

**Malleable Iron**  
Pipe Fittings  
BS EN 10242

**Patterns • Sizes • List Prices**

**Prices effective from 1st September 2008**

**Exclusive of VAT.**

**+GF+**



FM 20478

# George Fischer Ltd. – Profile of a Company

In 1802 Johann Conrad Fischer began producing cast iron in crucibles in a former herb mill in Schaffhausen, Switzerland that now forms the basis of a large industrial undertaking which is operative worldwide. Today George Fischer is a modern company with its headquarters in Switzerland and numerous production sites in Europe and overseas.

The George Fischer Groups' special skills are in engineering, production, marketing and sales of high technology and quality processes, plants, systems and their components. The Group is divided into four operating divisions which cover a large part of the company's activities.

George Fischer also offers competent product training and consultation given by experienced specialists.

Sales companies in all major countries and an extensive and highly qualified dealer network ensure availability at all times in conjunction with a modern logistics system.

Products from George Fischer have become a byword with professionals and form an important part of the range of metal and plastic products necessary for pipeline construction in industry, domestic services and utility supply networks.

## Quality, Standards and Approvals

The fittings are manufactured and distributed by GF companies that operate a quality assurance scheme in accordance with **EN ISO 9001 & 9002**.

The fittings comply with the standards **ISO 49** and **BS EN 10242, Design symbol A**.

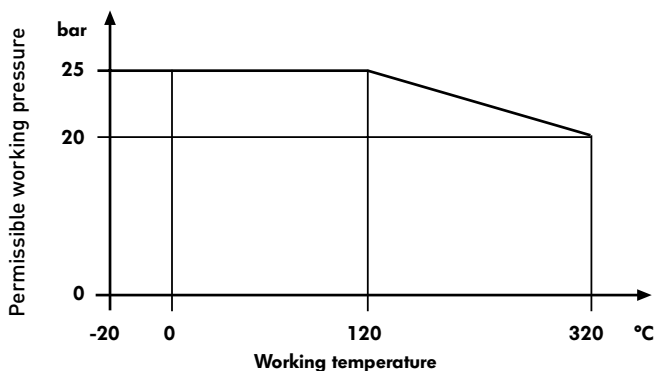
GF Malleable Iron Fittings are approved by Factory Mutual Research, for use in fire protection systems.

GF are the only European produced fittings to be **FM Approved** and each fitting carries the FM symbol.

Full technical information is available in our Malleable Iron Pipe Fittings Technical Manual which may be viewed or downloaded from our website [www.georgefischer.co.uk](http://www.georgefischer.co.uk)

# Working Pressures and Temperatures

## Working temperature and pressure ranges for malleable iron fittings



## Temperature ratings for George Fischer unions

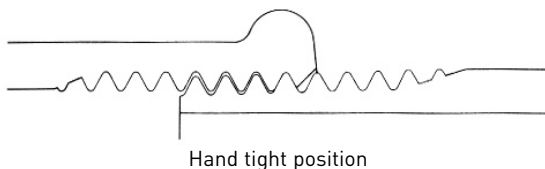
Type	Fig. No.	Temperature Limit
Flat Seat	92, 95, 100, 101, 330, 331, 332, 335, 336, 338	For GF gasket Fig. No. 202 +230°C. If other gaskets are used, consult manufacturer.
Taper Seat	96, 98, 102, 103, 340, 341, 344	300°C
Bronze/Iron	342	210°C
Double Bronze	342a	210°C
Spherical Seat	346	300°C

The technical data given in this publication are for general information purposes only. They imply no warranty of whatever kind. Please consult our General Conditions of Supply, which is available on request.

# Assembly Method

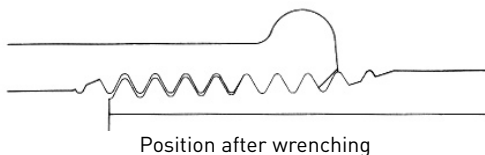
The correct method of assembling a pipe joint is described below.

1. Apply the appropriate jointing compound.
2. Engage the threads and tighten to the hand tight position, which is designed to be at the gauge length.
3. Using a wrench, continue to tighten. The number of



turns which are necessary to achieve a pressure tight seal is the wrenching allowance. For example, this is  $1\frac{1}{2}$  turns for a 1" connection.

If the size of the internal thread coincides with the



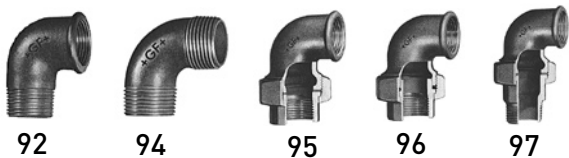
gauge plane on the external thread, then all of the fitting allowance may be used for tightening the joint,  $2\frac{3}{4}$  turns for a 1" connection. Depending on the sizes of both threads, small variations to the number of turns may be required to position the outlet of the fitting or to adjust the length of the pipeline.

## Thread Sealing Materials

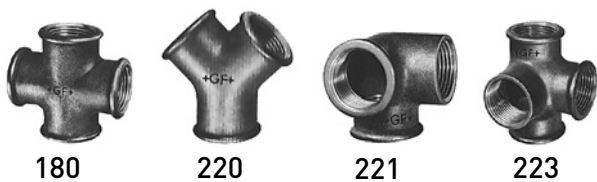
The choice of thread sealant is dependent on the fluid and operating conditions. GF fittings are compatible with most materials and we would generally recommend using those that comply with BS EN 751.

GF fittings have parallel internal threads (Rp) and taper external threads (R) to ISO 7. During assembly of parallel (Rp) GF fittings, the joint may be turned back up to  $45^\circ$  without leakage, if the thread sealing material complies

# Malleable Iron Pipe Fittings with George Fischer Fig Nos



# Malleable Iron Pipe Fittings with George Fischer Fig Nos cont'd





330



331



332



335



336



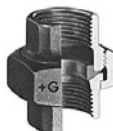
338



340



341



342



342a



344



346



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471



526



529a



534



536



595



596



599a



933



933a

# Malleable Iron Pipe Fittings



**Fig.1**  
**(ISO G4)**  
Long Sweep Bend 90°  
M & F Equal

Size	Black £	Galvanised £
1/8	446	817
1/4	308	565
3/8	342	630
1/2	378	693
3/4	603	990
1	866	1592
1 1/4	1618	3036
1 1/2	2138	4006
2	3645	6828
2 1/2	7461	14437
3	10452	20228
4	19005	36780



**Fig.1a**  
**(ISO D4)**  
Short Bend 90°  
M & F Equal

Size	Black £	Galvanised £
1/4	336	618
3/8	401	738
1/2	282	524
3/4	413	861
1	610	1206
1 1/4	969	2040
1 1/2	1529	2991
2	2672	5622
2 1/2	4448	8607
3	6846	13249
4	16959	32816



**Fig.2**  
**(ISO G1)**  
Long Sweep Bend 90°  
F. Equal

Size	Black £	Galvanised £
1/4	308	565
3/8	378	693
1/2	355	653
3/4	615	1134
1	845	1552
1 1/4	1670	3130
1 1/2	2037	3819
2	2834	5310
2 1/2	7605	14718
3	10320	19972
4	19548	37826



**Fig.2a**  
**(ISO D1)**  
Short Bend 90°  
F. Equal

Size	Black £	Galvanised £
1/4	401	738
3/8	296	545
1/2	259	536
3/4	369	767
1	522	1074
1 1/4	988	2092
1 1/2	1318	2494
2	1855	3931
2 1/2	3963	8607
3	6312	12761
4	13837	26774





**Fig.3**  
(ISO G8)  
Long Sweep Bend 90°  
M. Equal

Size	Black £	Galvanised £
1/4	812	1490
3/8	702	1291
1/2	652	1195
3/4	730	1343
1	1072	1973
1 1/4	2328	4366
1 1/2	3267	6123
2	4659	9291
2 1/2	N/A	20405



**Fig.40**  
(ISO G4/45°)  
Long Sweep Bend 45°  
M & F Equal

Size	Black £	Galvanised £
1/4	556	1019
3/8	506	929
1/2	355	731
3/4	536	983
1	776	1424
1 1/4	1505	2822
1 1/2	1822	3414
2	2871	5382
2 1/2	8002	15486
3	9134	17677
4	20841	40334



**Fig.41**  
(ISO G1/45°)  
Long Sweep Bend 45°  
F. Equal

Size	Black £	Galvanised £
3/8	618	1135
1/2	609	1117
3/4	762	1398
1	1005	1843
1 1/4	1980	3711
1 1/2	2589	4848
2	3579	6703
2 1/2	6782	13125
3	8919	17259
4	N/A	37881



**Fig.50**  
Bend 30°  
M & F Equal

Size	Black £	Galvanised £
1/2	N/A	1085
3/4	N/A	1468
1	N/A	2406
1 1/4	N/A	4349
1 1/2	N/A	5963
2	N/A	6770
2 1/2	N/A	14721
3	N/A	20935
4	N/A	41870

# Malleable Iron Pipe Fittings



**Fig.51**  
Bend 30°  
F. Equal

Size	Black £	Galvanised £
1/2	N/A	1468
3/4	N/A	2024
1	N/A	2697
1 1/4	N/A	4747
1 1/2	N/A	5811
2	N/A	8499



**Fig.53**  
Bend 15°  
M & F Equal

Size	Black £	Galvanised £
1/2	N/A	1320
3/4	N/A	1760
1	N/A	2141
1 1/4	N/A	3386
1 1/2	N/A	4516
2	N/A	5910
2 1/2	N/A	12793



**Fig.54**  
Bend 15°  
F. Equal

Size	Black £	Galvanised £
1/2	N/A	1731
3/4	N/A	2171
1	N/A	3168
1 1/4	N/A	5409
1 1/2	N/A	6637
2	N/A	8630



**Fig.60**  
ISO kb1  
Return Bend  
F. Equal

Size	Black £	Galvanised £
1/2	1490	2741
3/4	2409	4431
1	3005	5526
1 1/4	4657	7674
1 1/2	5547	10395
2	8465	15865



**Fig. 85**  
Crossover  
F. Equal

Size	Black £	Galvanised £
3/8	746	1371
1/2	524	1081
3/4	904	1661
1	1626	2986
1 1/4	3728	6984
1/2 - 3/4	1146	2104



**Fig. 87**  
Tee with Crossover  
Branch  
F. Equal

Size	Black £	Galvanised £
1/2	N/A	2620



**Fig.90**  
(ISO A1)  
Elbow 90°  
F. Equal

Size	Black £	Galvanised £
1/8	230	440
1/4	163	300
3/8	163	300
1/2	144	264
3/4	198	362
1	305	562
1 1/4	558	1173
1 1/2	937	1757
2	1097	2055
2 1/2	2371	4587
3	3483	6737
4	6714	11571
5	16333	-



**Fig.90**  
(ISO A1)  
Elbow 90°  
F. Reducing

Size	Black £	Galvanised £
1	2	
1/4 - 1/8	590	1081
3/8 - 1/4	324	621
1/2 - 1/4	429	820
1/2 - 3/8	258	498
3/4 - 3/8	440	723
3/4 - 1/2	272	524
1 - 1/2	313	656
1 - 3/4	422	775
1 1/4 - 1/2	608	1283
1 1/4 - 3/4	936	1756
1 1/4 - 1	584	1281
1 1/2 - 3/4	1115	2088
1 1/2 - 1	1064	1994
1 1/2 - 1 1/4	1506	2825
2 - 1	1874	3512
2 - 1 1/4	2451	4596
2 - 1 1/2	1900	3558
2 1/2 - 2	N/A	9330

# Malleable Iron Pipe Fittings



**Fig.92**  
**(ISO A4)**  
Elbow 90°  
M & F Equal

Size	Black £	Galvanised £
1/8	262	484
1/4	172	317
3/8	194	382
1/2	161	298
3/4	217	397
1	360	661
1 1/4	658	1499
1 1/2	1104	2069
2	1421	2663
2 1/2	3070	5940
3	4196	8121
4	7336	14200



**Fig.92**  
**(ISO A4)**  
Elbow 90°  
M & F Reducing  
(reducing male thread)

Size 1	Size 2	Black £	Galvanised £
1/2	3/8	669	1229
3/4	1/2	627	1154
1	1/2	627	1151
1	3/4	866	1595
1 1/4	3/4	N/A	2905
1 1/4	1	1238	2367
1 1/2	1	3251	6092
1 1/2	1 1/4	2339	4385



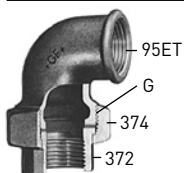
**Fig.92**  
**(ISO A4)**  
Elbow 90°  
M & F Reducing  
(reducing female thread)

Size 1	Size 2	Black £	Galvanised £
3/8	1/2	457	838
1/2	3/4	935	1713
3/4	1	1369	2515
1	1 1/4	2284	4204



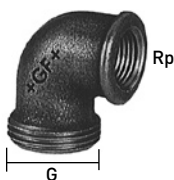
**Fig.94**  
Elbow 90°  
M. Equal

Size	Black £	Galvanised £
3/8	631	1158
1/2	467	898
3/4	508	1048
1	891	1634
1 1/4	1477	2825
1 1/2	2701	5164
2	2787	5330



**Fig.95**  
**(ISO UA1)**  
Union Elbow 90°  
Flat Seat F. Equal

Size 374(G)		Black £	Galvanised £
3/8	(3/4)	1393	2554
1/2	(1)	1164	2137
3/4	(1 1/4)	1278	2347
1	(1 1/2)	1440	2643
1 1/4	(2)	2722	5100
1 1/2	(2 3/4)	4301	8061
2	(3)	6351	11902



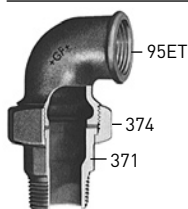
**Fig.95ET**  
Union Elbow Body 90°

Size Rp	G	Black £	Galvanised £
1/2	1	N/A	838
3/4	1 1/4	569	1044
1	1 1/2	842	1547
1 1/4	2	1754	3289
1 1/2	2 3/4	2519	4722
2	3	3656	6849



**Fig.96**  
**(ISO UA11)**  
Union Elbow 90°  
Taper Seat F. Equal

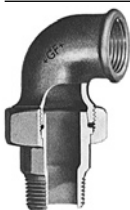
Size	Black £	Galvanised £
1/4	1597	2933
3/8	1449	2660
1/2	997	1834
3/4	1165	2143
1	1684	2949
1 1/4	2800	5247
1 1/2	3173	5947
2	4893	10296
2 1/2	13521	26164
3	17468	33805



**Fig.97**  
**(ISO UA2)**  
Union Elbow 90°  
Flat Seat M & F. Equal

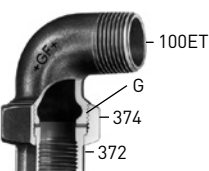
Size 374(G)		Black £	Galvanised £
3/8	(3/4)	1176	2161
1/2	(1)	1065	1954
3/4	(1 1/4)	1449	2660
1	(1 1/2)	1624	2979
1 1/4	(2)	3128	5861
1 1/2	(2 3/4)	4681	8771
2	(3)	7034	13184

# Malleable Iron Pipe Fittings



**Fig.98**  
**(ISO UA12)**  
 Union Elbow 90°  
 Taper Seat M & F Equal

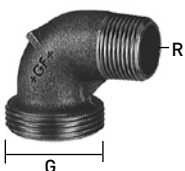
Size	Black £	Galvanised £
1/4	1369	2515
3/8	1255	2305
1/2	1024	1882
3/4	1282	2358
1	1800	3310
1 1/4	2944	5515
1 1/2	3564	6681
2	5757	10791
2 1/2	15221	29457
3	20608	39881



**Fig.100**  
 Union Elbow 90°  
 Flat Seat M & F. Equal

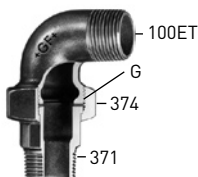
Size 374(G)	Black £	Galvanised £
1/2 (1)	1725	3167
3/4 (1 1/4)	2009	3688
1 (1 1/2)	2334	3039

Fig 100 are supplied without gaskets, which should be ordered separately. See page 36 for gaskets (Fig. 202)



**Fig.100 ET**  
 Union Elbow Body 90°

Size R G	Black £	Galvanised £
1/2 (1)	1015	1864
3/4 (1 1/4)	1278	2347
1 (1 1/2)	1563	3039



**Fig.101**  
 Union Elbow 90°  
 Flat Seat M. Equal

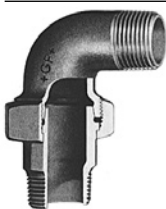
Size 374(G)	Black £	Galvanised £
1/2 (1)	1725	3167
3/4 (1 1/4)	2130	3911
1 (1 1/2)	2455	4506

Fig 101 are supplied without gaskets, which should be ordered separately. See page 36 for gaskets (Fig. 202)



**Fig.102**  
 Union Elbow 90°  
 Taper Seat M & F. Equal

Size	Black £	Galvanised £
1/2	1786	3279
3/4	2193	4025
1	2598	4768



**Fig.103**  
Union Elbow 90°  
Taper Seat M. Equal

Size	Black £	Galvanised £
1/2	1826	3353
3/4	2272	4173
1	2598	4768



**Fig.120**  
(ISO A1/45°)  
Elbow 45°  
F. Equal

Size	Black £	Galvanised £
3/8	436	838
1/2	344	684
3/4	423	844
1	629	1160
1 1/4	1287	2704
1 1/2	1579	3179
2	2166	4359
2 1/2	3167	6126
3	4760	9212



**Fig.121**  
(ISO A4/45°)  
Elbow 45°  
M & F Equal

Size	Black £	Galvanised £
3/8	389	715
1/2	352	705
3/4	443	923
1	672	1384
1 1/4	1375	2896
1 1/2	1575	3085
2	2254	4412
2 1/2	3454	6681
3	5038	9745
4	N/A	23070



**Fig.130**  
(ISO B1)  
Tee 90°  
F. Equal

Size	Black £	Galvanised £
1/8	295	566
1/4	254	467
3/8	214	422
1/2	198	362
3/4	288	530
1	414	760
1 1/4	758	1607
1 1/2	1164	2199
2	1675	3168
2 1/2	3673	7424
3	4472	8654
4	8104	15686
6	37520	69583

# Malleable Iron Pipe Fittings



**Fig.130**  
**(ISO B1)**  
**Tees 90°**  
**Reducing on**  
**branch**

Size Method 'b' UK (1)=(2) - (3)	Size Method 'a' 1=3 - 2	Black £	Galvanised £
3/8 - 1/4	3/8 - 1/4	608	1120
1/2 - 1/4	1/2 - 1/4	426	818
1/2 - 3/8	1/2 - 3/8	331	608
3/4 - 1/4	3/4 - 1/4	559	1029
3/4 - 3/8	3/4 - 3/8	410	754
3/4 - 1/2	3/4 - 1/2	259	542
1 - 1/4	1 - 1/4	1060	1950
1 - 3/8	1 - 3/8	686	1259
1 - 1/2	1 - 1/2	360	739
1 - 3/4	1 - 3/4	427	844
1 1/4 - 3/8	1 1/4 - 3/8	1233	2311
1 1/4 - 1/2	1 1/4 - 1/2	658	1499
1 1/4 - 3/4	1 1/4 - 3/4	722	1519
1 1/4 - 1	1 1/4 - 1	746	1633
1 1/2 - 3/8	1 1/2 - 3/8	1674	3139
1 1/2 - 1/2	1 1/2 - 1/2	838	1774
1 1/2 - 3/4	1 1/2 - 3/4	1014	2046
1 1/2 - 1	1 1/2 - 1	986	2069
1 1/2 - 1 1/4	1 1/2 - 1 1/4	1289	3036
2 - 1/2	2 - 1/2	1296	2634
2 - 3/4	2 - 3/4	1759	3702
2 - 1	2 - 1	1466	2748
2 - 1 1/4	2 - 1 1/4	1759	3702
2 - 1 1/2	2 - 1 1/2	2182	4271
2 1/2 - 1/2	2 1/2 - 1/2	2482	4802
2 1/2 - 3/4	2 1/2 - 3/4	3931	7611
2 1/2 - 1	2 1/2 - 1	2794	5405
2 1/2 - 1 1/4	2 1/2 - 1 1/4	3168	6405
2 1/2 - 1 1/2	2 1/2 - 1 1/2	3405	6589
2 1/2 - 2	2 1/2 - 2	3405	6589
3 - 1/2	3 - 1/2	5172	10006
3 - 3/4	3 - 3/4	5553	10747
3 - 1	3 - 1	5181	10023
3 - 1 1/4	3 - 1 1/4	5181	10023
3 - 1 1/2	3 - 1 1/2	4460	8630
3 - 2	3 - 2	4604	8909
3 - 2 1/2	3 - 2 1/2	8327	16119
4 - 1	4 - 1	10793	20885
4 - 1 1/2	4 - 1 1/2	9159	17725
4 - 2	4 - 2	7622	14750
4 - 2 1/2	4 - 2 1/2	N/A	22756
4 - 3	4 - 3	11758	22756

All Tees shown follow the U.K. convention for numbering outlets. (Method "b"). This will be phased out from the year 2000 in favour of the international method "a".

NB. In the U.K. the convention for numbering Tees is to show the first and second sizes as the run and the third size as the branch. (method "b")

The international convention for numbering Tees is to show the first and third sizes as the run with the **second** size as the branch. (method "a")

For both Method "a" and "b", if the outlets on the run are the same size and the branch is increasing or reducing, the Tee is specified by the size of the run followed by the branch, e.g. 1 x 3/4.





**Fig. 130**  
**(ISO B1)**  
Tee 90°  
Increasing on  
branch

Size Method 'b' UK (1)=(2) - (3)	Size Method 'a' 1=3 - 2	Black £	Galvanised £
$\frac{3}{8}$ - $\frac{1}{2}$	$\frac{3}{8}$ - $\frac{1}{2}$	449	824
$\frac{1}{2}$ - $\frac{3}{4}$	$\frac{1}{2}$ - $\frac{3}{4}$	365	673
$\frac{1}{2}$ - 1	$\frac{1}{2}$ - 1	853	1584
$\frac{3}{4}$ - 1	$\frac{3}{4}$ - 1	640	1174
1 - $1\frac{1}{4}$	1 - $1\frac{1}{4}$	1125	2207
1 - $1\frac{1}{2}$	1 - $1\frac{1}{2}$	1380	2586
$1\frac{1}{4}$ - $1\frac{1}{2}$	$1\frac{1}{4}$ - $1\frac{1}{2}$	1968	3689
$1\frac{1}{4}$ - 2	$1\frac{1}{4}$ - 2	2216	4153
$1\frac{1}{2}$ - 2	$1\frac{1}{2}$ - 2	2241	4199
2 - $2\frac{1}{2}$	2 - $2\frac{1}{2}$	3370	6521



**Fig. 130**  
**(ISO B1)**  
Tees 90°  
Reducing on run

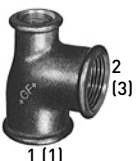
Size Method 'b' UK (1) (2) (3)	Size Method 'a' 1 2 3	Black £	Galvanised £
$\frac{1}{2}$ - $\frac{3}{8}$ - $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{3}{8}$	612	1126
$\frac{3}{4}$ - $\frac{3}{8}$ - $\frac{3}{4}$	$\frac{3}{4}$ - $\frac{3}{4}$ - $\frac{3}{8}$	647	1189
$\frac{3}{4}$ - $\frac{1}{2}$ - $\frac{3}{4}$	$\frac{3}{4}$ - $\frac{3}{4}$ - $\frac{1}{2}$	436	838
1 - $\frac{3}{8}$ - 1	1 - 1 - $\frac{3}{8}$	962	1767
1 - $\frac{1}{2}$ - 1	1 - 1 - $\frac{1}{2}$	644	1238
1 - $\frac{3}{4}$ - 1	1 - 1 - $\frac{3}{4}$	652	1195
$1\frac{1}{4}$ - $\frac{1}{2}$ - $1\frac{1}{4}$	$1\frac{1}{4}$ - $1\frac{1}{4}$ - $\frac{1}{2}$	1288	2420
$1\frac{1}{4}$ - $\frac{3}{4}$ - $1\frac{1}{4}$	$1\frac{1}{4}$ - $1\frac{1}{4}$ - $\frac{3}{4}$	1517	2847
$1\frac{1}{4}$ - 1 - $1\frac{1}{4}$	$1\frac{1}{4}$ - $1\frac{1}{4}$ - 1	1291	2420
$1\frac{1}{2}$ - $\frac{1}{2}$ - $1\frac{1}{2}$	$1\frac{1}{2}$ - $1\frac{1}{2}$ - $\frac{1}{2}$	1837	3442
$1\frac{1}{2}$ - $\frac{3}{4}$ - $1\frac{1}{2}$	$1\frac{1}{2}$ - $1\frac{1}{2}$ - $\frac{3}{4}$	2026	3796
$1\frac{1}{2}$ - 1 - $1\frac{1}{2}$	$1\frac{1}{2}$ - $1\frac{1}{2}$ - 1	2051	3842
$1\frac{1}{2}$ - $1\frac{1}{4}$ - $1\frac{1}{2}$	$1\frac{1}{2}$ - $1\frac{1}{2}$ - $1\frac{1}{4}$	2171	4070
2 - $\frac{1}{2}$ - 2	2 - 2 - $\frac{1}{2}$	4039	7569
2 - $\frac{3}{4}$ - 2	2 - 2 - $\frac{3}{4}$	2532	4746
2 - 1 - 2	2 - 2 - 1	2584	4841
2 - $1\frac{1}{4}$ - 2	2 - 2 - $1\frac{1}{4}$	3155	5915
2 - $1\frac{1}{2}$ - 2	2 - 2 - $1\frac{1}{2}$	2684	5030
$2\frac{1}{2}$ - 1 - $2\frac{1}{2}$	$2\frac{1}{2}$ - $2\frac{1}{2}$ - 1	N/A	13159
$2\frac{1}{2}$ - $1\frac{1}{2}$ - $2\frac{1}{2}$	$2\frac{1}{2}$ - $2\frac{1}{2}$ - $1\frac{1}{2}$	6206	12009
$2\frac{1}{2}$ - 2 - $2\frac{1}{2}$	$2\frac{1}{2}$ - $2\frac{1}{2}$ - 2	N/A	14521
3 - 2 - 3	3 - 3 - 2	N/A	18016




**Fig. 130**  
**(ISO B1)**  
Tees 90°  
Reducing on  
run/branch

Size Method 'b' UK (1) (2) (3)	Size Method 'a' 1 2 3	Black £	Galvanised £
$\frac{1}{2}$ - $\frac{3}{8}$ - $\frac{3}{8}$	$\frac{1}{2}$ - $\frac{3}{8}$ - $\frac{3}{8}$	434	797
$\frac{3}{4}$ - $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{3}{4}$ - $\frac{1}{2}$ - $\frac{1}{2}$	335	693
1 - $\frac{1}{2}$ - $\frac{1}{2}$	1 - $\frac{1}{2}$ - $\frac{1}{2}$	814	1493
1 - $\frac{3}{4}$ - $\frac{3}{4}$	1 - $\frac{3}{4}$ - $\frac{3}{4}$	513	944
$1\frac{1}{4}$ - $\frac{3}{4}$ - $\frac{3}{4}$	$1\frac{1}{4}$ - $\frac{3}{4}$ - $\frac{3}{4}$	1270	2380
$1\frac{1}{4}$ - 1 - 1	$1\frac{1}{4}$ - 1 - 1	825	1945
$1\frac{1}{2}$ - 1 - 1	$1\frac{1}{2}$ - 1 - 1	1318	2467
$1\frac{1}{2}$ - $1\frac{1}{4}$ - $1\frac{1}{4}$	$1\frac{1}{2}$ - $1\frac{1}{4}$ - $1\frac{1}{4}$	1289	3036
2 - $1\frac{1}{4}$ - $1\frac{1}{4}$	2 - $1\frac{1}{4}$ - $1\frac{1}{4}$	2474	4638
2 - $1\frac{1}{2}$ - $1\frac{1}{2}$	2 - $1\frac{1}{2}$ - $1\frac{1}{2}$	2303	4317
$2\frac{1}{2}$ - 2 - 2	$2\frac{1}{2}$ - 2 - 2	5058	9792
3 - 2 - 2	3 - 2 - 2	N/A	12244


# Malleable Iron Pipe Fittings

3 (2)	Size Method 'b' UK			Size Method 'a'			Black £	Galvanised £
	(1)	(2)	(3)	1	2	3		
 <p>1 (1) 2 (3)</p>	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	499	915
	1	$\frac{3}{4}$	$\frac{1}{2}$	1	$\frac{1}{2}$	$\frac{3}{4}$	492	944
	$1\frac{1}{4}$	1	$\frac{1}{2}$	$1\frac{1}{4}$	$\frac{1}{2}$	1	775	1827
	$1\frac{1}{4}$	1	$\frac{3}{4}$	$1\frac{1}{4}$	$\frac{3}{4}$	1	1037	1945
	$1\frac{1}{2}$	$1\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{2}$	$\frac{1}{2}$	$1\frac{1}{4}$	997	2351
	$1\frac{1}{2}$	$1\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{4}$	1674	3139
	$1\frac{1}{2}$	$1\frac{1}{4}$	1	$1\frac{1}{2}$	1	$1\frac{1}{4}$	1320	2775
	2	$1\frac{1}{2}$	$\frac{1}{2}$	2	$\frac{1}{2}$	$1\frac{1}{2}$	1949	3653
	2	$1\frac{1}{2}$	$\frac{3}{4}$	2	$\frac{3}{4}$	$1\frac{1}{2}$	2266	4247
	2	$1\frac{1}{2}$	1	2	1	$1\frac{1}{2}$	2278	4271
	2	$1\frac{1}{2}$	$1\frac{1}{4}$	2	$1\frac{1}{4}$	$1\frac{1}{2}$	2170	4247

**Fig.130**  
**(ISO B1) Tees 90°**  
Reducing on run  
Reducing on  
branch

3 (2)	Size Method 'b' UK			Size Method 'a'			Black £	Galvanised £
	(1)	(2)	(3)	1	2	3		
 <p>1 (1) 2</p>	$\frac{3}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{8}$	873	1601
	$\frac{3}{4}$	$\frac{1}{2}$	1	$\frac{3}{4}$	1	$\frac{1}{2}$	847	1584
	1	$\frac{1}{2}$	$\frac{3}{4}$	1	$\frac{3}{4}$	$\frac{1}{2}$	714	1311
	1	$\frac{3}{4}$	$1\frac{1}{4}$	1	$1\frac{1}{4}$	$\frac{3}{4}$	1435	2658
	$1\frac{1}{4}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	1	$\frac{3}{4}$	1243	2431
	$1\frac{1}{4}$	1	$1\frac{1}{2}$	$1\frac{1}{4}$	$1\frac{1}{2}$	1	1960	3747
	$1\frac{1}{2}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{1}{4}$	1	2043	3829
	$1\frac{1}{2}$	$1\frac{1}{4}$	2	$1\frac{1}{2}$	2	$1\frac{1}{4}$	2846	5441


**Fig.130**  
**(ISO B1) Tees 90°**  
Reducing on run  
Reducing or  
increasing on  
branch


3 (2)	Size Method 'b' UK			Size Method 'a'			Black £	Galvanised £
	(1)	(2)	(3)	1	2	3		
 <p>1 (1) 2</p>	$\frac{1}{2}$			$\frac{1}{2}$			604	1259
	$\frac{3}{4}$			$\frac{3}{4}$			752	1552
	1			1			1129	2328
	$1\frac{1}{4}$			$1\frac{1}{4}$			1715	3607
	$1\frac{1}{2}$			$1\frac{1}{2}$			2651	5576
	2			2			3722	7830
	$2\frac{1}{2}$			$2\frac{1}{2}$			5756	11139
	3			3			8983	17382
	4			4			20210	39110

**Fig.131**  
**(ISO E1)**  
Pitcher  
Tee 90°  
F. Equal

All Tees shown follow the U.K. convention for numbering outlets. (Method "b"). This will be phased out from the year 2000 in favour of the international method "a".


NB. In the U.K. the convention for numbering Tees is to show the first and second sizes as the run and the third size as the branch. (method "b")  
The international convention for numbering Tees is to show the first and third sizes as the run with the **second** size as the branch. (method "a")  
For both Method "a" and "b", if the outlets on the run are the same size and the branch is increasing or reducing, the Tee is specified by the size of the run followed by the branch, e.g. 1 x  $\frac{3}{4}$ .

3 (2)  1 (1)	Size Method 'b' UK (1) = (2) - (3)	Size Method 'b' 1 = 2 - 3	Black £	Galvanised £
		$\frac{3}{4}$ - $\frac{1}{2}$	$\frac{3}{4}$ - $\frac{1}{2}$	726
	1 - $\frac{1}{2}$	1 - $\frac{1}{2}$	1056	2501
	1 - $\frac{3}{4}$	1 - $\frac{3}{4}$	924	2169
	$1\frac{1}{4}$ - $\frac{1}{2}$	$1\frac{1}{4}$ - $\frac{1}{2}$	1909	4606
	$1\frac{1}{4}$ - $\frac{3}{4}$	$1\frac{1}{4}$ - $\frac{3}{4}$	1905	4551
	$1\frac{1}{4}$ - 1	$1\frac{1}{4}$ - 1	2323	5549
	$1\frac{1}{2}$ - $\frac{1}{2}$	$1\frac{1}{2}$ - $\frac{1}{2}$	1860	4255
	$1\frac{1}{2}$ - $\frac{3}{4}$	$1\frac{1}{2}$ - $\frac{3}{4}$	2301	5495
	$1\frac{1}{2}$ - 1	$1\frac{1}{2}$ - 1	2618	5818
	$1\frac{1}{2}$ - $1\frac{1}{4}$	$1\frac{1}{2}$ - $1\frac{1}{4}$	3091	6868
	2 - $\frac{1}{2}$	2 - $\frac{1}{2}$	3451	N/A
	2 - $\frac{3}{4}$	2 - $\frac{3}{4}$	3180	7596
	2 - 1	2 - 1	3369	7490
	2 - $1\frac{1}{4}$	2 - $1\frac{1}{4}$	4242	9426
	2 - $1\frac{1}{2}$	2 - $1\frac{1}{2}$	4969	11044
	$2\frac{1}{2}$ - $1\frac{1}{4}$	$2\frac{1}{2}$ - $1\frac{1}{4}$	N/A	16224
	3 - 2	3 - 2	11283	21833


3 (2)  1 (1)	Size Method 'b' UK (1) (2) (3)	Size Method 'a' 1 2 3	Black £	Galvanised £
		$\frac{3}{4}$ - $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{3}{4}$ - $\frac{1}{2}$ - $\frac{1}{2}$	825
	$\frac{3}{4}$ - $\frac{1}{2}$ - $\frac{3}{4}$	$\frac{3}{4}$ - $\frac{3}{4}$ - $\frac{1}{2}$	1059	2409
	1 - $\frac{3}{4}$ - $\frac{1}{2}$	1 - $\frac{1}{2}$ - $\frac{3}{4}$	894	2187
	1 - $\frac{3}{4}$ - $\frac{3}{4}$	1 - $\frac{3}{4}$ - $\frac{3}{4}$	1136	2549

**Fig.131**  
(ISO E1)  
Pitcher Tee 90°  
Reducing on  
run/branch

All above tees are numbered according to the UK convention. (i.e. (1) & (2) are the run). method "b"  
International numbering shows outlet (2) & (3) reversed. (i.e. 1 & 3 are the run). method "a"

	Size	Black £	Galvanised £
	$\frac{1}{2}$	829	1810
$\frac{3}{4}$	918	2001	
1	1485	3239	
$1\frac{1}{4}$	3050	6490	
$1\frac{1}{2}$	3862	8216	
2	4964	10559	

**Fig.132**  
(ISO E2)  
Twin Elbow 90°  
F. Equal

	Size	Black £	Galvanised £
	$\frac{3}{8}$	781	1435
$\frac{1}{2}$	630	1155	
$\frac{3}{4}$	799	1484	
1	1624	2979	

**Fig.133**  
Tee 90°  
F. Run - M. Branch Equal

# Malleable Iron Pipe Fittings



**Fig.134**  
Tee 90°  
M & F Run  
F. Branch Equal

Size	Black £	Galvanised £
1/4	772	1415
3/8	772	1135
1/2	627	1154
3/4	826	1534
1	1231	2265
1 1/4	1969	3766
1 1/2	2969	5677
2	3802	7268



**Fig.134**  
Tee 90°  
M & F Run  
F. Branch Reducing

Size Method 'b' UK (1) = (2) (3)		Size Method 'a' 1 = 2 3		Black £	Galvanised £
1/2	- 1/4	1/2	- 1/4	1551	2849
3/4	- 1/2	3/4	- 1/2	1237	2273
1	- 1/2	1	- 1/2	1746	3204

All above tees are numbered according to the UK convention. (i.e. 1 & 2 are the run). method "b"

International numbering shows outlet (2) & (3) reversed. (i.e. 1 & 3 are the run). method "a"



**Fig.135**  
Tee 90°  
M. Equal

Size	Black £	Galvanised £
1/2	933	1732
3/4	1369	2515
1	1497	2781



**Fig.137**  
Distribution Tee  
M & F. Reducing on  
Branch

Size	Black £	Galvanised £
1 1/4 x 3/4	N/A	5178
1 1/4 x 1	N/A	5709
1 1/2 x 1	N/A	7469



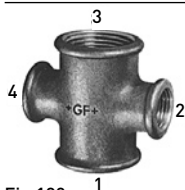
**Fig.165**  
Tee 45°  
F. Equal

Size	Black £	Galvanised £
$\frac{3}{8}$	1045	N/A
$\frac{1}{2}$	1309	2404
$\frac{3}{4}$	1502	2756
1	2252	4136
$1\frac{1}{4}$	2969	5564
$1\frac{1}{2}$	4096	7674
2	6120	11467



**Fig.180**  
(ISO C1)  
Cross 90°  
F. Equal

Size	Black £	Galvanised £
$\frac{1}{4}$	635	1168
$\frac{3}{8}$	699	1286
$\frac{1}{2}$	592	1045
$\frac{3}{4}$	890	1636
1	1129	2077
$1\frac{1}{4}$	1648	3085
$1\frac{1}{2}$	2121	4153
2	3443	6454
$2\frac{1}{2}$	4760	9212
3	6331	12252
4	13066	25285



**Fig.180**  
(ISO C1)  
Cross 90°  
F. Reducing

Size 1=3    2=4	Black £	Galvanised £
$\frac{3}{4}$ - $\frac{1}{2}$	1085	1992
1 - $\frac{1}{2}$	2130	3911
1 - $\frac{3}{4}$	2130	3911
$1\frac{1}{4}$ - 1	2553	4785
$1\frac{1}{2}$ - 1	3553	6662
2 - 1	4027	7700



**Fig.220**  
Y Piece  
F. Equal

Size	Black £	Galvanised £
$\frac{3}{8}$	1005	1843
$\frac{1}{2}$	883	1621
$\frac{3}{4}$	1390	2552
1	1973	3623



**Fig.221**  
(ISO Za1)  
Side Outlet Elbow  
F. Equal

Size	Black £	Galvanised £
$\frac{3}{8}$	871	1599
$\frac{1}{2}$	731	1342
$\frac{3}{4}$	873	1427
1	1521	2794
$1\frac{1}{4}$	2924	5482
$1\frac{1}{2}$	4252	7969
2	6502	12185

# Malleable Iron Pipe Fittings



**Fig.223**  
**(ISO Za2)**  
Side Outlet Tee  
F. Equal

Size	Black £	Galvanised £
1/2	985	1807
3/4	1237	2273
1	1836	3371



**Fig.240**  
**(ISO M2)**  
Socket  
F. Reducing

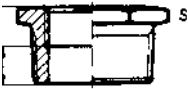
\* Mild Steel

Size	Black £	Galvanised £
1	2	
*1/4 - 1/8	223	412
*3/8 - 1/8	285	523
*3/8 - 1/4	227	420
1/2 - 1/4	230	422
1/2 - 3/8	182	362
3/4 - 1/4	319	587
3/4 - 3/8	286	524
3/4 - 1/2	221	411
1 - 3/8	479	880
1 - 1/2	259	536
1 - 3/4	275	505
1 1/4 - 3/8	937	1758
1 1/4 - 1/2	518	1234
1 1/4 - 3/4	530	1116
1 1/4 - 1	520	972
1 1/2 - 1/2	1013	1900
1 1/2 - 3/4	871	1708
1 1/2 - 1	653	1283
1 1/2 - 1 1/4	677	1424
2 - 1/2	1369	2682
2 - 3/4	1456	2728
2 - 1	1263	2467
2 - 1 1/4	1175	2301
2 - 1 1/2	948	1994
2 1/2 - 1	2450	4741
2 1/2 - 1 1/4	1871	3620
2 1/2 - 1 1/2	1871	3620
2 1/2 - 2	1722	3480
3 - 1 1/2	2596	5024
3 - 2	2243	4338
3 - 2 1/2	2302	4456
4 - 2	4472	8654
4 - 2 1/2	4148	8029
4 - 3	4148	8029

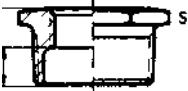


Fig.241  
(ISO N4)  
Bush M & F Reducing

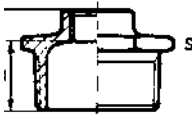
Form I



Form II



Form III



Size		Black £	Galvanised £
1	2		
*1/4	- 1/8 l	169	312
*3/8	- 1/8 l	182	335
*3/8	- 1/4 l	148	272
1/2	- 1/8 ll	152	300
1/2	- 1/4 l	110	182
1/2	- 3/8 l	110	204
3/4	- 1/4 ll	194	382
3/4	- 3/8 ll	164	300
3/4	- 1/2 l	126	231
1	- 1/4 ll	275	543
1	- 3/8 ll	272	501
1	- 1/2 ll	152	315
1	- 3/4 ll	161	298
1 1/4	- 3/8 ll	588	1103
1 1/4	- 1/2 ll	324	660
1 1/4	- 3/4 ll	294	590
1 1/4	- 1 ll	208	399
1 1/2	- 3/8 ll	747	1400
1 1/2	- 1/2 ll	417	840
1 1/2	- 3/4 ll	451	908
1 1/2	- 1 ll	328	599
1 1/2	- 1 1/4 l	300	633
2	- 1/2 ll	857	1726
2	- 3/4 ll	896	1679
2	- 1 ll	677	1268
2	- 1 1/4 ll	655	1318
2	- 1 1/2 ll	625	1183
2 1/2	- 1 ll	1379	2668
2 1/2	- 1 1/4 ll	1379	2668
2 1/2	- 1 1/2 ll	1320	2668
2 1/2	- 2 ll	1047	2178
3	- 1 ll	2158	4177
3	- 1 1/4 ll	2098	4059
3	- 1 1/2 ll	2098	4059
3	- 2 ll	1699	3287
3	- 2 1/2 ll	1596	3225
4	- 2 ll	3931	7611
4	- 2 1/2 ll	3931	7611
4	- 3 ll	3273	6334
6	- 4	11758	22756

\* Mild Steel

# Malleable Iron Pipe Fittings



**Fig.245**  
**(ISO N8)**  
Nipple (Hexagon)  
M. Reducing

Size		Black £	Galvanised £
1	2		
*1/4	- 1/8	239	440
*3/8	- 1/8	341	624
*3/8	- 1/4	239	440
1/2	- 1/4	308	608
1/2	- 3/8	276	545
3/4	- 1/4	772	1415
3/4	- 3/8	491	904
3/4	- 1/2	254	467
1	- 1/2	471	863
1	- 3/4	254	501
1 1/4	- 1/2	887	1663
1 1/4	- 3/4	735	1376
1 1/4	- 1	497	931
1 1/2	- 3/4	1001	1914
1 1/2	- 1	1178	2207
1 1/2	- 1 1/4	629	1234
2	- 1	1101	2064
2	- 1 1/4	1380	2586
2	- 1 1/2	1201	2351
2 1/2	- 1 1/2	1847	3530
2 1/2	- 2	1727	3343
3	- 2	2158	4177
3	- 2 1/2	2877	5568
4	- 3	11155	21338

\* Mild Steel



**Fig.246**  
**(ISO M4)**  
Socket  
M & F. Reducing

Size		Black £	Galvanised £
1	2		
*1/4	- 1/8	290	533
*3/8	- 1/4	240	442
1/2	- 1/4	331	609
1/2	- 3/8	265	487
3/4	- 3/8	422	776
3/4	- 1/2	244	447
1	- 1/2	457	838
1	- 3/4	387	710
1 1/4	- 1/2	1262	2410
1 1/4	- 3/4	985	1845
1 1/4	- 1	549	1155
1 1/2	- 3/4	1183	2261
1 1/2	- 1	1304	2446
1 1/2	- 1 1/4	1022	2150
2	- 1	1709	3267
2	- 1 1/4	1845	3458
2	- 1 1/2	1913	3584
2 1/2	- 1 1/2	3663	7091
2 1/2	- 2	2454	4693
3	- 2 1/2	5244	10149

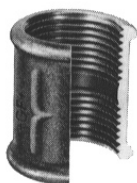
\* Mild Steel





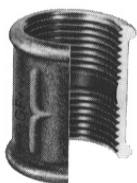
**Fig.260**  
**(ISO M3)**  
Socket Eccentric  
F. Reducing

Size		Black £	Galvanised £
1	2		
3/4	1/2	394	929
1	1/2	1129	2643
1	3/4	1281	3000
1 1/4	1/2	1720	3826
1 1/4	3/4	1749	4176
1 1/4	1	1624	3877
1 1/2	1/2	2203	4122
1 1/2	3/4	1215	2586
1 1/2	1	2001	4444
1 1/2	1 1/4	1004	2398
2	1/2	1297	2882
2	3/4	1257	2534
2	1	1297	2882
2	1 1/4	1297	2882
2	1 1/2	1206	2882
2 1/2	2	2083	4925



**Fig.270**  
**(ISO M2)**  
Socket  
F. Equal

Size	Black £	Galvanised £
1/8	170	315
1/4	149	274
3/8	149	274
1/2	139	255
3/4	169	335
1	234	428
1 1/4	469	948
1 1/2	684	1283
2	989	1855
2 1/2	1522	2947
3	2158	4177
4	3560	6892



**Fig.271**  
**(ISO M2 R-L)**  
Socket F. Equal  
(R & L. Hand Thread)

Size	Black £	Galvanised £
3/8	293	540
1/2	264	486
3/4	375	688
1	457	838
1 1/4	1012	1898
1 1/2	1126	2109
2	2047	3836

# Malleable Iron Pipe Fittings



**Fig.280**  
**(ISO N8)**  
Hexagon Nipple  
M. Equal

Size	Black £	Galvanised £
1/8	222	407
1/4	199	370
3/8	234	461
1/2	134	249
3/4	152	282
1	217	397
1 1/4	447	845
1 1/2	520	972
2	939	1774
2 1/2	1534	2970
3	2217	4108
4	3764	7287



**Fig.281**  
**(ISO N8 R-L)**  
Hexagon Nipple  
(R & L. Hand Thread)

Size	Black £	Galvanised £
3/8	N/A	1137
1/2	293	540
3/4	364	671
1	630	1155
1 1/4	1012	1898
1 1/2	1191	2233
2	2251	4216



**Fig.290**  
**(ISO T9)**  
Plug (Beaded Hollow)

\* Solid Mild Steel

Size	Black £	Galvanised £
*1/8	182	334
*1/4	112	209
3/8	103	189
1/2	139	253
3/4	160	272
1	205	377
1 1/4	366	688
1 1/2	455	853
2	785	1472
2 1/2	1832	3544
3	2377	4600
4	4187	8103



**Fig.291**  
**(ISO T8)**  
Plug (Plain Hollow)

\* Solid Mild Steel

Size	Black £	Galvanised £
*1/8	65	124
*1/4	65	115
*3/8	85	156
1/2	98	204
3/4	126	258
1	171	315
1 1/4	238	545
1 1/2	447	845
2	625	1183
2 1/2	1022	2065
3	1596	3086
4	2938	5686



**Fig. 291S**  
Plug  
(Plain Solid)

Size	Black £	Galvanised £
1/8	65	124
1/4	65	115
3/8	85	156
1/2	305	566
3/4	295	608
1	438	803
1 1/4	629	1234
1 1/2	887	1663
2	1166	2183



**Fig. 294**  
Plug (Beaded)  
Square Head with Hole

Size	Black £	Galvanised £
1/2	407	746
3/4	499	913
1	639	1172
1 1/4	900	1687
1 1/2	956	1791
2	1530	2867



**Fig. 595**  
Plug with One  
Machined Face

Size	Black £	Galvanised £	
G	a		
1/2	23	593	1090
3/4	24	663	1214
1	28	708	1299



**Fig. 596**  
(ISO T11)  
Plug (Recessed)

\* Solid Mild Steel

Size	Black £	Galvanised £	
R	a		
*1/8	8**	222	409
*1/4	10**	205	376
*3/8	10**	233	428
1/2	15	164	316
3/4	17	208	398
1	20	251	484
1 1/4	22	385	807
1 1/2	22	836	1633
2	27	1175	2301

\*\*Hexagonal recess



**Fig. 300**  
(ISO T1)  
Cap

\* Mild Steel

Size	Black £	Galvanised £
*1/8	325	597
*1/4	128	253
*3/8	139	253
1/2	141	262
3/4	161	300
1	202	402
1 1/4	352	688
1 1/2	417	877
2	871	1636
2 1/2	1452	2807
3	1642	3179
4	3597	6960

# Malleable Iron Pipe Fittings



**Fig.310**  
**(ISO P4)**  
Backnut



Size	Black £	Galvanised £
1/8	314	577
1/4	173	317
3/8	194	352
1/2	152	279
3/4	162	298
1	214	391
1 1/4	371	696
1 1/2	429	801
2	855	1602
2 1/2	1874	3630
3	2223	4305



**Fig.310a**  
**(ISO P4)**  
Backnut  
One Machined Face



Size	Black £	Galvanised £
1/2	467	857
3/4	293	540
1	546	1006
1 1/4	663	1243
1 1/2	685	1286
2	1530	2867



**Fig.310b**  
**(ISO P4)**  
Backnut Strongly  
Chamfered on One Side



Size	Black £	Galvanised £
1/2	N/A	409
3/4	N/A	409
1	N/A	647
1 1/4	N/A	964
1 1/2	N/A	1063
2	N/A	3060



**Fig.312**  
**(ISO P4)**  
Backnut Recessed



Size	Black £	Galvanised £
1/4	127	231
3/8	149	274
1/2	120	205
3/4	123	223
1	164	280
1 1/4	301	567
1 1/2	340	665
2	747	1399



**Fig.321**  
Screwed Flange  
Undrilled

Size	Black £	Galvanised £
1/2	856	1641
3/4	1055	1857
1	1178	2169
1 1/4	1755	3289
1 1/2	2220	3986
2	2573	4821



**Fig.326**  
Screwed Flange with 2  
Bolt Holes

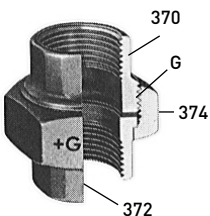
	Size	Black £	Galvanised £
1/2	PN10	1389	2550
3/4	PN10	1795	3297
1	PN10	1845	3390
1 1/4	PN10	2541	4765
1 1/2	PN10	2835	5313
2	PN10	2969	5564



**Fig.329**  
Screwed Flange with 4  
Bolt Holes

	Size	Black £	Galvanised £
1/2	PN16	3571	6556
3/4	PN16	3895	7152
1	PN16	4485	8232
1 1/4	PN16	6389	11974
1 1/2	PN16	6816	12774
2	PN16	7898	14799
2 1/2	PN16	8964	17345
3	PN16	10361	20046
3*	PN16	10861	21017
4*	PN16	12518	24222

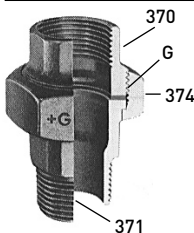
\*8 holes



**Fig.330**  
(ISO U1)  
Union Flat Seat  
F. Equal

	Size 374 (G)	Black £	Galvanised £
1/4	5/8	1113	2043
3/8	3/4	817	1501
1/2	1	604	1113
3/4	1 1/4	709	1302
1	1 1/2	821	1511
1 1/4	2	1546	2893
1 1/2	2 1/4	1960	3675
2	2 3/4	2922	5475
2 1/2	3 1/2	7565	14640
3	4	11319	21903
4	5	26409	51105

1/2 to 2 inclusive are supplied with gaskets.  
See page 36 for spare gaskets (Fig. 202)

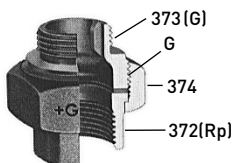


**Fig.331**  
(ISO U2)  
Union Flat Seat  
M & F. Equal

	Size 374 (G)	Black £	Galvanised £
1/4	5/8	1167	2141
3/8	3/4	974	1789
1/2	1	741	1360
3/4	1 1/4	833	1531
1	1 1/2	1015	1864
1 1/4	2	2068	3879
1 1/2	2 1/4	2497	4679
2	2 3/4	3914	7337
2 1/2	3 1/2	8723	16880
3	4	12774	24689

Fig 331 are supplied without gaskets, which  
should be ordered separately. See page 36 for  
gaskets (Fig. 202)

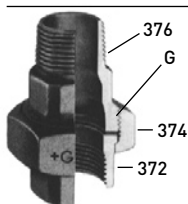
# Malleable Iron Pipe Fittings



**Fig.332**  
Union Flat Seat  
M & F. Equal

Size Rp/G 374(G)		Black £	Galvanised £
3/4	1 1/4	1340	2459
1	1 1/2	1461	2681
1 1/4	2	2295	4302

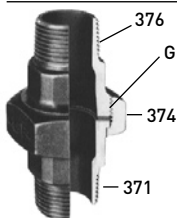
Fig.332 are supplied without gaskets, which should be ordered separately. See page 36 for gaskets (Fig. 202)



**Fig.335**  
Union Flat Seat  
M & F. Equal

Size 374(G)		Black £	Galvanised £
1/2	1	1156	2123
3/4	1 1/4	1156	2123
1	1 1/2	1288	2367
1 1/4	2	2185	4093
1 1/2	2 1/4	2746	5144

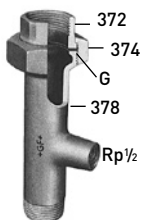
Fig 335 are supplied without gaskets, which should be ordered separately. See page 36 for gaskets



**Fig.336**  
Union Flat Seat  
M. Equal

Size 374(G)		Black £	Galvanised £
1/2	1	1243	2236
3/4	1 1/4	1288	2367
1	1 1/2	1493	2738
1 1/4	2	2589	4848
1 1/2	2 1/4	3103	5819

Fig 336 are supplied without gaskets, which should be ordered separately. See page 36 for gaskets



**Fig.338**  
Distribution Union Flat  
Seat

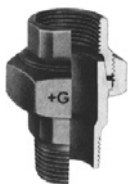
Size 374(G)		Black £	Galvanised £
3/4	1 1/4	N/A	5045
1	1 1/2	N/A	5896
1 1/4	2	N/A	8829

Fig.338 are supplied without gaskets, which should be ordered separately. See page 36 for gaskets (Fig. 202)



**Fig.340**  
**(ISO U11)**  
Union (Iron to iron)  
Taper Seat  
F. Equal

Size	Black £	Galvanised £
1/8	2313	4246
1/4	808	1552
3/8	672	1384
1/2	577	1183
3/4	629	1297
1	736	1519
1 1/4	1386	2621
1 1/2	1564	2959
2	2592	4411
2 1/2	5590	11300
3	7721	14941
4	14698	28446



**Fig.341**  
**(ISO U12)**  
Union (Iron to Iron) Taper  
Seat  
M & F Equal

Size	Black £	Galvanised £
1/4	807	1595
3/8	685	1369
1/2	708	1246
3/4	866	1526
1	1082	1774
1 1/4	1668	3132
1 1/2	2134	4009
2	3362	6311
2 1/2	6417	14118
3	8822	19410
4	25735	49797



**Fig.342**  
**(ISO U11)**  
Union (Bronze to Iron)  
Spherical / Taper Seat F. Equal  
Railroad Pattern

Size	Black £	Galvanised £
1/2	1117	2211
3/4	1260	2602
1	1646	3253
1 1/4	2526	5315
1 1/2	3295	6454
2	3879	7813



**Fig.344**  
Union (Iron to Iron)  
Taper Seat M. Equal

Size	Black £	Galvanised £
1/4	1766	3242
3/8	1401	2570
1/2	1481	2719
3/4	1705	3131
1	2009	3688
1 1/4	3802	7125
1 1/2	4341	8138
2	7941	14884

# Malleable Iron Pipe Fittings



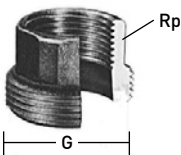
**Fig.342a**  
(ISO U11)  
Union (Bronze to Bronze)  
Spherical / Taper Seat F. Equal  
Navy Pattern

Size	Black £	Galvanised £
1/2	1531	2842
3/4	1691	3376
1	2235	4148
1 1/4	3419	6950
1 1/2	4133	8403
2	5249	9931



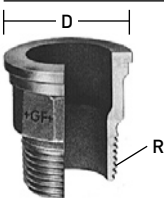
**Fig.346**  
'Mac' Union  
2 Spherical Seats  
F. Equal

Size	Black £	Galvanised £
1/2	1005	1847
3/4	1231	2106
1	1518	2598
1 1/4	2231	4177
1 1/2	2962	5551
2	4178	7830



**Fig.370**  
Union Bush Equal

Size Rp G	Black £	Galvanised £
1/2 1	265	487
3/4 1 1/4	273	504
1 1 1/2	375	688
1 1/4 2	583	1094
1 1/2 2 1/4	766	1435
2 2 3/4	1395	2615
2 1/2 3 1/2	2703	5232
3 4	3968	7680

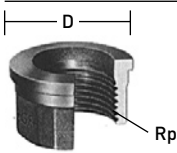


**Fig.371**  
Union End  
Male

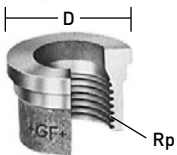
Size Rp D to suit G on 374	Black £	Galvanised £
1/2 1	437	803
3/4 1 1/4	407	746
1 1 1/2	499	913
1 1/4 2	956	1791
1 1/2 2 1/4	1068	2002
2 2 3/4	1563	2930
2 1/2 3 1/2	3196	6183
3 4	5669	10973
1-1 1/4 1 1/2*	1006	N/A

\* Union end for 374 1" 42.5 (770 374 121)



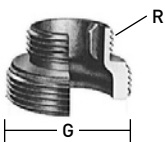


**Fig.372**  
Union End, Flat Seat,  
F. Equal



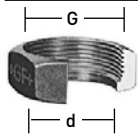
**F. Reducing**

Size		Black £	Galvanised £
Rp	D to suit G on 374		
1/2	1	264	486
1/2	1 1/8	264	486
3/4	1 1/4	284	521
1	1 1/2	263	541
1 1/4	2	495	928
1 1/2	2 1/4	697	1164
2	2 3/4	1126	2109
2 1/2	3 1/2	2387	4621
3	4	4363	8441
Size		Black £	Galvanised £
D to suit G on 374			
1 - 3/4	1 1/2	457	838
1 1/4 - 3/4	2	677	1266
1 1/4 - 1	2	685	1286



**Fig.373**  
Union Bush  
M. Equal

Size		Black £	Galvanised £
R	G		
3/4	1 1/4	741	1360
1	1 1/2	832	1526
1 1/4	2	1249	2339

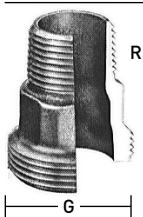


**Fig. 374**  
**(ISO P1)**  
Union Nut

Size		Black £	Galvanised £
R	G		
3/8	7/8	222	409
1/2	1	203	374
1/2	1 1/8	222	409
3/4	1 1/4	224	465
3/4	1 1/4	264	N/A
1	1 1/2	253	521
1	d=34.4 1 1/2	253	N/A
1 1/4	2	440	928
1 1/2	d=42.5 2 1/4	618	1159
2	2 3/4	921	1729
2 1/2	3 1/2	2181	5421
3	4	2879	5570

Union nut for 371 1 - 1 1/4 (770 371 115)

# Malleable Iron Pipe Fittings



**Fig. 376**  
Union Bush  
M. Equal

Size		Black £	Galvanised £
R	G		
1/2	1	733	1044
1/2	1 1/8	733	1044
3/4	1 1/4	862	1229
1	1 1/2	875	1247
1 1/4	2	1432	2066
1 1/2	2 1/4	1782	2571



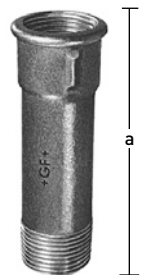
**Fig. 378**  
Distribution Union Bush

Size		Black £	Galvanised £
R	G		
3/4	1 1/4	N/A	4707
1	1 1/2	N/A	5337
1 1/4	2	N/A	7850



**Fig. 471**  
Bracket Elbow

Size	Black £	Galvanised £
3/8	N/A	2903
1/2	N/A	1848
3/4	N/A	3579



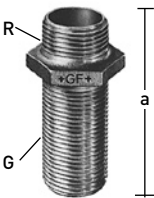
**Fig. 526**  
Extension Tube

Size	Black £	Galvanised £
3/8 - 100mm	863	1585
1/2 - 30mm	385	709
1/2 - 50mm	364	671
1/2 - 60mm	499	913
1/2 - 70mm	660	1212
1/2 - 80mm	508	931
1/2 - 100mm	689	1266
1/2 - 120mm	1067	1983
3/4 - 30mm	426	781
3/4 - 40mm	477	875
3/4 - 60mm	680	1247
3/4 - 70mm	873	1601
3/4 - 80mm	842	1547
3/4 - 100mm	906	1547
1 - 40mm	669	1229
1 - 80mm	1067	1956
1 - 100mm	1604	2944



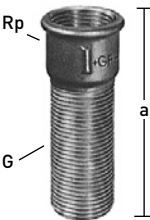
**Fig. 529a**  
**(ISO M4)**  
Extension Socket

Size a	Black £	Galvanised £
1/4 - 28mm	660	1212
3/8 - 35mm	305	560
1/2 - 43mm	335	615
3/4 - 48mm	487	895
1 - 55mm	772	1415
1 1/4 - 60mm	1113	2087
1 1/2 - 60mm	1552	2909
2 - 70mm	2541	4765



**Fig. 534**  
Long Screw  
Hexagon Nipple  
Hot dip galvanised  
Thread also electroplated.

Size a	Black £	Galvanised £
1/2 - 77mm	N/A	2681
3/4 - 82mm	N/A	3544
1 - 92mm	N/A	5028



**Fig. 536**  
Long Screw Socket  
Hot dip galvanised  
Thread also electroplated.

Size a	Black £	Galvanised £
1/2 - 79mm	N/A	2874
3/4 - 90mm	N/A	3928
1 - 102mm	N/A	5508
1 1/4 - 116mm	N/A	11220
1 1/2 - 125mm	N/A	11926
2 - 143mm	N/A	19730



**Fig. 595**  
Plug with One  
Machined Face

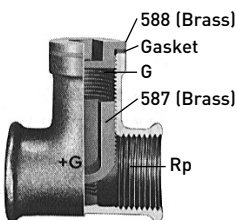
See page 27 for full details



**Fig. 596**  
**(ISO T11)**  
Plug (Recessed)

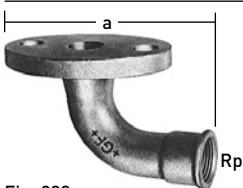
See page 27 for full details

# Malleable Iron Pipe Fittings



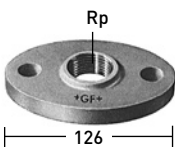
Size		Black £	Galvanised £
Rp	G		
1/2	3/8	2050	3762
3/4	1/2	2760	5066
1	3/4	4707	8642
1 1/4	1 1/8	8437	N/A
1 1/2	1 1/4	9878	N/A
2	2 3/4	17076	N/A

Fig. 599a  
Regulating Socket



Size		Black £	Galvanised £
Rp	a		
3/4 x	115mm	N/A	21267
1 x	90mm	N/A	21267
1 1/4 x	90mm	N/A	24700

Fig. 933  
Water Meter Bend



Size Rp	Black £	Galvanised £
3/4	N/A	13314
1	N/A	12787
1 1/4	N/A	11331
1 1/2	N/A	12684

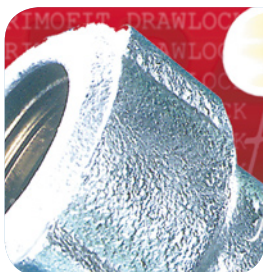
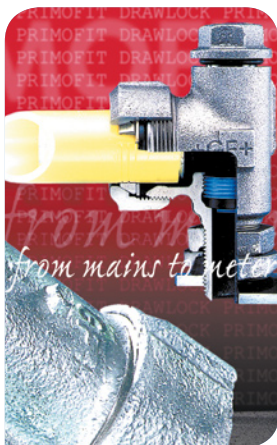
Fig. 933a  
Counter Flange



Fig. 202  
Spare Gaskets  
(Compressed  
Non-Asbestos Fibre)

Fitting Size	Price £
1/4	61
1/2	55
3/4	67
1	69
1 1/4	120
1 1/2	165
2	185

## PRIMOFIT Compression Fittings



## DRAW-LOCK System

Time saving pipe jointing systems  
for steel pipework

**+GF+**

# PRIMOFIT System

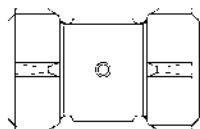
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Steel to Steel, PE to PE and Steel to PE

## Coupling

1/2 to 3 STL

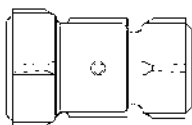
20 to 63 PE



---

## Reducing Coupling

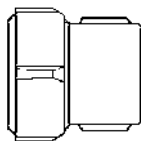
1/2 to 2



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## Cap

1/2 to 2 Steel



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## Equal Tee

1/2 to 2 Steel

20 to 63 PE

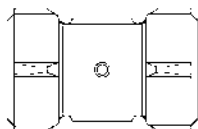


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## Female Adaptor

1/2 to 3 Steel

20 to 63 PE



# PRIMOFIT System

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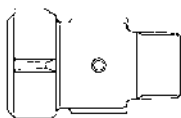
Steel to Steel, PE to PE and Steel to PE

## Male Adaptor

1/2 to 3 Steel

20 to 63 PE

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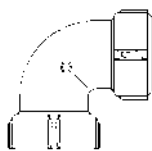


## Elbow

1/2 to 2 Steel

20 to 63 PE

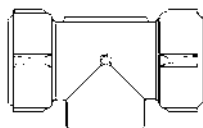
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## Threaded Outlet Tee

1/2 to 2 Steel

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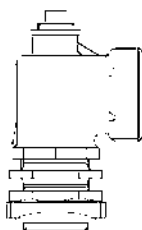


## Two Piece Under Pressure Swivel Tee

1 1/2 x 63

2 x 63

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## Under Pressure Swivel Tee

3/4 x 25

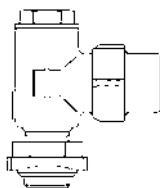
1 x 32

3/4 x 20

1 x 20

1 x 25

3/4 x 32

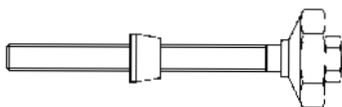


# DRAW-LOCK Tooling

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## Draw-Tool with Expander

16mm  
20mm  
25mm  
32mm



## Expander (spare)

16mm  
20mm  
25mm  
32mm



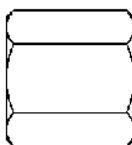
## Draw-Tool Stem

20mm  
25mm  
32mm



## Adaptor Bush

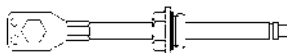
16mm  
20mm  
25mm  
32mm



\* for joint making with service insertion adaptors

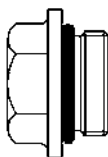
## Combination Tool with Cap

$\frac{3}{4}$   
1



## Cap (spare)

$\frac{3}{4}$   
1



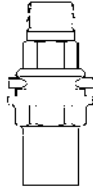


# DRAW-LOCK System

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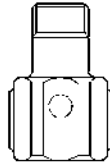
## Meter-Box Adaptor

20mm  
25mm  
32mm



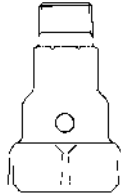
## Service Insertion Adaptor (Screwed)

Range from 16 - 32mm



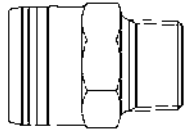
## Service Insertion Adaptor (Compression)

16 - 32mm



## One Piece Male Transition Fitting

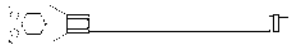
25mm  
32mm



## Combination Tool Stem

3/4

1



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# Notes

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Stockist

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