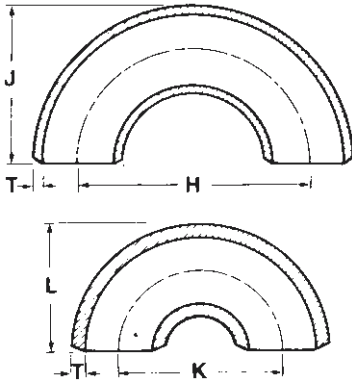


180° SEAMLESS RETURNS

LONG RADIUS SHORT RADIUS

Standard Weight & Extra Strong
Carbon and ferritic alloy steel, ASTM A-234,
ASME/ANSI B16.9
ASME/ANSI B16.28



NPS	DN	Outside Diameter O.D.	LONG RADIUS		SHORT RADIUS		STANDARD WEIGHT				EXTRA STRONG			
			Center to Center Nominal H	Back to Face Nominal J	Center to Center Nominal K	Back to Face Nominal L	Inside Diameter I.D.	Wall Thickness T	Long Radius Approx. Weight	Short Radius Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Long Radius Approx. Weight	Short Radius Approx. Weight
1/2		.840	.300	1.88	(1) -	-	.622	.109	.25	(1) -	.546	.147	.45	(1) -
	15	21	76	48	(1) -	-	15.80	2.77	.11	(1) -	13.87	3.73	.20	(1) -
3/4		1.050	2.25	1.69	(1) -	-	.824	.113	.33	(1) -	.742	.154	.45	(1) -
	20	27	57	43	(1) -	-	20.93	2.87	.15	(1) -	18.85	3.91	.20	(1) -
1		1.315	3.00	2.19	2.0	1.62	1.049	.133	.75	.50	.957	.179	1.0	(1) -
	25	33	76	56	51	41	26.64	3.38	.34	.23	24.31	4.55	.45	(1) -
1 1/4		1.660	3.75	2.75	2.5	2.06	1.380	.140	1.0	.75	1.278	.191	1.5	(1) -
	32	42	95	70	64	52	35.05	3.56	.45	.34	32.46	4.85	.68	(1) -
1 1/2		1.900	4.50	3.25	3.0	2.44	1.610	.145	1.5	1.0	1.500	.200	2.0	1.5
	40	48	114	83	76	62	40.89	3.68	.68	.45	38.10	5.08	.90	.68
2		2.375	6.00	4.19	4.0	3.19	2.067	.154	3.0	1.8	1.939	.213	4.4	3.0
	50	60	152	106	102	81	52.50	3.91	1.35	.81	49.25	5.54	2.0	1.35
2 1/2		2.875	7.50	5.19	5.0	3.94	2.469	.203	6.0	3.5	2.323	.276	7.5	4.5
	65	73	191	132	127	100	62.71	5.16	2.70	1.58	59.00	7.01	3.38	2.03
3		3.500	9.00	6.25	6.0	4.75	3.068	.216	9.0	6.0	2.900	.300	12.0	7.5
	80	89	229	159	152	121	77.93	5.49	4.05	2.70	73.66	7.62	5.40	3.38
3 1/2		4.000	10.50	7.25	7.0	5.5	3.548	.226	12.5	8.0	3.364	.318	17.0	11.0
	90	102	267	184	178	140	90.12	5.74	5.63	3.60	85.45	8.08	7.65	5
4		4.500	12.0	8.25	8.0	6.25	4.026	.237	17.0	12.0	3.826	.337	23.5	15.5
	100	114	305	210	203	159	102.26	6.02	7.65	5.40	97.18	8.56	10.6	7
5		5.563	15.0	10.31	10.0	7.75	5.047	.258	28.5	19.0	4.813	.375	40.0	27.0
	125	141	381	262	254	197	128.19	6.55	12.83	8.55	122.25	9.53	18	12
6		6.625	18.0	12.31	12.0	9.31	6.065	.280	46	31.0	5.761	.432	67	45.0
	150	168	457	313	305	237	154.05	7.11	20.70	14	146.33	10.97	30	20
8		8.625	24.0	16.31	16.0	12.31	7.981	.322	90	62	7.625	.500	138	92
	200	219	610	414	406	313	202.72	8.18	40.50	28	193.68	12.70	62	41
10		10.750	30.0	20.38	20.0	15.38	10.02	.365	156	110	9.750	.500	215	142
	250	273	762	518	508	391	254.5	9.27	70.20	49.5	247.65	12.70	62	41
12		12.750	36.0	24.38	24.0	18.38	12.00	.375	236	156	11.750	.500	300	200
	300	324	914	619	610	467	304.8	9.53	106.20	70	298.45	12.70	135	90
14		14.000	42.0	28.0	28.0	21.0	13.25	.395	294	208	13.00	.500	376	264
	350	356	1067	711	711	533	336.6	9.53	132.30	94	330.2	12.70	236	144
16		16.000	48.0	32.0	32.0	24.0	15.25	.375	404	236	15.00	.500	524	320
	400	406	1219	813	813	610	387.4	9.53	181.80	106	381.0	12.70	236	144
18		18.000	54.0	36.0	36.0	27.0	17.25	.375	512	296	17.00	.500	676	388
	450	457	1372	914	914	686	438.2	9.53	230.4	133	431.8	12.70	304	175
20		20.000	60.0	40.0	40.0	30.0	19.25	.375	617	420	19.00	.500	824	560
	500	508	1524	1018	1016	762	489.0	9.53	277.7	189	482.6	12.70	371	252
22		22.000	66.0	44.0	(2) -	-	21.25	.375	787	(2) -	21.00	.500	1040	(2) -
	550	559	1676	1118	(2) -	-	539.8	9.53	354.2	(2) -	533.4	12.70	468	(2) -
24		24.000	72.0	48.0	48.0	36.0	23.25	.375	890	576	23.00	.500	1183	740
	600	610	1829	1219	1219	914.4	590.6	9.53	400.5	259	584.2	12.70	468	(2) -
(3)26		26.000	78.0	52.0	(2) -	-	25.25	.375	1100	(2) -	25.00	.500	1458	(2) -
	(3)650	660	1981	1321	(2) -	-	641.4	9.53	495.0	(2) -	635.0	12.70	656	(2) -
(3)30		30.000	90.0	60.0	60.0	45.0	29.25	.375	1441	960	29.00	.500	1910	1272
	(3)750	762	2286	1524	1524	1143	743.0	9.53	648.5	432	736.6	12.70	860	572

(1) These sizes of Short Radius Returns are not available.

(2) Available by special order only.

(3) These sizes not covered by ASME/ANSI B16.9 or ASME/ANSI B16.28.

Particulars and specifications of Long Radius, Sch. 160 and XXS, and Short Radius XXS available on request.

These fittings are also available in other sizes and/or wall thicknesses.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS