

# Spacer Element Charts

## Selecting A Spacer

- **Spacer Elements S and T (small diameter pipe)**
- **Spacer Elements F and G (small to medium diameter pipe)**
- **Spacer Elements P and Q (medium diameter pipe "special")**
- **Spacer Elements M and N (medium diameter pipe)**
- **Spacer Elements E and H (large diameter pipe)**
- **Notice**

### Spacer Elements S and T (small diameter pipe)

These spacers are linked by a tongue and groove method. S and T spacers are able to support a **maximum weight load of 250 lb. / 110 kg. per ring.** They are best suited for **pipe ranges 1.18 - 4.13 inches (30 - 105 mm).**



For installation the **Clamping Tool Type 3** is used. **O.D. range 1.18 - 6.46 inches (30 - 164 mm)**

TYPE S and T 20 mm element support height of .78 inches							
O.D. range inches		O.D. range millimeters		No. of elements to make a RING		Spacing between rings	
min	max	min	max	S	T	ft.	m.
1.18	1.38	30	35	1		5	1.5
1.50	1.69	38	43		1	5	1.5
2.36	2.76	60	70	2		5	1.5
2.68	2.99	68	76	1	1	5	1.5
3.03	3.39	77	86		2	6-10	1.5
3.54	4.13	90	105	3		6-10	1.5
4.17	4.72	106	120	1	2	6-10	1.5
4.76	5.43	121	138	4		6-10	1.5
5.47	6.06	139	154	2	2	6-10	1.5
6.10	6.46	155	164	1	3	*6-10	1.5
<i>maximum load 250 lbs or 110 kgs per ring</i>							
<b>*MAXIMUM LOAD MUST NOT EXCEED 250 LBS OR 110 KGS PER RING</b>							

**NOTICE:**

Distance between spacers **must** be calculated so the maximum load per spacer ring does not exceed the max. load carrying capacity for the type used. (S&T 250lb/110 kg, F&G 1102 lb/500 kg, P&Q 1213 lb/550 kg, M&N 2204 lb/1000 kg, E&H 5952 lb/2700 kg) -/spacer ring. Maximum load per spacer is calculated based on the weight of the pipe filled with liquid divided by the number of spacer rings installed. The maximum distance of 10 feet/3 meters shall not be exceeded due to the danger of the pipe sagging between the spacers support points unless the pipe manufacturer states differently.

**Spacer Elements F and G (small to medium diameter pipe)**

These spacers are engineered to be used on small to medium sized pipe and are able to support a **maximum weight load of 1102 lb. / 500 kg. per ring**. F and G spacers are best suited for **pipe ranges 3.62 to 17.56 inches (92 to 406 mm)**.



For installation the **Clamping Tool Type 1** is used. Channel Lock tool also available.

TYPE F and G 25, 41, and 60 mm element support heights of .98, 1.6, and 2.36 inches							
O.D. range inches		O.D. range millimeters		No. of elements to make a RING		Spacing between rings	
min	max	min	max	F	G	ft.	m.
3.62	4.53	92	115	1	1	6-10	1.8-3.0
4.57	5.98	116	152	2		6-10	1.8-3.0
6.02	7.40	153	188	2	1	6-10	1.8-3.0
7.44	8.34	189	224	3		6-10	1.8-3.0
8.35	10.24	225	260	3	1	6-10	1.8-3.0
10.28	11.61	261	295	4		6-10	1.8-3.0
11.65	12.32	296	313	4	1	6-10	1.8-3.0
12.36	14.80	314	376	5		6-10	1.8-3.0
14.84	17.56	377	446	6		6-10	1.8-3.0
17.60	20.79	447	528	7		*6-10	1.8-3.0
<i>maximum load 1102 lbs or 500 kgs per ring</i>							
<b>*MAXIMUM LOAD MUST NOT EXCEED 1102 LBS OR 500 KGS PER RING</b>							

**NOTICE:**

Distance between spacers **must** be calculated so the maximum load per spacer ring does not exceed the max. load carrying capacity for the type used. (S&T 250lb/110 kg, F&G 1102 lb/500 kg, P&Q 1213 lb/550 kg, M&N 2204 lb/1000 kg, E&H 5952 lb/2700 kg) -/spacer ring. Maximum load per spacer is calculated based on the weight of the pipe filled with liquid divided by the number of spacer rings installed. The maximum distance of 10 feet/3 meters shall not be exceeded due to the danger of the pipe sagging between the spacers support points unless the pipe manufacturer states differently.

**Spacer Elements P and Q (medium diameter pipe "special")**

The P and Q spacer is designed for that middle pipe O.D. range application. They are able to support a **maximum weight load of 1213 lb. / 550 kg. per ring**. The P and Q spacers are best suited for the **pipe range 6.00 to 12.0 inches (152mm to 305mm)**. Ranges above 12" contact your distributor.

For installation the **Clamping Tool Type 6** is used.

TYPE P and Q 120 mm support heights of 4.73 inches							
O.D. range inches		O.D. range millimeters		No. of elements to make a RING		Spacing between rings	
min	max	min	max	P	Q	ft.	m.
5.63	6.61	143	168	1	1	6-10	1.8-3.0
6.65	7.91	169	201	2		6-10	1.8-3.0
7.95	8.94	202	227	1	2	6-10	1.8-3.0
8.98	9.92	228	252	2	1	6-10	1.8-3.0
9.96	11.26	253	286	3		6-10	1.8-3.0
11.30	12.24	287	311	2	2	6-10	1.8-3.0
12.28	13.27	312	337	3	1	*6-10	1.8-3.0
13.31	15.55	338	395	4		*6-10	1.8-3.0
15.59	16.57	396	421	4	1	*6-10	1.8-3.0
16.61	19.88	422	505	5		*6-10	1.8-3.0
19.92	23.23	506	590	6		*4.9	1.5
<i>maximum load 1213 lbs or 550 kgs per ring</i>							
<b>*MAXIMUM LOAD MUST NOT EXCEED 1213 LBS OR 550 KGS PER RING</b>							

**NOTICE:**

Distance between spacers **must** be calculated so the maximum load per spacer ring does not exceed the max. load carrying capacity for the type used. (S&T 250lb/110 kg, F&G 1102 lb/500 kg, P&Q 1213 lb/550 kg, M&N 2204 lb/1000 kg, E&H 5952 lb/2700 kg) -/spacer ring. Maximum load per spacer is calculated based on the weight of the pipe filled with liquid divided by the number of spacer rings installed. The maximum distance of 10 feet/3 meters shall not be exceeded due to the danger of the pipe sagging between the spacers support points unless the pipe manufacturer states differently.

**Spacer Elements M and N (medium diameter pipe)**

The M and N spacer is designed for that middle pipe O.D. range application. They are able to support a **maximum weight load of 2204 lb. / 1000 kg. per ring**. The M and N spacers are best suited for the **pipe range 13.31 to 29.88 inches (358 to 764 mm)**.



For installation the **Clamping Tool Type 5** is used. Channel Lock tool is also available.

TYPE M and N 18, 36, 50, 75, and 90 mm support heights of 0.7, 1.42, 1.97, 2.95, and 3.54 inches							
O.D. range inches		O.D. range millimeters		No. of elements to make a RING		Spacing between rings	
min	max	min	max	M	N	ft.	m.
5.63	6.61	143	168	1	1	6-10	1.8-3.0
6.65	7.91	169	201	2		6-10	1.8-3.0
7.95	8.94	202	227	1	2	6-10	1.8-3.0
8.98	9.92	228	252	2	1	6-10	1.8-3.0
9.96	11.26	253	286	3		6-10	1.8-3.0
11.30	12.24	287	311	2	2	6-10	1.8-3.0
12.28	13.27	312	337	3	1	6-10	1.8-3.0
13.31	15.55	338	395	4		6-10	1.8-3.0
15.59	16.57	396	421	4	1	6-10	1.8-3.0
16.61	19.88	422	505	5		6-10	1.8-3.0
19.92	23.23	506	590	6		*4-10	1.5-3.0
23.27	26.54	591	674	7		*4-10	1.5-3.0
26.57	29.88	675	759	8		*4.6	1.5
29.92	32.68	760	830	9		*4.6	1.5
<i>maximum load 2,204 lbs or 1,000 kgs per ring</i>							
<b>* MAXIMUM LOAD MUST NOT EXCEED 2204 LBS OR 1000 KGS PER RING</b>							

**NOTICE:**

Distance between spacers **must** be calculated so the maximum load per spacer ring does not exceed the max. load carrying capacity for the type used. (S&T 250lb/110 kg, F&G 1102 lb/500 kg, P&Q 1213 lb/550 kg, M&N 2204 lb/1000 kg, E&H 5952 lb/2700 kg) -/spacer ring. Maximum load per spacer is calculated based on the weight of the pipe filled with liquid divided by the number of spacer rings installed. The maximum distance of 10 feet/3 meters shall not be exceeded due to the danger of the pipe sagging between the spacers support points unless the pipe manufacturer states differently.

**Spacer Elements E and H (large diameter pipe)**

For large diameter pipe, heavier applications or long casings where maximum strength is required the E and H elements are used. They are able to support a **maximum weight load of 5925 lb. / 2700 kg. per ring** and are best suited for the **pipe range above 24 inches (609 mm)**.

For installation, the **Clamping Tool Type 2** is used for **support heights up to 90 mm**.

Tool **Type 4** is used for the **E 130s**.



TYPE E and H 25, 41, 60, 75, 90, 110 and 130 mm element support heights of .98, 1.6, 2.36, 2.95, 3.54, 4.33 and 5.11 inches							
O.D range inches		O.D. range millimeters		No. of elements to make a RING		Spacing between rings	
min	max	min	max	E	H	ft.	m.
8.70	10.55	221	268	2	1	6	1.8
10.59	12.60	269	320	3		6	1.8
12.64	14.41	321	366	3	1	6	1.8
14.45	16.54	367	420	4		6	1.8
16.57	18.31	421	465	4	1	6	1.8
18.35	20.87	466	530	5		6	1.8
20.91	24.80	531	630	6		6	1.8
24.84	28.74	631	730	7		6	1.8
28.78	32.68	731	830	8		6	1.8
32.72	36.61	831	930	9		6	1.8
36.65	40.55	931	1030	10		*4-10	1.5-3.0
40.59	45.63	1031	1159	11		*4-10	1.5-3.0
45.67	53.54	1160	1360	13		*4-10	1.5-3.0
53.58	62.99	1361	1600	15		*4-10	1.5-3.0
3.03	70.83	1601	1799	17		1.9	0.6
70.87	83.07	1800	2110	20		1.9	0.6
83.11	95.67	2111	2430	23		1.9	0.6
95.71	112.60	2431	2860	27			
112.64	134.41	2861	3414	32			
<i>max load 5952 lbs or 2700 kgs per ring</i>							
<b>*MAXIMUM LOAD MUST NOT EXCEED 5952 LBS OR 2700 KGS PER RING</b>							

**NOTICE:**

Distance between spacers **must** be calculated so the maximum load per spacer ring does not exceed the max. load carrying capacity for the type used. (S&T 250lb/110 kg, F&G 1102 lb/500 kg, P&Q 1213 lb/550 kg, M&N 2204 lb/1000 kg, E&H 5952 lb/2700 kg) -/spacer ring. Maximum load per spacer is calculated based on the weight of the pipe filled with liquid divided by the number of spacer rings installed. The maximum distance of 10 feet/3 meters shall not be exceeded due to the danger of the pipe sagging between the spacers support points unless the pipe manufacturer states differently.

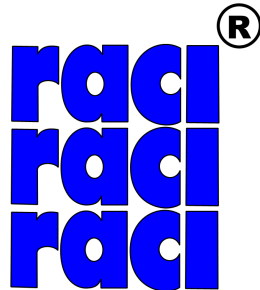
**Physical Characteristics Of Specifically Designed High Density Polyethylene For Raci Spacers**

Yield Strength	3625 PSI	25 N/mm	ASTM D 638
Tensile Strength	2900 PSI	20 N/mm	ASTM D 638
Elongation At Break	800%	800%	ASTM D 638
Hardness Shore D	65	65	ASTM D 2240
Minimum Working Temperature	-4° F	-20° C	
Dielectric Strength	>940 Kv/inch	>37 Kv/mm	ASTM 149/64
UVL Stabilization	yes	yes	

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