

Product submittal information for:

Exterior Framing:

362S162-54 (50ksi, CP60) P
362T125-54 (50ksi, CP60)

P.A.R.A.09 20 00

P.A.R.A. 2,2.02



ClarkDietrich™
BUILDING SYSTEMS

SUBMITTAL

For the proposed new construction of:

Date: 7/11/16

Contractor Information:

GC Information:

Architect Information:

Distributor Information:



ClarkDietrich™
ENGINEERING SERVICES

For product technical & engineering support
call ClarkDietrich's Tech Support: (888) 437-3244



ClarkDietrich
BUILDING SYSTEMS

P.A.R.A. 09 20 00

P.A.R.A. 2, 2.02

Product Submittal Sheet

Tech Support: 888-437-3244
Engineering Services: 877-832-3206

Sales: 800-543-7140
clarkdietrich.com

Product category: S162 (1-5/8" Flange Structural Stud)
Product name: **362S162-54 (50ksi, CP60) P - Punched**
54mils (16ga) Coating: CP60 per ASTM C955
Color coding: Green

Geometric Properties

Web depth	3.625 in		
Flange width	1.625 in	Punchout width	1.50 in
Stiffening lip	0.500 in	Punchout length	4.00 in
Design thickness	0.0566 in	Min. steel thickness	0.0538 in
Yield strength, Fy	50 ksi	Fy with Cold-Work, Fya	50.0 ksi
Ultimate, Fu	65.0 ksi		

Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	0.422 in ²
Member weight per foot of length	1.44 lb/ft
Moment of inertia (Ix)	0.873 in ⁴
Section modulus (Sx)	0.482 in ³
Radius of gyration (Rx)	1.438 in
Gross moment of inertia (Iy)	0.154 in ⁴
Gross radius of gyration (Ry)	0.605 in

Effective Section Properties, Strong Axis

Effective Area (Ae)	0.296 in ²
Moment of inertia for deflection (Ix)	0.873 in ⁴
Section modulus (Sx)	0.444 in ³
Allowable bending moment (Ma)	13.28 in-k
Allowable moment based on distortion buckling (Mad)	13.60 in-k
Allowable shear force in web (solid section)	3372 lb
Allowable shear force in web (perforated section)	1016 lb
Unbraced length (Lu)	34.4 in

Torsional Properties

St. Venant torsion constant (J x 1000)	0.451 in ⁴
Warping constant (Cw)	0.457 in ⁶
Distance from shear center to neutral axis (Xo)	-1.283 in
Distance between shear center and web centerline (m)	0.774 in
Radii of gyration (Ro)	2.020 in
Torsional flexural constant (Beta)	0.597

ASTM & Code Standards:

- AISI North American Specification [NASPEC] S100-07 with 2010 supplement
- * Effective properties incorporate the strength increase from the cold work of forming
- Gross properties are based on the cross section away from the punchouts
- Structural framing is produced to meet or exceed ASTM C955
- Sheet steel meets or exceeds mechanical and chemical requirements of ASTM A1003
- ClarkDietrich's structural and nonstructural framing comply with the SFIA Code Compliance Certification Program, ICC-ES ESR-1166P and ATI CCRR-0206
- For installation & storage information refer to ASTM C1007
- SDS & Product Certification Information is available at www.clarkdietrich.com

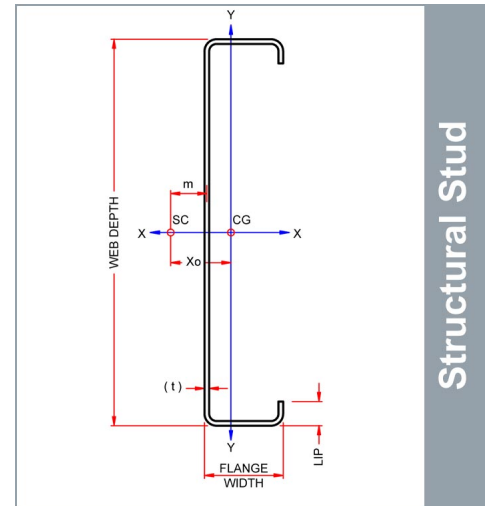
Sustainability Credits:

For more details and LEED letters contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED

LEED v4 MR Credit -- Building Product Disclosure and Optimization: EPD (up to 2 points) - Sourcing of Raw Materials (1 point) - Material Ingredients (1 point) - Construction and Demolition Waste Management (up to 2 points) - Innovation Credit (up to 2 points).

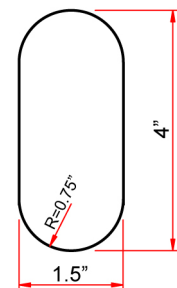
LEED 2009 Credit MR 2 & MR 4 -- ClarkDietrich's steel products are 100% recyclable and have a minimum recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at (info@clarkdietrich.com / 888-437-3244)

05.40.00 (Cold-Formed Metal Framing)



Used in framing applications:

- Load-bearing walls
- Curtain walls
- Tall interior walls
- Floor & ceiling joists
- Trusses



Structural Punchout

East market punchout spacing:
12" from lead end then 24" o.c.

West market punchout spacing:
24" from lead end then 24" o.c.

CD-STRS © 06/30/14 ClarkDietrich Building Systems

Project Information

Name:
Address:

Contractor Information

Name:
Contact:
Phone:
Fax:

Architect Information

Name:
Contact:
Phone:
Fax:

Product category: T125 (1-1/4" Leg Structural Track)
Product name: **362T125-54 (50ksi, CP60) - Unpunched**
 54mils (16ga) Coating: CP60 per ASTM C955
 Color coding: Green

Geometric Properties

Web depth	3.823 in		
Leg width	1.25 in		
Design thickness	0.0566 in	Min. steel thickness	0.0538 in
Yield strength, Fy	50 ksi	*Fy with Cold-Work, Fya	50.0 ksi
Ultimate, Fu	65.0 ksi		

Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	0.346 in ²
Member weight per foot of length	1.18 lb/ft
Moment of inertia (Ix)	0.723 in ⁴
Section modulus (Sx)	0.378 in ³
Radius of gyration (Rx)	1.445 in
Gross moment of inertia (Iy)	0.048 in ⁴
Gross radius of gyration (Ry)	0.373 in

Effective Section Properties, Strong Axis

Effective Area (Ae)	0.225 in ²
Moment of inertia for deflection (Ix)	0.678 in ⁴
Section modulus (Sx)	0.312 in ³
Allowable bending moment (Ma)	9.34 in-k
Allowable shear force in web	3372 lb

Torsional Properties

St. Venant torsion constant (J x 1000)	0.369 in ⁴
Warping constant (Cw)	0.123 in ⁶
Distance from shear center to neutral axis (Xo)	-0.648 in
Distance between shear center and web centerline (m)	0.404 in
Radii of gyration (Ro)	1.627 in
Torsional flexural constant (Beta)	0.841

ASTM & Code Standards:

- AISI North American Specification [NASPEC] S100-07 with 2010 supplement
- * Effective properties incorporate the strength increase from the cold work of forming
- Gross properties are based on the cross section away from the punchouts
- Structural framing is produced to meet or exceed ASTM C955
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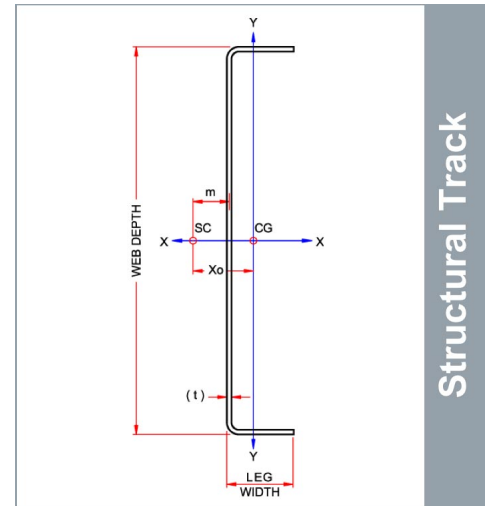
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LEED v4 MR Credit -- Building Product Disclosure and Optimization: EPD (up to 2 points) - Sourcing of Raw Materials (1 point) - Material Ingredients (1 point) - Construction and Demolition Waste Management (up to 2 points) - Innovation Credit (up to 2 points).

LEED 2009 Credit MR 2 & MR 4 -- ClarkDietrich's steel products are 100% recyclable and have a minimum recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at (info@clarkdietrich.com / 888-437-3244)

05.40.00 (Cold-Formed Metal Framing)



Used in framing applications:

- Load-bearing walls
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- Trusses

Project Information

Name:
Address:

Contractor Information

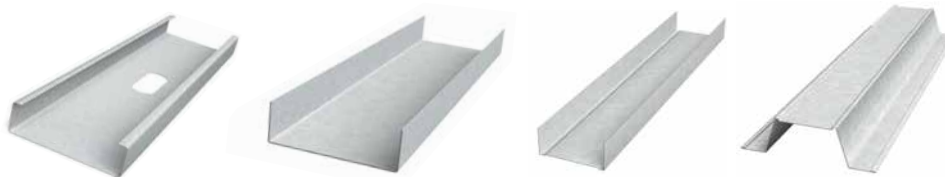
Name:
Contact:
Phone:
Fax:

Architect Information

Name:
Contact:
Phone:
Fax:

ClarkDietrich™ PRODUCT INFORMATION

Example: 362S162-43 (33ksi, CP60) punched



S = Structural stud or joist
PDS = ProSTUD® drywall stud

T = Structural track
PDT = ProTRAK® drywall track

U = CRC or U-channel

F = Furring channel

Punching

Punched studs or joists will be supplied unless the customer indicates unpunched material is required at time of order. All track and channels are unpunched.

Protective Coating

Structural framing CP60 (G90 available)
Drywall framing G40EQ (C40 or G60 available)

KSI -Yield Strength (Fy)

Structural: 33ksi or 50ksi steel
Drywall: See ProSTUD below.

362 S 162 - 43 (33ksi, CP60) Punched

ClarkDietrich structural member depths, flanges & available thickness

Member depths	Flange widths range	Mils range	Gauge range
(250) 2-1/2"	1-3/8," 1-5/8," 2" & 2-1/2"	33-68	20-14 ga
(350) 3-1/2"	1-3/8," 1-5/8," 2" & 2-1/2"	33-68	20-14 ga
(362) 3-5/8"	1-3/8," 1-5/8," 2" & 2-1/2"	33-97	20-12 ga
(400) 4"	1-3/8," 1-5/8," 2" & 2-1/2"	33-97	20-12 ga
(550) 5-1/2"	1-5/8," 2" & 2-1/2"	33-97	20-12 ga
(600) 6"	1-3/8," 1-5/8," 2" 2-1/2" & 3"	33-97	20-12 ga
(800) 8"	1-3/8," 1-5/8," 2" 2-1/2" & 3"	33-97	20-12 ga
(925) 9-1/4"	1-5/8," 2" & 2-1/2"	43-97	18-12 ga
(1000) 10"	1-5/8," 2" 2-1/2" & 3"	43-97	18-12 ga
(1200) 12"	1-5/8," 2" 2-1/2" & 3"	54-97	16-12 ga
(1400) 14"	1-5/8," 2" 2-1/2" & 3"	54-97	16-12 ga

ClarkDietrich return lip dimensions

Flange width	Return lip	Member depths
137 (1-3/8")	3/8"	3-5/8"-8"
162 (1-5/8")	1/2"	2-1/2"-14"
200 (2")	5/8"	3-5/8"-14"
250 (2-1/2")	5/8"	3-5/8"-14"
300 (3")	5/8"	6"-14"

Old stud/track designations

Designation	Type	Flange/leg
CWN	Stud	1-3/8"
CSJ	Stud	1-5/8"
CSW	Stud	2"
CSE	Stud	2-1/2"
CSS	Stud	3"
TSB	Track	1-1/4"
TSC	Track	2"
TSE	Track	3"

ClarkDietrich thickness identification and color coding

Member mils	Thickness gauge	Design thickness	Min. thickness	Color code
33	20	0.0346"	0.0329"	White
43	18	0.0451"	0.0428"	Yellow
54	16	0.0566"	0.0538"	Green
68	14	0.0713"	0.0677"	Orange
97	12	0.1017"	0.0966"	Red

ClarkDietrich ProSTUD® Drywall framing system thickness

Member gauge	Mils	KSI	Design thickness	Min. thickness	Color code
ProSTUD 25	15	50	0.0158	0.0150	None
ProSTUD 20	19	65	0.0200	0.0190	Pink
ProSTUD 20XD	22	57	0.0232	0.0220	Pink
ProSTUD 30MIL	30	33	0.0312	0.0296	Pink
ProSTUD 33MIL	33	33	0.0346	0.0329	White

ProTRAK (25, 20 & 20XD) = 50ksi ProTRAK 30 & 33mil = 33ksi

HOW TO IDENTIFY OUR PRODUCTS

ClarkDietrich has adopted standard nomenclature established by the American Iron and Steel Institute (AISI) for identifying each of its products. Coding of each member consists of four parts, in this order:

- A number which identifies the web depth of the member to two decimal places. 600 = 6.00," 1000 = 10.00," 550 = 5.50," 362 = 3.625," etc.
- A letter that tells you the type of member, such as S = Stud/joist, T = Track, U = U-channel, and F = Furring channel.
- A number that defines the flange dimension in inches to two decimal places. 162 = 1.625," 200 = 2.00," 125 = 1.25," etc.
- A number following a hyphen that denotes the minimum delivered thickness in mils (33mils = 33/1000 inches which is approximately 0.0329"). Minimum delivered thickness is 95% of design thickness.

Product availability.

Most products manufactured by ClarkDietrich are readily available in all markets, but there can be exceptions. Please contact your ClarkDietrich Sales Representative to make sure the product you need is available in your market area.

Protective coatings.

Non-structural products are coated to meet the requirements of AISI S220 and ASTM C645, with a G40 or a protective coating with an equivalent corrosion resistance. ProSTUD® Drywall Framing System meets the Code Compliance Research Report ATI CCRR-0207. Non-structural products may also be ordered with enhanced coatings for special applications.

Structural framing products are available with a variety of protective coatings that meet the CP60 coating protection level requirements of AISI S200 and ASTM C955. These coatings may include G60, A60, AZ50 or GF30, all of which satisfy the above referenced standards. G90 coatings are an enhanced option that can be requested for highly corrosive environments. ClarkDietrich can supply a specific or enhanced coating to meet specific project requirements when requested.

ClarkDietrich is a proud member of the Steel Framing Industry Association (SFIA).

ClarkDietrich™ CODE APPROVALS AND PERFORMANCE STANDARDS

Material Certification - ClarkDietrich products meet or exceed these applicable performance standards.

Structural framing standards

AISI S100-07 "North American Specification for the Design of Cold-Formed Steel Structural Members, 2001 with 2010 supplement"

ASTM C955	Load-bearing steel framing
ASTM C1007	Installation
ASTM A1003	Material specification for steel sheet mechanical and chemical requirements

Protective coating standards

ASTM A653	Zinc-coated hot-dip process
ASTM A792	55% aluminum-zinc alloy-coated hot-dip process
ASTM A875	Zinc-5% aluminum alloy-coated hot-dip process
ASTM A924	Metallic-coated hot-dip process

Additional code approvals

SFIA (Steel Framing Industry Association)
ICC-ES ESR 1166P

ProSTUD® drywall framing standards

AISI S100-07 North American Specification for the Design of Cold-Formed Steel Structural Members

AISI S220-11 North American Standard for Cold-Formed Steel Framing – Nonstructural Members

ASTM American Society for Testing and Materials

A1003	Material specification for steel sheet mechanical and chemical requirements
C645	Standard specification for nonstructural steel framing
C754	Standard specification for installation of steel framing
C1002	Standard specification for steel self piercing tapping screw
E119	Standard test methods for fire tests
E72	Standard test methods of conducting strength tests
E90	Standard test method for sound transmission loss

UL® Underwriters Laboratories testing standard

UL 263 Fire Tests of Building Construction and Materials"

Multiple UL® design listings for ProSTUD

Over 50 UL Designs; UL file number R26512

Additional code approvals

SFIA (Steel Framing Industry Association)
ATI CCRR-0207

UL® and UL® Design are trademarks of Underwriters Laboratories, Inc.

Metal lath & accessories

ASTM C847	Metal lath products
ASTM C841	Installation of interior lathing & furring
ASTM C1063	Installation of lathing & furring
ASTM A653	Zinc-coated hot-dip process
ASTM C1047	Accessories standards—control joints
ASTM A924	Metallic-coated hot-dip process
UUB790A	APB type 1, grade D, style 2
CE 240.01	Furring (metal) lathing and plastering
EMLA 920	Guide specs for metal lathing & furring

Additional code approvals

ATI CCRR-0204

ClarkDietrich Building Systems has prepared this literature with the utmost diligence and care for accuracy and conformance to standards.

ClarkDietrich Building Systems reserves the right to modify or change any information contained in this literature without notification.

ClarkDietrich Building Systems intends this information to be accurate, informative, and helpful as a selection guide for choosing ClarkDietrich Building System products. However, this information is only to be used for guidance and is not intended to replace the design, drawings, specifications, and decisions of a professional architect or engineer.

ClarkDietrich Building Systems or its affiliates shall not be responsible for incidental or consequential damages, directly or indirectly sustained, nor for loss caused by application of our products for other than their intended uses. Our liability is limited to replacement of defective products. Claims shall be deemed waived unless they are made to us in writing within thirty (30) days of the date a problem was or reasonably should have been discovered.

ClarkDietrich structural and nonstructural framing comply with the SFIA Code Compliance Program. ClarkDietrich is a member of SFIA.

Check the updated list of Certified Production Facilities at Architectural Testing's website at www.archtest.com.



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LOCATIONS

ClarkDietrich Building Systems Manufacturing and Sales Locations:

CALIFORNIA Riverside P 951.360.3500	CALIFORNIA Sacramento P 951.360.3500	CONNECTICUT Bristol P 866.921.0023	FLORIDA Dade City P 352.518.4400
GEORGIA McDonough P 678.304.5500	HAWAII Kapolei P 951.360.3500	ILLINOIS Rochelle P 800.659.0745	MARYLAND Baltimore P 410.477.4000
OHIO Warren-East P 330.372.5564	OHIO Warren-West P 330.372.4014	TEXAS Baytown P 281.383.1617	TEXAS Dallas P 214.350.1716
CLIP EXPRESS™-EAST P 866.638.1908	CLIP EXPRESS™-WEST P 530.406.3462	VINYL CORP P 800.648.4695	

ClarkDietrich Engineering Services. A full spectrum of solutions.

Toll-Free Phone: 877.832.3206
Technical Services: 888.437.3244
Toll Free Fax: 877.832.3208
Email: engineering@clarkdietrich.com

CENTRAL Crown Point, IN
NORTHEAST Bristol, CT
SOUTHEAST Roswell, GA
SOUTHEAST McDonough, GA
WEST Carlsbad, CA

The technical content of this page is effective 08/18/14 and supersedes all previous information

Safety Data Sheet (SDS)

Section 1 – Identification

1(a) Product Identifier used on Label: Coated Steel Sheet.

1(b) Use/Description: Coated Steel Sheet for thin gauge framing products.

1(d) Products: Cold-Formed Steel Framing components and accessories for drywall, curtain wall and load bearing systems. Also includes metal lath and plaster accessories.

1(d) Synonyms: Hot Band, Cold Rolled, P&O, Galvanized.

1(e) Company Identification and Emergency Contact Information: ClarkDietrich Building Systems

Corporate Office:

9100 Centre Point Drive, Suite 210
West Chester, OH 45069

Phone: 513-870-1100

Fax: 513-870-1300

<http://www.clarkdietrich.com/>

Manufacturing Locations:

Baltimore, MD
Dallas, TX
Rochelle, IL

Baytown, TX
Kapolei, HI
Sacramento, CA



Bristol, CT
McDonough, GA
Warren East & West, OH

Dade City, FL
Riverside, CA

Section 2 – Hazard(s) Identification

2(a) Classification of the chemical: Coated Steel Sheet is considered an article under Reach regulation (REACH REGULATION (EC) No 1907/2006) and is not subject to classification under CLP regulation (REGULATION (EC) No 1272/2008). However, Coated Steel Sheet is not exempt as an article under OSHA's Hazard Communication Standard (29 CFR 1910.1200) due to its downstream use, thus this product is considered a mixture and a hazardous material. Therefore, the categories of Health Hazards as defined in "GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), Third revised edition ST/SG/AC.10/30/Rev.3" United Nations, New York and Geneva, 2009 have been evaluated. Refer to Section 3, 8 and 11 for additional information.

2(b) Signal word, hazard statement(s), symbols and precautionary statement(s):

Hazard Symbol	Hazard Classification	Signal Word	Hazard Statement(s)
	Carcinogenicity - 2 Reproductive Toxicity - 2 Single Target Organ Toxicity (STOT) Repeat Exposure - 1	Danger	Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to lungs and central nervous system through prolonged or repeated inhalation exposure.
	Acute Toxicity-Oral - 4 Skin Sensitization - 1 STOT Single Exposure - 3		Harmful if swallowed. May cause an allergic skin reaction. Harmful in contact with skin. May cause respiratory irritation.
NA	Eye Irritation-2B		Causes eye irritation.

Precautionary Statement(s):

Prevention	Response	Storage/Disposal
Do not breathe dusts / fume / gas / mist / vapor / spray. Wear protective gloves / protective clothing / eye protection / face protection. Contaminated work clothing must not be allowed out of the workplace. Use only outdoors or in well ventilated areas. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product.	If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed, concerned or feel unwell: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. If on skin: Wash with plenty of water. If irritation or rash occurs: Get medical advice/attention. Take off and wash contaminated clothing before reuse. Call a poison center/doctor if you feel unwell.	Dispose of contents in accordance with federal, state and local regulations.

2(c) Hazards not otherwise classified: None Known

2(d) Unknown acute toxicity statement (mixture): None Known