SUPER ANCHOR SAFETY®

D-Plate Anchors
Instruction/Specification Manual 2025

ENGLISH VERSION

!WARNING TO USER!
You are required to read and use the Instruction/Specification manual supplied at the time this device was shipped. Improper use and installation can result in serious injury or death. Follow inspection requirements before each use.

Specifications
Minimum Breaking Strength MBS: 5,000lb(22.5kN) in any direction the load is applied to the top fixture.
Proof Loading: Must not exceed 2,500lb(11.3kN).
4-1 Design Load: 1,250lb(567kg).
Service Load: 360°
Low Temperature: -30ºF to +130ºF
D-Plate Types: 6"x6"x3/8" and custom size base plates

Compliance
ANSI Z359.18-2017 Type A/T / Z359.7
OSHA 1926.502
Note: Use of "qualified and competent person*" in this manual: consult OSHA definition.
Non-Specified Use: Do not use No.1038 or WS screw attached D-plates for HLL systems or window washing.

Fig.1

No. 1038
Red Powder Coated
Forged D-Ring
DO NOT use for HLL
or Window Washing

Specified Use:
PPE Anchor: 1 person max. user wt. 310lb including tools and equipment. Use for an anchorage connector designed to support a suspended component/tie-back line or an active fall protection system with a maximum free fall exposure of 6ft(1.8m). Users are required to wear current ANSI, CSA or OSHA compliant PPE including a personal energy absorber with a max. fall arrest force of 1,800lb. with the use of this anchor.
PPE Equipment: Users are required to use PPE that comply with current ANSI, OSHA or CSA standards including a full body harness (FBH), and personal energy absorber with a max. arrest force of 1,800lb.
SRL's: Self retracting lifelines must be equipped with an internal or external energy absorber.
Horizontal Lifeline (HLL): Use with SAS pre-engineered, 30° angle fixed length Horizontal Lifelines cables No.1335. See page 4, Table 2.
Hoisting or Lifting: Consult D-Plate Hoisting Addendum 1.

No. 1037
HDG Coating
No. 1090
Cast Loop Top
1-3/8" ID
MBS 15,000lb

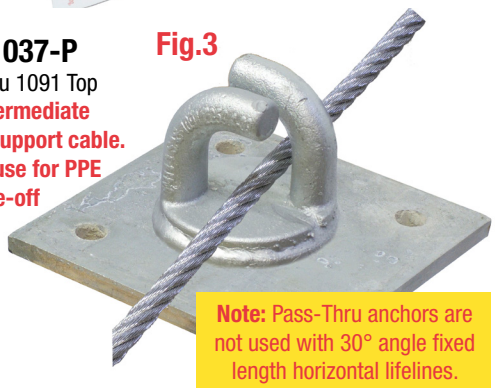
Fig.2

Compatible Connectors
Connect PPE equipment with 3,600lb gate strength snaphooks and carabiners. Do not attach more than 1 connector to the loop top. Ensure connectors are compatible before use.

Attachment Bolt Specifications
Install with 2 or 4 bolts as specified in this manual with certified 1/2"-13 grade 8, 18-8sst bolts or A-307 threaded rod. See Fig.9 for instructions to calculate attachment bolt lengths. Bolt threads must extend 1/8" past the lock nut.

No. 1037-P
Pass-Thru 1091 Top
HLL intermediate anchor to support cable. DO NOT use for PPE Tie-off

Fig.3



Note: Pass-Thru anchors are not used with 30° angle fixed length horizontal lifelines.

Anchor Locations
Unless specified with a Job Specific Plan, the max. spacing between anchors is 8ft. HLL spacing between anchors is 10-20ft with 2ft increments shown at Table 2.

Structural Support
The anchor attachment point must be structurally capable of supporting 5,000lb or 2x the intended fall protection load per OSHA 1910.140(13). 3rd party structural engineering is available from SAS upon request. For example: 1 person w/energy absorber maximum arrest force of 1800lb x 2 = 3,600lb attachment point.

Fig.4

No. 1301
CAL-OSHA 2"ID
Cast Loop Top
MBS 20,000lb

Inspections/Maintenance
Inspected before and after installation to confirm anchors are free of defects. A record of annual inspections by a competent person should be maintained. SAS inspection points may be used as part of the user and building owner's maintenance plan.

D-Plate Inspection Points
- Confirm attachment bolts comply with specifications, and are tightened with lock nuts.
- Inspect welds and loop tops for cracks.
- Inspect Loop Top for deformation.
- If rust is present, re-coat w/zinc spray
- PID labels must be intact.

Warning! Anchors subjected to a free fall or other damage must be tagged to prevent further use until inspected by a qualified person. Remove from service if inspection does not pass and dispose of in a way that will prevent further use.

PID Labels

Primary | Inspection | Installation

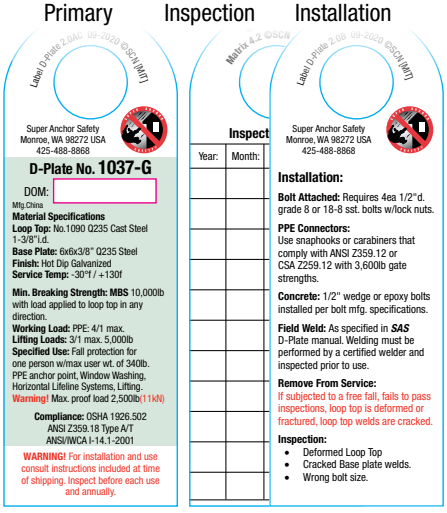
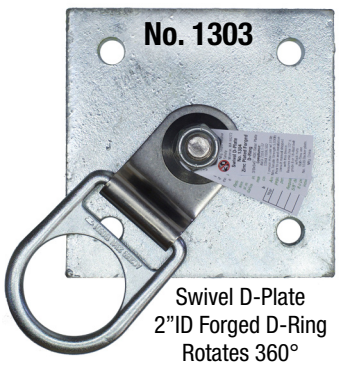


Table 1 - Material Specifications and Use

Use Rating	Part No.	Top Fixture No.	Top Fixture Type	Base Plate	Type of Coating	See Fig.
PPE	1038	Forged D-Ring		Q235 Steel	Red Powder	1
	1028				HDG	5
HLL Pass-Thru	1037-PG	1091	Q235			3
	1037-PS	1091S	316sst	304sst	N/A	
WW PPE SRL HLL End	1037	1090	Q235	Q235	HDG	2
	1037S	1090S	316sst	304sst	N/A	
	1301G	1093	Q345	Q345	HDG	4
	1301S	1093S	316sst	304sst	N/A	

Fig.5

No. 1303



Swivel D-Plate
2"ID Forged D-Ring
Rotates 360°

Installation Examples

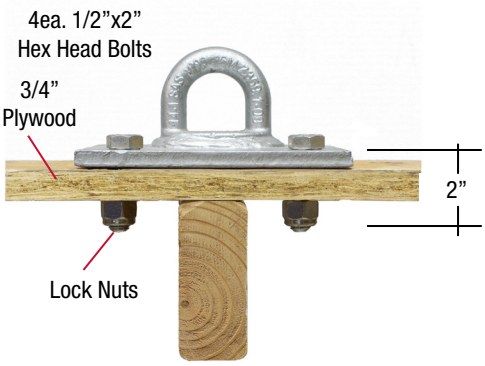
D-Plate anchors are installed by bolting, field welding, concrete embedment and wedge bolt. DO NOT use screws or fasteners not specified in this manual. The loop top orientation should be in the direction of the service load and may be installed skewed when used for single person PPE. Where specified, anchors may be attached with a 2-bolt pattern*.

**D-Plate anchors used as HLL end anchors require a 4-bolt pattern.*

Fig.6

Min. 3/4" Plywood Substrate

Center base plate over top chord and attach with 4-bolt pattern only. DO NOT install onto OSB.



Loop Top Orientation

Loop tops should be oriented in the direction of the service load.

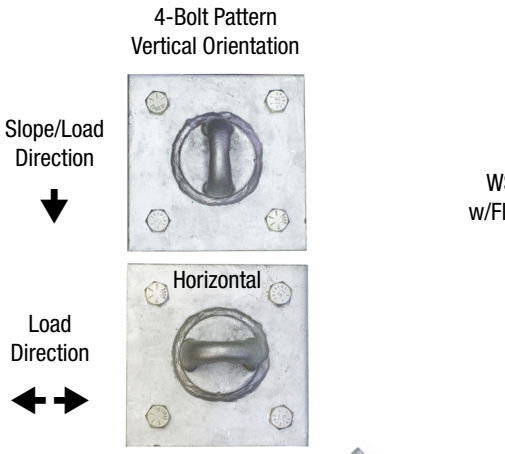
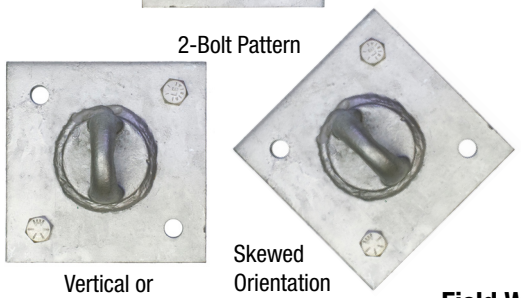


Fig.7

OSB/Plywood Substrates

OSB of any thickness and plywood less than 3/4": install using 2-bolt pattern with base and backer plates centered over the top chord.



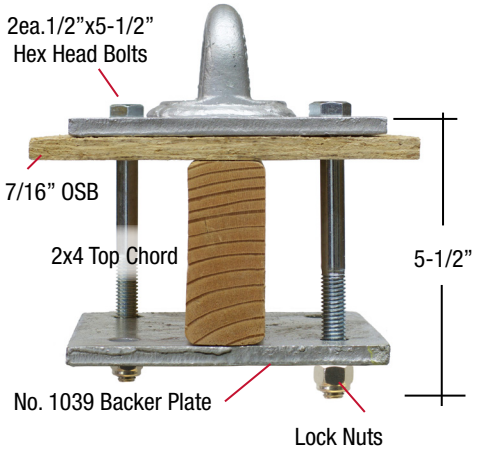


Fig.8

Bolt-Thru Wood Beams/Glu-Lams

Install onto the top, side or bottom of the beam w/2 bolts. For narrow beams, the base plate may be installed skewed.

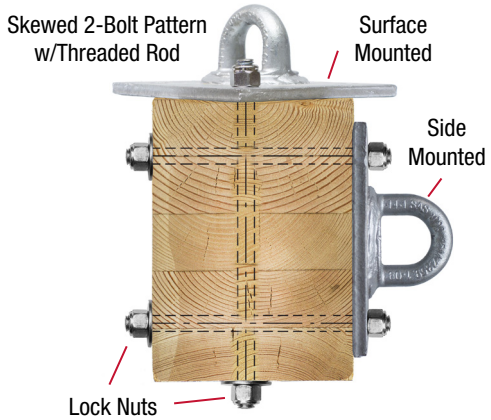


Fig.9

Bolt Length Calculation

Example: add 1-1/2" to the "X" substrate thickness. Add 1/8" for flat washers.

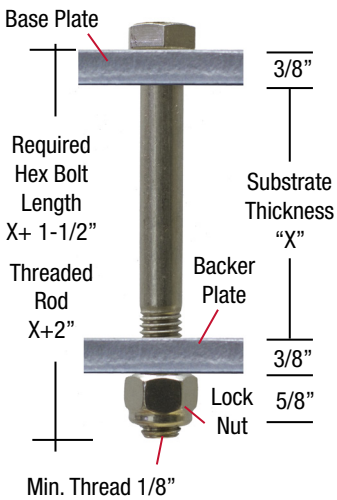
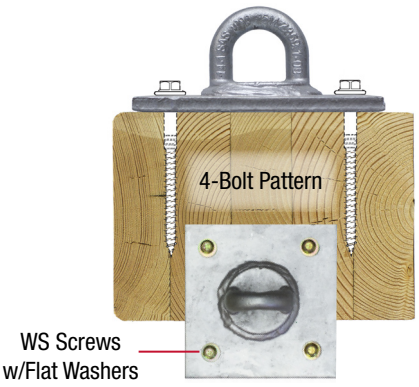


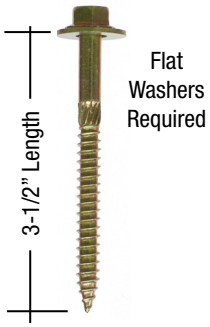
Fig.10

WS Wood Screws

Requires 4ea 3-1/2" length WS screws with flat washers. Do not use screw attached D-plates for HLL or window washing.



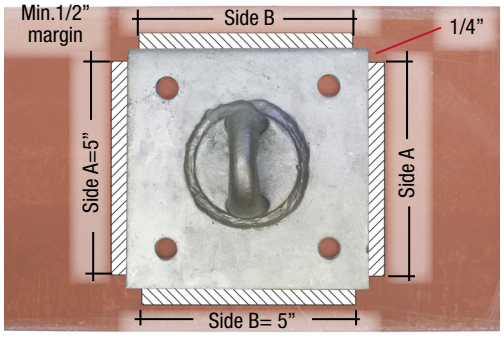
WS Screw No.2084-3.5



Field Welded to Structural Steel

Welding must be performed by a certified welder and inspected by a qualified person* prior to use. 6x6 D-Plates require a min. weld length of 5" for sides A or sides B for a 10" total weld length. Narrow flange beams less than 5" wide will require Top and underside welds to =10" total length. See example 11.1.

Wide Flange Beam 5" Weld (Sides A or B) **Fig.11**



Narrow Flange Beam **Fig.11.1**

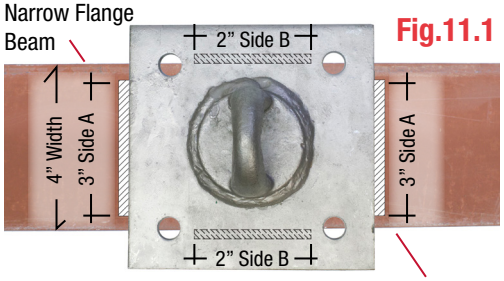
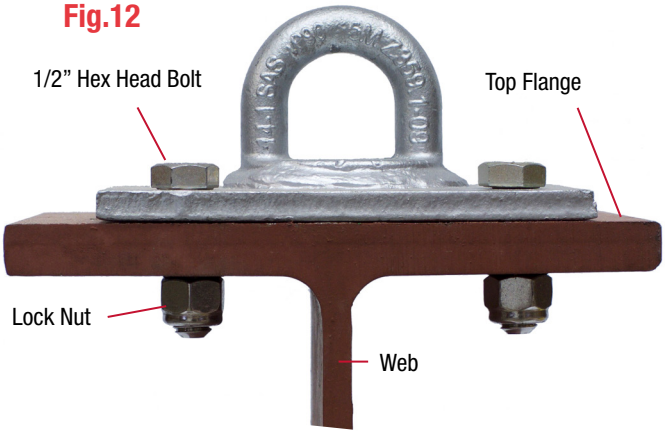


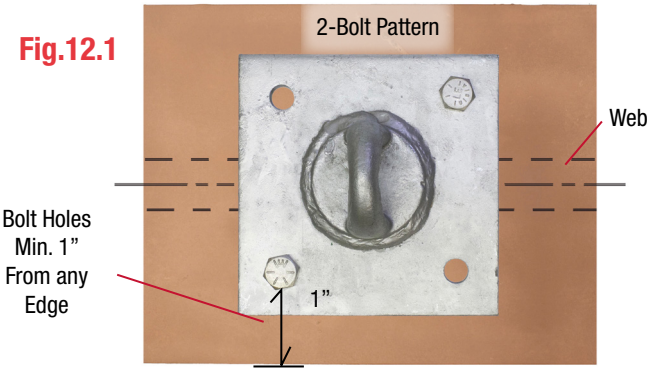
Fig.12



Structural Steel Bolt Attached

Bolt holes should be a min. of 1” from any edge. Center base plate over beam web and attach to top or bottom flange or web. Consult project engineer before drilling bolt holes.

Fig.12.1



Concrete Installations

D-plate concrete slab/wall installations used for horizontal lifelines, work positioning, window washing or façade structural support, must be specified by the project architect, engineer or 3rd party engineering.

Fig.13

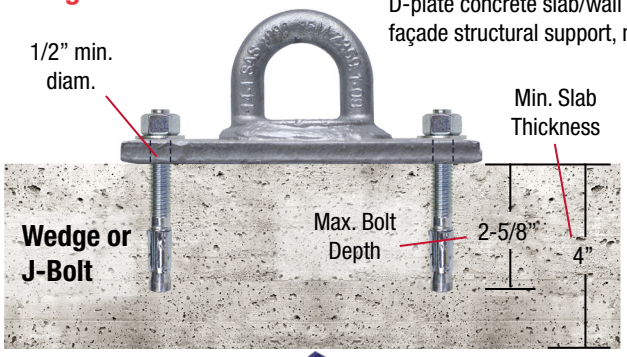
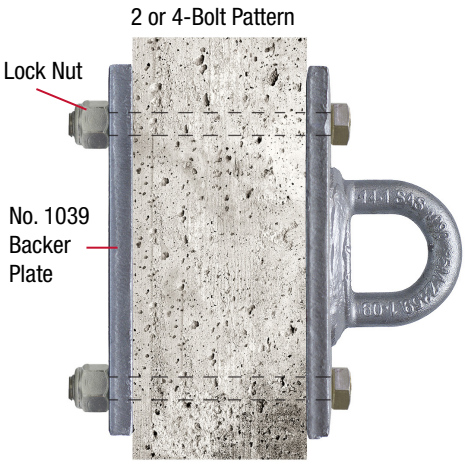


Fig.13.2

Model 1037 shown use for Single Person PPE only.

Fig.13.1



Concrete Specifications

Embedment or wedge bolt installations require a min. 2500 psi and a slab thickness of 4”. Concrete must be cured sufficiently to support the fall protection load prior to use.

Bolt-Thru w/Backer Plate

- Slab thickness less than 4”
- HLL end anchors require 4-bolt attachment.

Install with No.1039 backer plate

2-Bolt Installations/Vertical Walls

Any model D-Plate may be installed with the loop top orientation horizontal, skewed or vertical as shown at Fig.13.2. Use only for single person PPE. Not rated for window washing or HLL end anchors. Skewed installation provides a higher degree of waterproofing by eliminating a horizontal edge and does not affect the use of PPE connectors. **Waterproofing:** apply project specified caulking to all edges of the base and backer plate.

CMU Block Walls

Install D-plates for fall protection or façade structural support using thru-bolt as shown at Fig.14.2 or J-bolt embedment. Installations for 2 or 4-bolt pattern require project specific engineering with rebar and grout. Grout filling must be sufficiently cured to support the intended load prior to use. Anchors may be centered over the block cavity as shown at Fig.14 or over the center web shown at Fig.14.1.
Block example is 8”x8”x16”.

Retro-Fit Existing Walls

Existing CMU walls that are structurally capable of supporting anchorage devices can be retro-fitted using thru-bolts with backer plates. Rebar and grout not shown in the example.

Fig.14

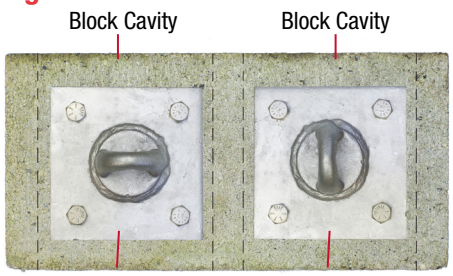
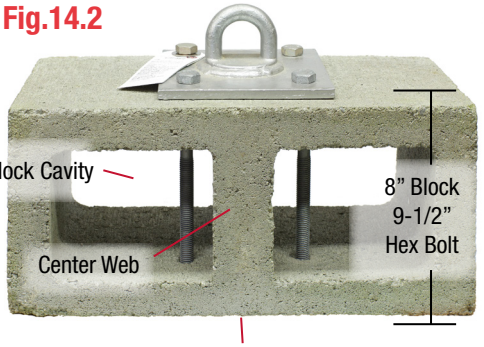


Fig.14.1

Loop Top orientation should be parallel with the direction of the load.

Fig.14.2



Type B Metal Decking

Requires a 4-bolt pattern installation. Center bolt holes over top flute. Install w/flat washers and lock nuts. Use any model 6"x6" D-plate anchor.

Fig.15

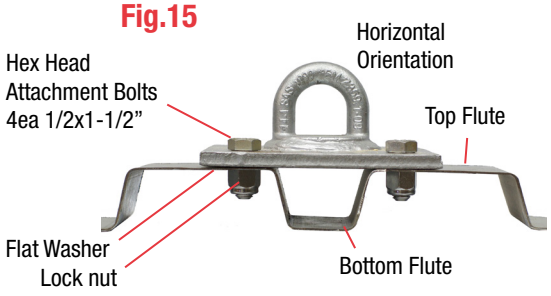


Fig.15.1

Fig.16

DO NOT use nails to attach a D-Plate Anchor.

Horizontal Lifeline Systems (HLLS) w/D-Plate Anchors

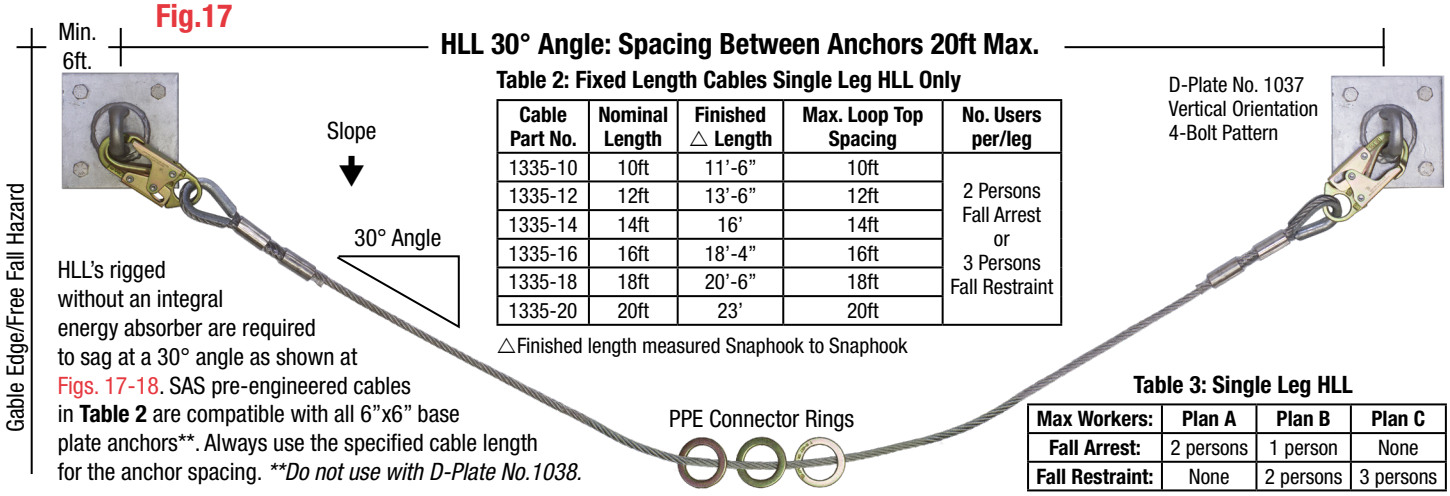
The number of workers attached to a single or multiple leg HLL without a Job Specific Plan(JSP) are specified in Tables 3 and 4 and are based on SAS pre-engineered cable lengths. User specifications may be varied when engineered by a qualified or competent person* using SAS components.

Temporary Installations

The HLL examples shown here are intended for temporary use only and must be installed perpendicular to the slope. End anchors must be a min. of 6ft from any gable, eave edge or fall hazard. Consult SAS D-Plate HLL Rigging manual for permanent installation specifications.

Fig.17

HLL 30° Angle: Spacing Between Anchors 20ft Max.



HLL's rigged without an integral energy absorber are required to sag at a 30° angle as shown at Figs. 17-18. SAS pre-engineered cables in **Table 2** are compatible with all 6"x6" base plate anchors**. Always use the specified cable length for the anchor spacing. ***Do not use with D-Plate No.1038.*

Table 2: Fixed Length Cables Single Leg HLL Only

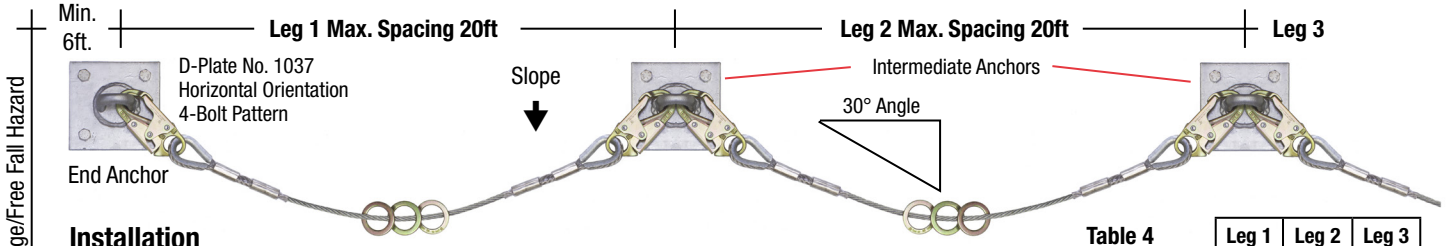
Cable Part No.	Nominal Length	Finished △ Length	Max. Loop Top Spacing	No. Users per/leg
1335-10	10ft	11'-6"	10ft	2 Persons Fall Arrest or 3 Persons Fall Restraint
1335-12	12ft	13'-6"	12ft	
1335-14	14ft	16'	14ft	
1335-16	16ft	18'-4"	16ft	
1335-18	18ft	20'-6"	18ft	
1335-20	20ft	23'	20ft	

△Finished length measured Snaphook to Snaphook

Table 3: Single Leg HLL

Max Workers:	Plan A	Plan B	Plan C
Fall Arrest:	2 persons	1 person	None
Fall Restraint:	None	2 persons	3 persons

Fig.18 **Multiple Leg HLL**



Installation

Multiple HLL legs are installed in series using intermediate anchors.
End anchors must be a min. of 6ft from any gable, eave edge or fall hazard.
The number of workers attached to each leg at the same time is specified in **Table 4.**

Table 4	Leg 1	Leg 2	Leg 3
Fall Arrest or	1	1	1
Fall Restraint	2	2	2

Fig.19

Permanent HLLS

Consult SAS D-Plate Rigging Manual and D-Plate2 Manual for permanent HLLS specifications.
Permanent HLL's are engineered with integral metallic energy absorbers, turnbuckles and Pass-Thru anchors.
Example: