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Plumbing & Heating
Pumps
Water Conditioning
Multifamily Housing Supplies



DUFF CO. CATALOG

FITTINGS AND PIPE

est. 1947

DUFF CO.

When you need it now... or don't know how

DUFFCO.COM

150 LB. MALLEABLE IRON PIPE FITTINGS



90° ELBOW



90° STREET ELBOW



45° ELBOW



45° STREET ELBOW

	Black		Galvanized		Black		Galvanized		Black		Galvanized		Black		Galvanized	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/8	458		713		493		756		505		744		517		768	
1/4	459		714		494		757		506		745		518		769	
3/8	460		715		495		758		507		746		519		770	
1/2	461		716		496		759		508		747		520		771	
3/4	462		717		497		760		509		748		521		772	
1	463		718		498		761		510		749		522		773	
1 1/4	464		719		499		762		511		750		523		774	
1 1/2	465		720		500		763		512		751		524		775	
2	466		721		501		764		513		752		525		776	
2 1/2	467		722		502		765		514		244659		-		-	
3	468		723		503		766		515		754		-		-	
3 1/2	-		32458		-		-		-		-		-		-	
4	469		724		504		767		516		755		-		-	
5	5530		-		-		-		-		-		-		-	
6	5531		-		-		-		-		-		-		-	



TEE



STREET TEE



CROSS



LATERAL

	Black		Galvanized		Black		Galvanized		Black		Galvanized		Black		Galvanized	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/8	538		777		-		-		603		11898		-		-	
1/4	539		778		13804		32554		604		11899		-		-	
3/8	540		779		13805		32555		605		11901		11594		20026	
1/2	541		780		13806		26506		606		816		11595		20027	
3/4	542		781		13807		26507		607		817		11597		20028	
1	543		782		13808		26509		608		818		11598		20029	
1 1/4	544		783		13809		26510		609		819		11599		20030	
1 1/2	545		784		13810		26511		610		820		11600		20031	
2	546		785		-		26512		611		11883		11602		20032	
2 1/2	547		786		-		-		11589		11884		11604		20033	
3	548		787		-		-		11591		11887		11605		20034	
3 1/2	22521		32478		-		-		-		-		-		-	
4	549		788		-		-		11592		11890		13796		20036	
5	5541		32479		-		-		-		-		-		-	
6	5542		11880		-		-		11593		11893		-		-	

For additional information call: 610-275-4453 or Fax: 610-279-6299.

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150 LB. REDUCING FITTINGS

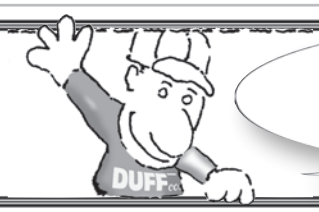





SIZE	90° Elbow				Coupling				Bushing				Face Bushing			
	BLACK		GALV		BLACK		GALV		BLACK		GALV		BLACK		GALV	
	FIG NO.	PRICE	FIG NO.	PRICE	FIG NO.	PRICE	FIG NO.	PRICE	FIG NO.	PRICE	FIG NO.	PRICE	FIG NO.	PRICE	FIG NO.	PRICE
1/4x1/8	470		-		612		829		1089		903		32404		-	
3/8x1/8	471		-		614		830		1090		904		-		-	
3/8x1/4	472		726		613		831		1091		905		-		-	
1/2x1/8	-		-		615		832		1092		906		-		-	
1/2x1/4	474		728		616		833		1093		907		-		-	
1/2x3/8	473		727		617		834		1094		908		1151		-	
3/4x1/8	-		-		618		20714		1095		909		-		-	
3/4x1/4	475		32459		619		835		1096		910		-		-	
3/4x3/8	476		730		620		836		1097		911		-		-	
3/4x1/2	477		729		621		837		1098		912		1152		-	
1x1/8	-		-		-		-		1099		5590		-		-	
1x1/4	-		-		622		23273		1100		913		-		-	
1x3/8	11588		5584		623		838		1101		914		-		-	
1x1/2	479		732		624		839		1102		915		-		-	
1x3/4	478		731		625		840		1103		916		-		-	
1 1/4x1/4	-		-				-		1104		5592		-		-	
1 1/4x3/8	-		-		-		32564		1105		5593		-		-	
1 1/4x1/2	482		735		626		841		1106		917		-		-	
1 1/4x3/4	481		734		627		842		1107		918		-		32598	
1 1/4x1	480		733		628		843		1108		919		-		32597	
1 1/2x1/4	-		-		-		-		1109		13773		-		-	
1 1/2x3/8	-		-		-		-		1110		5594		-		-	
1 1/2x1/2	486		32460		629		844		1111		920		-		-	
1 1/2x3/4	485		738		630		845		1112		921		-		-	
1 1/2x1	484		737		631		846		1113		922		-		-	
1 1/2x1 1/4	483		736		632		847		1114		923		32419		-	
2x1/4	-		-		-		-		1115		13775		1115		-	
2x3/8	-		-		-		-		5629		13774		-		-	
2x1/2	18747		-		633		848		1116		924		-		-	
2x3/4	490		741		634		849		1117		5678		-		-	
2x1	489		740		635		850		1118		925		-		-	
2x1 1/4	488		-		636		851		1119		926		-		-	
2x1 1/2	487		20322		637		852		1120		927		32423		-	
2 1/2x1/2	-		-		-		-		-		13776		-		-	
2 1/2x3/4	-		-		-		18013		1122		13777		-		-	
2 1/2x1	-		-		638		853		1123		928		-		-	
2 1/2x1 1/4	-		-		639		854		1124		5595		-		-	
2 1/2x1 1/2	22464		-		640		855		1125		929		-		-	
2 1/2x2	491		742		641		856		1126		930		32425		-	
3x1/2	-		-		-		-		-		13778		-		-	
3x3/4	-		-		-		32565		-		13779		-		-	
3x1	-		-		642		857		1128		5596		-		-	
3x1 1/4	-		-		643		5588		1129		931		-		-	
3x1 1/2	-		-		644		858		1130		932		-		-	
3x2	5533		743		645		859		1131		933		-		-	
3x2 1/2	5532		11872		646		860		1132		934		-		-	
3 1/2x1	-		-		-		-		-		-		-		-	
3 1/2x1 1/4	-		-		-		-		-		-		-		-	
3 1/2x1 1/2	-		-		-		-		1134		-		-		-	
3 1/2x2	-		-		-		-		-		-		-		-	
3 1/2x2 1/2	-		-		-		-		-		-		-		-	
3 1/2x3	-		-		-		-		1137		26495		-		-	

150 LB. REDUCING FITTINGS

	90° ELBOW				COUPLING				BUSHING				FACE BUSHING			
	BLACK		GALV		BLACK		GALV		BLACK		GALV		BLACK		GALV	
	FIG	PRICE	FIG	PRICE	FIG	PRICE	FIG	PRICE	FIG	PRICE	FIG	PRICE	FIG	PRICE	FIG	PRICE
4X1	-		-		-		-		1138		13780		-		-	
4X1 1/4	-		-		-		-		1139		13781		-		-	
4X1 1/2	-		-		647		11926		1140		13782		-		-	
4X2	5535		-		648		11923		1141		935		-		-	
4X2 1/2	5534		-		649		11917		1142		936		-		-	
4X3	492		11876		650		861		1143		937		-		-	
4X3 1/2	-		-		-		-		1144		-		-		-	
5X2	-		-		-		-		-		-		-		-	
5X2 1/2	-		-		-		-		-		-		-		-	
5X3	-		-		-		-		-		26499		-		-	
5X4	-		-		23497		32568		-		26500		-		-	
6X2	-		-		-		-		-				-		-	
6X2 1/2	-		-		-		-		-		26502		-		-	
6X3	-		-		-		-		1148		23119		-		-	
6X4	-		-		22966		11930		1149		26504		-		-	
6X5	-		-		23689		-		1150		-		-		-	



For black pipe Mega Press Fitting, see page XX

150 LB. MALLEABLE IRON PIPE FITTINGS



REDUCING STREET TEE

Size	Fig No	Price
3/4X1/2	23488	
1X3/4	23489	



ALL IRON UNION

1/4" - 2" AVAILABLE!



SIDE OUTLET TEE



WASTENUT



SIDE OUTLET 90° ELBOW

A L L S I Z E S A V A I L A B L E !

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150 LB. MALLEABLE IRON PIPE FITTINGS

REDUCING TEE



SIZE			BLACK		GALV	
A	B	C	FIG	PRICE	FIG	PRICE
1/4	1/4	1/8	5543		789	
1/8	1/8	1/4	-		-	
3/8	3/8	1/4	5544		5852	
3/8	1/4	3/8	32353		32493	
3/8	1/4	1/4	32352		-	
1/4	1/4	3/8	-		32491	
1/2	1/2	3/8	5547		790	
1/2	1/2	1/4	5548		18029	
1/2	3/8	1/2	32355		32498	
1/2	3/8	3/8	20583		32497	
3/8	3/8	1/2	32354		32495	
3/4	3/4	1/2	5551		791	
3/4	3/4	3/8	5552		23011	
3/4	3/4	1/4	19011		32499	
3/4	1/2	3/4	5554		792	
3/4	1/2	1/2	5553		793	
3/4	3/8	3/4	20009		-	
3/4	3/8	3/8	-		-	
3/4	1/4	3/4	-		-	
1/2	1/2	3/4	5546		20553	
1	1	3/4	557		794	
1	1	1/2	556		795	
1	1	3/8	19088		23795	
1	1	1/4	20006		22027	
1	3/4	1	555		796	
1	3/4	3/4	554		797	
1	3/4	1/2	553		21855	
1	1/2	1	552		798	
1	1/2	3/4	551		18028	
1	1/2	1/2	550		799	
1	1/4	1	-		18237	
3/4	3/4	1	5550		18988	
1/2	1/2	1	32356		-	
1 1/4	1 1/4	1	566		13797	
1 1/4	1 1/4	3/4	565		13798	
1 1/4	1 1/4	1/2	564		13799	
1 1/4	1 1/4	3/8	32361		13800	
1 1/4	1	1 1/4	563		-	
1 1/4	1	1	562		13802	
1 1/4	1	3/4	5559		13803	
1 1/4	1	1/2	5558		32506	
1 1/4	3/4	1 1/4	561		18010	
1 1/4	3/4	1	560		32505	
1 1/4	3/4	3/4	559		32504	
1 1/4	1/2	1 1/4	558		-	
1 1/4	1/2	1	5555		20644	
1	1	1	20582		20502	
3/4	3/4	1 1/4	-		-	
1 1/2	1 1/2	1 1/4	576		18335	
1 1/2	1 1/2	1	575		18336	
1 1/2	1 1/2	3/4	574		18337	
1 1/2	1 1/2	1/2	573		18338	
1 1/2	1 1/4	1 1/2	572		800	
1 1/2	1 1/4	1 1/4	571		801	
1 1/2	1 1/4	1	21142		21372	
1 1/2	1 1/4	3/4	32364		32512	
1 1/2	1 1/4	1/2	32363		32511	
1 1/2	1	1 1/2	570		32510	
1 1/2	1	1 1/4	5569		32509	
1 1/2	1	1	569		802	
1 1/2	3/4	1 1/2	568		18192	
1 1/2	3/4	3/4	5566		32508	
1 1/2	1/2	1 1/2	567		32507	

SIZE			BLACK		GALV	
A	B	C	FIG	PRICE	FIG	PRICE
1 1/4	1 1/4	1 1/2	32362		20586	
1	1		32360		30163	
2	2	1 1/2	587		803	
2	2	1 1/4	586		804	
2	2	1	585		805	
2	2	3/4	584		806	
2	2	1/2	583		807	
2	1 1/2	2	582		5585	
2	1 1/2	1 1/2	581		808	
2	1 1/2	1 1/4	32369		32524	
2	1 1/2	1	32368		32523	
2	1 1/4	2	580		809	
2	1 1/4	1 /2	23548		5586	
2	1 1/4	1 1/4	22428		30665	
2	1	2	579		810	
2	3/4	2	578		32518	
2	1/2	2	577		32517	
1 1/2	1 1/2	2	-		23635	
1 1/4	1 1/4	2	39329		40036	
2 1/2	2 1/2	2	591		811	
2 1/2	2 1/2	1 1/2	-		32532	
2 1/2	2 1/2	1 1/4	589		32531	
2 1/2	2 1/2	1	588		32530	
2 1/2	2 1/2	3/4	-		32529	
2 1/2	2	2 1/2	-		18745	
2 1/2	2	2	-		30137	
2 1/2	1 1/2	2 1/2	-		32528	
2 1/2	1 1/2	2	-		32527	
2	2	2 1/2	-		32525	
3	3	2 1/2	598		812	
3	3	2	597		813	
3	3	1 1/2	596		814	
3	3	1 1/4	595		23797	
3	3	1	594		21728	
3	3	3/4	-		32537	
3	2 1/2	2 1/2	-		30136	
3	2 1/2	2	-		32536	
3	2	3	-		29756	
3	2	2	-		21591	
2 1/2	2 1/2	3	-		32533	
4	4	3	-		815	
4	4	2 1/2	-		19444	
4	4	2	-		32547	
4	4	1 1/2	599		32546	
4	3	4	-		32542	
3	3	4	-		32538	
6	6	4	-		32553	
6	6	3	-		32552	
6	6	2 1/2	-		32550	
6	6	2	-		32549	

150 LB. MALLEABLE IRON PIPE FITTINGS



Coupling



Cap



Plug



Countersunk Plug

	BLACK		GALV		BLACK		GALV		BLACK		GALV		BLACK		GALV	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
1/8	39936		43116		674		862		1154		880		23503		-	
1/4	39912		43117		675		863		1155		881		1168		32612	
3/8	39913		43118		676		864		1156		882		1169		32613	
1/2	39914		43119		677		865		1157		883		1170		32614	
3/4	39915		43120		678		866		1158		884		1171		32615	
1	39916		43121		679		867		1159		885		1172		32616	
1 1/4	39917		43122		680		868		1160		886		1173		32617	
1 1/2	39918		43123		681		869		1161		887		1174		32618	
2	39919		43124		682		870		1162		888		1175		32619	
2 1/2	39920		43125		683		871		1163		889		-		-	
3	39921		43126		684		872		1164		890		-		-	
3 1/2	43110		43127		-		-		-		-		-		-	
4	39922		43128		685		873		1166		891		-		-	
5	4311		43129		5581		32570		5854		-		-		-	
6	43112		43130		686		11951		1167		32611		-		-	
8	-		-		-		-		-		-		-		-	

STEEL COUPLING MAY BE SHIPPED UNLESS YOU SPECIFICALLY REQUEST MALLEABLE.



Union



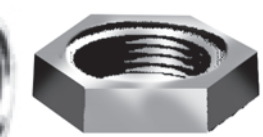
Floor Flange



Half Coupling



Extension Piece



Hex Locknut

	BLACK		GALV		BLACK		GALV		BLACK		GALV		BLACK		GALV		BLACK		GALV	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
1/8	660		892		-		-		13784		-		-		-		-		11960	
1/4	661		893		11608		-		13785		-		-		-		-		11962	
3/8	662		894		11610		-		13786		-		11606		13812		-		11966	
1/2	663		895		654		874		13787		-		11519		11988		11846		11969	
3/4	664		896		655		875		13788		-		11521		11993		11850		11973	
1	665		897		656		876		13789		-		11523		11996		11851		11975	
1 1/4	666		898		657		877		13790		-		11525		11999		-		11979	
1 1/2	667		899		658		878		13791		-		11526		12001		-		11983	
2	668		900		659		879		13792		-		11527		12009		11863		11986	
2 1/2	669		901		-		-		13793		-		-		-		-		32577	
3	670		902		-		-		13794		-		-		-		-		-	
3 1/2	-		-		-		-		-		-		-		-		-		-	
4	5577		5589		-		-		13795		-		-		-		-		-	

For additional information call: 610-275-4453 or Fax: 610-279-6299.

Please call for current prices.

300 LB (XH) BLACK MALLEABLE PIPE FITTINGS



90° Elbow



90° Street Elbow



45o Elbow



45° Street Elbow



Tee

SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
1/4	11684		11650		11692		-		11702	
3/8	11686		11653		11694		-		11704	
1/2	687		11655		693		11625		699	
3/4	688		11657		694		11627		700	
1	689		11659		695		11628		701	
1 1/4	690		11661		696		11637		702	
1 1/2	691		11663		697		11639		703	
2	692		11665		698		11642		704	
2 1/2	18103		-		11696		-		705	
3	11689		11668		11697		-		706	
4	11691		-		-		-		707	
6	32633		-		-		-		-	



Cross



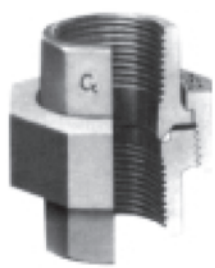
Coupling



Half Coupling



Cap



Union

SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
1/8	-		-		-		-		-	
1/4	-		39924		-		-		11613	
3/8	-		39925		-		11807		11615	
1/2	18319		39926		-		11811		11672	
3/4	18320		39927		-		11813		11673	
1	18321		39928		-		11817		11675	
1 1/4	18322		39929		-		11820		11677	
1 1/2	18323		39930		-		11821		11678	
2	18324		39931		-		11824		11680	
2 1/2	-		39932		-		11828		18102	
3	-		-		-		11835		11681	

300 LB. (XH) BLACK MALLEABLE PIPE FITTINGS (GALVANIZED AVAILABLE)







SIZE	REDUCING TEE		REDUCING 90° ELBOW		REDUCING COUPLING	
	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
3/8X1/4	11735		-		11761	
1/2X1/4	32647		-		32681	
1/2X3/8	11738		32635		11766	
3/4X1/4	32651		-		32682	
3/4X3/8	32652		-		32683	
3/4X1/2	11741		32636		11770	
1X1/4	-		-		-	
1X3/8	-		-		32684	
1X1/2	32659		32637		31396	
1X3/4	11742		32638		11774	
1 1/4X1/2	32662		-		32685	
1 1/4X3/4	32663		32639		-	
1 1/4X1	11745		32640		11779	
1 1/2X1/2	32665		-		32687	
1 1/2X3/4	32666		-		-	
1 1/2X1	32667		32641		19421	
1 1/2X1 1/4	11747		32642		11782	
2 X 1/2	32669		-		32688	
2X3/4	32670		-		-	
2X1	32671		-		32689	
2X1 1/4	32672		-		18235	
2X1 1/2	11750		32643		11785	
2 1/2X1 1/2	32673		-		-	
2 1/2X2	-		-		11792	
3X1 1/2	-		-		-	
3X2	-		-		-	
3X2 1/2	-		-		11795	
4X2 1/2	-		-		-	
4X3	-		-		-	



Male X Female Union
AVAILABLE FOR QUICK DELIVERY!



FEMALE UNION EXTRA HEAVY 90° ELBOW

Size	Fig No	Price
1/2	23490	
3/4	22023	
1	23491	
1 1/4	23492	
1 1/2	-	
2	-	

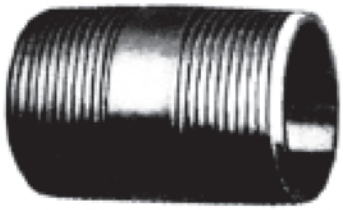


MALE UNION EXTRA HEAVY 90° ELBOW

Size	Fig No	Price
1/2	-	
3/4	-	
1	-	
1 1/4	-	
1 1/2	32446	
2	-	

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

STANDARD BLACK STEEL NIPPLES





	1/8		1/4		3/8		1/2		3/4		1		1 1/4		1 1/2	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
Close	198		210		222		234		252		270		287		304	
Sh.	199		211		223		235		253		271		288		305	
2	200		212		224		236		254		-		-		-	
2 1/2	201		213		225		237		255		272		289		306	
3	202		214		226		238		256		273		290		307	
3 1/2	203		215		227		239		257		274		291		308	
4	204		216		228		240		258		275		292		309	
4 1/2	205		217		229		241		259		276		293		310	
5	206		218		230		242		260		277		294		311	
5 1/2	207		219		231		243		261		278		295		312	
6	208		220		232		244		262		279		296		313	
7	26257		-		26294		246		264		281		298		315	
8	26260		26275		26296		247		265		282		299		316	
9	26262		26278		26298		248		266		283		300		317	
10	26264		-		26300		249		267		284		301		318	
11	26266		26285		26302		250		268		285		302		319	
12	26267		26289		26304		251		269		286		303		320	

	2		2 1/2		3		3 1/2		4		5		6	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
Close	321		337		352		-		367		5505		5517	
Sh.	322		19522		353		-		368		5506		5518	
2	-		-		-		-		-		-		-	
2 1/2	-		-		-		-		-		-		-	
3	323		-		-		-		-		-		-	
3 1/2	324		339		354		-		-		-		-	
4	325		340		355		-		-		-		-	
4 1/2	326		341		356		-		369		5507		5519	
5	327		342		357		-		370		5508		5520	
5 1/2	328		343		358		-		371		5509		5521	
6	329		344		359		-		372		5510		5522	
7	331		346		361		-		374		5511		5523	
8	332		347		362		-		375		5512		5524	
9	333		348		363		-		376		5513		5525	
10	334		349		364		-		377		5514		5526	
11	335		350		365		-		378		5515		5527	
12	336		351		366		-		379		5516		5528	

CALL DUFF FOR ALL YOUR NIPPLES:
Black, Galvanized, Brass, Seamless, Chrome, PVC, CPVC, Monel, Standard, Extra Heavy, Double Extra Heavy.

STANDARD GALVANIZED STEEL NIPPLES

	1/8		1/4		3/8		1/2		3/4		1	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
Close	20		32		44		56		69		87	
Sh.	21		33		45		57		70		88	
2	22		34		46		58		71		-	
2 1/2	23		35		47		59		72		89	
3	24		36		48		60		73		90	
3 1/2	25		37		49		61		74		91	
4	26		38		50		62		75		92	
4 1/2	27		39		51		63		76		93	
5	28		40		52		64		77		94	
5 1/2	29		41		53		65		78		95	
6	30		42		54		66		79		96	
7	-		-		-		12953		81		98	
8	-		-		-		12957		82		99	
9	-		-		-		5350		83		-	
10	-		-		-		5352		84		101	
11	-		-		-		5354		85		102	
12	-		-		-		68		86		103	

	1 1/4		1 1/2		2		2 1/2		3		4	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
Close	104		125		146		166		175		186	
Sh.	105		126		147		167		176		187	
2	-		-		-		-		-		-	
2 1/2	106		127		-		-		-		-	
3	107		128		148		-		-		-	
3 1/2	108		129		149		168		177		-	
4	109		130		150		169		178		-	
4 1/2	110		131		151		170		179		188	
5	111		132		152		171		180		189	
5 1/2	112		133		153		172		181		190	
6	113		134		154		173		182		191	
7	115		136		156		5384		5395		192	
8	116		137		157		5386		5396		193	
9	117		138		158		5388		5397		194	
10	118		139		159		5390		5398		195	
11	119		140		160		5392		184		196	
12	120		141		161		5394		185		197	

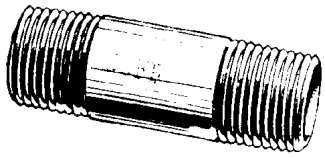
For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

EXTRA HEAVY BLACK STEEL NIPPLES

	1/8		1/4		3/8		1/2		3/4		1	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
Close	18171		18384		380		391		403		415	
Sh.	18374		18385		381		392		404		416	
2	18375		18386		382		393		405		-	
2 1/2	18376		18387		383		394		406		417	
3	18377		18388		384		395		407		418	
3 1/2	18378		18389		385		396		51611		419	
4	18379		18390		386		397		409		420	
4 1/2	18380		18391		387		398		410		421	
5	18381		18392		388		399		411		422	
5 1/2	18382		18393		389		400		412		423	
6	18383		18394		390		401		413		424	

	1 1/4		1 1/2		2		2 1/2		3		4	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
Close	426		437		448		17863		17871		17880	
Sh.	427		438		449		17864		17872		17881	
2	-		-		-		-		-		-	
2 1/2	428		439		-		-		-		-	
3	429		440		450		-		-		-	
3 1/2	430		441		451		17865		17873		-	
4	431		442		452		17866		17874		-	
4 1/2	432		443		453		17867		17875		17882	
5	433		444		454		17868		17876		17883	
5 1/2	434		445		455		17869		17877		17884	
6	435		446		456		17870		17878		17885	





LONG NIPPLES

	BLACK		GALVANIZED			BLACK		GALVANIZED	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/2 x 18	20054		13180		1 1/2x18	20058		142	
1/2 x 24	13248		13183		1 1/2x24	5440		143	
1/2 x 36	13250		13772		1 1/2x36	5441		144	
1/2 x 48	13251		13191		1 1/2x48	5442		145	
1/2 x 60	13252		13192		1 1/2x60	13270		13225	
1/2 x 72	13253		13193		1 1/2x72	13271		13227	
3/4 x 18	20055		13196		2x18	20059		162	
3/4 x 24	13254		13198		2 x 24	5450		163	
3/4 x 36	13255		13200		2 x 36	5451		164	
3/4 x 48	13256		13202		2 x 48	5452		165	
3/4 x 60	13258		13204		2 x 60	13230		13295	
3/4 x 72	13259		13205		2 x 72	13234		13296	
1 x 18	20056		13207		3 x 18	20061		-	
1 x 24	13260		13209		3 x 24	5470		13235	
1 x 36	13261		13211		3 x 36	5471		13236	
1 x 48	13262		13213		3 x 48	5472		13238	
1 x 60	13263		13214		3 x 60	13264		13239	
1 x 72	13265		13215		3 x 72	13267		13240	
1 1/4x18	20057		121		4 x 18	20062		-	
1 1/4x24	5428		122		4 x 24	5502		13241	
1 1/4x36	5429		42877		4 x 36	5503		13242	
1 1/4x48	5430		124		4 x 48	5504		13244	
1 1/4x60	13266		13219		4 x 60	13269		13245	
1 1/4x72	13268		13223		4 x 72	13272		13246	

Call Duff for all pipe fabrication - We can cut, thread, bend, bevel, groove or weld. Manifolds and spool pieces a specialty!

66-NIPPLE PAK



Six of each size nipple -- close trough 6", all in an easy to carry tray for truck or shop.

	BLACK		GALVANIZED	
Size	Fig No	Price	Fig No	Price
1/2	13282		13286	
3/4	13283		13287	

COMBO NIPPLE BOX

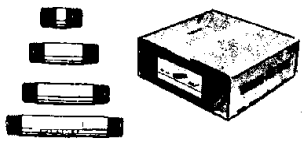


Holds both 1/2"and 3/4"nipples.

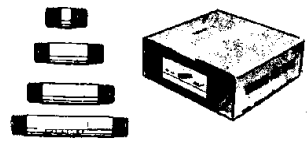
Great for the job site!

Fig No	Price
51243	

NIPPLE RUNS



ONE OF EACH SIZE FROM CLOSE TO 6"



	BLACK		GALVANIZED		EXTRA HEAVY BLACK		BRASS	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
1/8	50989		50977		51004		44496	
1/4	50990		50978		51005		44497	
3/8	50991		50979		51006		44498	
1/2	50992		50980		51007		44499	
3/4	50993		50981		51008		44500	
1	50994		50982		51009		44501	
1 1/4	50995		50983		51010		44502	
1 1/2	50996		50984		51011		44503	
2	50997		50985		51013		44504	
2 1/2	50998		50986		51014		44505	
3	50999		50987		51015		44506	
3 1/2	51000		-		-		-	
4	51001		50988		51016		-	
5	51002		-		-		-	
6	51003		-		-		-	

	PVC SCH. 80		CPVC SCH. 80		CHROME PLATED BRASS		304 STAINLESS STEEL		316 STAINLESS STEEL	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
1/8	-		-		-		44507		36405	
1/4	-		51030		-		44508		36406	
3/8	51018		51031		12638		44509		36407	
1/2	51019		51032		12640		44510		36408	
3/4	51020		51033		12641		44511		36409	
1	51021		51034		-		44512		36410	
1 1/4	51022		51035		-		44513		36411	
1 1/2	51023		51036		-		44514		36412	
2	51024		51037		-		44515		36413	
2 1/2	51025		-		-		-		-	
3	51026		-		-		-		-	
4	51027		-		-		-		-	
5	-		-		-		-		-	
6	-		-		-		-		-	

125 LB. CAST IRON SCREWED FITTINGS





Size	90° Elbow		45° Elbow		Tee	
	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/4	32631		32699		32704	
3/8	32632		32700		32705	
1/2	938		974		984	
3/4	939		975		985	
1	940		976		986	
1 1/4	941		977		987	
1 1/2	942		978		988	
2	943		979		989	
2 1/2	944		980		990	
3	945		981		991	
4	946		982		992	

BRASS SADDLE TEE



SIZE		FIG.	PRICE
1/2	1/2	47202	
3/4	1/2	47203	
3/4	3/4	52524	
1	1/2	48743	
1	3/4	52525	
1 1/4	1/2	26515	
1 1/4	3/4	26517	
1 1/4	1	26519	
1 1/2	1/2	26521	
1 1/2	3/4	26522	
1 1/2	1	26523	
2	1/2	26524	
2	3/4	26525	
2	1	26526	
2 1/2	3/4	26527	
2 1/2	1	26528	
3	3/4	26529	
3	1	26530	
4	3/4	26531	
4	1	26532	
4	1 1/4	51066	
4	2	41565	




Size	Reducing 90° Elbow		Eccentric Reducer	
	Fig. No.	Price	Fig. No.	Price
1/2x3/8	32697		-	
3/4x1/2	948		-	
1x1/2	949		-	
1x3/4	950		1080	
1 1/4x1/2	951		-	
1 1/4X3/4	952		1081	
1 1/4X1	953		1082	
1 1/2X1/2	954		-	
1 1/2X3/4	955		1083	
1 1/2X1	956		1084	
1 1/2X1 1/4	957		1085	
2X1/2	958		-	
2X3/4	959		32765	
2X1	-		1086	
2X1 1/4	-		-	
2X1/12	962		1088	
2 1/2X1	-		-	
2 1/2X11/4	-		-	
2 1/2X1 1/2	-		32767	
2 1/2X2	-		-	
3X1 1/4	-		-	
3X1 1/2	-		32769	
3X2	969		-	
3X2 1/2	-		-	
4X2	-		32772	
4X2 1/2	-		-	
4X3	-		-	

ADDITIONAL CAST IRON FITTINGS READY FOR QUICK DELIVERY!



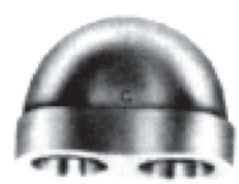
Concentric Reducer



Cross Striaght or Reducing



Lateral



Return Bend

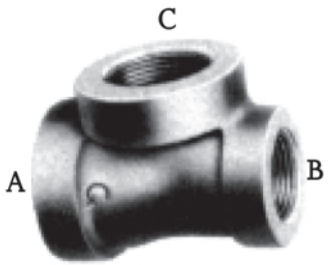


Flanged Union

CAST IRON FITTINGS ALSO AVAILABLE IN EXTRA HEAVY (250 LB.)

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

125 LB. CAST IRON SCREWED REDUCING TEE



SIZE			FIG	PRICE
A	B	C		
1/2	1/2	3/4	—	
1/2	1/2	1	—	
3/4	1/2	1/2	995	
3/4	1/2	3/4	996	
3/4	3/4	1/4	—	
3/4	3/4	3/8	—	
3/4	3/4	1/2	5600	
1	1/2	1/2	—	
1	1/2	3/4	—	
1	1/2	1	1000	
1	3/4	1/2	5601	
1	3/4	3/4	—	
1	3/4	1	—	
1	3/4	1 1/2	—	
1	3/4	2	—	
1	1	1/4	—	
1	1	3/8	—	
1	1	1/2	1003	
1	1	3/4	1004	
1	1	1 1/4	5602	
1	1	1 1/2	32714	
1 1/4	3/4	3/4	—	
1 1/4	3/4	1	5604	
1 1/4	3/4	1 1/4	1006	
1 1/4	3/4	1 1/2	—	
1 1/4	3/4	2	—	
1 1/4	1	1/2	1009	
1 1/4	1	3/4	—	
1 1/4	1	1	1011	
1 1/4	1	1 1/4	1012	
1 1/4	1	1 1/2	—	
1 1/4	1	2	—	
1 1/4	1 1/4	1/2	1013	
1 1/4	1 1/4	3/4	1014	
1 1/4	1 1/4	1	1015	
1 1/4	1 1/4	1 1/2	—	
1 1/4	1 1/2	2	—	
1 1/2	1/2	1 1/4	5607	
1 1/2	1/2	1 1/2	—	
1 1/2	3/4	1/2	—	
1 1/2	3/4	3/4	—	
1 1/2	3/4	1	—	
1 1/2	3/4	1 1/4	5608	
1 1/2	3/4	1 1/2	1019	
1 1/2	1	1	—	
1 1/2	1	1 1/4	5612	
1 1/2	1	1 1/2	1022	
1 1/2	1 1/4	1/2	21181	
1 1/2	1 1/4	3/4	5613	
1 1/2	1 1/4	1	5614	
1 1/2	1 1/4	1	1023	
1 1/2	1 1/4	1	1024	
1 1/2	1 1/4	2	32718	
1 1/2	1 1/2	3/8	39334	

SIZE			FIG	PRICE
A	B	C		
1 1/2	1 1/2	1/2	1025	
1 1/2	1 1/2	3/4	1026	
1 1/2	1 1/2	1	1027	
1 1/2	1 1/2	1 1/4	1028	
1 1/2	1 1/2	2	—	
2	1/2	2	—	
2	3/4	11/4		
2	3/4	1 1/2	5616	
2	3/4	2	—	
2	1	3/4	39330	
2	1	1	—	
2	1	1 1/4	—	
2	1	1 1/2	—	
2	1	2	—	
2	1 1/4	1	32721	
2	1 1/4	1 1/4	—	
2	1 1/4	1 1/2	5621	
2	1 1/4	2	—	
2	1 1/2	1/2	20597	
2	1 1/2	3/4	23495	
2	1 1/2	1	—	
2	1 1/2	1 1/4	—	
2	1 1/2	1 1/2	—	
2	1 1/2	2	1036	
2	2	1/2	1037	
2	2	3/4	1038	
2	2	1	1039	
2	2	1 1/4	1040	
2	2	1 1/2	1041	
2	2	2 1/2	—	
2	2	3	—	
2 1/2	2	1 1/2	—	
2 1/2	2	2	—	
2 1/2	2	2 1/2	—	
2 1/2	2 1/2	1/2	—	
2 1/2	2 1/2	3/4	1047	
2 1/2	2 1/2	1	1048	
2 1/2	2 1/2	1 1/4	1049	
2 1/2	2 1/2	1 1/2	1050	
2 1/2	2 1/2	2	—	
3	1	3	—	
3	1 1/4		—	
3	1 1/2	2 1/2	—	
3	1 1/2	3	—	
3	2	1 1/2	—	
3	2	2	1053	
3	2	2 1/2	—	
3	2	3	—	
3	2 1/2	1	—	
3	2 1/2	1 1/4	32739	
3	2 1/2	1 1/2		
3	2 1/2	2	32741	
3	2 1/2	2 1/2	—	
3	2 1/2	3	—	
3	3	1/2	32742	
3	3	3/4	—	
3	3	1	—	
3	3	1 1/4	—	
3	3	1 1/2	—	
3	3	2	—	
3	3	2 1/2	—	
3	3	4	—	

CAST IRON FLANGES

COMPANION FLANGES (Threaded)



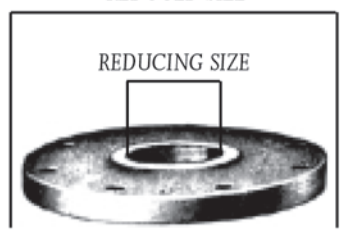
BLIND FLANGES



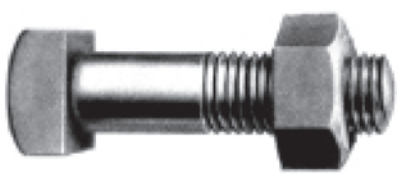
125 LB. STANDARD					
SIZE	O.D.	COMPANION		BLIND	
		FIG NO	PRICE	FIG NO	PRICE
3/4	3 7/8	12011		-	
1	4 1/4	12018		-	
1 1/4	4 5/8	1180		12045	
1 1/2	5	1181		12046	
2	6	1182		12048	
2 1/2	7	1183		12049	
3	7 1/2	1184		12050	
3 1/2	8 1/2	-		-	
4	9	1185		12054	
5	10	5636		12055	
6	11	1186		12057	
7	13 1/2			-	
8	-	-		12058	
10	16	-		-	
12	19	-		-	

250LB. STANDARD		
SIZE	COMPANION	
	FIG NO	PRICE
-	-	
-	-	
-	-	
-	-	
2 X 6 1/2	18314	
2 1/2 X 7 1/2	18315	
3 X 8 1/4	18316	
9	-	
4 X 10	18317	
11	-	
6 X 12 1/2	18318	
-	-	
-	-	
-	-	

REDUCING FLANGE



FLANGE BOLTS AND NUTS



SIZE		BOLT		HEAVY HEX NUT		WASHER	
		FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
1/2	2 1/4	14552		14542		50642	
5/8	2 3/4	14554		14546		55291	
	3	14555		-		-	
	3 1/2	14557		-		-	
	4 1/2	23734		-		-	
	5	24140		-		-	
	5 1/2	23733		-		-	
3/4	3 1/4	14559		14547		55486	
	3 1/2	14562		-		-	
	3 3/4	14565		-		-	
7/8	4	14566		14549		14370	

125 LB. STANDARD				
Reduced Size Flange O.D.	Reducing Size (Threaded Size)	Reduced Size (Flange Size)	FIG NO	PRICE
6	1 1/2	2	32776	
7	2	2 1/2	12064	
7 1/2	1 1/2	3	32777	
7 1/2	2	3	12065	
7 1/2	2 1/2	3	12068	
9	2	4	12070	
9	2 1/2	4	12072	
9	3	4	12075	
10	2 1/2	5	19493	
10	3	5	12077	
10	4	5	12082	
11	2 1/2	6	19494	
11	3	6	12085	
11	4	6	12086	
11	5	6	20774	
13 1/2	6	8	32778	

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

125 LB. CAST IRON FLANGED FITTINGS

(STANDARD, BLACK, FACED AND DRILLED)



90° Elbow



45° Elbow



Tee



Cross

Size	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
2 1/2	12089		-		12112		-	
3	12092		-		12113		-	
4	12095		-		12114		22265	
5	-		-		-		-	
6	12097		12109		12115		23502	



Concentric Reducer

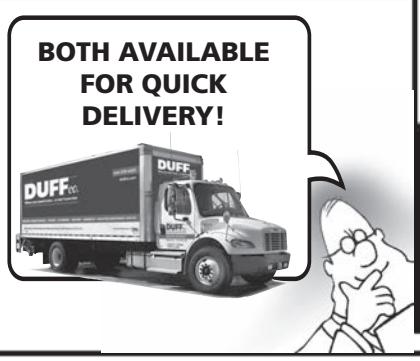
Size	Fig No	Price
3x2 1/2	12116	
3x2	-	
4x3	12120	
4x2	12121	
5x3	-	
5x4	-	
6x4	12122	
6x3	12124	



Reducing 90° Elbow



Wye

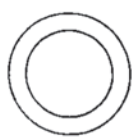


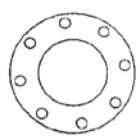
FLANGED FITTINGS ALSO AVAILABLE IN EXTRA HEAVY (250LB.)

FLANGE GASKETS









	NON-ASBESTOS								RED RUBBER			
	RING				FULL FACE							
	Standard (125#/150#)		Extra Heavy (250#/300#)		Standard (125#/150#)		Extra Heavy (250#/300#)		Ring Standard		Full Face Standard	
Size	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
1/2	29935		—		29936		40978		23555		29939	
3/4	23177		—		29937		40979		27955		29940	
1	8003		36007		8065		40980		8103		8145	
1 1/4	8007		40968		8067		40981		8107		8149	
1 1/2	8012		36008		8070		40982		8112		8152	
2	8019		40969		8073		35698		8114		8154	
2 1/2	8022		40970		8076		35696		8118		8156	
3	8025		35975		8079		40983		8120		8160	
3 1/2	8029		40971		8082		40984		8124		8163	
4	8032		40972		8085		40985		8126		8166	
5	8039		40973		8088		40986		8129		8167	
6	8050		40974		8089		40987		8133		8171	
8	8054		40975		8094		40988		8136		67232	
10	8057		40976		8096		40989		8139		8176	
12	8061		40977		8099		40990		8142		8178	

FLANGE AND BOLTING DIMENSIONS

125 & 150 LB STEEL FLANGES

NOM PIPE SIZE	DIAM OF BOLT CIRCLE	DIAM OF BOLTS	NO. OF BOLTS	LENGTH OF STUDS 1/16" RAISED FACE	BOLT LENGTH	FLANGE OD
1/2	2 3/8	1/2	4	2 1/4	1 3/4	3 1/2
3/4	2 3/4	1/2	4	2 1/4	2	3 7/8
1	3 1/8	1/2	4	2 1/2	2	4 1/4
1 1/4	3 1/2	1/2	4	2 1/2	2 1/4	4 5/8
1 1/2	3 7/8	1/2	4	2 3/4	2 1/4	5
2	4 3/4	5/8	4	3	2 3/4	6
2 1/2	5 1/2	5/8	4	3 1/4	3	7
3	6	5/8	4	3 1/2	3	7 1/2
3 1/2	7	5/8	8	3 1/2	3	8 1/2
4	7 1/2	5/8	8	3 1/2	3	9
5	8 1/2	3/4	8	3 3/4	3 1/4	10
6	9 1/2	3/4	8	3 3/4	3 1/4	11
8	11 3/4	3/4	8	4	3 1/2	13 1/2
10	14 1/4	7/8	12	4 1/2	3 3/4	16
12	17	7/8	12	4 1/2	4	19
14	18 3/4	1	12	5	4 1/4	21
16	21 1/4	1	16	5 1/4	4 1/2	23 1/2
18	22 3/4	1 1/8	16	5 3/4	4 3/4	25
20	25	1 1/8	20	6	5 1/4	27 1/2
22	27 1/4	1 1/4	20	6 1/2	5 1/2	29 1/2
24	29 1/2	1 /14	20	6 3/4	5 3/4	32
26	31 3/4	1 1/4	24	7	6	34 1/4
30	36	1 1/4	28	7 1/4	6 1/4	38 3/4
34	40 1/2	1 1/2	32	8	7	43 3/4
36	42 3/4	1 1/2	32	8 1/4	7	46
42	49 1/2	1 1/2	36	8 3/4	7 1/2	53

250 & 300 LB STEEL FLANGES

NOM PIPE SIZE	DIAM OF BOLT CIRCLE	DIAM OF BOLTS	NO. OF BOLTS	LENGTH OF STUDS 1/16" RAISED FACE	BOLT LENGTH	FLANGE OD
1/2	25/8	1/2	4	2 1/2	2	3 3/4
3/4	3 1/4	5/8	4	2 3/4	2 1/2	4 5/8
1	3 1/2	5/8	4	3	2 1/2	4 7/8
1 1/4	3 7/8	5/8	4	3	2 3/4	5 1/4
1 1/2	4 1/2	3/4	4	3 1/2	3	6 1/8
2	5	5/8	8	3 1/4	3	6 1/2
2 1/2	5 7/8	3/4	8	3 3/4	3 1/4	7 1/2
3	6 5/8	3/4	8	4	3 1/2	8 1/4
3 1/2	7 1/4	3/4	8	4 1/4	3 3/4	9
4	7 7/8	3/4	8	4 1/4	3 3/4	10
5	9 1/4	3/4	8	4 1/2	4	11
6	10 5/8	3/4	12	4 3/4	4 1/4	12 1/2
8	13	7/8	12	5 1/4	4 3/4	15
10	15 1/4	1	16	6	5 1/4	17 1/2
12	17 3/4	1 1/8	16	6 1/2	5 3/4	20 1/2
14	20 1/4	1 1/8	20	6 3/4	6	23
16	22 1/2	1 1/4	20	7 1/4	6 1/2	25 1/2
18	24 3/4	1 1/4	24	7 1/2	6 3/4	28
20	27	1 1/4	24	8	7	30 1/2
22	29 1/4	1 1/2	24	8 3/49	7 1/2	33
24	32	1 1/2	24	9	7 3/4	36
26	34 1/2	1 5/8	28	10	8 3/4	38 1/4
30	39 1/4	1 3/4	28	11 1/4	10	43
34	43 1/2	1 7/8	28	12 1/4	10 3/4	47 1/2
36	46	2	32	12 3/4	11 1/4	50
42	42 3/4	2	36	13 3/4	13 1/2	57

Stud lengths for lap joint flanges are equal to lengths shown plus the thickness of two laps of the stub ends

DUFF TIP:1

Bolting arrangement for 125 lb. cast iron flanges are the same as shown for 150 lb. steel flanges.

DUFF TIP:2

Bolting arrangement for 250 lb. cast iron flanges are the same as shown for 300 lb. steel flanges.

FLEXITALLIC GASKETS



Flexitallic Gaskets - The solid metal compression ring make the gasket easier to install and adds to service life. As a simple centering device, it provides fast accurate seating of the gasket in the flange. During "bolt-up", it prevents crushing the gasket beyond the predetermined thickness. In operation, it eliminates excess strain on studs. The solid compression ring resists radial pressure, thus preventing blowout of the spirally wound area. Recommended for standard piping where superior service life is required under wide variations in pressure and/or temperature.

300# ALSO AVAILABLE!

150#		
Size	Fig No	Price
1/2"	58311	
3/4"	58312	
1"	58314	
1 1 /4"	—	
1 1 /2"	58316	
2"	57667	
3"	57908	
4"	—	
5"	58320	
6"	58321	
8"	58323	
10"	57925	
12"	57926	
14"	57927	

For additional information call: 610-275-4453 or Fax: 610-279-6299.

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PIPE WEIGHTS AND WALL THICKNESS

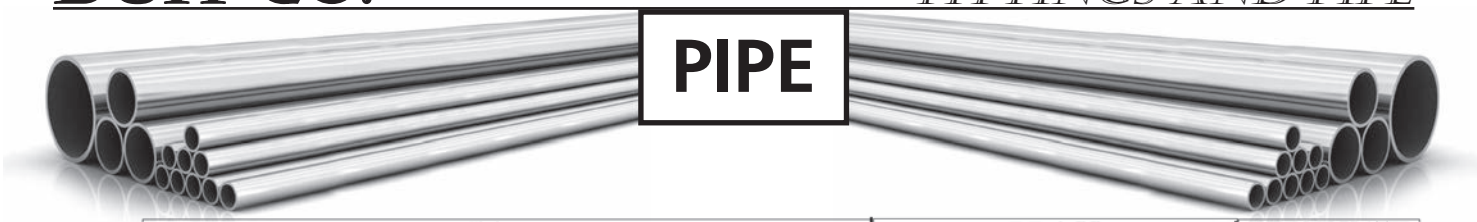
Pipe Size Nominal	OD (Inches)	5	10	20	30	STD	40	60	XH	80	100	120	140	160	XXH
1	1.315	.065 0.87	.109 1.41			.133 1.68	.133 1.68		.179 2.17	.179 2.17				.250 2.85	.358 3.66
1 1/4	1.66	.065 1.11	.109 1.81			.140 2.27	.140 2.27		.191 3.00	.191 3.00				.250 3.77	.382 5.22
1 1/2	1.9	.065 1.28	.109 2.09			.145 2.72	.145 2.72		.200 3.63	.200 3.63				.281 4.86	.400 6.41
2	2.375	.065 1.61	.109 2.64			.154 3.66	.154 3.66		.218 5.03	.218 5.03				.344 7.47	.436 9.04
2 1/2	2.875	.083 2.48	.120 3.53			.203 5.80	.203 5.80		.276 7.67	.276 7.67				.375 10.02	.552 13.71
3	3.5	.083 3.03	.120 4.34			.216 7.58	.216 7.58		.300 10.26	.300 10.26				.438 14.34	.600 18.60
3 1/2	4	.083 3.48	.120 4.98			.226 9.12	.226 9.12		.318 12.52	.318 12.52					.636 22.87
4	4.5	.083 3.92	.120 5.62			.237 10.80	.237 10.80	.281 12.67	.337 15.00	.337 15.00		.437 19.02		.531 22.53	.674 27.57
4 1/2	5					.247 12.55			.355 17.63						.710 32.56
5	5.563	.109 6.36	.134 7.78			.258 14.63	.258 14.63		.375 20.80	.375 20.80		.500 27.06		.625 32.99	.750 38.59
6	6.625	.109 7.59	.134 9.30			.280 18.99	.280 18.99		.432 28.60	.432 28.60		.562 36.43		.719 45.39	.864 53.21
8	8.625	.109 9.92	.148 13.41	.250 22.38	.277 24.72	.322 28.58	.322 28.58	.406 35.67	.500 43.43	.500 43.43	.593 50.92	.718 60.69	.812 67.82	.906 74.76	.875 72.49
10	10.75	.134 15.21	.165 18.67	.250 28.06	.307 34.27	.365 40.52	.365 40.52	.500 54.79	.500 54.79	.594 64.49	.719 77.10	.844 89.38	1.000 104.23	1.125 115.75	1.000 104.23
12	12.75	.165 22.20	.180 24.19	.250 33.41	.330 43.81	.375 49.61	.406 53.57	.562 73.22	.500 65.48	.688 88.71	.843 107.30	1.000 125.61	1.125 139.81	1.312 160.42	1.000 125.61
14	14		.250 36.75	.312 45.65	.375 54.62	.375 54.62	.438 63.50	.594 85.13	.500 72.16	.750 106.23	.937 130.85	1.093 150.81	1.250 170.37	1.406 189.29	
16	16		.250 42.09	.312 52.32	.375 62.64	.375 62.64	.500 82.85	.656 107.60	.500 82.85	.844 136.74	1.031 164.98	1.219 192.61	1.438 223.85	1.594 245.48	
18	18		.250 47.44	.312 58.99	.438 82.23	.375 70.65	.562 104.76	.750 138.30	.500 93.54	.938 171.08	1.156 208.15	1.375 244.37	1.562 274.48	1.781 308.79	
20	20		.250 52.78	.375 78.67	.500 104.23	.375 78.67	.593 123.02	.812 166.56	.500 104.23	1.031 209.06	1.281 256.34	1.500 296.65	1.750 341.41	1.969 379.53	
22	22		.250 58.13	.375 86.69	.500 114.92	.375 86.69		.875 197.60	.500 114.92	1.125 251.05	1.375 303.16	1.625 353.94	1.875 403.38	2.125 451.49	
24	24		.250 63.47	.375 94.71	.562 140.81	.375 94.71	.688 171.45	.969 238.57	.500 125.61	1.219 296.86	1.531 367.74	1.812 429.79	2.062 483.57	2.343 542.44	
26	26		.312 85.68	.500 136.30		.375 102.72			.500 136.30						
28	28		.312 92.35	.500 146.99	.625 182.90	.375 110.74			.500 146.99						
30	30		.312 99.02	.500 157.68	.625 196.26	.375 118.76			.500 157.68						
32	32		.312 105.69	.500 168.37	.625 209.62	.375 126.78	.688 230.29		.500 168.37						
34	34		.312 112.36	.500 179.06	.625 222.99	.375 134.79	.688 245.00		.500 179.06						
36	36		.312 119.03	.500 189.75	.625 236.35	.375 142.81	.750 282.62		.500 189.75						
42	42					.375 166.86			.500 221.82						
48	48					.375 190.92			.500 253.89						
54	54					.375 214.97			.500 285.96						

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DUFF CO.
When you need it now... or don't know how

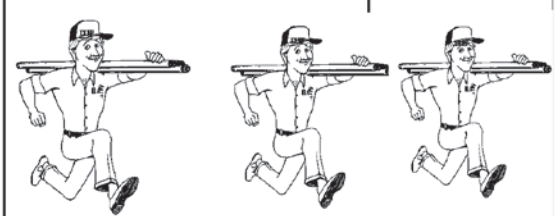
Material is available in sizes 1/8" through 60" and pressures from 150# to 15000#.

We have over 65 years of experience in the industry and are confident that we will be an effective vendor for our clients.

PIPE



	STEEL				BRASS		CHROME PLATED BRASS
	SCHEDULE 40 (Standard Wall)			SCHEDULE 80 (Extra Heavy)	SCHEDULE 40	SCHEDULE 80	SCHEDULE 40
	BLACK Threaded & Coupled	GALVANIZED Threaded & Coupled	BLACK Plain End	BLACK Plain End	12' Lengths		6' Lengths
SIZE	FIG. NO. PRICE	FIG. NO. PRICE	FIG. NO. PRICE	FIG. NO. PRICE	FIG. NO. PRICE	FIG. NO. PRICE	FIG. NO. PRICE
1/8	13478	13570	-	13492	21146		-
1/4	13571	70	-	5333	7665		-
3/8		11	-	5334	7666		12657
1/2	8815	12	13479	5335	7667		12659
3/4	5677	13	13480	5336	7668		12676
1	3	14	13481	5337	7672		12677
1 1/4	4	15	13482	5338	7673		12679
1 1/2	5	16	13483	5339	7674		12686
2	6	17	13484	5340	7675		12689
2 1/2	7	18	13485	5341	-		-
3	8	19	13486	5342	7677		-
3 1/2	5343	-	13488	-			
4	9	13504	13489	13496			
5	-	-	13563	-			
6	-	-	13564	-			
8	-	-	13565	-			
10	-	-	13566	-			
12	-	-	13569	-			



- Steel pipe provided in 21 ft. lengths through 4". Sizes 5"and above are provided in single random lengths, 17 ft. through 22 ft. Prices are per length through 4"and per foot for 5"and above.
- Larger size and heavier wall pipe are always available from stock. As is seamless, pressure pipe and tubing in all sizes and wall thicknesses.
- Structural pipe and used pipe always available.
- Pipe cut to size upon request.
- Galvanized schedule 80 is also available.

CALL FOR GLASS PIPE, TEFLON LINED PIPE, ALLOY PIPE, ALL TYPES OF EXTRUCOATED (COATED FOR GAS SERVICE) PIPE

AVAILABLE IN S S STAINLESS STEEL

DUFF TIP: ***The outside diameter of all pipe is always the same no matter what the wall thickness is. For example, 1/2" nominal pipe always has an od of .84 whether it is schedule 40 or schedule 80 steel, brass. PVC, etc.***

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

PIPE OUTSIDE DIAMETER GUIDE

IMPORTANT: This pipe OD guide is furnished for your convenience and is based on the latest pipe standards and information supplied by pipe manufacturers. Due to occasional changes in outiside diameters by pipe manufacturers, the pipe OD or circumference should always be checked and furnished when ordering fittings.

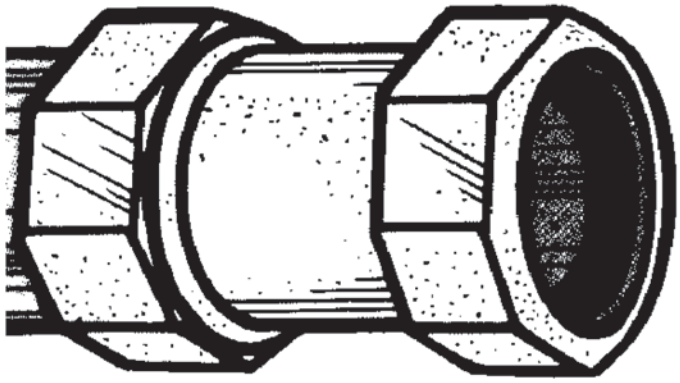
Nominal Pipe Size (Inches)	Vi	%	1	1%	1 Vz	2	2Vz	3	4	5	6	8	10	12	14	15	16	18	20	24	30
Copper Tubing	63	88	1 13	1.38	1 63	2 13	2 63	3 13	4.13	5 13	6.13										
Steel Pipe—Schedule 40	.84	1.05	1 32	1 66	1 90	2.38	2 88	3 50	4.50	5.56	6.63	8.63	10.75	12.75	14.00		16.00	18.00	20.00	24.00	30.00
Plastic Pipe—(P V.C.)—STD			1 32		1.90	2.38	2.88	3 50	4,50		6.63	8.63	10.75	12.75							
Plastic Pipe—(P V C.)—C 1. Size									4.80		6.90	9 05	11.10	13.20							
Polyethylene Tubing & Pipe	P E Tubing Can Be To Iron Copoer Or Schedule 40 Size							3.50	4 50		6.63	8.63	10.75	12 75	14.00		16 00	18.00	20.00	24 00	
Polyethylene Pipe—"Sclair"						2 38		3 50	4 50		6 63	8 63	9.90	12 47	14.05		15.85	17.87	19 84	25 02	
Plastic Irrigation Pipe (PIP)									4 13		6 14	8.16	10.20	12.24		15 30					
CAST IRON PIPE																					
Class 100-250 AWWA Centrifical								3.96	4.80		6 90	9.05	1110	13.20	15.30		17.40	19 50	21.60	25 80	32 00
Class A AWWA Pit Cast						2.50		3.80	4 80		6.90	9.05	11.10	13.20	15.30		17 40	19 50	21.60	25 80	31 74
Class B AWWA Pit Cast								3.96	5 00		7 10	9.05	11.10	13 20	15 30		17 40	19 50	21 60	25 80	32 00
Class C-D AWWA Pit Cast								3 96	5 00		7 10	9.30	11 40	13.50	15 65		17.80	19 92	22 06	26 32	
ASBESTOS-CEMENT PIPE																					
CLASS 100																					
Machined End								3 74	4 64		6 91	9.11	11.24*	13.44*	15.07		17 15				
Fluid-Tite Rough Barrel								3 93	5 05		7 16	9 32	11.46	13.70	15.36		17.50				
Flmtite Rough Barrel								3.94	4.90		7 13	9 33	11.30	13 42	15.45		17 60				
Ring-Tite Rough Barrel								3.95	4 92		7.19	9 39	11.47	13 74	15.51		17.65				
Permaflex Rough Barrel									4 84		7.15	9 35	11.47	13.74	15.55		17 55				
Minimum Standard Rough Barrel									4 79		7.05	9 22	11 25	13.37	15 36		17.50				
Maximum Standard Rough Barrel									5 26		7 40	9.57	11.77	14.04	15.80		17.94				
CLASS 150																					
Machined End								3 84	4.81		6.91	9.11	11.66	13.92	16.22		18.46				
Fluid-Tite Rough Barrel								4.03	5 14		7.12	9.32	11.85	14 11	16.41		18.65				
Flmtite Rough Barrel								4 04	5 01		7.13	9.33	11.88	14.14	16.48		18.72				
Ring-Tite Rough Barrel								4.13	5.07		7.17	9 37	11.92	14.18	16.48		18.72				
Permaflex Rough Barrel									5.00		7.20	9 40	11.92	14.20	16.50		18.75				
Minimum Standard Rough Barrel									4 97		7.0 7	9.27	11 82	14.08	16.38		18.62				
Maximum Standard Rough Barrel									5.32		7.37	9 62	12.12	14.38	16.73		18 97				
CLASS 200																					
Machined End								3.84	4,81		6 91	9.11	11.66	13.92	16.22		18 46				
Fluid-Tite Rough Barrel								4.18	5.32		7.36	9.46	11 88	14 11	16.44		18 74				
Flmtite Rough Barrel								4 17	5.32		7 26	9 44	11.88	14.14	16.53		18 84				
Ring-Tite Rough Barrel								4 17	5.33		7.32	9 50	11 92	14.18	16.55		18 90				
Permatlex Rough Barrel									5.32		7.26	9 50	11 95	14.20	16.55		18 90				
Minimum Standard Rough Barrel									5.22		7.26	9 39	11.77	14.03	16.44		18 74				
Maximum Standard Rough Barrel									5.57		7 60	9 79	12.12	14.38	16.88		19 19				
	VI	3/4	1	1V«	V/2	2	2Vz	3	4	5	6	8	10	12	14	15	16	18	20	24	30

*Flinite ME is 10.89 for 10" and 12.99 for 12" sizes.

IMPORTANT: Please refer to the manufacturers data supplied at time of pipe installation or measure the pipe OD or circumference prior to the ordering of fittings.

DUFF NOTE: Always check pipe OD before ordering couplings.

CLAMPS AND COUPLINGS
COMPRESSION COUPLINGS



Compression couplings provide a quick, low clost, time proven, simple to install, flexible connection for steel pipe and copper tube.

DEFLECTION-*Can accomodate moderate deflection to join misaligned pipe or absorbe settlement, or other moderate pipe movement after installation.*

LIMITED SPACE-*Easy to install in cramped space with no threading or exact cutting of pipe.*

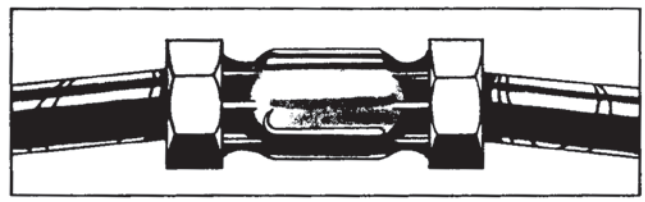
JOIN PLAIN END PIPE-*Compression coupling join plain end pipe. No threading, grovving, flaring, brazing or welding is necessary. Threading or grooving removes up to 40% of the pipe wall, creating a weakened area.*

FAST, SIMPLE INSTALLATION-*Simply stabe the assembled coupling into the pipe, center and tighten the compression nuts. Requires no spectial training.*

NO EXACT PIPE FITTING-*Compression couplings do not require exact cutting and fitting of pipe.*

FAST CUT-IN-*A pair of compression couplings provide a fast means of replacing a damanged section of pipe or addimg valves, meters, regulators, or appliances to a pipeline. Simply cut out a section of pipe and insert the new pipe section or fittings. No threadimg or exact pipe fitting required.*

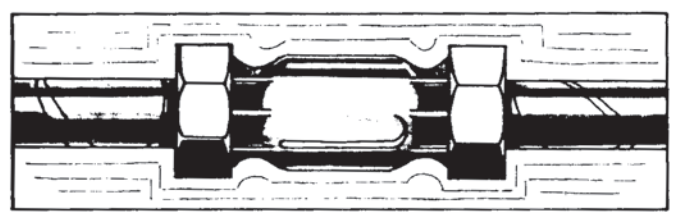
BETTER THAN UNION-*Compression couplings do not require treading or exact cutting of pipe. Are faster and easier to install than ground joint union.*



MISALIGNED PIPE Couplings eliminate the need for exact mating of pipe ends. Up to 6° deflection is permissible.



PIPE MOVEMENT After installation, moderate movement of pipe due to external loads, ground settlement or expansion/ contraction will not affect the seal. Such conditions create severe stresses in threaded joints or unions.



VIBRATION Over a period of time vibration in piping can cause damage creating hazards. Rockwell couplings act as dampeners absorbing vibration and noise.

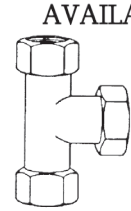
STEEL			BRASS		
STEEL PIPE SIZE	FIG. NO.	PRICE	COPPER TUBE SIZE	FIG. NO.	PRICE
1/2	7292		1/2	7306	
3/4	17602		3/4	7307	
1	7294		1	7308	
1 1/4	7295		1 1/4	7309	
1 1/2	7296		1 1/2	7310	
2	7297		2	7317	
2 1/2	7298				
3	158368				

STEAM-RATED LOW-PRESSURE "DRESSER" STYLE COMPRESSION COUPLINGS

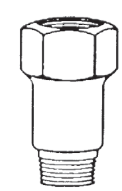
SIZE	FIG NO.
1/2"	156600
3/4"	156601
1"	156602
1-1/4"	156603
1-1/2"	156604
2"	156605
3"	213747



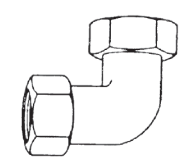
OTHER COMPRESSION FITTINGS AVAILABLE FOR IMMEDIATE DELIVERY



GALVANIZED TEE WITH ARMORED GASKET



MALE ADAPTER WITH ARMORED GASKET



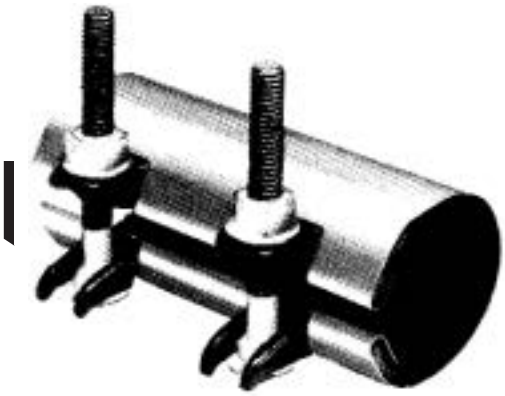
GALVANIZED ELBOW

For additional information call: 610-275-4453 or Fax: 610-279-6299.

Please call for current prices.

CLAMPS AND COUPLINGS

REDI-CLAMPS

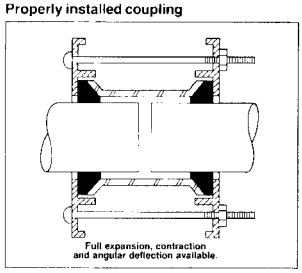


Redi-Clamps provide a fast, economical means of repair for pinholes, punctures or splits in pipe. The gaskets have finely gridded surfaces that will conform to irregularities on the pipe surface and provide superior sealing ability on rough or pitted areas. The bands are stainless steel, selected to meet the exacting requirements of corrosion resistance, flexibility and strength. The lugs are precision cast ductile iron with a contoured surface to equalize clamping pressure around the pipe. The lug design includes a drop-in bolt feature that eliminates loose parts, saves time and aids installation under adverse conditions.

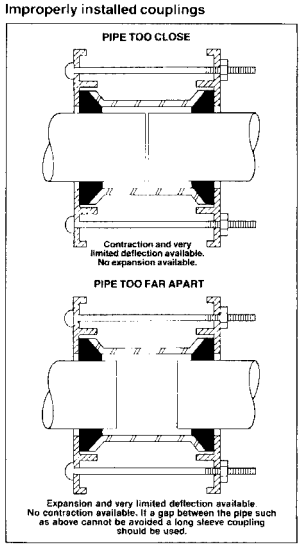
NOMIAL SIZE	OD IN INCHES	WIDTH IN INCHES	FIG. NO.	PRICE
1/2	.84	3	7493	
1/2	.84	6	7495	
3/4	1.05	3	7500	
3/4	1.05	6	7502	
1	1.32	3	7526	
1	1.32	6	7529	
1 1/4	1.66	3	7539	
1 1/4	1.66	6	7546	
1 1/2	1.90	3	7549	
1 1/2	1.90	6	7551	
2	2.38	3	7366	
2	2.38	6	7370	
2 1/2	2.88	3	7375	
2 1/2	2.88	6	7376	
3	3.50	3	7380	
3	3.50	6	7402	
3 1/2	4.00	6	39049	
4	4.50	3	7405	
4	4.50	6	7408	
5	5.56	3	7410	
5	5.56	6	7411	
6	6.63	3	7423	
6	6.63	6	7426	
8	8.63	3	7428	
8	8.63	6	7430	

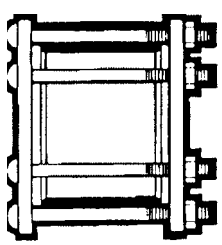
BOLT-TYPE

Properly installed coupling



Improperly installed couplings



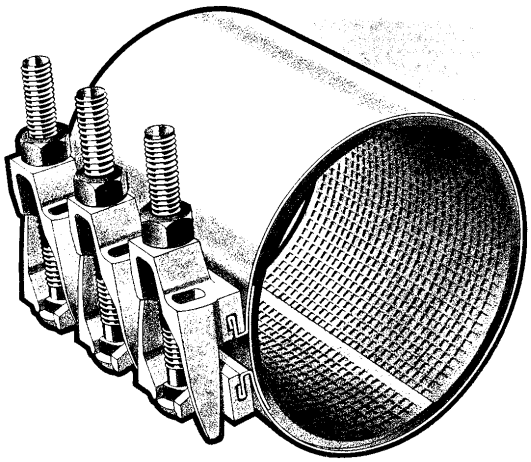


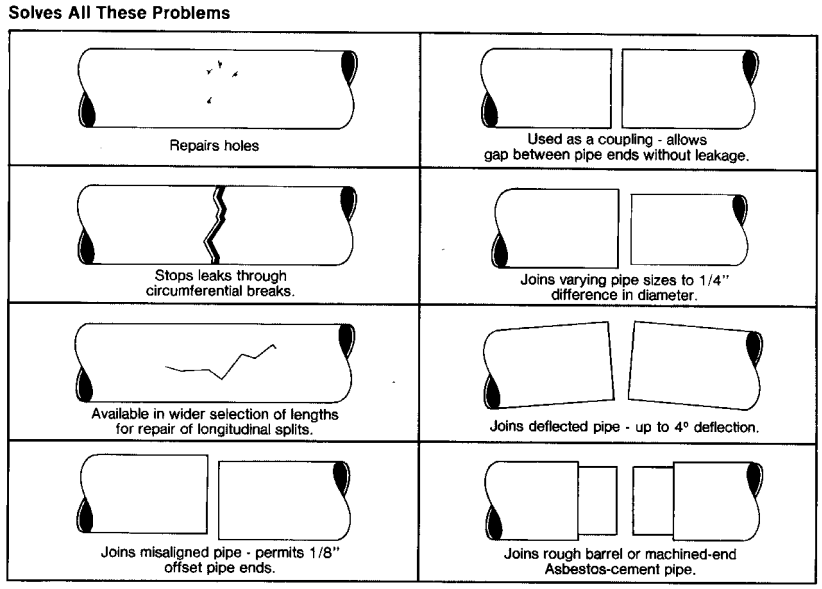
STEEL PIPE SIZE	OD INCHES	BOLTS	SLEEVE LENGTH INCHES	FIG. NO.	PRICE
1 1/4	1.66	2	5	40028	
1 1/2	1.90	2	5	22399	
2	2.38	2	5	7321	
2 1/2	2.88	2	5	7328	
3	3.50	3	5	17728	
4	4.50	4	7	7334	
5	5.56	4	7	7335	
6	6.63	6	7	7338	
8	8.63	6	10	7340	
10	10.75	8	10	7341	

These steel bolt-type couplings are referred to as "Flexible Coupling" or "Mechanical Joints". They provide a flexible, strong, leak-resistant joint. Flexible couplings are designed to float on the pipeline. Therefore, stresses resulting from expansion, contraction and deflection are relieved. The ability of the coupling to absorb deflection permits the laying of pipelines on curves and grades using straight lengths of pipe. Working pressure = Up to 1500 PSI depending on size. Temperature = 150o or higher with special gaskets.

CLAMPS AND COUPLINGS

FULL CIRCLE REPAIR CLAMPS





Flexible repair clamps consisting of one or more stainless steel band sections to which cast lugs are securely attached to accomodate bolts and nuts for the purpose of mounting the clamp on pipe. It has a full encirclement tapered, overlapping, gridded gasket with a flush mounted, bonded-in stainless steel bridge plate to span the band opening between the lugs, to provide a full circumferential seal on the pipe.

A full circle clamp coupling is fast and simple to install, and requires no special tools. The clamp is wrapped around the pipe, properly positioned over the area to be repaired or connected, and the bolts tightened. This compacts the rubber gasket tightly against the full circumference of the pipe wall forming a leak resistant seal.



ALL SIZES ALSO AVAILABLE IN TAPPED FULL CIRCLE CLAMP COUPLINGS!

NOT JUST A REPAIR CLAMP

Full circle clamp couplings are often used as a coupling to join plain end pipe for new installations and pipe replacement programs.

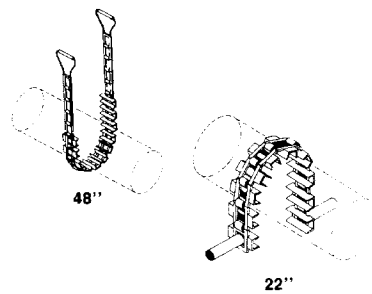
STEEL PIPE NOMINAL SIZE	OD RANGE INCHES	WIDTH INCHES	FIGURE NUMBER	PRICE
1 1/4	1.66	7.5	7448	
1 1/2	1.88-1.92	7.5	7451	
2	2.35-2.63	7.5	7452	
2 1/2	2.70-3.00	7.5	7453	
3	2.97-3.25	7.5	7456	
3 1/2	3.96-4.25	7.5	22398	
4	4.45-4.73	10	7459	
5	5.22-5.62	10	7460	
6	6.56-6.96	10	7462	
8	8.54-8.94	10	7463	
10	10.64-11.04	10	7464	

AVAILABLE IN S S STAINLESS STEEL

Smith-Blair Clamp and Coupling products

DUFF

PIPE SCRAPERS



LENGTH	FIG NO	PRICE
48"	DC230037	
22"	DC230038	

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

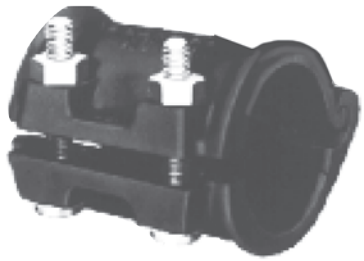
CLAMPS AND COUPLINGS



PIPE JOINT CLAMP - For stopping leaks at joints where pipe is screwed into a fitting. Quickly put on under pressure - without interruption of service. The Skinner Pipe Joint Clamp will withstand tremendous pressure. Saves the cost of tearing out and renewing leaky fittings. A positive repair not hindered by vibration or expansion. In use over 80 years on gas, oil, gasoline, steam, water, ammonia and brine leaks.

The sliding push ring in the Skinner Pipe Joint Clamp transmits the pressure of the thrust screws to the gasket. The gasket, completely confined and guided by the lip on the face of the container ring, is forced directly into the threads, stopping the leak at its source. For temperatures over 300o, we can furnish clamps with silicone gaskets at additional an cost.

SIZE	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
FIG. NO.	40926	40927	40928	40930	40929	40931	40932	40933	40934	40935
PRICE										



EMERGENCY CLAMP - For repairing pit holes, splits and corrosion leaks in both steel and cast iron pipe lines. Absolutely effective under extreme pressure or temperature. The universal repair clamp, the world over, for over three quarters of a century. Use on gas, water, steam, oil, ammonia, almost anything! The repair lasts for years. The emergency pipe clamp offers a triple economy. It saves: the cost of new pipe - the job of abandoning the old pipe and putting in the new - the expense of shutting down while work is being done, often thousands of dollars. It's no job at all to put on an emergency pipe clamp. Owing to the long open hinge, the two halves of the clamp may be slid together along the pipe, when conditions are crowded. The clamp is usually put on under pressure - without interruption of service. Gasket, cemented into slight recess in bottom half, cannot "blow out". Bolts can be inserted from either side so that clamp can be installed easily under the most most awkward conditions. Made of malleable iron, strongly proportioned, and fitted with sturdy, electro-plated Iridite dipped steel bolts. Note the raised bosses for wrench convenience. All clamps painted to resist rust.

SIZE	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
FIG. NO.	40916	40917	40918	40919	40920	40921	40922	40923	40924	40925
PRICE										

DUFF TIP:

Don't forget to order nuts, bolts and gaskets with your flanges.



DUFF gladly accepts VISA & Mastercard

CORRUGATED STEEL PIPE AND PIPE ARCHES

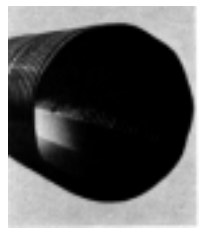
PLAIN GALVANIZED



Plain galvanized pipe is fabricated or copper-bearing steel for maximum service life. This pipe meets the applicable requirements of both Federal and State Highway specifications.

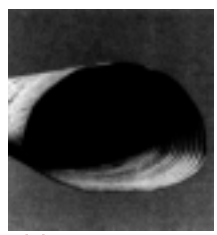
	PIPE		COUPLING	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE
8	43685		50743	
10	43686		50744	
12	6192		50745	
15	6194		50746	
18	6195		50747	
21	6196		50748	
24	6197		50749	
30	6198		50750	
36	6199		50751	

FULLY ASPHALT-COATED AND PAVED



Designed for maximum service life where corrosion and wear are usually severe. The pipe is completely coated with asphalt, and is paved in the bottom quarter (90°)

CONVOLUTED (ARCHED) PIPE

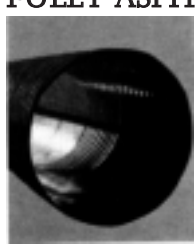


HALF ASPHALT-COATED AND PAVED



Recommended wherever corrosion or surface-wearing elements are factors. Lower half (180 deg.) of pipe is asphalt coated and a smooth paving in the bottom quarter (90 deg) completely covers the corrugations.

FULLY ASPHALT-COATED



Fully asphalt coated pipe is designed for installations where corrosive elements are present in the water or earth. This extra protection is also recommended where solids are waterborne.





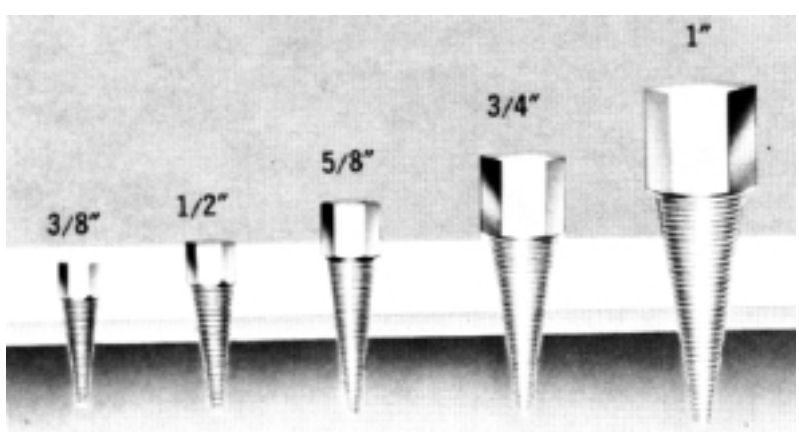


VESSEL OPENINGS

MAN HOLE HANDHOLE CLOSURE

ALL AVAILABLE IMMEDIATELY!

LEAK REPAIR PLUGS



SIZE	FIG NO	PRICE
3/8	20716	
1/2	20717	
5/8	20718	
3/4	20719	
1	20763	

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

125 LB. CAST BRASS FITTINGS



90° Elbow



90° Street Elbow



Side outlet 90° Elbow



45° Elbow



45° Street Elbow



Tee



Street Tee



Cross

SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
1/8	2259		48560		—		2293		2302		2311		—		12126	
1/4	2260		2285		—		2294		2303		48852		—		12128	
3/8	2261		48562		—		2295		2304		2313		—		12129	
1/2	48557		48563		—		48828		2305		48567		—		12131	
3/4	485589		48564		—		102516		2306		48568		31961		12132	
1	66307		48565		51717		22998		2307		489569		31959		12133	
1-1/4	2265		48566		26372		2299		2308		48570		31962		12134	
1-1/2	70232		2291		—		2300		2309		49692		—		12136	
2	2267		2292		—		2301		2310		2329		31964		12138	
2-1/2	12089		12083		—		12087		—		12090		—		12139	
3	12071		12084		—		12088		—		12091		—		12140	
3-1/2	—		—		—		—		—		—		—		—	
4	31899		—		—		—		—		31924		—		—	



Wye



Coupling



Union



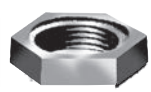
Cap



Countersunk plug



Brass Companion Flange



Locknut



Plug

SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
1/8	—		48578		2364		2373		12156		51740		12169		2382	
1/4	—		48579		48851		2374		12157		—		12170		2383	
3/8	12144		2334		2366		2375		12158		—		12171		2384	
1/2	12145		48851		48596		48590		12159		12180		77538		2385	
3/4	12147		2336		48597		48591		12161		12181		77539		2386	
1	12148		2337		48598		2378		12162		—		7754		2387	
1-1/4	12150		2338		2370		2379		12163		12183		12175		48593	
1-1/2	12151		75377		70233		70234		12164		12184		77541		48594	
2	12152		2340		2372		2381		12165		12185		12177		48595	
2-1/2	—		12098		12105		12111		12166		12186		12178		2391	
3	—		12099		12107		5895		12167		12187		12179		12125	
3-1/2	—		—		—		—		—		—		—		—	
4	—		31967		—		31977		32045		32044		31991		32038	

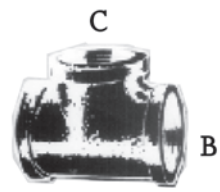
**CAST BRASS FITTINGS ALSO AVAILABLE IN EXTRA HEAVY (250LB)*

125 LB. CAST BRASS REDUCING FITTINGS





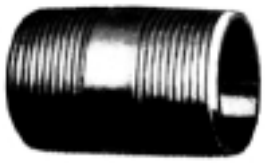

SIZE		Bushing FIG. NO.	Bushing PRICE	Face Bushing FIG. NO.	Face Bushing PRICE	Reducing Coupling FIG. NO.	Reducing Coupling PRICE	Reducing 90 FIG. NO.	Reducing 90 PRICE
1/4	1/8	2392		32010		2341		2270	
3/8	1/8	2394		32011		2343		2269	
3/8	1/4	2393		32012		2342		2268	
1/2	1/8	2397		-		2346		-	
1/2	1/4	-		32014		2345		2272	
1/2	3/8	2395		2422		2344		2271	
3/4	1/8	2401		-		2350		-	
3/4	1/4	2400		-		2349		31901	
3/4	3/8	2399		32016		2348		31902	
3/4	1/2	2398		2423		2347		48559	
1	1/4	2405		-		5891		51715	
1	3/8	2404		-		5890		31903	
1	1/2	77543		-		2352		2275	
1	3/4	48585		-		2351		2274	
1 1/4	1/4	25419		-				-	
1 1/4	3/8	26328		-				-	
1 1/4	1/2	2408		-		2355		2278	
1 1/4	3/4	2407		-		2354		2277	
1 1/4	1	67941		-		2353		2276	
1 1/2	1/4	26327		-		-		-	
1 1/2	3/8	26325		-		-		-	
1 1/2	1/2	2412		-		5894		-	
1 1/2	3/4	2411		-		2358		12074	
1 1/2	1	2410		-		2357		2280	
1 1/2	1 1/4	2409		-		2356		2279	
2	1/4	31992		-		-		-	
2	3/8	51734		-		-		-	
2	1/2	2417		-		2363		51716	
2	3/4	2416		-		2362		12078	
2	1	2415		-		2361		-	
2	1 1/4	2414		-		2360		2282	
2	1 1/2	2413		-		2359		2281	
2 1/2	1/2	31993		-		-		-	
2 1/2	3/4	31994		-		-		-	
2 1/2	1	31995		-		-		-	
2 1/2	1 1/4	22913		-		-		-	
2 1/2	1 1/2	2419		-		31969		31904	
2 1/2	2	2418		-		12102		31905	
3	1/2	-		-		-		-	
3	3/4	-		-		-		-	
3	1	26332		-		-		-	
3	1 1/4	26330		-		-		-	
3	1 1/2	26329		-		31970		-	
3	2	2421		-		31971		-	
3	2 1/2	2420		-		12103		31907	



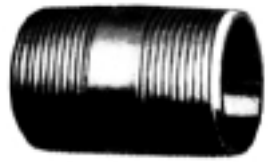
REDUCING TEE

SIZE A	SIZE B	SIZE C	FIG. NO.	PRICE
1/8	1/8	1/4	—	
1/4	1/4	1/8	5858	
3/8	3/8	1/4	—	
1/2	1/2	1/4	2320	
1/2	1/2	3/8	2321	
1/2	1/2	3/4	13355	
3/4	1/2	3/4	48574	
3/4	3/4	1/4	21416	
3/4	3/4	3/8	23527	
3/4	3/4	1/2	48571	
3/4	3/4	1	26378	
3/4	1/2	1/2	48573	
1	1/2	3/4	48576	
1	1/2	1	189672	
1	3/4	3/4	49693	
1	3/4	1	20004	
1	1	3/8	21511	
1	1	1/2	5864	
1	1	3/4	48572	
1	1	1 1/4	26379	
1	1	1 1/2	26381	
1	3/4	3/4	—	
1 1/4	3/4	1 1/4	—	
1 1/4	1	1	5869	
1 1/4	1 1/4	1/2	2328	
1 1/4	1 1/4	3/4	2329	
1 1/4	1 1/4	1	2330	
1 1/4	1 1/4	1 1/2	—	
1 1/4	1 1/4	1/2	5870	
1 1/2	1 1/2	3/4	5871	
1 1/2	1 1/2	1	5872	
1 1/2	1 1/2	1 1/4	5873	
1 1/2	1 1/2	1/2	5880	
2	2	3/4	5881	
2	2	1	5882	
2	2	1 1/4	5883	
2	2	1 1/2	5884	
2 1/2	2 1/2	1	31954	
2 1/2	2 1/2	1 1/4	31955	
2 1/2	2 1/2	1 1/2	31956	
2 1/2	2 1/2	2	12096	
3	3	2 1/2	12094	

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.



BRASS NIPPLES

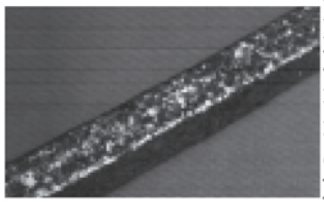


	1/8″		1/4″		3/8″		1/2″		3/4″	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
Close	2424		2436		2448		2460		2475	
Sh.	2425		2437		2449		2461		2476	
2	2426		2438		2450		2462		2477	
2 1/2	2427		2439		2451		2463		2478	
3	2428		2440		2452		2464		2479	
3 1/2	2429		2441		2453		2465		2480	
4	2430		2442		2454		2466		2481	
4 1/2	2431		2443		2455		2467		2482	
5	2432		2444		2456		2468		2483	
5 1/2	2433		2445		2457		2469		2484	
6	2434		2446		2458		2470		2485	
7	35746		35752		35757		35763		35700	
8	35747		35753		35758		35764		35701	
9	35748		35754		35759		35765		35702	
10	35749		21196		35760		35766		35703	
11	35750		23348		35761		35767		35704	
12	35751		35755		35762		35768		35705	

	1″		1 1/4″		1 1/2″		2″		2 1/2″		3″	
SIZE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE	FIG NO	PRICE
Close	2487		2498		2509		2520		12363		12376	
Sh.	2488		2499		2510		2521		12366		12377	
2	-		-		-		-		-		-	
2 1/2	2489		2500		2511		-		-		-	
3	2490		2501		2512		2522		-		-	
3 1/2	2491		2502		2513		2523		12367		12378	
4	2492		2503		2514		2524		12369		12379	
4 1/2	2493		2504		2515		2525		12371		12380	
5	2494		2505		2516		2526		12372		12381	
5 1/2	2495		2506		2517		2527		12373		12382	
6	2496		2507		2518		2528		12374		12383	
7	35709		35715		35721		35726		35733		35739	
8	35710		35716		35722		35727		35734		35740	
9	35711		35717		35723		35728		35735		35741	
10	35712		35718		35724		35729		35736		35742	
11	35713		35719		35725		35730		35737		35743	
12	34722		35720		23715		35731		35738		35744	

PACKING AND GASKET MATERIAL

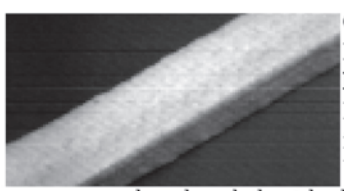
NON-ASBESTOS PACKING



CONSTRUCTION: Multi-Lok Braid
FEATURES: Non-asbestos fibers treated with a specially formulated blend of lubricants.
RECOMMENDED FOR: Steam, super heated steam, air petroleum products, hot gases.
LIMITATIONS: Maximum line temperature 1200
Sold by the pound.

SIZE	FEET PER POUND	FIG. NO.	PRICE
3/16	57	8213	
5/16	19	8219	
7/16	8.2	8224	
1/8	80	8210	
3/8	9.7	8220	
5/8	3.2	8230	
1/2	6.0	8228	
1/4	22	8217	
3/4	2.8	8237	

TEFLON PACKING



CONSTRUCTION: Multi-Lok Braid.
FEATURES: Yarns are coated in PTFE suspensoid. This system of impregnation assures even distribution of the PTFE. The fibers are saturated and sealed with the PTFE particles, protecting the fibers from chemical action.
SURFACE TREATMENT: A surface coating of PTFE is applied after braiding. To assure good break-in characteristics, a special high temperature synthetic lubricant is added. **EQUIPMENT**: General service on rotary and reciprocating pumps, agitators.
RECOMMENDED FOR: Caustics, mild acids, difficult chemicals, air, gases, solvents, oils, general chemical plant applications.
LIMITATIONS: Shaft speeds to 1885; temperatures to 500°F 260°C; pH 3-11.
REMARKS: Our PTFE dispersion system provides greater penetration and more thorough dissemination of the insert PTFE.

SIZE	FIG. NO.	PRICE
1/8	8185	
1/4	8190	
3/16	8188	
5/16	8194	
3/8	8197	
7/16	8200	
1/2	8201	
5/8	8202	
3/4	8205	
1	8208	

Neoprene and cloth inserted neoprene sheets available!

RED RUBBER SHEET



High grade red rubber compound. General purpose for water, air, etc. Standard width 36". Max temperature 375°F.

6 X 6 RED RUBBER SHEET	
FIG. NO.	PRICE
44323	

PER SQUARE FOOT			
SIZE	FIG. NO.	@ WT PER SQ FT	PRICE
1/16	8256	1/2 LB	
3/32	8260	3/4 LB	
1/8	8261	1 LB	
1/4	8266	2 LB	

ALSO AVAILABLE: GUM, BUNA, EPDM/BUTYL, TEFLON/SILICON

COMPRESSED NON-ASBESTOS SHEET



Selected long fiber non-asbestos mixed with a special heat and chemical resisting binder. Excellent for use against oil, steam, (saturated and superheated) acids, alkalies, etc. Standard sheet 60"x60". Max temp 700°F, Max pressure 400 PSI. ***Sold by sheet or by the pound.***

BY 60" X 60" SHEET		
SIZE	FIG. NO.	PRICE
1/64	40051	
1/32	40052	
1/116	40053	
1/8	40054	
1/4	40055	
3/32	47227	

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

2000# FORGED STEEL THREADED FITTINGS






	90° ELBOW		45° ELBOW		TEE		CROSS	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/4	5109		5125		5117		5133	
3/8	5110		5126		5118		5134	
1/2	5111		5127		5119		5135	
3/4	5112		5128		5120		5136	
1	5113		5129		5121		5137	
1 1/4	5114		5130		5122		5138	
1 1/2	5115		5131		5123		5139	
2	5116		5132		5124		5140	
2 1/2	20449		32223		31280		32226	
3	32219		32224		32221		32227	
4	32220		32225		32222		32228	

3000# FORGED STEEL THREADED AND SOCKET WELD FITTINGS

AVAILABLE IN S S STAINLESS STEEL






	90° Elbow				45° Elbow				90° Street Elbow		TEE			
	THREAD		SOCKET		THREAD		SOCKET		THREAD		THREAD		SOCKET	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/8	5141		-		5160		-		5170		5151		-	
1/4	17582		5325		5161		5724		5171		5152		5696	
3/8	5144		5326		5162		5727		5172		5153		5700	
1/2	5145		5680		5163		5730		5173		5154		5702	
3/4	5146		5681		5164		5733		5174		5155		5706	
1	5147		5682		5165		5735		5175		5156		5710	
1 1/4	5148		5685		5167		5738		5176		5157		5713	
1 1/2	5149		5687		5168		5740		5177		5158		5715	
2	5150		5690		5169		5743		5178		5159		5718	
2 1/2	32235		32262		32243		32269		-		32239		32266	
3	32237		32264		32244		32270		-		32241		32267	
4	32238		32265		32245		32271		-		32242		32268	





	CROSS				WYE				UNION			
	THREAD		SOCKET		THREAD		SOCKET		THREAD		SOCKET	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/8	—								40024		-	
1/4	5181								5301		5780	
3/8	—								5302		5781	
1/2	5185								5305		5782	
3/4	5186								5309		5783	
1	5187								5313		5784	
1 1/4	5188								5316		5785	
1 1/2	5189								5320		5786	
2	5190								5323		5787	
2 1/2	32246								26492		32278	
3	32247								26494		32279	
4	32248								—		32280	

3000 FORGED STEEL FITTINGS



COUPLING



HALF COUPLING



CAP



PLUG

	COUPLING		HALF COUPLING		CAP		PLUG	
	THREAD	SOCKET	THREAD	THREAD	SOCKET	THREAD		
SIZE	FIG. PRICE	FIG. PRICE	FIG. PRICE	FIG. PRICE	FIG. PRICE	FIG. PRICE		
1/8	5191	—	23769	5201	—	5211		
1/4	5192	5753	23770	5202	5770	5212		
3/8	5193	5754	23771	5203	5771	5213		
1/2	5194	5755	20326	5205	5772	5214		
3/4	5196	5756	20327	5206	5773	5215		
1	5197	5758	23772	5207	5774	5216		
1 1/4	5198	5759	23773	5208	5776	5217		
1 1/2	5199	5762	20328	5209	5778	5218		
2	5200	5765	20452	5210	5779	5219		
2 1/2	25181	32272	26487	32249	32275	32252		
3	26484	32273	26489	32250	32276	32253		
4	26485	32274	26491	32251	32277	32254		

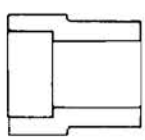
BUSHING (THREADED)



AVAILABLE IN S S STAINLESS STEEL

SIZE		FIG.	PRICE	SIZE		FIG.	PRICE
1/4	1/8	5221		2	1/8	—	
3/8	1/8	5223			1/4	5295	
	1/4	5222			3/8	—	
1/2	1/8	5226			1/2	5288	
	1/4	5225			3/4	5286	
	3/8	5224			1	5285	
3/4	1/8	5230			1 1/4	5282	
	1/4	5229			1 1/2	5278	
	3/8	5228		2 1/2	1/2	26472	
	1/2	5227			3/4	—	
1	1/8	5236			1	26464	
	1/4	5235			1 1/4	—	
	3/8	5233			1 1/2	26461	
	1/2	5232			2	26460	
	3/4	5231		3	1	26481	
1 1/4	1/8	5260			1 1/4	—	
	1/4	5253			1 1/2	26477	
	3/8	5247			2	26476	
	1/2	5242			2 1/2	26474	
	3/4	5239		4	1	32261	
	1	5237			1 1/4	—	
1 1/2	1/8	5275			1 1/2	—	
	1/4	5272			2	32258	
	3/8	5269			2 1/2	—	
	1/2	5267			3	32256	
	3/4	5265					
	1	5262					
	1 1/4	5261					

REDUCER INSERT



Use to make reducing fittings.
All sizes available.

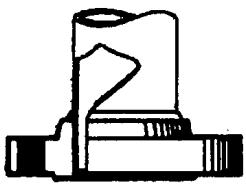
6000# THREADED AND SOCKET WELD FLANGES ALWAYS AVAILABLE!

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

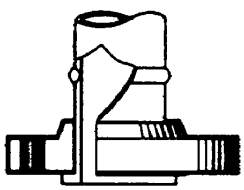
SELECTION AND APPLICATION OF FORGED STEEL FLANGES



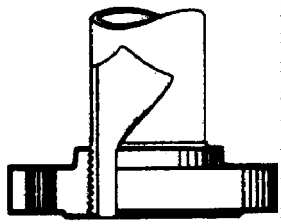
Welding Neck Flanges are distinguished from other types by their long tapered hub and gentle transition of thickness in the region of the butt weld joining them to the pipe. The long tapered hub provides an important reinforcement of the flange proper from the standpoint of strength and resistance to dishing. The smooth transition from flange thickness to pipe wall thickness effected by the taper is extremely beneficial under conditions of repeated bending, caused by line expansion or other variable forces, and produces an endurance strength of welding neck flanged assemblies equivalent to that of a butt welded joint between pipes, which, in practice, is the same as that of unwelded pipe. Thus this type of flange is preferred for every severe service condition, whether this results from high pressure of from sub-zero or elevated temperature, and whether loading conditions are substantially constant or fluctuate between wide limits; welding neck flanges are particularly recommended for handling explosive, flammable or costly liquids, where loss of tightness or local failure may be accompanied by disastrous consequences.



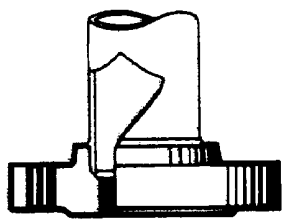
Slip-On Flanges continue to be preferred to welding neck flanges by many users on account of their initially lower cost, the reduced accuracy required in cutting the pipe to length, and the somewhat greater ease by alignment of the assembly; however, their final installed cost is probably not much, if any, less than that of welding neck flanges. Their calculated strength under internal pressure is of the order of two-thirds that of welding neck flanges, and their life under fatigue is about one-third that of the latter. For these reasons, slip-on flanges are limited to sized NPS 1/2 to 2 1/2 in the 1500 standard.



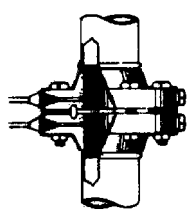
Lap Joint Flanges are primarily employed with lap joint stubs, the combined initial cost of the two items being approximately one-third higher than that of comparable welding neck flanges. Their pressure-holding ability is little, if any, better than that of slip-on flanges and the fatigue life for the assembly is only one-tenth that of welding neck flanges. The chief use of lap joint flanges in carbon or low alloy steel piping systems is in services necessitating frequent dismantling for inspection and cleaning and where the ability to swivel flanges and to align bolt holes materially simplifies the erection of large diameter of unusually stiff piping. Their use at points where severe bending stress occurs should be avoided.



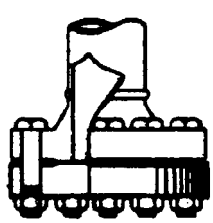
Screwed Flanges made of steel are confined to special applications. Their chief merit lies in the fact that they can be assembled without welding; this explains their use in extremely high pressure services, particularly at or near atmospheric temperature, where alloy steel is essential for strength and where the necessary post-weld heat treatment is impractical. Screwed flanges are unsuited for conditions involving temperature or bending stresses of any magnitude, particularly under cyclic conditions, where leakage through the threads
may occur in relatively few cycles of heating or stress; seal welding is sometimes employed to overcome this, but cannot be considered as entirely satisfactory.



Socket Welding Flanges were initially developed for use on small-size high pressure piping. Their initial cost is about 10% greater than that of slip-on flanges; when provided with an internal weld as illustrated, their static strength is equal to, but their fatigue strength 50% greater than double-welded slip-on flanges. Smooth, pocketless bore conditions can readily be attained (by grinding the internal weld) without having to bevel the flange face and, after welding, to reface the flange as would be required with slip-on flanges. The internally welded socket type flange is becoming increasingly popular in chemical process piping for this reason.



Orifice Flanges are widely used in conjunction with orifice meters for measuring the rate of flow of liquids and gases. They are basically the same as standard welding neck, slip-on and screwed flanges except for the provision of radial, tapped holes in the flange ring for meter connections and additional bolts to act as jack screws to facilitate separating the flanges for inspection or replacement of the orifice plate. In choosing the type of orifice flange, the considerations affecting the choice of welding neck, slip-on and screwed standard flanges apply with equal force.



Blind Flanges are used to blank off the ends of piping, valves and pressure vessel openings. From the standpoint of internal pressure and bolt loading, blind flanges, particularly in the larger sizes, are the most highly stressed of all American
Standard flange types. However, since the maximum stressed in a blind flange are bending stresses at the center, they can safely be permitted to be higher than in other types of flanges. Where temperature is a service factor, or repeated severe water hammer, consideration should be given to closures made of welding neck flanges and caps.

CARBON STEEL WELDING FLANGES

Lap Joint and Socket Weld Flanges available for Immediate Delivery!





			150 #		300 #		150#		300#		150# LAP	
			WELD NECK FLANGE				SLIP-ON FLANGE				JOINT FLANGE	
SIZE	150# OD	300# OD	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/2	3 1/2	3 3/4	6409		6796		6448		6806		52053	
3/4	3 7/8	4 5/8	6414		6797		6452		6807		52054	
1	4 1/4	4 7/8	6417		6798		6456		6808		52055	
1 1/4	4 5/8	5 1/4	6424		6799		6457		6809		52056	
1 1/2	5	6 1/8	6429		6800		6463		6810		52057	
2	6	6 1/2	6431		6801		6466		6811		52058	
2 1/2	7	7 1/2	6433		6802		6468		6812		52059	
3	7 1/2	8 1/4	6437		6803		6472		6813		52060	
3 1/2	8 1/2	9	6440		-		6475		-		-	
4	9	10	6442		6804		6477		6814		65383	
5	10	11	6443		-		6482		52076		65384	
6	11	12/12	6444		6805		6485		6815		65385	
8	13 1/2	15	6446		52062		6490		61943		-	
10	16	17 1/2	6447		-		6494		-		52061	
12	19	20 1/2	19795		-		19796		-		-	

Reducing Slip-on and threaded flanges, special bores, and Classes 400, 600, 900, 1500, and 2500 flanges available in all sizes at all times.



THREADED

AVAILABLE IN S S STAINLESS STEEL



BLIND

			150 #		300 #		150#		300#	
SIZE	150# OD	300# OD	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/2	3 1/2	3 3/4	6498		6816		6542		6826	
3/4	3 7/8	4 5/8	6501		6817		6548		6827	
1	4 1/4	4 7/8	6506		6818		6550		6828	
1 1/4	4 5/8	5 1/4	6510		6819		6554		6829	
1 1/2	5	6 1/8	6514		6820		6560		6830	
2	6	6 1/2	6516		6821		6565		6831	
2 1/2	7	7 1/2	6522		6822		6570		6832	
3	7 1/2	8 1/4	6525		6823		6573		6833	
3 1/2	8 1/2	9	-		-		6576		-	
4	9	10	6528		6824		6580		6834	
5	10	11	6532		-		6583		-	
6	11	12/12	6535		6825		6595		6835	
8	13 1/2	15	6536		-		6603		-	
10	16	17 1/2	6539		-		6608		-	
12	19	20 1/2	-		-		-		-	

For additional information call: 610-275-4453 or Fax: 610-279-6299.

Please call for current prices.

CARBON STEEL WELD FITTINGS



90° Long Radius Elbow



90° Short Radius Elbow



45° Long Radius Elbow



Tee

SIZE	STANDARD FIG. NO.	STANDARD PRICE	EXTRA HEAVY FIG. NO.	EXTRA HEAVY PRICE		STANDARD FIG. NO.	STANDARD PRICE	EXTRA HEAVY FIG. NO.	EXTRA HEAVY PRICE	STANDARD FIG. NO.	STANDARD PRICE	EXTRA HEAVY FIG. NO.	EXTRA HEAVY PRICE
1/2	5788		6613		-	6058		6650		6090		6679	
3/4	5791		6619		-	6059		6653		6093		6681	
1	5794		6622		6026	6060		6657		6099		6683	
1 1/4	5797		6628		6029	6061		6660		6100		6686	
1 1/2	5799		6631		6033	6062		6663		6104		6688	
2	5836		6634		6036	6063		6664		6110		6691	
2 1/2	5855		6638		6039	6064		6667		6115		6693	
3	5904		6641		6041	6066		6670		6120		6696	
3 1/2	5999		6645		6044	6067		6673		6124		-	
4	6001		6647		6045	6077		6676		6126		6698	
5	6006		-		6048	6078		-		6130		-	
6	6009		-		6050	6080		52079		6134		52108	
8	6012		-		6053	6083		52067		6136		-	
10	6014		-		6056	6086		52100		6138		-	
12	19797		-		19799	-		-		-		-	
14	19798		-		19800	-		-		-		-	

AVAILABLE IN STAINLESS STEEL



Cap



Cross



180° Long Return Bend



Lap Joint Stub End

SIZE	STANDARD FIG. NO.	STANDARD PRICE	EXTRA HEAVY FIG. NO.	EXTRA HEAVY PRICE	STANDARD FIG. NO.	STANDARD PRICE	STANDARD FIG. NO.	STANDARD PRICE	STANDARD FIG. NO.	STANDARD PRICE
1/2	6140		6702		-		28546		-	
3/4	6143		6705		-		28547		-	
1	6146		6708		-		28548		28507	
1 1/4	6148		6789		-		28549		28508	
1 1/2	6152		6790		-		28550		28509	
2	6155		6791		-		28551		28510	
2 1/2	6158		6792		-		28552		28511	
3	6162		6793		-		28553		28513	
3 1/2	6165		6794		-		-		-	
4	6168		6795		-		28555		28514	
5	6171		-		-		28556		-	
6	6173		-		-		28559		28515	
8	6177		-		-		28560		28516	
10	6178		-		-		28561		-	
12	22076		-		-		-		-	
14	28506		-		-		-		-	

CARBON STEEL WELDING FITTINGS AND FLANGES

AVAILABLE IN STAINLESS STEEL



Concentric Reducer



Reducing 90 Elbow

SIZE		FIG.	FIG.
2	1 1/4	6280	28479
	1 1/2	6283	—
2 1/2	1 1/4	6290	—
	1 1/2	6292	28482
	2	6295	—
3	1 1/2	6308	28484
	2	6312	28485
	2 1/2	6316	28486
3 1/2	2	—	—
	2 1/2	28533	28489
	3	28534	—
4	2	6333	—
	2 1/2	6336	—
	3	6339	—
	3 1/2	6343	—
5	2 1/2	28536	—
	3	28537	—
	3 1/2	28538	—
	4	28539	—
6	3	6366	—
	3 1/2	6370	—
	4	6376	28501
	5	6379	—
8	4	6391	—
	5	6393	—
	6	6395	—

ALSO AVAILABLE FOR QUICK DELIVERY!



LATERALS



REDUCING TEES



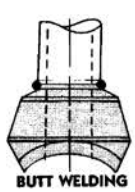
SADDLES



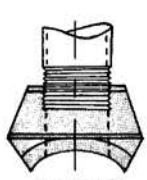
WELDING RINGS

WELDOLETS & THREADOLETS

Used for making relatively small branch outlet connections. Easy to install -- provide 100% pipe strength and full fluid flow.



BUTT WELDING



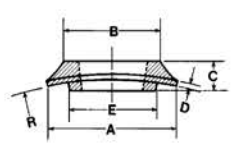
THREADED

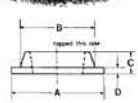
	Weld-O-Let		Thread-O-Let	
Size	Fig No	Price	Fig No	Price
1/8	-		-	
1/4	-		18091	
3/8	-		-	
1/2	18080		18093	
3/4	18081		18094	
1	18082		18095	
1 1/4	18083		18096	
1 1/2	18084		18097	
2	18085		18098	
2 1/2	18086		18099	
3	18087		18100	
3 1/2	-		-	
4	18089		18101	

PHOENIX FLANGES

The perfect item for making outlets on plate or vessels.







Standard–Tapped from hub side



	Without Pilot		With Pilot	
Size	Fig No	Price	Fig No	Price
1/8	38802		-	
1/4	38803		-	
3/8	38804		-	
1/2	38805		-	
3/4	38806		38813	
1	38807		38814	
1 1/4	38809		38815	
1 1/2	38808		38816	
2	38810		38817	
2 1/2	-		41041	

For additional information call: 610-275-4453 or Fax: 610-279-6299.

Please call for current prices.

RAILING FITTINGS SLIP-ON TYPE



#30 90° ELBOW

Size	Fig No	Price
3/4	6065	
1	6068	
1 1/4	6070	
1 1/2	6072	

DUFF TIP • For use with steel • or aluminum pipe



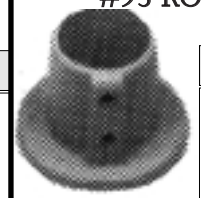
#32 TEE

Size	Fig No	Price
3/4	6082	
1	6084	
1 1/4	6085	
1 1/2	6087	



#37 3-WAY RACK FITTING

Size	Fig No	Price
3/4	-	-
1	6116	
1 1/4	6117	
1 1/2	6118	



#95 ROUND FLANGE

Size	Fig No	Price
3/4	6166	
1	6167	
1 1/4	6169	
1 1/2	6170	



#34 CROSS

Size	Fig No	Price
3/4	6094	
1	6095	
1 1/4	6096	
1 1/2	6098	



#36 OFFSET FITTING

Size	Fig No	Price
3/4	6106	
1	6108	
1 1/4	6109	
1 1/2	6111	



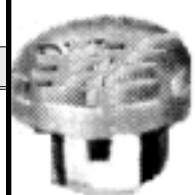
#90 ADJ. FLANGE

Size	Fig No	Price
3/4	6137	
1	6139	
1 1/4	6141	
1 1/2	6142	



#31 SIDE OUTLET ELBOW

Size	Fig No	Price
3/4	6074	
1	6076	
1 1/4	6079	
1 1/2	6081	



#8 RAIL CAP

Size	Fig No	Price
3/4	6172	
1	6174	
1 1/4	6175	
1 1/2	6176	



#55 SWIVEL

Size	Fig No	Price
3/4	6154	
1	6156	
1 1/4	6157	
1 1/2	6159	



#33 SIDE OUTLET TEE

Size	Fig No	Price
3/4	6088	
1	6089	
1 1/4	6091	
1 1/2	6092	



#65 COUPLINGS

Size	Fig No	Price
3/4	6160	
1	6161	
1 1/4	6163	
1 1/2	6164	



#40 ELBOW OR TEE

Size	Fig No	Price
3/4	6119	
1	6121	
1 1/4	6122	
1 1/2	6123	



#35 SIDE OUTLET CROSS

Size	Fig No	Price
3/4	6101	
1	6102	
1 1/4	6103	
1 1/2	6105	



#25 SIDE MOUNT FLANGE

Size	Fig No	Price
3/4	-	-
1	6149	
1 1/4	6151	
1 1/2	6153	



#42 ADJUSTABLE TEE

Size	Fig No	Price
3/4	6131	
1	6132	
1 1/4	6133	
1 1/2	6135	



#26 CORNER OR RACK FITTING

Size	Fig No	Price
3/4	-	-
1	6112	
1 1/4	6113	
1 1/2	6114	



#24 FLANGE

Size	Fig No	Price
3/4	-	
1	6144	
1 1/4	6145	



#41 SIDE OUTLET ELL OR TEE

Size	Fig No	Price
3/4	6125	
1	6127	
1 1/4	6128	

304 STAINLESS STEEL NIPPLES

	1/8"		1/4"		3/8"		1/2"		3/4"		1"		1 1/4"		1 1/2"		2"	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
CL	6239		6269		6296		6329		6372		6408		6432		17578		17579	
1 1/2	6241		17559		6298		6335		6374		-		-		-		-	
2	6243		6273		6301		6338		17577		17562		6434		6467		-	
2 1/2	17560		6274		17575		6341		6381		17563		6435		6470		6499	
3	6249		6276		6309		17561		6383		6416		6436		6473		6504	
3 1/2	6251		6278		6313		6348		6386		6419		6438		6474		6507	
4	6253		6281		6315		17576		6389		6420		6439		6478		6512	
4 1/2	6260		6285		6319		6358		6396		6423		6451		6483		6515	
5	6262		6286		6320		6364		6400		6426		6455		6487		6518	
5 1/2	6265		6289		6325		6368		6403		6427		6459		6491		6523	
6	6267		6294		6328		6369		6407		6430		17564		6493		6527	

316 STAINLESS STEEL NIPPLES

	1/8"		1/4"		3/8"		1/2"		3/4"		1"		1 1/4"		1 1/2"		2"	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
CL	36310		36321		36332		36343		36354		36365		36375		36385		36395	
SH	36311		36322		36333		36344		36355		36366		36376		36386		36396	
1 1/2	-		-		-		-		-		-		-		-			
2	36312		36323		36334		36345		36356		-		-		-		-	
2 1/2	36313		36324		36335		36346		36357		36367		36377		36387		-	
3	36314		36325		36336		36347		36358		36368		36378		36388		36397	
3 1/2	36315		36326		36337		36348		36359		36369		36379		36389		36398	
4	36316		36327		36338		36349		36360		36370		36380		36390		36399	
4 1/2	36317		36328		36339		36350		36361		36371		36381		36391		36400	
5	36318		36329		36340		36351		36362		36372		36382		36392		36401	
5 1/2	36319		36330		36341		36352		36363		36373		36383		36393		36402	
6	36320		36331		36342		36353		36364		36374		36384		36394		36403	

DUFF TIP:

When ordering Stainless Steel Nipples or Fittings, don't forget to order our special Teflon tape for Stainless Steel (Fig. No. 61360).



VICTAULIC FITTINGS

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Victaulic®
Grooved Piping Method



For our complete stock of grooved fittings, see page 152

STAINLESS STEEL THREADED FITTINGS



90° ELBOW



90° STREET ELBOW

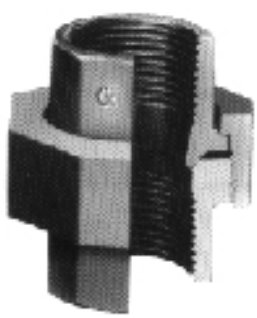


45° ELBOW



Tee

	304		316		304		316		304		316		304		316	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/8	6552		6872		6627		6900		6585		6881		6607		6891	
1/4	6557		6873		6629		6901		6587		6882		17581		6892	
3/8	6561		6874		6633		6902		6589		6883		6609		6893	
1/2	6566		6875		6635		6903		6591		6884		6611		6894	
3/4	17565		6876		6639		6904		6593		6885		6615		6895	
1	17580		6877		6642		6905		17566		6887		6617		6896	
1 1/4	6574		6878		6646		6906		17567		6888		6621		6897	
1 1/2	6577		6879		6649		6907		17568		6889		6624		6898	
2	6579		6880		6652		6908		6604		6890		6625		6899	
2 1/2	33260		33303		-		-		33262		33306		33265		33309	
3	32783		33304		-		-		33263		33307		32781		33310	
4	33261		33305		-		-		33264		33308		33266		33311	



Union



Coupling



Cap



Square Head Plug

	304		316		304		316		304		316		304		316	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/8	6687		6918		6711		6927		6655		6909		17573		6936	
1/4	6689		6919		6713		6928		6659		6910		6723		6937	
3/8	17569		6920		6714		6929		6666		6911		6724		6938	
1/2	6695		6921		17571		6930		6669		6912		6725		6939	
3/4	6697		6922		17522		6931		6672		6913		6726		6940	
1	6700		6923		6718		6932		6677		6914		6727		6941	
1 1/4	6703		6924		6719		6933		6680		6915		6728		6942	
1 1/2	6707		6925		6720		6934		6682		6916		6729		6943	
2	17570		6926		6721		6935		6684		6917		6730		6944	
2 1/2	33269		-		33272		33315		32240		33312		33283		33318	
3	33270		-		33273		33316		33267		33313		33284		33319	
4	33271		-		33274		33317		33268		33314		33285		33320	

STAINLESS STEEL HEX BUSHING

SIZE		304 FIG. NO.	304 PRICE	316 FIG. NO.	316 PRICE
1/4	1/8	6836		6945	
3/8	1/4	6837		6946	
	1/8	6838			
1/2	3/8	6839		6948	
	1/4	6840		6949	
	1/8	6841		6950	
3/4	1/2	6842		6951	
	3/8	6843		6952	
	1/4	6844		6953	
	1/8	6845		6954	
1	3/4	6846		6955	
	1/2	6847		6956	
	3/8	6848		6957	
	1/4	6849		6958	
	1/8	6850		6959	
1 1/4	1	6851		6960	
	3/4	6852		6961	
	1/2	6853		6962	
	3/8	6854		6963	
	1/4	6855		6964	
	1/8	6856		6965	
1 1/2	1 1/4	6857		6966	
	1	6858		6967	
	3/4	6859		6968	
	1/2	6860		6969	
	3/8	6861		6970	
	1/4	6862		6971	
	1/8	6863		6972	

SIZE		304 FIG. NO.	304 PRICE	316 FIG. NO.	316 PRICE
2	1 1/2	6864		6973	
	1 1/4	6865		6974	
	1	6866		6975	
	3/4	6867		6976	
	1/2	6868		6977	
	3/8	6869		6978	
	1/4	6870		6979	
	1/8	6871		6980	
21/2	1/2	33286		33322	
	3/4	33287		33323	
	1	33288		33324	
	1 1/4	33289		33325	
	1 1/2	33290		33326	
	2	33291		33327	
3	1/2	33292		33328	
	3/4	33293		33330	
	1	33294		33331	
	1 1/4	33295		33332	
	1 1/2	33296		33333	
	2	32782		33334	
	2 1/2	33297		33337	
4	1	33298		33338	
	1 1/4	33299		33339	
	1 1/2	33300		33340	
	2	32796		33341	
	2 1/2	33301		33342	
	3	32795		33343	

SCHEDULE 40 STAINLESS STEEL WELDED PIPE

Priced per foot in full random lengths. Prices on Application.

TYPE	1/4 FIG. NO.	1/4 PRICE	3/8 FIG. NO.	3/8 PRICE	1/2 FIG. NO.	1/2 PRICE	3/4 FIG. NO.	3/4 PRICE	1 FIG. NO.	1 PRICE	1 1/4 FIG. NO.	1 1/4 PRICE	1 1/2 FIG. NO.	1 1/2 PRICE	2 FIG. NO.	2 PRICE
304	6982		6983		6984		6985		6986		6987		6988		6989	
316	17574		6992		6993		6994		6995		6996		6997		6998	

Call DUFF for Monel, Monel, Hastelloy, Inconel fittings and valves and Aluminum pipe fittings.

Forged Stainless and most alloys in 2000, 3000, 4000 and 6000 lbs., both screwed and socket weld, are available. On the shelf for immediate delivery are all types of Stainless Steel valves including gate, globe, check, ball, diaphragm and pop safety valves.

For additional information call: 610-275-4453 or Fax: 610-279-6299.

Please call for current prices.

COPPER WATER TUBE/ENGINEERING DATA

Nominal Tube Size in inches	Outside Diameter in inches	TOLERANCE Tubing O. D. in inches Max.	TOLERANCE Tubing O. D. in inches Min.	TYPE "K" Wall Thickness in inches	TYPE "K" Weight per Foot in Lbs.	TYPE "K" HARD DRAWN Bursting Pressure in Lbs. *	TYPE "K" HARD DRAWN Safe Working Stress in Lbs. ⊗●	TYPE "K" SOFT ANNEALED Bursting Pressure in Lbs. *	TYPE "K" SOFT ANNEALED Safe Working Stress in Lbs. ☆●	TYPE "L" Wall Thickness in inches	TYPE "L" Weight per Foot in Lbs.	TYPE "L" HARD DRAWN Bursting Pressure in Lbs. *	TYPE "L" HARD DRAWN Safe Working Stress in Lbs. ⊗●	TYPE "L" SOFT ANNEALED Bursting Pressure in Lbs. *	TYPE "L" SOFT ANNEALED Safe Working Stress in Lbs. ☆●
				Hard Drawn—20 Ft. Straight Lengths Soft Annealed—20 Ft. Straight Lengths or 40 Ft. and 60 Ft. Length Coils (to and including 1¼")						Hard Drawn—20 Ft. Straight Lengths Soft Annealed—20 Ft. Straight Lengths or 40 Ft. and 60 Ft. Length Coils (to and including 1¼")					
				Use: For Underground Service and General Plumbing and Heating Installations under Severe Conditions.						Use: For General Plumbing and Heating Installations.					
¼"	.375	.376	.374	.035	.145	6720	1060	5600	930	.030	.126	5760	900	4800	800
⅜"	.500	.501	.499	.049	.269	7100	1170	5900	980	.035	.198	5000	800	4200	700
½"	.625	.626	.624	.049	.344	5600	920	4700	780	.040	.285	4600	740	3800	630
⅝"	.750	.751	.749	.049	.418	4700	760	3900	650	.042	.362	4000	650	3400	560
¾"	.875	.876	.874	.065	.641	5300	880	4500	750	.045	.455	3700	590	3100	510
1"	1.125	1.1265	1.1235	.065	.839	4200	680	3500	580	.050	.655	3200	510	2700	450
1¼"	1.375	1.3765	1.3735	.065	1.04	3400	550	2800	465	.055	.884	2900	460	2400	400
1½"	1.625	1.627	1.623	.072	1.36	3200	520	2700	450	.060	1.14	2700	430	2200	360
2"	2.125	2.127	2.123	.083	2.06	2800	450	2300	380	.070	1.75	2400	370	2000	330
2½"	2.625	2.627	2.623	.095	2.92	2600	420	2200	360	.080	2.48	2220	350	1800	300
3"	3.125	3.127	3.123	.109	4.00	2500	410	2100	350	.090	3.33	2100	330	1700	280
3½"	3.625	3.627	3.623	.120	5.12	2400	380	2000	330	.100	4.29	2000	320	1700	280
4"	4.125	4.127	4.123	.134	6.51	2300	370	1900	320	.110	5.38	1900	300	1600	260
5"	5.125	5.127	5.123	.160	9.67	2200	360	1900	320	.125	7.61	1800	280	1500	250
6"	6.125	6.127	6.123	.192	13.87	2300	370	1900	320	.140	10.20	1600	260	1400	230
8"	8.125	8.127	8.121	.271	25.90	2400	390	2000	330	.200	19.29	1800	280	1500	250
10"	10.125	10.127	10.119	.338	40.3	2400	390	2000	330	.250	30.1	1800	290	1500	250
12"	12.125	12.127	12.119	.405	57.8	2400	400	2000	330	.280	40.4	1700	270	1400	230

Note: Information and data contained in these charts as taken from A. S. T. M. Specifications No. B-88-75, Federal Specification WW-T-799, and various Copper Tube Mill chart standards.

⊗ From Cabra based on 150°F. with an allowable stress of 6000 P.S.I.

* Bursting pressures are calculated from the following Formula for thin, hollow cylinders under tension:

$$P = \frac{2tS}{D}$$

Where P = Bursting pressure, Lb. per Sq. In.
t = Wall thickness, inches
D = Outside tube diameter, inches
S = Tensile strength (36,000 Lb. per Sq. In. for hard tubes and 30,000 for soft tubes)

☆ With safety factor of 6, maximum safe working pressure allowable by common usage up to 150°F. can be taken at 1/6 the above bursting pressure

● Rated internal pressure for copper water tube based on the strength of the tube alone and applicable to systems using suitable mechanical joints. (Pounds per Sq. inch).

Nominal Tube Size in Inches	Outside Diameter in Inches	TOLERANCE Tubing O. D. in inches Max.	TOLERANCE Tubing O. D. in inches Min.	TYPE "M" Wall Thickness in inches	TYPE "M" Weight per Foot in Lbs.	TYPE "M" HARD DRAWN Bursting Pressure in Lbs. *	TYPE "M" HARD DRAWN Safe Working Stress in Lbs. ⊗●	TYPE "DWV" Wall Thickness in inches	TYPE "DWV" Weight per Foot in Lbs.	TYPE "DWV" HARD DRAWN Bursting Pressure in Lbs.
				Hard Drawn Only—20 Ft. Straight Lengths				Hard Drawn Only—20 Ft. Straight Lengths		
				Use: For General Plumbing, Heating and Drainage Installations.				Use: For Drain, Waste, Vent and other non-pressure applications.		
¾"	.500	.501	.499	.025	.144	3600	560	....	....	....
½"	.625	.626	.624	.028	.203	3230	510	....	....	....
¾"	.875	.876	.874	.032	.328	2640	420	....	....	....
1"	1.125	1.1265	1.1235	.035	.464	2240	340	....	....	....
1¼"	1.375	1.3765	1.3735	.042	.681	2220	340	.040	.650	1950
1½"	1.625	1.627	1.623	.049	.940	2170	340	.042	.809	1740
2"	2.125	2.127	2.123	.058	1.46	1965	300	.042	1.07	1310
2½"	2.625	2.627	2.623	.065	2.03	1780	280	....	....	....
3"	3.125	3.127	3.123	.072	2.68	1660	260	.045	1.69	950
3½"	3.625	3.627	3.623	.083	3.58	1640	260	....	....	....
4"	4.125	4.127	4.123	.095	4.66	1650	260	.058	2.87	900
5"	5.125	5.127	5.123	.109	6.66	1530	240	.072	4.43	910
6"	6.125	6.127	6.123	.122	8.91	1430	230	.083	6.10	890
8"	8.125	8.127	8.123	.170	16.46	1510	240	....	....	....
10"	10.125	10.127	10.119	.212	25.6	1510	240	....	....	....
12"	12.125	12.127	12.119	.254	36.7	1510	240	....	....	....

⊗ From Cabra based on 150°F. with an allowable stress of 6000 P.S.I.

* Bursting pressures are calculated from the following Formula for thin, hollow cylinders under tension

$$P = \frac{2tS}{D}$$

Where P = Bursting pressure, Lb. per Sq. In.
t = Wall thickness, Inches
D = Outside tube diameter, Inches
S = Tensile strength (36,000 Lb. per Sq. In. for hard tubes and 30,000 for soft tubes)

☆ With safety factor of 6, maximum safe working pressure allowable by common usage up to 150°F. can be taken at 1/6 the above bursting pressure

● Rated internal pressure for copper water tube based on the strength of the tube alone and applicable to systems using suitable mechanical joints. (Pounds per Square Inch).

Refrigeration Tubing (50 Foot Coils)

OD	WALL
1/8	.030
3/16	.030
1/4	.030
5/16	.032
3/8	.032
1/2	.032
5/8	.035
3/4	.035
7/8	.045
1 1/8	.050
1 3/8	.055
1 5/8	.060

COPPER WATER TUBE

HARD TUBING (20' LENGTH)

NOM. SIZE	TYPE M		TYPE L		TYPE K		DWV	
	FIG.	PRICE	FIG.	PRICE	FIG.	PRICE	FIG.	PRICE
1/8	-	-	-		-	-	-	-
1/4	-	-	7504		7515		-	-
3/8	7513		1661		7516		-	-
1/2	1671		1662		7518		-	-
3/4	1672		1663		7521		-	-
1	1673		1664		7522		-	-
1 1/4	1674		1665		7524		7538	
1 1/2	1675		1666		7525		1680	
2	1676		1667		7528		1681	
2 1/2	1677		1668		7531		-	-
3	1678		1669		7534		1682	
4	1679		1670		7536		1683	
5	-	-	7510		-	-	-	-
6	-	-	7512		-	-	-	-
8	-	-	63826		-	-	-	-

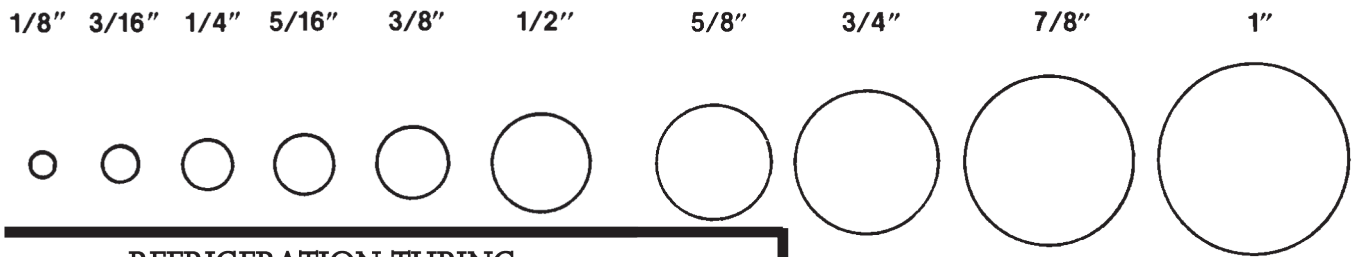
10' LENGTH

1/2	7545	7541
3/4	7552	7543

SOFT TUBING

NOM. SIZE	LENGTH	TYPE L		TYPE K	
		FIG.	PRICE	FIG.	PRICE
1/4	30	7556		7567	
	60	1684		7565	
3/8	30	7557		7572	
	60	1685		1689	
1/2	30	7558		7574	
	60	1686		1690	
	100	5840		-	
3/4	30	7559		7576	
	60	1687		1691	
	100	5841		19783	
1	30	7561		7578	
	60	1688		1692	
	100	5842		18987	
1 1/4	60	-		1693	
1 1/2	60	38575		1694	
2	40	-		1695	

ACTUAL OUTSIDE DIAMETERS OF TUBING



REFRIGERATION TUBING

SIZE OD	COILS (Soft) 50'		LENGTHS (Hard) 20'	
	FIG.	PRICE	FIG.	PRICE
1/8	5838		-	
3/16	7579		-	
1/4	1696		-	
5/16	7581		-	
3/8	5839		7590	
1/2	7583		7592	
5/8	7585		7593	
3/4	7587		7660	
7/8	7588		7661	
1 1/8	-		7662	
1 3/8	-		7663	
1 5/8	-		7664	

BRASS PIPE (12' LENGTH)

Size	Fig No	Price
1/8	21146	
1/4	7665	
3/8	7666	
1/2	7667	
3/4	7668	
1	7672	
1 1/4	7673	
1 1/2	7674	
2	7675	
3	7677	

DUFF TIP: The outside diameter of any size copper water tube is always the same, no matter if it is type L, M, K, or DWV.

COPPER FITTINGS







	90° Elbow CXC		45° Elbow CXC		90° Elbow Ftg X C		45° Elbow Ftg X C		90° LR Elbow C X C	
SIZE	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
1/8	13995		14005		14002		-		-	
1/4	1697		14006		14003		14009		26415	
3/8	1698		1754		1744		1764		26417	
3/8 X 1/4	5801		-		-		-		-	
1/2	1699		1755		1745		1765		26419	
1/2 X 1/4	13997		-		-		-		-	
1/2 X 3/8	1708		-		-		-		-	
5/8	13996		14007		14004		14010		26421	
5/8 x 1/2	40046		-		-		-		-	
5/8 x 3/4	40045		-		-		-		-	
3/4	1700		1756		1746		1766		26422	
3/4 X 3/8	36779		-		-		-		-	
3/4 X 1/2	1709		-		-		-		-	
7/8	-		-		-		-		249748	
1	1701		1757		1747		1767		26424	
1 x 3/8	36780		-		-		-		-	
1 X 1/2	1710		-		-		-		-	
1 X 3/4	1711		-		-		-		-	
1 1/4	1702		1758		1748		1768		26426	
1 1/4 X 1/2	1712		-		-		-		-	
1 1 /4 X 3/4	1713		-		-		-		-	
1 1/4 X 1	1714		-		-		-		-	
1 1/2	1703		1759		1749		1769		26427	
1 1/2 x 1/2	1715		-		-		-		-	
1 1/2 x 3/4	1716		-		-		-		-	
1 1/2 x 1	1717		-		-		-		-	
1 1/2 x 1 1/4	1718		-		-		-		-	
2	1704		1760		1750		1770		26429	
2 x 3/4	1719		-		-		-		-	
2 x 1	1720		-		-		-		-	
2 x 1 1/4	5802		-		-		-		-	
2 x 1 1/2	1721		-		-		-		-	
2 1/2 x 1 1/2	1705		1761		1751		1771		26431	
2 1/2 x 1	-		-		-		-		-	
2 1/2 x 2	33423		-		-		-		25701	
3	1706		1762		1752		1772		-	
3 1/2	35939		-		-		-		25704	
4	1707		1763		1753		5849		-	
5	33420		33403		-		-		-	
6	33421		33404		-		-		-	

DUFF TIP: *Don't forget to order sandcloth, fitting brushes, flux and solder with copper fittings!*

COPPER FITTINGS

Copper X Copper





	Coupling w/ Stop		Coupling Without Stop	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/8	14147		-	
1/4	1914		5805	-
1/4 x 1/8	14148		-	-
3/8	1915		1904	-
3/8 x 1/8	26398		-	-
3/8 x 1/4	1925		-	
1/2	-		1905	
1/2 x 1/4	1926		-	
1/2 x 3/8	1927		-	
5/8	14104		35894	
5/8 x 1/4	35886		-	
5/8 x 3/8	35885		-	
5/8 x 1/2	14105		-	
3/4	-		1906	
3/4 x 3/8	14149		-	
3/4 X 1/2	1928		-	
3/4 x 5/8	14106		-	
1	1918		1907	
1 x 3/8	14150		-	
1 x 1/2	1929		-	
1 x 5/8	35888		-	
1 x 3/4	1930		-	
1 1/4	1919		1908	
1 1/4 x 1/2	1931		-	
1 1/4 x 5/8	-		-	
1 1/4 x 3/4	1932		-	
1 1/4 x 1	1933		-	
1 1/2	1920		1909	
1 1/2 x 1/2	1934		-	
1 1/2 x 3/4	1935		-	
1 1/2 x 1	1936		-	
1 1/2 x 1 1/4	1937		-	
2	1921		1910	
2 x 1/2	1938			
2 x 3/4	1939		-	
2 x 1	1940		-	
2 x 1 1/4	1941		-	
2 1/2	1922		1911	
2 1/2 x 1	22899		-	
2 1/2 x 1 1/4	1943		-	
2 1/2 x 1 1/2	1944		-	
2 1/2 x 2	1945		-	
3	1923		1912	
3 x 1	-		-	
3 x 1 1/4	-		-	
3 x 1/12	1946		-	
3 x 2	1947		-	
3 x 2 1 /2	1948		-	
3 1/2	35890		-	
3 1/2 x 3	35891		-	
4	1924		1913	
4 x 2	1949		-	
4 x 2 1/2	1950		-	
4 x 3	1951		-	
4 x 3 1/2	-		-	
5	33377		33389	
5 x 3	-		-	
5 x 4	33382		-	
6	33378		33390	
6 x 2	33387			
6 x3	-			
6 x 4	33385			
6 x 5	-			





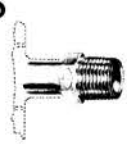
	Adapter CXM		Adapter CXF	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/8	-		30914	
1/8 X 1/4	-		24003	
1/4	2020		19634	
1/4 X 3/8	26446		35904	
1/4 X 1/2	26445		35903	
3/8	2021		1998	
3/8 X 1/4	25798		14065	
3/8 X 1/2	26449		26399	
3/8 X 3/4	26448		-	
3/8 X 1	-		-	
1/2	2022		1999	
1/2 X 1/4	2031		2008	
1/2 X 3/8	2032		2009	
1/2 X 3/4	2033		2010	
1/2 X 1	2034		35905	
5/8 X 1/2	35917		35907	
5/8 X 3/4	35902		-	
3/4	2023		2000	
3/4 X 3/8	-		20168	
3/4 X 1/2	2035		2011	
3/4 X 1	2036		2012	
3/4 X 1 1/4	2037		2013	
3/4 X 1 1/2	26450		-	
1	2024		2001	
1 X 1/2	2038		2014	
1 X 3/4	2039		2015	
1 X 1 1/4	2040		2016	
1 X 1 1/2	2041		26400	
1 X 2	14071		-	
1 1/4	2025		2002	
1 1/4 X 1/2	-		-	
1 1/4 X 3/4	21417		35908	
1 1/4 X 1	2042		2017	
1 1/4X11/2	2043		2018	
1 1/4 X 2	14072		20457	
1 1/2	2026		2003	
1 1/2 X 3/4	20645		14066	
1 1/2 X 1	2044		14067	
1 1/2X11/4	2045		2019	
1 1/2 X 2	2046		14068	
2	2027		2004	
2 X 1	-		-	
2 X 1 1/4	14074		23003	
2 X 1 1/2	33363		14069	
2 X 2 1/2	2047		-	
2 1/2	2028		2005	
2 1/2 X 2	14172		-	
3	2029		2006	
4	2030		2007	
5	33361		-	
6	-		-	

For additional information call: 610-275-4453 or Fax: 610-279-6299.

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COPPER FITTINGS



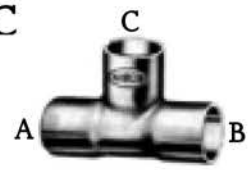



	Fitting Reducer Ftg X C		Flush Bushing Ftg X C		Fitting Adapter Ftg X M		Fitting Adapter Ftg X F	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/8	-		-		33364		-	
1/4	-		-		33365		33351	
1/4 x 1/8	14029		35969		-		-	
3/8	-		-		33366		2050	
3/8 x 1/4	14030		5806		-		-	
1/2	-		-		2048		2051	
1/2 x 1/4	14031		5808		-		33355	
1/2 x 3/8	14032		5807		33370		33353	
1/2 x 3/4	-		-		-		-	
3/4	-		-		2049		2052	
3/4 x 1/4	14033		-		-		-	
3/4 x 3/8	14034		1965		-		-	
3/4 x 1/2	17753		1964		33372		14076	
3/4 x 5/8	35900		-		-		-	
1	-		-		5812		2053	
1 x 3/8	26405		-		-		-	
1 x 1/2	14035		1966		-		-	
1 x 5/8	35901		-		-		-	
1 x 3/4	14036		1967		-		35911	
1 1/4	-		-		5813		2054	
1 1/4 x 1/2	14037		-		-		-	
1 1/4 x 3/4	14038		-		-		-	
1 1/4 x 1	14040		1970		-		-	
1 1/2	-		-		5814		2055	
1 1/2 x 1/2	14041		-		-		-	
1 1/2 x 3/4	14042		-		-		-	
1 1/2 x 1	14043		-		-		-	
1 1/2 x 1 1/4	14044		1974		-		-	
2	-		-		5815		2056	
2 x 1/2	14045		-		-		-	
2 x 3/4	14046		-		-		-	
2 x 1	14047		-		-		-	
2 x 1 1/4	14048		-		-		-	
2 x 1 1/2	14049		1978		-		-	
2 1/2	-		-		24131		35913	
2 1/2 x 1	26407		-		-		-	
2 1/2 x 1 1/4	14050		-		-		-	
2 1/2 x 1 1/2	14051		-		-		-	
2 1/2 x 2	14052		-		-		-	
3	-		-		26401		35914	
3x1	-							
3 x 1 1/4	14053							
3 x 1 1/2	14054							
3 x 2	14055							
3 x 2 1/2	14056							
3 1/2 x 3	33528							
4 x 2	20081							
4 x 2 1/2	14057							
4 x 3	14058							
4 x 3 1/2	33529							
5 x 2	-							
5 x 3	26409							
5 x 4	26408							
6 x 3	26413							
6 x 4	26412							
6 x 5	26411							

	Flush Bushing Ftg X F		Crossover C X C	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/2	-		14199	
1/2 x 1/8	-		-	
1/2 x 1/4	17681		-	
3/4	-		14203	
3/4 x 1/8	-		-	
3/4 x 1/4	-		-	
3/4 x 3/8	-		-	
3/4 x 1/2	18969		-	
1 x 1/2	19426		-	
1 x 3/4	-		-	
1 1/4 x 3/4	35972		-	
1 1/2 x 1	35973		-	




COPPER TEES CXCXC



SIZE			Fig No
A	B	C	
1/8	1/8	1/8	14011
1/4	1/4	1/4	1773
3/8	3/8	3/8	1774
3/8	3/8	1/8	14013
3/8	3/8	1/4	1784
3/8	3/8	1/2	14014
1/2	1/2	1/2	1775
1/2	1/2	1/4	33555
1/2	1/2	3/8	1785
1/2	1/2	3/4	1786
1/2	1/2	1	33553
5/8	5/8	5/8	14012
3/4	3/4	3/4	1776
3/4	3/4	1/4	22929
3/4	3/4	3/8	18119
3/4	3/4	1/2	1787
3/4	3/4	1	1790
3/4	1/2	1/2	1788
3/4	1/2	3/4	1789
7/8	7/8	7/8	—
1	1	1	1777
1	1	1/4	33579
1	1	3/8	18120
1	1	1/2	1791
1	1/2	1/2	1792
1	1/2	3/4	1793
1	1/2	1	1794
1	1	5/8	33578
1	1	3/4	1795
1	3/4	1/2	1796
1	3/4	3/4	1797
1	3/4	1	1798
1	3/4	1 1/4	—
1	1	1 1/4	33577
1	1	1 1/2	33576
1 1/4	1 1/4	1 1/4	1778
1 1/4	1 1/4	3/8	33582
1 1/4	1 1/4	3/4	1801
1 1/4	1/2	1/2	33584
1 1/4	1/2	3/4	1802
1 1/4	1/2	1	1803
1 1/4	1/2	1 1/4	22222
1 1/4	1 1/4	3/4	1804
1 1/4	3/4	1/2	33583
1 1/4	3/4	3/4	1805
1 1/4	3/4	1	1806
1 1/4	3/4	1 1/4	1807
1 1/4	1 1/4	1	1808
1 1/4	1	1/2	1809
1 1/4	1	3/4	1810
1 1/4	1	1	1811
1 1/4	1	1 1/4	1812
1 1/4	1 1/4	1 1/2	27957
1 1/2	1 1/2	1 1/2	1779
1 1/2	1 1/2	1/2	1813
1 1/2	1/2	1	33592
1 1/2	1/2	1 1/4	—
1 1/2	1/2	1 1/2	1814
1 1/2	1 1/2	3/8	40043
1 1/2	1 1/2	3/4	1815
1 1/2	3/4	1/2	33590
1 1/2	3/4	3/4	1816
1 1/2	3/4	1	33589
1 1/2	3/4	1 1/4	—
1 1/2	3/4	1 1/2	1817
1 1/2	1 1/2	1	1818
1 1/2	1	1/2	33588
1 1/2	1	3/4	1819
1 1/2	1	1	1820
1 1/2	1	1 1/4	1821
1 1/2	1	1 1/2	1822
1 1/2	1 1/2	1 1/4	1823
1 1/2	1 1/4	1/2	33587
1 1/2	1 1/4	3/4	1824
1 1/2	1 1/4	1	1825
1 1/2	1 1/4	1 1/4	1826
1 1/2	1 1/4	1 1/2	1827
1 1/2	1 1/2	2	33586
1 1/2	1 1/2	2 1/2	—

SIZE			Fig No
A	B	C	
2	2	2	1780
2	2	1/2	1828
2	1/2	2	1829
2	2	3/4	1830
2	3/4	2	1831
2	2	1	1832
2	1	1	21399
2	1	2	1834
2	2	1 1/4	1835
2	2	1 1/2	1838
2	1 1/2	1	1840
2	1 1/2	1 1/4	1841
2	1 1/2	1 1/2	1842
2	1 1/2	2	1843
2	2	1 1/2	33594
2	2	3	—
2 1/2	2 1/2	2 1/2	1781
2 1/2	2 1/2	1/2	1844
2 1/2	1/2	2 1/2	—
2 1/2	2 1/2	3/4	1845
2 1/2	3/4	2 1/2	1854
2 1/2	2 1/2	1	1846
2 1/2	1	2 1/2	1855
2 1/2	2 1/2	1 1/4	1847
2 1/2	1 1/4	2 1/2	1856
2 1/2	2 1/2	1 1/2	1848
2 1/2	1 1/2	1 1/2	—
2 1/2	1 1/2	2	33603
2 1/2	1 1/2	3/4	—
2 1/2	2 1/2	2	1849
2 1/2	2	1/2	33602
2 1/2	2	3/4	33601
2 1/2	2	1	1850
2 1/2	2	1 1/4	1851
2 1/2	2	1 1/2	1852
2 1/2	2	2	25716
2 1/2	2	2 1/2	1858
3	3	3	1782
3	3	1/2	1859
3	3	3/4	1860
3	3/4	3	30620
3	3	1	1861
3	1	3	33610
3	3	1 1/4	1862
3	1 1/4	3	33609
3	3	1 1/2	1863
3	1 1/2	3	33608
3	3	2	1864
3	2	2	1865
3	2	2 1/2	33607
3	2	3	1866
3	3	2 1/2	1867
3	2 1/2	3	33605
3 1/2	3 1/2	3 1/2	35964
4	4	4	1783
4	4	1/2	23702
4	4	3/4	20711
4	4	1	23703
4	4	1 1/4	23704
4	4	1 1/2	23705
4	4	2	1870
4	2	2	25703
4	2	4	33614
4	4	2 1/2	1871
4	2 1/2	4	—
4	4	3	1872
4	3	2	33612
4	3	2 1/2	1873
4	3	3	33611
4	3	4	32487
5	5	5	33537
6	6	6	33538
8	8	8	33539

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Please call for current prices.

COPPER FITTINGS





	TUBE CAP		RETURN BEND CXC	
Size	Fig No	Price	Fig No	Price
1/4	1952		33531	
3/8	1953		33532	
1/2	1954		-	
5/8	14169		29067	
3/4	1955		2057	
1	1956		14078	
1 1/4	1957		14079	
1 1/2	1958		14080	
2	1959		14081	
2 1/2	1960		-	
3	1961		-	
4	1962		-	
5	-		-	
6	33376		-	



TEE C X F X C

Size	Fig No	Price
3/8	33652	
1/2	1890	
1/2 X 3/8 X 1/2	33654	
1/2 X 3/4 X 1/2	1891	
3/4	1889	
3/4 X 1/8 X 3/4	—	
3/4 1/2 X 3/4	1892	
3/4 X 1/2	21660	
1	19427	
1 X 1/8 X 1	—	
1 X 1/2 X	1893	
1 X 3/4 X 1	1894	
1 1/4	33658	
1 1/4 X 1/2 X 1 1/4	23352	
1 1/4 X 3/4 X 1 1/4	1895	
1 1/2	33660	
1 1/2 X 3/4 X 1 1/2	26483	
1 1/2 X 1/2 X 1 1/2	—	
2	36785	
2 X 3/4 X 2	40040	

TEE F X F X C



Size	Fig No	Price
1/2	20933	
3/4	20764	

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Tee FXMXC



Tee CXFXF

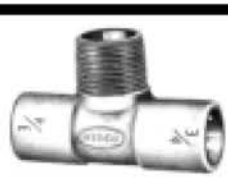


Tee CXMXC



TEE C X C X F

Size	Fig No	Price
1/4	—	
1/4 X 1/8	—	
3/8	14018	
3/8 X 1/4	33645	
3/8 X 1/2	14020	
1/2	1874	
1/2 X 1/8	—	
1/2 X 1/4	14021	
1/2 X 3/8	14022	
1/2 X 3/4	21771	
3/4	1875	
3/4 X 3/8	14023	
3/4 X 1/2	1878	
3/4 X 1/2 X 1/2	—	
3/4 X 1/2 X 3/4	1879	
3/4 X 1	29790	
1	1876	
1 X 3/4	1881	
1 X 3/4 X 1/2	—	
1 X 3/8	—	
1 X 1/2	1880	
1 1/4	8018	
1 1/4 X 1/2	1882	
1 1/4 X 3/4	1883	
1 1/4 X 1	1884	
1 1/2	1877	
1 1/2 X 1/2	18339	
1 1/2 X 3/4	1885	
1 1/2 X 1	33649	
2	33650	
2 X 1/2	1886	
2 X 3/4	1887	
2 X 1	1888	
2 X 1 1/4	—	
2 X 1 1/2	—	

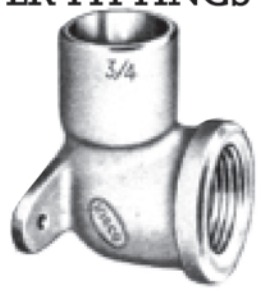
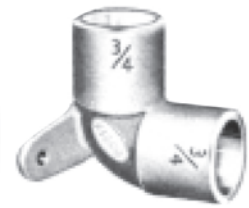


TEE C X C X M

Size	Fig No	Price
1/2	—	
3/4	20930	

COPPER FITTINGS




Size	90° Elbow CXM Fig No	Price	90° Elbow CXF Fig No	Price	90° Drop Elbow CXF Fig No	Price	90° Drop Elbow CXC Fig No	Price	90° Flanged Sink Elbow CXF Fig No	Price
1/4	-		26009		-		-		-	
3/8	14016		1722		33495		-		-	
3/8 X 1/4	-		35955		-		-		-	
3/8 X 1/2	13998		1729		33501		-		-	
3/8 X 3/4	-		-		-		-		-	
1/2	1733		1723		1742		1743		22118	
1/2 X 1/4	-		33489		-		-		-	
1/2 X 3/8	26442		1728		13999		-		-	
1/2 X 3/4	1740		1730		-		-		-	
3/4	1734		1724		14000		33522		-	
3/4 X 3/8	-		36499		-					
3/4 X 1/2	26444		1731		33502					
3/4 X 1	23621		22365		-					
3/4 X 1 1/4	-		-		-					
1	1735		1725		-					
1 X 1/2	-		20574		-					
1 X 3/4	-		1732		-					
1 X 1 1/4	-		-		-					
1 1/4	1736		1726		-					
1 1/4 X 1/2	-		33500		-					
1 1/4 X 3/4	-		33499		-					
1 1/4 X 1	-		33498		-					
1 1/4X 11/2	-		-		-					
1 1/2	1737		1727		-					
2	1738		5848		-					

DUFF TIP:

Working with Copper Pipe

A properly soldered (or "sweated") joint on copper pipe is as strong as the pipe itself. A poorly soldered joint will leak. Work systematically because each step depends on the previous one: The pipe must be cut straight and all burrs removed. The inside of the fitting and the outside of the pipe must be clean. Flux must be applied for the solder to adhere. The solder must be fully drawn into the joint.

Pipe ends and fittings must be perfectly round. If either is dented or even slightly flattened, it is all but impossible to restore the original roundness. Cut the pipe again or buy a new fitting.

Cutting with a tubing cutter ensures roundness. If space is tight and you must cut with a hacksaw, do it slowly and gently. If you must bend a pipe to move it away from a wall, work carefully.


90° Street Elbow CXF


90° Fitting Elbow Ftg X F


45° Elbow CXF


45° Elbow CXM


45° Fitting Elbow Ftg X M


45° Fitting Elbow Ftg x F

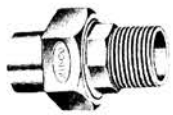
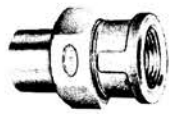
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COPPER FITTINGS



SIZE	Union CXC FIG. NO.	Union CXM FIG. NO.	Union CXF FIG. NO.	Fitting Plug FIG. NO.	Cross CXCXCxC FIG. NO.
1/8	-	-	-	-	-
1/4	14060	218313	206138	-	-
3/8	1989	14061	33669	14180	-
1/2	1990	5809	8814	14182	14224
5/8	35974	-	-	-	-
3/4	1991	5810	1996	14185	14226
1	1992	5811	1997	-	14228
1 1/4	1993	14062	23708	14190	14229
1 1/2	1994	14063	23709	14193	14231
2	1995	14064	23710	-	14233
2 1/2	14175	23711	-	-	-
3	14177	-	-	-	-
4	-		-	-	-







SIZE	90° Union Elbow CXC FIG. NO.	90° Union Elbow CXM FIG. NO.	90° Union Elbow CXF FIG. NO.	90° Y CXCXC FIG. NO.	45° Y CXCXC FIG. NO.
3/8	14089	-	-	-	-
1/2	14090	33518	33509	-	14151
3/4	14091	33519	33511	-	14152
1	14092	33520	33512	-	14153
1 1/4	33525	-	-	-	14154
1 1/2	-	-	-	-	-







SIZE	Coupling with Drain CXC FIG. NO.	Elbow with Drain CXC FIG. NO.	Bulkhead CXC FIG. NO.	Bulkhead CXM FIG. NO.	Bulkhead CXF FIG. NO.
3/8	-	-	-	-	33374
1/2	14157	14164	14083	14217	14209
3/4	14158	14166	14084	14218	14212
1	14159	14167	14085	-	14214
1 1/4	-	22530	-	-	-

COPPER PRESS FITTINGS

Believe it or not, press connections are less expensive than soldering when you consider man hours, solder, flux, etc.--even when you factor in the upfront cost of tools. Plus, you don't need a burn permit. Moreover, when you're repairing with press fittings, water can still be in the line!



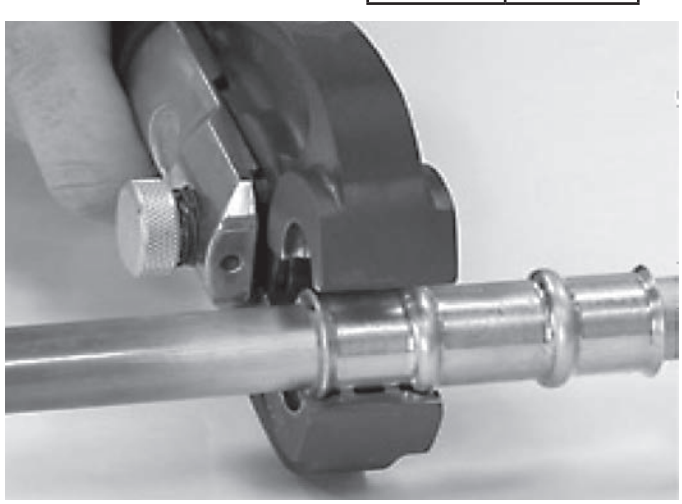
Couplings With Stop	
SIZE	FIG. NO.
1/2	199218
3/4	199219
1	199221
1 1/4	199222
1 1/2	199223
2	199225
2 1/2	245382
3	245383
4	245384
3/4 X 1/2	199227
1X1/2	199229
1X3/4	199230
1 1/4 X 3/4	199231
11/4X1	199232
1 1/2 X 3/4	199233
11/2X1	199234
11/2X1 1/4	199235
2X3/4	199236
2X1	199237
2X11/2	199239
2 1/2X1	-
2 1/2X1 1/4	--
2 1/2X1 1/2	-
2 1/2X2	--
3X3/4	--
3X11/2	-
3X2	-
3X2 1/2	-
4X2	-
4X2 1/2	-
4X3	-



Couplings Without Stop (Slip)	
SIZE	**FIG. NO.**
1/2	199242
3/4	199243
1	199244
1 1/4	199246
1 1/2	199247
2	199248
2 1/2	245385
3	-
4	245386
Extended Length*	
1/2	-
3/4	-
1	--



Caps	
SIZE	**FIG. NO.**
1/2	199379
3/4	199383
1	199385
1 1/4	199386
1 1/2	199387
2	199388
2 1/2	245409
3	245410
4	245411





Fitting Reducers	
SIZE	FIG. NO.
3/4 X 1/2	199195
1X1/2	199196
1X3/4	199197
1 1/4 X 3/4	199198
11/4X1	199199
1 1/2 X 1/2	199203
1 1/2 X 3/4	199204
1 1X2 X 1	199205
1 1/2 X 11/4	199208
2X1/2	199209
2X3/4	199211
2X1	199212
2X11/4	199216
2X11/2	199217
2 1/2X2	-
3X2 1/2	-
4X2 1/2	-
4X3	-

*Excellent for repair work!



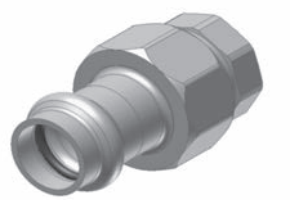
Caps	
SIZE	**FIG. NO.**
1/2 x 1/2	118769
3/4 x 3/4	118171



90° Drop Ear Elbows (C X F)	
SIZE	**FIG. NO.**
1/2 X 3/8	—
1/2	199412
3/4	199413



Unions	
SIZE	**FIG. NO.**
UNION 1/2	199453
UNION 3/4	199454
UNION 1	199455
UNION 1 1/4	199457
UNION 1 1/2	199459
UNION 2	199460



Unions	
SIZE	**FIG. NO.**
1/2	199462
3/4	199463
1	199464
1 1/4	199465
1 1/2	199466
2	199468



CX Male Unions	
SIZE	**FIG. NO.**
1/2	199469
3/4	199470
1	199471
1 1/4	199472
1 1/2	199473
2	199474

DUFFNOTE:

Stainless Steel & Black Iron fittings available too!

For additional information call: 610-275-4453 or Fax: 610-279-6299.

Please call for current prices.

COPPER PRESS FITTINGS



90° Elbows	
SIZE	FIG. NO.
1/2	199308
3/4	199309
1	199310
1 1/4	199313
1 1/2	199314
2	199316
2 1/2	245399
3	245400
4	245402



45° Elbows	
SIZE	FIG. NO.
1/2	199294
3/4	199296
1	199297
1 1/4	199298
1 1/2	199299
2	199300
2 1/2	245392
3	245393
4	245394



Tees	
SIZE	FIG. NO.
1/2	199329
3/4	199334
1	199339
1 1/4	199348
1 1/2	199358
2	199377
2 1/2	245406
3	245407
4	245408



Male Adapters	
SIZE	FIG. NO.
CX M 1/2	199266
CX M 3/4	199269
CX M 1	199272
CX M 1 1/4	199276
CX M 1 1/2	199281
CX M 2	199292
CX M 2 1/2	245389
CX M 3	245390
CX M 4	245391
CX M 1/2 X 3/8	199267
CX M 1/2 X 3/4	199268
CX M 3/4 X 1/2	199270
CX M 1X3/4	199273
CX M 1X11/4	199274
CX M 11/4X1	199279
CX M 11/4X1 1/2	199280
CX M 11/2X1 1/4	199288

Reducing elbows, long-turn elbows and certain specialty items also available.



90° Street Elbows	
SIZE	FIG. NO.
1/2	199318
3/4	199320
1	199325
1 1/4	199326
1 1/2	199327
2	199328
2 1/2	245403
3	245404
4	245405



45° Street Elbows	
SIZE	FIG. NO.
1/2	199302
3/4	199303
1	199304
1 1/4	199305
1 1/2	199306
2	199307
2 1/2	245395
3	245396
4	245398



Flanges are available 2" - 4", 125 lb. rating and 150 lb. rating.

Don't forget to order nuts & bolts and gaskets.

Reducing Tees*	
SIZE	FIG. NO.
3/4 X 1/2 X 3/4	199336
3/4 X 3/4 X 1/2	199337
1 X 1/2 X 1	199340
1 X 3/4 X 1	199344
1 X 1 X 1/2	199345
1 X 1 X 3/4	199346
1 1/4 X 1 X 3/4	199349
11/4X1X1	199350
11/4X1 1/4 X 1/2	199355
11/4X1 1/4 X 3/4	199356
11/4X1 1/4 X 1	199357
1 1/2 X 1/2 X 1 1/2	199359
1 1/2 X 3/4 X 3/4	199364
1 1/2 X 1 X 3/4	199365
11/2X1X1	199366
11/2X1X1 1/2	199367
11/2X11/4X1	199368
11/2X1 1/4 X 1 1/4	199369
11/2X1 1/2 X 1/2	199370
11/2X1 1/2 X 3/4	199374
11/2X1 1/2 X 1	199375
11/2X1 1/2 X 1 1/4	199376
2X2X1	309969
2-1/2 X 2-1/2 X 1	319838
3 X 3 X 3/4	259066
3 X 3/4 X 3	307950

***When calling a Tee, read the run first, large-to-small, and then the branch. Many other reducing Tees available through 4"**



Female Adapters	
SIZE	FIG. NO.
CX F 1/2	199249
CX F 3/4	199252
CX F 1	199254
CX F 1 1/4	199258
CX F 1 1/2	199260
CX F 2	199263
CX F 1/2 X 3/8	199250
CX F 1/2 X 3/4	199251
CX F 3/4 X 1/2	199253
CX F 1X1/2	199255
CX F 1X3/4	199256
CX F 1X11/4	199257
CX F 1 1/4 X 1/2	-
CX F 11/4X1	199259
CX F 11/4X1 1/2	199261
CX F 1 1/2 X 3/4	-
CX F 11/2X1 1/4	199262

DUFF DELIVERS



COPPER PRESS FITTINGS



90" Elbows (C X M)	
SIZE	FIG. NO.
1/2	199418
3/4	199420
3/4 X 1/2	199426
1	199427
1 1/4	199429
1 1/2	199430
2	199431



90" Female Elbows (C X F)	
SIZE	FIG. NO.
1/2	199389
3/4	199392
3/4 X 1/2	199394
1	199408
1 1/4	199409
1 1/2	199410
2	199411



Female Outlet Tees (C X C X F)	
SIZE	FIG. NO.
1/2	199433
3/4	305390
3/4 X 3/4 X 1/2	199436
1 X 1 X 1/2	199437
1 X 1 x 3/4	306182
11/4X1 1/4 X 1/2	-
11/4X1 1/4 X 3/4	-
11/2X1 1/2 X 1/2	199443
11/2X1 1/2 X 3/4	-
2 X 2 X 1/2	199451
2 X 2 X 3/4	-



Bullhead Tees	
SIZE	FIG. NO.
1/2 x 1/2 X 3/4	199330
1/2 x 1/2 X 1	199483
3/4 x 3/4 X 1	199338
1X1x11/4	199347
1x1x2	-
11/4x1 1/4 x 2	-
11/2x1 1/2 x 2	-
11/2x1 1/2 x 3	--
2x2x3	-
2 1/2x2 1/2 x 3	-
2 1/2x2 1/2 x 4	-

Stainless Steel & Black Iron fittings available too!

These and many other specialty fittings are available:



Female Street Elbow / Reducer Street Elbows



Female Street Adapters / Reducer Adapters



Reducer Run / Outlet Tees



90° Reducing Elbows



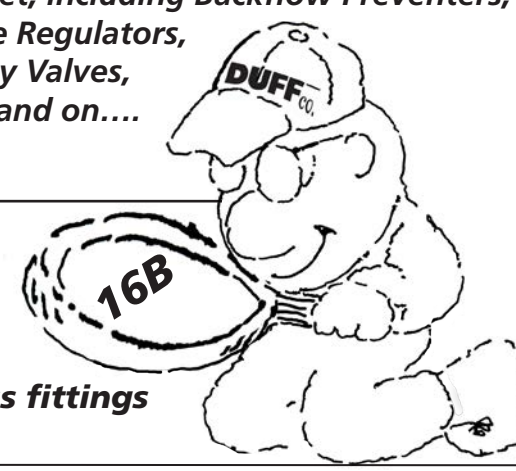
Male Street Adapters / Reducer Adapters



Reducer Outlet Tees

DUFF TIP:

New press fittings are always coming to market, including Backflow Preventers, Pressure Regulators, Specialty Valves, and on and on….



See page 16B for PRESS BALL VALVES.

See page 96C for black pipe Mega Press fittings

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

COPPER FITTINGS - DWV






SIZE	90° Elbow CXC		90° Elbow Ftg X C		45° Elbw CXC		45° Elbow FtgXC	
	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
1 1/4	14388		14390		14392		14394	
1 1/2	2058		2062		2066		2070	
1 1/2 x 1 1/4	20259		-		-		-	
2	2059		2063		2067		2071	
2 x 1 1/2	-		-		-		-	
3	2060		2064		2068		2072	
4	2061		2065		2069		14380	







SIZE	22 1/2° Elbow CXC		11 1/4° Elbow C X C		60° Elbow CXC		90° Elbow C X F		90° Elbow CXM	
	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
1 1/4	33879		-		-		-		-	
1 1/2	2073		-		30654		2079		2081	
2	2074		-		33881		2080		-	
3	2075		-		33883		-		-	
4	28328		-		-		-		-	





SIZE	90° Elbow with Heel Inlet CXCXC		90° Elbow with Side Inlet CXCXC		Double Elbow CXC	
	Fig No	Price	Fig No	Price	Fig No	Price
1 1/2	-		-		26453	
1 1/2 x 1 1/4 x 1 1/4	-		-		-	
2	-		-		24241	
2 x 1 1/2 x 1 1/2	-		-		33900	
3 x 2	-		5818		-	
3 x 1 1/2	-		-		-	
4 x 2	-		-		-	

COPPER FITTINGS - DWV






SIZE	TEE C X C X C		TEE C X F X C		TEE C X C X F		DOUBLE TEE C X C X C X C	
	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
1 1/4	14387		-		-		-	
1 1/2	23005		33893		2095		2097	
1 1/2 x 1 1/4	14369		-		-		33895	
1 1/2 x 1 1/4 x 1 1/2	-		-		-		-	
2	2083		-		2096		2098	
2 X 1 1/4	33891		-		-		33897	
2 X 1 1/2	2087		-		-		2100	
2 X 1 1/2 X 1 1/4	-		-		-		-	
2 X 1 1/2 X 1 1/2	2088		-		-		-	
2 X 1 1/2 X 2	2089		-		-		-	
3	2085		-		-		-	
3 X 1 1/4	-		-		-		-	
3 X 1 1/2	2090		-		-		-	
3 X 2	2091		-		-		2102	
4	2086		-		-		-	
4 X 1 1/2	-		-		-		-	
4 X 2	2093		-		-		-	
4 X 3	2094		-		-		-	




Size	WYE C X C X C		DOUBLE Y C X C X C	
	Fig No	Price	Fig No	Price
1 1/4	14384		-	
1 1/2	2103		2115	
1 1/2X1 1/4	-		-	
2	2104		-	
2 X 1 1/2	2107		-	
2 X 1 1/2 X 1 1/4	-		-	
2 X 1 1/2 X 1 1/2	2108		-	
2 X 1 1/2 X 2	2109		-	
3	2105		-	
3 X 1 1/2	2110		-	
3 X 2	2111		-	
4	2106		-	
4 X 1 1/2	-		-	
4 X 2	2113		-	
4 X 3	2114		-	

ALSO READILY AVAILABLE FOR YOUR CONVENIENCE!



45° Wye CXCXF



45° Wye CXFXC

For additional information call: 610-275-4453 or Fax: 610-279-6299.

Please call for current prices.

COPPER FITTINGS - DWV



Flush Cleanout w/ Plug FtgXF w/ Plug



Cleanout w/ Plug FtgXF w/ Plug

Size	Fig No	Price	Fig No	Price
1 1/4	-		14395	
1 1/4X3/4	33925		-	
1 1/2	-		2121	
1 1/2 X 1	33926		-	
2	-		2122	
2X1 1/2	33927		-	
3	-		2123	
3X2 1/2	33928		-	
4	-		14371	
4X3	33929		-	



DWV COUPLING CXC



DWV REPAIR COUPLING CXC



FLUSH BUSHING FTGXC

Size	Fig No	Price	Fig No	Price	Fig No	Price
1 1/4	14400		-		-	
1 1/2	2127		2135		-	
11/2X11/4	22459		-		-	
2	2128		2136		-	
2 X 1 1/4	20341		-		33874	
2 X 1 1/2	2131		-		33931	
3	2129		2137		-	
3 X 1 1/2	2132		-		-	
3 X 2	2133		-		-	
4	2130		33875		33875	
4X3	2134		-		-	



Soil Pipe Adapter C X Spigot



Adapter C X F



Adapter C X M

Size	Fig No	Price	Fig No	Price	Fig No	Price
1 1/4	-		14403		14406	
1 1/4 x 1 1/2	-		-		23777	
1 1/4 x 2	33909		-		-	
1 1/2	-		2151		2158	
1 1/2 x 1 1/4	-		-		21639	
1 1/2 x 2	2149		-		23778	
1 1/2 x 3	22735		-		-	
1 1/2 x 4	-		-		-	
2	-		2152		2159	
2 x 1 1/4	-		-		-	
2 x 1 1/2	-		-		23779	
2 x 2	2146		-		-	
2 x 3	-		-		-	
2 x 4	21391		-		-	
3	-		2153		2160	
3 x 3	2147		-		-	
3 x 4	33912		-		-	
4	-		5851		2161	
4 x 2	-		-		-	
4 x 3	-		-		-	
4 x 4	-		-		-	

COPPER FITTINGS - DWV



P-Trap CXC



P-Trap w/ Union Joint (LA Style) CXSJ

DUFF TIP:

When ordering any DWV copper fitting, don't forget to order solder and flux

SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE
1 1/4	64864		-	
1 1/2	64866		5828	
2	64867		-	



Drum Trap



Return Bend CXC



Test cap



Test Tee CXCXCleanout w/ plug

SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
1 1/4	-		14378		14415		-	
1 1/2	-		5831		10900		-	
1 1/2x3x5	-		-		-		-	
1 1/2x3x6	-		-		-		-	
2	-		5832		10901		10904	
3	-		14377		10902		-	
4	-		-		-		-	

ALSO READILY AVAILABLE FOR YOUR CONVENIENCE!



Offset Closet Fitting
Ftg X C



Fitting Plug

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

COPPER FITTINGS - DWV



SIZE	Trap Adapter Ftg X SJ Fig No	Price	Trap Adapter C X SJ Fig No	Price	Trap Adapter M X SJ Fig No	Price	Trap Adapter F X SJ Fig No	Price
1 1/4	14406		14411		-		33916	
1 1/2	5821		5822		-		5820	
1 1/2 x 1 1/4	33913		33914		-		33917	
2 x 1 1/2	-		-		-		-	



CLOSET FLANGE DEEP CLOSET FLANGE

Size	Fig No	Price	Fig No	Price
3 x 4	-		2165	
4	14330		-	



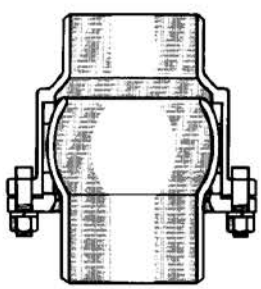
Adapter Ftg X F Adapter Ftg X M

Size	Fig No	Price	Fig No	Price
1 1/4	14404		-	
11/2	2154		5850	
2	2155		2162	
3	2156		-	

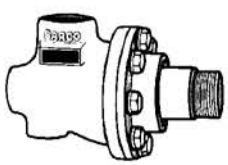
ROTARY BALL & SWIVEL JOINTS

BARCO

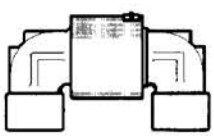
Barco offers the steel industry an important combination of special benefits: (a) a wide variety of *top-quality* products for steelmaking applications, (b) *single source* efficiency, (c) *local availability* through a national network of **Barco** distributors.
Barco Ball Joints (many in service for more than 40 years *with no maintenance)* handle thermal expansion, vibration, shock and settling. They offer many advantages over slip joints, bellows or pipe loops....much less space is required, the need for guides and anchors is drastically reduced, and installation is faster and easier. Steelmaking applications include: steam decarburizing lines, hot process piping, distribution piping, hood cooling systems, flux chute and hood doors, trunnion rings, spray headers, de-scaling, furnace and tank piping.



Barco Ball Joint



Barco Rotary Joints handle single flow or syphon flow applications using steam, hot oil, air, gas or chemicals. Steelmaking applications include: trunnion rings, pinch roll cooling and straightener rolls on continuous casting machines, scrubbing lines and run out table roll cooling.

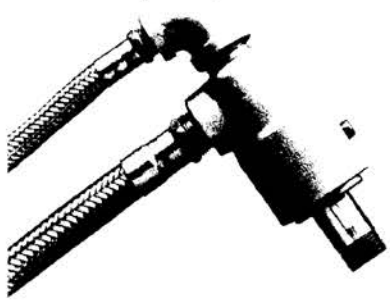


Barco Swivel Joints with positive, long-lasting Tri-Ring seal allow free swiveling under pressure. Efficient dust seals protect seal area against dirt and other foreign particles. Wide-spaced bearing area permits heavier end loads, smooth turning. Low torque is assured throughout entire pressure range.

PERFECTING Duff-Norton Airster

Rotary Union® Joints

The Perfecting Rotary Union® joint is the finest rotating sealing mechanism.



COPPER FITTINGS
FLARED FOR WATER SERVICE
MAC PAC STYLE FITTING ALSO STOCKED
See page 610 for Macpac water service fittings.





Size	Coupling CXC Fig No	Price	Adapter CXF Fig No	Price	Adapter CXM Fig No	Price
3/8	—		—		14313	
1/2	14285		14301		14316	
3/4	14287		14303		14318	
1	14290		14305		14320	
1 1/4	14291		—		—	
1 1/2	14[illegible]		14310		14324	
2	14295		14311		14327	



Size	90° Elbow CXC Fig No	Price	90° Elbow CXM Fig No	Price	Tee CXCXC Fig No	Price
3/8	—		—		—	
1/2	14332		33698		14345	
3/4	14334		33699		14349	
1	14335		33700		14352	
1 1/4	—		—		—	
1 1/2	14339		33702		14357	
2	14341		—		—	

COPPER FITTINGS
CAST FLANGED FITTINGS FOR COPPER TUBING OR BRASS PIPE



COMPANION FLANGE

Size	Fig No	Price
1/2	14239	
3/4	14241	
1	14244	
1 1/4	14249	
1 1/2	14255	
2	14257	
2 1/2	14259	
3	14261	
4	14264	
5	14266	
6	14267	
8	—	

** Class 125 provided unless class 150 specified.*

ALL AVAILABLE FOR QUICK DELIVERY!



90° Elbow



45° Elbow



Reducer



Cross



Tee



Threaded Companion Flange

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

CHROME PLATED BRASS FITTINGS

CHROME PLATED BRASS NIPPLES



SIZE	FIG. NO.	PRICE
3/8 X Close	2551	
3/8 x 1 1/2	2552	
3/8 x 2	34737	
3/8 x 2 1/2	2554	
3/8 x 3	2555	
3/8 x 3 1/2	2556	
3/8 x 4	2557	
3/8 x 4 1/2	2558	
3/8 x 5	2559	
3/8 x 5 1/2	2560	
3/8 x 6	2561	
3/8 x 12	12628	
3/8 x 18	12631	
3/8 x 24	12636	
1/2 x Close	2569	
1/2 x 1 1/2	2570	
1/2 x 2	2571	
1/2 x 2 1/2	2572	
1/2 x 3	2573	
1/2 x 3 1/2	2574	
1/2 x 4	2575	
1/2 x 4 1/2	2576	
1/2 x 5	2577	
1/2 x 5 1/2	2578	
1/2 x 6	2579	
1/2 x 12	33961	
1/2 x 15	—	
1/2 x 18	—	
3/4 x Close	2580	
3/4 x 2	—	
3/4 x 4	—	
3/4 x 5	2588	
3/4 x 6	2590	

CHROME PLATED BRASS PIPE



SIZE	FIG. NO.	PRICE
3/8 X 6 FT	12657	
1/2 X 6 FT	12659	

A complete line of chrome plated valves and fittings are available up to 2”

CHROME PLATED BRASS 90° ELBOW



SIZE	FIG. NO.	PRICE
3/8”	12704	
1/2”	2546	
3/4”	2547	

CHROME PLATED BRASS STREET 90° ELBOW



SIZE	FIG. NO.	PRICE
1/2”	2533	
3/8”	2532	

CHROME PLATED BRASS TEE



SIZE	FIG. NO.	PRICE
3/8	2534	
1/2	2535	

CHROME PLATED BRASS BUSHING



SIZE	FIG. NO.	PRICE
1/2 X 3/8	12645	
3/4 X 1/2	12647	
3/8 X 1/4	40030	

CHROME PLATED BRASS CAP



SIZE	FIG. NO.	PRICE
1/2	2539	

CHROME PLATED BRASS 45° ELBOW



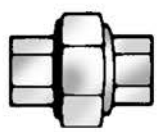
SIZE	FIG. NO.	PRICE
3/8	2548	
1/2	2549	
3/4	2550	

CHROME PLATED BRASS STREET 45° ELBOW



SIZE	FIG. NO.	PRICE
3/8	2530	
1/2	2531	

CHROME PLATED BRASS UNION



SIZE	FIG. NO.	PRICE
3/8	—	
1/2	2541	

CHROME PLATED BRASS COUPLING



SIZE	FIG. NO.	PRICE
3/8	2542	
1/2	2543	
3/4	2544	
1/2 X 3/8	5901	
3/4 X 1/2	5902	

CHROME PLATED BRASS PLUG



SIZE	FIG. NO.	PRICE
3/8	2536	

PEX PIPE & FITTINGS

3/8" PEX TUBING			1/2" PEX TUBING			3/4" PEX TUBING			1" PEX TUBING		
Length	Color	FIG. NO.	Length	Color	FIG. NO.	Length	Color	FIG. NO.	Length	Color	FIG. NO.
100' 100' 100'	RED BLUE WHITE	172755 172747 219884	100' 100' 100'	RED BLUE WHITE	172748 172756 172743	100' 100' 100'	RED BLUE WHITE	172750 172757 172744	100' 100' 100'	RED BLUE WHITE	20842 20841 17271
			300' 300'	RED BLUE	178654 178653						
500' 500'	RED BLUE	185496 185495				500' 500'	RED RED	172749 172749			
500'	RED/BLUE	172746	300' 20' 20' 20'	RED/BLUE RED BLUE WHITE	172754 50231 130825 226736	—— 20' 20' 20'	—— RED BLUE WHITE	—— 207672 176663 190937			
			20' 300'	RED HEAT RED HEAT	258821 111466	20' 300'	RED HEAT RED HEAT	210355 187799			



90°		COUPLING		TEE		REDUCERS		PLUGS		MALE ADAPTERS		FEMALE ADAPTERS	
SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO
3/8"	183549	3/8"	172773	3/8"	172761	——		3/8"	172805	3/8"X1/2"	172782		
1/2"	172770	1/2"	172774	1/2"	172773	1/2" X 3/8"	172296	1/2"	172810	3/8"	177781	1/2"	172792
3/4"	172771	3/4"	172775	3/4"	172767	3/4" x 1/2"	192001	3/4"	172807	1/2"	172802	3/4"	172795
1"	172772	1"	172776	1"	172769	1" x 3/4"	266341	3/4	172803	1"	172804	1"	172793
3/4" plastic 1" plastic	246836 246836	3/4" plastic 1" plastic	246840 246841	3/4" plastic 1" plastic	246838 246839	—— ——	—— ——	—— ——	—— ——	3/4" x 1"	180719	3/4" Pex 1" plastic	246836
												3/4" Pex	172795

SHARK BITE FITTINGS

SharkBite Push-Fit fittings are perfect when you can't solder a joint — and, they're easier to use! They work with PEX, CPVC and copper tubing. Available in sizes up to 2"!



A



B



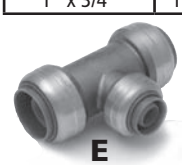
C



D

90° ELBOW	A	COUPLINGS	B	FEMALE ADAPTERS	C	CTS MALE ADAPTERS	D
SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO
1/2"	173436	1/2"	171062	1/2"	171065	1/2"	171067
3/4"	173437	3/4"	171063	1/2" CTS x 3/4 FPT	212772	1/2" CTS x 3/4" MPT	212773
1/2" x 3/4"	212774	3/4" x 1/2"	171064	3/4"	171066	3/4"	171068
1"	182518	1"	182511	1"	182514	3/4" x 1"	339111
		1" x 3/4"	182513			1"	182516

TEES	E	CAPS	F	BALL VALVES	G	SPECIALTY ITEMS	H
SIZE	FIG NO.	SIZE	FIG NO	SIZE	FIG NO.	SIZE	FIG NO
1/2"	173433	1/2"	172677	1/2"	197275	1/2" CTS x FPT 90 EL	212775
3/4"	173434	3/4"	127678	3/4"	197276	1/2" CTS x FPT Drop ear El	212779
1/2" x 3/4"	173435	1"	182523	1"	220616	3/4" CTS x FPT Drop ear EL	212782
1"	182520	1 1/2"	—	1 1/2"		1/2" CTS x FPT 90 EL	212782
1" x 3/4"	182522	2"	—	2"		1/2" CTS x MPT 90 EL	212776
						1/2" disconnect tool	171072
						3/4" disconnect tool	171073
						1/2"SB x 3/4"FPT (2X) water heater connec. kit	277049
						3/4"SB x 3/4"FPT (2X) water heater connec. kit	171069



E



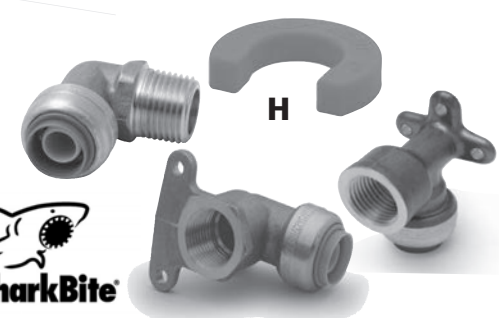
F



G



FLEXIBLE S/S SHARKBITE WATER HEATER CONECTORS	
SIZE	FIG NO
1/2" SB X 3/4" FPT X 12"	212783
1/2" SB X 3/4" FPT X 24"	277056
1/2" SB X 3/4" FPT X 15"	274634
1/2" SB X 3/4" FPT X 18"	260344
1/2" SB Ball Valve X 3/4" FPT X 18"	32833
3/4" SB X 3/4" FPT X 12"	307810
3/4" SB X 3/4" FPT X 15"	225104
3/4" SB X 3/4" FPT X 18"	260346
3/4" SB X 3/4" FPT X 24"	307811



PEX PIPE & FITTINGS

SWEAT MALE		SWEAT FEMALE		REDUCING TEES		LAVATORY CONNECTORS		TOILET CONNECTORS		SHOWER CONNECTORS	
SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO
——	——	——	——	1/2" X 3/4"	172764	3/8"(x1/2" Lav)	172817	3/8"	211617	1/2"	172789
1/2"	172784	1/2"	181311	3/4" X 1/2" X 1/2"	196794	1/8"(x1/2" Lav)	——				
3/4"	172785	3/4"	172787	3/4" X 1/2" X 3/4"	172765						
1"	172787	1"	172788	3/4" X 1/2"	172766						
				1" X 3/4"	172768						



**Stainless Oetinger ear clamp

STUBOUT		STUBOUT W/FLG		BALL VALVES		SHUTOFF VALVES		CRIMP RINGS*		J CLAMPS		CINCH CLAMP S/S**		FLAT SUSP CLAMPS	
SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO
3/8" X 1/2"	172808	3/8" X 1/2"	207563	3/8"	172824	3/8" STRT	188492	3/8"	172777	3/8"	172836	——		——	——
1/2"	172814	1/2"	207561	1/2"	172827	3/8" ANG	188494	1/2"	172778	1/2"	172837	1/2"	224562	1/2"	255540
	——		——	3/4"	172828	1/2" X 3/8" STRT	188493	3/4"	172779	3/4"	172838	3/4"	224563	——	
	——		——	1"	172829	1/2" X 3/8" ANG	188495	1"	172780	1"	172840	1"	224564	——	

SUSP CLAMP		SNAP CLIP		PEX MALE 90s		DROP EAR 90		PEX MALE SWEAT 90		PEX FEMALE SWEAT 90		ESCUTCHEON SLEEVES	
SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO
——	——	——	——	3/8"	221695	——	——	3/8" x 1/2"	182755	3/8" x 1/2"	——	3' Sleeve 3/8"	173351
1/2"	63625	1/2"	224569	1/2"	43335	1/2"	172790	1/2"	182789	1/2"	209167	3/8" Esc White	172844
3/4"	47131	3/4"	224570	1/2"x 3/8"	43334	3/4"	261120	3/4" x 1/2"	165282	3/4"	201766	——	——
——	——	1"	224571	1/2"x 3/4"	43336	——	——	3/4" x 1/2"	165281				
				3/4"	43337								
				3/4"x 1"	43338								



*Copper crimp ring

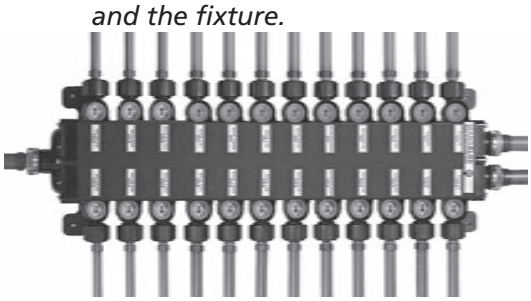
WHY PEX?

PEX is easier to install than copper; it's like running a garden hose. PEX won't corrode like copper in acidic environments. Even if you install PEX in a conventional main line and branch system, the connections are quicker to make than soldering copper.



PEX CRIMPER TOOLS		MANIFOLDS		MANIFOLD ADAPTERS	
TOOL	FIG NO	SIZE	FIG NO	SIZE	FIG NO
3/8"	172831	14 PORT 3/8"	172715	3/8"PORT X 1/2" INSERT	172729
1/2"	130015	18 PORT 3/8"	172718	1/2"PORT X 3/8" INSERT	172728
3/4"	130016	24 PORT (18)3/8"- (6)1/2"	172720	3/8" PORT CAP	172730
1"	172830	30 PORT (22) 3/8"- 8)1/2"	172726	1/2" PORT CAP	172731
1/2"-3/4" Combo	172834	36 PORT (26) 3/8"- (10)1/2"	172723	1/2"PORT X 1/2" INSERT	206504
1/2" Compact Angle	210004	18 PORT 1/2"	229014	3/4" BLOCK X 3/4" INSERT	172734
PEX Cinch Tool for up to 1"S/S Oetinger clamps	224566	24PORT 1/2"	207675	3/4" BLOCK X 3/4" MIP	172735
		30 PORT 1/2"	229013	1" BLOCK CAP	172736
		36 PORT 1/2"	184431	——	——

Manifolds simplify plumbing runs and reduce leaks by eliminating the need for many tees and fittings between the main supply line and the fixture.





BLACK PIPE MEGA PRESS FITTINGS

Viega MegaPress - the only press systems for black iron pipe approved for water and gas



The first carbon steel press fitting systems approved for both water and gas applications, Viega MegaPress helps save time and labor on the job site. Viega MegaPress fittings can reduce installation time by as much as 60%, with no need for heavy equipment or messy cutting oils. Make easy, secure, consistent black iron pipe connections in less than seven seconds with Viega MegaPress systems.

Viega MegaPress features and benefits

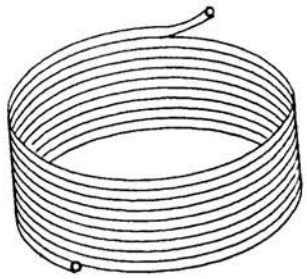
- Carbon steel press fittings with corrosion-resistant coating
- Makes secure connections in less than seven seconds on sizes ½" to 2"
- Compatible with existing Viega ProPress® press tools
- Backed by written warranty
- Helps reduce installation time up to 60%
- Provides consistent reliability
- Reduces cleanup - no oil or metal shavings
- Provides safety - no fire watches or burn permits

viega

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

GAS PIPE AND FITTINGS

POLYETHYLENE GAS PIPE



Design pressure may not xceed 100 psig for plastic pipe used in distribution systems.

May not be used where operating temperatures of the pipe will be below minus 20° F or above 140°F.

lPlastic Polyethylene pipe has a mirror smooth itnerior. Excellent flow properties is maintained throughout its service life eut to its excellent chemical and abrasion resistance.

SIZE	NOMINAL OD	SDR	MIN WALL	WT PER 100'	LENTGTH	FIG. NO.	PRICE
3/4	1.050	11.0	.095	11.6	150FT	15446	
1	1.315	11.0	.119	18.3	150FT	15448	
1	1.315	11.0	.119	18.3	500FT	15450	
1 1/4	1.660	11.0	.151	27.9	150FT	15451	
1 1/2	1.660	11.0	.173	38.3	150FT	15454	
1 1/2	1.660	11.0	.173	38.3	500FT	15455	
2	2.375	11.0	.216	59.7	100FT	15456	
2	2.375	11.0	.216	59.7	200FT	15457	
2	2.375	11.0	.216	59.7	500FT	15458	

METAL DETECTION LOCATOR TAPE

Bury locator tape 6" below grade directly above polyethelene pipe. The mettallic tape allows easy location of pipe with a detector.



SIZE	FIG NO
2" X 1000'	50281
3" X 1000'	63671
2" BY THE FOOT	50283
3" BY THE FOOT	138598



Perfection Corp. Push-Style Gas Fittings Also Available

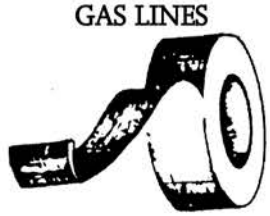


GAS DRESSER COUPLING



SIZE	FIG. NO.	PRICE
3/4	38824	
1	38825	
1 1/4	38826	
1 1/2	38827	
2	38828	

WRAPPING TAPE FOR GAS LINES



To wrap pipe & fittings

SIZE	FIG NO
2"	82344
4"	267195

GAS ADAPTER

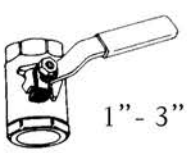


SIZE	FIG. NO.	PRICE
3/4	48431	
1	44582	
1 1/4	41009	
1 1/2	41009	
2	44548	

GAS VALVES



1/2"- 3/4"



1"- 3"

SIZE	FIG. NO.	PRICE
1/2	50802	
3/4	50803	
1	47873	
1 1/4	6349	
1 1/2	6352	
2	49737	
2 1/2	50788	
3	50789	

GAS TAPE PRIMER



FIG. NO.	PRICE
45481	

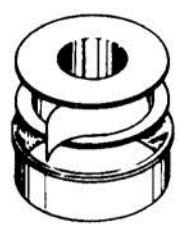


FIG. NO.	PRICE
61358	

YELLOW GAS LINE TEFLON THREAD SEAL TAPE

Designed for gas lines of all types...natural gas, propane and butane lines. Meets gas company standards world wide. Full density (1.6) and also 4 mils thick, makes this the heaviest tape available. Seals threads easily and quickly with confidence. Has a temperature range of -450F to +550F. Exceeds Mil Spec, T-27730A. UL listed.

TracPipe CounterStrike
Flexible Gas Piping by OmegaFlex®

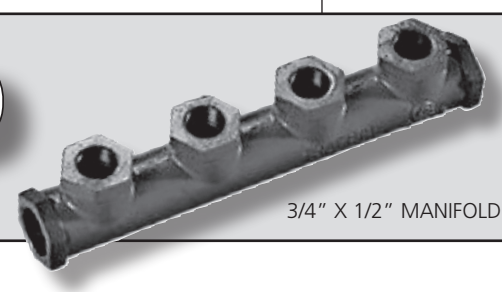
There are no additional bonding requirements for TracPipe® CounterStrike® imposed by the manufacturer's installation instructions.
TracPipe® CounterStrike® is listed by CSA to ANSI LC 1. TracPipe® CounterStrike® meets building code requirements (ASTM E84) with respect to flame spread and smoke density. This permits installation in drop ceilings used as return air plenums, and is UL Listed for 1, 2, and 4 hour through penetration firestop systems without removal of the jacket. TracPipe® CounterStrike® is also approved by Factory Mutual as a flexible piping system for flammable gases, based upon its ability to withstand stresses caused by earthquakes.



TRACPIPE

TRACPIPE CounterStrike Tubing		MALE ADAPTERS		FEMALE ADAPTERS		OTHER TRACPIPE FITTINGS		TERMINATION FITTINGS	
SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO	SIZE	FIG NO
3/8" X 100'	247216	3/8" X 1/2"	190248	3/8" X 1/2"	190252	1/2" COUPLING	178731	3/8"	190255
3/8" X 250'	247217	1/2"	19878	1/2"	190254	——		1/2"	190256
1/2" X 50'	247218	1/2" X 3/4"	190250	——		1/2" TEE	179880	3/4"	190833
1/2" X 100'	247219	3/4"	190832			——		1"	279860
1/2" X 250'	247220	1"	215401	——		3/4" X 1/2" MANIFOLD	199610	——	
1/2" X 500'	247221								
3/4" X 50'	247222								
3/4" X 100'	247223								
3/4" X 250'	247224								
1" X 100'	247226								

We also sell TracPipe by the foot!

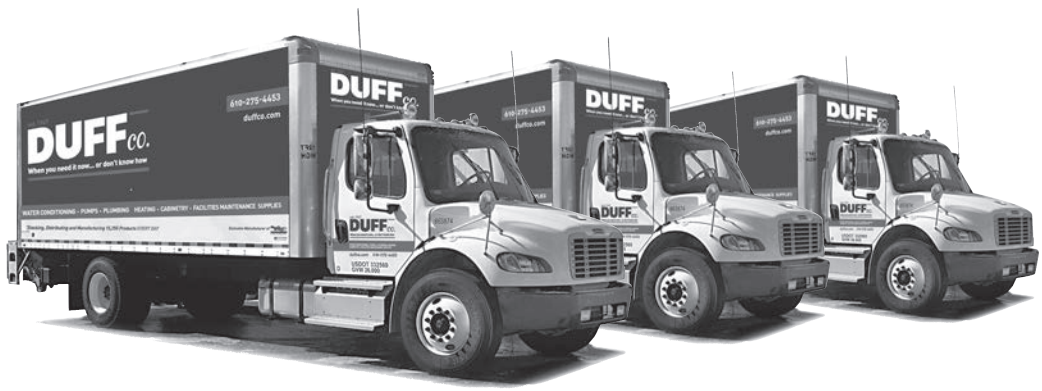


3/4" X 1/2" MANIFOLD

DUFF TIP:

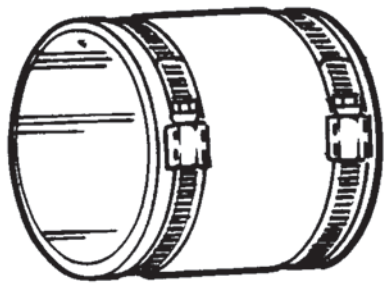
CounterStrike® gas piping can be run directly to the shut off valves of most fixed appliances without installing an appliance connector. For moveable appliances such as ranges or dryers, the use of an approved flexible appliance connector is required in most jurisdictions.

DUFF DELIVERS



FLEXIBLE COUPLINGS

Fernco



FOR SEWER OR DRAIN WASTE AND VENT PIPE

Used to connect all type of in-house and sewer connections, drain waste vent, house to main, roof drains, repairs and increaser or reducer connection. Made of tough elastomeric polyvinyl chorlide (PVC). Strong resilient and unaffected by soil conditions. Resistant to chemicals, ultra violet rays, fungus growth and normal sewer gas. Leak proof, rust proof. Couplings are made to connect plastic, cast iron, service, extra heavy, no-hub, asbestos cement, clay, concrete,steel, fibre and ductile iron or tubular pipe. Only takes minutes to make connection!

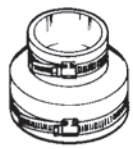
SBCC, BOCA, UPC AND CSA CODES

FOR CORRUGATED PIPE

OEM #	SIZE	FIG. NO.	PRICE
1070-33	3X3	73495	
1070-44	4X4	44555	
1070-66	6X6	44556	
1070-88	8X8	73496	

1056 SERIES - C.I., Plastic to C.I., Plastic

OEM #	SIZE	FIG. NO.	PRICE
1056-125	1 1/4 x 1 1/4	7795	
1056-150	1 1/2 x 1 1/4	7800	
1056-150	1 1/2 x 1 1/2	7802	
1056-215	2 x 1 1/2	7804	
1056-22	2 x 2	7805	
1056-315	3 x 1 1/2	21324	
1056-32	3 x 2	7807	
1056-33	3 x 3	7809	
1056-415	4 x 1 1/2	36041	
1056-42	4 x 2	19821	
1056-43	4 x 3	7811	
1056-44	4 x 4	7813	
1056-53	5 x 3	36040	
1056-54	5 x 4	36042	
1056-55	5 x 5	7816	
1056-63	6 x 3	36043	
1056-64	6 x 4	7820	
1056-65	6 x 5	36044	
1056-66	6 x 6	7832	
1056-84	8 x 4	36045	
1056-86	8 x 6	7836	
1056-88	8 x 8	18039	
1056-10-8	10 x 8	36046	
1056-1010	10 x 10	7838	
1056-1210	12 x 10	36047	
1056-1212	12 x 12	7841	
1056-1512	15 x 12	36048	
1056-1515	15 x 15	36049	
1056-1815	18 x 15		
1056-1818	18 x 18		
1056-2121	21 x 21		
1056-2424	24 x 24		
1056-2727	27 x 27		



1002 SERIES - Clay to C.I. or Plastic

OEM #	SIZE	FIG. NO.	PRICE
1002-43	4x3	36026	
1002-44	4x4	7770	
1002-54	5x4	36027	
1002-55	5x5	36028	
1002-64	6x4	7787	
1002-65	6x5	36029	
1002-66	6x6	7790	
1002-86	8x6	7792	
1002-88	8x8	36030	
1002-10-8	10x8	36031	
1002-1010	10x10	36032	
1002-1212	12x12	36034	

SHIELDED COPPER X C.I., PLASTIC CK

Designed for Resistance to Earth Loads and Shear Forces

SIZE	FIG NO.
1-1/2"	51187
2" x 1-1/2"	51186
2"	51188
3"	74402
4" X 3"	73124
4"	113962

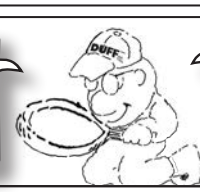


MISSION ARC UNDERGROUND COUPLINGS



OEM #	FIG NO.
MR5644 ARC 4"CI X 4"CI	271848
MR5655 ARC 5"CI X 5"CI	278794
MR5644 ARC 4"CL X 4"CI	272154
MR5644 ARC 5"CL X 4"CI	278798
MR5644 ARC 5"CL X 5"CI	272156
MR5644 ARC 6"CL X 4"CI	272157
MR5644 ARC 6"CL X 6"CI	278808

For Shielded Flexible Couplings, see page 109

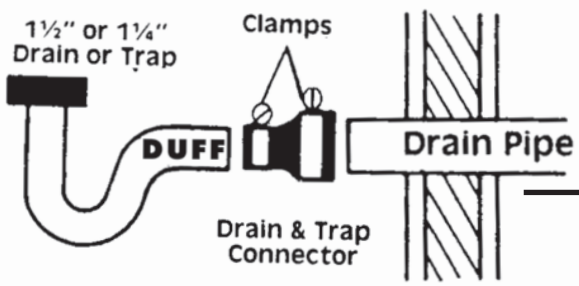


For HUSKY Couplings, see page 109

SPECIAL RUBBER FLEX FITTINGS

DRAIN CONNECTION
Trap to drain





DESCR	FIG. NO.	PRICE
Connects 1 1/4 or 1 1/2 trap to 2"IPS or PVC pipe	25205	
Connects 1 1/4" or 1 1/2"IPS or PVC or 2" Copper tube	36051	



DRAIN CONNECTION
TRAP TO TUBE DRAIN
1 1/4 or 1 1/2 trap
to
1 1/4 or 1 1/2 tube
or pipe

FIG. NO.	PRICE
49598	



FLEXIBLE RUBBER J BEND
1 1/4 or 1 1/2 drain pipe
to 1 1/2 drain pipe or
tubular trap

FIG. NO.	PRICE
51185	



FLEX TEE

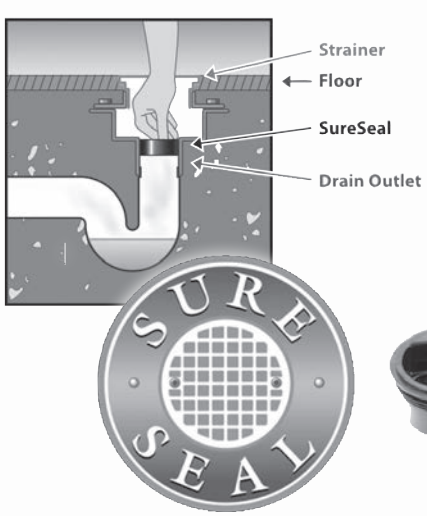
SIZE	FIG. NO.	PRICE
1 1/2"	47731	
2"	47732	
3"	47733	
4"	47734	



FLEX 90

SIZE	FIG. NO.	PRICE
1 1/2"	47735	
2"	47736	
3"	47737	
4"	47738	

WATERLESS TRAP PRIMERS



FLOOR DRAIN	
OUTLET SIZE	FIG NO.
2"	309762
3"	309763
3-1/2"	309765
4"	309764



DUFFNOTE:

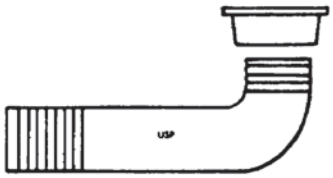
SureSeal waterless trap primers **eliminate expensive trap primers** yet **block out noxious sewer gases** from backing up into living or work areas. **SureSeals are a more cost-effective, and simpler, solution** than traditional water trap primers — and they provide the ultimate flexibility in design, placement, and maintenance of floor drains in nearly all applications.

- ✔ No more sewer gases or odors!
- ✔ Easy install: Eliminates complex, time consuming and expensive installations.
- ✔ Maintenance-free: No walls or floors to tear up to access the problem — and no more headaches or problems associated with traditional trap primers.
- ✔ Forget buckets of water! No need to waste time manually priming a trap.
- ✔ Goodbye, cockroaches! Also works for keeping away pesky bugs!

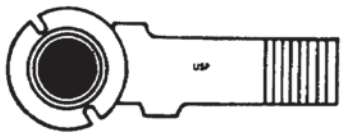


CAST IRON SPECIALTIES

CLOSET BENDS (IDEAL BENDS)



PLAIN



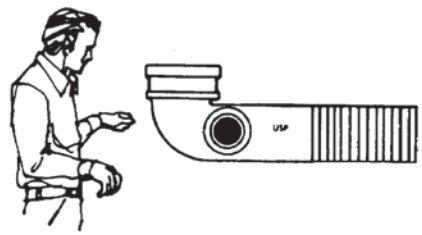
TAPPED

SIZE - 4" X 6" X 16"		
Tapping	Fig No	Price
NONE	7133	
SINGLE	7135	
DOUBLE	7136	

Please specify number of tappings and side for tapping.

TO DETERMINE RIGHT OR LEFT HAND:

TRAPS and CLOSET BENDS:
Place in regular position with hub or inlet end nearest you.



Right Hand Shown

CLOSET FLANGES



CAST IRON STRAIGHT FLANGE

Size	Fig No	Price
Shallow	7362	
4 x 2	7355	
4 x 2 1/2	7357	
4 x 4	7358	
4 x 6	7360	



CAST IRON OFFSET FLANGE

Size	Fig No	Price
4	7364	



No Caulk Closet Flange

Size	Fig No	Price
4 x 2	7443	
4 x 4	7445	

INSTALLS IN SECONDS
TWO SIMPLE STEPS:
1. Place instant set ring over closet bend.
2. Position ring & tighten bolts securely.



No Caulk Fitting Closet Flange

Size	Fig No	Price
4 x 4	75662	
4 x 2	75663	



610-275-4453

DUFF TIP:

When ordering the No Caulk Closet Flange, don't forget to order grease!

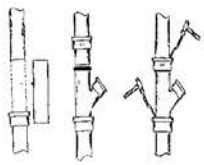
CAST IRON SPECIALTIES

DUFF SCREWED HUB INSERTABLE FITTINGS

KAFER FITTINGS

Eliminate the need for extra fittings. Easily installed. The ideal fittings for installations in an existing stack or line.

SAMPLE INSTALLATION:



Sisson Joint



Size	Fig No	Price
4"	7386	

Kafer Wye



Size	Fig No	Price
4 x 3	7373	
4	7377	

Kafer Tee



Size	Fig No	Price
4"	7382	

Straight Kafer



Size	Fig No	Price
2"	7365	
3"	7367	
4"	7368	

REPAIR PLATE



To repair holes, cracks, etc. in soil pipe. Complete with 'U"

Size	Fig No	Price
2	7392	
3	7393	
4	7394	
5	7395	
6	7396	

GASKET FOR SADDLES & PLATES



Size	Fig No
Single Sheet (6"x6")	44323
1/8" - per sq. Foot	8261
1/4" - per sq. Foot	8266

SADDLE FITTINGS

To make corrections to existing lines without cutting off the pipe. Complete with "U" bolt.

HUB SADDLE TEE



Size	Fig No	Price
4 X 2	-	
4 X 3	-	
4 X 4	-	

HUB SADDLE WYE



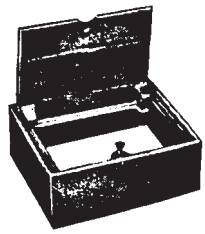
Size	Fig No	Price
4 X 4	7413	
6x4	7414	
8x4	51668	

TAPPED SADDLE TEE



Size	Fig No	Price
2 x 1 1/2	7415	
3 x 1 1/2	38848	
3 x 2	7416	
4 x 1 1/2	20882	
4 x 2	7417	
5 x 2	-	
6 x 2	41844	

CAST IRON SPECIALTIES

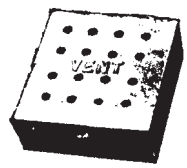


6X6 WATER BOX

Fig No	Price
7313	

6X6 WATER BOX LID

Fig No	Price
7314	



6X6 CAST IRON VENT BOX

Fig No	Price
7315	



CI MUSHROOM VENT CAP

Size	Fig No	Price
4"	7323	
6"	7324	



CI BELL TRAP

Size	Fig No	Price
6X6	7325	
9X9	7326	
12X12	7327	



PHILADELPHIA VENT BOX
INSIDE CAULK

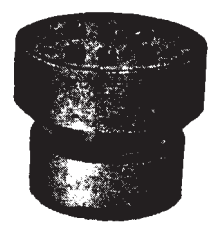
Size	Fig No	Price
4	7316	
6	7320	

4"VENT BOX LID ONLY

Fig No	Price
7319	

PHILA VENT BOX LID SCREW (EA)

Fig No	Price
49250	



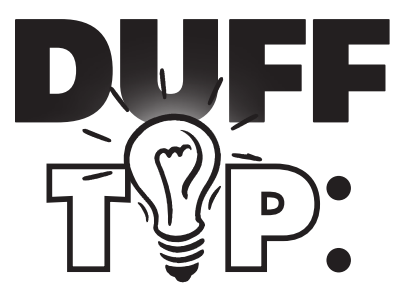
PHILADELPHIA VENT BOX
OUTSIDE CAULK

Fig No	Price
7318	



2"GALVANIZED
CATCH BASIN

Fig No	Price
7419	



When ordering vent boxes or catch basins, don't forget to order lead, oakum and/or T/S gaskets.

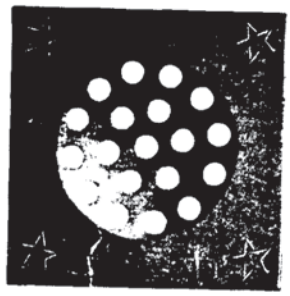
CAST IRON SPECIALTIES

CUSTOM GRATES AND COVER PLATES, ALL SIZES AND SHAPES AVAILABLE



2"SHOWER TRAP WITH STRAINER

Fig No	Price
7450	



CI SQUARE CESSPOOL PLATE

Size	Fig No	Price
6X6	7329	
8X8	7332	
10X10	7333	
12X12	7336	



CI ROUND CESSPOOL PLATE

Size	Fig No	Price
5	7337	
6	7339	
7	7343	
8	7344	
10	7345	



Frame and Grate

Call 610-275-4453 or Email Us at info@duffco.com for Avaiable Sizes



Bar Grates for Soil Pipe

SIZE	FIG. NO.	PRICE
3"	7527	
4"	7530	
5"	7532	
6"	7533	
8"	7537	



MANHOLE (Bolt-Down)

SIZE	FIG. NO.	PRICE
12"	17591	



2" Floor & Shower Drain

FIG. NO.	PRICE
7449	



Round Manhole Cover

SIZE	FIG. NO.	PRICE
18	60562	
24	60563	

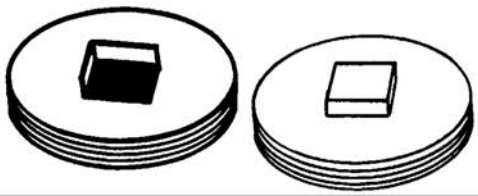


Chrome Plated Snap-in Drain - fits soil pipe!

SIZE	FIG. NO.	PRICE
1 1/2"	40940	
2"	40941	
3"	40942	
4"	40943	

CAST IRON SPECIALTIES

BRASS CLEANOUT PLUGS



Size	COUNTERSUNK Fig No	Price	RAISED HEAD Fig No	Price
1 1/4	–		7458	
1 1/2	7466		7465	
2	7468		7467	
2 1/2	7471		7469	
3	7473		7472	
3 1/2	7475		7474	
4	7477		7476	
4 1/2	7479		7478	
5	7481		7480	
5 1/2	7483		7482	
6	7485		7484	

BRASS CLEANOUT PLUGS

All Duff brass plugs are machined to close tolerances to assure a perfect fit. Plugs are listed according to standard pipe sizes. To determine the proper size plug for a "cleanout", check the tapping size indicated on our catalog page for cleanouts, and order the corresponding size plug. Note: A 4" standard cleanout is tapped 3". A 4" extra heavy or full opening cleanout is tapped 3 1/2" Be sure to distinguish types when ordering.

CLEANOUT

IBTS or Iron Body Tap Screw



Size	Fig No	Price
2	7348	
3	7349	
4	7351	
5	7353	
6	7354	

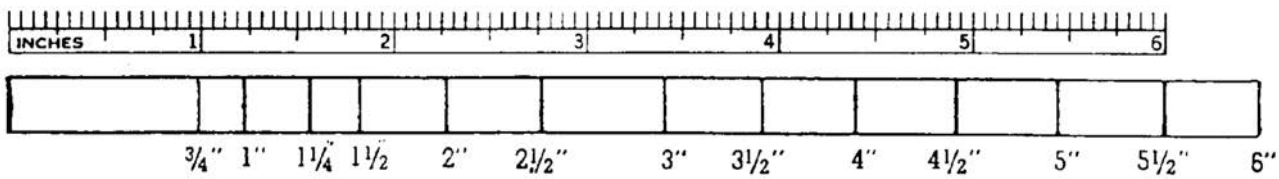
LEAD FIT ALL PLUG



Size	Fig No	Price
1 1/2	–	
2	17593	
2 1/2	17594	
3	17595	
3 1/2	17596	
4	17597	
4 1/2	17598	
5	17599	
5 1/2	17600	
6	38907	

SCALE TO DETERMINE PIPE SIZE OF CLEANOUT PLUGS

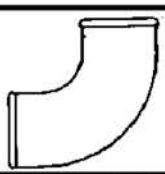
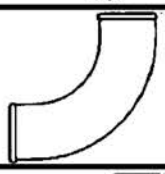
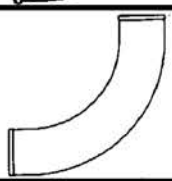
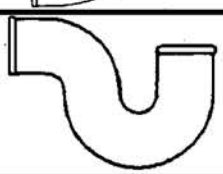
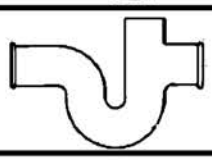
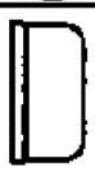
Upper scale is in inches
Lower scale is for diameter in pipe size



For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

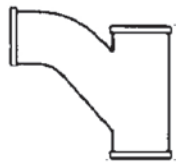
NO HUB CAST IRON SOIL PIPE AND FITTINGS

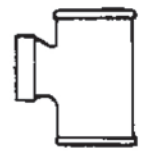
SERVICE WEIGHT NO-HUB PIPE AND FITTINGS

		1 1/2"		2"		3"		4"	
		Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
	No Hub x 10' Length	31235		31236		31237		31704	
	1/4 Bend	31239		31240		31241		31242	
	1/6 Bend	–		–		–		–	
	1/8 Bend	31245		31246		31247		31249	
	1/16 Bend	–		30976		31243		31244	
	Short Sweep	–		30977		31250		30978	
	Long Sweep	30979		30980		31251		30981	
	P-Trap	31018		31272		31273		31019	
	Single Vent Curb Trap	–		–		–		7132 4" x 5"	252190
	Plug	31016		31270		31017		31271	

CAST IRON SOIL PIPE AND FITTINGS

SERVICE WEIGHT NO-HUB AND FITTINGS



SIZE	SANITARY TEE		COMBINATION WYE & 1/8 BEND		WYE		SINGLE TAPPED TEE	
	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
1 1/2	30982		30999		30997		31255	
2	30984		31001		31256		-	
3	30987		31264		31258		-	
4	30989		31004		27192		-	
2 X 1 1/2	-		-		-		30990	
3 X 1 1/2	30985		-		-		-	
3 X 2	30986		31002		31257		30969	
4 X 1 1/2	-		-		-		30991	
4 X 2	30988		31003		31259		30992	
4 X 3	31253		31265		31260		-	

RIDGID HUB & SPIGOT JOINING TOOLS

NO HUB TORQUE WRENCH

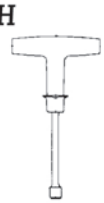


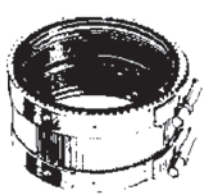
Fig No	Price
13134	

HUSKY COUPLINGS



SIZE	FIG NO.
2"	272192
3"	214971
4"	177960
5"	229272

NO HUB COUPLING



Size	Fig No	Price
1 1/2	28318	
2	7498	
3	7499	
4	7501	
5	7503	
6	7506	
8	7508	
10	28322	
2 X 1 1/2	28319	
3 X 2	28320	
4 X 3	28321	

DUFFGUIDE:

1. Look for Tite Seal Gaskets on Page 111.

2. For below-ground applications, use MISSION ARC Couplings on page 101.

and remember ...

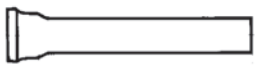
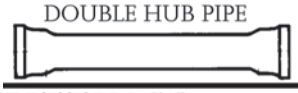
DUFF ALWAYS DELIVERS



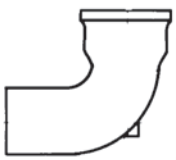
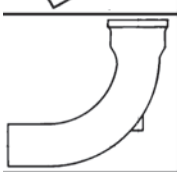
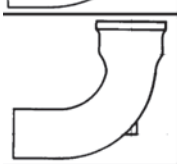
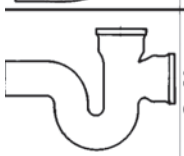
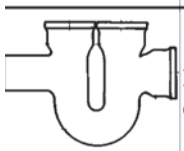
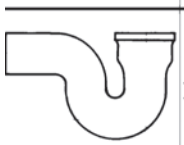
For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

CAST IRON SOIL PIPE AND FITTINGS
SERVICE WEIGHT HUB & SPIGOT

PIPE

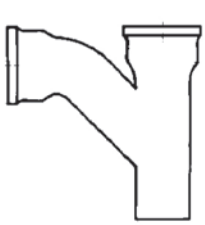
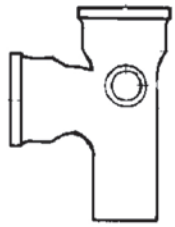
	2"		3"		4"		6"	
	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
SINGLE HUB PIPE 								
42"LENGTH	7011		7012		7013		7014	
10' LENGTH	7007		7008		7009		7010	
5' LENGTH	6999		7000		7001		7002	
DOUBLE HUB PIPE 								
5' LENGTH	79903		79904		7005		-	

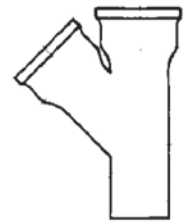
FITTINGS

	2"		3"		4"		6"		8"	
	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price	Fig No	Price
 1/4 BEND	7015		7016		7017		-		-	
 1/8 BEND	7019		7020		7021		7022		7023	
 1/16 BEND	7024		7026		7028		-		7033	
 LONG SWEEP	-		7125		7126		7127		-	
 SHORT SWEEP	-		7129		7130		7131		-	
 SINGLE VENT CURB TRAP	-		-		7132		-		-	
 DOUBLE VENT CURB TRAP	-		-		-		-		-	
 RUNNING TRAP	-		-		7107		-		-	
 P-TRAP	7110		7111		7112		-		-	

CAST IRON SOIL PIPE & FITTINGS

SERVICE WEIGHT HUB & SPIGOT PIPE AND FITTINGS

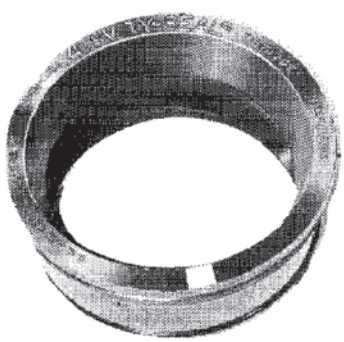



	Combination Y & Eigth Bend		Single Tapped Tee		Double Tapped Tee		Sanitary Tee		Reducer		Wye	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE	FIG. NO.	PRICE
2	7036		-		-		31021		-		7113	
3	7041		-		-		31022		-		7116	
4	7043		-		-		31026		-		7117	
6	7050		-		-		-		-		7118	
3 x 2	7042		-		-		7077		7085		7119	
4 x 2	7048		-		-		7078		7087		7120	
4 x 3	7046		-		-		7079		7090		7121	
6 x 2	-		-		-		-		-		-	
6 x 3	-		-		-		-		7097		-	
6 x 4	-		-		-		-		7100		-	

TITE SEAL GASKETS

(For use with Hub & Spigot Pipe)



Size	Fig No	Price
2	7486	
3	7488	
4	7489	
5	7490	
6	7491	
8	7492	

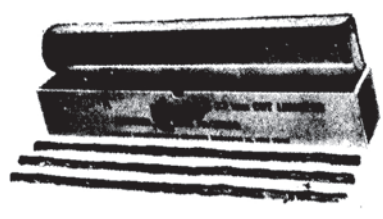
TITE SEAL LUBRICANT

(QUART SIZE)



Fig No	Price
7496	

OAKUM



5 LB. BROWN OAKUM

Fig No	Type
7511	5# BOX of OAKUM
18159	SINGLE STRAND OAKUM
7514	10 LB. WHITE OAKUM

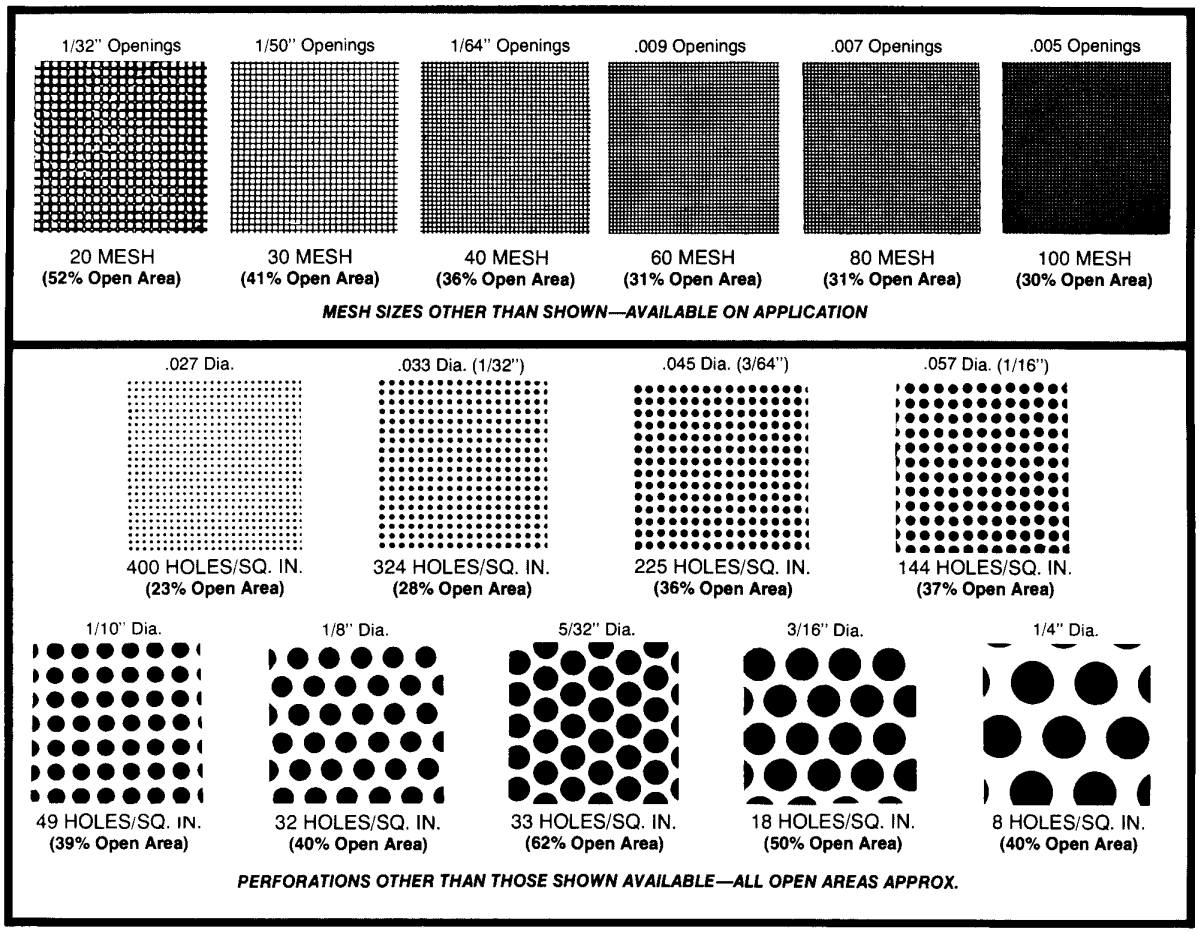
For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

STRAINERS

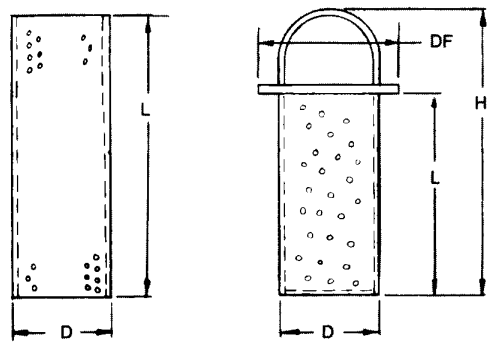
SPECIAL BASKETS SCREENS AND MESH ALWAYS AVAILABLE

Perforated Metal and Mesh

AVAILABLE IN ALL MATERIALS



Replacement Screens & Baskets For all Makes of "Y" & Basket Type Strainers

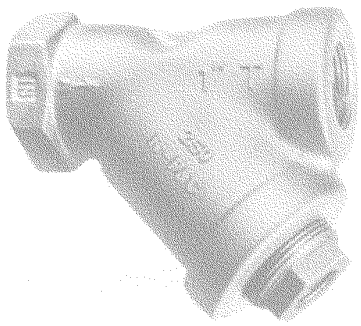


Style "D" Style "E" Style "F"

SPECIFY

1. Style
2. Material
3. Perforation & Mesh If Liner Is Required
4. All Lettered Dimensions Shown

STRAINERS



CAST IRON OR BRONZE Y STRAINER - Offer complete protection to pumps, meters, traps, valves and similar expensive automatic equipment. Installation of a strainer before any automatic equipment will ensure trouble free service and avoid costly repairs of replacement so often caused by the introduction of foreign matter in pipe lines.

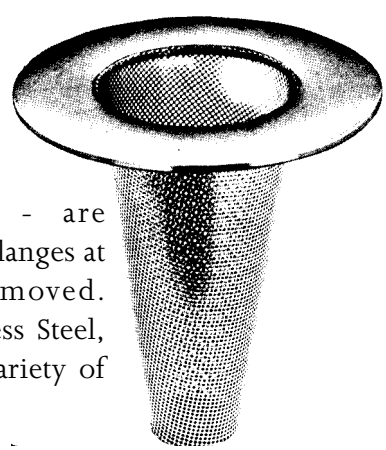
	CAST IRON		BRONZE	
SIZE	FIG. NO.	PRICE	FIG. NO.	PRICE
1/4	17731		5734	
3/8	17732		5736	
1/2	17733		17632	
3/4	17734		17633	
1	17735		17634	
1 1/4	17736		17635	
1 1/2	17737		17636	
2	17738		17637	
2 1/2	17739		5749	
3	17740		5751	

DUFF TIP: **For maximum efficiency, always use blow down valves to clean strainers.**

CAST IRON FLANGED Y STRAINERS - Offer complete protection to pumps, meters, traps, valves and similar expensive automatic equipment. Installation of a strainer before any automatic equipment will ensure trouble free service and avoid the costly repairs of replacement so often caused by the introduction of foreign matter in pipe lines.



SIZE	FIG. NO.	PRICE
2	44921	
2 1/2	17741	
3	17742	
4	17743	
6	17744	
8	50622	
10	50623	
12	50624	



AVAILABLE IN SS STAINLESS STEEL

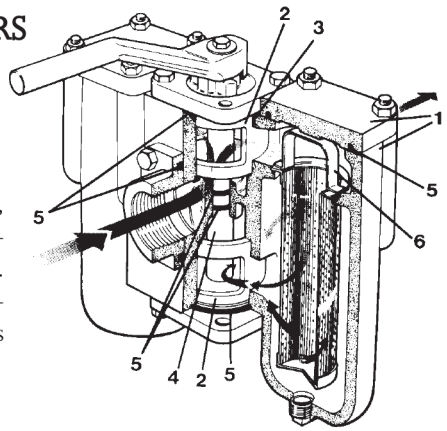
ALLL STRAINERS AVAILABLE IN STAINLESS STEEL, CAST STEEL OR PLASTIC!

TEMPORARY STRAINERS - are installed between companion flanges at startup time and later removed. Usually constructed in Stainless Steel, they are available in a large variety of perforations or mesh lining.

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

STRAINERS

DUPLEX AND SIMPLEX STRAINERS

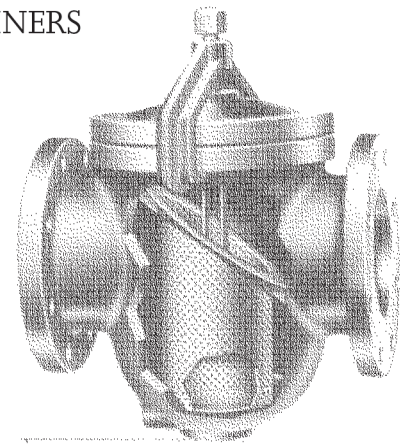


DUPLEX BASKET STRAINERS

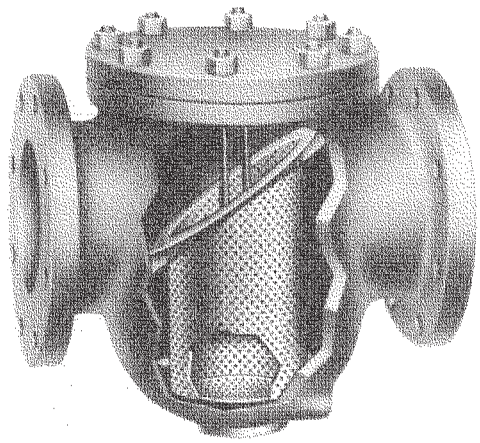
DUPLEX STRAINER (PLUG TYPE) - For sizes up to 8". It is the simplest, most economical and trouble-free design for a Duplex Strainer in smaller sizes. High quality, pressure rated plug valve with integral straining baskets. Switching flow from one basket to another is accomplished by moving the handle through a 90 degree arc. Because of the unique port design in the diverter plug, it is impossible for this operation to stop the flow. The entire switch operation takes less than 30 seconds. No tools required. Available in Iron, Bronze, Stainless Steel and Carbon Steel.

ALWAYS SPECIFY SERVICE, PRESSURE AND TEMPERATURE

SIMPLEX BASKET STRAINERS



CLAMP TOP



BOLT TOP

SIMPLEX STRAINER - For industrial use where temporary shutdown for cleaning is possible. Large basket capacity. The free straining area is at least 6 times the cross -sectional pipe area (even more in some sizes). No tools require to open cover. The quick opening, swinging yoke can be disassembled and the basket removed in seconds. This can be used as a backwash connection, if desired. Many styles available, including bolt top and clamp top

AVAILABLE IN SS STAINLESS STEEL

ALL STRAINERS AVAILABLE IN STAINLESS STEEL, CAST STEEL OR PLASTIC!

RP&C Valve

HAYWARD

MUELLER STEAM SPECIALTY

KECKLEY OUR TRADE MARK YOUR GUARANTEE

BRASS FLARE FITTINGS

No. 39 Swivel Nut



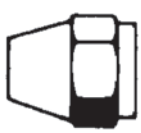
O.D. TUBE	FIG. NO.
3/16"	
1/4"	37580
5/16"	37562
3/8"	7535
1/2"	18780

No. 40 Forged Flare Nut



O.D. TUBE	FIG. NO.
1/4"	3701
5/16"	
3/8"	4155
1/2"	3722
5/8"	3728
3/4"	3732

No. 41 Flare Nut



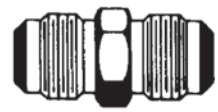
O.D. TUBE	FIG. NO.
1/8	3745
3/16	3750
1/4	3755
5/16	3758
3/8	3759
7/16	36090
1/2	3762
5/8	3766

No. 41-L Long Flare Nut



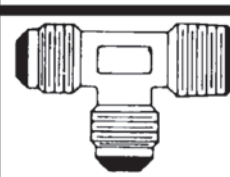
O.D. TUBE	FIG. NO.
1/8	3778
3/16	3781
1/4	248683
5/16	17583
3/8	3790
1/2	3794

No. 42 Full Flare Union



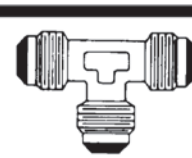
O.D. TUBE	SIZE
1/8	3807
3/16	4158
1/4	3814
5/16	3818
3/8	3821
1/2	17584
5/8	3832
3/4	3841
7/8	3845
5/16x1/4	4160
5/16x3/8	
3/8x1/4	3951

No. 43 Flare X Male X Flare Tee



O.D. TUBE X IPS	SIZE
3/16x1/8	36094
1/4x1/8	4073
1/4x1/4	4077
5/16x1/8	
5/16x1/4	
3/8x1/4	
3/8x3/8	
1/2x3/8	
1/2x1/2	

No. 44 Full Flare Tee



O.D. TUBE	SIZE
1/8	4165
3/16	4166
1/4	4107
5/16	4108
3/8	4190
1/2	4191
5/8	4192

For additional information call: 610-275-4453 or Fax: 610-279-6299.

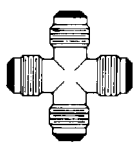
Please call for current prices.

BRASS FLARE FITTINGS

No. 44 Full Flare Tee

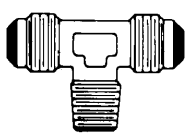
O.D. TUBE	FIG. NO.
3/8 x 3/8 x 1/4	36101
3/8 x 3/8 x 1/2	36102
1/2 x 1/2 x 1/4	36107
1/2 x 1/2 x 3/8	36109
1/2 x 1/2 5/8	36108

No. 44-A Full Flare Cross



O.D. TUBE	FIG. NO.
1/4	36120
5/16	36121
3/8	36122

No. 45 Flare X Male IPT on Branch Tee



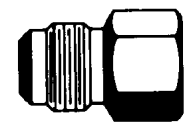
O.D. TUBE X IPS	FIG. NO.
1/8 x 1/8	36125
3/16 x 1/8	36126
1/4 x 1/8	4201
1/4 x 1/4	4203
5/16 x 1/8	36127
5/16 x 1/4	36128
3/8 x 1/4	4207
3/8 x 3/8	4210
3/8 x 1/2	4213
1/2 x 3/8	4216

No. 37 Flare Cap



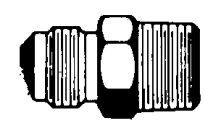
O.D. TUBE	FIG. NO.
3/16	36087
1/4	3672
3/8	3680
1/2	3687

No. 46 Flare X Female IPT



O.D. TUBE X IPS	FIG. NO.
1/8 x 1/8	4235
3/16 x 1/8	36140
1/4 x 1/8	4236
1/4 x 1/4	4237
5/16 x 1/8	36143
5/16 x 1/4	36145
3/8 x 1/8	36146
3/8 x 1/4	4238
3/8 x 3/8	4239
3/8 x 1/2	4240
3/8 x 3/4	36147
1/2 x 1/4	4241
1/2 x 3/8	4242
1/2 x 1/2	4243
1/2 x 3/4	4244

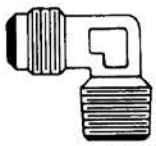
No. 48 Flare X Male IPT Adapter



O.D. TUBE X IPS	FIG. NO.
1/8 x 1/8	4251
3/16 x 1/8	4252
1/4 x 1/8	4253
1/4 x 1/4	4254
1/4 x 3/8	4255
1/4 x 1/2	4256
5/16 x 1/8	36150
5/16 x 1/4	4257
5/16 x 3/8	4258
3/8 x 1/8	4259
3/8 x 1/4	4263
3/8 x 3/8	4266
3/8 x 1/2	4270
3/8 x 3/4	36152
1/2 x 1/4	4273
1/2 x 3/8	4276
1/2 x 1/2	4280

BRASS FLARE FITTINGS

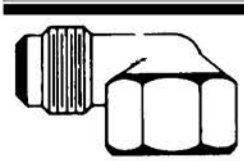
No. 49 Flare X Male



O.D. TUBE X IPS

SIZE	FIG. NO.
1/8 x 1/8	4300
3 1/6 x 1/8	4301
3/16 x 1/4	36156
1/4 x 1/8	4305
1/4 x 1/4	4306
1/4 x 3/8	4307
1/4 x 1/2	4309
5/16 x1/8	4311
5/16 x 1/4	4313
5/16 x 3/8	4332
3/8 x1/8	4335
3/8 x1/4	4338
3/8 x 3/8	4339
3/8 x 1/2	4341
3/8 x 3/4	4344
1/2 x1/4	4345
1/2 x3/8	4347
1/2 x1/2	4349
1/2 x3/4	4351
5/8 x1/4	36157

No. 50 Flare X Female



O.D. TUBE X IPS

SIZE	FIG. NO.
3/16 X 1/8	4363
1/4 X 1/8	4364
1/4 X 1/4	4365
5/16 X 1/8	36163
5/16 X 1/4	4366
3/8 X 1/8	36164
1/8 X 1/4	4367
3/8 X 3/8	4368
3/8 X 1/2	4369
3/8 X 3/4	36165
1/2 X 1/4	4370
1/2 X 3/8	4371
1/2 X 1/2	4372
1/2 X 3/4	4373

No. 55



O.D. TUBE

SIZE	FIG. NO.
1/8	4380
3/16	4382
1/4	4383
5/16	4384
3/8	4386
1/2	4388
5/8	4389
3/4	4391
7/8	4393
3/8 X 1/4	4397
3/8 X 5/16	36169
1/2 X 3/8	4400

No. 57



O.D. TUBE

SIZE	FIG. NO.
3/16	36173
1/4	4404
5/16	36174
3/8	4406



For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

BRASS COMPRESSION FITTINGS



No. 60
Compression Sleeve

O.D. TUBE	
1/8	4414
3/16	4416
1/4	4419
5/16	4421
3/8	4422
7/16	4425
1/2	4427



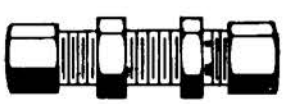
No. 60PT
Delrin Sleeve
For Plastic Tube

O.D. TUBE	
1/4	4440
5/16	4441
3/8	4443
1/2	4444



No. 61
Compression Nut

O.D. TUBE	
1/8	4457
3/16	4459
1/4	4462
5/16	4464
3/8	4465
7/16	4468
1/2	4470



No. 62 CBH
Compression Bulkhead

O.D. TUBE	
1/4	4508
3/8	–



No. 62
Full Compression Union

AVAILABLE IN STAINLESS STEEL

O.D. TUBE	
1/8	4476
3/16	4477
1/4	4481
5/16	4487
3/8	4489
5/8	4495
3/4	4496
7/8	4497
1/4 x 3/16	36177
3/8 x 1/4	4498
3/8 x 5/16	36178



No. 63PT
Brass Insert
For Plastic Tube

O.D. TUBE	
1/8	4519
3/16	4522
1/4	4523
5/16	4524
3/8	4525
1/2	4527
5/8	4528



No. 65
Full Compression Elbow

O.D. TUBE	
1/8	4531
3/16	4532
1/4	4533
5/16	17586
3/8	4536
1/2	4537

BRASS COMPRESSION FITTINGS

No. 66
Compression X Female Adapter



O.D. TUBE X IPS

SIZE	FIG. NO.	PRICE
1/8 x 1/8	4542	
3/16 x 1/8	36180	
3/16 x 1/4	4543	
1/4 x 1/8	4550	
1/4 x 1/2	4558	
5/16 x 1/8	20851	
5/16 x 1/4	4561	
3/8 x 1/8	4563	
3/8 x 1/4	4567	
3/8 x 3/8	4569	
3/8 x 1/2	4571	
1/2 x 1/4	4573	
1/2 x 3/8	4576	
1/2 x 1/2	4578	
5/8 x 3/8	4581	
5/8 x 1/2	4583	

No. 68
Compression X Male IPT Adapter



O.D. TUBE

SIZE	FIG. NO.	PRICE
1/8 x 1/8	4615	
3/16 x 1/8	4619	
3/16 x 1/4	4620	
1/4 x 1/8	4623	
1/4 x 1/4	4625	
1/4 x 3/8	4626	
1/4 x 1/2	4628	
5/16 x 1/8	4631	
5/16 x 1/4	4633	
5/16 x 3/8	4634	
3/8 x 1/8	4635	
3/8 x 1/4	4638	
3/8 x 3/8	4639	
3/8 x 1/2	4641	
3/8 x 3/4	4642	
7/16 x 1/4	4644	
1/2 x 1/4	4647	
1/2 x 3/8	4648	
1/2 x 1/2	4650	
1/2 x 3/4	4651	

No.68TF
Compression X Male IPT Adapter Tank Fitting (Tapped Straight Through)



O.D. TUBE X IPS

SIZE	FIG. NO.	PRICE
3/8 x 3/8	—	
3/8 x 1/2	—	
1/2 x 3/8	—	

No. 69
Compression X Male IPT Elbow



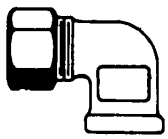
O.D. TUBE

SIZE	FIG. NO.	PRICE
1/8 x 1/8	4741	
3/16 x 1/8	22582	
3/16 x 1/4	23681	
1/4 x 1/8	4743	
1/4 x 1/4	4745	
1/4 x 3/8	4746	
5/16 x 1/8	20261	
5/16 x 1/4	4748	
5/16 x 3/8	23682	
3/8 x 1/8	4750	
3/8 x 1/4	4751	
3/8 x 3/8	4752	
3/8 x 1/2	4754	
3/8 x 3/4	36184	
7/16 x 1/4	36185	
7/16 x 3/8	36186	
1/2 x 1/4	4755	
1/2 x 3/8	4757	
1/2 x 1/2	4759	
5/8 x 3/8	4761	



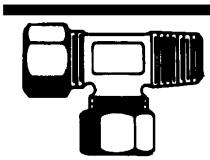
For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

BRASS COMPRESSION FITTINGS



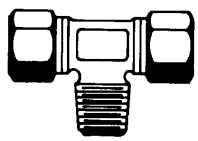
No. 70
Compression X Female

SIZE	FIG. NO.	PRICE
O.D. TUBE X IPS		
1/8 X 1/8	4787	
3/16 X 1/8	36187	
1/4 X 1/8	4789	
1/4 X 1/4	4791	
5/16 X 1/8	36188	
5/16 X 1/4	36189	
3/8 X 1/8	36190	
3/8 X 1/4	4794	
3/8 X 3/8	4797	
3/8 X 1/2	4801	
1/2 X 3/8	4803	
1/2 X 1/2	4806	



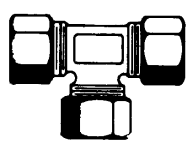
No. 71
Compression X Male X Compression Tee

SIZE	FIG. NO.	PRICE
O.D. TUBE		
1/8 x 1/8	4815	
3/16 x 1/8	36193	
1/4 x 1/8	4825	
1/4 x 1/4	4827	
5/16 x 1/8	36194	
5/16 x 1/4	36195	
3/8 x 1/4	4833	
3/8 x 3/8		
1/2 x 3/8	4841	
1/2 x 1/2	4844	
5/8 x 1/2	4848	



No. 72
Compression X Male Tee

SIZE	FIG. NO.	PRICE
O.D. TUBE		
1/8 X 1/8	4850	
3/16 X 1/8	36200	
1/4 X 1/8	4853	
1/4 X 1/4	4854	
5/16 X 1/8	36201	
5/16 X 1/4	36202	
3/8 X 1/8	4856	
3/8 X 1/4	4857	
3/8 X 3/8	4862	
1/2 X 3/8	4863	
1/2 X 1/2	4866	



No. 74
Full Compression Tee

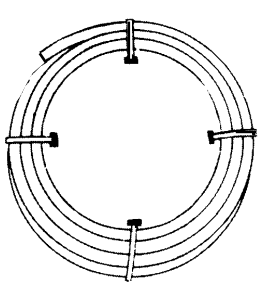
SIZE	FIG. NO.	PRICE
O.D. TUBE		
1/8	4871	
3/16	4872	
1/4	4873	
5/16	4875	
3/8	4877	
1/2	4878	



Compression by Sweat (DELTA Fitting)

SIZE	FIG. NO.	PRICE
O.D. TUBE		
3/8"ODX1/2" NOM COPPER	11022	

ALUMINUM TUBING



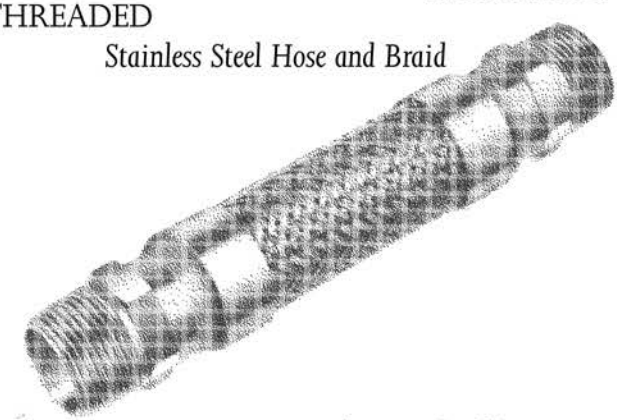
50' COIL		
SIZE	FIG. NO.	PRICE
1/8	16303	
3/16	16306	
1/4		
5/16	16315	
3/8	16317	
7/16	16325	
1/2	16329	
5/8	16332	
3/4	16335	



FLEXIBLE CONNECTORS

THREADED

Stainless Steel Hose and Braid

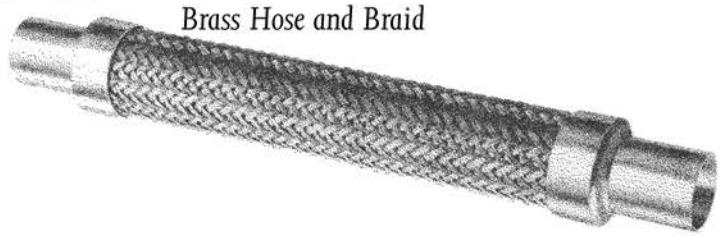


Duff pump connectors are a perfect match of hose type, wall thickness and braid design to minimize forces and stress within piping systems. These connectors are factory engineered, manufactured and tested to effectively minimize the stress of pump and compression housings, and to isolate vibrations transmitted by mechanical equipment. And today, Duff can help you comply with noise level requirements by reducing pipe vibration throughout a structure. Duff protection means longer service life, lower overall operating costs and years of trouble-free service.

SIZE	FIG NO
1/2" X 12"	15292
3/4" X 12"	15293
1" X 12"	15294
1-1/4" X 12"	15295
1-1/2" X 12"	15296
2" X 12"	15297
2-1/2" X 16"	17671
3" X 16"	17670

SWEAT

Brass Hose and Braid

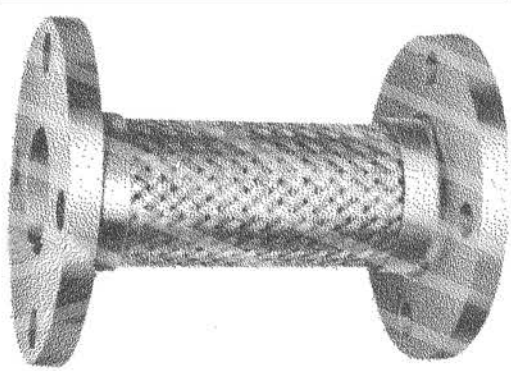


Minimize compressor vibration right at the source with Duff's flex connectors - the standard of the industry. Sweat end flex connectors are made in tube sizes 1/4" to 61/18". UL recognized in sizes to 4". Flexible corrugated tube of special grade phosphorous bronze for high strength and stability under continuous flexing and vibraation, and for resistance to the corrosive action of freon and methyl chloride. The flexible tube is covered with a balanced bronze braid, engineered for a combination of strength and flexibility. Female solder end fittings and braid sleeves are skillfully attached.

SIZE	FIG NO
1/8" X 7-1/2"	49307
1/4" X 8-1/4"	15243
3/8" X 9"	15250
1/2" X 12"	15262
5/8" X 11-1/4"	17553
3/4" X 11-1/2"	15279
1" X 13"	17554
1-1/4" X 14-3/4"	15285
1-1/2" X 12"	15287
2" X 20"	—
2-1/2" X 24"	15290
3" X 27"	15291

DUFF TIP: **Flexible connectors can be made in any length and end configuration. For example, we can make a 2" x 23" with acarbnon steel male on one end and a stainless steel flange on the othe r.**

AVAILABLE IN SS STAINLESS STEEL



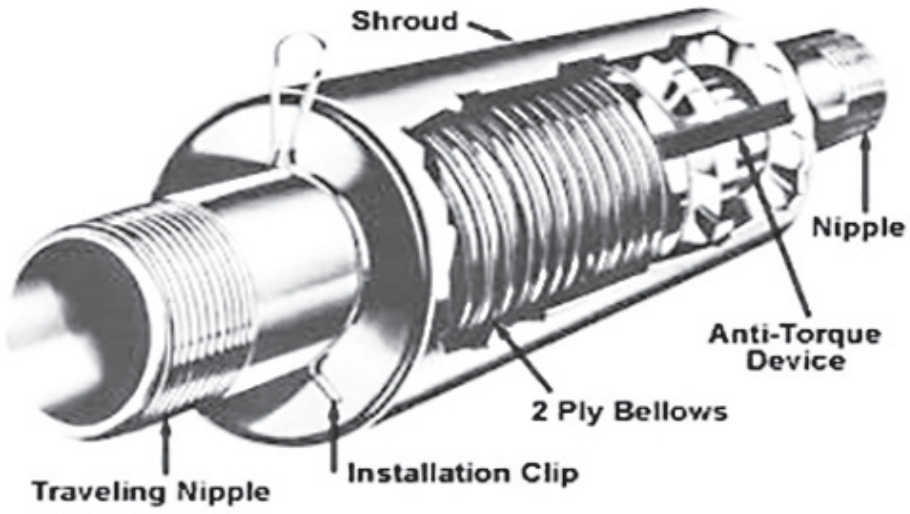
Duff flanged flex connectors are a perfect match of hose type, wall thickness and braid design to minimize the forces and stress within piping systems. These connectors are factory engineered, manufactured and tested to effectively minimize the stress of pump and compression housings, and to isolate vibrations transmitted by mechanical equipment. And today, Duff can help you comply with noise level requirements by reducing pipe vibration through a structure. Duff protection means longer service life, lover overall operating costs and years of trouble-free service.

Size	Fig No	Price
3 x 9	17672	
4 x 9	17673	

MANY OTHER SIZES AND LENGTHS ARE AVAILABLE FROM STOCK OR CAN BE CUSTOM FABRICATED!

For additional information call: 610-275-4453 or Fax: 610-279-6299.
Please call for current prices.

EXPANSION COMPENSATORS



EXPANION COMPENSATORS - the perfect way to absorb pipe motion in small diameter systems. High pressure types permit 2" pipe motion - 1 3/4" compression and 1/4" in extension. Duff's expanions compensators provide the lowest cost method to take up thermal growth.

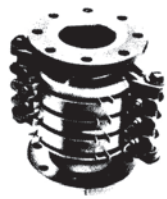


HIGH AND LOW PRESSURE EXPANSION JOINTS



LOW PRESSURE

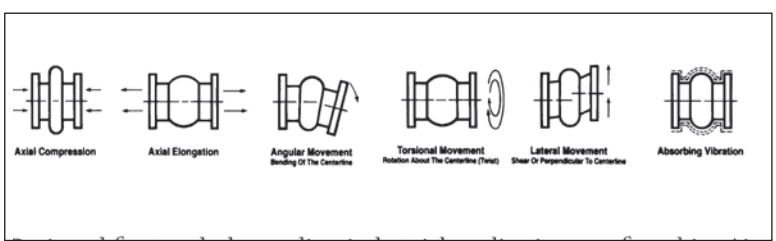
Available for Immediate Delivery	LOW PRESSURE		HIGH PRESSURE	
	SINGLE	DUAL	SINGLE	DUAL
SIZE RANGE	3" TO 4" NPS	3" TO 48" NPS	3" TO 24" NPS	3" TO 24" NPS
ALLOWABLE PRESSURE (Stainless Steel Pressure Carrier)	Vacuum to 50 PSI	Vacuum to 50 PSI	Vacuum To 300 PSI	Vacuum to 300 PSI
TEMPERATURE LIMITS (Stainless Steel Pressure Carrier)	-20 to 850 Deg F	-20 to 850 Deg F	Flanges= -20 F to 800 Deg F Welding Ends= -20 F to 85 Deg F	-20 F to 800 Deg F -20 Deg F to 850 Deg F
AXIAL TRAVERSE	To 6 1/4" (depending on size)	To 12 1/2"	To 7 1/2" (Depending on size)	To 15" (Depending on size)
LATERAL MOTION	Variable amount depending of size and certain conditions	Virtually unlimited, depending on length of intermediate nipple	Limited amount under certain conditions	Virtually unlimited, depending on length of intermediate nipple



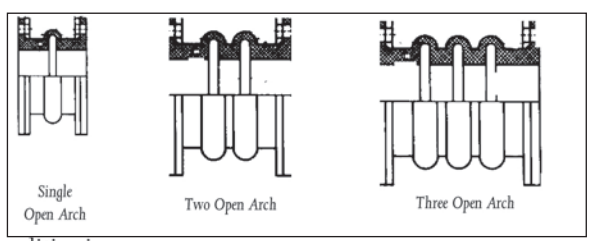
HIGH PRESSURE

RUBBER EXPANSION JOINTS

APPLICATIONS



TYPES



Designed for tough demanding industrial applications, as found in: Air-conditioning-heating and ventilating systems, chemical petrochemical and industrial process piping systems, power generating plants, steel mills, marines services. Pulp/paper systems, water-wastewater-sewage and pollution control systems. Installed net to mechanical equipment or between the anchor points of a piping system. Absorb pipe movement/stress; reduce system noise: isolate mechanical vibration; compensate alignment/offset; eliminate electrolysis; protect against start-up forces.



BASE SLIDE EXPANSION COUPLERS Triples the expansion movement of most bellow-type joints in baseboard radiation and supply piping and main. Trouble-free, piston-slide design provides smooth operation and elimination of expansion and pipe traveling noises. Copper piston tube. Simplified installation. No maintenance when properly installed. Available in 3 sizes to fit any diameter pipe or tube from 3/4"to 1 1/4"

	SWEAT	IPS
SIZE	FIG NO	FIG NO
3/4"	150789	150795
1"	150792	150796
1-1/4"	150793	150797
1-1/2"	150794	—