

90° ELBOW FORGED FITTING



D-LINE[®] Forged steel fittings are manufactured in process allows to develop products with a consistent and unyielding quality. We mantain a strict quality control under the ASME B16.11, MSS SP-79, MSS SP-83, and MSS SP-97 requirements making our manufacturing process one of the best in the market.

All D-LINE[®] carbon forged steel fittings are zinc-phosphate coated for superior corrosion resistance.

APPLICATIONS

D-LINE[®] Forged fittings serve multi-national end users in a wide range of applications in many industries including:

- Water Treatment
- Minina
- Chemical & Petrochemical
- Ship Building Industries
- Public Services
- Pipe Engineering
- Fire Protection
- General Industries
- Food Industries

FORGED STEEL ADVANTAGES

Forged steel offers a great advantage against casting or plating:

- Saving machining hours
- Better metallic yield
- Improving the grain structure
- Directional flow that enables the improvement of impact and mechanical resistance properties

ASTM forged carbon steel grade A-105 is a low carbon, manganese and silicon containing steel. Forged steel fittings are manufactured in a process where metals is molded by applying pressure.



- Elbows
- Couplings
- Tees

- Unions
- Reducers
- Caps & Plugs

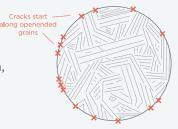
- Laterals
- Cross
- Outlets and more

- **DESIGN FEATURES**
- Carbon Steel: ASTM A-105
- Class 3000 & 6000
- Dimensions to per ASME B16.11
- Thread to per ASME B1.20.1
- NPT & SW ends available
- Sour gas service to per NACE MR-0175



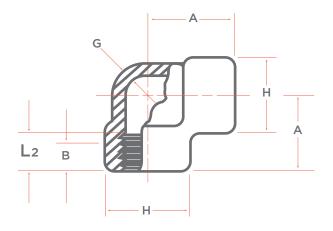
FORGED

CAST [Random Grains] [Aligned Grains]



DIMENSIONS

THREADED NPT



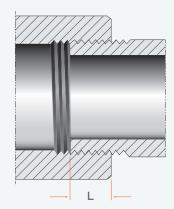
CLASS 3000 DIMENSIONS AND WEIGHTS												
Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
A	0.83	0.98	1.10	1.30	1.50	1.73	2.01	2.36	2.52	3.27	3.74	4.49
н	0.87	0.98	1.30	1.50	1.81	2.20	2.44	2.95	3.31	4.02	4.76	5.98
G	0.13	0.13	0.14	0.16	0.17	0.20	0.21	0.22	0.28	0.30	0.35	0.44
В	1.13	1.13	1.13	1.31	1.50	1.75	2.38	2.38	3.00	3.75	4.19	4.27
L2	2.63	2.63	2.88	3.22	3.56	4.09	4.88	4.97	6.00	6.69	7.84	8.46
WEIGHT (KG)	0.10	0.10	0.13	0.24	0.34	0.51	0.77	1.03	1.59	2.79	4.80	14.5

Dimensions are expressed in inches Weight is estimated

CLASS 6000 DIMENSIONS AND WEIGHTS											
Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"			
A	1.50	1.73	2.01	2.36	2.52	3.27	3.74	4.17			
н	1.81	2.20	2.44	2.95	3.31	4.02	4.76	5.75			
G	0.32	0.34	0.39	0.42	0.44	0.48	0.60	0.66			
В	0.43	0.50	0.58	0.67	0.70	0.75	0.93	1.02			
L2	0.54	0.55	0.68	0.71	0.72	0.76	1.14	1.20			
WEIGHT (KG)	0.46	0.73	1.13	1.50	2.29	3.47	6.21	9.52			

Dimensions are expressed in inches . Weight is estimated

LENGTH OF THREAD SCREWED INTO FITTING

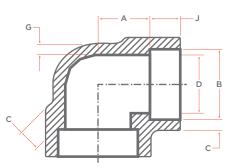


SIZE	L	SIZE	L		
1/8"	0.273	2"	0.697		
1/4"	0.395	2-1/2"	0.933		
3/8"	0.407	3"	1.016		
1/2"	0.534	3-1/2"	1.071		
3/4"	0.553	4"	1.094		
1"	0.661	5"	1.187		
1-1/4"	0.681	6"	1.208		
1-1/2"	0.681	8"	1.313		



DIMENSIONS

SOCKET WELD



	CLASS 3000 DIMENSIONS AND WEIGHTS												
Size		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
в	Max.	0.44	0.58	0.71	0.88	1.09	1.35	1.70	1.94	2.43	2.93	3.56	4.57
P	Min.	0.42	0.56	0.69	0.86	1.07	1.33	1.68	1.92	2.41	2.91	3.54	4.55
D	Max.	0.30	0.39	0.52	0.65	0.85	1.08	1.41	1.64	2.10	2.53	3.13	4.09
D	Min.	0.24	0.33	0.46	0.59	0.79	1.02	1.35	1.58	2.04	2.41	3.01	3.97
с	Avg.	0.13	0.15	0.16	0.18	0.19	0.22	0.24	0.25	0.27	0.35	0.38	0.42
	Min.	0.13	0.13	0.14	0.16	0.17	0.20	0.21	0.22	0.24	0.30	0.33	0.37
G	Min.	0.10	0.12	0.13	0.15	0.15	0.18	0.19	0.20	0.22	0.28	0.30	0.34
J	Min.	0.38	0.38	0.38	0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62	0.75
	A	0.44	0.44	0.53	0.62	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.62
WEIG	HT (KG)	0.10	0.10	0.13	0.24	0.34	0.51	0.77	1.03	1.59	2.79	4.80	14.5

Dimensions are expressed in inches Weight is estimated

CLASS 6000 DIMENSIONS AND WEIGHTS											
S	ize	1/2″	3/4"	1″	1-1/4″	1-1/2″	2″	2-1/2″	3″		
в	Max.	0.88	1.09	1.35	1.70	1.94	2.43	2.93	3.56		
P	Min.	0.86	1.07	1.33	1.68	1.92	2.41	2.91	3.54		
D	Max.	0.49	0.64	0.85	1.19	1.37	1.72	2.53	3.13		
	Min.	0.43	0.58	0.79	1.13	1.31	1.66	2.41	3.01		
с	Avg.	0.23	0.27	0.31	0.31	0.35	0.43	0.35	0.38		
L C	Min.	0.20	0.24	0.27	0.27	0.31	0.37	13 2.93 141 2.91 12 2.53 6 2.41 13 0.35 37 0.30 54 0.28 52 0.62 2 1.62	0.33		
G	Min.	0.19	0.22	0.25	0.25	0.28	0.34	0.28	0.30		
J	Min.	0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62		
	A	0.75	0.88	1.06	1.25	1.50	1.62	1.62	2.25		
WEIG	WEIGHT (KG)		0.73	1.13	1.50	2.29	3.47	6.21	9.52		

Dimensions are expressed in inches Weight is estimated

WELDING GAP AND MINIMUM FLAT DIMENSION



