Knowledge for Creating and Sustaining the Built Environment

Print Form

SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase)

Project: _____ Substitution Request Number: _____

_____ From: _____

To: _____ Date: _____

_____ A/E Project Number: _____

Re: Substitution Request- Metal Framing (drywall) Contract For: _____

Specification Title: _____ Description: _____

Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: Dietrich Metal Framing ProSTUD™ for _____

Manufacturer: Dietrich Metal Framing _____ Phone: _____

Address: _____

Trade Name: Dietrich Metal Framing ProSTUD™ Drywall Framing System Model No.: Pro25, 22, 20, 20STR, 30Mil,33Mil

Installer: _____ Phone: _____

Address: _____

History: ☐ New product ☐ 1-4 years old ☐ 5-10 yrs old ☐ More than 10 years old

Differences between proposed substitution and specified product:
The patent pending ProSTUD™ Drywall Framing System combines innovative design with high-strength steel to set a new industry benchmark for high-performance drywall framing. The components in the system are lightweight and feature a number of technological advances to enhance stiffness. High-strength steel combined with flange stiffening grooves and web planking increases strength and provides greater limiting heights. ProSTUD has also been extensively field tested for quality and ease of installation. ProSTUD is UL® approved for the most common UL® design assemblies.

☐ Point-by-point comparative data attached - REQUIRED BY A/E

Reason for not providing specified item: Dietrich Metal Framing is now offering this technically superior product across the country. It provides numerous benefits including excellent limiting height performance, ease of installation, a wide variety of UL approved designs, and the opportunity to secure LEED credits for recycled content, regional availability, and possibly innovative design through the reduction of the weight of steel required to complete the project.

Similar Installation:

Project: _____ Architect: _____

Address: _____ Owner: _____

_____ Date Installed: _____

Proposed substitution affects other parts of Work: ☐ No ☐ Yes; explain _____

Savings to Owner for accepting substitution: _____ ($ _____).

Proposed substitution changes Contract Time: ☐ No ☐ Yes [Add] [Deduct] _____ days.

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

_____

Telephone: _____

Attachments: _____

A/E's REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ A/E ☐ _____

Dietrich ProSTUD™ Pro 25 — Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PSTN	0.0158	15	0.015	70	0.071	0.241	0.033	0.041	0.688	0.015	0.466	0.028	0.028	0.022	902	0.00589	0.009	-1.088	1.369	0.368
2-1/2	PSTN	0.0158	15	0.015	70	0.085	0.288	0.088	0.070	1.020	0.018	0.459	0.029	0.077	0.038	1582	0.00704	0.023	-0.959	1.473	0.576
3-1/2	PSTN	0.0158	15	0.015	70	0.100	0.342	0.190	0.109	1.377	0.020	0.444	0.029	0.147	0.049	2049	0.00835	0.048	-0.849	1.677	0.744
3-5/8	PSTN	0.0158	15	0.015	70	0.102	0.348	0.206	0.114	1.420	0.020	0.442	0.029	0.159	0.051	2128	0.00852	0.051	-0.837	1.706	0.760
4	PSTN*	0.0158	15	0.015	70	0.108	0.369	0.260	0.130	1.549	0.021	0.436	0.029	0.197	0.056	2364	0.00901	0.064	-0.803	1.798	0.800
5-1/2	PSTN**	0.0158	15	0.015	70	0.132	0.449	0.553	0.201	2.047	0.022	0.411	0.029	0.410	0.084	3502	0.01098	0.132	-0.695	2.201	0.900
6	PSTN**	0.0158	15	0.015	70	0.140	0.476	0.683	0.228	2.209	0.023	0.404	0.029	0.495	0.091	3827	0.01164	0.161	-0.666	2.343	0.919

Dietrich ProTRAK™ Pro 25 — 1" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTNA	0.0158	15	0.015	50	0.057	0.195	0.028	0.033	0.698	0.006	0.325	0.020	0.019	0.016	470	0.00476	0.003	-0.659	1.014	0.578
2-1/2	PTNA	0.0158	15	0.015	50	0.071	0.242	0.072	0.056	1.007	0.007	0.311	0.020	0.054	0.024	725	0.00591	0.008	-0.566	1.197	0.776
3-1/2	PTNA	0.0158	15	0.015	50	0.087	0.296	0.156	0.088	1.341	0.007	0.294	0.021	0.112	0.034	1017	0.00723	0.017	-0.490	1.458	0.887
3-5/8	PTNA	0.0158	15	0.015	50	0.089	0.302	0.170	0.092	1.382	0.008	0.292	0.021	0.120	0.035	1054	0.00739	0.019	-0.482	1.492	0.896
4	PTNA*	0.0158	15	0.015	50	0.095	0.323	0.214	0.105	1.503	0.008	0.286	0.021	0.138	0.038	1147	0.00789	0.023	-0.459	1.597	0.917
5-1/2	PTNA**	0.0158	15	0.015	50	0.118	0.403	0.463	0.166	1.976	0.008	0.264	0.021	0.277	0.053	1595	0.00986	0.049	-0.388	2.031	0.964
6	PTNA**	0.0158	15	0.015	50	0.126	0.430	0.574	0.189	2.131	0.008	0.257	0.021	0.334	0.058	1744	0.01052	0.059	-0.369	2.178	0.971

Dietrich ProTRAK™ Pro 25 — 1-1/4" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTNB	0.0158	15	0.015	50	0.065	0.222	0.034	0.040	0.717	0.011	0.412	0.020	0.021	0.016	464	0.00542	0.006	-0.881	1.208	0.468
2-1/2	PTNB	0.0158	15	0.015	50	0.079	0.269	0.085	0.066	1.038	0.013	0.400	0.020	0.059	0.024	724	0.00657	0.015	-0.771	1.353	0.675
3-1/2	PTNB	0.0158	15	0.015	50	0.095	0.323	0.181	0.101	1.383	0.014	0.383	0.021	0.116	0.034	1022	0.00789	0.031	-0.678	1.587	0.818
3-5/8	PTNB	0.0158	15	0.015	50	0.097	0.329	0.196	0.106	1.425	0.014	0.381	0.021	0.125	0.035	1059	0.00805	0.034	-0.668	1.619	0.830
4	PTNB*	0.0158	15	0.015	50	0.103	0.349	0.247	0.121	1.550	0.014	0.374	0.021	0.153	0.039	1171	0.00854	0.043	-0.640	1.718	0.861
5-1/2	PTNB**	0.0158	15	0.015	50	0.126	0.430	0.524	0.188	2.036	0.015	0.350	0.021	0.290	0.054	1611	0.01052	0.089	-0.549	2.137	0.934
6	PTNB**	0.0158	15	0.015	50	0.134	0.457	0.646	0.213	2.194	0.016	0.343	0.021	0.350	0.059	1762	0.01117	0.108	-0.524	2.282	0.947

Dietrich ProTRAK™ Pro 25 — 1-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTNC	0.0158	15	0.015	50	0.073	0.249	0.039	0.046	0.731	0.018	0.497	0.020	0.023	0.015	460	0.00608	0.009	-1.110	1.419	0.388
2-1/2	PTNC	0.0158	15	0.015	50	0.087	0.296	0.098	0.076	1.062	0.021	0.489	0.020	0.061	0.024	723	0.00723	0.024	-0.985	1.529	0.585
3-1/2	PTNC	0.0158	15	0.015	50	0.103	0.349	0.206	0.115	1.417	0.023	0.473	0.021	0.120	0.034	1024	0.00854	0.051	-0.877	1.732	0.744
3-5/8	PTNC	0.0158	15	0.015	50	0.105	0.356	0.223	0.121	1.460	0.023	0.470	0.021	0.129	0.035	1061	0.00871	0.056	-0.865	1.761	0.759
4	PTNC*	0.0158	15	0.015	50	0.111	0.376	0.279	0.137	1.589	0.024	0.464	0.021	0.158	0.039	1175	0.00920	0.070	-0.832	1.852	0.798
5-1/2	PTNC**	0.0158	15	0.015	50	0.134	0.457	0.585	0.210	2.087	0.026	0.438	0.021	0.307	0.054	1628	0.01117	0.145	-0.722	2.251	0.897
6	PTNC**	0.0158	15	0.015	50	0.142	0.484	0.719	0.237	2.249	0.026	0.430	0.021	0.363	0.059	1774	0.01183	0.177	-0.692	2.392	0.916

Dietrich ProTRAK™ Pro 25 — 2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTND	0.0158	15	0.015	50	0.089	0.302	0.050	0.059	0.752	0.039	0.663	0.020	0.025	0.015	455	0.00739	0.020	-1.579	1.870	0.287
2-1/2	PTND	0.0158	15	0.015	50	0.103	0.349	0.124	0.096	1.098	0.045	0.662	0.021	0.064	0.024	720	0.00854	0.052	-1.431	1.921	0.445
3-1/2	PTND	0.0158	15	0.015	50	0.118	0.403	0.256	0.143	1.470	0.050	0.650	0.021	0.127	0.034	1025	0.00986	0.111	-1.297	2.066	0.606
3-5/8	PTND	0.0158	15	0.015	50	0.120	0.410	0.277	0.150	1.516	0.051	0.648	0.021	0.137	0.036	1063	0.01002	0.120	-1.282	2.088	0.623
4	PTND*	0.0158	15	0.015	50	0.126	0.430	0.344	0.169	1.650	0.052	0.642	0.021	0.168	0.039	1178	0.01052	0.151	-1.240	2.162	0.671
5-1/2	PTND**	0.0158	15	0.015	50	0.150	0.511	0.707	0.254	2.170	0.057	0.617	0.021	0.325	0.055	1637	0.01249	0.314	-1.098	2.509	0.809
6	PTND**	0.0158	15	0.015	50	0.158	0.538	0.864	0.285	2.338	0.058	0.608	0.021	0.389	0.060	1789	0.01315	0.383	-1.058	2.638	0.839

Dietrich ProTRAK™ Pro 25 — 2-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTNE	0.0158	15	0.015	50	0.105	0.356	0.061	0.072	0.766	0.071	0.824	0.020	0.027	0.015	455	0.00871	0.038	-2.058	2.345	0.230
2-1/2	PTNE	0.0158	15	0.015	50	0.118	0.403	0.150	0.116	1.123	0.082	0.831	0.021	0.066	0.024	725	0.00986	0.096	-1.892	2.352	0.353
3-1/2	PTNE	0.0158	15	0.015	50	0.134	0.457	0.306	0.171	1.510	0.091	0.825	0.021	0.132	0.035	1034	0.01117	0.203	-1.737	2.445	0.495
3-5/8	PTNE	0.0158	15	0.015	50	0.136	0.464	0.330	0.179	1.557	0.092	0.823	0.021	0.142	0.036	1073	0.01134	0.220	-1.720	2.462	0.512
4	PTNE*	0.0158	15	0.015	50	0.142	0.484	0.409	0.201	1.696	0.095	0.819	0.021	0.174	0.040	1189	0.01183	0.275	-1.670	2.517	0.560
5-1/2	PTNE**	0.0158	15	0.015	50	0.166	0.564	0.829	0.297	2.235	0.105	0.795	0.021	0.337	0.055	1654	0.01380	0.570	-1.500	2.807	0.714
6	PTNE**	0.0158	15	0.015	50	0.174	0.591	1.009	0.332	2.409	0.108	0.787	0.021	0.404	0.060	1809	0.01446	0.697	-1.452	2.921	0.753

Dietrich ProTRAK™ Pro 25 — 3" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTNF	0.0158	15	0.015	50	0.120	0.410	0.073	0.086	0.776	0.116	0.981	0.020	0.027	0.016	465	0.01002	0.063	-2.542	2.834	0.195
2-1/2	PTNF	0.0158	15	0.015	50	0.134	0.457	0.175	0.136	1.143	0.133	0.996	0.021	0.067	0.025	748	0.01117	0.158	-2.363	2.807	0.291
3-1/2	PTNF	0.0158	15	0.015	50	0.150	0.511	0.356	0.199	1.540	0.149	0.996	0.021	0.135	0.035	1051	0.01249	0.334	-2.191	2.858	0.412
3-5/8	PTNF	0.0158	15	0.015	50	0.152	0.517	0.384	0.208	1.589	0.151	0.995	0.021	0.145	0.036	1090	0.01265	0.361	-2.172	2.869	0.427
4	PTNF*	0.0158	15	0.015	50	0.158	0.538	0.474	0.233	1.732	0.155	0.992	0.021	0.178	0.040	1204	0.01315	0.450	-2.116	2.909	0.471
5-1/2	PTNF**	0.0158	15	0.015	50	0.182	0.618	0.951	0.341	2.287	0.172	0.973	0.021	0.338	0.056	1664	0.01512	0.930	-1.921	3.142	0.626
6	PTNF**	0.0158	15	0.015	50	0.190	0.645	1.153	0.380	2.467	0.177	0.965	0.021	0.412	0.061	1818	0.01578	1.136	-1.865	3.239	0.669

Notes: • Section properties were determined in accordance with AISI-NASPEC 2001 w/2004 Supplement.
• Effective Properties are conservatively based upon the basic C-Section; improved values are possible by applying the AISI Direct Strength Method.
• Effective properties and moment capacity did not incorporate stress increase as a result of cold work of forming.
[A] Calculated effective moment of inertia (Ixe) is based on serviceability determination.
[B] Allow bending moment is based on a fully braced section about its major axis.
* Web-depth to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.
** Web-depth to thickness ratio exceeds 260. Web Stiffeners are required at all support points and concentrated loads.

Dietrich ProSTUD™ Pro 22 — Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PSTH	0.0188	18	0.018	70	0.084	0.286	0.040	0.049	0.687	0.018	0.464	0.036	0.033	0.027	1140	0.00989	0.011	-1.085	1.365	0.369
2-1/2	PSTH	0.0188	18	0.018	70	0.100	0.342	0.104	0.083	1.018	0.021	0.457	0.037	0.092	0.049	2059	0.01183	0.027	-0.955	1.469	0.577
3-1/2	PSTH	0.0188	18	0.018	70	0.119	0.406	0.225	0.129	1.375	0.023	0.443	0.037	0.179	0.063	2622	0.01404	0.056	-0.845	1.673	0.745
3-5/8	PSTH	0.0188	18	0.018	70	0.122	0.414	0.244	0.135	1.418	0.024	0.441	0.037	0.194	0.065	2723	0.01432	0.061	-0.833	1.703	0.761
4	PSTH*	0.0188	18	0.018	70	0.129	0.438	0.308	0.154	1.547	0.024	0.434	0.037	0.241	0.072	3028	0.01515	0.076	-0.800	1.795	0.801
5-1/2	PSTH*	0.0188	18	0.018	70	0.157	0.534	0.656	0.239	2.045	0.026	0.410	0.037	0.503	0.108	4525	0.01847	0.155	-0.692	2.198	0.901
6	PSTH**	0.0188	18	0.018	70	0.166	0.566	0.810	0.270	2.207	0.027	0.402	0.037	0.609	0.118	4946	0.01958	0.190	-0.663	2.340	0.920

Dietrich ProTRAK™ Pro 22 — 1" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTHA	0.0188	18	0.018	50	0.068	0.232	0.033	0.039	0.699	0.007	0.325	0.027	0.024	0.021	638	0.00802	0.004	-0.657	1.013	0.579
2-1/2	PTHA	0.0188	18	0.018	50	0.085	0.288	0.086	0.067	1.008	0.008	0.311	0.028	0.066	0.034	1014	0.00996	0.009	-0.564	1.196	0.777
3-1/2	PTHA	0.0188	18	0.018	50	0.103	0.352	0.186	0.104	1.342	0.009	0.293	0.028	0.152	0.047	1411	0.01218	0.020	-0.488	1.458	0.888
3-5/8	PTHA	0.0188	18	0.018	50	0.106	0.360	0.202	0.109	1.382	0.009	0.291	0.028	0.165	0.049	1461	0.01245	0.022	-0.480	1.492	0.896
4	PTHA*	0.0188	18	0.018	50	0.113	0.384	0.255	0.125	1.504	0.009	0.285	0.028	0.180	0.052	1570	0.01328	0.028	-0.458	1.597	0.918
5-1/2	PTHA*	0.0188	18	0.018	50	0.141	0.480	0.551	0.198	1.977	0.010	0.263	0.029	0.362	0.073	2190	0.01661	0.058	-0.387	2.031	0.964
6	PTHA**	0.0188	18	0.018	50	0.150	0.512	0.683	0.225	2.132	0.010	0.257	0.029	0.439	0.080	2396	0.01771	0.070	-0.368	2.178	0.971

Dietrich ProTRAK™ Pro 22 — 1-1/4" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTHB	0.0188	18	0.018	50	0.078	0.264	0.040	0.047	0.718	0.013	0.411	0.027	0.026	0.022	649	0.00913	0.007	-0.879	1.208	0.470
2-1/2	PTHB	0.0188	18	0.018	50	0.094	0.320	0.101	0.079	1.038	0.015	0.400	0.028	0.072	0.034	1008	0.01107	0.017	-0.770	1.353	0.676
3-1/2	PTHB	0.0188	18	0.018	50	0.113	0.384	0.216	0.121	1.383	0.017	0.383	0.028	0.159	0.047	1416	0.01328	0.037	-0.676	1.587	0.818
3-5/8	PTHB	0.0188	18	0.018	50	0.115	0.392	0.234	0.126	1.426	0.017	0.380	0.029	0.170	0.049	1467	0.01356	0.040	-0.666	1.619	0.831
4	PTHB*	0.0188	18	0.018	50	0.122	0.416	0.294	0.144	1.550	0.017	0.374	0.029	0.207	0.054	1621	0.01439	0.051	-0.638	1.718	0.862
5-1/2	PTHB*	0.0188	18	0.018	50	0.150	0.512	0.623	0.224	2.036	0.018	0.349	0.029	0.382	0.074	2217	0.01771	0.105	-0.548	2.137	0.934
6	PTHB**	0.0188	18	0.018	50	0.160	0.544	0.769	0.253	2.195	0.019	0.342	0.029	0.461	0.081	2425	0.01882	0.129	-0.523	2.282	0.947

Dietrich ProTRAK™ Pro 22 — 1-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTHC	0.0188	18	0.018	50	0.087	0.296	0.047	0.055	0.733	0.021	0.496	0.028	0.028	0.021	640	0.01024	0.011	-1.108	1.418	0.389
2-1/2	PTHC	0.0188	18	0.018	50	0.103	0.352	0.117	0.091	1.063	0.025	0.488	0.028	0.078	0.034	1003	0.01218	0.028	-0.984	1.528	0.586
3-1/2	PTHC	0.0188	18	0.018	50	0.122	0.416	0.246	0.137	1.418	0.027	0.472	0.029	0.163	0.047	1418	0.01439	0.061	-0.875	1.732	0.745
3-5/8	PTHC	0.0188	18	0.018	50	0.125	0.424	0.266	0.144	1.461	0.027	0.470	0.029	0.175	0.049	1469	0.01467	0.066	-0.863	1.761	0.760
4	PTHC*	0.0188	18	0.018	50	0.132	0.448	0.332	0.163	1.589	0.028	0.463	0.029	0.214	0.054	1625	0.01550	0.083	-0.830	1.852	0.799
5-1/2	PTHC*	0.0188	18	0.018	50	0.160	0.544	0.696	0.250	2.087	0.031	0.438	0.029	0.412	0.075	2250	0.01882	0.172	-0.721	2.251	0.897
6	PTHC**	0.0188	18	0.018	50	0.169	0.576	0.856	0.282	2.249	0.031	0.429	0.029	0.481	0.082	2445	0.01993	0.211	-0.691	2.392	0.916

Dietrich ProTRAK™ Pro 22 — 2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTHD	0.0188	18	0.018	50	0.106	0.360	0.060	0.070	0.753	0.046	0.662	0.028	0.032	0.021	629	0.01245	0.024	-1.577	1.869	0.288
2-1/2	PTHD	0.0188	18	0.018	50	0.122	0.416	0.147	0.114	1.099	0.053	0.661	0.028	0.086	0.033	996	0.01439	0.062	-1.430	1.920	0.446
3-1/2	PTHD	0.0188	18	0.018	50	0.141	0.480	0.305	0.171	1.471	0.059	0.650	0.029	0.171	0.047	1418	0.01661	0.132	-1.295	2.065	0.607
3-5/8	PTHD	0.0188	18	0.018	50	0.143	0.488	0.330	0.178	1.517	0.060	0.648	0.029	0.184	0.049	1470	0.01688	0.143	-1.281	2.088	0.624
4	PTHD*	0.0188	18	0.018	50	0.150	0.512	0.410	0.201	1.651	0.062	0.642	0.029	0.225	0.054	1629	0.01771	0.179	-1.238	2.161	0.672
5-1/2	PTHD*	0.0188	18	0.018	50	0.179	0.608	0.841	0.302	2.171	0.068	0.616	0.029	0.436	0.076	2264	0.02104	0.373	-1.096	2.509	0.809
6	PTHD**	0.0188	18	0.018	50	0.188	0.640	1.028	0.338	2.339	0.069	0.607	0.029	0.522	0.083	2475	0.02214	0.456	-1.057	2.637	0.839

Dietrich ProTRAK™ Pro 22 — 2-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTHE	0.0188	18	0.018	50	0.125	0.424	0.073	0.086	0.767	0.084	0.823	0.028	0.034	0.021	623	0.01467	0.045	-2.056	2.344	0.231
2-1/2	PTHE	0.0188	18	0.018	50	0.141	0.480	0.178	0.138	1.124	0.097	0.830	0.028	0.089	0.033	991	0.01661	0.114	-1.891	2.351	0.353
3-1/2	PTHE	0.0188	18	0.018	50	0.160	0.544	0.365	0.204	1.511	0.108	0.824	0.029	0.179	0.047	1416	0.01882	0.242	-1.736	2.444	0.496
3-5/8	PTHE	0.0188	18	0.018	50	0.162	0.552	0.393	0.212	1.558	0.110	0.823	0.029	0.192	0.049	1469	0.01910	0.262	-1.718	2.461	0.512
4	PTHE*	0.0188	18	0.018	50	0.169	0.576	0.487	0.239	1.697	0.113	0.818	0.029	0.235	0.054	1629	0.01993	0.327	-1.669	2.517	0.560
5-1/2	PTHE*	0.0188	18	0.018	50	0.197	0.672	0.987	0.354	2.236	0.125	0.795	0.029	0.455	0.076	2269	0.02325	0.678	-1.499	2.807	0.715
6	PTHE**	0.0188	18	0.018	50	0.207	0.704	1.201	0.395	2.410	0.128	0.786	0.029	0.545	0.083	2483	0.02436	0.829	-1.450	2.920	0.753

Dietrich ProTRAK™ Pro 22 — 3" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTHF	0.0188	18	0.018	50	0.143	0.488	0.087	0.102	0.777	0.138	0.981	0.028	0.036	0.021	635	0.01688	0.075	-2.540	2.832	0.195
2-1/2	PTHF	0.0188	18	0.018	50	0.160	0.544	0.209	0.162	1.144	0.158	0.995	0.028	0.092	0.033	996	0.01882	0.189	-2.361	2.806	0.292
3-1/2	PTHF	0.0188	18	0.018	50	0.179	0.608	0.424	0.237	1.541	0.177	0.995	0.029	0.183	0.048	1427	0.02104	0.397	-2.190	2.857	0.412
3-5/8	PTHF	0.0188	18	0.018	50	0.181	0.616	0.457	0.247	1.590	0.179	0.994	0.029	0.197	0.050	1481	0.02131	0.430	-2.170	2.868	0.427
4	PTHF*	0.0188	18	0.018	50	0.188	0.640	0.565	0.277	1.733	0.185	0.991	0.029	0.242	0.055	1642	0.02214	0.536	-2.114	2.908	0.471
5-1/2	PTHF*	0.0188	18	0.018	50	0.216	0.736	1.132	0.406	2.288	0.204	0.972	0.029	0.468	0.077	2291	0.02547	1.107	-1.920	3.141	0.627
6	PTHF**	0.0188	18	0.018	50	0.226	0.768	1.373	0.452	2.468	0.210	0.965	0.029	0.561	0.084	2507	0.02657	1.352	-1.863	3.239	0.669

Notes: • Section properties were determined in accordance with AISI-NASPEC 2001 w/2004 Supplement.
• Effective Properties are conservatively based upon the basic C-Section; improved values are possible by applying the AISI Direct Strength Method.
• Effective properties and moment capacity did not incorporate stress increase as a result of cold work of forming.
[A] Calculated effective moment of inertia (Ixe) is based on serviceability determination.
[B] Allow bending moment is based on a fully braced section about its major axis.
* Web-depth to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.
** Web-depth to thickness ratio exceeds 260. Web Stiffeners are required at all support points and concentrated loads.

Dietrich ProSTUD™ Pro 20 — Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PSTE	0.0232	22	0.022	65	0.103	0.351	0.048	0.059	0.685	0.022	0.462	0.051	0.042	0.037	1444	0.01850	0.013	-1.079	1.359	0.369
2-1/2	PSTE	0.0232	22	0.022	65	0.123	0.420	0.127	0.102	1.016	0.026	0.455	0.052	0.114	0.071	2765	0.02214	0.033	-0.950	1.464	0.579
3-1/2	PSTE	0.0232	22	0.022	65	0.147	0.499	0.276	0.158	1.372	0.028	0.440	0.052	0.232	0.087	3389	0.02630	0.068	-0.840	1.668	0.746
3-5/8	PSTE	0.0232	22	0.022	65	0.150	0.509	0.300	0.166	1.417	0.029	0.438	0.052	0.252	0.091	3526	0.02684	0.074	-0.828	1.699	0.762
4	PSTE	0.0232	22	0.022	65	0.158	0.538	0.377	0.189	1.544	0.030	0.432	0.052	0.313	0.101	3924	0.02838	0.092	-0.795	1.790	0.803
5-1/2	PSTE*	0.0232	22	0.022	65	0.193	0.657	0.805	0.293	2.043	0.032	0.408	0.053	0.662	0.152	5935	0.03463	0.189	-0.688	2.193	0.902
6	PSTE*	0.0232	22	0.022	65	0.205	0.696	0.994	0.331	2.204	0.033	0.400	0.053	0.802	0.167	6495	0.03671	0.231	-0.658	2.335	0.921

Dietrich ProTRAK™ Pro 20 — 1" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTEA	0.0232	22	0.022	50	0.084	0.286	0.041	0.048	0.701	0.009	0.324	0.040	0.031	0.028	844	0.01507	0.004	-0.655	1.012	0.582
2-1/2	PTEA	0.0232	22	0.022	50	0.104	0.355	0.106	0.082	1.009	0.010	0.310	0.041	0.084	0.052	1550	0.01871	0.012	-0.562	1.196	0.779
3-1/2	PTEA	0.0232	22	0.022	50	0.128	0.434	0.230	0.128	1.343	0.011	0.292	0.042	0.192	0.071	2123	0.02288	0.025	-0.487	1.458	0.889
3-5/8	PTEA	0.0232	22	0.022	50	0.130	0.444	0.250	0.135	1.384	0.011	0.290	0.042	0.210	0.073	2197	0.02341	0.027	-0.478	1.493	0.897
4	PTEA	0.0232	22	0.022	50	0.139	0.473	0.315	0.154	1.504	0.011	0.284	0.042	0.244	0.076	2289	0.02496	0.034	-0.456	1.598	0.918
5-1/2	PTEA*	0.0232	22	0.022	50	0.174	0.592	0.680	0.243	1.977	0.012	0.262	0.043	0.498	0.107	3209	0.03120	0.071	-0.385	2.032	0.964
6	PTEA*	0.0232	22	0.022	50	0.186	0.631	0.843	0.277	2.132	0.012	0.256	0.043	0.604	0.117	3516	0.03328	0.086	-0.367	2.178	0.972

Dietrich ProTRAK™ Pro 20 — 1-1/4" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTEB	0.0232	22	0.022	50	0.096	0.325	0.050	0.058	0.720	0.016	0.411	0.040	0.034	0.029	877	0.01715	0.008	-0.877	1.206	0.472
2-1/2	PTEB	0.0232	22	0.022	50	0.116	0.394	0.125	0.097	1.040	0.018	0.399	0.041	0.092	0.051	1525	0.02079	0.021	-0.767	1.352	0.678
3-1/2	PTEB	0.0232	22	0.022	50	0.139	0.473	0.267	0.149	1.384	0.020	0.382	0.042	0.209	0.071	2120	0.02496	0.046	-0.674	1.587	0.819
3-5/8	PTEB	0.0232	22	0.022	50	0.142	0.483	0.290	0.156	1.428	0.020	0.379	0.042	0.228	0.073	2197	0.02549	0.050	-0.664	1.620	0.832
4	PTEB	0.0232	22	0.022	50	0.151	0.513	0.363	0.178	1.551	0.021	0.373	0.042	0.290	0.081	2419	0.02704	0.062	-0.636	1.718	0.863
5-1/2	PTEB*	0.0232	22	0.022	50	0.186	0.631	0.770	0.276	2.037	0.023	0.349	0.043	0.527	0.109	3258	0.03328	0.130	-0.546	2.138	0.935
6	PTEB*	0.0232	22	0.022	50	0.197	0.671	0.950	0.312	2.195	0.023	0.341	0.043	0.638	0.119	3568	0.03536	0.158	-0.522	2.282	0.948

Dietrich ProTRAK™ Pro 20 — 1-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTEC	0.0232	22	0.022	50	0.107	0.365	0.058	0.068	0.734	0.026	0.496	0.040	0.037	0.030	902	0.01923	0.013	-1.105	1.417	0.391
2-1/2	PTEC	0.0232	22	0.022	50	0.128	0.434	0.144	0.112	1.064	0.030	0.487	0.042	0.100	0.050	1508	0.02288	0.035	-0.981	1.527	0.587
3-1/2	PTEC	0.0232	22	0.022	50	0.151	0.513	0.303	0.169	1.419	0.033	0.471	0.042	0.224	0.071	2117	0.02704	0.075	-0.873	1.731	0.746
3-5/8	PTEC	0.0232	22	0.022	50	0.154	0.523	0.329	0.177	1.463	0.034	0.469	0.042	0.244	0.073	2195	0.02757	0.082	-0.861	1.761	0.761
4	PTEC	0.0232	22	0.022	50	0.162	0.552	0.411	0.201	1.590	0.035	0.462	0.043	0.311	0.081	2422	0.02912	0.102	-0.828	1.852	0.800
5-1/2	PTEC*	0.0232	22	0.022	50	0.197	0.671	0.859	0.308	2.088	0.038	0.437	0.043	0.591	0.112	3342	0.03536	0.212	-0.719	2.251	0.898
6	PTEC*	0.0232	22	0.022	50	0.209	0.710	1.056	0.347	2.250	0.038	0.429	0.043	0.668	0.120	3604	0.03744	0.259	-0.690	2.392	0.917

Dietrich ProTRAK™ Pro 20 — 2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTED	0.0232	22	0.022	50	0.130	0.444	0.074	0.087	0.755	0.057	0.661	0.041	0.041	0.031	935	0.02340	0.030	-1.574	1.867	0.289
2-1/2	PTED	0.0232	22	0.022	50	0.151	0.513	0.182	0.141	1.100	0.066	0.660	0.042	0.112	0.050	1485	0.02704	0.076	-1.427	1.919	0.447
3-1/2	PTED	0.0232	22	0.022	50	0.174	0.592	0.377	0.210	1.473	0.073	0.649	0.043	0.249	0.070	2109	0.03120	0.163	-1.293	2.064	0.608
3-5/8	PTED	0.0232	22	0.022	50	0.177	0.602	0.408	0.220	1.519	0.074	0.647	0.043	0.268	0.073	2189	0.03173	0.177	-1.278	2.088	0.625
4	PTED	0.0232	22	0.022	50	0.186	0.631	0.506	0.248	1.652	0.076	0.641	0.043	0.326	0.081	2421	0.03328	0.221	-1.236	2.161	0.673
5-1/2	PTED*	0.0232	22	0.022	50	0.220	0.750	1.039	0.372	2.172	0.083	0.615	0.043	0.623	0.112	3361	0.03952	0.460	-1.094	2.508	0.810
6	PTED*	0.0232	22	0.022	50	0.232	0.789	1.270	0.417	2.340	0.085	0.606	0.043	0.746	0.123	3675	0.04161	0.562	-1.055	2.637	0.840

Dietrich ProTRAK™ Pro 20 — 2-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTEE	0.0232	22	0.022	50	0.154	0.523	0.091	0.106	0.769	0.104	0.823	0.041	0.045	0.031	921	0.02756	0.055	-2.053	2.342	0.231
2-1/2	PTEE	0.0232	22	0.022	50	0.174	0.592	0.221	0.171	1.126	0.120	0.829	0.042	0.122	0.049	1472	0.03120	0.141	-1.888	2.350	0.354
3-1/2	PTEE	0.0232	22	0.022	50	0.197	0.671	0.451	0.251	1.512	0.134	0.823	0.043	0.258	0.070	2102	0.03536	0.298	-1.733	2.443	0.497
3-5/8	PTEE	0.0232	22	0.022	50	0.200	0.681	0.487	0.262	1.560	0.135	0.822	0.043	0.277	0.073	2183	0.03590	0.324	-1.716	2.460	0.514
4	PTEE	0.0232	22	0.022	50	0.209	0.710	0.602	0.295	1.698	0.139	0.817	0.043	0.338	0.081	2418	0.03744	0.404	-1.666	2.516	0.561
5-1/2	PTEE*	0.0232	22	0.022	50	0.244	0.829	1.218	0.436	2.237	0.154	0.794	0.043	0.651	0.113	3369	0.04369	0.836	-1.496	2.806	0.716
6	PTEE*	0.0232	22	0.022	50	0.255	0.868	1.483	0.487	2.411	0.157	0.785	0.043	0.779	0.123	3687	0.04577	1.022	-1.448	2.920	0.754

Dietrich ProTRAK™ Pro 20 — 3" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTEF	0.0232	22	0.022	50	0.177	0.602	0.107	0.125	0.779	0.170	0.980	0.041	0.048	0.030	912	0.03172	0.093	-2.538	2.830	0.196
2-1/2	PTEF	0.0232	22	0.022	50	0.197	0.671	0.259	0.200	1.145	0.195	0.994	0.042	0.131	0.049	1462	0.03536	0.233	-2.359	2.804	0.293
3-1/2	PTEF	0.0232	22	0.022	50	0.220	0.750	0.524	0.292	1.543	0.218	0.994	0.043	0.265	0.070	2095	0.03952	0.490	-2.187	2.855	0.413
3-5/8	PTEF	0.0232	22	0.022	50	0.223	0.760	0.566	0.305	1.592	0.220	0.994	0.043	0.286	0.073	2177	0.04006	0.532	-2.167	2.867	0.429
4	PTEF	0.0232	22	0.022	50	0.232	0.789	0.698	0.342	1.735	0.228	0.991	0.043	0.349	0.081	2414	0.04161	0.662	-2.112	2.907	0.472
5-1/2	PTEF*	0.0232	22	0.022	50	0.267	0.908	1.398	0.500	2.290	0.252	0.972	0.043	0.674	0.113	3371	0.04785	1.366	-1.917	3.140	0.627
6	PTEF*	0.0232	22	0.022	50	0.278	0.947	1.696	0.557	2.469	0.258	0.964	0.044	0.807	0.123	3691	0.04993	1.667	-1.861	3.238	0.670

Notes: • Section properties were determined in accordance with AISI-NASPEC 2001 w/2004 Supplement.
• Effective Properties are conservatively based upon the basic C-Section; improved values are possible by applying the AISI Direct Strength Method.
• Effective properties and moment capacity did not incorporate stress increase as a result of cold work of forming.
[A] Calculated effective moment of inertia (Ixe) is based on serviceability determination.
[B] Allow bending moment is based on a fully braced section about its major axis.
* Web-depth to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.
** Web-depth to thickness ratio exceeds 260. Web Stiffeners are required at all support points and concentrated loads.

Dietrich ProSTUD™ Pro 20 STR — Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	J x1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PSTX	0.0274	26	0.026	65	0.121	0.412	0.056	0.070	0.683	0.026	0.460	0.065	0.051	0.046	1807	0.03033	0.015	-1.074	1.353	0.370
2-1/2	PSTX	0.0274	26	0.026	65	0.145	0.494	0.149	0.119	1.014	0.030	0.453	0.067	0.136	0.089	3465	0.03633	0.038	-0.945	1.458	0.580
3-1/2	PSTX	0.0274	26	0.026	65	0.173	0.587	0.324	0.185	1.370	0.033	0.438	0.067	0.281	0.111	4316	0.04319	0.079	-0.836	1.664	0.748
3-5/8	PSTX	0.0274	26	0.026	65	0.176	0.599	0.352	0.194	1.413	0.033	0.436	0.067	0.305	0.115	4489	0.04404	0.086	-0.824	1.693	0.763
4	PSTX	0.0274	26	0.026	65	0.186	0.634	0.443	0.221	1.542	0.034	0.430	0.068	0.381	0.129	5008	0.04661	0.107	-0.791	1.785	0.804
5-1/2	PSTX	0.0274	26	0.026	65	0.227	0.774	0.946	0.344	2.040	0.037	0.406	0.068	0.811	0.196	7646	0.05690	0.221	-0.683	2.189	0.903
6	PSTX*	0.0274	26	0.026	65	0.241	0.820	1.168	0.389	2.201	0.038	0.398	0.068	0.985	0.215	8375	0.06033	0.269	-0.654	2.331	0.921

Dietrich ProTRAK™ Pro 20 STR — 1" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	J x1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTXA	0.0274	26	0.026	50	0.099	0.337	0.049	0.057	0.702	0.010	0.323	0.054	0.039	0.035	1060	0.02481	0.005	-0.652	1.011	0.584
2-1/2	PTXA	0.0274	26	0.026	50	0.123	0.419	0.126	0.097	1.010	0.012	0.309	0.056	0.103	0.065	1959	0.03081	0.014	-0.560	1.196	0.780
3-1/2	PTXA	0.0274	26	0.026	50	0.151	0.512	0.272	0.151	1.343	0.013	0.292	0.057	0.231	0.099	2977	0.03767	0.030	-0.485	1.458	0.889
3-5/8	PTXA	0.0274	26	0.026	50	0.154	0.524	0.295	0.159	1.384	0.013	0.290	0.057	0.252	0.103	3071	0.03853	0.032	-0.477	1.492	0.898
4	PTXA	0.0274	26	0.026	50	0.164	0.559	0.372	0.182	1.505	0.013	0.283	0.057	0.307	0.103	3072	0.04110	0.040	-0.455	1.598	0.919
5-1/2	PTXA	0.0274	26	0.026	50	0.205	0.699	0.803	0.287	1.978	0.014	0.262	0.058	0.634	0.145	4332	0.05139	0.083	-0.384	2.032	0.964
6	PTXA*	0.0274	26	0.026	50	0.219	0.745	0.996	0.327	2.133	0.014	0.255	0.058	0.772	0.159	4751	0.05481	0.102	-0.365	2.179	0.972

Dietrich ProTRAK™ Pro 20 STR — 1-1/4" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	J x1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTXB	0.0274	26	0.026	50	0.113	0.384	0.059	0.068	0.721	0.019	0.410	0.054	0.043	0.037	1103	0.02824	0.010	-0.874	1.205	0.474
2-1/2	PTXB	0.0274	26	0.026	50	0.137	0.466	0.148	0.114	1.041	0.022	0.398	0.056	0.113	0.068	2042	0.03424	0.025	-0.765	1.352	0.679
3-1/2	PTXB	0.0274	26	0.026	50	0.164	0.559	0.315	0.175	1.385	0.024	0.381	0.057	0.252	0.099	2952	0.04110	0.054	-0.672	1.586	0.820
3-5/8	PTXB	0.0274	26	0.026	50	0.168	0.571	0.342	0.184	1.427	0.024	0.379	0.058	0.275	0.102	3052	0.04196	0.059	-0.663	1.619	0.832
4	PTXB	0.0274	26	0.026	50	0.178	0.605	0.429	0.209	1.552	0.025	0.372	0.058	0.350	0.112	3352	0.04453	0.074	-0.635	1.718	0.863
5-1/2	PTXB	0.0274	26	0.026	50	0.219	0.745	0.909	0.325	2.038	0.027	0.348	0.059	0.674	0.147	4409	0.05481	0.153	-0.544	2.138	0.935
6	PTXB*	0.0274	26	0.026	50	0.233	0.792	1.122	0.368	2.196	0.027	0.340	0.059	0.819	0.161	4833	0.05824	0.187	-0.520	2.282	0.948

Dietrich ProTRAK™ Pro 20 STR — 1-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	J x1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTXC	0.0274	26	0.026	50	0.127	0.431	0.068	0.080	0.736	0.031	0.495	0.054	0.046	0.038	1136	0.03167	0.016	-1.103	1.415	0.393
2-1/2	PTXC	0.0274	26	0.026	50	0.151	0.512	0.171	0.132	1.065	0.036	0.486	0.057	0.121	0.070	2104	0.03767	0.041	-0.979	1.526	0.588
3-1/2	PTXC	0.0274	26	0.026	50	0.178	0.605	0.359	0.200	1.420	0.039	0.470	0.058	0.271	0.098	2933	0.04453	0.089	-0.871	1.731	0.747
3-5/8	PTXC	0.0274	26	0.026	50	0.181	0.617	0.388	0.209	1.463	0.040	0.468	0.058	0.295	0.101	3036	0.04539	0.096	-0.859	1.760	0.762
4	PTXC	0.0274	26	0.026	50	0.192	0.652	0.485	0.237	1.591	0.041	0.462	0.058	0.375	0.112	3345	0.04796	0.120	-0.826	1.852	0.801
5-1/2	PTXC	0.0274	26	0.026	50	0.233	0.792	1.016	0.363	2.089	0.044	0.436	0.059	0.803	0.153	4588	0.05824	0.250	-0.718	2.251	0.898
6	PTXC*	0.0274	26	0.026	50	0.246	0.839	1.248	0.410	2.251	0.045	0.428	0.059	0.860	0.163	4891	0.06167	0.306	-0.688	2.392	0.917

Dietrich ProTRAK™ Pro 20 STR — 2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	J x1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTXD	0.0274	26	0.026	50	0.154	0.524	0.088	0.102	0.756	0.067	0.661	0.055	0.052	0.040	1183	0.03853	0.035	-1.572	1.865	0.290
2-1/2	PTXD	0.0274	26	0.026	50	0.178	0.605	0.216	0.166	1.102	0.077	0.660	0.057	0.137	0.069	2053	0.04453	0.090	-1.425	1.918	0.448
3-1/2	PTXD	0.0274	26	0.026	50	0.205	0.699	0.446	0.248	1.474	0.086	0.648	0.058	0.304	0.097	2905	0.05139	0.193	-1.291	2.064	0.609
3-5/8	PTXD	0.0274	26	0.026	50	0.209	0.710	0.482	0.259	1.519	0.087	0.646	0.058	0.331	0.101	3011	0.05224	0.209	-1.276	2.086	0.626
4	PTXD	0.0274	26	0.026	50	0.219	0.745	0.599	0.292	1.653	0.090	0.640	0.059	0.420	0.111	3330	0.05481	0.261	-1.234	2.160	0.674
5-1/2	PTXD	0.0274	26	0.026	50	0.260	0.885	1.228	0.439	2.173	0.098	0.614	0.059	0.836	0.154	4610	0.06510	0.542	-1.093	2.508	0.810
6	PTXD*	0.0274	26	0.026	50	0.274	0.932	1.500	0.492	2.341	0.100	0.606	0.059	0.996	0.168	5038	0.06853	0.663	-1.053	2.637	0.841

Dietrich ProTRAK™ Pro 20 STR — 2-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	J x1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTXE	0.0274	26	0.026	50	0.181	0.617	0.108	0.125	0.771	0.123	0.822	0.055	0.056	0.041	1215	0.04539	0.066	-2.050	2.340	0.232
2-1/2	PTXE	0.0274	26	0.026	50	0.205	0.699	0.261	0.201	1.128	0.141	0.829	0.057	0.150	0.068	2022	0.05139	0.167	-1.886	2.348	0.355
3-1/2	PTXE	0.0274	26	0.026	50	0.233	0.792	0.533	0.297	1.514	0.157	0.822	0.058	0.332	0.096	2885	0.05824	0.353	-1.731	2.442	0.498
3-5/8	PTXE	0.0274	26	0.026	50	0.236	0.804	0.575	0.309	1.561	0.159	0.821	0.058	0.361	0.100	2993	0.05910	0.382	-1.714	2.459	0.514
4	PTXE	0.0274	26	0.026	50	0.246	0.839	0.712	0.348	1.700	0.164	0.817	0.059	0.455	0.111	3317	0.06167	0.477	-1.664	2.515	0.562
5-1/2	PTXE	0.0274	26	0.026	50	0.288	0.978	1.440	0.515	2.238	0.181	0.793	0.059	0.868	0.154	4617	0.07196	0.987	-1.494	2.806	0.716
6	PTXE*	0.0274	26	0.026	50	0.301	1.025	1.753	0.575	2.412	0.185	0.785	0.060	1.038	0.169	5051	0.07538	1.206	-1.446	2.920	0.755

Dietrich ProTRAK™ Pro 20 STR — 3" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	J x1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTXF	0.0274	26	0.026	50	0.209	0.710	0.127	0.148	0.781	0.200	0.980	0.055	0.059	0.041	1239	0.05224	0.110	-2.535	2.828	0.196
2-1/2	PTXF	0.0274	26	0.026	50	0.233	0.792	0.306	0.236	1.147	0.230	0.994	0.057	0.160	0.067	2003	0.05824	0.276	-2.356	2.803	0.293
3-1/2	PTXF	0.0274	26	0.026	50	0.260	0.885	0.620	0.345	1.544	0.257	0.994	0.059	0.355	0.096	2871	0.06510	0.580	-2.185	2.854	0.414
3-5/8	PTXF	0.0274	26	0.026	50	0.264	0.897	0.668	0.359	1.593	0.260	0.993	0.059	0.382	0.100	2979	0.06596	0.627	-2.165	2.865	0.429
4	PTXF	0.0274	26	0.026	50	0.274	0.932	0.825	0.403	1.736	0.268	0.990	0.059	0.467	0.110	3306	0.06853	0.782	-2.109	2.906	0.473
5-1/2	PTXF	0.0274	26	0.026	50	0.315	1.072	1.653	0.591	2.291	0.297	0.971	0.060	0.897	0.154	4617	0.07881	1.613	-1.915	3.140	0.628
6	PTXF*	0.0274	26	0.026	50	0.329	1.118	2.005	0.658	2.470	0.305	0.963	0.060	1.073	0.169	5056	0.08224	1.969	-1.859	3.238	0.670

Notes: • Section properties were determined in accordance with AISI-NASPEC 2001 w/2004 Supplement.
• Effective Properties are conservatively based upon the basic C-Section; improved values are possible by applying the AISI Direct Strength Method.
• Effective properties and moment capacity did not incorporate stress increase as a result of cold work of forming.
[A] Calculated effective moment of inertia (Ixe) is based on serviceability determination.
[B] Allow bending moment is based on a fully braced section about its major axis.
* Web-depth to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.
** Web-depth to thickness ratio exceeds 260. Web Stiffeners are required at all support points and concentrated loads.

Dietrich ProSTUD™ Pro 30 — Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PSTP	0.0312	30	0.030	33	0.137	0.468	0.064	0.078	0.681	0.029	0.458	0.098	0.063	0.067	1332	0.04459	0.017	-1.070	1.348	0.371
2-1/2	PSTP	0.0312	30	0.030	33	0.165	0.561	0.169	0.135	1.012	0.034	0.451	0.106	0.168	0.121	2383	0.05345	0.042	-0.941	1.454	0.581
3-1/2	PSTP	0.0312	30	0.030	33	0.196	0.667	0.367	0.210	1.368	0.037	0.436	0.107	0.355	0.169	3347	0.06357	0.089	-0.831	1.659	0.749
3-5/8	PSTP	0.0312	30	0.030	33	0.200	0.680	0.398	0.220	1.411	0.038	0.434	0.107	0.385	0.176	3488	0.06484	0.096	-0.820	1.689	0.764
4	PSTP	0.0312	30	0.030	33	0.212	0.720	0.501	0.251	1.540	0.039	0.428	0.108	0.485	0.198	3910	0.06864	0.120	-0.787	1.781	0.805
5-1/2	PSTP	0.0312	30	0.030	33	0.258	0.879	1.072	0.390	2.037	0.042	0.404	0.109	1.048	0.307	6065	0.08382	0.248	-0.680	2.185	0.903
6	PSTP	0.0312	30	0.030	33	0.274	0.932	1.324	0.441	2.199	0.043	0.396	0.109	1.281	0.338	6671	0.08888	0.303	-0.651	2.327	0.922

Dietrich ProTRAK™ Pro 30 — 1" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTPA	0.0312	30	0.030	33	0.113	0.384	0.056	0.065	0.703	0.012	0.322	0.078	0.049	0.046	908	0.03662	0.006	-0.650	1.011	0.586
2-1/2	PTPA	0.0312	30	0.030	33	0.140	0.477	0.143	0.110	1.011	0.013	0.308	0.083	0.127	0.083	1635	0.04548	0.016	-0.559	1.196	0.782
3-1/2	PTPA	0.0312	30	0.030	33	0.171	0.583	0.310	0.172	1.344	0.015	0.291	0.086	0.279	0.135	2666	0.05560	0.034	-0.483	1.458	0.890
3-5/8	PTPA	0.0312	30	0.030	33	0.175	0.596	0.336	0.180	1.385	0.015	0.289	0.086	0.303	0.142	2810	0.05687	0.037	-0.475	1.492	0.899
4	PTPA	0.0312	30	0.030	33	0.187	0.636	0.424	0.207	1.506	0.015	0.283	0.087	0.388	0.148	2927	0.06066	0.046	-0.453	1.598	0.920
5-1/2	PTPA	0.0312	30	0.030	33	0.234	0.795	0.915	0.327	1.978	0.016	0.261	0.088	0.819	0.213	4200	0.07585	0.095	-0.383	2.032	0.965
6	PTPA	0.0312	30	0.030	33	0.249	0.849	1.135	0.372	2.133	0.016	0.255	0.088	1.004	0.234	4625	0.08091	0.115	-0.364	2.179	0.972

Dietrich ProTRAK™ Pro 30 — 1-1/4" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTPB	0.0312	30	0.030	33	0.128	0.437	0.067	0.078	0.722	0.022	0.409	0.080	0.054	0.048	951	0.04168	0.011	-0.872	1.204	0.475
2-1/2	PTPB	0.0312	30	0.030	33	0.156	0.530	0.169	0.130	1.042	0.025	0.397	0.084	0.140	0.087	1713	0.05054	0.029	-0.763	1.351	0.681
3-1/2	PTPB	0.0312	30	0.030	33	0.187	0.636	0.359	0.199	1.386	0.027	0.380	0.087	0.304	0.141	2789	0.06066	0.062	-0.671	1.586	0.821
3-5/8	PTPB	0.0312	30	0.030	33	0.191	0.649	0.389	0.209	1.428	0.027	0.378	0.087	0.330	0.149	2938	0.06193	0.067	-0.661	1.619	0.833
4	PTPB	0.0312	30	0.030	33	0.203	0.689	0.489	0.238	1.553	0.028	0.371	0.088	0.417	0.172	3407	0.06573	0.084	-0.633	1.718	0.864
5-1/2	PTPB	0.0312	30	0.030	33	0.249	0.849	1.036	0.370	2.038	0.030	0.347	0.089	0.880	0.218	4306	0.08091	0.174	-0.543	2.138	0.935
6	PTPB	0.0312	30	0.030	33	0.265	0.902	1.278	0.419	2.196	0.031	0.340	0.090	1.074	0.240	4737	0.08597	0.212	-0.519	2.282	0.948

Dietrich ProTRAK™ Pro 30 — 1-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTPC	0.0312	30	0.030	33	0.144	0.490	0.078	0.091	0.737	0.035	0.494	0.080	0.059	0.050	983	0.04674	0.018	-1.101	1.414	0.394
2-1/2	PTPC	0.0312	30	0.030	33	0.171	0.583	0.195	0.150	1.066	0.040	0.486	0.085	0.151	0.090	1773	0.05560	0.047	-0.977	1.526	0.590
3-1/2	PTPC	0.0312	30	0.030	33	0.203	0.689	0.409	0.227	1.421	0.045	0.470	0.088	0.326	0.146	2887	0.06573	0.101	-0.869	1.731	0.748
3-5/8	PTPC	0.0312	30	0.030	33	0.206	0.703	0.443	0.237	1.464	0.045	0.468	0.088	0.354	0.154	3042	0.06699	0.109	-0.858	1.760	0.763
4	PTPC	0.0312	30	0.030	33	0.218	0.742	0.553	0.270	1.592	0.046	0.461	0.088	0.446	0.178	3526	0.07079	0.137	-0.825	1.851	0.802
5-1/2	PTPC	0.0312	30	0.030	33	0.265	0.902	1.157	0.413	2.090	0.050	0.435	0.090	0.979	0.241	4766	0.08597	0.284	-0.716	2.251	0.899
6	PTPC	0.0312	30	0.030	33	0.281	0.955	1.422	0.466	2.251	0.051	0.427	0.090	1.136	0.244	4818	0.09104	0.347	-0.686	2.392	0.918

Dietrich ProTRAK™ Pro 30 — 2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTPD	0.0312	30	0.030	33	0.175	0.596	0.101	0.117	0.758	0.076	0.660	0.081	0.067	0.052	1028	0.05687	0.040	-1.570	1.864	0.291
2-1/2	PTPD	0.0312	30	0.030	33	0.203	0.689	0.246	0.189	1.103	0.088	0.659	0.086	0.170	0.094	1862	0.06573	0.103	-1.423	1.917	0.449
3-1/2	PTPD	0.0312	30	0.030	33	0.234	0.795	0.509	0.282	1.475	0.098	0.647	0.088	0.365	0.154	3039	0.07585	0.219	-1.289	2.063	0.610
3-5/8	PTPD	0.0312	30	0.030	33	0.238	0.809	0.549	0.295	1.520	0.099	0.645	0.089	0.397	0.160	3159	0.07712	0.237	-1.274	2.086	0.627
4	PTPD	0.0312	30	0.030	33	0.249	0.849	0.682	0.333	1.654	0.102	0.639	0.089	0.502	0.176	3480	0.08091	0.297	-1.232	2.160	0.674
5-1/2	PTPD	0.0312	30	0.030	33	0.296	1.008	1.399	0.499	2.174	0.112	0.614	0.091	1.091	0.240	4747	0.09610	0.617	-1.091	2.508	0.811
6	PTPD	0.0312	30	0.030	33	0.312	1.061	1.710	0.560	2.342	0.114	0.605	0.091	1.353	0.262	5170	0.10116	0.754	-1.051	2.637	0.841

Dietrich ProTRAK™ Pro 30 — 2-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTPE	0.0312	30	0.030	33	0.206	0.703	0.123	0.143	0.772	0.139	0.821	0.082	0.073	0.054	1059	0.06699	0.075	-2.048	2.338	0.233
2-1/2	PTPE	0.0312	30	0.030	33	0.234	0.795	0.298	0.229	1.129	0.160	0.828	0.086	0.186	0.097	1926	0.07585	0.190	-1.883	2.347	0.356
3-1/2	PTPE	0.0312	30	0.030	33	0.265	0.902	0.608	0.338	1.515	0.179	0.822	0.089	0.401	0.151	2987	0.08597	0.402	-1.729	2.441	0.498
3-5/8	PTPE	0.0312	30	0.030	33	0.269	0.915	0.656	0.352	1.562	0.181	0.820	0.089	0.436	0.157	3097	0.08724	0.435	-1.712	2.458	0.515
4	PTPE	0.0312	30	0.030	33	0.281	0.955	0.812	0.396	1.701	0.187	0.816	0.090	0.551	0.173	3425	0.09104	0.543	-1.662	2.514	0.563
5-1/2	PTPE	0.0312	30	0.030	33	0.327	1.114	1.641	0.586	2.239	0.206	0.793	0.091	1.190	0.239	4727	0.10622	1.124	-1.493	2.805	0.717
6	PTPE	0.0312	30	0.030	33	0.343	1.167	1.997	0.655	2.413	0.211	0.784	0.092	1.473	0.261	5162	0.11128	1.373	-1.444	2.919	0.755

Dietrich ProTRAK™ Pro 30 — 3" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTPF	0.0312	30	0.030	33	0.238	0.809	0.146	0.169	0.783	0.228	0.979	0.082	0.078	0.055	1081	0.07712	0.125	-2.532	2.826	0.197
2-1/2	PTPF	0.0312	30	0.030	33	0.265	0.902	0.350	0.269	1.149	0.261	0.993	0.087	0.199	0.100	1973	0.08597	0.315	-2.354	2.801	0.294
3-1/2	PTPF	0.0312	30	0.030	33	0.296	1.008	0.707	0.393	1.546	0.292	0.993	0.089	0.432	0.149	2945	0.09610	0.661	-2.182	2.853	0.415
3-5/8	PTPF	0.0312	30	0.030	33	0.300	1.021	0.762	0.409	1.594	0.295	0.992	0.089	0.470	0.155	3056	0.09736	0.714	-2.163	2.864	0.430
4	PTPF	0.0312	30	0.030	33	0.312	1.061	0.941	0.459	1.737	0.305	0.989	0.090	0.593	0.171	3387	0.10116	0.891	-2.107	2.905	0.474
5-1/2	PTPF	0.0312	30	0.030	33	0.359	1.220	1.883	0.672	2.292	0.337	0.970	0.092	1.278	0.238	4710	0.11635	1.836	-1.913	3.139	0.629
6	PTPF	0.0312	30	0.030	33	0.374	1.273	2.285	0.749	2.471	0.346	0.962	0.092	1.580	0.261	5152	0.12141	2.241	-1.857	3.237	0.671

Notes: • Section properties were determined in accordance with AISI-NASPEC 2001 w/2004 Supplement.
• Effective Properties are conservatively based upon the basic C-Section; improved values are possible by applying the AISI Direct Strength Method.
• Effective properties and moment capacity did not incorporate stress increase as a result of cold work of forming.
[A] Calculated effective moment of inertia (Ixe) is based on serviceability determination.
[B] Allow bending moment is based on a fully braced section about its major axis.
* Web-depth to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.
** Web-depth to thickness ratio exceeds 260. Web Stiffeners are required at all support points and concentrated loads.

Dietrich ProSTUD™ Pro 33 — Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PSTS	0.0346	33	0.033	33	0.152	0.517	0.070	0.086	0.679	0.032	0.456	0.114	0.069	0.078	1541	0.06059	0.019	-1.065	1.344	0.371
2-1/2	PSTS	0.0346	33	0.033	33	0.182	0.620	0.186	0.149	1.010	0.037	0.449	0.125	0.186	0.138	2735	0.07267	0.046	-0.937	1.449	0.582
3-1/2	PSTS	0.0346	33	0.033	33	0.217	0.737	0.404	0.231	1.366	0.041	0.435	0.126	0.393	0.198	3921	0.08648	0.098	-0.828	1.655	0.750
3-5/8	PSTS	0.0346	33	0.033	33	0.221	0.752	0.439	0.242	1.409	0.041	0.433	0.127	0.426	0.207	4088	0.08820	0.106	-0.816	1.685	0.766
4	PSTS	0.0346	33	0.033	33	0.234	0.796	0.553	0.277	1.538	0.043	0.426	0.128	0.537	0.232	4590	0.09338	0.132	-0.783	1.777	0.806
5-1/2	PSTS	0.0346	33	0.033	33	0.286	0.973	1.184	0.430	2.035	0.046	0.402	0.130	1.167	0.362	7149	0.11409	0.272	-0.676	2.182	0.904
6	PSTS	0.0346	33	0.033	33	0.303	1.032	1.463	0.488	2.196	0.047	0.394	0.130	1.428	0.399	7875	0.12100	0.332	-0.647	2.323	0.922

Dietrich ProTRAK™ Pro 33 — 1" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTSA	0.0346	33	0.033	33	0.125	0.426	0.062	0.072	0.704	0.013	0.322	0.093	0.056	0.053	1051	0.04992	0.007	-0.649	1.010	0.588
2-1/2	PTSA	0.0346	33	0.033	33	0.155	0.529	0.159	0.122	1.012	0.015	0.308	0.100	0.145	0.095	1878	0.06201	0.017	-0.557	1.195	0.783
3-1/2	PTSA	0.0346	33	0.033	33	0.190	0.646	0.344	0.190	1.345	0.016	0.290	0.104	0.316	0.154	3044	0.07581	0.037	-0.482	1.458	0.891
3-5/8	PTSA	0.0346	33	0.033	33	0.194	0.661	0.373	0.200	1.385	0.016	0.288	0.104	0.344	0.162	3206	0.07754	0.040	-0.474	1.492	0.899
4	PTSA	0.0346	33	0.033	33	0.207	0.705	0.470	0.229	1.506	0.016	0.282	0.105	0.438	0.176	3469	0.08272	0.051	-0.452	1.598	0.920
5-1/2	PTSA	0.0346	33	0.033	33	0.259	0.882	1.015	0.362	1.979	0.018	0.260	0.107	0.939	0.254	5015	0.10343	0.105	-0.382	2.032	0.965
6	PTSA	0.0346	33	0.033	33	0.276	0.941	1.258	0.412	2.133	0.018	0.254	0.107	1.152	0.280	5531	0.11033	0.127	-0.363	2.179	0.972

Dietrich ProTRAK™ Pro 33 — 1-1/4" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTSB	0.0346	33	0.033	33	0.142	0.485	0.075	0.086	0.723	0.024	0.409	0.095	0.063	0.056	1104	0.05683	0.012	-0.870	1.203	0.477
2-1/2	PTSB	0.0346	33	0.033	33	0.173	0.588	0.188	0.144	1.043	0.027	0.397	0.102	0.160	0.100	1972	0.06891	0.032	-0.762	1.351	0.682
3-1/2	PTSB	0.0346	33	0.033	33	0.207	0.705	0.399	0.221	1.387	0.030	0.380	0.105	0.346	0.161	3189	0.08272	0.068	-0.669	1.586	0.822
3-5/8	PTSB	0.0346	33	0.033	33	0.212	0.720	0.432	0.231	1.429	0.030	0.377	0.105	0.375	0.170	3358	0.08444	0.074	-0.659	1.618	0.834
4	PTSB	0.0346	33	0.033	33	0.225	0.764	0.542	0.264	1.554	0.031	0.371	0.106	0.473	0.197	3887	0.08962	0.093	-0.632	1.718	0.865
5-1/2	PTSB	0.0346	33	0.033	33	0.276	0.941	1.149	0.410	2.039	0.033	0.347	0.108	1.011	0.261	5157	0.11033	0.192	-0.542	2.138	0.936
6	PTSB	0.0346	33	0.033	33	0.294	1.000	1.418	0.464	2.197	0.034	0.339	0.109	1.237	0.287	5681	0.11723	0.234	-0.517	2.282	0.949

Dietrich ProTRAK™ Pro 33 — 1-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTSC	0.0346	33	0.033	33	0.160	0.543	0.087	0.100	0.738	0.039	0.494	0.096	0.068	0.058	1143	0.06373	0.020	-1.099	1.413	0.395
2-1/2	PTSC	0.0346	33	0.033	33	0.190	0.646	0.216	0.166	1.067	0.045	0.485	0.102	0.173	0.103	2044	0.07581	0.052	-0.975	1.525	0.591
3-1/2	PTSC	0.0346	33	0.033	33	0.225	0.764	0.454	0.252	1.422	0.049	0.469	0.106	0.372	0.167	3306	0.08962	0.112	-0.868	1.730	0.749
3-5/8	PTSC	0.0346	33	0.033	33	0.229	0.779	0.491	0.263	1.465	0.050	0.467	0.106	0.403	0.176	3481	0.09135	0.121	-0.856	1.760	0.763
4	PTSC	0.0346	33	0.033	33	0.242	0.823	0.614	0.299	1.593	0.051	0.460	0.107	0.507	0.204	4027	0.09652	0.152	-0.823	1.851	0.802
5-1/2	PTSC	0.0346	33	0.033	33	0.294	1.000	1.284	0.458	2.090	0.055	0.435	0.109	1.098	0.299	5906	0.11723	0.315	-0.715	2.251	0.899
6	PTSC	0.0346	33	0.033	33	0.311	1.059	1.578	0.516	2.252	0.057	0.426	0.110	1.311	0.293	5790	0.12414	0.384	-0.685	2.392	0.918

Dietrich ProTRAK™ Pro 33 — 2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTSD	0.0346	33	0.033	33	0.194	0.661	0.112	0.129	0.759	0.085	0.660	0.097	0.077	0.061	1198	0.07754	0.045	-1.568	1.862	0.292
2-1/2	PTSD	0.0346	33	0.033	33	0.225	0.764	0.274	0.210	1.104	0.097	0.658	0.104	0.196	0.109	2150	0.08962	0.114	-1.421	1.916	0.450
3-1/2	PTSD	0.0346	33	0.033	33	0.259	0.882	0.565	0.313	1.476	0.108	0.647	0.107	0.417	0.176	3484	0.10343	0.243	-1.287	2.062	0.610
3-5/8	PTSD	0.0346	33	0.033	33	0.264	0.897	0.610	0.327	1.521	0.110	0.645	0.107	0.452	0.186	3669	0.10515	0.263	-1.272	2.085	0.628
4	PTSD	0.0346	33	0.033	33	0.276	0.941	0.758	0.369	1.655	0.113	0.639	0.108	0.567	0.215	4246	0.11033	0.329	-1.230	2.159	0.675
5-1/2	PTSD	0.0346	33	0.033	33	0.328	1.117	1.553	0.554	2.174	0.123	0.613	0.110	1.226	0.296	5847	0.13104	0.683	-1.089	2.508	0.811
6	PTSD	0.0346	33	0.033	33	0.346	1.176	1.897	0.621	2.342	0.126	0.604	0.111	1.520	0.322	6355	0.13795	0.835	-1.050	2.637	0.842

Dietrich ProTRAK™ Pro 33 — 2-1/2" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTSE	0.0346	33	0.033	33	0.229	0.779	0.137	0.158	0.774	0.154	0.821	0.098	0.085	0.063	1235	0.09135	0.083	-2.046	2.336	0.233
2-1/2	PTSE	0.0346	33	0.033	33	0.259	0.882	0.331	0.254	1.130	0.177	0.827	0.104	0.214	0.113	2225	0.10343	0.211	-1.881	2.346	0.357
3-1/2	PTSE	0.0346	33	0.033	33	0.294	1.000	0.675	0.374	1.516	0.198	0.821	0.108	0.455	0.183	3616	0.11723	0.446	-1.727	2.440	0.499
3-5/8	PTSE	0.0346	33	0.033	33	0.298	1.014	0.728	0.390	1.563	0.200	0.820	0.108	0.493	0.193	3808	0.11896	0.482	-1.710	2.457	0.516
4	PTSE	0.0346	33	0.033	33	0.311	1.059	0.901	0.439	1.702	0.207	0.815	0.109	0.622	0.214	4221	0.12414	0.602	-1.660	2.514	0.564
5-1/2	PTSE	0.0346	33	0.033	33	0.363	1.235	1.821	0.649	2.240	0.228	0.792	0.111	1.339	0.294	5802	0.14485	1.246	-1.491	2.805	0.717
6	PTSE	0.0346	33	0.033	33	0.380	1.294	2.216	0.725	2.414	0.233	0.783	0.111	1.657	0.320	6327	0.15175	1.522	-1.443	2.919	0.756

Dietrich ProTRAK™ Pro 33 — 3" Leg Track Section Properties

Web	Product Code	Design Thickness (in)	Mils	Min Delivered Thickness	Yield Strength (ksi)	Gross							Effective Properties at Fy				Torsional Properties				
						Area (in^2)	Weight (lb/ft)	Ixx (in^4)	Sxx (in^3)	Rx (in)	Iyy (in^4)	Ry (in)	A (in^2)	Ixe[A] (in^4)	Sxe (in^3)	Allowable Moment[B] (in-lbs)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
1-5/8	PTSF	0.0346	33	0.033	33	0.264	0.897	0.162	0.187	0.784	0.252	0.979	0.098	0.091	0.064	1262	0.10515	0.139	-2.530	2.824	0.197
2-1/2	PTSF	0.0346	33	0.033	33	0.294	1.000	0.388	0.298	1.150	0.289	0.993	0.105	0.229	0.115	2282	0.11723	0.349	-2.352	2.800	0.294
3-1/2	PTSF	0.0346	33	0.033	33	0.328	1.117	0.786	0.435	1.547	0.323	0.992	0.108	0.490	0.183	3615	0.13104	0.733	-2.180	2.852	0.415
3-5/8	PTSF	0.0346	33	0.033	33	0.333	1.132	0.846	0.453	1.595	0.327	0.992	0.109	0.532	0.190	3751	0.13277	0.793	-2.161	2.863	0.430
4	PTSF	0.0346	33	0.033	33	0.346	1.176	1.045	0.508	1.738	0.338	0.989	0.109	0.671	0.210	4158	0.13795	0.988	-2.105	2.904	0.474
5-1/2	PTSF	0.0346	33	0.033	33	0.398	1.353	2.090	0.745	2.293	0.374	0.969	0.111	1.440	0.292	5767	0.15866	2.036	-1.911	3.139	0.629
6	PTSF	0.0346	33	0.033	33	0.415	1.412	2.535	0.830	2.472	0.384	0.962	0.112	1.780	0.319	6303	0.16556	2.485	-1.855	3.237	0.671

Notes: • Section properties were determined in accordance with AISI-NASPEC 2001 w/2004 Supplement.
• Effective Properties are conservatively based upon the basic C-Section; improved values are possible by applying the AISI Direct Strength Method.
• Effective properties and moment capacity did not incorporate stress increase as a result of cold work of forming.
[A] Calculated effective moment of inertia (Ixe) is based on serviceability determination.
[B] Allow bending moment is based on a fully braced section about its major axis.
* Web-depth to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.
** Web-depth to thickness ratio exceeds 260. Web Stiffeners are required at all support points and concentrated loads.