



# **ROCKET RACK®**

SANITARY SUPPORT SYSTEM FOR ELECTRICAL & MECHANICAL INSTALLATIONS



PRE-ENGINEERED & FACTORY FABRICATED

# LOAD RATINGS

## \*\*\*ATTENTION\*\*\*

The ROCKET RACK® slots are to be used for securing conduit and process pipe fasteners (U-Bolts, ROCKET STANDOFF<sup>TM</sup>, Sanitary Clamps, etc.) only. The proprietary slot is NOT to be used as a means of installing the ROCKET RACK itself. The ROCKET RACK should be installed using only the mounting holes provided.

ROCKET RACK FLAT is for WALL MOUNT and POST MOUNT ONLY!

ROCKET RACK is a pre-engineered product. Do not attempt to cut or alter the ROCKET RACK product in any way. The load ratings provided in this document only apply to unaltered ROCKET RACK products. Robroy Industries, dba ROCKET RACK disclaims all potential liability that may result from improper installation of the ROCKET RACK product or from cutting the rack or changing the size of the slot or mounting holes. You agree to indemnify and hold Robroy Industries harmless from any loss, damage, claim, cost, or expense incurred or suffered by Robroy Industries relating to any ROCKET RACK product that you improperly installed or altered in any way.

Manufacturing the patented ROCKET RACK Conduit and Pipe Support Racks without the permission of Robroy Industries (by license or waiver) constitutes infringement and will expose the unauthorized user AND manufacturer to liability under U.S. Patent Law. Robroy Industries respects intellectual property rights and expects to have its rights respected. Robroy Industries has invested considerable resources in protecting its intellectual property and fully intends to vigorously protect these assets against any infringement or other unlawful actions.

ROCKET RACK U.S. Patents: D608,183 S, D599,194 S, D599,193 S, D653,524 S & D649,863 S and patents pending.

Manufacturing the patented ROCKET RACK® without the permission of Robroy Industries, (by license or waiver) constitutes infringement and will expose the unauthorized user AND manufacturer to liability under U.S. Patent Law.



U.S. PATENT NOS. D608,183 S & D599,194 S

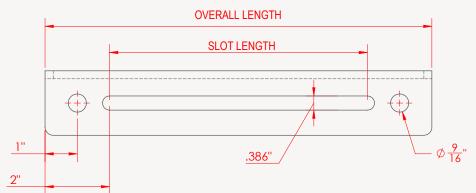


- These slots and mounting holes are centered on horizontal flat leg of the angle.
- Loads on these tables are based on utilizing the outside mounting holes.
- Load ratings are based on ASD, 9<sup>TH</sup> Edition, Section F1, however it is suggested that the loads in the tables be reduced by a Factor of Safety of 2 for safe performance.

#### LOAD RATINGS ARE LISTED FOR TWO MATERIALS HAVING THE FOLLOWING PROPERTIES:

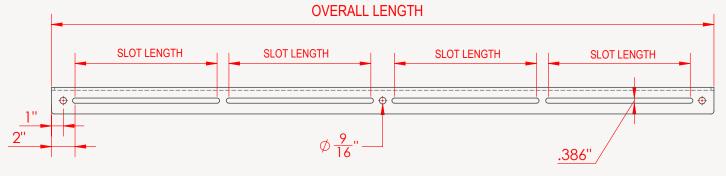
Material	Yield Stress (KSI)	Mod of Elasticity (KSI)
304/316 Stainless Steel	30	28100
6061-T6 Aluminum	37	10000

#### 1 SLOT STANDARD





#### **4 SLOT STANDARD**



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U.S. PATENT NOS. D608,183 S & D599,194 S

SECTION PROPERTIES OF REDUCED SECTION FOR LOAD AND DEFLECTION RATING										
Area	ea Moment of Inertia Min. Section Mod. Radius of Gyration									
(lbs.)	(in.^4)	(in.^3)	(in.)							
0.639	0.251	0.211	0.6263							



#### **ROCKET RACK® STANDARD**

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Standard 304 & 316 Stainless 2x2x1/4									
PART NUMBER	Overall	Max Point	Deflection	L/240	L/360	Max. Dist.	Deflection	L/240	L/360
FANT NUMBER	Length	Load (LB)	(IN)	(LB)	(LB)	Load (LB)	(IN)	(LB)	(LB)
RRSTD30412   RRSTD31612	12"	1517	0.0045	14094	9396	3033	0.0056	22550	15034
RRSTD30414   RRSTD31614	14"	1264	0.0065	9787	6252	2528	0.0081	15660	10440
RRSTD30416   RRSTD31616	16"	1083	0.0088	7191	4794	2167	0.0110	11505	7670
RRSTD30418   RRSTD31618	18"	948	0.0115	5505	3670	1896	0.0143	8809	5872
RRSTD30420   RRSTD31620	20"	843	0.0145	4350	2900	1685	0.0182	6960	4640
RRSTD30422   RRSTD31622	22"	758	0.0179	3523	2349	1517	0.0224	5638	3758
RRSTD30424   RRSTD31624	24"	689	0.0217	2912	1941	1379	0.0271	4659	3106
RRSTD30426   RRSTD31626	26"	632	0.0258	2447	1631	1264	0.0323	3915	2610
RRSTD30428   RRSTD31628	28"	583	0.0303	2085	1390	1167	0.0379	3336	2224
RRSTD30430   RRSTD31630	30"	542	0.0352	1798	1198	1083	0.0439	2876	1918
RRSTD30432   RRSTD31632	32"	506	0.0404	1566	1044	1011	0.0504	2506	1670
RRSTD30434   RRSTD31634	34"	474	0.0459	1376	918	948	0.0574	2202	1468
RRSTD30436   RRSTD31636	36"	446	0.0518	1219	813	892	0.0648	1951	1300
RRSTD30438   RRSTD31638	38"	421	0.0581	1087	725	843	0.0726	1740	1160
RRSTD30440   RRSTD31640	40"	399	0.0647	976	651	798	0.0809	1562	1041
RRSTD30442   RRSTD31642	42"	379	0.0717	881	587	758	0.0897	1409	940
RRSTD30444   RRSTD31644	44"	361	0.0791	799	533	722	0.0989	1278	852
RRSTD30446   RRSTD31646	46"	345	0.0868	728	485	689	0.1085	1165	777
RRSTD30448   RRSTD31648	48"	330	0.0949	666	444	659	0.1186	1066	710
RRSTD30450   RRSTD31650	50"	316	0.1033	612	408	632	0.1291	979	652
RRSTD30452   RRSTD31652	52"	303	0.1121	564	376	607	0.1401	902	601
RRSTD30454   RRSTD31654	54"	292	0.1212	521	347	583	0.1515	834	556
RRSTD30456   RRSTD31656	56"	281	0.1307	483	322	562	0.1634	773	516
RRSTD30458   RRSTD31658	58"	271	0.1406	449	300	542	0.1758	719	479
RRSTD30460   RRSTD31660	60"	261	0.1508	419	279	523	0.1885	670	447

- These slots and mounting holes are centered on peak or heel of
- Loads on these tables are based on utilizing the outside mounting holes.
- Custom designed rack load ratings can be provided at request if designed within ROCKET RACK engineering parameters.
- Load rating are based on ASD, 9th Edition, Section F1, however it is suggested that the loads in the tables be reduced by a Factor of Safety of 2 for safe performance.
- For slot dimensions and placement, Call ROCKET RACK® 903.680.4222

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U.S. PATENT NOS. D608,183 S & D599,194 S

SECTION PROPERTIES OF REDUCED SECTION FOR LOAD AND DEFLECTION RATING										
Area	Moment of Inertia Min. Section Mod. Radius of Gyration									
(lbs.)	(in.^4)	(in.^3)	(in.)							
0.639	0.251	0.211	0.6263							

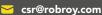


ROCKET RACK® STANDARD										
Standard 6061-T6 Aluminum 2x2x1/4										
DADT NUMBER	Overall	Max Point	Deflection	L/240	L/360	Max. Dist.	Deflection	L/240	L/360	
PART NUMBER	Length	Load (LB)	(IN)	(LB)	(LB)	Load (LB)	(IN)	(LB)	(LB)	
RRSTDALU12	12"	1870	0.0155	5016	3344	3741	0.0194	8025	5350	
RRSTDALU14	14"	1559	0.0224	3483	2322	3117	0.0280	5573	3715	
RRSTDALU16	16"	1336	0.0305	2559	1706	2672	0.0381	4094	2730	
RRSTDALU18	18"	1169	0.0398	1959	1306	2338	0.0497	3135	2090	
RRSTDALU20	20"	1039	0.0503	1548	1032	2078	0.0629	2477	1651	
RRSTDALU22	22"	935	0.0622	1254	836	1870	0.0777	2006	1338	
RRSTDALU24	24"	850	0.0752	1036	691	1700	0.0940	1658	1105	
RRSTDALU26	26"	779	0.0895	871	581	1559	0.1119	1393	929	
RRSTDALU28	28"	719	0.105	742	495	1439	0.1313	1187	791	
RRSTDALU30	30"	668	0.1218	640	426	1336	0.1523	1024	682	
RRSTDALU32	32"	623	0.1398	557	372	1247	0.1748	892	594	
RRSTDALU34	34"	585	0.1591	490	327	1169	0.1989	784	522	
RRSTDALU36	36"	550	0.1796	434	289	1100	0.2245	694	463	
RRSTDALU38	38"	520	0.2014	387	258	1039	0.2517	619	413	
RRSTDALU40	40"	492	0.2244	347	232	984	0.2805	556	370	
RRSTDALU42	42"	468	0.2486	313	209	935	0.3108	502	334	
RRSTDALU44	44"	445	0.2741	284	190	891	0.3426	455	303	
RRSTDALU46	46"	425	0.3008	259	173	850	0.3760	415	276	
RRSTDALU48	48"	407	0.3288	237	158	813	0.4110	379	253	
RRSTDALU50	50"	390	0.358	218	145	779	0.4475	348	232	
RRSTDALU52	52"	374	0.3885	201	134	748	0.4856	321	241	
RRSTDALU54	54"	360	0.4202	185	124	719	0.5252	297	198	
RRSTDALU56	56"	346	0.4531	172	115	693	0.5664	275	183	
RRSTDALU58	58"	334	0.4873	160	107	668	0.6091	256	171	
RRSTDALU60	60"	322	0.5227	149	99	645	0.6534	239	159	

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U.S. PATENT NOS. D608,183 S & D599,194 S

SECTION PROPERTIES OF REDUCED SECTION FOR LOAD AND DEFLECTION RATING										
Area	Area Moment of Inertia Min. Section Mod. Radius of Gyration									
(lbs.)	(in.^4)	(in.^3)	(in.)							
1.014	0.933	0.502	0.9593							



#### **ROCKET RACK® STANDARD**

Standard 304 & 316 Stair	iless 3x3x1/4
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	Standard 304 & 310 Stainless 3X3X1/4									
PART NUMBER	Overall	Max Point	Deflection	L/240	L/360	Max. Dist.	Deflection	L/240	L/360	
FANT NUMBER	Length	Load (LB)	(IN)	(LB)	(LB)	Load (LB)	(IN)	(LB)	(LB)	
RR3STD30436   RR3STD31636	36"	1064	0.0332	4537	3025	2127	0.0415	7260	4840	
RR3STD30438   RR3STD31638	38"	1005	0.0372	4047	2698	2009	0.0465	6467	4317	
RR3STD30440   RR3STD31640	40"	952	0.0415	3632	2422	1903	0.0519	5812	3875	
RR3STD30442   RR3STD31642	42"	904	0.0460	3278	2186	1808	0.0575	5245	3497	
RR3STD30444   RR3STD31644	44"	861	0.0507	2973	1982	1722	0.0633	4758	3172	
RR3STD30446   RR3STD31646	46"	822	0.0556	2709	1806	1644	0.0695	4335	2890	
RR3STD30448   RR3STD31648	48"	786	0.0608	2479	1653	1572	0.0760	3966	2644	
RR3STD30450   RR3STD31650	50"	753	0.0662	2277	1518	1507	0.0827	3643	2428	
RR3STD30452   RR3STD31652	52"	723	0.0718	2098	1399	1446	0.0898	3357	2238	
RR3STD30454   RR3STD31654	54"	695	0.0777	1940	1293	1391	0.0971	3104	2069	
RR3STD30456   RR3STD31656	56"	670	0.0838	1799	1199	1339	0.1047	2878	1919	
RR3STD30458   RR3STD31658	58"	646	0.0901	1673	1115	1292	0.1126	2676	1784	
RR3STD30460   RR3STD31660	60"	623	0.0966	1559	1039	1247	0.1208	2495	1663	
RR3STD30462   RR3STD31662	62"	603	0.1034	1457	971	1205	0.1293	2331	1554	
RR3STD30464   RR3STD31664	64"	583	0.1104	1365	910	1167	0.1380	2183	1455	
RR3STD30466   RR3STD31666	66"	565	0.1177	1281	854	1130	0.1471	2049	1366	
RR3STD30468   RR3STD31668	68"	548	0.1251	1204	803	1096	0.1564	1927	1284	
RR3STD30470   RR3STD31670	70"	532	0.1328	1134	756	1064	0.1660	1815	1210	
RR3STD30472   RR3STD31672	72"	517	0.1408	1070	714	1033	0.1760	1713	1142	

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(lbs.)	(in.^4)	(in.^3)	(in.)							
1.014	0.933	0.502	0.9593							



ROCKET RACK® STANDARD										
Standard 6061-T6 Aluminum 3x3x1/4										
PART NUMBER	Overall	Max Point	Deflection	L/240	L/360	Max. Dist.	Deflection	L/240	L/360	
PANT NUMBER	Length	Load (LB)	(IN)	(LB)	(LB)	Load (LB)	(IN)	(LB)	(LB)	
RR3STDALU36	36"	1312	0.1151	1615	1076	2624	0.1439	2584	1722	
RR3STDALU38	38"	1239	0.1290	1440	960	2478	0.1613	2304	1536	
RR3STDALU40	40"	1174	0.1438	1293	862	2347	0.1797	2068	1379	
RR3STDALU42	42"	1115	0.1593	1167	778	2230	0.1991	1867	1244	
RR3STDALU44	44"	1062	0.1756	1058	705	2124	0.2195	1693	1129	
RR3STDALU46	46"	1014	0.1927	964	643	2027	0.2409	1543	1028	
RR3STDALU48	48"	970	0.2107	882	588	1939	0.2633	1411	941	
RR3STDALU50	50"	929	0.2294	810	540	1858	0.2867	1296	864	
RR3STDALU52	52"	892	0.2489	747	498	1784	0.3111	1195	796	
RR3STDALU54	54"	858	0.2692	690	460	1715	0.3365	1105	736	
RR3STDALU56	56"	826	0.2903	640	427	1652	0.3629	1024	683	
RR3STDALU58	58"	796	0.3122	595	397	1593	0.3903	952	635	
RR3STDALU60	60"	769	0.3349	555	370	1538	0.4186	888	592	
RR3STDALU62	62"	743	0.3584	519	346	1487	0.4480	830	553	
RR3STDALU64	64"	719	0.3827	486	324	1439	0.4784	777	518	
RR3STDALU66	66"	697	0.4078	456	304	1394	0.5097	729	486	
RR3STDALU68	68"	676	0.4337	429	286	1352	0.5421	686	457	
RR3STDALU70	70"	656	0.4603	404	269	1312	0.5754	646	431	
RR3STDALU72	72"	637	0.4878	381	254	1274	0.6098	610	406	

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