

AB-DF[®]

Ductile Iron Fittings for AB-3P[®] and HI-3P[®]



Manufacturer:



www.esareka.com.my

AB-DF® (DUCTILE IRON FITTINGS FOR AB-3P® AND HI-3P®)

FEATURES AND BENEFITS

Reduces costs	-	Rapid installation minimal pipe end preparation and no pipe threading required, only spanner, wrench is needed.
Compact	-	Products can be installed quickly and effectively in constricted site conditions.
Tolerance	-	Accepts up to a maximum variation of 2mm in pipe OD.
Angularity	-	With Polyethylene angularity is accommodated by the inherent flexibility of the pipe.
Approved	-	AB-DF® material and component are approved by IKRAM QA SERVICES SDN BHD (MALAYSIA) .
Full Range	-	The AB-DF® fittings provide a comprehensive pipe jointing system for service pipe. The range consist of Bend, Tees, Reducer, Coupling, Flange Adaptor and etc.

SPECIFICATION**Applicable Standards**

1. AB-DF® fittings conform to the requirements of BS EN 545:2002.

Standard Wall Thickness

Nominal Wall Thickness of Fittings, $T = K(0.5 + 0.001D)$

where D: Nominal Diameter
K: Coefficient (K=7,8,9,10,11,12)

Works Hydrostatic Test Pressure

Nominal Diameter	Pressure Rating
50 - 300	25 Bars
350 - 600	16 Bars

Mechanical Properties

Type of Casting	Tensile Strength, Rm Min. Mpa	Elongation A Min. %
Fittings	420	5

1. Upon agreement, the 0.2% proof stress (Rp0.2) may be measured. It shall not less than 300 Mpa in other cases.

2. In case of dispute, Brinell hardness will be measured. It shall be maximum: 230 HB for Fittings

Standard Coating and Lining

Outside	Hot Fusion Bonded Epoxy Coating
Inside	Hot Fusion Bonded Epoxy Coating

Note: Upon client's request, Rilsan Nylon 11 or Cold Apply Epoxy or PU Coating may be applied.

AB-DF® Material Specification

Item	Particulars	Material	Standard Reference	Grade
1	Body	Ductile Cast Iron	BS 2789	420 / 5
2	Gland	Ductile Cast Iron	BS 2789	420 / 5
3	L-Shaped Bolt & Nut	Ductile Cast Iron	BS 2789	500 / 7
4	Rubber Ring	Synthetic Rubber	BS 2494	EPDM
5	Lock Ring	Acetel Resin	-	Nylon Type 66
6	Washer	Acetel Resin	-	Nylon Type 66

Installation Procedure

01

INSERT GLAND TO PIPE



Connected pipe shall be cut square and be free of burrs.

Chamfer inside with pile.

Clean the end of the pipe.

02

INSERT LOCK RING



Insert Polymer Lock Ring
(One side open).

Make sure bigger diameter side is toward pipe and smaller side is toward Gland.

03

INSERT WASHER



Insert Polymer Washer.

04

APPLY LUBRICANT TO RUBBER RING (INTERNAL)



Apply lubricant inside of rubber ring.

05

INSERT RUBBER RING



Insert rubber ring by expanding it.

06

JOINT TO MAIN BODY



Insert pipe to stopper notch and pull out 5mm.

Proper alignment needed.

07

TIGHTEN L-SHAPED BOLT & NUT



Insert bolt & nut to gland.

Check that bolt head is automatically engaged inside of gland bolt hole and hook on the edge of fitting body.

Tighten Nut bit by bit.
(Cross tightening 2~3 times).

(Using only M-18 spanner wrench size 27mm)

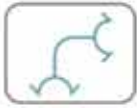
08

CONNECT PIPE TO PIPE



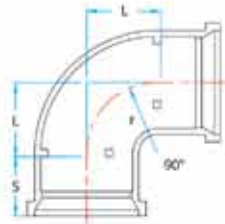
Tighten until gland face touch main body.

90° Elbow

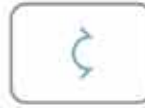


Dimensions in millimeters

Nominal Diameter (DN)	L	S	r
50	62	63	45
80	98	70	75
100	120	80	80
125	143	85	112
155	166	94	145
200	217	108	195
250	265	115	245
300	309	126	290
350	350	150	340
400	382	168	390

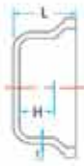


Cap

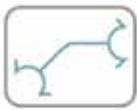


Dimensions in millimeters

Nominal Diameter (DN)	H	t	L
150	70	7.0	114
200	85	7.5	130
250	100	8.5	153
300	120	9.0	172
350	150	10.0	210
400	167	10.0	230

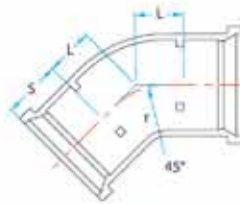


45° Elbow

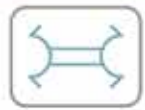


Dimensions in millimeters

Nominal Diameter (DN)	L	S	r
50	53	63	80
80	62	70	95
100	65	80	100
125	73	85	123
150	81	94	145
200	107	108	200
250	125	115	245
300	139	126	305
350	155	150	350
400	157	168	405

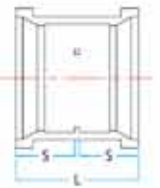


Socket



Dimensions in millimeters

Nominal Diameter (DN)	S	L
50	63	136
80	70	150
100	80	170
125	80	180
150	94	198
200	108	226
250	115	240
300	126	262
350	150	310
400	168	346

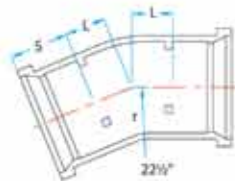


22½° Elbow



Dimensions in millimeters

Nominal Diameter (DN)	L	S	r
50	32	63	88
80	38	70	103
100	40	80	110
125	46	85	133
150	51	94	155
200	62	108	195
250	70	115	240
300	74	126	305
350	75	150	350
400	72	168	360

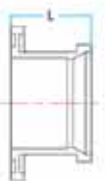


Flange Socket

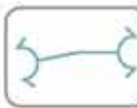


Dimensions in millimeters

Nominal Diameter (DN)	L	Diameter of Bolt Hole	No. of Bolt Hole	P.C.D.
50	63	19	4	125
80	70	19	8	160
100	80	19	8	180
125	94	23	8	240
150	94	23	8	240
200	108	23	12	295
250	115	28	12	355
300	126	28	12	410
350	150	28	16	470
400	168	31	16	525

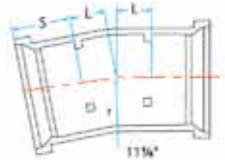


11¼° Elbow

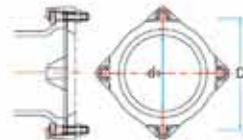


Dimensions in millimeters

Nominal Diameter (DN)	L	S	r
50	32	63	88
80	38	70	103
100	40	80	110
125	46	85	133
150	51	94	155
200	62	108	195
250	70	115	240
300	74	126	305
350	75	150	350
400	72	168	360



Parts



Dimensions in millimeters

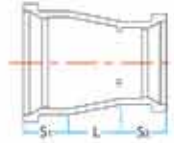
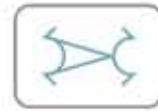
Nominal Diameter (DN)	D	d ₁	r
80	153	95	3
100	178	121	3
125	202	146	4
150	233	175	4
200	283	225	6
250	338	280	6
300	389	331	6
350	421	363	8
400	472	414	8



Reducer Socket

Dimensions in millimeters				
Nominal Diameter		L	S ₁	S ₂
DN	dn			
80	50	100	70	63
100	80	100	80	70
125	100	100	85	80
150	100	150	94	80
150	125	150	94	84
200	100	200	108	80
200	125	175	108	85
200	150	150	108	94
250	100	250	115	80
250	125	225	115	85
250	150	200	115	94
250	200	150	115	94
300	125	275	126	85
300	150	250	126	94
300	200	200	126	108

Dimensions in millimeters				
Nominal Diameter		L	S ₁	S ₂
DN	dn			
300	250	150	126	115
350	125	325	150	85
350	200	250	150	108
350	250	200	150	115
350	300	150	150	126
400	125	375	168	85
400	200	300	168	108
400	250	250	168	108
400	300	200	168	126
400	350	150	168	150

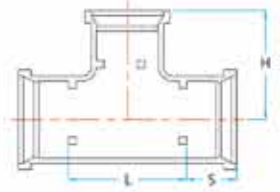


Tee

Dimensions in millimeters				
Nominal Diameter		L	H	S
DN	dn			
50	50	110	125	63
80	50	110	165	70
80	80	130	165	70
100	50	110	180	80
100	80	125	180	80
100	100	130	180	80
125	50	110	185	63
125	80	130	185	70
125	100	130	190	80
125	125	155	190	85
150	80	125	195	70
150	100	130	205	94
150	125	155	210	94
150	150	180	220	94
200	100	120	230	108

Dimensions in millimeters				
Nominal Diameter		L	H	S
DN	dn			
200	125	155	235	108
200	150	180	245	108
200	200	230	260	108
250	100	130	270	115
250	125	155	275	115
250	150	180	280	115
250	200	230	290	115
250	250	280	300	115
300	100	130	300	126
300	125	155	305	126
300	150	180	310	126
300	200	230	320	126
300	250	280	330	126
300	300	330	340	126
350	100	130	330	150

Dimensions in millimeters				
Nominal Diameter		L	H	S
DN	dn			
350	125	155	335	150
350	150	180	340	150
350	200	230	350	150
350	250	280	360	150
350	300	330	370	150
350	350	380	380	150
400	100	130	360	168
400	125	155	365	168
400	150	180	370	168
400	200	230	380	168
400	250	280	390	168
400	300	330	400	168
400	350	380	410	168
400	400	430	420	168

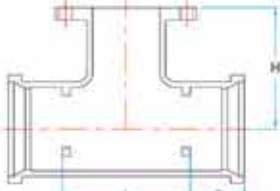


Flange Tee

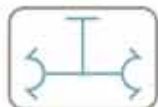
Dimensions in millimeters				
Nominal Diameter		L	H	S
DN	dn			
50	50	110	125	63
80	50	110	165	70
80	80	130	165	70
100	50	110	180	80
100	80	125	180	80
100	100	130	180	80
125	50	110	185	85
125	80	130	185	85
125	100	130	190	85
125	125	155	190	85
150	80	125	195	70
150	100	130	205	94
150	125	155	210	94
150	150	180	220	94
200	100	120	230	108

Dimensions in millimeters				
Nominal Diameter		L	H	S
DN	dn			
200	125	155	235	108
200	150	180	245	108
200	200	230	260	108
250	100	130	270	115
250	125	155	275	115
250	150	180	280	115
250	200	230	290	115
250	250	280	300	115
300	100	130	300	126
300	125	155	305	126
300	150	180	310	126
300	200	230	320	126
300	250	280	330	126
300	300	330	340	126
350	100	130	330	150

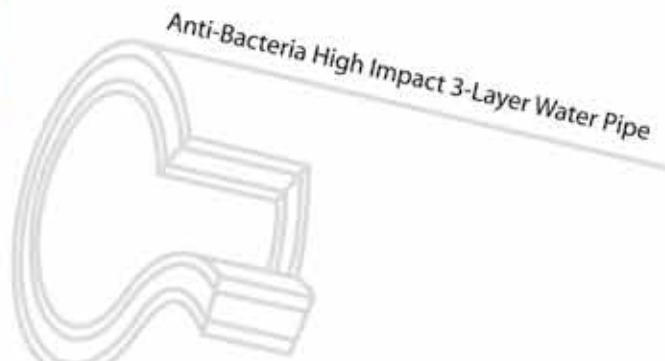
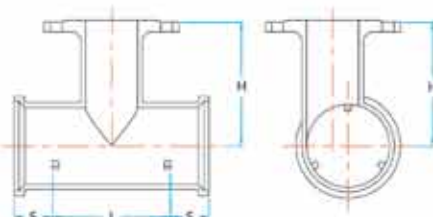
Dimensions in millimeters				
Nominal Diameter		L	H	S
DN	dn			
350	125	155	335	150
350	150	180	340	150
350	200	230	350	150
350	250	280	360	150
350	300	330	370	150
350	350	380	380	150
400	100	130	360	168
400	125	155	365	168
400	150	180	370	168
400	200	230	380	168
400	250	280	390	168
400	300	330	400	168
400	350	380	410	168
400	400	430	420	168



Level Invert Tee with Flange Branch



Dimensions in millimeters				
Nominal Diameter		L	H	S
DN	dn			
125	100	110	120	85
150	100	110	125	94
200	100	110	130	108
250	100	120	130	115
300	100	110	165	126
350	100	120	165	150
400	100	130	165	168



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