

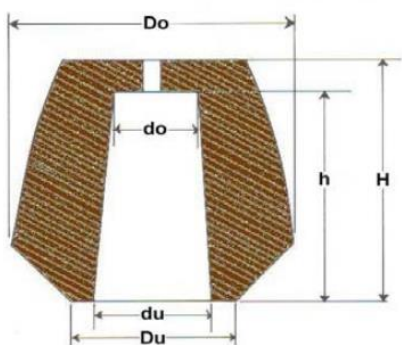
Type Q Mini Risers

Thermotec manufactures a variety of highly exothermic mini risers to enable metals casters to produce quality castings consistently and economically. Mini risers are intended to reduce casting yield by replacing larger fiber sleeves with a smaller ceramic-based matrix.

The smaller mini risers contain more exothermic energy per volume, thus feeding can be localized, and the amount of metal being poured can be reduced. Mini risers have a greater tensile strength compared to fiber sleeves due to their ceramic nature, and therefore can be used in more high-pressure sand ramming applications, i.e. greensand.

S-Series

- Simple mounting – easily adaptable to current gating system
- Ignites at 1700°F and will burn at 3000°F
- Outstanding binding strength – will not crush under high pressure
- Will not contaminate sand systems
- Environmentally friendly
- Significant yield improvements
- Reduction in cleaning costs.

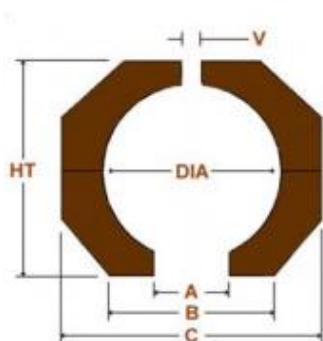


Sleeve Dimensions (Inches)						
Type	Do	Du	H	h	du	do
S5	1.97	1.10	2.24	1.97	0.63	0.51
S12	2.36	1.46	2.36	1.97	0.83	0.71
S19	2.36	1.60	3.16	2.76	0.98	0.79
S20	3.04	1.43	3.98	3.34	0.85	0.74
S54	3.27	2.30	3.54	2.76	1.57	1.368
S58	3.43	2.24	4.21	3.82	1.42	1.18
S74	4.29	2.56	5.31	4.33	1.57	1.18
S111	5.12	3.54	4.92	3.94	1.97	1.57
S133	5.51	3.94	5.51	4.92	1.97	1.57
S164	5.12	3.54	4.92	3.94	1.97	2.36
S193	5.51	3.94	5.51	4.92	2.28	1.89
S237	6.30	3.74	5.71	4.72	2.56	2.17
S286	5.91	2.87	8.91	6.89	2.32	1.97
S532	6.69	2.36	8.27	6.69	2.36	3.54
S655	6.69	2.36	8.07	6.50	3.15	3.54
S1183	9.25	2.95	9.53	7.56	2.95	5.98
S1730	11.14	3.94	14.37	11.22	3.94	4.33

Type	Riser Weight (Lbs.)	Modulus		Contained Metal Weight and Volume			
		In	cm	Lbs.	Volume (In ³)	Kg	Volume (cm ³)
S5	0.23	0.30	0.76	0.13	0.49	0.06	8
S12	0.32	0.33	0.84	0.22	0.85	0.19	14
S19	0.43	0.37	0.94	0.43	1.65	0.19	27
S20	1.05	0.51	1.30	0.53	2.04	0.24	33
S54	1.12	0.41	1.04	0.85	3.25	0.38	53
S58	1.32	0.67	1.70	1.30	5.00	0.59	82
S74	2.58	0.76	1.93	1.70	6.53	0.77	107
S111	2.97	0.87	2.21	2.52	9.70	1.14	159
S133	4.50	0.98	2.49	3.03	11.66	1.38	191
S164	2.73	0.87	2.21	3.78	14.52	1.71	238
S193	4.05	1.10	2.80	4.38	16.84	1.99	276
S237	4.52	1.26	3.20	5.38	20.69	2.44	339
S286	7.52	1.34	3.40	6.47	24.90	2.94	408
S532	10.51	1.65	4.19	12.23	47.05	5.55	771
S655	9.55	1.65	4.19	14.84	57.06	6.73	935
S1183	21.68	1.89	4.80	26.18	100.69	11.87	1650
S1730	55.00	2.05	5.21	39.21	150.79	17.78	2471

Spherical

- Patented high exothermic blend
- Burning temperature at 3000°F
- Optimum feeding conditions
- Natural low cope height molding equipment
- High volume
- Available with and without breaker cores

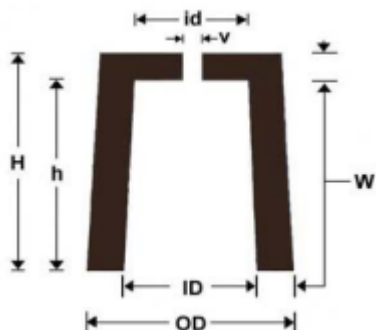


Sleeve Dimensions (Inches)						
Type	DIA	HT	A	B	C	V
2 SP	2.375	3.000	1.562	2.625	3.750	0.438
3 SP	3.375	3.625	1.750	3.750	4.875	0.438
4 SP	4.000	5.000	2.000	4.125	6.000	0.500
5 SP	5.125	6.000	2.750	5.125	7.000	0.750
6 SP	6.125	7.125	3.000	6.250	8.625	0.750
8 SP	8.000	9.250	3.750	8.375	11.125	0.750

Type	Riser Weight (Lbs.)	Contained Metal Weight and Volume			
		Lbs.	Volume (In ³)	Kg	Volume (cm ³)
2 SP	0.83	1.83	7.02	0.83	115
3 SP	1.80	5.24	20.14	2.38	330
4 SP	3.63	8.72	33.52	3.95	549
5 SP	4.85	18.06	69.48	8.19	1139
6 SP	9.47	30.91	118.90	14.02	1948
8 SP	21.50	69.73	268.20	31.63	4395

Exo-Top

- High exothermic insertables.
- Available with and without breaker cores

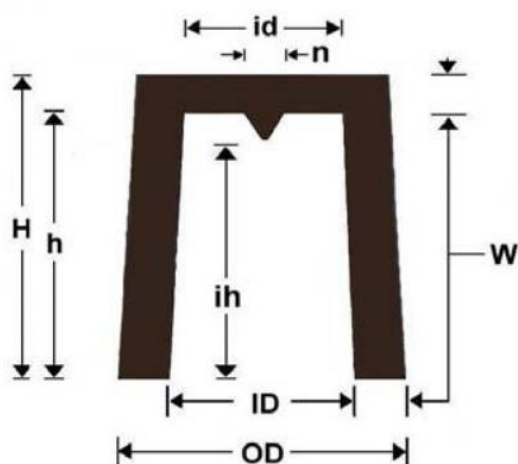


Sleeve Dimensions (Inches)							
Type	ID	OD	H	id	h	V	W
1.25x2	1.250	2.250	2.375	1.062	1.875	0.250	0.500
1.625x2.5	1.562	2.625	3.000	1.375	2.500	0.250	0.500
2x3	2.000	3.062	3.562	1.562	3.000	0.312	0.562
2.5x3.75	2.437	3.562	4.125	2.250	3.650	0.437	0.562
3x4.5	3.000	4.000	5.125	2.625	4.500	0.312	0.5 – 0.65
3.5x5.25	3.500	4.750	5.750	2.937	5.125	0.312	0.625

Type	Riser Weight (Lbs.)	Contained Metal Weight and Volume			
		Lbs.	Volume (In ³)	Kg	Volume (cm ³)
1.25x2	0.34	0.51	1.98	0.23	32
1.625x2.5	0.46	1.08	4.17	0.49	68
2x3	0.68	1.94	7.48	0.88	123
2.5x3.75	1.03	4.10	15.75	1.86	258
3x4.5	1.60	7.31	28.10	3.31	460
3.5x5.25	2.25	10.93	42.02	4.96	689

J-Series

- Patented high exothermic blend
- Burning temperature at 3000°F
- Optimum feeding conditions
- Natural low cope height molding equipment



Sleeve Dimensions (Inches)									
Type	Nominal Inside Dimensions	H	h	ih	OD	ID	id	n	W
J1	2.75x4.25	4.750	4.187	3.625	3.812	2.687	2.312	0.687	0.562
J2	3.25x5	5.562	4.937	4.375	4.312	3.187	2.750	0.687	0.562
J3	4x6	6.375	5.813	5.250	4.937	3.812	3.312	0.687	0.562
J8	3.75x8	8.437	7.875	7.312	5.000	3.750	3.250	0.687	0.625

Type	Riser Weight (Lbs.)	Contained Metal Weight and Volume			
		Lbs.	Volume (In ³)	Kg	Volume (cm ³)
J1	1.61	5.23	20.12	2.37	330
J2	2.05	8.72	33.52	3.95	549
J3	2.40	14.76	56.76	6.69	930
J8	3.09	19.62	75.48	8.90	1237