended to protect the threads, O-ring, and minimize debris inside the pipe.

### Step 2 (alternative procedure)

- Mark a reference line on the pipe to ensure correct saddle repositioning, then remove the saddle.
- Drill the pipe hole and clear away debris.
- Reinstall the saddle following the alignment marks. Use a pin (e.g., the drill bit) to keep the hole aligned with the branch direction.

### Step 3

- Always perform a pressure test for leaks before burying the pipe or putting the system into service.

### End User's Responsibility

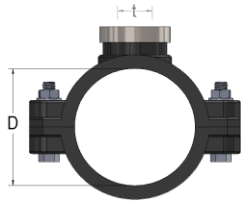
- Ensure the pipe, valves, and fittings meet the required specifications and local authority standards. For special applications, confirm material chemical resistance with the manufacturer.



# FISH Clamp Saddle

PP Clamp Saddle for used with PE and other Metric polymer pipe

Material: PP | Colour: Black | Water application | Zinc plated mild steel

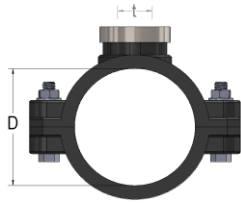


PP Clamp Saddle							
Zinc plated mild steel bolts and nuts	D [mm]	t [inch]	Bolt & Nut (Nos)	Gasket (Nos)	Approx. wt. gm [pc]	Bag [qty]	Box [qty]
07960102256	32	1/2"	2	1	200	240	160
07960102257	32	3/4"	2	1	200	240	160
07960102258	32	1"	2	1	200	240	160
07960102259	40	1/2"	2	1	200	180	150
07960102260	40	3/4"	2	1	200	180	150
07960102261	40	1"	2	1	210	180	150
07960102262	50	1/2"	2	1	210	150	150
07960102263	50	3/4"	2	1	210	150	150
07960102264	50	1"	2	1	210	150	150
07960102265	63	1/2"	4	1	250	100	80
07960102266	63	3/4"	4	1	250	100	80
07960102267	63	1"	4	1	250	100	80
07960102268	63	1 1/4"	4	1	260	100	80
07960102269	75	1/2"	4	1	340	60	50
07960102270	75	3/4"	4	1	340	60	50
07960102271	75	1"	4	1	340	60	50
07960102272	75	1 1/4"	4	1	350	60	50
07960102273	75	1 1/2"	4	1	380	60	50
07960102274	75	2"	4	1	380	60	50
07960102275	90	1/2"	4	1	390	40	30
07960102276	90	3/4"	4	1	390	40	30
07960102277	90	1"	4	1	390	40	30
07960102278	90	1 1/4"	4	1	410	40	30
07960102279	90	1 1/2"	4	1	430	40	30
07960102280	90	2"	4	1	440	40	30
07960102281	110	1/2"	4	1	500	40	30
07960102282	110	3/4"	4	1	500	40	30
07960102283	110	1"	4	1	500	40	30
07960102284	110	1 1/4"	4	1	510	40	30
07960102285	110	1 1/2"	4	1	510	40	30
07960102286	110	2"	4	1	530	40	30
07960102287	125	3/4"	4	1	650	30	24
07960102288	125	1"	4	1	690	30	24
07960102289	125	1 1/4"	4	1	690	30	24
07960102290	125	2"	4	1	695	30	24
07960102291	160	1/2"	6	1	660	20	15
07960102292	160	3/4"	6	1	1010	20	15
07960102293	160	1"	6	1	1010	20	15
07960102294	160	1 1/4"	6	1	1040	20	15
07960102295	160	1 1/2"	6	1	1000	20	15
07960102296	160	2"	6	1	1050	20	15
07960102297	180	3/4"	6	1	1660	15	10
07960102298	180	1"	6	1	1670	15	10
07960102299	180	1 1/4"	6	1	1670	15	10
07960102300	180	1 1/2"	6	1	1670	15	10
07960102301	180	2"	6	1	1690	15	10
07960102302	200	3/4"	6	1	1670	12	8
07960102303	200	1"	6	1	1690	12	8
07960102304	200	1 1/4"	6	1	1700	12	8
07960102305	200	1 1/2"	6	1	1700	12	8
07960102306	200	2"	6	1	1700	12	8
07960102307	225	3/4"	6	1	2340	10	6
07960102308	225	1"	6	1	2340	10	6
07960102309	225	1 1/4"	6	1	2380	10	6
07960102310	225	2"	6	1	2380	10	6

# FISH Clamp Saddle

PP Clamp Saddle for used with PE and other Metric polymer pipe

Material: PP | Colour: Black | Water application | SS 304

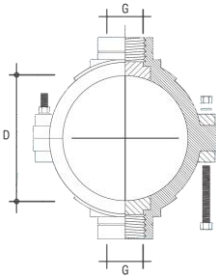


PP Clamp Saddle							
SS 304 bolts and nuts	D [mm]	t [inch]	Bolt & Nut (Nos)	Gasket (Nos)	Approx. wt. gm [pc]	Bag [Qty]	Box [qty]
07960102329	32	1/2"	2	1	200	240	160
07960102330	32	3/4"	2	1	200	240	160
07960102331	32	1"	2	1	200	240	160
07960102332	40	1/2"	2	1	200	180	150
07960102333	40	3/4"	2	1	200	180	150
07960102334	40	1"	2	1	210	180	150
07960102335	50	1/2"	2	1	210	150	150
07960102336	50	3/4"	2	1	210	150	150
07960102337	50	1"	2	1	210	150	150
07960102338	63	1/2"	4	1	250	100	80
07960102339	63	3/4"	4	1	250	100	80
07960102340	63	1"	4	1	250	100	80
07960102341	63	1 1/4"	4	1	260	100	80
07960102342	75	1/2"	4	1	340	60	50
07960102343	75	3/4"	4	1	340	60	50
07960102344	75	1"	4	1	340	60	50
07960102345	75	1 1/4"	4	1	350	60	50
07960102346	75	1 1/2"	4	1	380	60	50
07960102347	75	2"	4	1	380	60	50
07960102348	90	1/2"	4	1	390	40	30
07960102349	90	3/4"	4	1	390	40	30
07960102350	90	1"	4	1	390	40	30
07960102351	90	1 1/4"	4	1	410	40	30
07960102352	90	1 1/2"	4	1	430	40	30
07960102353	90	2"	4	1	440	40	30
07960102354	110	1/2"	4	1	500	40	30
07960102355	110	3/4"	4	1	500	40	30
07960102356	110	1"	4	1	500	40	30
07960102357	110	1 1/4"	4	1	510	40	30
07960102358	110	1 1/2"	4	1	510	40	30
07960102359	110	2"	4	1	530	40	30
07960102360	125	3/4"	4	1	650	30	24
07960102361	125	1"	4	1	690	30	24
07960102362	125	1 1/4"	4	1	690	30	24
07960102363	125	2"	4	1	695	30	24
07960102364	160	1/2"	6	1	660	20	15
07960102365	160	3/4"	6	1	1010	20	15
07960102366	160	1"	6	1	1010	20	15
07960102367	160	1 1/4"	6	1	1040	20	15
07960102368	160	1 1/2"	6	1	1000	20	15
07960102369	160	2"	6	1	1050	20	15
07960102370	180	3/4"	6	1	1660	15	10
07960102371	180	1"	6	1	1670	15	10
07960102372	180	1 1/4"	6	1	1670	15	10
07960102373	180	1 1/2"	6	1	1670	15	10
07960102374	180	2"	6	1	1690	15	10
07960102375	200	3/4"	6	1	1670	12	8
07960102376	200	1"	6	1	1690	12	8
07960102377	200	1 1/4"	6	1	1700	12	8
07960102378	200	1 1/2"	6	1	1700	12	8
07960102379	200	2"	6	1	1700	12	8
07960102380	225	3/4"	6	1	2340	10	6
07960102381	225	1"	6	1	2340	10	6
07960102382	225	1 1/4"	6	1	2380	10	6
07960102383	225	2"	6	1	2380	10	6

## FISH Clamp Saddle

PP Clamp Saddle for used with PE and other Metric polymer pipe

Material: PP | Colour: Black | Water application | Zinc plated mild steel

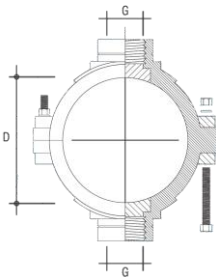


PP Clamp Saddle - Double Outlet							
Zinc plated mild steel bolts and nuts	D [mm]	G1 [inch]	G2 [inch]	Bolt & Nut (Nos)	Gasket (Nos)	Approx. wt. gm [pc]	Bag [Qty]
07960102416	32	1/2"	1/2"	2	2	0.14	200
07960102417	32	3/4"	1/2"	2	2	0.15	200
07960102418	32	3/4"	3/4"	2	2	0.16	200
07960102419	32	1"	3/4"	2	2	0.17	200
07960102420	32	1"	1"	2	2	0.18	200
07960102421	40	1/2"	1/2"	2	2	0.17	200
07960102422	40	3/4"	1/2"	2	2	0.17	200
07960102423	40	3/4"	3/4"	2	2	0.17	150
07960102424	40	1"	3/4"	2	2	0.18	150
07960102425	40	1"	1"	2	2	0.18	150
07960102426	50	1/2"	1/2"	2	2	0.18	150
07960102427	50	3/4"	1/2"	2	2	0.18	150
07960102428	50	3/4"	3/4"	2	2	0.17	120
07960102429	50	1"	3/4"	4	4	0.18	120
07960102430	50	1"	1"	4	4	0.18	120
07960102431	63	1/2"	1/2"	4	4	0.20	120
07960102432	63	3/4"	1/2"	4	4	0.24	120
07960102433	63	3/4"	3/4"	4	4	0.28	80
07960102434	63	1"	1/2"	4	4	0.28	80
07960102435	63	1"	3/4"	4	4	0.28	80
07960102436	63	1"	1"	4	4	0.28	80
07960102437	63	1 1/4"	1/2"	4	4	0.30	80
07960102438	63	1 1/4"	3/4"	4	4	0.30	80
07960102439	63	1 1/4"	1"	4	4	0.30	80
07960102440	63	1 1/4"	1 1/4"	4	4	0.30	80
07960102441	75	1/2"	1/2"	4	4	0.32	80
07960102442	75	3/4"	1/2"	4	4	0.33	80
07960102443	75	3/4"	3/4"	4	4	0.34	50
07960102444	75	1"	1/2"	4	4	0.35	50
07960102445	75	1"	3/4"	4	4	0.36	50
07960102446	75	1"	1"	4	4	0.37	50
07960102447	75	1 1/4"	1/2"	4	4	0.39	50
07960102448	75	1 1/4"	3/4"	4	4	0.39	50
07960102449	75	1 1/4"	1"	4	4	0.39	50
07960102450	75	1 1/4"	1 1/4"	4	4	0.39	50
07960102451	75	1 1/2"	1/2"	4	4	0.39	50
07960102452	75	1 1/2"	3/4"	4	4	0.39	50
07960102453	75	1 1/2"	1"	4	4	0.39	50
07960102454	75	1 1/2"	1 1/4"	4	4	0.39	50
07960102455	75	1 1/2"	1 1/2"	4	4	0.39	50
07960102456	75	2"	1/2"	4	4	0.40	50
07960102457	75	2"	3/4"	4	4	0.40	50
07960102458	75	2"	1"	4	4	0.41	50
07960102459	75	2"	1 1/4"	4	4	0.41	50
07960102460	75	2"	1 1/2"	4	4	0.41	50
07960102461	75	2"	2"	4	4	0.45	50

# FISH Clamp Saddle

PP Clamp Saddle for used with PE and other Metric polymer pipe

Material: PP | Colour: Black | Water application | Zinc plated mild steel

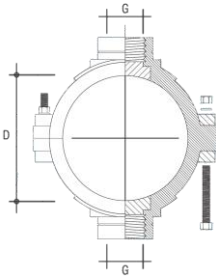


PP Clamp Saddle - Double Outlet							
Zinc plated mild steel bolts and nuts	D [mm]	G1 [inch]	G2 [inch]	Bolt & Nut (Nos)	Gasket (Nos)	Approx. wt. gm [pc]	Bag [Qty]
07960102462	90	1/2"	1/2"	4	4	0.45	50
07960102463	90	3/4"	1/2"	4	4	0.45	50
07960102464	90	3/4"	3/4"	4	4	0.40	25
07960102465	90	1"	1/2"	4	4	0.41	25
07960102466	90	1"	3/4"	4	4	0.41	25
07960102467	90	1"	1"	4	4	0.41	25
07960102468	90	1 1/4"	1/2"	4	4	0.42	25
07960102469	90	1 1/4"	3/4"	4	4	0.42	25
07960102470	90	1 1/4"	1"	4	4	0.42	25
07960102471	90	1 1/4"	1 1/4"	4	4	0.43	25
07960102472	90	1 1/2"	1/2"	4	4	0.43	25
07960102473	90	1 1/2"	3/4"	4	4	0.43	25
07960102474	90	1 1/2"	1"	4	4	0.43	25
07960102475	90	1 1/2"	1 1/4"	4	4	0.43	25
07960102476	90	1 1/2"	1 1/2"	4	4	0.43	25
07960102477	90	2"	1/2"	4	4	0.44	25
07960102478	90	2"	3/4"	4	4	0.44	25
07960102479	90	2"	1"	4	4	0.45	25
07960102480	90	2"	1 1/4"	4	4	0.45	25
07960102481	90	2"	1 1/2"	4	4	0.46	25
07960102482	90	2"	2"	4	4	0.50	25
07960102483	110	1/2"	1/2"	4	4	0.50	25
07960102484	110	3/4"	1/2"	4	4	0.53	25
07960102485	110	3/4"	3/4"	4	4	0.54	24
07960102486	110	1"	1/2"	4	4	0.54	24
07960102487	110	1"	3/4"	4	4	0.53	24
07960102488	110	1"	1"	4	4	0.53	24
07960102489	110	1 1/4"	1/2"	4	4	0.54	24
07960102490	110	1 1/4"	3/4"	4	4	0.54	24
07960102491	110	1 1/4"	1"	4	4	0.55	24
07960102492	110	1 1/4"	1 1/4"	4	4	0.55	24
07960102493	110	1 1/2"	1/2"	4	4	0.55	24
07960102494	110	1 1/2"	3/4"	4	4	0.55	24
07960102495	110	1 1/2"	1"	4	4	0.55	24
07960102496	110	1 1/2"	1 1/4"	4	4	0.56	24
07960102497	110	1 1/2"	1 1/2"	4	4	0.56	24
07960102498	110	2"	1/2"	4	4	0.57	24
07960102499	110	2"	3/4"	4	4	0.57	24
07960102500	110	2"	1"	4	4	0.56	24
07960102501	110	2"	1 1/4"	4	4	0.57	24
07960102502	110	2"	1 1/2"	4	4	0.58	24
07960102503	110	2"	2"	4	4	0.65	24
07960102504	125	3/4"	3/4"	4	4	0.66	20
07960102505	125	1"	3/4"	4	4	0.68	20
07960102506	125	1"	1"	4	4	0.72	20
07960102507	125	1 1/4"	3/4"	4	4	0.73	20
07960102508	125	1 1/4"	1"	4	4	0.73	20
07960102509	125	1 1/4"	1 1/4"	4	4	0.75	20
07960102510	125	2"	3/4"	4	4	0.73	20
07960102511	125	2"	1"	4	4	0.73	20
07960102512	125	2"	1 1/4"	4	4	0.73	20
07960102513	125	2"	2"	4	4	0.73	20

# FISH Clamp Saddle

PP Clamp Saddle for used with PE and other Metric polymer pipe

Material: PP | Colour: Black | Water application | Zinc plated mild steel



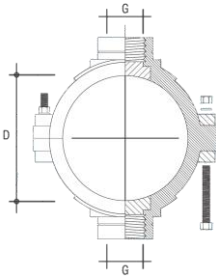
PP Clamp Saddle - Double Outlet

Zinc plated mild steel bolts and nuts	D [mm]	G1 [inch]	G2 [inch]	Bolt & Nut (Nos)	Gasket (Nos)	Approx. wt. gm [pc]	Bag [Qty]
07960102514	160	1/2"	1/2"	4	4	1.05	20
07960102515	160	3/4"	1/2"	4	4	1.05	20
07960102516	160	3/4"	3/4"	4	4	1.07	12
07960102517	160	1"	1/2"	4	4	1.08	12
07960102518	160	1"	3/4"	4	4	1.09	12
07960102519	160	1"	1"	4	4	1.10	12
07960102520	160	1 1/4"	1/2"	4	4	1.10	12
07960102521	160	1 1/4"	3/4"	4	4	1.10	12
07960102522	160	1 1/4"	1"	4	4	1.11	12
07960102523	160	1 1/4"	1 1/4"	4	4	1.12	12
07960102524	160	1 1/2"	1/2"	4	4	1.10	12
07960102525	160	1 1/2"	3/4"	4	4	1.10	12
07960102526	160	1 1/2"	1"	4	4	1.10	12
07960102527	160	1 1/2"	1 1/4"	4	4	1.10	12
07960102528	160	1 1/2"	1 1/2"	4	4	1.10	12
07960102529	160	2"	1/2"	4	4	1.08	12
07960102530	160	2"	3/4"	4	4	1.09	12
07960102531	160	2"	1"	4	4	1.10	12
07960102532	160	2"	1 1/4"	4	4	1.12	12
07960102533	160	2"	1 1/2"	4	4	1.12	12
07960102534	160	2"	2"	4	4	1.10	12
07960102535	180	3/4"	3/4"	4	4	1.73	8
07960102536	180	1"	3/4"	4	4	1.69	8
07960102537	180	1"	1"	4	4	1.69	8
07960102538	180	1 1/4"	3/4"	4	4	1.69	8
07960102539	180	1 1/4"	1"	4	4	1.69	8
07960102540	180	1 1/4"	1 1/4"	4	4	1.69	8
07960102541	180	1 1/2"	3/4"	4	4	1.69	8
07960102542	180	1 1/2"	1"	4	4	1.69	8
07960102543	180	1 1/2"	1 1/4"	4	4	1.69	8
07960102544	180	1 1/2"	1 1/2"	4	4	1.69	8
07960102545	180	2"	3/4"	4	4	1.70	8
07960102546	180	2"	1"	4	4	1.73	8
07960102547	180	2"	1 1/4"	4	4	1.73	8
07960102548	180	2"	1 1/2"	4	4	1.75	8
07960102549	180	2"	2"	4	4	1.79	8

## FISH Clamp Saddle

PP Clamp Saddle for used with PE and other Metric polymer pipe

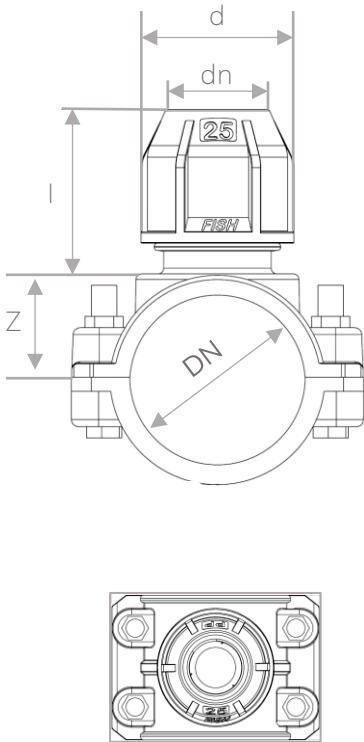
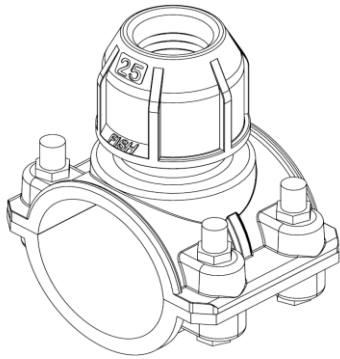
Material: PP | Colour: Black | Water application | Zinc plated mild steel



PP Clamp Saddle - Double Outlet							
Zinc plated mild steel bolts and nuts	D [mm]	G1 [inch]	G2 [inch]	Bolt & Nut (Nos)	Gasket (Nos)	Approx. wt. gm [pc]	Bag [Qty]
07960102550	200	1"	1"	4	4	1.73	8
07960102551	200	1 1/4"	1"	4	4	1.75	8
07960102552	200	1 1/4"	1 1/4"	4	4	1.75	8
07960102553	200	1 1/2"	1"	4	4	1.75	8
07960102554	200	1 1/2"	1 1/4"	4	4	1.75	8
07960102555	200	1 1/2"	1 1/2"	4	4	1.75	8
07960102556	200	2"	1"	4	4	1.78	8
07960102557	200	2"	1 1/4"	4	4	1.78	8
07960102558	200	2"	1 1/2"	4	4	1.78	8
07960102559	200	2"	2"	4	4	1.78	8
07960102560	225	3/4"	3/4"	4	4	2.23	6
07960102561	225	1"	3/4"	4	4	2.30	6
07960102562	225	1"	1"	4	4	2.44	6
07960102563	225	1 1/4"	3/4"	4	4	2.48	6
07960102564	225	1 1/4"	1"	4	4	2.45	6
07960102565	225	1 1/4"	1 1/4"	4	4	2.45	6
07960102566	225	2"	3/4"	4	4	2.23	6
07960102567	225	2"	1"	4	4	2.34	6
07960102568	225	2"	1 1/4"	4	4	2.20	6
07960102569	225	2"	2"	4	4	2.23	6

# FISH Clamp Saddle

## Clamp Saddle with Compression Joint



### PP Clamp Saddle for used with PE and other Metric polymer pipe

The mechanical fittings for the main pipeline are designed for easy installation using simple tools.

The 63mm clamp saddles feature compression end outlets in 20mm and 25mm sizes, specifically designed for pipeline branches.

Each product is supplied with four bolts, with the option to choose between zinc-plated mild steel bolts and nuts or SS 316 bolts and nuts (available upon request), depending on the application requirements.

Application: Irrigation

#### Specification

Material	Polypropylene Homopolymer
Density	900 kg/m <sup>3</sup>
Tensile Strength at Yield	360 kg/cm <sup>2</sup>
Elongation at Yield	12%
Flexural Modulus	17500 kg/cm <sup>2</sup>
Colour	Black
Reinforcement ring	SS 304
Bolt and nuts	Stainless steel or galvanized
Gasket	Nitrile Butadiene Rubber
Pressure range	PN 16

#### PP Clamp Saddle with Compression Joint

Zinc plated mild steel bolts and nuts	DN [mm]	dn [mm]	d [mm]	l [mm]	Z [mm]	L [mm]	H [mm]	Bolt & Nut (Nos)	Gasket (Nos)	Approx. wt. gm [pc]	Box [qty]	Bag [Qty]
07960120339	63	20	46	45	35	72	102	4	1	248	80	100
07960120338	63	25	55	58	35	72	102	4	1	270	80	100



## FISH Tapping Ferrule



### Advantages at a glance

- ✓ Easiest way to tap water lines from mains
- ✓ Robust and long lasting
- ✓ Reliable and leak free
- ✓ Incorporates its own cutter, no drilling needed
- ✓ Products are tested to meet water standards.

Materials	
Product	Material
Body	Polypropylene

FISH Tapping Ferrule are the ideal choice for a durable, cost-effective, and versatile solution in water distribution systems. Engineered with precision, these ferrules allow for secure and reliable taps into main pipelines, ensuring consistent water flow while maintaining system integrity. Made from high-quality polypropylene, these ferrules are resistant to corrosion, UV damage, and chemical degradation, ensuring long-lasting performance in harsh environments. Designed for quick and hassle-free installation, these ferrules reduce downtime and labor costs, making them an efficient choice for both new installations and maintenance projects. Tapping ferrules contain an integrated cutter that can be used on PE pipes & PVC-U pipes. This eliminates the need for a drilling equipment. The secure, tamper-proof design provides a reliable, leak-free connection that ensures safety and minimizes maintenance needs.

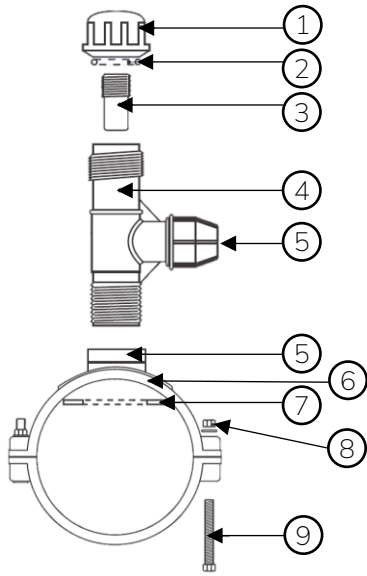
### Fittings specifications

#### Specification

Material	Polypropylene
Body colour	Black
Joint type	Compression & threaded ends
Pressure rating	16 bar @ 20°C
Surge pressure	max 1.5 times
Feature	Resistant to many inorganic chemicals
Standard	Spesifikasi JKR 20200-0055 -99
Marking and labeling	<p>To ensure traceability, all fittings are permanently marked with identification during the production process.</p> <ul style="list-style-type: none"> <li>• Brand name</li> <li>• Dimensions</li> <li>• Material and designation</li> </ul>

# FISH Tapping Ferrule

## PP Tapping Ferrule for Thermoplastics Pipe - Parts & Components



Tapping Ferrule Components	
Parts	Material
1. Tapping Ferrule Cap	Polypropylene
2. Rubber 'O' Ring	NBR
3. Cutter	Carbon Steel
4. Tapping Ferrule Body	Polypropylene
5. Reinforce Ring	Stainless Steel 304
6. Tapping Ferrule Saddle	Polypropylene
7. Gasket	NBR
8. Hexagon Nut	Mild Steel / SS 304
9. Hexagon Bolt	Mild Steel / SS304

## PP Tapping Ferrule for Thermoplastics Pipe – Installation Guide

1. Fix the PP Tapping Ferrule onto the PP Clamp Saddle outlet by turning the PP Tapping Ferrule in clockwise direction. (Figure 1)
2. Make sure that the rubber gasket sits properly in the groove of the saddle.
3. Clamp the PP Saddle onto the main pipe by fastening the bolts and nuts. (Figure 1)
4. Connect the communication pipe to the PP Tapping Ferrule outlet.
5. To perform tapping, remove cap, insert the T-bar onto the recess of the cutter. (Figure 2)
6. Turn the T-bar in clockwise direction until the cutter cut through the pipe wall. (Figure 3)
7. Retain the disc cut from the pipe, act as stopper.
8. Reverse the cutter until it flushes with the top of the stack. At this stage, the PP Tapping Ferrule is in open position. (Figure 4)
9. Remove the T-bar, tighten on the cap.

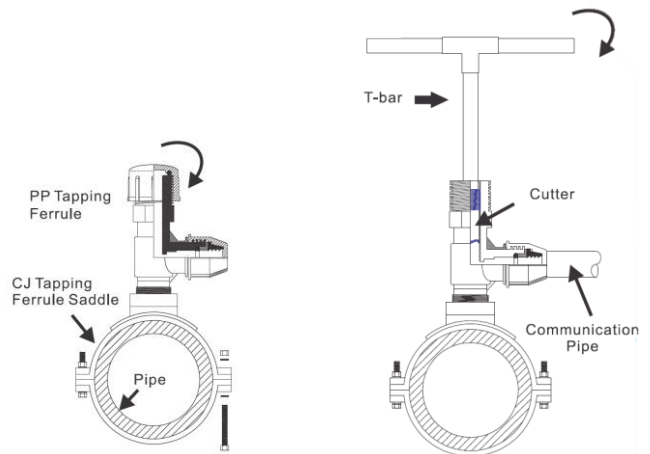


Figure 1

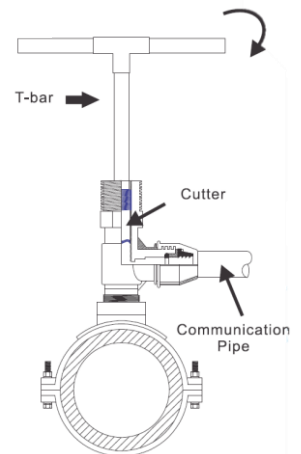


Figure 2

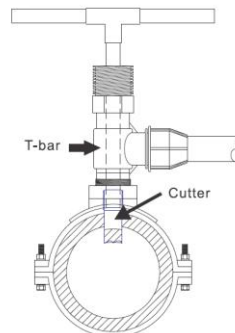


Figure 3

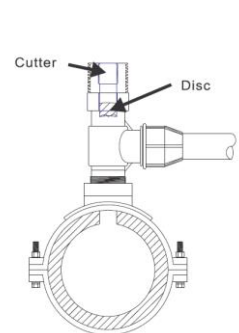


Figure 4

## FISH Tapping Ferrule

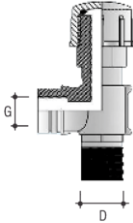
### PP Tapping Ferrule for Thermoplastics Pipe - Parts & Components

Material: Polypropylene | Colour: Black | PN 16



#### PP TAPPING FERRULE WITH CUTTER - THREADED OUTLET (BSPT)

Product Code	d x G [inch]	Approx. Wt. gm	pcs / bag [qty]	pcs / box [qty]
07960200357	1" x 3/4"	231	100	80
07960200358	1" x 1"	238	100	80
07960200359	1 1/4" x 3/4"	250	100	80
07960200360	1 1/4" x 1"	256	100	80

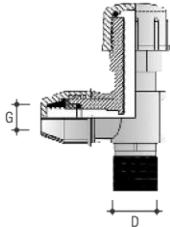


Material: Polypropylene | Colour: Black | PN 16



#### PP TAPPING FERRULE WITH CUTTER - COMPRESSION JOINT OUTLET

Product Code	d x G [inch / mm]	Approx. Wt. gm	pcs / bag [qty]	pcs / box [qty]
07960200351	1" x 20	260	100	80
07960200352	1" x 25	280	100	80
07960200353	1" x 32	290	100	80
07960200354	1 1/4" x 20	251	100	80
07960200355	1 1/4" x 25	263	100	80
07960200356	1 1/4" x 32	289	100	80



Material: Polypropylene | Colour: Black | PN 16



#### PP 45° TAPPING FERRULE WITH CUTTER - COMPRESSION JOINT OUTLET

Product Code	d x G [inch / mm]	Approx. Wt. gm	pcs / bag [qty]	pcs / box [qty]
07960200361	1" x 25	280	75	60
07960200362	1 1/4" x 25	263	75	60



# FISH Butt Fusion Fittings



## Advantages at a glance

- ✓ UV stabilized to perform in harsh sunlight conditions.
- ✓ Single injection molded fittings
- ✓ Large range ensures there is a fitting to adapt to most installations.
- ✓ Resin material compatibility to most PE100 pipelines.
- ✓ Products are tested to meet water standards.



Materials	
Product	Material
All fittings	Polyethylene PE100

## Fittings specifications

### Specification

Material	PE100
Colour	Black
Melt flow index (5kg/190°C)	0.24 g/10min ISO 1133
Density	- 960 kg/m <sup>3</sup> ISO 1183
Tensile Strength at Yield	24 MPa ISO 527
Flexural modulus	1000 MPa ASTM D 790
Elongation at break	> 600% ISO 527
Carbon Black Content	2.25% by mass ISO 6964
MRS Classification	10.0 ISO 12162 / ISO 9080
Oxidative Induction Time (@ 210 °C)	≥ 40 ISO 11357-6
Standard	MS 1058 : PART 3 : 2006
Packaging	Fittings are bagged
Marking and labeling	To ensure traceability, all fittings are permanently marked with identification during the production process. <ul style="list-style-type: none"> <li>• Brand name</li> <li>• Material and designation</li> <li>• Dimensions</li> <li>• SDR fusion range</li> </ul>

## Normative references

- MS 1058 : PART 3 – Polyethylene (PE) Piping Systems For Water Supply – Part 3 : Fittings
- ISO 4427 : PART 3 – Plastics piping Systems – Polyethylene (PE) pipes and fittings for water supply – Part 3: Fittings
- EN 12201 : PART 3 – Plastics piping Systems for water supply – Polyethylene (PE) – Part 3: Fittings

\*Standards & Approval:

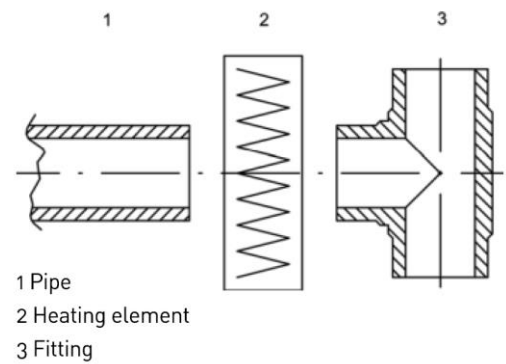


\*All standards and approvals certification available upon request.

## FISH Butt Fusion Fittings

### Butt fusion jointing principle

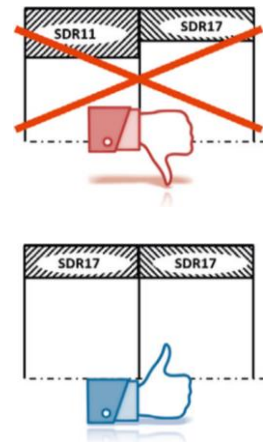
The principle of butt fusion jointing involves heating the ends of two pipes or fittings using a heater plate set to a specified temperature for a defined duration. After removing the heater plate, the pipe ends are pressed together with a designated pressure and then allowed to cool for a specified period. Butt fusion joints must be performed by qualified operators using machines that comply with ISO 12176-1. Operators should have training and skills that meet the requirements outlined in the jointing procedure. Before pipeline construction begins, a written jointing procedure, approved by the pipeline operator, must be available.



### General requirements

The fundamental rule for fusion jointing is that only materials of the same type can be joined. For optimal results, components should have a melt flow index (MFI) in the range of 0.2 to 1.4 g/10 min at 190°C/5 kg.

PE butt fusion fittings from Norma Products meet this requirement. Additionally, the components being joined must have identical wall thicknesses at the fusion area. Only properly trained personnel should perform butt fusion jointing to ensure the process is executed correctly.



### Temperature matters

The recommended temperature for the heating element is between 250°C and 270°C. Before starting the fusion jointing process, it is important to verify this temperature using a digital thermometer equipped with a surface temperature sensor. During the jointing work, periodically check the heating element temperature to ensure it remains within the specified range, as the heating element's temperature can be affected by ambient conditions.

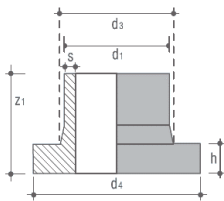
### Operator Competence

The importance of having skilled welders cannot be emphasized enough. The success of a butt weld largely depends on the welder's competency and their commitment to proper surface preparation and adherence to welding procedures. It is crucial to assess the welder's competency level in relation to the pipeline's criticality. Specifying minimum competency requirements ensures that quotes or tenders can be compared fairly. A welding team usually comprises individuals with varying levels of skill and experience, from unskilled workers to highly trained welders. The specification should outline the expected skills and experience for the team members. For major projects, the welding supervisor should be a trained and experienced welder, typically certified by a Registered Training Organization (RTO) and able to demonstrate at least 3 years of relevant experience, including work with pipes of similar or larger sizes than those in the current project. The rest of the crew would generally consist of trained welders (with training from an RTO within the last 3 years) and unskilled workers.

## FISH Butt Fusion Fittings

### STUB END – Short Collar

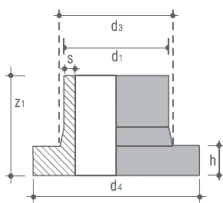
Material: PE100 | Colour: Black | Water application | SDR 13.6 | PN 12.5



STUB END - Short Collar

Product Code	d1 [mm]	d3 [mm]	d4 [mm]	Z1 [mm]	S [mm]	h [mm]	pcs / bag [qty]
07960600187	63	75	102	50	4.7	14	150
07960600192	90	105	130	80	6.7	17	50
07960600196	110	125	158	80	8.1	18	40
07960600200	125	132	158	80	9.2	25	30
07960600203	160	175	212	80	11.8	25	20
07960600207	180	181	212	80	13.3	30	20
07960600210	200	232	268	100	14.7	32	12
07960600213	225	235	268	100	16.6	32	12
07960600217	250	285	320	100	18.4	35	8
07960600221	280	291	320	110	20.6	35	7
07960600224	315	335	370	110	23.2	35	5
07960600228	355	373	430	120	26.1	40	4
07960600230	400	427	482	120	29.4	46	1
07960600232	450	514	550	130	33.1	46	1

Material: PE100 | Colour: Black | Water application | SDR 11 | PN 16

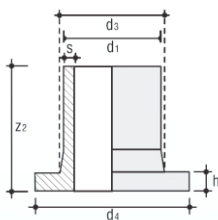


STUB END - Short Collar

Product Code	d1 [mm]	d3 [mm]	d4 [mm]	Z1 [mm]	S [mm]	h [mm]	pcs / bag [qty]
07960600188	63	75	102	50	5.8	14	150
07960600189	90	105	130	80	8.2	17	50
07960600197	110	125	158	80	10.0	18	40
07960600342	125	132	158	80	11.4	25	30
07960600204	160	175	212	80	14.6	25	20
07960600343	180	181	212	80	16.4	30	20
07960600344	200	232	268	100	18.2	32	12
07960600214	225	235	268	100	20.5	32	12
07960600218	250	285	320	100	22.7	35	8
07960600313	280	291	320	110	25.4	35	7
07960600225	315	335	370	110	28.6	35	5
07960600319	355	373	430	120	32.2	40	4

### STUB END – Long Collar

Material: PE100 | Colour: Black | Water application | SDR 13.6 | PN 12.5

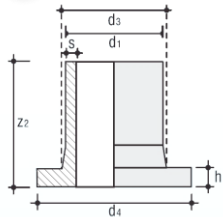


STUB END - Long Collar

Product Code	d1 [mm]	d3 [mm]	d4 [mm]	Z2 [mm]	S [mm]	h [mm]	pcs / bag [qty]
07960600134	25	33	58	85	2.0	9	300
07960600135	32	40	68	85	2.4	10	200
07960600136	50	61	88	85	3.7	12	150
07960600138	63	75	102	95	4.7	14	150
07960600141	90	105	130	140	6.7	17	50
07960600145	110	125	158	160	8.1	18	40
07960600149	125	132	158	170	9.2	25	30
07960600152	160	175	212	200	11.8	25	20
07960600156	180	180	212	200	13.3	30	20
07960600159	200	228	268	200	14.7	32	12
07960600163	225	235	268	200	16.6	32	12
07960600167	250	285	320	200	18.4	35	8
07960600171	280	291	320	200	20.6	35	7
07960600175	315	335	370	200	23.2	35	5

## FISH Butt Fusion Fittings

### STUB END – Long Collar



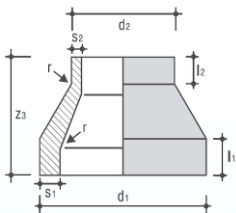
Material: PE100 | Colour: Black | Water application | SDR 11 | PN 16

#### STUB END - Long Collar

Product Code	d1 [mm]	d3 [mm]	d4 [mm]	Z2 [mm]	S [mm]	h [mm]	pcs / bag [qty]
07960600139	63	75	102	95	5.8	14	150
07960600142	90	105	130	140	8.2	17	50
07960600146	110	125	158	160	10.0	18	40
07960600256	125	132	158	170	11.4	25	30
07960600153	160	175	212	200	14.6	25	20
07960600274	180	180	212	200	16.4	30	20
07960600160	200	228	268	200	18.2	32	12
07960600164	225	235	268	200	20.5	32	12
07960600168	250	285	320	200	22.7	35	8
07960600172	280	291	320	200	25.4	35	7
07960600011	315	335	370	200	28.6	35	5

## REDUCER

Material: PE100 | Colour: Black | Water application | SDR 13.6 | PN 12.5



#### REDUCER

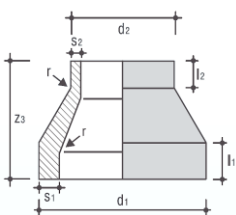
Product Code	d1 x d2 [mm]	l1 [mm]	l2 [mm]	Z3 [mm]	S1 x S2 [mm]	pcs / bag [qty]
07960600077	90 x 63	22	16	75	6.7 x 4.7	60
07960600080	110 x 63	28	16	90	8.1 x 4.7	50
07960600086	110 x 90	28	22	90	8.1 x 6.7	50
07960600089	125 x 90	32	22	100	9.2 x 6.7	40
07960600092	160 x 90	40	22	120	11.8 x 6.7	35
07960600095	160 x 110	40	28	120	11.8 x 8.1	30
07960600099	180 x 90	45	22	130	13.3 x 6.7	20
07960600102	180 x 110	45	28	130	13.3 x 8.1	20
07960600105	180 x 125	45	32	130	13.3 x 9.2	20
07960600108	200 x 110	50	28	145	14.7 x 8.1	14
07960600111	200 x 125	50	32	145	14.7 x 9.2	14
07960600114	200 x 160	50	40	145	14.7 x 11.8	14
07960600117	200 x 180	50	45	145	14.7 x 13.3	14
07960600120	225 x 160	55	40	160	16.6 x 11.8	12
07960600123	225 x 180	55	45	160	16.6 x 13.3	12
07960600129	250 x 110	60	35	175	18.4 x 8.1	10
07960600132	250 x 180	60	45	175	18.4 x 13.3	10



Material: PE100 | Colour: Black | Water application | SDR 11 | PN 16

#### REDUCER

Product Code	d1 x d2 [mm]	l1 [mm]	l2 [mm]	Z3 [mm]	S1 x S2 [mm]	pcs / bag [qty]
07960600096	160 x 110	40	28	120	14.6 x 10.0	30



# FISH Butt Fusion Fittings

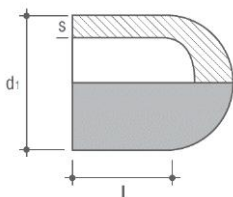
## END CAP



Material: PE100 | Colour: Black | Water application | SDR 13.6 | PN 12.5

### END CAP

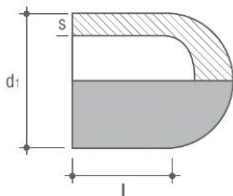
Product Code	d1 [mm]	l [mm]	s [mm]	pcs / bag [qty]
07960600063	63	60	4.7	150
07960600065	90	90	6.7	40
07960600067	110	90	8.1	30
07960600070	125	90	9.2	20
07960600072	160	120	11.8	16
07960600074	180	130	13.3	15



Material: PE100 | Colour: Black | Water application | SDR 11 | PN 16

### END CAP

Product Code	d1 [mm]	l [mm]	s [mm]	pcs / bag [qty]
07960600068	110	90	10	30
07960600341	125	90	11.4	20
07960600071	160	120	14.6	16





## FISH Threaded Fittings



### Advantages at a glance

- ✓ Molded from highly UV stabilized, glass fiber reinforced nylon or polypropylene materials
- ✓ Resistant to a wide range of chemicals and bacteria
- ✓ Heavy duty tapered threads reduce cross-threading effects
- ✓ Suitable for potable water application
- ✓ Optional of NBR sealing washer or Polyethylene (PE) slip
- ✓ Extensive range of thread sizes from ½" to 4"

Materials	
Parts	Material
All fittings	Glass fiber reinforced nylon or Polypropylene

### Description

FISH polypropylene threaded fittings offer the perfect combination of strength, durability, and ease of use for a wide range of piping systems. Ideal for both residential and industrial applications, these fittings provide secure, leak-free connections in water, mild chemical, and water reservoir systems. These fittings stand up to chemicals, UV exposure, and weather conditions, making them ideal for long-term use. Engineered with BSP thread to create secure, tight seals, these fittings prevent leaks, reducing the risk of costly downtime and repairs. With simple, straightforward threading, these fittings offer quick and hassle-free installation, reducing labor time and costs.

### Fittings specifications

#### Specification

Material	Polypropylene
Body colour	Black
Joint type	Threaded ends
Pressure rating	12.5 bar @ 20°C
Surge pressure	max 1.5 times
Feature	Resistant to many inorganic chemicals
Packaging	Fittings are bagged
Marking and labeling	To ensure traceability, all fittings are permanently marked with identification during the production process. <ul style="list-style-type: none"> <li>• Dimensions</li> <li>• Material and designation</li> </ul>

## FISH Threaded Fittings

### THREADED FITTINGS (BSPT)

Colour: Black | Water application | PN 12.5



HEXAGON NIPPLE (BSPT)				
Product Code	d [inch]	Colour	pcs / bag [qty]	pcs / box [qty]
07960102570	1/2" x 1/2"	Black	2000	1600
07960102571	3/4" x 3/4"	Black	1200	1000
07960102572	1" x 1"	Black	800	600
07960102573	1 1/4" x 1 1/4"	Black	500	400
07960102574	1 1/2" x 1 1/2"	Black	400	300
07960102575	2" x 2"	Black	200	150
07960102576	3" x 3"	Black	80	60
07960102577	4" x 4"	Black	50	40

Colour: Black | Water application | PN 12.5



HEXAGON REDUCING NIPPLE (BSPT)				
Product Code	d [inch]	Colour	pcs / bag [qty]	pcs / box [qty]
07960102578	3/4" x 1/2"	Black	1200	1000
07960102579	1" x 3/4"	Black	800	600
07960102580	1 1/2" x 1"	Black	500	400
07960102581	2" x 1"	Black	300	200
07960102582	2" x 1 1/2"	Black	300	200
07960102583	3" x 2"	Black	100	60
07960102584	4" x 3"	Black	50	40

Colour: Black | Water application | PN 12.5



HEXAGON REDUCING BUSH				
Product Code	d x D [mm]	Colour	pcs / bag [qty]	pcs / box [qty]
07960102585	3/4" x 1/2"	Black	3000	2400
07960102586	1" x 1/2"	Black	1200	1000
07960102587	1" x 3/4"	Black	1200	1000

Colour: Black | Water application | PN 12.5



HEXAGON TANK FITTING (BSPT)				
Product Code	d [inch]	Colour	Thread Standard	pcs / box [qty]
07960102589	1/2"	Black	BSP	200
07960102590	3/4"	Black	BSP	160
07960102591	1"	Black	BSP	120
07960102592	1 1/4"	Black	BSP	80
07960102593	1 1/2"	Black	BSP	60
07960102594	2"	Black	BSP	40
07960102596	3"	Black	BSP	18
07960103231	4"	Black	BSP	12



# TRUSTLENE Electrofusion Fittings



## Advantages at a glance

- ✓ High performance in extreme situations
- ✓ Corrosion-free; practically maintenance-free
- ✓ Quick and easy to install
- ✓ Leak-proof, robust jointing
- ✓ Products are tested to meet water standards.

Materials	
Product	Material
All fittings	Polyethylene PE100

## Fittings specifications

Specification		
Material	PE100	
Colour	Black	
Melt flow index (5kg/190°C)	0.25 g/10min	ISO 1133
Density	- 960 kg/m <sup>3</sup>	ISO 1183
Yield stress at 23°C (50mm/min)	25 MPa	ISO 527
Elastic modulus at 23°C	1100 MPa	ISO 527
Elongation at break 23°C	> 600%	ISO 6259
Hydrostatic strength at 20°C	> 100h	ISO 1167
Coefficient of linear thermal expansion at 20°C	0.15 - 0.20 mm/m.C	
Standards	MS 1058 : PART 3 : 2006	
Terminal pin diameter	4.0mm	
Fittings' maximum power requirement	2.5 kW	
Fittings' voltage supply	39 to 40 V rms	
Packaging	Fittings are bagged	
Marking and labeling	To ensure traceability, all fittings are permanently marked with identification during the production process. <ul style="list-style-type: none"> <li>• Brand name</li> <li>• Dimensions</li> <li>• Material and designation</li> <li>• SDR fusion range</li> </ul>	

## Normative references

- MS 1058 : PART 3 – Polyethylene (PE) Piping Systems For Water Supply – Part 3 : Fittings
- ISO 4427 : PART 3 – Plastics piping Systems – Polyethylene (PE) pipes and fittings for water supply – Part 3: Fittings
- EN 12201 : PART 3 – Plastics piping Systems for water supply – Polyethylene (PE) – Part 3: Fittings

\*Standards & Approval:

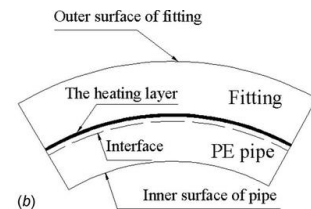
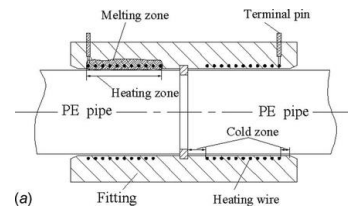


\*All standards and approvals certification available upon request.

## TRUSTLENE Electrofusion Fittings

### Electrofusion jointing principle

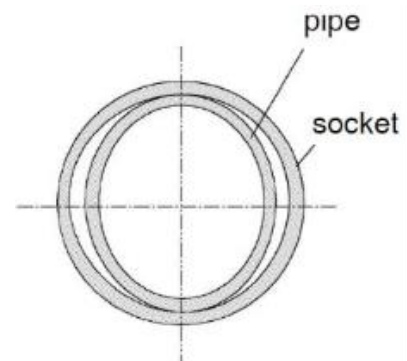
In electrofusion, plastic pipes and electrofusion fittings are permanently joined by a homogeneous joint. These fittings contain internal resistance wires that are heated by electric current during the fusion process. This heating raises the temperature of both the interior of the fittings and the exterior of the pipes, causing them to melt together. The dimensions of the pipe and fitting socket are designed to create fusion pressure during the joining process, leading to a uniform joint. The jointing force in the molten polymer is generated by the increase in volume of the melt. Once it cools, a permanent, homogeneous joint is formed.



### General requirements

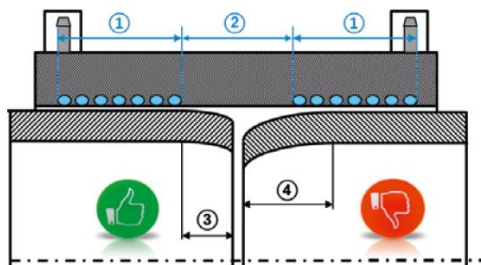
#### Ovality

During welding, the ovality of the pipe must remain within acceptable tolerances, specifically a maximum of 1.5% or 3 mm. If the measurements exceed these limits, corrective actions should be taken, such as using re-rounding tools.



#### Pipe end reversal

If there is excessive reverse at the pipe ends, the heating coil zones must be adequately covered. If uncertain, visually inspect the pipe ends using a spirit level and compare the reversed ends with the half inner cold zone. If needed, trim the pipe ends to size at a right angle just before welding.



1. Heating zone
2. Cold zone
3. Permitted pipe end reverse
4. Impermissible pipe end reversal

### Adherence to welding procedure

The welding procedure provides an overview of the method used for making joints using the electrofusion jointing technique.

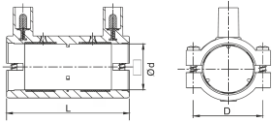
Installers of electrofusion fittings:

- Must be competent
- Have undertaken the appropriate industry training and assessment
- Have acquired the necessary knowledge
- Have experience of the jointing method

# TRUSTLENE Electrofusion Fittings

## ELECTROFUSION COUPLER

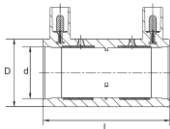
Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



### ELECTROFUSION COUPLER WITH INTEGRAL CLAMPING

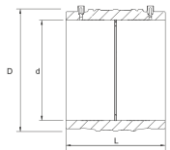
Product Code	d [mm]	D [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51121212020	20	31	77	53	22	4	175
51121212025	25	36	79	63	28	4	150
51121212032	32	44	82	75	42	4	100
51121212040	40	53	83	96	52	7	80
51121212050	50	65	105	141	55	7	54
51121212063	63	81	110	220	70	7	35

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16

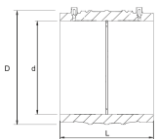


### ELECTROFUSION COUPLER

Product Code	d [mm]	D [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51121112020	20	31	70	44	22	4	250
51121112025	25	36	70	53	28	4	175
51121112032	32	44	75	68	42	4	150
51121112040	40	53	75	67	52	7	125
51121112050	50	65	90	133	55	7	60
51121112063	63	81	100	133	70	7	35
51121112075	75	91	100	221	80	7	35
51121112090	90	113	133	496	140	15	14
51121112110	110	138	152	799	160	15	11
51121112125	125	155	167	1150	200	15	8
51121412140	140	165	165	1060	240	20	7
51121412160	160	189	180	1440	380	20	12
51121412180	180	213	190	1850	400	20	9
51121412200	200	236	183	2160	480	20	6
51121412225	225	266	232	3470	690	30	4
51121412250	250	295	244	4170	840	40	1
51121412280	280	331	258	5520	650	40	2
51121412315	315	372	274	7410	840	40	1



Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 17 | PN 10



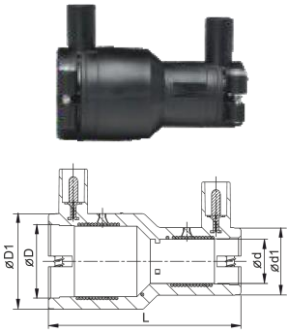
### ELECTROFUSION COUPLER

Product Code	d [mm]	D [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51121312140	140	161	165	774.2	175	20	7
51121312160	160	183	180	1176	290	20	12
51121312180	180	206	190	1351	290	20	9
51121312200	200	229	183	1749	480	20	2
51121312225	225	256	232	2667	690	30	2
51121312250	250	284	244	3265	840	40	2
51121312280	280	316	258	4251	650	40	2
51121312315	315	357	274	6040	840	40	2

# TRUSTLENE Electrofusion Fittings

## ELECTROFUSION REDUCER

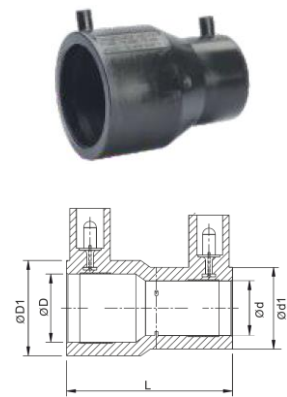
Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



### ELECTROFUSION REDUCER WITH INTEGRAL CLAMPING

Product Code	D x d [mm]	D1 [mm]	d1 [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51131132031	25 x 20	36	31	87	62	26	4	140
51131132062	32 x 20	44	31	89	75	34	4	120
51131132063	32 x 25	44	36	89	75	30	4	120
51131132093	40 x 20	53	31	100	88	30	7	90
51131132094	40 x 25	53	36	100	92	30	7	90
51131132095	40 x 32	53	44	94	97	42	7	80
51131132125	50 x 25	65	36	110	103	30	7	60
51131132126	50 x 32	65	44	110	109	36	7	60
51131132127	50 x 40	65	53	110	118	46	7	60
51131132157	63 x 32	81	44	106	173	47	7	42
51131132158	63 x 40	81	53	119	187	42	7	36
51131132159	63 x 50	81	65	120	205	45	7	36

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



### ELECTROFUSION REDUCER

Product Code	D x d [mm]	D1 [mm]	d1 [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51131112031	25 x 20	37	31	75	51	26	4	140
51131112062	32 x 20	44	31	82	64	34	4	120
51131112063	32 x 25	44	37	82	67	30	4	120
51131112095	40 x 32	53	44	94	88	42	7	100
51131112157	63 x 32	81	44	106	174	47	7	42
51131112158	63 x 40	81	53	115	174	42	7	36
51131112159	63 x 50	81	65	115	199	45	7	36
51131112191	75 x 63	94	81	120	263	90	7	24
51131112222	90 x 63	113	81	150	489	75	15	14
51131112223	90 x 75	113	94	200	451	100	15	14
51131112253	110 x 63	137	81	180	703	150	15	8
51131112254	110 x 75	137	94	160	627	150	15	10
51131112255	110 x 90	137	113	171	751	185	15	8
51131112284	125 x 63	155	81	200	928	95	15	8
51131112285	125 x 75	155	94	160	738	95	15	8
51131112286	125 x 90	155	113	200	987	140	15	8
51131112287	125 x 110	155	136	170	904	140	15	8

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 17 | PN 10

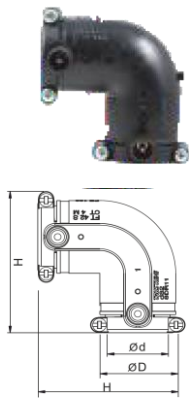


### ELECTROFUSION REDUCER (KIT)

Product Code	D x d [mm]	D1 [mm]	Fusion time (s)	Cooling time (m)	d1 [mm]	Fusion time (s)	Cooling time (m)	L [mm]	Approx. Wt. gm [pc]	Std packing* [qty]
51131312317	140 x 90	165	175	20	113	140	15	367	2537	5
51131312318	140 x 110	165	175	20	138	160	15	387	3018	5
51131312319	140 x 125	165	175	20	155	200	15	388	3457	5
51131312348	160 x 90	189	290	20	113	140	15	398	3301	4
51131312349	160 x 110	189	290	20	138	160	15	416	3664	4
51131312350	160 x 125	189	290	20	155	200	15	424	4177	4
51131312351	160 x 140	189	290	20	170	240	20	427	4270	4
51131312380	180 x 110	213	290	20	138	160	15	432	4387	2
51131312381	180 x 125	213	290	20	155	200	15	440	4796	2
51131312383	180 x 160	213	290	20	193	380	20	459	5653	2
51131312411	200 x 110	236	480	20	138	160	15	467	5261	2
51131312413	200 x 140	236	480	20	170	240	20	476	5829	2
51131312414	200 x 160	236	480	20	193	380	20	490	6219	2
51131312415	200 x 180	236	480	20	215	400	20	506	6924	2
51131312442	225 x 110	266	690	30	138	160	20	503	7147	1
51131312445	225 x 160	266	690	30	193	380	20	515	8109	1
51131312446	225 x 180	266	690	30	215	400	20	526	8836	1
51131312447	225 x 200	266	690	30	246	480	20	562	9528	1
51131312476	250 x 160	295	840	40	193	380	20	537	9627	1
51131312477	250 x 180	295	840	40	215	400	20	559	10708	1
51131312478	250 x 200	295	840	40	246	480	20	579	11116	1
51131312479	250 x 225	295	840	40	277	690	30	590	12708	1
51131312508	280 x 180	331	650	40	215	400	20	627	13190	1
51131312509	280 x 200	331	650	40	246	480	20	642	13828	1
51131312510	280 x 225	331	650	40	277	690	30	646	15350	1
51131312541	315 x 225	372	840	40	277	690	30	707	19182	1
51131312542	315 x 250	372	840	40	292	840	40	714	20596	1
51131312543	315 x 280	372	840	40	342	840	40	719	22508	1

# TRUSTLENE Electrofusion Fittings

## ELECTROFUSION ELBOW 90°

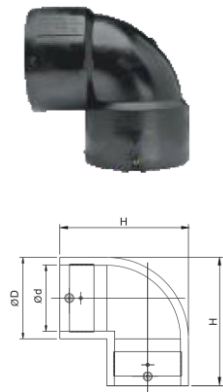


Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16

### ELECTROFUSION ELBOW 90° WITH INTEGRAL CLAMPING

Product Code	d [mm]	D [mm]	H [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51151132020	20	31	76	63	22	4	120
51151132025	25	36	78	70	28	4	100
51151132032	32	44	86	90	42	4	75
51151132040	40	53	101	141	52	7	48
51151132050	50	65	115	135	55	7	30
51151132063	63	81	130	315	70	7	20

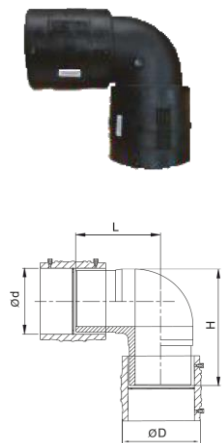
Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



### ELECTROFUSION ELBOW 90°

Product Code	d [mm]	D [mm]	H [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51151112020	20	33	70	35	22	4	168
51151112025	25	35	71	35	28	4	120
51151112032	32	44	75	48	42	4	100
51151112040	40	53	92	117	52	7	60
51151112063	63	82	122	290	70	7	21
51151112075	75	94	137	401	80	7	15
51151112090	90	113	172	655	140	15	8
51151112110	110	137	209	806	160	15	4
51151112125	125	155	230	1529	200	15	4

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 17 | PN 10



### ELECTROFUSION ELBOW 90°

Product Code	d [mm]	D [mm]	H [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51151512140	140	165	250	195	4586	240	20	3
51151512160	160	189	273	205	6104	380	20	2
51151512180	180	213	290	225	8000	400	20	2
51151512200	200	236	311	245	10432	480	30	1
51151512225	225	266	341	264	14220	690	30	1
51151512250	250	295	368	284	19200	840	40	1
51151512280	280	331	406	327	27042	650	40	1
51151512315	315	372	430	358	36890	840	40	1

# TRUSTLENE Electrofusion Fittings

## ELECTROFUSION ELBOW 45°



Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16

### ELECTROFUSION ELBOW 45° WITH INTEGRAL CLAMPING

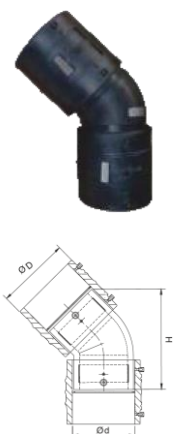
Product Code	d [mm]	D [mm]	H [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51151332020	20	31	87	55	55	22	4	140
51151332025	25	36	96	61	72	28	4	85
51151332032	32	44	101	80	85	42	4	85
51151332040	40	53	116	93	125	52	7	60
51151332050	50	65	130	105	181	55	7	30
51151332063	63	81	153	128	303	70	7	24



Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16

### ELECTROFUSION ELBOW 45°

Product Code	d [mm]	D [mm]	H [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51151312075	75	94	152	130	352	80	7	18
51151312090	90	113	192	160	661	140	15	8



Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 17 | PN 10

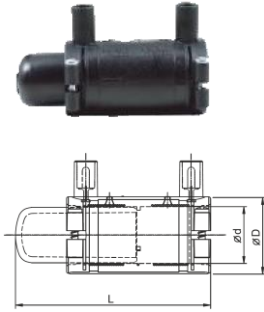
### ELECTROFUSION ELBOW 45°

Product Code	d [mm]	D [mm]	H [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51151712110	110	138	220	2549	160	15	3
51151712125	125	155	239	3590	200	15	3
51151712140	140	165	250	4165	240	20	3
51151712160	160	189	273	5189	380	20	3
51151712180	180	213	290	7213	400	20	2
51151712200	200	236	311	8236	480	30	1
51151712225	225	266	341	12266	690	30	1
51151712250	250	295	368	16295	840	40	1
51151712280	280	331	406	22311	650	40	1
51151712315	315	372	430	30372	840	40	1

# TRUSTLENE Electrofusion Fittings

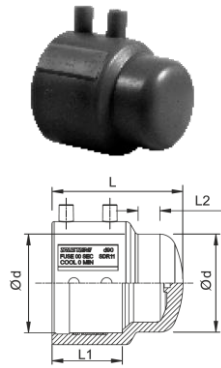
## ELECTROFUSION END CAP

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 17 | PN 10



ELECTROFUSION IC END CAP							
Product Code	d [mm]	D [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51181212020	20	31	103	53	22	4	140
51181212025	25	36	105	78	28	4	120
51181212032	32	44	109	95	42	4	85
51181212040	40	53	119	131	52	7	40
51181212050	50	65	142	202	55	7	36
51181212063	63	81	158	326	70	7	24

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



ELECTROFUSION 1P END CAP								
Product Code	d [mm]	L [mm]	L1 [mm]	L2 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51181412063	63	96	53	19	174	30	4	42
51181412075	75	100	52	19	218	45	7	36
51181412090	90	120	65	20	380	70	15	22
51181412110	110	140	78	21	647	135	12	10
51181412125	125	149	80	21	870	100	15	8

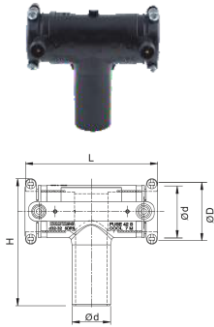
Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



ELECTROFUSION END CAP							
Product Code	d [mm]	L [mm]	D [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51181112140	140	156	175	2000	240	20	6
51181112160	160	98	190	2607	380	20	4
51181112180	180	105	215	3416	400	20	3
51181112200	200	112	246	4158	480	30	3
51181112225	225	120	277	6020	690	30	3
51181112250	250	129	292	7740	840	40	2
51181112280	280	139	342	10380	650	40	1
51181112315	315	150	386	14340	840	40	1

# TRUSTLENE Electrofusion Fittings

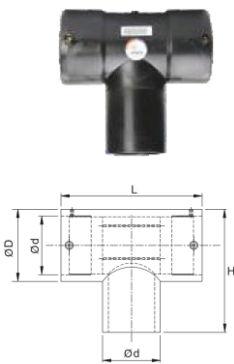
## ELECTROFUSION EQUAL TEE



Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 17 | PN 10

### ELECTROFUSION IC EQUAL TEE

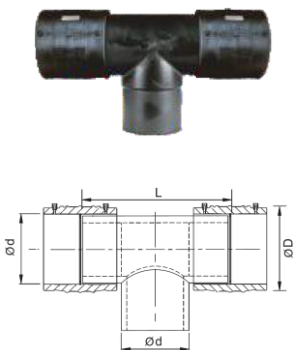
Product Code	d [mm]	L [mm]	H [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51141132020	20	97	88	68	22	4	105
51141132025	25	101	93	79	28	4	90
51141132032	32	110	106	114	42	4	60
51141132040	40	128	122	161	52	7	40
51141132050	50	147	137	250	55	7	24
51141132063	63	152	173	411	70	7	14



Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16

### ELECTROFUSION EQUAL TEE

Product Code	d [mm]	L [mm]	H [mm]	D [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51141112020	20	90	83	32	69	22	4	120
51141112025	25	90	86	35	64	28	4	90
51141112032	32	101	96	45	94	42	4	60
51141112040	40	115	116	53	140	52	7	45
51141112063	63	151	160	82	379	70	7	14
51141112075	75	165	185	94	530	80	7	10
51141112090	90	220	218	113	922	140	7	4
51141112110	110	252	253	137	1384	160	15	3
51141112125	125	256	267	155	2024	200	15	6



Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16

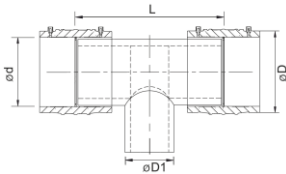
### ELECTROFUSION EQUAL TEE (KIT)

Product Code	d [mm]	L [mm]	D [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51141312140	140	380	165	5185	240	20	2
51141312160	160	417	189	7300	380	20	2
51141312180	180	458	213	9658	400	20	1
51141312200	200	481	236	12030	480	30	1
51141312225	225	527	266	17126	690	30	1
51141312250	250	590	295	22768	840	40	1
51141312280	280	690	331	33164	650	40	1
51141312315	315	712	372	43126	840	40	1

# TRUSTLENE Electrofusion Fittings

## ELECTROFUSION REDUCING TEE

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



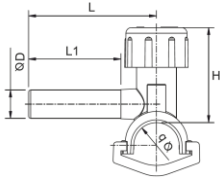
### ELECTROFUSION EQUAL TEE (KIT)

Product Code	d [mm]	L [mm]	D [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51141152191	75 x 63 x75	261	91	964	80	7	4
51141152222	90 x 63 x90	290	113	1782	140	15	4
51141152223	90 x 75 x90	290	113	1826	140	15	4
51141152253	110 x 63 x110	327	138	2916	160	15	3
51141152254	110 x 75 x110	327	138	2954	160	15	3
51141152255	110 x 90 x110	327	138	3020	160	15	3
51141152284	125 x 63 x125	356	155	4040	200	15	3
51141152286	125 x 90 x125	356	155	4300	200	15	3
51141152287	125 x 110 x125	356	155	4382	200	15	3
51141152317	140 x 90 x140	380	165	4848	240	20	3
51141152318	140 x 110 x140	380	165	4976	240	20	3
51141152319	140 x 125 x140	380	165	5046	240	20	2
51141152348	160 x 90 x160	417	189	6504	380	20	2
51141152349	160 x 110 x160	417	189	6830	380	20	2
51141152350	160 x 125 x160	417	189	6924	380	20	2
51141152351	160 x 140 x160	417	189	7008	380	20	2
51141152379	180 x 90 x180	458	213	8818	400	20	1
51141152380	180 x 110 x180	458	213	8950	400	20	1
51141152381	180 x 125 x180	458	213	9086	400	20	1
51141152383	180 x 160 x180	458	213	9346	400	20	1
51141152408	200 x 63 x200	481	236	10710	480	20	1
51141152410	200 x 90 x200	481	236	10740	480	20	1
51141152411	200 x 110 x200	481	236	10864	480	20	1
51141152412	200 x 125 x200	481	236	11004	480	20	1
51141152414	200 x 160 x200	481	236	11360	480	20	1
51141152441	225 x 90 x225	527	266	15728	690	30	1
51141152442	225 x 110 x225	527	266	15750	690	30	1
51141152443	225 x 125 x225	527	266	15930	690	30	1
51141152445	225 x 160 x225	527	266	16120	690	30	1
51141152472	250 x 90 x250	590	295	20428	840	40	1
51141152473	250 x 110 x250	590	295	20690	840	40	1
51141152474	250 x 125 x250	590	295	20630	840	40	1
51141152476	250 x 160 x250	590	295	20950	840	40	1
51141152504	280 x 110 x280	690	331	29490	650	40	1
51141152507	280 x 160 x280	690	331	29786	650	40	1
51141152509	280 x 200 x280	690	331	30532	650	40	1
51141152510	280 x 225 x280	690	331	31300	650	40	1
51141152535	315 x 110 x315	712	372	38806	840	40	1
51141152538	315 x 160 x315	712	372	39920	840	40	1
51141152540	315 x 200 x315	712	372	40360	840	40	1
51141152541	315 x 225 x315	712	372	40980	840	40	1
51141152542	315 x 250 x315	712	372	41480	840	40	1

# TRUSTLENE Electrofusion Fittings

## ELECTROFUSION WRAP AROUND TAPPING TEE – CLAMP TYPE

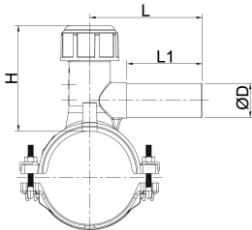
Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



### ELECTROFUSION WRAP AROUND TAPPING TEE - SLIDE FIT WRAP

Product Code	d x D [mm]	H [mm]	L [mm]	L1 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51161412062	32 x 20	83	90	65	180	30	4	40
51161412093	40 x 20	86	110	78	270	30	4	25
51161412094	40 x 25	86	110	78	270	30	4	25
51161412095	40 x 32	86	110	78	270	30	4	25

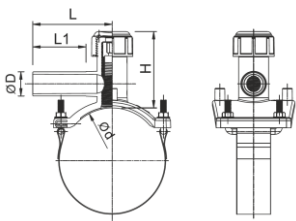
Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



### ELECTROFUSION WRAP AROUND TAPPING TEE - CLAMP TYPE

Product Code	d x D [mm]	H [mm]	L [mm]	L1 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51161412155	63 x 20	103	106	71	387	70	4	18
51161412156	63 x 25	103	106	71	388	70	4	18
51161412157	63 x 32	103	106	71	395	70	4	18
51161412186	75 x 20	104	106	71	562	100	7	12
51161412187	75 x 25	104	106	71	564	100	7	12
51161412188	75 x 32	104	106	71	568	100	7	12
51161412217	90 x 20	100	106	71	600	100	7	12
51161412218	90 x 25	100	106	71	602	100	7	12
51161412219	90 x 32	100	106	71	606	100	7	12
51161412248	110 x 20	93	106	71	520	95	7	9
51161412249	110 x 25	93	106	71	520	95	7	10
51161412250	110 x 32	93	106	71	520	95	7	10
51161412279	125 x 20	93	106	71	510	95	7	9
51161412280	125 x 25	93	106	71	520	95	7	9
51161412281	125 x 32	93	106	71	535	95	7	9
51161412372	180 x 20	93	106	71	647	95	7	8
51161412373	180 x 25	93	106	71	651	95	7	8
51161412374	180 x 32	93	106	71	653	95	7	8

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



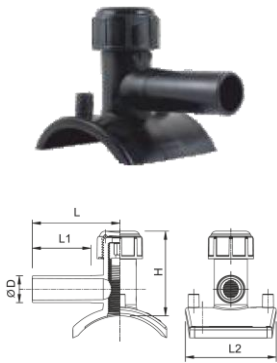
### ELECTROFUSION WRAP AROUND TAPPING TEE - BELT TYPE

Product Code	d x D [mm]	H [mm]	L [mm]	L1 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51161412310	140 x 20	102	106	71	687	95	7	15
51161412311	140 x 25	102	106	71	687	95	7	15
51161412312	140 x 32	102	106	71	687	95	7	15
51161412341	160 x 20	102	106	71	717	95	7	15
51161412342	160 x 25	102	106	71	717	95	7	10
51161412343	160 x 32	102	106	71	717	95	7	10
51161412403	200 x 20	102	106	71	555	95	7	12
51161412404	200 x 25	102	106	71	555	95	7	12
51161412405	200 x 32	102	106	71	555	95	7	12

# TRUSTLENE Electrofusion Fittings

## ELECTROFUSION TAPPING TEE

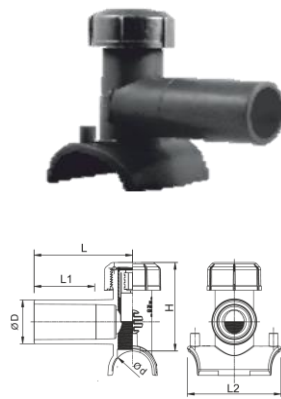
Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



### ELECTROFUSION TAPPING TEE

Product Code	d x D [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51161113124	50 x 20	78	98	65	113	134	30	4	30
51161113126	50 x 32	78	98	65	113	139	30	4	30
51161313157	63-75-2" x 32	96	106	71	110	271	70	4	24
51161313219	90-3" x 32	96	106	71	110	281	80	4	24
51161313250	110-140-4" x 32	98	106	71	110	358	80	4	24
51161313343	160-200-8" x 32	100	106	71	110	292	80	4	24
51161313236	225-250 x 32	100	130	71	110	286	80	4	24

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16

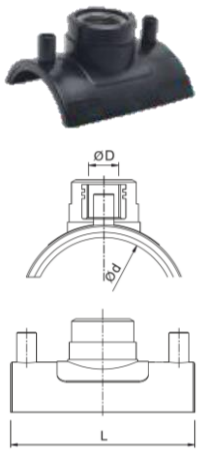


### ELECTROFUSION HIGH VOLUME TAPPING TEE

Product Code	d x D [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51161113191	75 x 63	168	143	88	136	623	70	4	10
51162113222	90-3" x 63	181	146	90	136	630	70	4	10
51161112160	63 x 63	128	143	88	136	676	70	7	10
51161112222	90 x 63	147	146	88	136	640	70	7	10
51161112253	110 x 63	148	146	88	136	653	70	7	10
51161112284	125 x 63	148	146	88	136	653	70	7	10
51161112377	180 x 63	148	146	88	136	674	70	7	10

## ELECTROFUSION BRANCH SADDLE

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



### ELECTROFUSION HIGH VOLUME TAPPING TEE

Product Code	d x D [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51171114146	50 x 1/2"	120	140	30	4	86
51171234177	63 - 75 x 1/2"	120	233	70	4	60
51171234178	63 - 75 x 3/4"	120	275	70	4	60
51171234179	63 - 75 x 1"	120	275	70	4	50
51171234239	90 - 140 x 1/2"	120	181	80	4	60
51171234240	90 - 140 x 3/4"	120	183	80	4	60
51171234241	90 - 140 x 1"	120	231	80	4	60

## TRUSTLENE Electrofusion Fittings

### ELECTROFUSION BRANCH SADDLE

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16

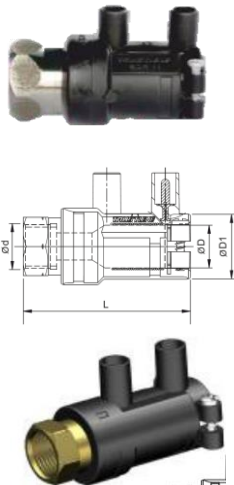


#### ELECTROFUSION BRANCH SADDLE WITH BOTTOM WRAP

Product Code	d x D [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51171332177	63 x 1/2"	125	170	80	4	40
51171332208	75 x 1/2"	120	264	100	4	30
51171332239	90 x 1/2"	140	300	100	4	25
51171332270	110 x 1/2"	160	320	100	4	20

### ELECTROFUSION TRANSITION COUPLER

Material: PE100 | Colour: Black | Terminal Pin: 4.0mm | SDR 11 | PN 16



#### ELECTROFUSION IC METAL TRANSITION COUPLER (BSPT)

Product Code	d x D [mm]	L [mm]	D1 [mm]	Metal Type	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51271232022	20 x 1/2"	80	31	Stainless steel	147	19	4	100
51271232023	20 x 3/4"	80	31	Stainless steel	170	19	4	100
51271232084	32 x 1/2"	83	44	Stainless steel	163	28	4	60
51271232085	32 x 3/4"	83	44	Stainless steel	163	28	4	60
51271232086	32 x 1"	88	44	Stainless steel	258	28	4	60

#### ELECTROFUSION IC METAL TRANSITION COUPLER (BSPT)

Product Code	d x D [mm]	L [mm]	D1 [mm]	Metal Type	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)	Std packing* [qty]
51271272022	20 x 1/2"	78	31	Brass	106	19	4	100

### WELDABLE TRANSITION FITTING (STEEL-PE)

Material: PE100 / Carbon steel | SDR 11 | PN 16



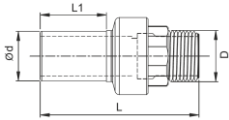
#### ELECTROFUSION IC METAL TRANSITION COUPLER (STEEL - PE)

Product Code	d x D [mm]	L [mm]	L1 [mm]	L2 [mm]	Metal Type	Approx. Wt. kg [pc]
51271712032	32 x 1"	400	100	300	Carbon Steel	1.2
51271712090	90 x 3"	510	190	320	Carbon Steel	6.2
51271712125	125 x 4"	510	190	320	Carbon Steel	10.5
51271712160	160 x 6"	630	200	430	Carbon Steel	18.3
51271712180	180 x 6"	630	200	430	Carbon Steel	18.7

# TRUSTLENE Electrofusion Fittings

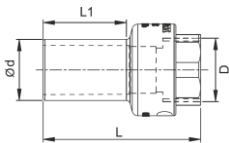
## BRASS SPIGOT TRANSITION FITTING

Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16



BRASS SPIGOT TRANSITION FITTING - MALE (BSPT)					
Product Code	d x D [mm]	L [mm]	L1 [mm]	Approx. Wt. gm [pc]	Std packing* [qty]
51271182022	20 x 1/2"	97	43	118	50
51271182023	20 x 3/4"	97	43	127	50
51271182054	25 x 3/4"	97	43	147	50
51271182086	32 x 1"	103	43	233	50
51271182118	40 x 1 1/4"	126	53	374	45
51271182153	50 x 1 1/2"	133	61	437	40
51271182181	63 x 2"	139	43	698	25

Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16



BRASS SPIGOT TRANSITION FITTING - FEMALE (BSPT)					
Product Code	d x D [mm]	L [mm]	L1 [mm]	Approx. Wt. gm [pc]	Std packing* [qty]
51271172022	20 x 1/2"	81	43	94	50
51271172054	25 x 3/4"	81	43	116	50
51271172086	32 x 1"	83	43	171	50
51271172118	40 x 1 1/4"	104	53	310	45
51271172153	50 x 1 1/2"	111	61	365	40
51271172181	63 x 2"	115	63	541	25

# TRUSTLENE Electrofusion Fittings

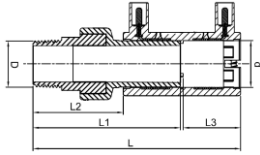
## ELECTROFUSION COUPLER + BRASS SPIGOT TRANSITION FITTING



Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16

### ELECTROFUSION BRASS TRANSITION COUPLER - MALE

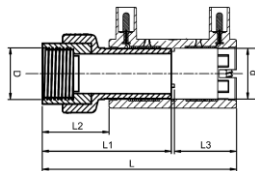
Product Code	d x D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)
51271382022	20 x 1/2"	137	97	60	38	171	22	4
51271382023	20 x 3/4"	137	97	60	38	180	22	4
51271382054	25 x 3/4"	138	97	59	39	210	28	4
51271382086	32 x 1"	145	103	63	40	308	42	4
51271382118	40 x 1 1/4"	167	126	73	42	470	52	7
51271382153	50 x 1 1/2"	185	133	72	53	578	55	7
51271382185	63 x 2"	190	139	90	49	918	70	7



Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16

### ELECTROFUSION BRASS TRANSITION COUPLER - FEMALE

Product Code	d x D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)
51271372022	20 x 1/2"	121	81	38	38	147	22	4
51271372054	20 x 3/4"	121	81	38	38	156	22	4
51271372086	32 x 1"	125	83	43	40	246	42	4
51271372118	40 x 1 1/4"	146	104	51	42	406	52	7
51271372153	50 x 1 1/2"	164	111	50	53	506	55	7
51271372185	63 x 2"	166	115	52	49	761	70	7



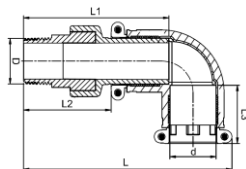
## ELECTROFUSION ELBOW 90° + BRASS SPIGOT TRANSITION FITTING



Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16

### ELECTROFUSION BRASS TRANSITION ELBOW - 90° MALE

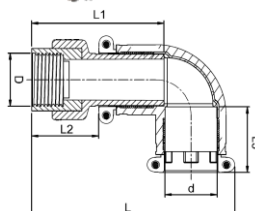
Product Code	d x D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)
51271482022	20 x 1/2"	136	97	60	38	181	22	4
51271482023	20 x 3/4"	136	97	60	38	190	22	4
51271482054	25 x 3/4"	135	97	59	39	220	28	4
51271482086	32 x 1"	149	103	63	40	323	42	4
51271482118	40 x 1 1/4"	176	126	72	51	515	52	7
51271482153	50 x 1 1/2"	190	133	71	58	572	55	7
51271482185	63 x 2"	220	139	90	49	1013	70	7



Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16

### ELECTROFUSION BRASS TRANSITION ELBOW - 90° FEMALE

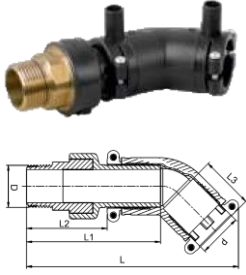
Product Code	d x D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)
51271472022	20 x 1/2"	120	81	38	38	157	22	4
51271472054	25 x 3/4"	121	81	38	39	186	28	4
51271472086	32 x 1"	126	83	43	40	261	42	4
51271472118	40 x 1 1/4"	155	104	51	51	451	52	7
51271472153	50 x 1 1/2"	169	111	50	58	500	55	7
51271472185	63 x 2"	196	115	66	49	856	70	7



# TRUSTLENE Electrofusion Fittings

## ELECTROFUSION ELBOW 45° + BRASS SPIGOT TRANSITION FITTING

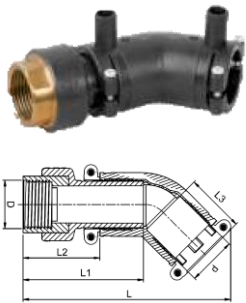
Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16



### ELECTROFUSION BRASS TRANSITION ELBOW - 45° MALE

Product Code	d x D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)
51271582022	20 x 1/2"	147	97	60	43	173	22	4
51271582023	20 x 3/4"	147	97	60	43	182	22	4
51271582054	25 x 3/4"	155	97	59	48	219	28	4
51271582086	32 x 1"	164	103	63	40	318	42	4
51271582118	40 x 1 1/4"	184	126	73	58	499	52	7
51271582153	50 x 1 1/2"	197	133	72	65	618	55	7
51271582185	63 x 2"	215	139	90	77	1001	70	7

Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16



### ELECTROFUSION BRASS TRANSITION ELBOW - 45° FEMALE

Product Code	d x D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)
51271572022	20 x 1/2"	131	81	38	43	149	22	4
51271572054	25 x 3/4"	139	81	38	43	188	28	4
51271572086	32 x 1"	144	83	43	40	256	42	4
51271572118	40 x 1 1/4"	162	104	51	58	435	52	7
51271572153	50 x 1 1/2"	176	111	50	65	546	55	7
51271572185	63 x 2"	191	115	52	76	844	70	7

## ELECTROFUSION REDUCER + BRASS SPIGOT TRANSITION FITTING

Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16



### ELECTROFUSION BRASS TRANSITION REDUCER - MALE

Product Code	d x D [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)
51270682053	25 x 1/2"	141	180	26	4
51271682084	32 x 1/2"	143	193	34	4
51271682085	32 x 3/4"	143	222	30	4
51271682116	40 x 3/4"	154	239	30	7

Material: PE100 / Brass | Colour: Black | SDR 11 | PN 16



### ELECTROFUSION BRASS TRANSITION REDUCER - FEMALE

Product Code	d x D [mm]	L [mm]	Approx. Wt. gm [pc]	Fusion time (s)	Cooling time (m)
51271672054	25 x 1/2"	147	156	26	4
51271672117	40 x 1"	137	268	42	7
51271672147	50 x 3/4"	138	219	30	7
51271672149	50 x 1 1/4"	161	428	46	7
51271672184	63 x 1 1/2"	170	570	45	7

## TRUSTLENE® Electrofusion High Volume Tapping Tee - 63mm Outlet [Bottom Wrap Type]

### PE100 Electrofusion High Volume Tapping Tee for Use with PE Pipes

The high-volume tapping tee is manufactured from PE100 polyolefin and incorporates a precisely molded energizing coil, ensuring uniform fusion and a strong, reliable joint on the main pipeline.

Designed for a permanent and secure connection, the tapping tee uses the electrofusion process—a proven technology that joins high-density polyethylene (HDPE) components by creating a molecular bond between the pipe and the fitting.

This high-volume tapping tee features a 63 mm outlet specifically engineered for pipeline branching. The fittings are rated to PN16 for water applications and 1000 kPa for gas applications.

Each product is supplied with a bottom wrap that secures the fitting, ensuring continuous and positive contact with the pipe surface, as well as correct alignment before and during the fusion process.

Applications: Water & Gas



#### PE100 Electrofusion High Volume Tapping Tee - Bottom Wrap [PN16]

Size [mm]	SDR	Material	Cutter Material	Pin Type
90 x 63	11	PE100	Brass cutter	4.0mm
125 x 63	11	PE100	Brass cutter	4.0mm
160 x 63	11	PE100	Brass cutter	4.0mm
180 x 63	11	PE100	Brass cutter	4.0mm
200 x 63	11	PE100	Brass cutter	4.0mm



## FISH Socket Fusion Fittings



### Advantages at a glance

- ✓ Strong, leak-proof joints
- ✓ Homogenous bond
- ✓ Long-term durability
- ✓ Versatility
- ✓ Cost efficient
- ✓ Products are tested to meet water standards.

Materials	
Parts	Material
All fittings	Polyethylene / brass

### Description

Homogeneous heat fusion joints for PE pipes and fittings are widely regarded as the preferred method for jointing, owing to their exceptional performance and reliability. The heat fusion process involves heating the jointing surfaces of the pipe and fitting to a specified temperature, followed by the application of controlled force to fuse them together. This applied pressure enables the molten material to flow and blend, forming a cohesive bond. When the fusion is carried out in accordance with established procedures for both the pipe and fitting, the resulting joint is as strong, if not stronger, than the pipe itself in terms of tensile and pressure strength. Consequently, heat fusion joints are considered inherently leak-proof, providing a secure and durable connection.

### Fittings specifications



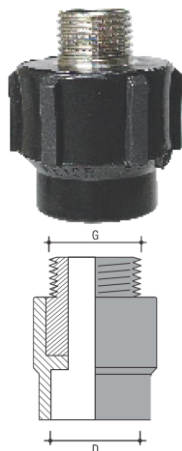
#### Specification

Material	Polyethylene
Body colour	Black
Joint type	Socket fusion / metallic thread ends
Pressure rating	16 bar @ 20°C
Surge pressure	max 1.5 times
Feature	Heat induced homogenous bonding
Standards	DIN 16963 : Part 5 : 1999, DIN 16963 : Part 8 : 1980, DIN 16963 : Part 9 : 1980, DIN 16963 : Part 10 : 1980, DIN 16963 : Part 14 : 1983
Marking and labeling	To ensure traceability, all fittings are permanently marked with identification during the production process. <ul style="list-style-type: none"> <li>• Brand name</li> <li>• Dimensions</li> <li>• Material and designation</li> </ul>

# FISH Socket Fusion Fittings

## SOCKET FUSION BRASS THREADED FITTINGS (BSPT)

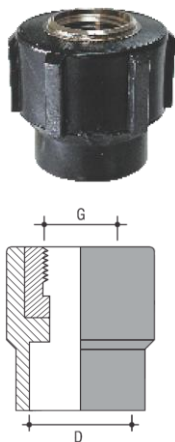
Colour: Black | Water application | PN 16



### MALE THREADED ADAPTOR WITH BRASS INSERT

Product Code	D x G [mm / inch]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500209	20 x 1/2"	69	600
07960500210	25 x 1/2"	80	400
07960500211	25 x 3/4"	113	400
07960500212	32 x 3/4"	170	250
07960500213	32 x 1"	178	250

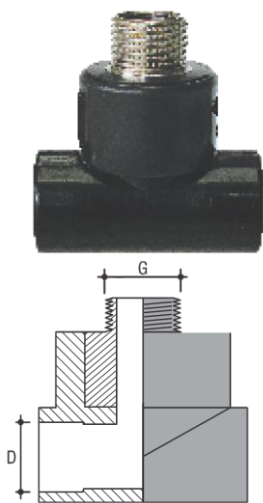
Colour: Black | Water application | PN 16



### FEMALE THREADED ADAPTOR WITH BRASS INSERT

Product Code	D x G [mm / inch]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500193	20 x 1/2"	60	600
07960500194	25 x 1/2"	67	400
07960500195	25 x 3/4"	73	400
07960500196	32 x 3/4"	84	250
07960500197	32 x 1"	111	250

Colour: Black | Water application | PN 16



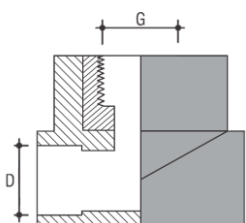
### MALE THREADED TEE WITH BRASS INSERT

Product Code	D x G [mm / inch]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500219	20 x 1/2"	130	400
07960500220	20 x 3/4"	133	400
07960500221	25 x 1/2"	130	250
07960500222	25 x 3/4"	136	250
07960500223	32 x 3/4"	210	150
07960500224	32 x 1"	440	150

# FISH Socket Fusion Fittings

## SOCKET FUSION BRASS THREADED FITTINGS (BSPT)

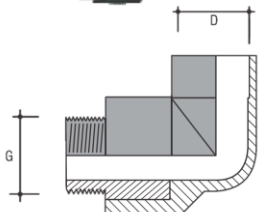
Colour: Black | Water application | PN 16



### FEMALE THREADED TEE WITH BRASS INSERT

Product Code	D x G [mm / inch]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500203	20 x 1/2"	80	400
07960500204	20 x 3/4"	83	400
07960500205	25 x 1/2"	80	250
07960500206	25 x 3/4"	89	250
07960500207	32 x 3/4"	140	150
07960500208	32 x 1"	300	150

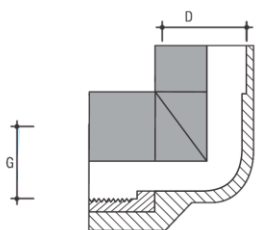
Colour: Black | Water application | PN 16



### MALE THREADED ELBOW 90° WITH BRASS INSERT

Product Code	D x G [mm / inch]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500214	20 x 1/2"	120	500
07960500215	25 x 1/2"	168	300
07960500216	25 x 3/4"	170	300
07960500217	32 x 3/4"	200	200
07960500218	32 x 1"	233	200

Colour: Black | Water application | PN 16



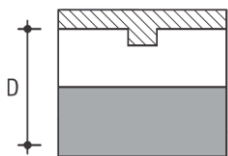
### FEMALE THREADED ELBOW 90° WITH BRASS INSERT

Product Code	D x G [mm / inch]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500198	20 x 1/2"	70	500
07960500199	25 x 1/2"	80	300
07960500200	25 x 3/4"	83	300
07960500201	32 x 3/4"	110	200
07960500202	32 x 1"	270	200

## FISH Socket Fusion Fittings

### SOCKET FUSION FITTINGS

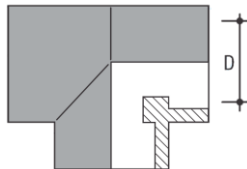
Colour: Black | Water application | PN 16



#### STRAIGHT COUPLER

Product Code	D [mm]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500236	20	13	1200
07960500237	25	19	800
07960500238	32	30	600
07960500239	50	69	250
07960500240	63	129	100

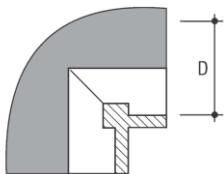
Colour: Black | Water application | PN 16



#### EQUAL TEE

Product Code	D [mm]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500188	20	27	700
07960500189	25	38	500
07960500190	32	70	300
07960500191	50	177	100
07960500192	63	318	50

Colour: Black | Water application | PN 16



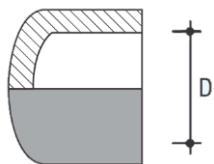
#### ELBOW 90°

Product Code	D [mm]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500180	20	20	1000
07960500181	25	21	700
07960500182	32	51	400
07960500183	50	118	150
07960500184	63	230	60

# FISH Socket Fusion Fittings

## SOCKET FUSION FITTINGS

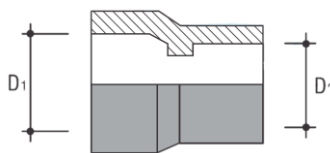
Colour: Black | Water application | PN 16



### END CAP

Product Code	D [mm]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500185	20	11	2000
07960500186	25	15	1500
07960500187	32	25	800

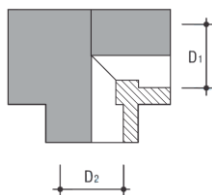
Colour: Black | Water application | PN 16



### REDUCING COUPLER

Product Code	D1 x D2 [mm]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500227	25 x 20	22	800
07960500228	32 x 20	25	600
07960500229	32 x 25	27	600
07960500230	50 x 32	62	300
07960500231	63 x 32	104	150
07960500232	63 x 50	119	150

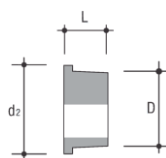
Colour: Black | Water application | PN 16



### REDUCING TEE

Product Code	D1 x D2 [mm]	Approx. Wt. gm [pc]	Std packing* [qty]
07960500233	25 x 20	36	500
07960500234	32 x 20	63	300
07960500235	32 x 25	64	300

Colour: Black | Water application | PN 16



### PIPE STIFFENER

Product Code	D [mm]	D2 [mm]	L [mm]	Approx. Wt. gm [pc]
07960103130	20	23	10	10
07960103131	25	28	11	10







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