# JOVE®

## Duct Hangers and Supports for FRP/GRP, HDPE, PP, PVC and other non-metallic piping systems

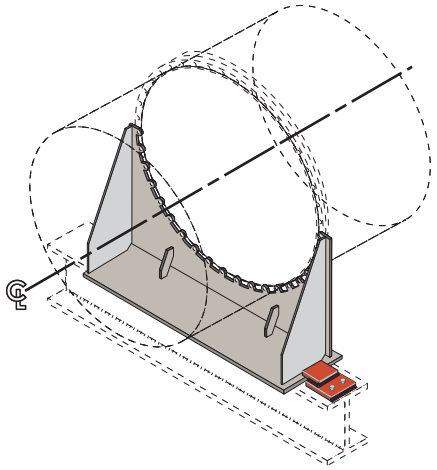


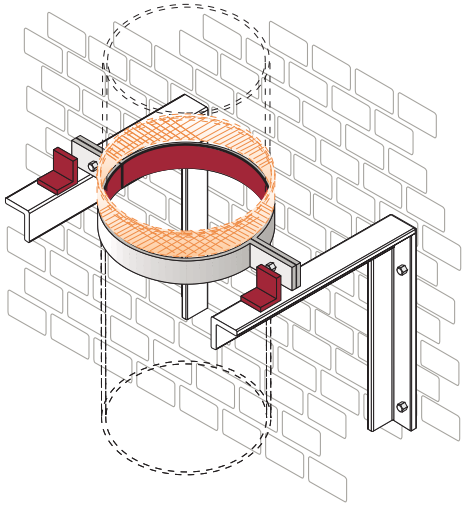
Thompson Fabricating

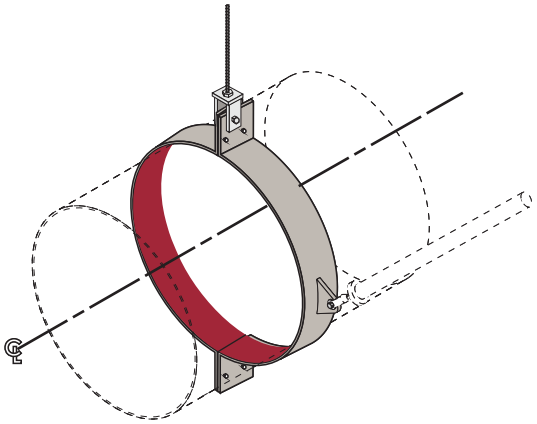
Thompson Fabricating
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# JOVE® DUCT SUPPORT PRODUCTS









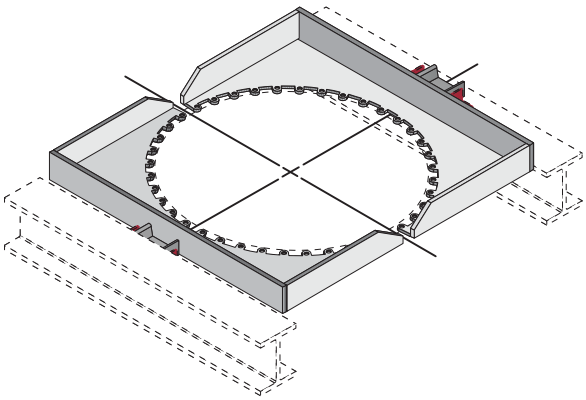


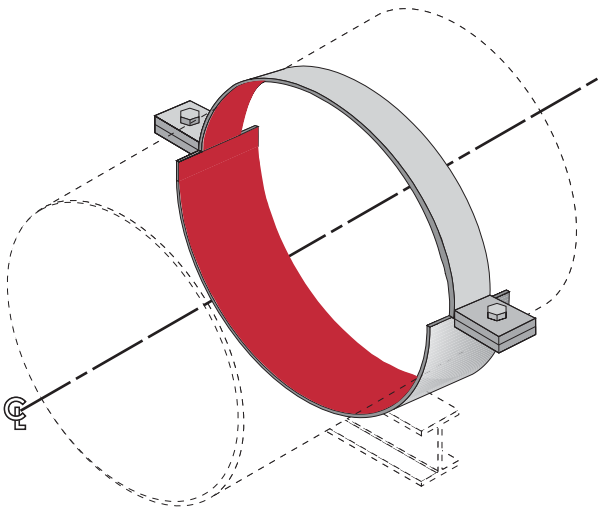

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# JOVE® SUPPORT - SADDLE



## Model No. DS-1

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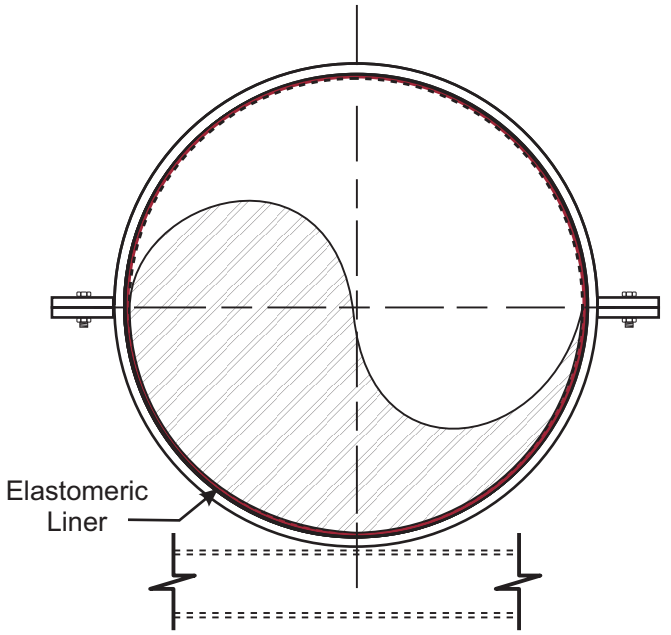


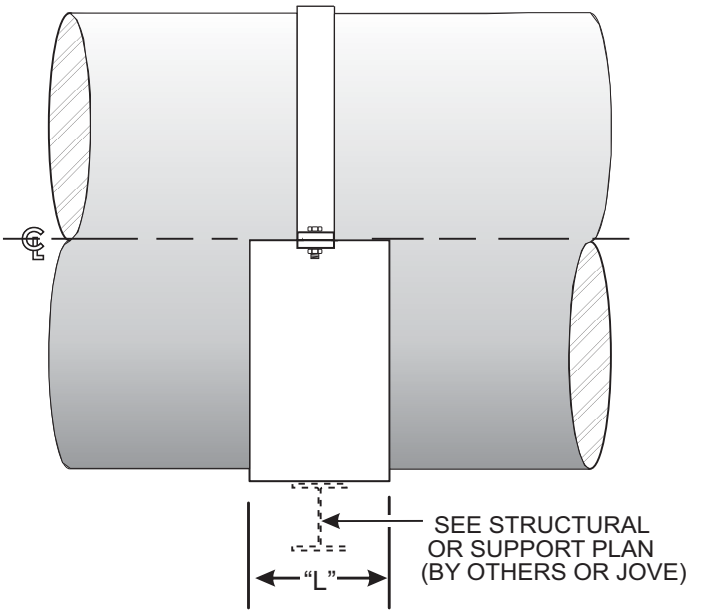
**APPLICATION: Provides simple 180° support for cast, filament wound or contact molded FRP, and other non-metallic piping. Used where lateral and axial pipe movement is allowed and where support structure is below duct.**

**MATERIALS: Carbon Steel, Stainless, and other alloys.**

**ELASTOMERIC LINER: Red rubber, Neoprene, EPDM, Viton.**

**FINISHES: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.**




See Note 3 below.

| DUCT Dia. | 1" | 1-1/2" | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" |
|---|---|---|---|---|---|---|---|---|---|---|
| "L" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | N/A |
| Vertical Load | 400 | 400 | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | N/A |

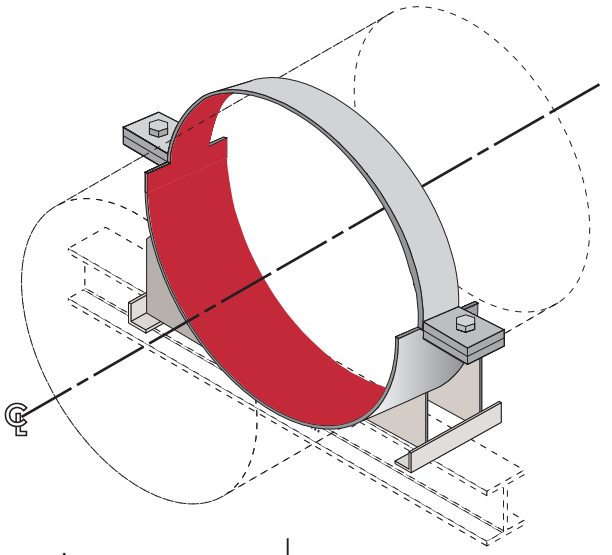
**NOTES:**

1. **DS-1 Includes Saddle & Liner; order SS Banding separately.**
2. **DS-2 not recommended for locations above personnel areas.**
3. **DS-2 recommended above 4" nom.**

# JOVE® SUPPORT - SIMPLE

## Model No. DS-2 © Copyright, 1998 REV 26 A



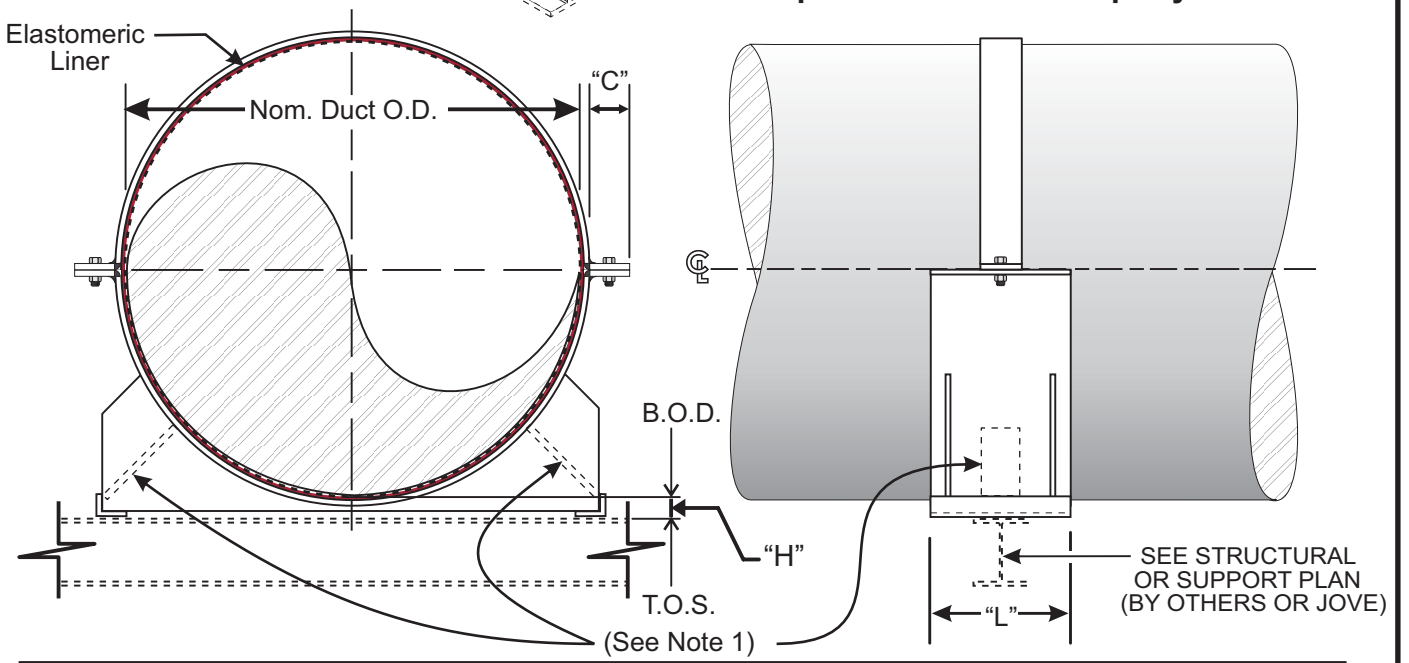


**APPLICATION: Provides simple support for cast, filament wound or contact molded FRP, and other non-metallic ducting. Used where horizontal duct movements are permitted, and where support structure is below duct.**

**MATERIALS: Carbon Steel, Stainless, and other alloys.**

**ELASTOMERIC LINER: Red rubber, Neoprene, EPDM, Viton.**

**FINISHES: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.**




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "C" | 1-1/4" | 1-1/4" | 1-1/4" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| "L" | 8" | 8" | 8" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 12" | 12" | 12" | 12" |
| "H" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" |
| Vertical Load | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | 2,800 | 3,200 | 3,300 | 3,400 | 3,700 | 4,000 | 4,300 | 4,600 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "C" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| "L" | 12" | 12" | 12" | 16" | 16" | 16" | 20" | 20" |
| "H" | 1-5/8" | 1-5/8" | 4" | 4" | 4" | 4" | 4" | 4" |
| Vertical Load | 4,900 | 5,400 | 5,600 | 5,800 | 6,000 | 6,200 | 6,400 | 6,700 |

## NOTES:

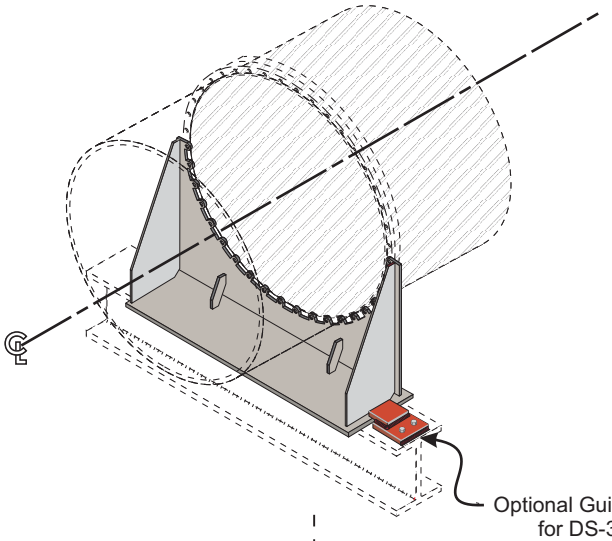
1. Stiffener included on duct 24" and greater.
2. TOS-BOD dimension may be modified at customer request.

# JOVE® SUPPORT - FLANGED COMPONENT

4C

## Model No. DS-3

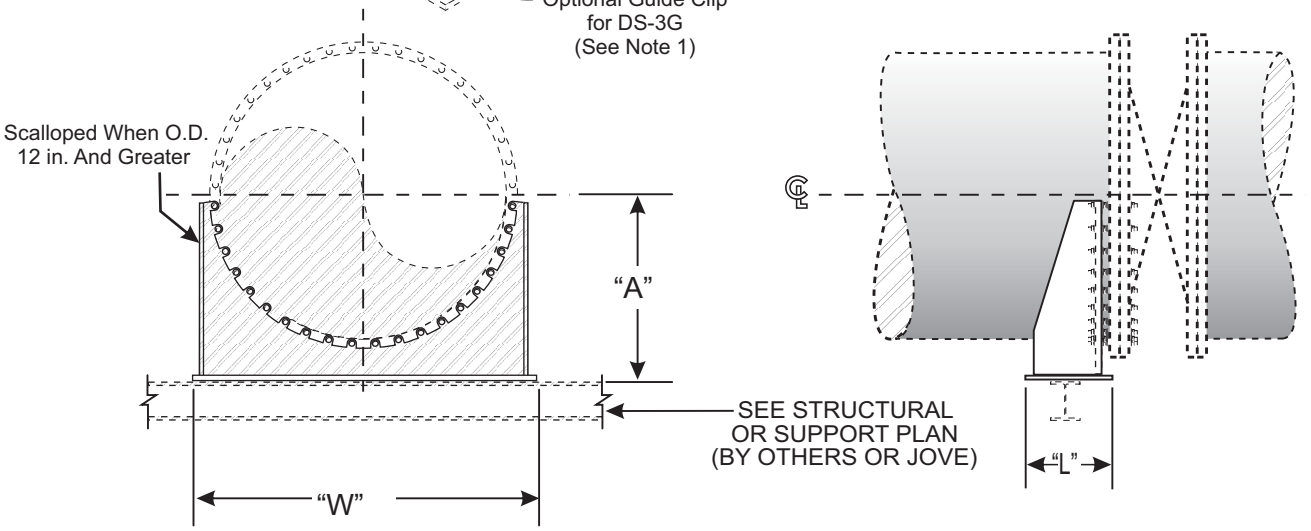
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**APPLICATION**: Used to support and anchor valves, regulators, flow meters or other components when cast, filament wound, or contact molded FRP, or other non-metallic material is used in duct systems.

**MATERIALS**: Carbon Steel, Stainless, and other alloys.

**FINISHES**: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "A" | 7" | 7" | 7" | 10" | 10" | 10" | 14" | 14" | 14" | 18" | 18" | 18" | 21" | 25" | 29" |
| "L" | 7" | 7" | 7" | 10" | 10" | 10" | 12" | 12" | 12" | 12" | 12" | 12" | 12" | 13" | 14" |
| "W" | 9" | 10-1/2" | 12" | 14" | 16-1/2" | 19" | 22" | 24" | 26-1/2" | 28" | 30-1/2" | 35" | 41-3/4" | 49" | 56" |
| Bolt Circle | 5" | 6" | 7" | 9" | 11" | 13" | 15" | 17" | 19" | 21" | 23" | 27" | 29" | 39" | 45" |
| No. of Bolts | 2 | 2 | 2 | 4 | 4 | 6 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 16 | 18 |
| Vertical Load | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | 2,800 | 3,200 | 3,300 | 3,400 | 3,700 | 4,000 | 4,300 | 4,600 |
| Axial Load | 1,000 | 1,500 | 2,000 | 3,000 | 3,100 | 3,200 | 3,400 | 3,500 | 3,600 | 3,800 | 4,000 | 4,100 | 4,600 | 5,000 | 5,500 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "A" | 32" | 35" | 39" | 45" | 53" | 60" | 70-3/4" | 82-3/4" |
| "L" | 14" | 14" | 15" | 16" | 18" | 20" | 24" | 27" |
| "W" | 62-1/2" | 69-1/4" | 76" | 66" | 74-1/2" | 85" | 96-1/2" | 114-1/2" |
| Bolt Circle | 52" | 58" | 64" | 76" | 88" | 100" | 124" | 149" |
| No. of Bolts | 22 | 22 | 26 | 30 | 36 | 40 | 50 | 60 |
| Vertical Load | 4,900 | 5,400 | 5,600 | 5,800 | 6,000 | 6,200 | 6,400 | 6,700 |
| Axial Load | 6,000 | 6,500 | 7,000 | 7,500 | 8,000 | 8,500 | 9,000 | 9,500 |

**NOTES:**

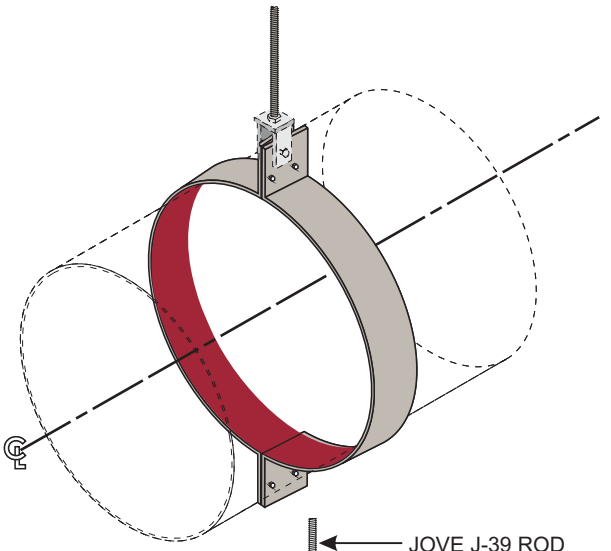
1. DS-3 may serve as a guide when Guide Clips are used to restrict lateral and vertical movement. (See Guide Clip Detail)
2. DS-3 may serve as an anchor by bolting or welding to structural members.
3. "A" dimension may be increased if duct location requires, but listed load ratings would not apply.

# JOVE® SUPPORT - HANGER

## Model No. DS-4

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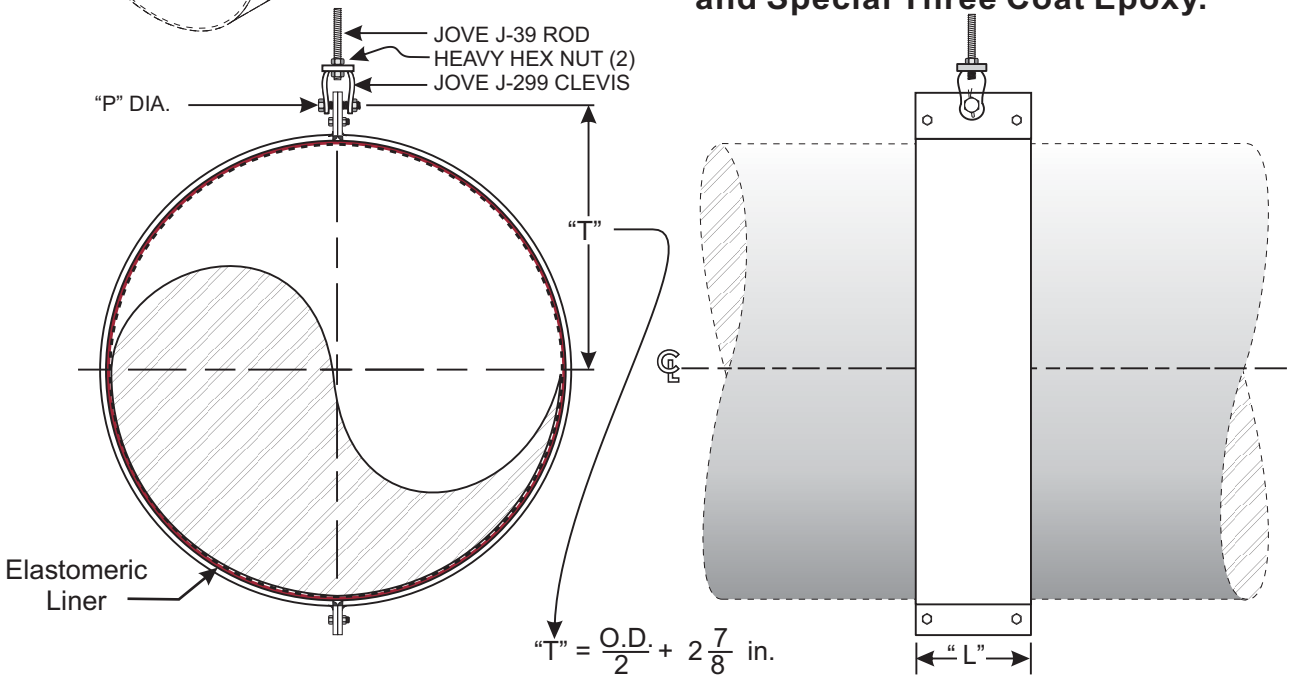


**APPLICATION:** This clamp-type support should be discriminately used where duct is hung below support steel or another FRP or other non-metallic duct to control buckling.

**MATERIALS:** Carbon Steel, Stainless, and other alloys.

**ELASTOMERIC LINER:** Red rubber, Neoprene, EPDM, Viton.

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| Duct Dia. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" |
|---|---|---|---|---|---|---|---|---|---|---|
| "L" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 6" | 6" | 6" |
| "P" | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 3/4" | 3/4" |
| Rod | 3/8" | 3/8" | 3/8" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" |
| Vertical Load | 400 | 400 | 400 | 600 | 600 | 850 | 850 | 850 | 1,100 | 1,100 |

| Duct Dia. | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|
| "L" | 6" | N/A | N/A | N/A | N/A |
| "P" | 3/4" | N/A | N/A | N/A | N/A |
| Rod | 5/8" | N/A | N/A | N/A | N/A |
| Vertical Load | 1,400 | N/A | N/A | N/A | N/A |

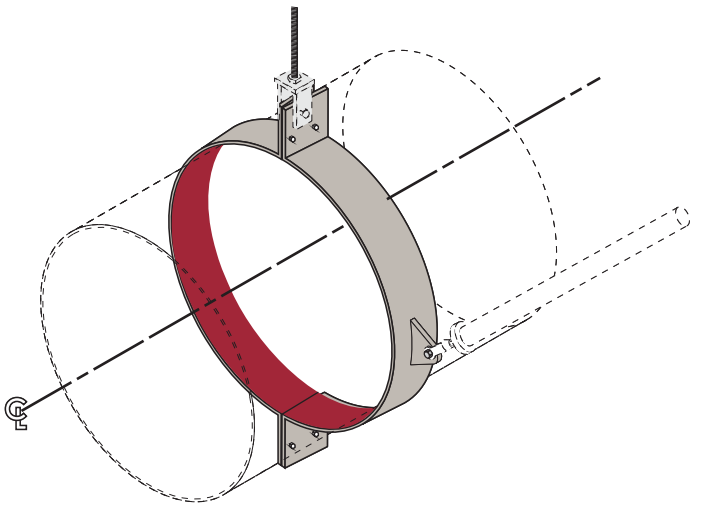
**NOTES:**

1. Rod Assembly, including J-299 must be ordered separately.
2. Not recommended for duct greater than 20 in. diameter. Use DS-11C for 24 in. and up.

# JOVE® SUPPORT - GUIDED HANGER

## Model No. DS-4G © Copyright, 1998 REV 26 A



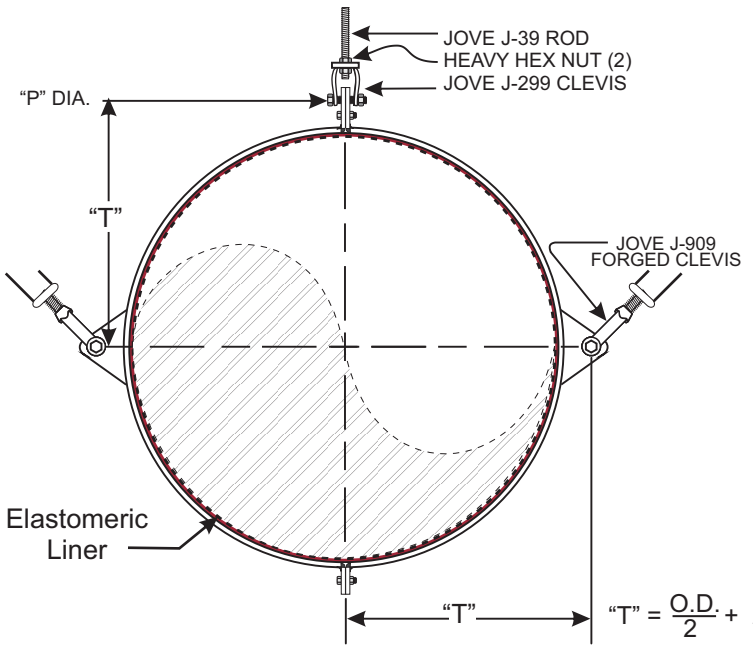


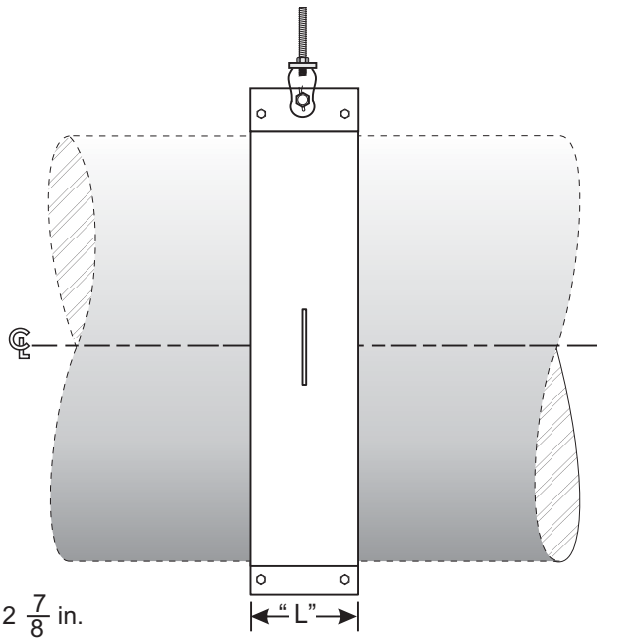
**APPLICATION:** This lateral guide should be discriminately used where duct is hung below support steel or another FRP or other non-metallic duct to control buckling.

**MATERIALS:** Carbon Steel, Stainless, and other alloys.

**ELASTOMERIC LINER:** Red rubber, Neoprene, EPDM, Viton.

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| Duct Dia. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" |
|---|---|---|---|---|---|---|---|---|---|---|
| "L" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 6" | 6" | 6" |
| "P" | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 3/4" | 3/4" |
| Rod | 3/8" | 3/8" | 3/8" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" |
| Vertical Load | 400 | 400 | 400 | 600 | 600 | 850 | 850 | 850 | 1,100 | 1,100 |

| Duct Dia. | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|
| "L" | 6" | N/A | N/A | N/A | N/A |
| "P" | 3/4" | N/A | N/A | N/A | N/A |
| Rod | 5/8" | N/A | N/A | N/A | N/A |
| Vertical Load | 1,400 | N/A | N/A | N/A | N/A |

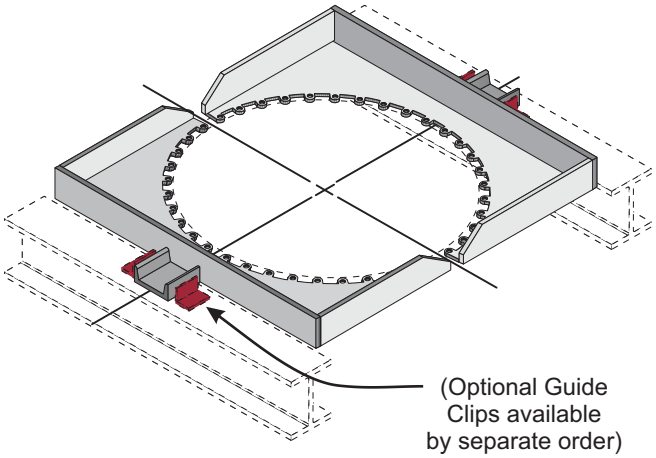
**NOTES:**

1. Rod Assembly, including J-299 must be ordered separately.
2. Not recommended for duct greater than 20 in. diameter. Consult with JTI's Licensed P.E.s for alternatives.

# JOVE® SUPPORT - FLANGED COMPONENT



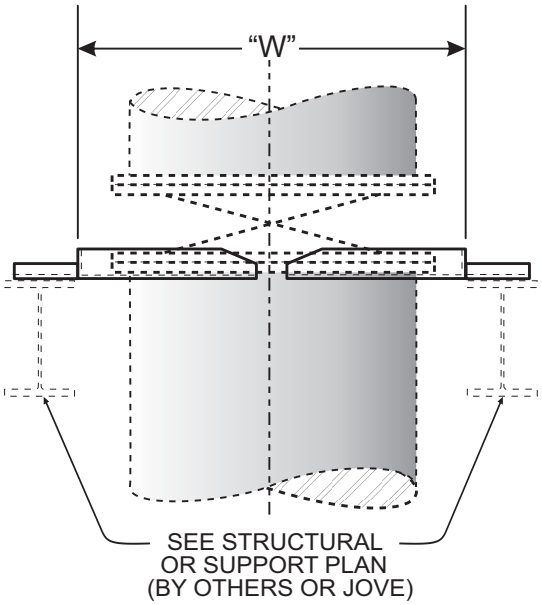
## Model No. DS-5 © Copyright, 1998 REV 26 A

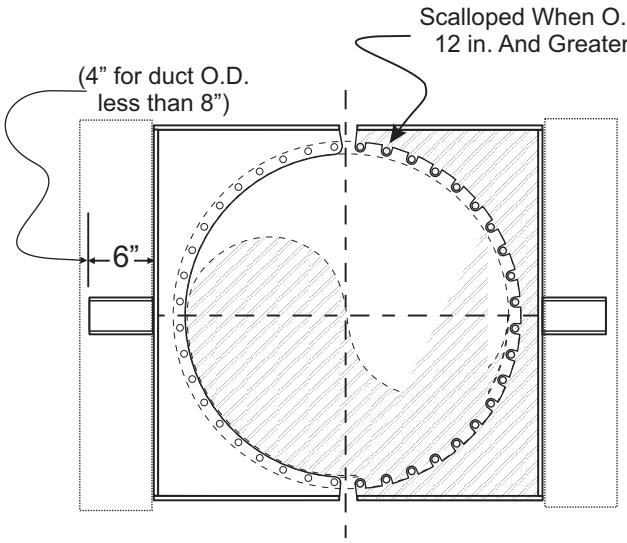



**APPLICATION:** Used to support and stabilize valves, regulators, flow meters or other components when cast, filament wound, or contact molded FRP, or other non-metallic material is used in vertical runs in duct systems.

**MATERIALS:** Carbon Steel, Stainless, and other alloys

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "W" | 9" | 10.5" | 12" | 16" | 18-1/2" | 21" | 24" | 31" | 33-1/2" | 35" | 37-1/2" | 42" | 49" | 56" | 63" |
| Bolt Circle | 5" | 6" | 7" | 9" | 11" | 13" | 15" | 17" | 19" | 21" | 23" | 27" | 33" | 39" | 45" |
| Bolt Hole Dia. | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| No. of Bolts | 4 | 4 | 4 | 8 | 8 | 12 | 12 | 12 | 16 | 16 | 20 | 20 | 28 | 32 | 36 |
| Vertical Load | 400 | 400 | 400 | 600 | 600 | 850 | 850 | 850 | 1,100 | 1,100 | 1,400 | 1,400 | 1,900 | 1,900 | 2,200 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "W" | 69-1/2" | 77" | 83" | 97" | 110" | 124" | 141" | 165" |
| Bolt Circle | 52" | 58" | 64" | 76" | 88" | 100" | 124" | 149" |
| Bolt Hole Dia. | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 3/4" | 3/4" |
| No. of Bolts | 44 | 44 | 52 | 60 | 72 | 80 | 100 | 120 |
| Vertical Load | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |

**NOTES:**

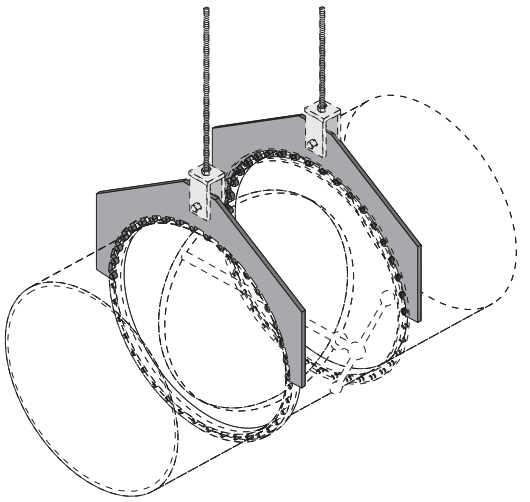
1. DS-5 may serve as an anchor by bolting or welding to structural members.
2. For ease of installation studs may be used in place of bolts. See Flange bolting detail for information.

# JOVE® SUPPORT - FLANGED HANGER

## Model No. DS-5H

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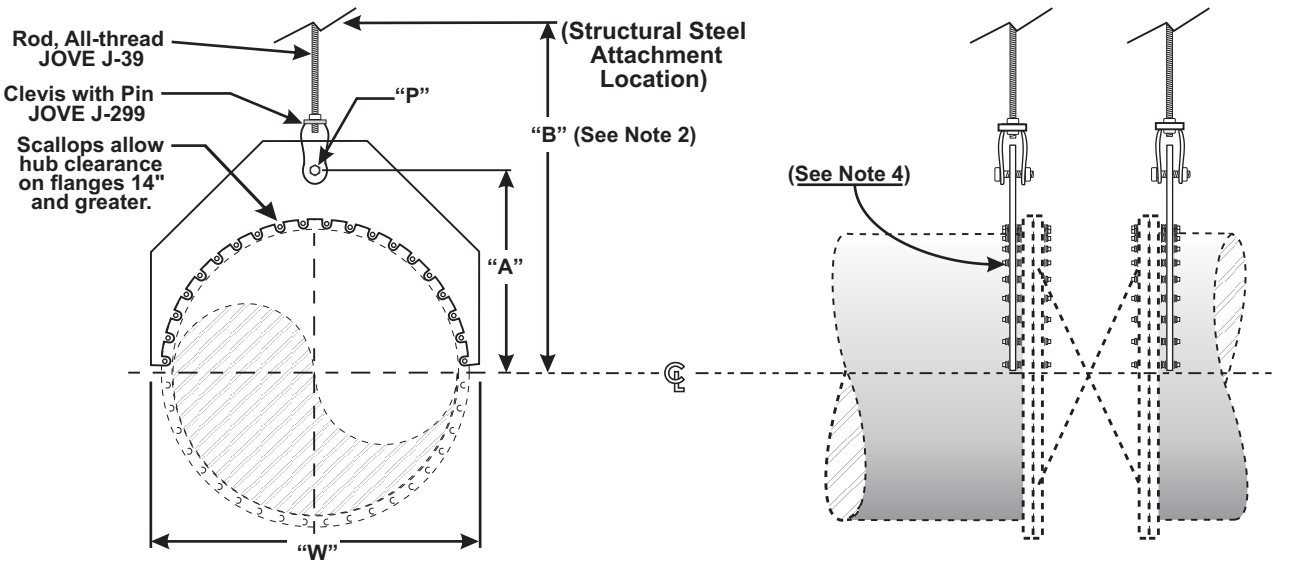




**APPLICATION:** Provides support from structures above duct for components such as valves, regulators, and flow meters used in non-metallic as well as metallic duct systems. Prevents local overstress due to component loads.

**MATERIALS:** Carbon Steel, Stainless, and other alloys

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "A" | 6" | 6-3/4" | 7-1/2" | 8-1/2" | 9-3/4" | 11" | 12-1/2" | 13-1/2" | 14-3/4" | 15-1/2" | 16-3/4" | 19" | 22-3/8" | 26" | 29-1/2" |
| "W" | 7" | 8-1/2" | 10" | 12" | 14-1/2" | 17" | 20" | 22" | 24-1/2" | 26" | 28-1/2" | 33" | 39-3/4" | 47" | 54" |
| "P" Pin Dia. | 1/2" | 5/8" | 5/8" | 3/4" | 3/4" | 7/8" | 7/8" | 1" | 1" | 1" | 1" | 1-1/8" | 1-1/8" | 1-1/8" | 1-1/8" |
| Rod Size | 3/8" | 1/2" | 1/2" | 5/8" | 5/8" | 3/4" | 3/4" | 7/8" | 7/8" | 7/8" | 7/8" | 1" | 1" | 1" | 1" |
| Bolt Circle | 5" | 6" | 7" | 9" | 11" | 13" | 15" | 17" | 19" | 21" | 23" | 27" | 33" | 39" | 45" |
| Number of Bolts | 2 | 2 | 2 | 4 | 4 | 6 | 6 | 6 | 8 | 8 | 10 | 10 | 14 | 16 | 18 |
| Vertical Load | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | 2,800 | 3,200 | 3,300 | 3,400 | 3,700 | 4,000 | 4,300 | 4,600 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "A" | 32-3/4" | 36-1/8" | 39-1/2" | 46" | 53" | 60" | 69" | 81-1/2" |
| "W" | 60-1/2" | 67-1/4" | 74" | 65-1/8" | 73-3/8" | 84-1/8" | 95-5/8" | 113-5/8" |
| "P" Pin Dia. | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" |
| Rod Size | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" |
| Bolt Circle | 52" | 58" | 64" | 76" | 88" | 100" | 124" | 149" |
| Number of Bolts | 22 | 22 | 26 | 30 | 36 | 40 | 50 | 60 |
| Vertical Load | 4,900 | 5,400 | 5,600 | 5,800 | 6,000 | 6,200 | 6,400 | 6,700 |

**NOTES:**

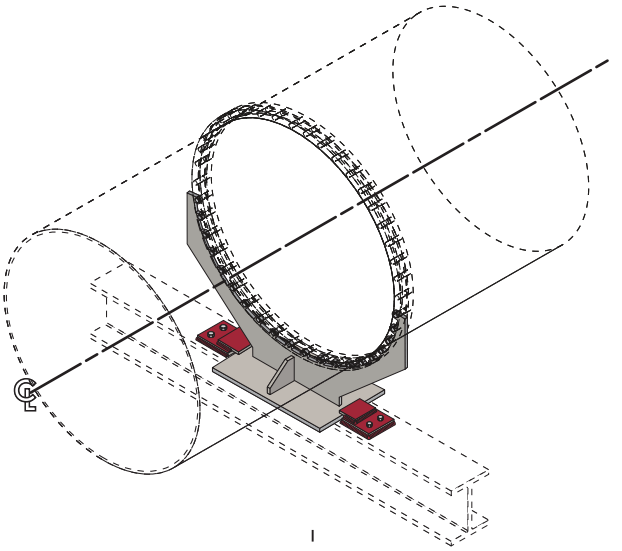
1. JOVE can supply all auxiliary steel and rod hanger assemblies.
2. Dimension "B" must be supplied in RFQ for JOVE to quote Rod Hanger Assembly.
3. Two DS-5H Hangers required with long components.
4. See Flange Connection Detail

# JOVE® GUIDE - COMPONENT STANCHION

## Model No. DS-5S

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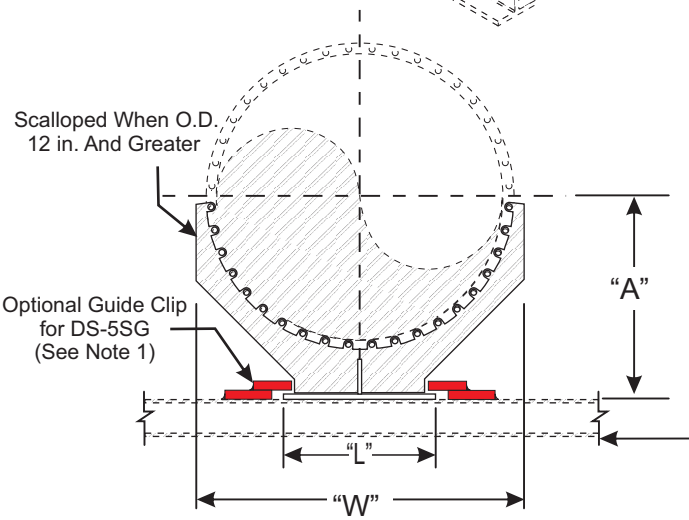


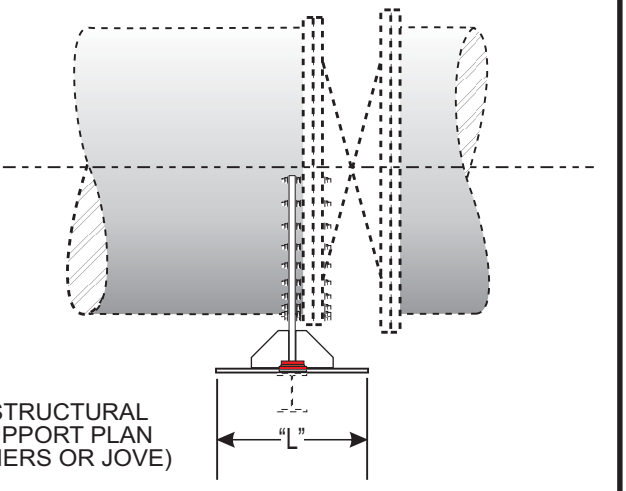


**APPLICATION:** Supports and guides components such as valves, regulators, or flow meters used in cast, filament-wound, or contact molded FRP or other non-metallic duct. Substitute the DS-3 when an anchor is required.

**MATERIALS:** Carbon Steel, Stainless, and other alloys

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "A" | 7" | 7" | 7" | 10" | 10" | 10" | 14" | 14" | 14" | 18" | 18" | 18" | 21" | 25" | 29" |
| "L" | 6" | 6" | 6" | 8" | 8" | 8" | 10" | 10" | 10" | 12" | 12" | 12" | 14" | 14" | 14" |
| "W" | 7" | 8-1/2" | 10" | 12" | 14-1/2" | 17" | 20" | 22" | 24-1/2" | 26" | 28-1/2" | 33" | 39-3/4" | 47" | 54" |
| Bolt Circle | 5" | 6" | 7" | 9" | 11" | 13" | 15" | 17" | 19" | 21" | 23" | 27" | 29" | 39" | 45" |
| No. of Bolts | 2 | 2 | 2 | 4 | 4 | 6 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 16 | 18 |
| Vertical Load | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | 2,800 | 3,200 | 3,000 | 3,400 | 3,700 | 4,000 | 4,300 | 4,600 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "A" | 32" | 35" | 39" | 45" | 53" | 60" | 70-3/4" | 82-3/4" |
| "L" | 16" | 16" | 16" | 16" | 16" | 16" | 16" | 16" |
| "W" | 60-1/2" | 67-1/4" | 74" | 65-1/8" | 73-7/8" | 84-1/8" | 95-5/8" | 113-5/8" |
| Bolt Circle | 52" | 58" | 64" | 76" | 88" | 100" | 124" | 149" |
| No. of Bolts | 22 | 22 | 26 | 30 | 36 | 40 | 50 | 60 |
| Vertical Load | 4,900 | 5,400 | 5,600 | 5,800 | 6,000 | 6,200 | 6,400 | 6,700 |

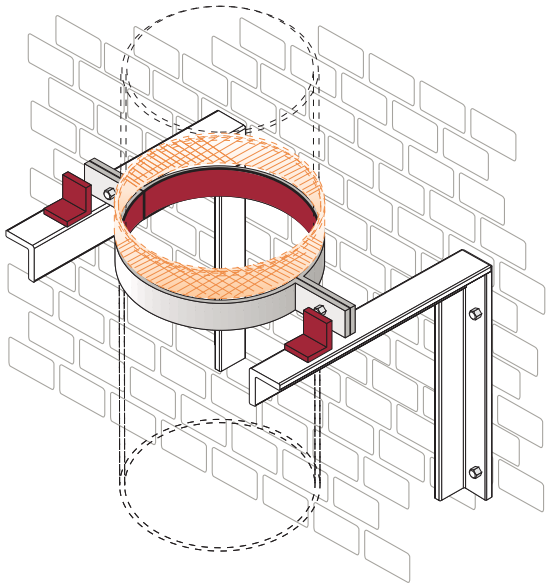
**NOTES:**

1. DS-5S may serve as a guide when Guide Clips are used to restrict lateral and vertical movement. (See Guide Clip Detail)
2. Flange connection may be effected by using bolts, but for ease of installation the use of studs cut from all-thread rod is acceptable. (See Flange Detail)

# JOVE® SUPPORT - RISER

## Model No. DS-6 © Copyright, 1998 REV 26 A



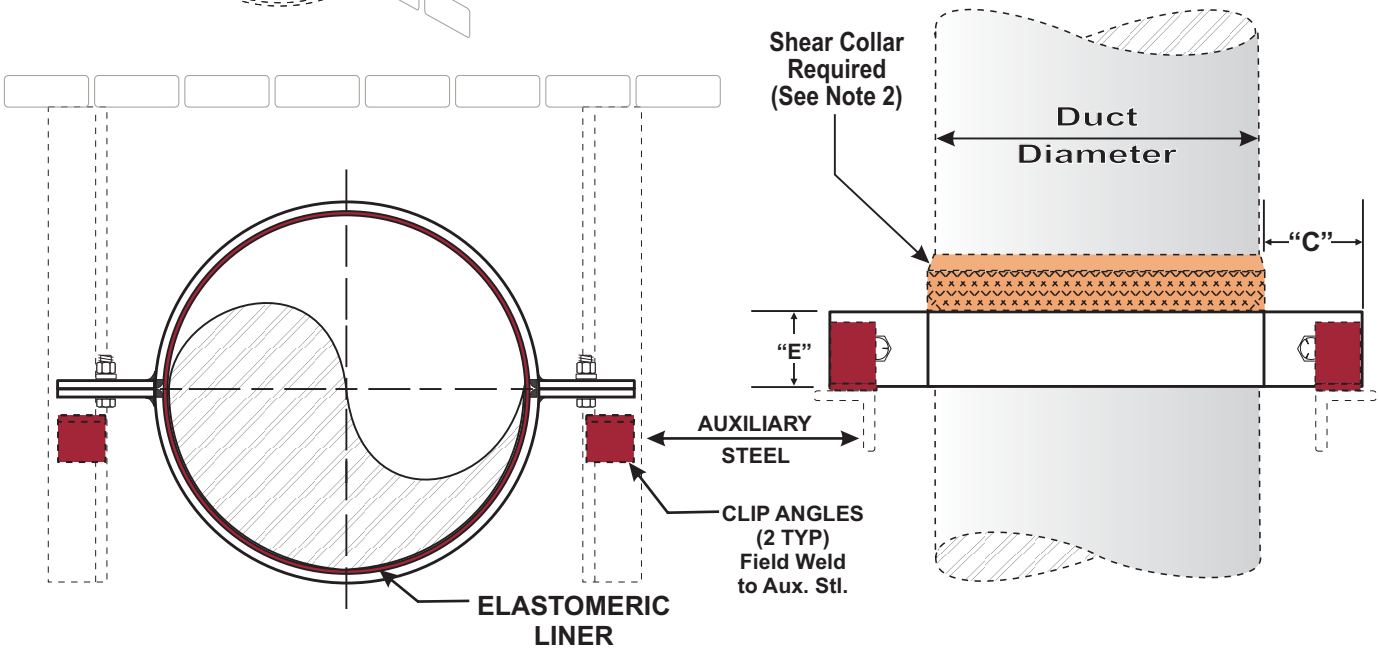


**APPLICATION:** Used to support and stabilize vertical runs of duct to prevent buckling and overstress of adjacent horizontal runs when cast, filament wound, or contact molded FRP, or other non-metallics are used in duct systems.

**MATERIALS:** Carbon Steel, Stainless, and other alloys.

**ELASTOMERIC LINER:** Red rubber, Neoprene, EPDM, Viton.

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "E" | 2" | 2" | 2" | 3" | 3" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 5" | 5" | 6" |
| "C" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 4" | 4" | 4" | 4" | 4" | 4" | 4" | 4" |
| Vertical Load | 400 | 400 | 400 | 600 | 600 | 850 | 850 | 850 | 1,100 | 1,100 | 1,400 | 1,400 | 1,900 | 1,900 | 2,200 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "E" | 6" | 6" | 8" | 8" | 8" | 10" | 10" | 10" |
| "C" | 4" | 4" | 4" | 4" | 4" | 4" | 4" | 4" |
| Vertical Load | 3,000 | 3,000 | 3,000 | 3,700 | 3,700 | 3,700 | 3,700 | 3,700 |

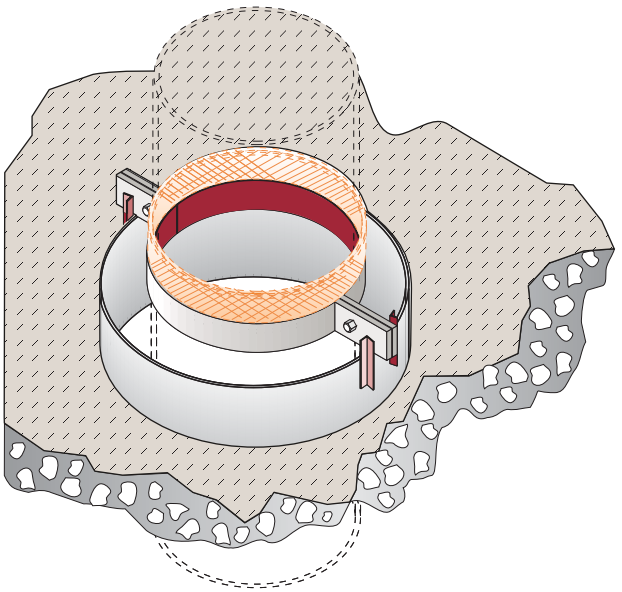
**NOTES:**

1. Clip Angles required, but are not supplied unless requested.
2. Shear Collar essential, but must be ordered separately from DS-6.

# JOVE® GUIDE - RISER

## Model No. DS-6G © Copyright, 1998 REV 26 A



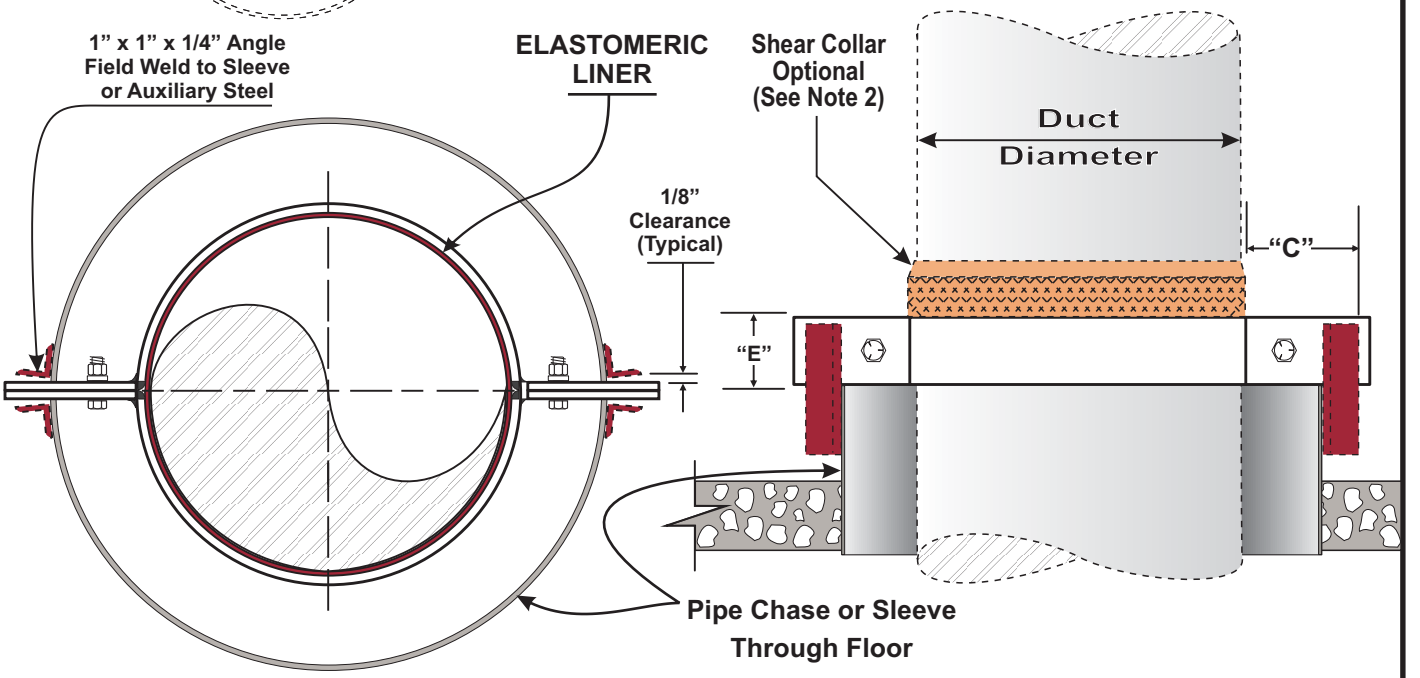


**APPLICATION:** Used to guide and stabilize vertical runs of duct to prevent buckling and overstress of adjacent horizontal runs when cast, filament wound, or contact molded FRP, or other non-metallics are used in duct systems.

**MATERIALS:** Carbon Steel, Stainless, and other alloys.

**ELASTOMERIC LINER:** Red rubber, Neoprene, EPDM, Viton.

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "E" | 2" | 2" | 2" | 3" | 3" | 3" | 3" | 3" | 3" | 4" | 4" | 4" | 5" | 5" | 5" |
| "C" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| Vertical Load | 400 | 400 | 400 | 400 | 400 | 600 | 600 | 600 | 600 | 750 | 1,000 | 1,000 | 1,300 | 1,300 | 1,300 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "E" | 5" | 6" | 6" | 8" | 8" | 10" | 10" | 12" |
| "C" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| Vertical Load | 1,300 | 1,445 | 1,445 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 |

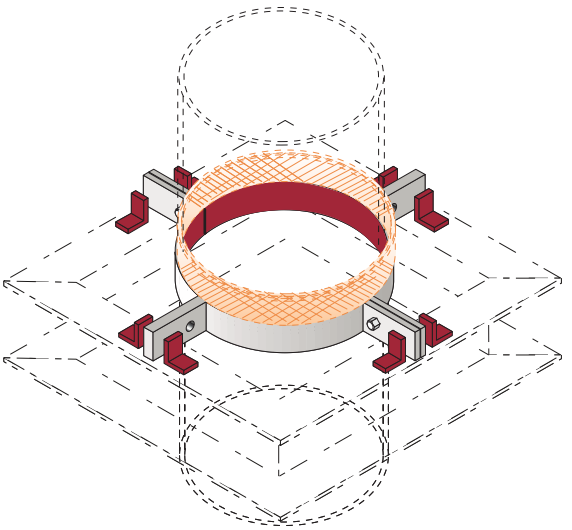
**NOTES:**

1. Clip Angles are required, but are not supplied unless requested.
2. Shear Collar optional, but must be ordered separately from DS-6G.

# JOVE® GUIDE - RISER, HEAVY DUTY

## Model No. DS-6GQ © Copyright, 1998 REV 26 A



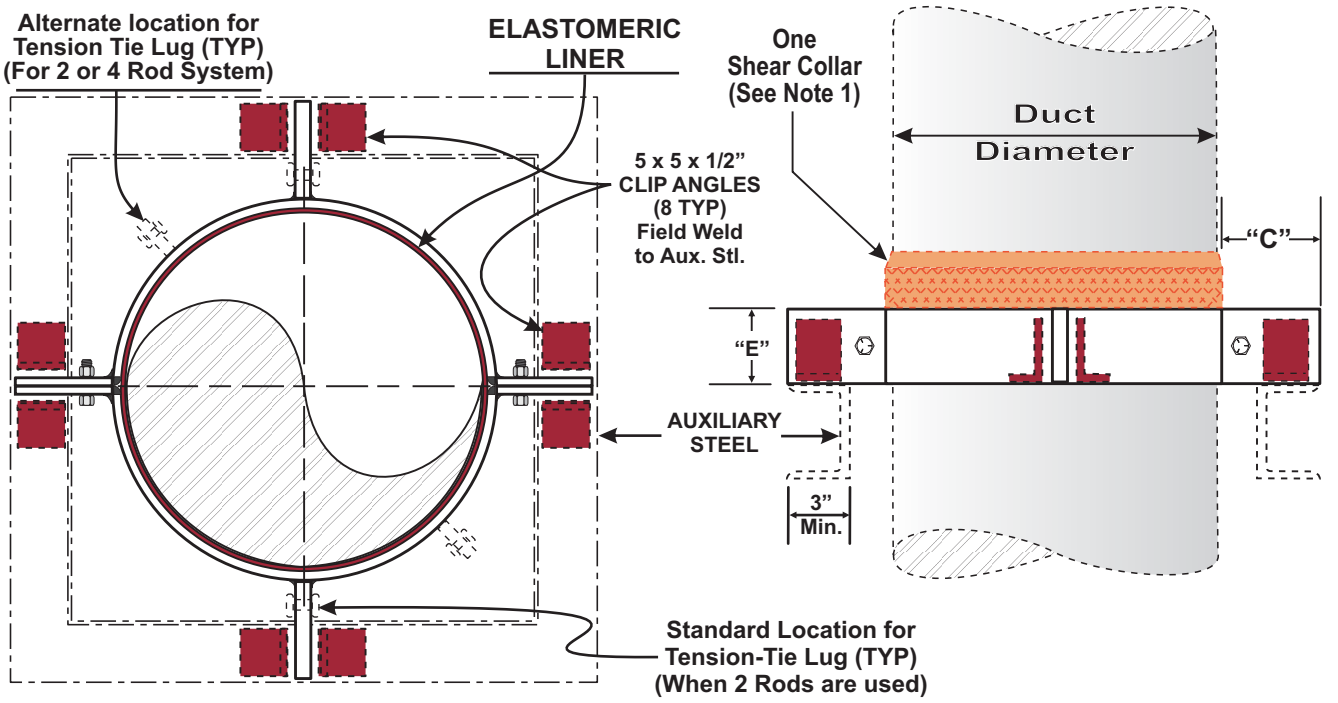


**APPLICATION:** Where riser movement down is restricted and lateral movement is limited, the DS-6GQ's four supporting lugs and greater load capacity ensures that vertical runs of non-metallic duct (cast, filament wound, or contact molded FRP) are secured in the down direction while allowing movement up. The DS-6GQ was designed to be used with tension-tie systems (See DS-6T Dwg.) to secure very long risers with short offsets to equipment nozzles.

**MATERIALS:** Carbon Steel, Stainless, and other alloys.

**ELASTOMERIC LINER:** Red rubber, Neoprene, EPDM, Viton.

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "E" | 2" | 2" | 2" | 3" | 3" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 5" | 6" | 6" |
| "C" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| Vertical Load | 900 | 900 | 900 | 1,465 | 1,465 | 2,500 | 2,485 | 2,430 | 3,226 | 3,208 | 4,820 | 4,680 | 8,079 | 4,439 | 8,998 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "E" | 6" | 6" | 6" | 8" | 10" | 10" | 12" | 12" |
| "C" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| Vertical Load | 15,160 | 14,650 | 14,177 | 17,950 | 21,310 | 20,150 | 21,900 | 30,877 |

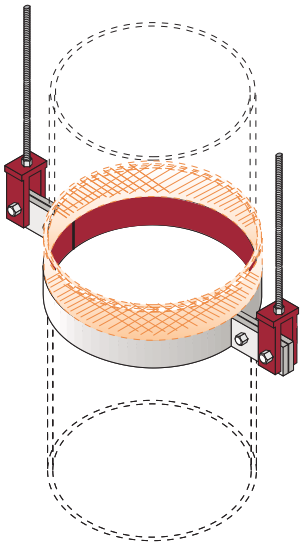
**OPTIONS:**

1. Shear Collars, (See Shear Collar Detail)
2. Clip Angles with bolting (See Clip Detail)
3. Tension Tie Lugs (See DS-6T)
4. Aux. Steel, Trapezes, Duct Racks, etc.

(NOTE: Options not supplied unless requested.)

# JOVE® HANGER - RISER
## Model No. DS-6H © Copyright, 1998 REV 26 A



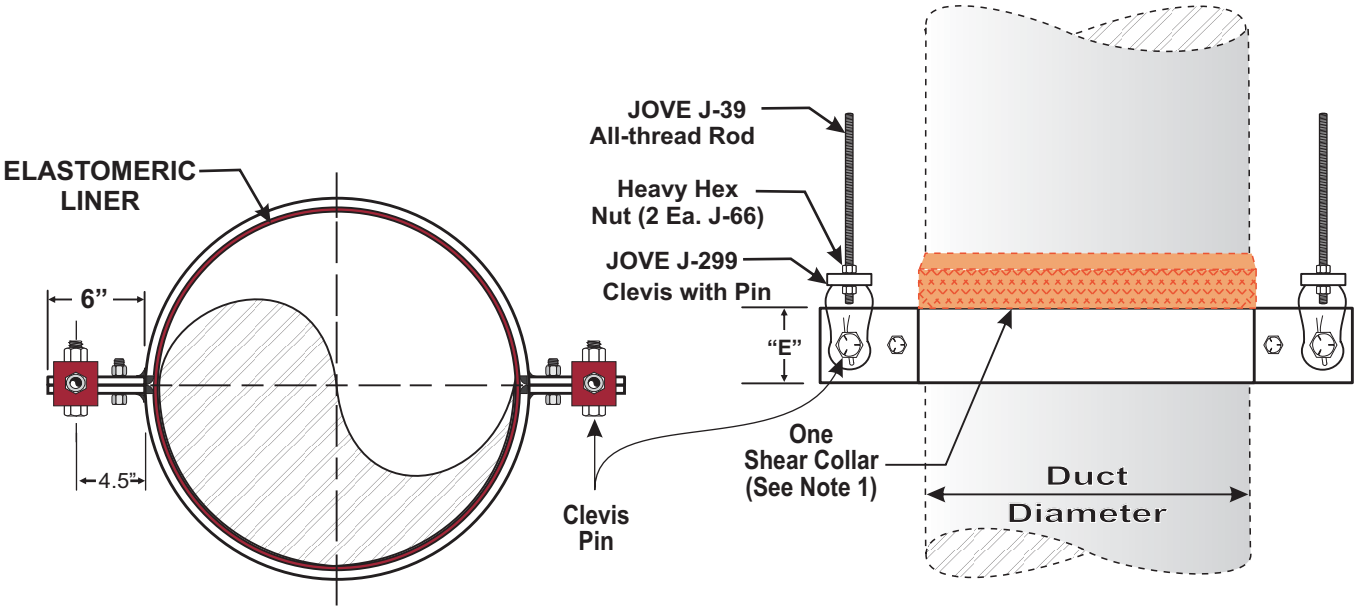


**APPLICATION:** Where support steel is not present, used to support and stabilize vertical runs of duct to prevent buckling and overstress of adjacent horizontal runs when cast, filament wound, or contact molded FRP, or other non-metallics are used in duct systems.

**MATERIALS:** Carbon Steel, Stainless, and other alloys.

**ELASTOMERIC LINER:** Red rubber, Neoprene, EPDM, Viton.

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2” | 3” | 4” | 6” | 8” | 10” | 12” | 14” | 16” | 18” | 20” | 24” | 30” | 36” | 42” |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| “E” | 2” | 2” | 2” | 3” | 3” | 3” | 3” | 3” | 3” | 4” | 4” | 4” | 5” | 5” | 6” |
| Pin Diameter | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 5/8” | 5/8” |
| Rod Diameter | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 1/2” | 1/2” |
| Vertical Load | 400 | 400 | 400 | 400 | 400 | 600 | 600 | 600 | 600 | 775 | 1,000 | 1,000 | 1,200 | 1,600 | 1,750 |

| DUCT DIA. | 48” | 54” | 60” | 72” | 84” | 96” | 120” | 144” |
|---|---|---|---|---|---|---|---|---|
| “E” | 6” | 6” | 6” | 6” | 10” | 10” | 10” | 12” |
| Pin Diameter | 5/8” | 5/8” | 5/8” | 5/8” | 5/8” | 3/4” | 3/4” | 3/4” |
| Rod Diameter | 1/2” | 1/2” | 1/2” | 1/2” | 1/2” | 5/8” | 5/8” | 5/8” |
| Vertical Load | 1,750 | 1,750 | 1,750 | 1,750 | 2,000 | 2,750 | 2,750 | 2,850 |

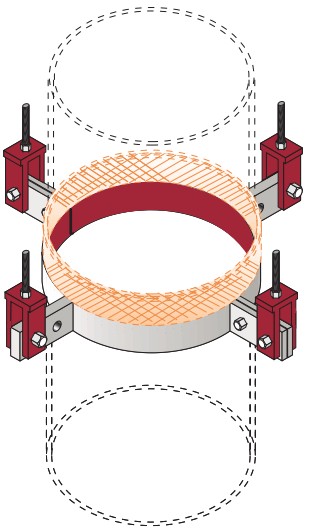
**OPTIONS:**
1. Shear Collars, (See Shear Collar Detail)
2. Rod Assemblies (See Detail)
3. Aux. Steel, Trapezes, Duct Racks, etc.

(NOTE: Options not supplied unless requested.)

# JOVE® HANGER - RISER, HEAVY DUTY

## Model No. DS-6HQ © Copyright, 1998 REV 26 A



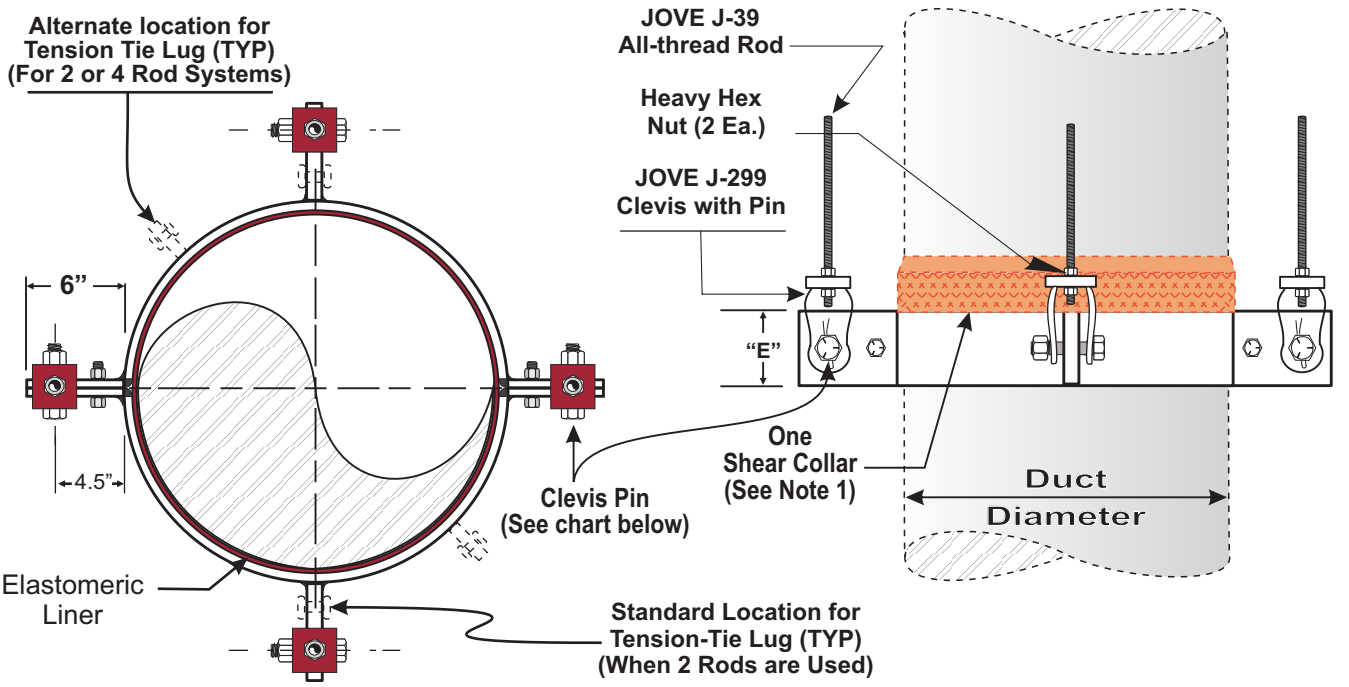


**APPLICATION**: Where support steel is not present, the DS-6HQ's four supporting lugs and greater load capacity provides strength to hang vertical runs of non-metallic duct (cast, filament wound, or contact molded FRP). The DS-6HQ was designed to be used with tension-tie systems (See DS-6T Dwg.) to secure very long risers with short offsets to equipment nozzles.

**MATERIALS**: Carbon Steel, Stainless, and other alloys.

**ELASTOMERIC LINER**: Red rubber, Neoprene, EPDM, Viton.

**FINISHES**: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "E" | 2" | 2" | 2" | 3" | 3" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 5" | 6" | 6" |
| Pin Diameter | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 1" | 1" | 1-1/8" | 1-1/8" | 1-1/8" |
| Rod Diameter | 3/8" | 3/8" | 3/8" | 1/2" | 1/2" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 3/4" | 3/4" | 1" | 1" | 1" |
| Vertical Load | 900 | 900 | 900 | 1,465 | 1,465 | 2,500 | 2,485 | 2,430 | 3,226 | 3,208 | 4,820 | 4,680 | 8,079 | 4,439 | 8,998 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "E" | 6" | 6" | 6" | 8" | 10" | 10" | 12" | 12" |
| Pin Diameter | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" | 1-3/8" |
| Rod Diameter | 1-1/4" | 1-1/4" | 1-1/4" | 1/14" | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" |
| Vertical Load | 15,160 | 14,650 | 14,177 | 17,950 | 21,310 | 20,150 | 21,900 | 30,877 |

**OPTIONS:**

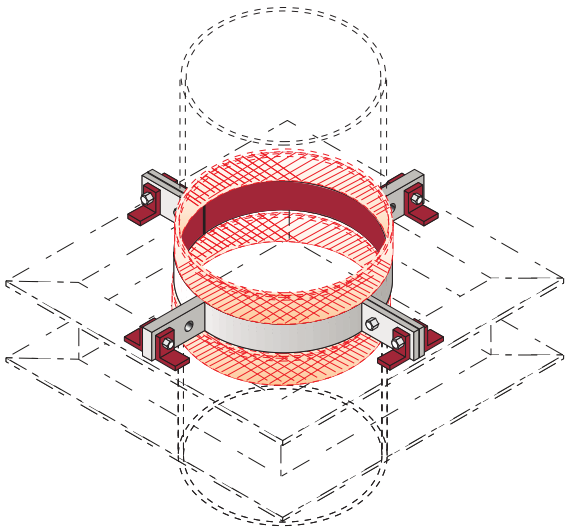
1. Shear Collars, (See Shear Collar Detail)
2. Clip Angles with bolting (See Clip Detail)
3. Tension Tie Lugs (See DS-6T)
4. Aux. Steel, Trapezes, Duct Racks, etc.

(NOTE: Options not supplied unless requested.)

# JOVE® ANCHOR - RISER, HEAVY DUTY

## Model No. DS-6Q © Copyright, 1998 REV 26 A



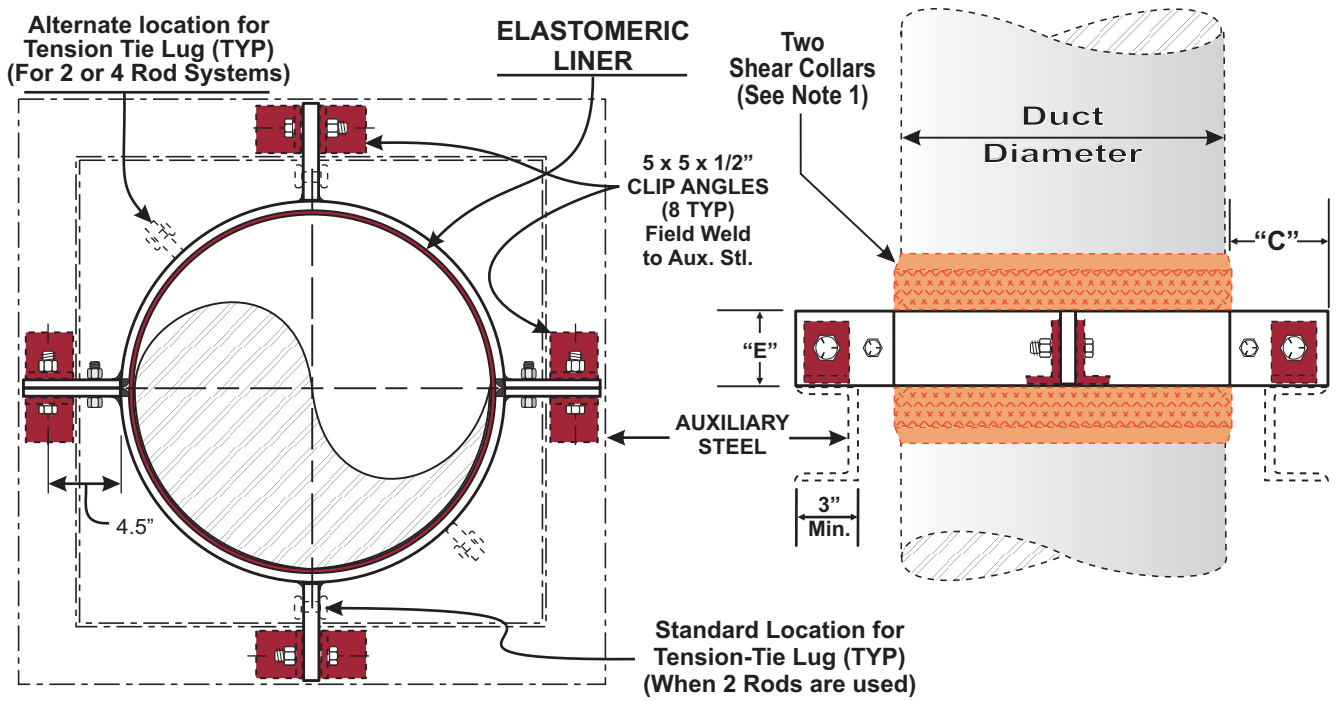


**APPLICATION:** Where strong anchoring is required, the DS-6Q's four supporting lugs and greater load capacity ensures that vertical runs of non-metallic duct (cast, filament wound, or contact molded FRP) are securely anchored in all directions. The DS-6Q was designed to be used with tension-tie systems (See DS-6T Dwg.) to secure very long risers with short offsets to equipment nozzles.

**MATERIALS:** Carbon Steel, Stainless, and other alloys.

**ELASTOMERIC LINER:** Red rubber, Neoprene, EPDM, Viton.

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "E" | 2" | 2" | 2" | 3" | 3" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 5" | 6" | 6" |
| "C" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| Vertical Load | 900 | 900 | 900 | 1,465 | 1,465 | 2,500 | 2,485 | 2,430 | 3,226 | 3,208 | 4,820 | 4,680 | 8,079 | 4,439 | 8,998 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "E" | 6" | 6" | 6" | 8" | 10" | 10" | 12" | 12" |
| "C" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| Vertical Load | 15,160 | 14,650 | 14,177 | 17,950 | 21,310 | 20,150 | 21,900 | 30,877 |

**OPTIONS:**

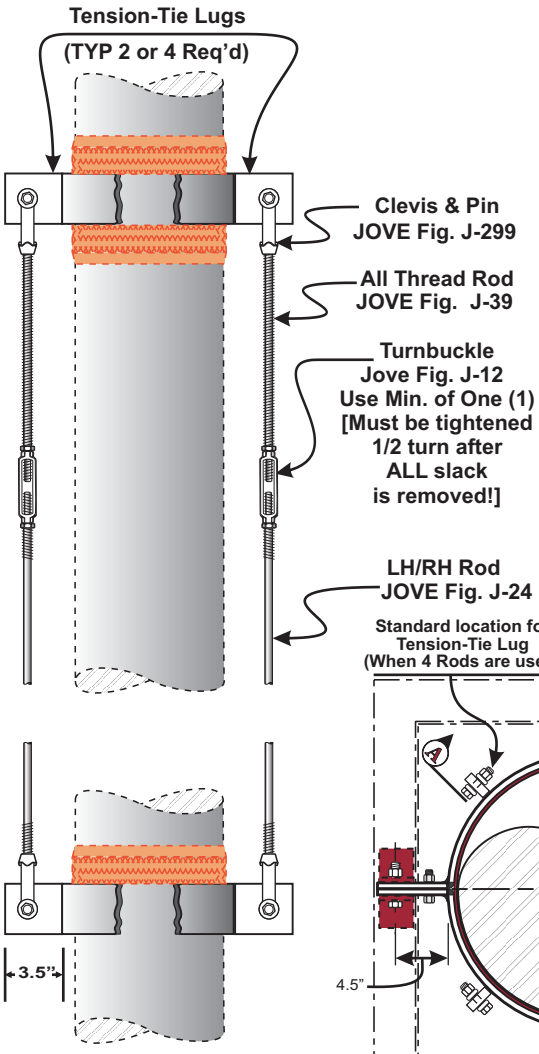
1. Shear Collars, (See Shear Collar Detail)
2. Clip Angles with bolting (See Clip Detail)
3. Tension Tie Lugs (See DS-6T)
4. Aux. Steel, Trapezes, Duct Racks, etc.

(NOTE: Options not supplied unless requested.)

# JOVE® ANCHOR - TENSION TIE SYSTEM

## Model No. DS-6T © Copyright, 1998 REV 26 A





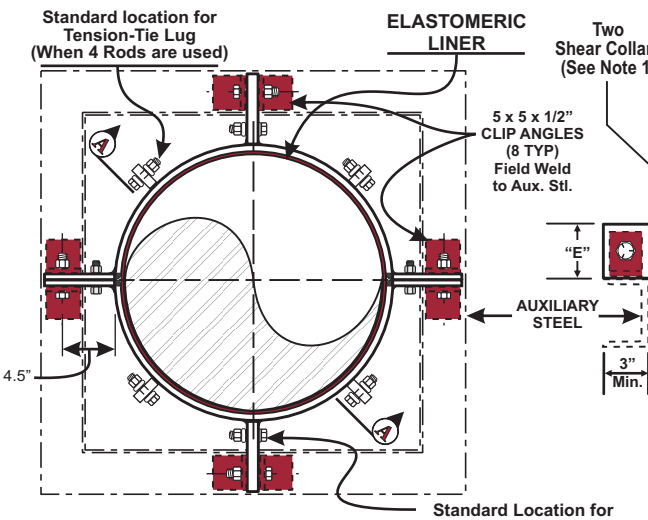

**SECTION A-A**

**APPLICATION:** When long risers with short offsets to equipment nozzles are required, JOVE's Tension -Tie System provides the necessary anchoring and support for vertical runs of non-metallic duct (cast, filament wound, or contact molded FRP). Both riser clamps in the Tension Tie System should be DS-6Q, DS-6GQ, or DS-6HQ. (See DS-6Q for Isometric View)

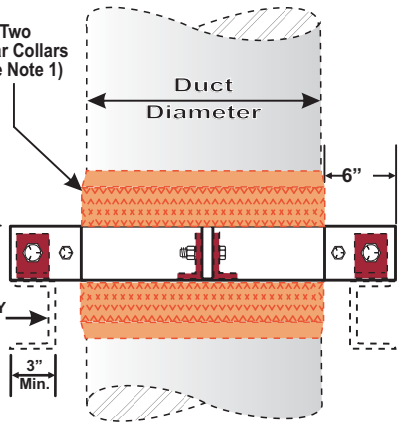
**MATERIALS:** Carbon Steel, Stainless, and other alloys.

**ELASTOMERIC LINER:** Red rubber, Neoprene, EPDM, Viton.

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.




**PLAN VIEW**




**ELEVATION VIEW**

| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "E" | 2" | 2" | 2" | 3" | 3" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 5" | 6" | 6" |
| Rod Diameter | 3/8" | 3/8" | 3/8" | 1/2" | 1/2" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 3/4" | 3/4" | 1" | 1" | 1" |
| Rod quantity | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Vertical Load | 900 | 900 | 900 | 1,465 | 1,465 | 2,500 | 2,485 | 2,430 | 3,226 | 3,208 | 4,820 | 4,680 | 8,079 | 4,439 | 8,998 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "E" | 6" | 6" | 6" | 8" | 10" | 10" | 12" | 12" |
| Rod Diameter | 1-1/4" | 1-1/4" | 1-1/4" | 1/14" | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" |
| Rod Quantity | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Vertical Load | 15,160 | 14,650 | 14,177 | 17,950 | 21,310 | 20,150 | 21,900 | 30,877 |

**OPTIONS:**

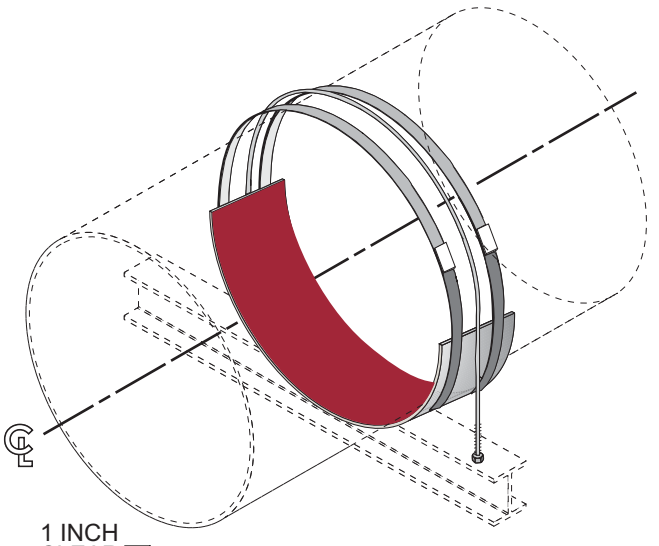
1. Shear Collars, (See Shear Collar Detail)
2. Clip Angles with bolting (See Clip Detail)
3. Diagonal location for two rod system is optional.
4. C- channel Rings, Aux. Steel, Trapezes, Duct Racks, etc.

(NOTE: Options not supplied unless requested.)

# JOVE® GUIDE - SADDLE

## Model No. DS-7 © Copyright, 1998 REV 26 A



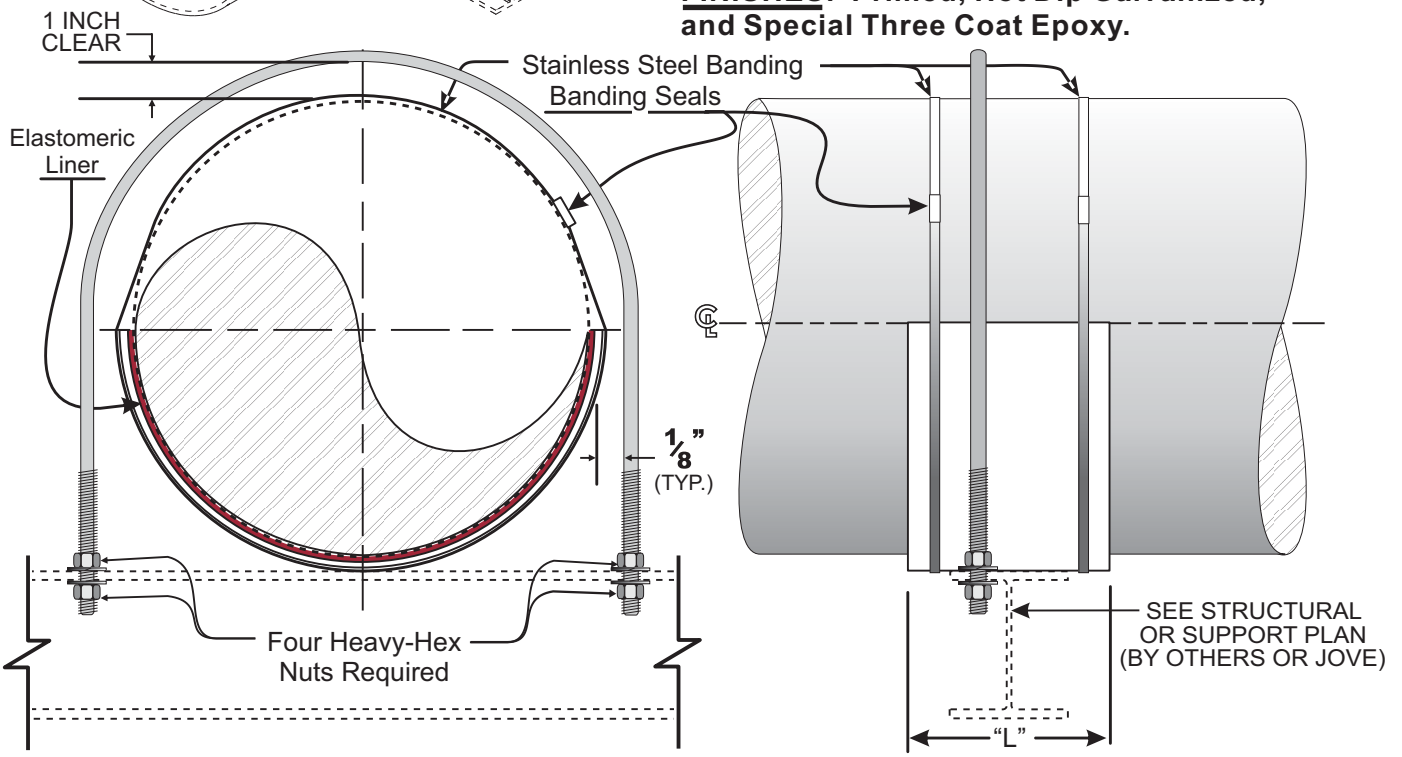


**APPLICATION: Provides simple 180° support and guiding for cast, filament wound, or contact molded FRP, and other non-metallic duct. Used between full duct anchors to allow axial movement while restraining lateral movement due to expansion.**

**MATERIALS: Carbon Steel, Stainless, and other alloys.**

**ELASTOMERIC LINER: Red rubber, Neoprene, EPDM, Viton.**

**FINISHES: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.**




See Note 3 below.

| DUCT Dia. | 1" | 1-1/2" | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" |
|---|---|---|---|---|---|---|---|---|---|---|
| "L" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | N/A |
| Vertical Load | 400 | 400 | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | N/A |

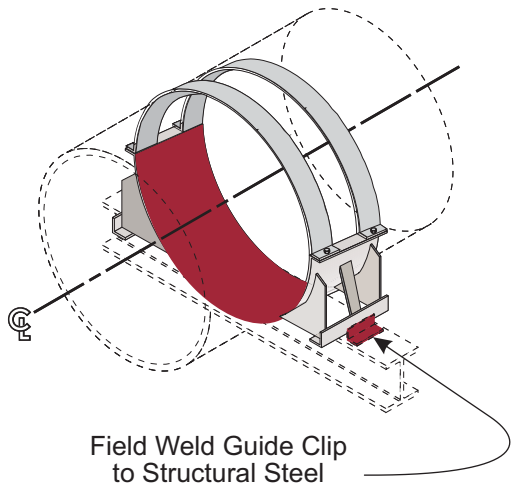
**NOTES:**

1. **DS-7 Includes Saddle & Liner; order SS Banding separately.**
2. **DS-7 not recommended for locations above personnel areas.**
3. **DS-8 recommended above 4" nom.**

# JOVE® GUIDE - w/TWO STRAPS

## Model No. DS-8 © Copyright, 1998 REV 26 A



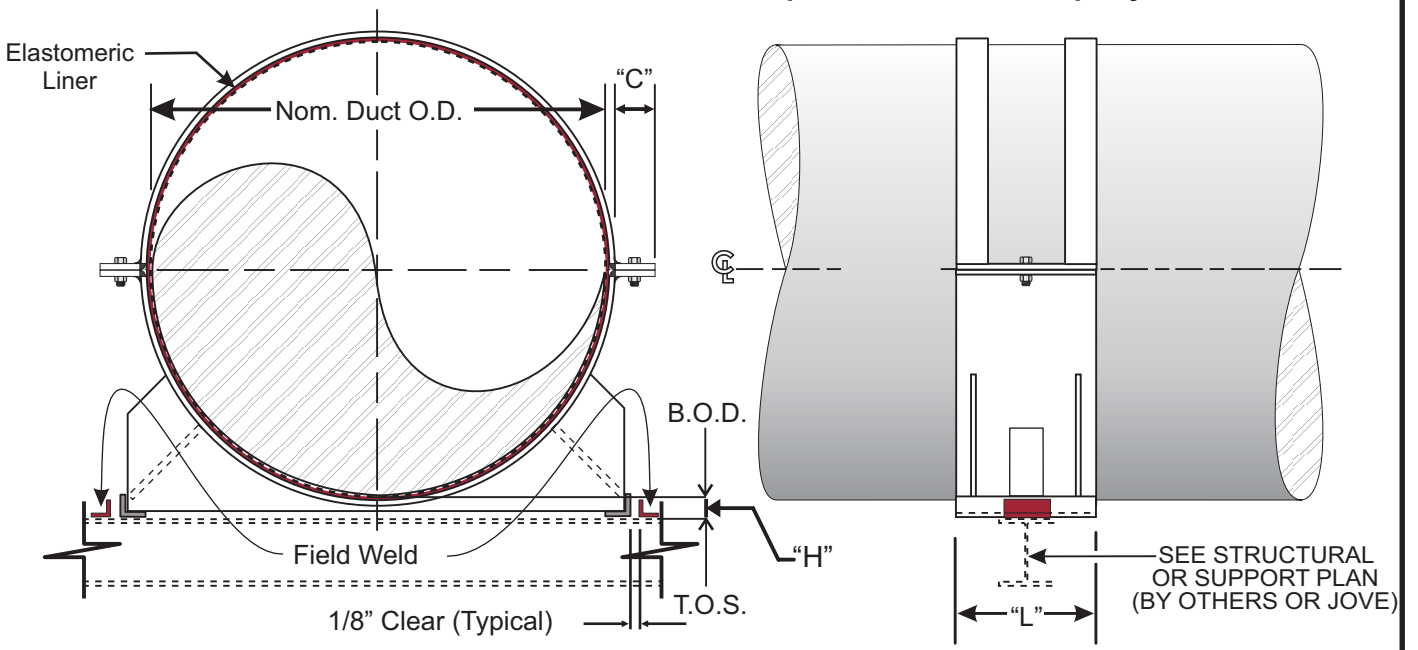



**APPLICATION: Provides simple support and guiding for cast, filament wound, or contact molded FRP, and other non-metallic duct. Used between anchors to allow axial movement while restraining lateral movement due to expansion.**

**MATERIALS: Carbon Steel, Stainless, and other alloys.**

**ELASTOMERIC LINER: Red rubber, Neoprene, EPDM, Viton.**

**FINISHES: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.**




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "C" | 1-1/4" | 1-1/4" | 1-1/4" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| "L" | 8" | 8" | 8" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 12" | 12" | 12" | 12" |
| "H" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" |
| Vertical Load | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | 2,800 | 3,200 | 3,300 | 3,400 | 3,700 | 4,000 | 4,300 | 4,600 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "C" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| "L" | 12" | 12" | 12" | 16" | 16" | 16" | 20" | 20" |
| "H" | 1-5/8" | 1-5/8" | 4" | 4" | 4" | 4" | 4" | 4" |
| Vertical Load | 4,900 | 5,400 | 5,600 | 5,800 | 6,000 | 6,200 | 6,400 | 6,700 |

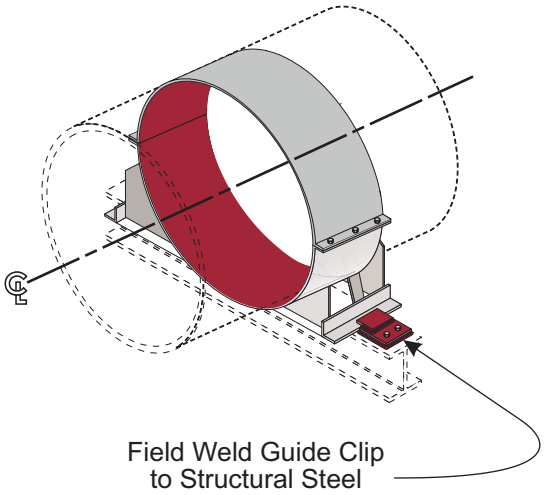
**NOTES:**

1. **Clip Angles (2 Ea.) not supplied unless requested. Order Separately.**
2. **DS-8 may be modified to allow only axial movement. (See Guide Clip Cut Sheet).**

# JOVE® GUIDE - w/FULL CAP

## Model No. DS-8G © Copyright, 1998 REV 26 A



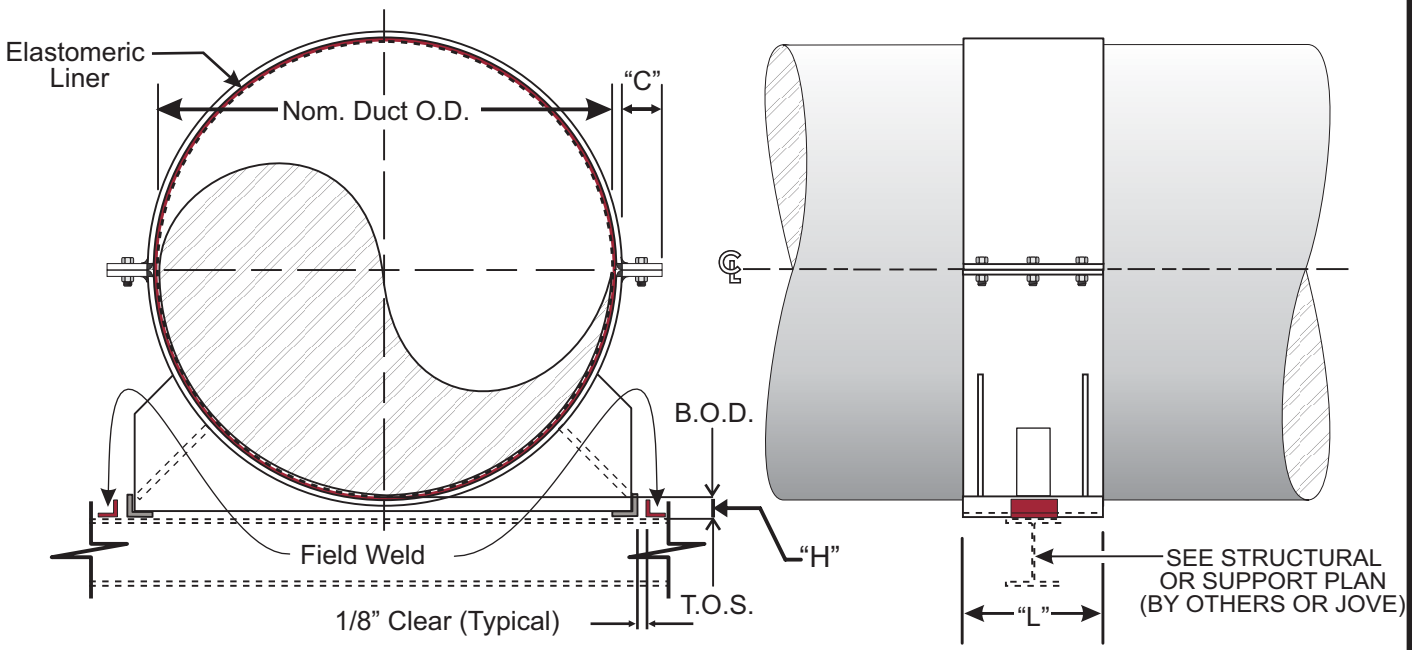



**APPLICATION: Provides simple support and guiding for cast, filament wound, contact molded FRP, and other non-metallic duct. Used between anchors to allow axial movement while restraining lateral movement due to expansion.**

**MATERIALS: Carbon Steel, Stainless, and other alloys.**

**ELASTOMERIC LINER: Red rubber, Neoprene, EPDM, Viton.**

**FINISHES: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.**




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "C" | 1-1/4" | 1-1/4" | 1-1/4" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| "L" | 8" | 8" | 8" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 12" | 12" | 12" | 12" |
| "H" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" |
| Vertical Load | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | 2,800 | 3,200 | 3,300 | 3,400 | 3,700 | 4,000 | 4,300 | 4,600 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "C" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| "L" | 12" | 12" | 12" | 16" | 16" | 16" | 20" | 20" |
| "H" | 1-5/8" | 1-5/8" | 4" | 4" | 4" | 4" | 4" | 4" |
| Vertical Load | 4,900 | 5,400 | 5,600 | 5,800 | 6,000 | 6,200 | 6,400 | 6,700 |

**NOTES:**

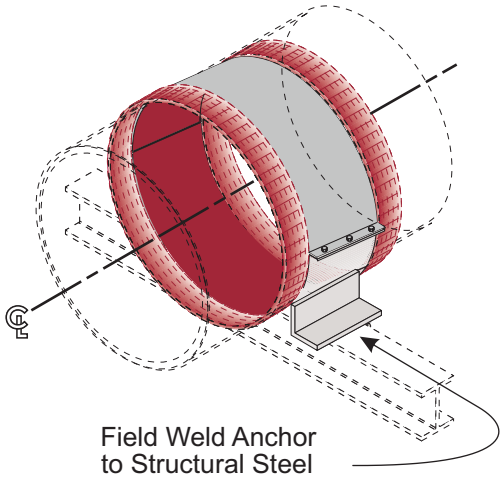
1. **Clip Angles (2 Ea.) not supplied unless requested. Order Separately.**
2. **DS-8 may be modified to allow only axial movement. (See Guide Clip Cut Sheet).**

# JOVE® ANCHOR - LIGHT DUTY

## Model No. DS-9

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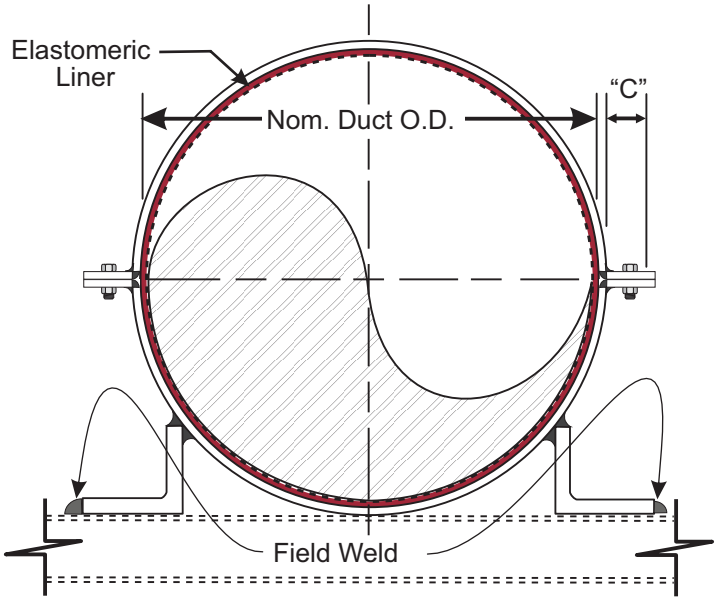
Field Weld Anchor
to Structural Steel

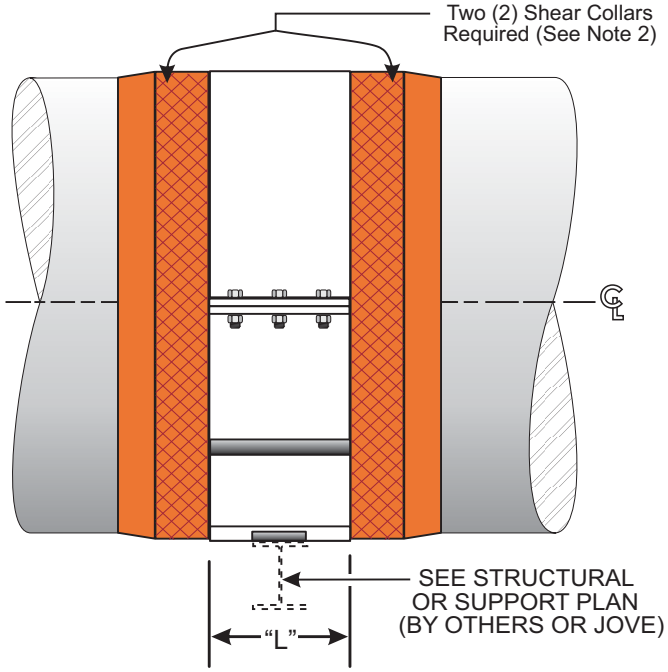
**APPLICATION: Provides full anchor for restraining thermal expansion in long horizontal runs of cast, filament wound, contact molded FRP, and other non-metallic duct. When used with two Shear Collars, absorbs full anchor loads and fully restrains duct without local overstress.**

**MATERIALS: Carbon Steel, Stainless, and other alloys.**

**ELASTOMERIC LINER: Red rubber, Neoprene, EPDM, Viton.**

**FINISHES: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.**




| Duct Dia. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" through 144" |
|---|---|---|---|---|---|---|---|---|
| "L" | 6" | 6" | 6" | 8" | 8" | 8" | 8" | DS-9 NOT recommended for duct sizes above 12"; DS-10 (see page 20) recommended for sizes greater than 4". |
| "C" | 1-1/4" | 1-1/4" | 1-1/4" | 2" | 2" | 2" | 2" | |
| Vertical Load | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | |
| Axial Load | 1,500 | 2,200 | 3,000 | 3,000 | 4,000 | 4,000 | 4,000 | |

**NOTES:**

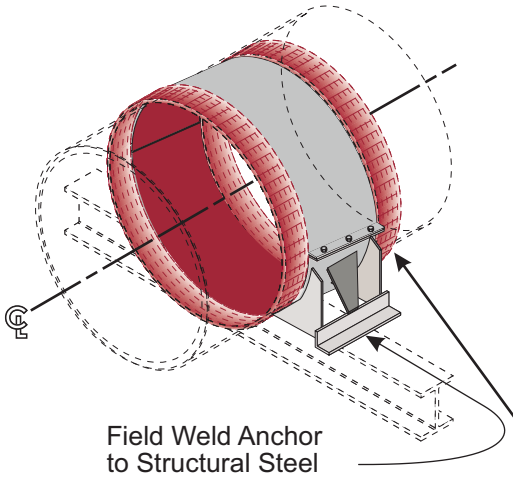
1. **Shear Collars not supplied unless requested.**
2. **Axial Load Capacity based on use of two shear collars per anchor.**

# JOVE® ANCHOR - HEAVY DUTY

## Model No. DS-10

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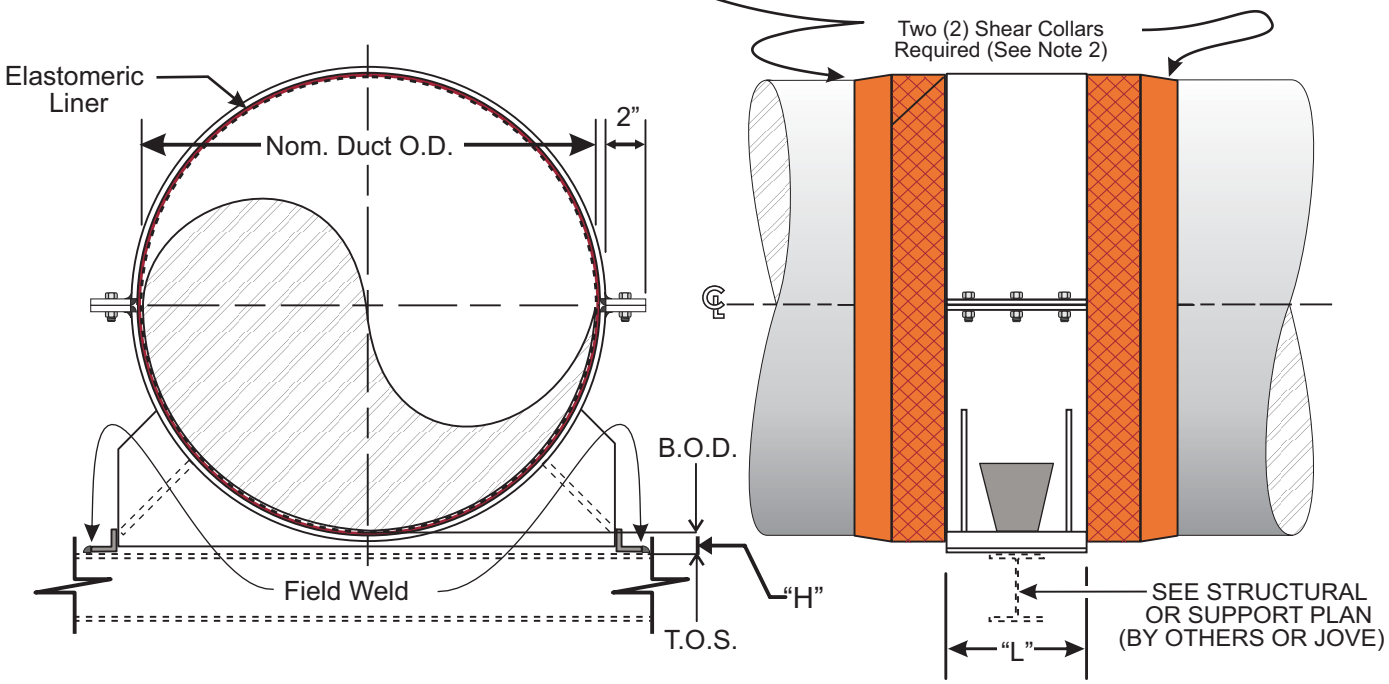



**APPLICATION: Provides full anchor for restraining thermal expansion in long horizontal runs of cast, filament wound, contact molded FRP, and other non-metallic duct. Absorbs full anchor loads and fully restrains duct without local overstress.**

**MATERIALS: Carbon Steel, Stainless, and other alloys.**

**ELASTOMERIC LINER: Red rubber, Neoprene, EPDM, Viton.**

**FINISHES: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.**




| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "L" | 6" | 6" | 6" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 10" | 12" | 12" | 12" | 12" |
| "H" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" | 1-5/8" |
| Vertical Load | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | 2,800 | 3,200 | 3,300 | 3,400 | 3,700 | 4,000 | 4,300 | 4,600 |
| Axial Load | 1,500 | 2,200 | 3,000 | 4,000 | 5,000 | 6,500 | 7,500 | 8,500 | 12,500 | 14,000 | 15,000 | 22,000 | 27,000 | 32,000 | 32,000 |

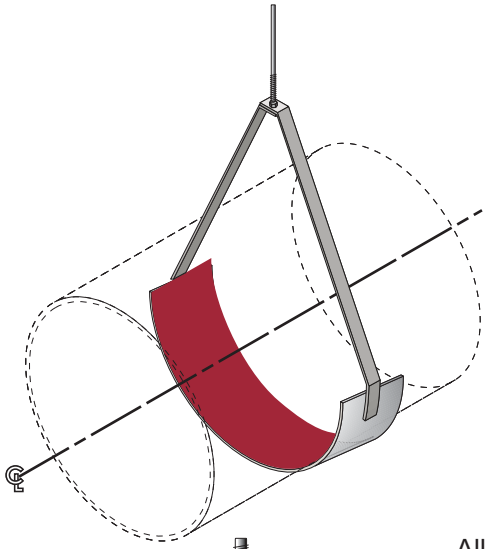
| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "L" | 12" | 12" | 12" | 16" | 16" | 16" | 20" | 20" |
| "H" | 1-5/8" | 1-5/8" | 4" | 4" | 4" | 4" | 4" | 4" |
| Vertical Load | 4,900 | 5,400 | 5,600 | 5,800 | 6,000 | 6,200 | 6,400 | 6,700 |
| Axial Load | 32,000 | 32,000 | 32,000 | 32,000 | 32,000 | 32,000 | 32,000 | 32,000 |

**NOTES:**

1. **Shear Collars Required (2 Ea.) with each DS-10. Order Separately. (See Shear Collar Detail)**
2. **Axial Load capacity may be achieved only when two shear collars per anchor are used.**

# JOVE® HANGER
## Model No. DS-11 © Copyright, 1998 REV 26 A



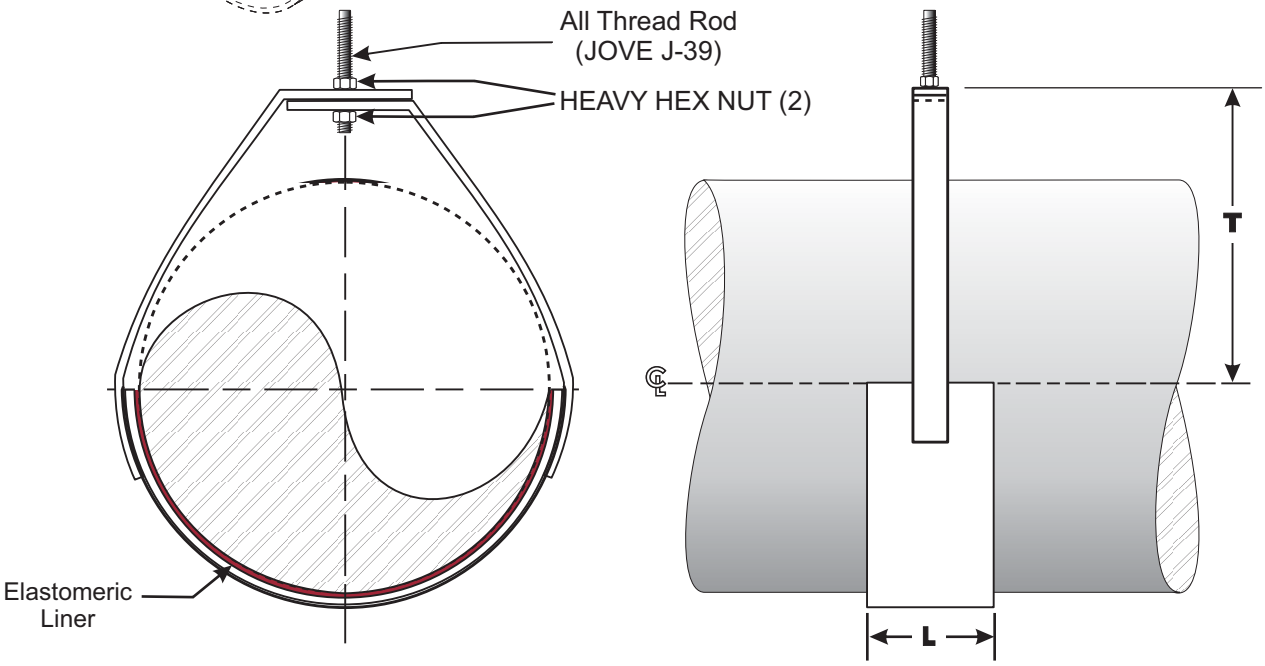


**APPLICATION: Where support structure is above the Duct, provides hanger-type long saddle support for cast, filament wound, or contact molded FRP, or other non-metallics. Due to non-metallic duct flexibility, DS-11s should not be used exclusively in long runs of duct.**

**MATERIALS: Carbon Steel, Stainless, and other alloys.**

**ELASTOMERIC LINER: Red rubber, Neoprene, EPDM, Viton.**

**FINISHES: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.**




| Duct Dia. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" |
|---|---|---|---|---|---|---|---|---|---|---|
| "L" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 6" | 6" | 6" |
| "T" | 3-1/2" | 5" | 6" | 7 3/4" | 9 3/4" | 11 3/4" | 14" | 16 1/4" | 18 3/8" | 20 5/8" |
| ROD SIZE | 3/8" | 3/8" | 3/8" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" |
| Vertical Load | 400 | 400 | 400 | 600 | 600 | 850 | 850 | 850 | 1,100 | 1,100 |

| Duct Dia. | 20" | 24" through 144" |
|---|---|---|
| "L" | 6" | See Note No. 2 |
| "T" | 24" | |
| ROD SIZE | 5/8" | |
| Vertical Load | 1,400 | |

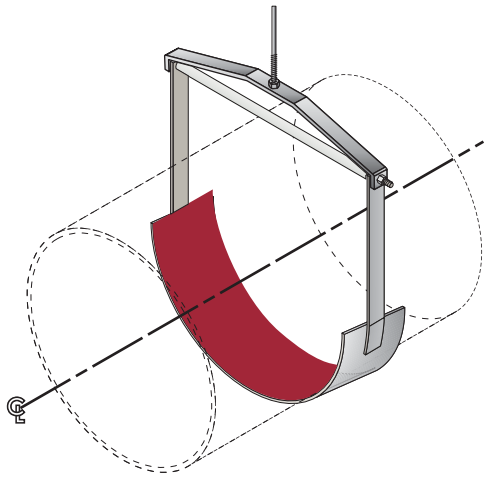
### NOTES:

1. **Rod Assemblies available from JOVE. Order separately from each DS-11.**
2. **JOVE recommends use of the DS-11C for duct sizes greater than 20".**

# JOVE® HANGER
## Model No. DS-11C

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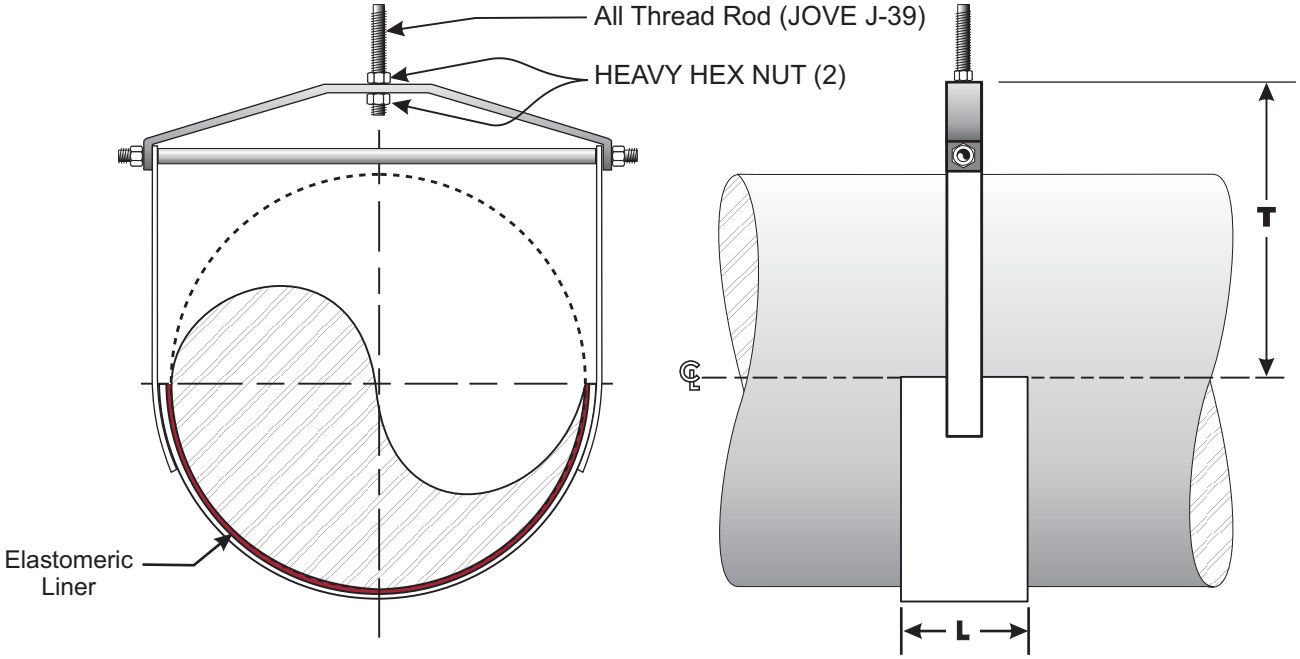


**APPLICATION: Where support structure is above the Duct, provides hanger-type long saddle support for cast, filament wound, or contact molded FRP, or other non-metallics. Due to non-metallic duct flexibility, DS-11Cs should not be used exclusively in long runs of duct.**

**MATERIALS: Carbon Steel, Stainless, and other alloys.**

**ELASTOMERIC LINER: Red rubber, Neoprene, EPDM, Viton.**

**FINISHES: Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.**



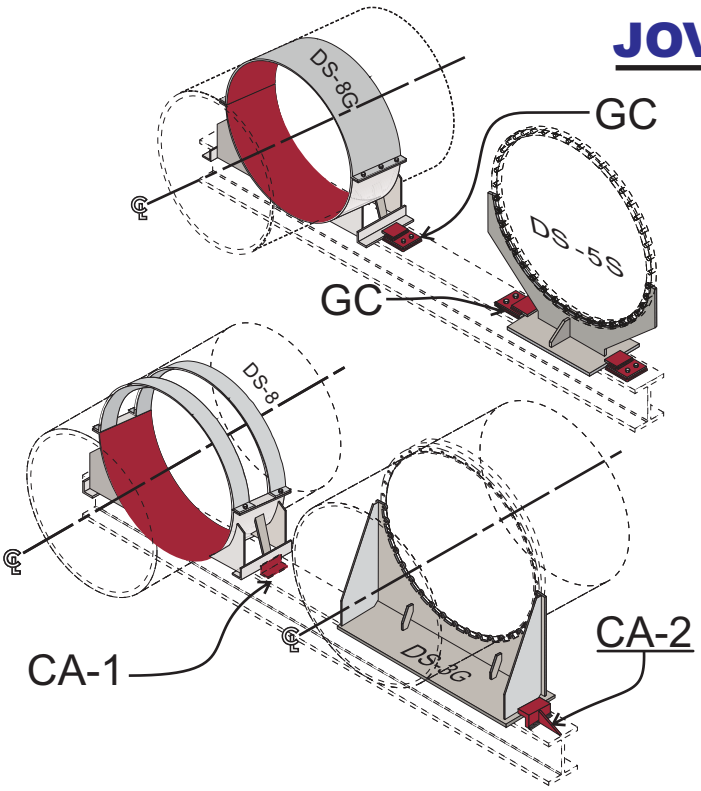

| DUCT DIA. | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "L" | 4" | 4" | 4" | 4" | 4" | 4" | 4" | 6" | 6" | 6" | 6" | 8" | 8" | 8" | 12" |
| "T" | 5-5/8" | 6-1/8" | 7-3/8" | 8-7/8" | 9-7/8" | 11-3/4" | 13" | 14-1/2" | 17-1/8" | 18-1/4" | 19-7/8" | 22-3/8" | 26-1/8" | 30-7/8" | 35-7/8" |
| Rod Diameter | 3/8" | 1/2" | 1/2" | 5/8" | 5/8" | 3/4" | 3/4" | 7/8" | 7/8" | 7/8" | 7/8" | 1" | 1" | 1" | 1" |
| Vertical Load | 400 | 600 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | 2,800 | 3,200 | 3,300 | 3,400 | 3,700 | 4,000 | 4,300 | 4,600 |

| DUCT DIA. | 48" | 54" | 60" | 72" | 84" | 96" | 120" | 144" |
|---|---|---|---|---|---|---|---|---|
| "L" | 12" | 12" | 12" | 12" | 12" | 16" | 16" | 16" |
| "T" | 41" | 47" | 50-1/2" | 60-5/8" | 69-15/16" | 79-3/16" | 97-3/4" | 116-1/4" |
| Rod Diameter | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/4" | 1-1/44" | 1-1/4" |
| Vertical Load | 4,900 | 5,400 | 5,600 | 5,800 | 6,000 | 6,200 | 6,400 | 6,700 |

### NOTES:

1. Rod Assemblies available from JOVE. Order separately from each DS-11C.
2. Bolting Assembly above duct aids in fit-up after attaching yoke to rod.

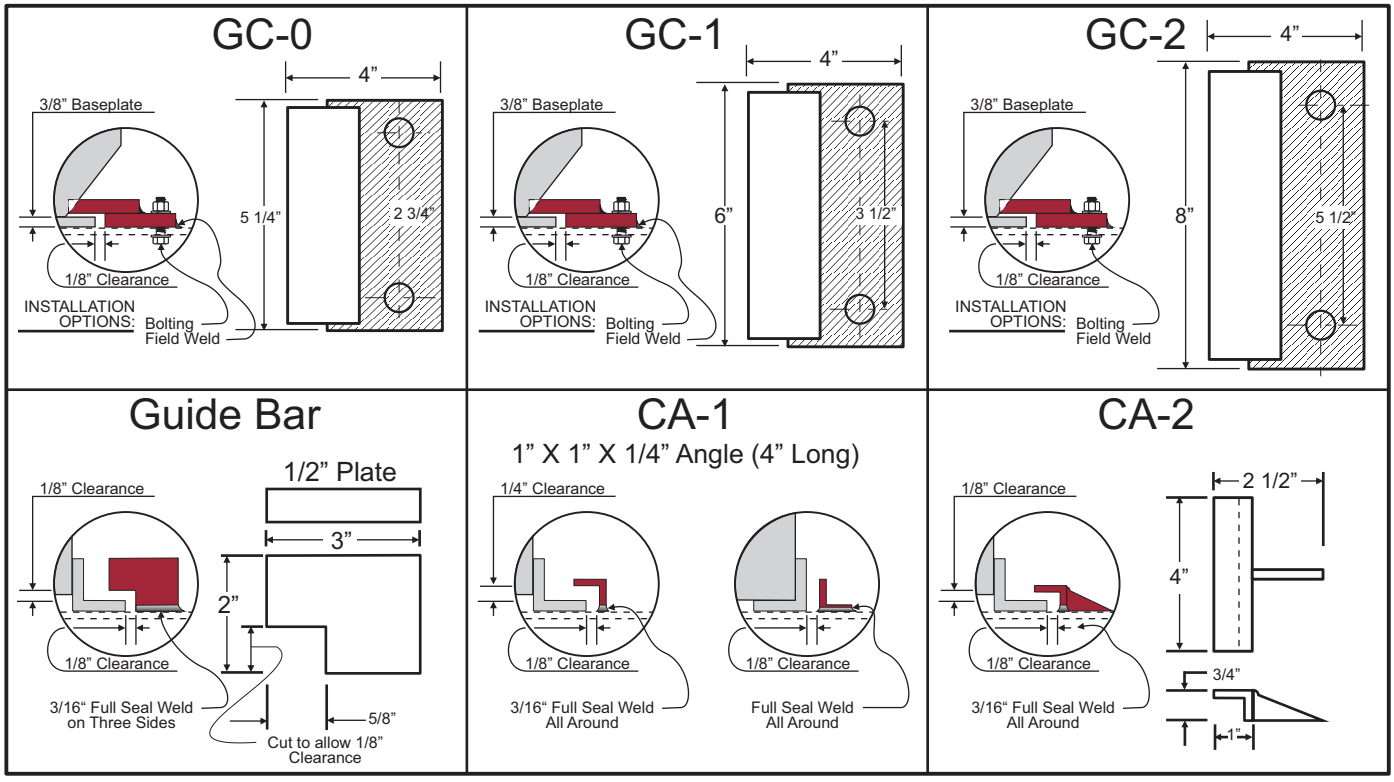
# JOVE® GUIDE CLIPS DETAIL 24C




**APPLICATION:** Guide Clips restrict lateral duct movement when combined with JOVE supports and guides. When vertical movement is to be restricted as well, JOVE's GC-1 is recommended, though the use of clip angles field welded on edge is acceptable.

**MATERIALS:** Carbon Steel, Stainless, and other alloys.

**FINISHES:** Primed, Hot Dip Galvanized, and Special Three Coat Epoxy.

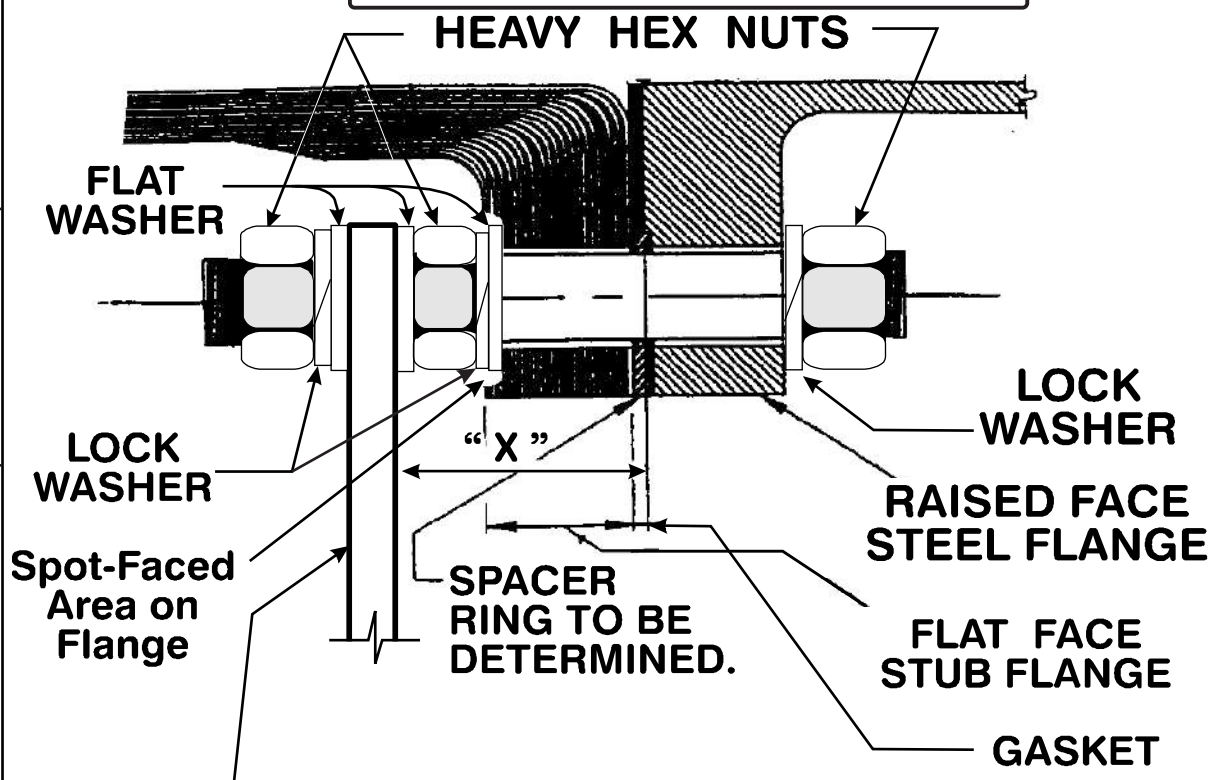



**NOTES:**

1. **Guide Clips ordered separately from guides.**
2. **Dimensions may be modified to allow for baseplate thicknesses.**

| | QUAN. | PART NO. | SIZE | DESCRIPTION | | |
|---|---|---|---|---|---|---|
| 1. | 1. | | 2"-144" | Component Support, 150 lb. Flange Bolt Pattern | | |
| 2. | 1. | | | Stud, Cut from All Thread Rod | | |
| 3. | 3. | (Note 3 | | Heavy Hex Nuts | | |
| 4. | 2. | Below) | | Lock Washers | | |
| 5. | 2. | | | Flat Washers | | |
| 6. | 1. | | | Gasket (Neoprene, Viton, or as specified) | | |
| 7. | 1. | | | Spacer Ring | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

# FLANGE CONNECTION DETAIL




**JOVE Component Support (HDS 3, 5, 5H, 5S)**

**Notes:**

1. Under no circumstances should a component support be bolted directly to the component flange or the pipe or duct flange. Using bolt or stud and nuts and washers as shown above, first attach component to pipe or duct fitting and torque as required. Finally, attach component support as shown above.
2. " X " Dimension = Pipe Flange + 1 Heavy Hex Nut + 2 Washer + Gasket.
3. Quantities of Items 2 through 5 (Bill of Material at top of page) are per bolt hole in each support.

| DESCRIPTION | DATE | DESIGN: | CHECKED: | APPROVED: |
|---|---|---|---|---|
| | | DRAWN: | | |

APP. | CHK. | BY | DATE | REV.

THOMPSON FABRICATING, LLC
1411 COMMERCE PL
BIRMINGHAM, AL 35217

**INSTALLATION SKETCH**

REFERENCE DWG. No.

PROJECT NAME:

SUPPORT No.

SHT. _____ OF _____

CONTRACT No. | P.O. No. | No. REQ'D.

LOCATOR SKETCH No.

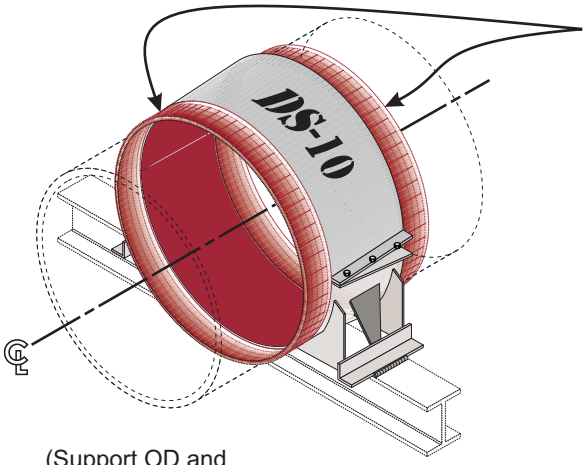
REV.

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# JOVE® SHEAR COLLAR DETAIL

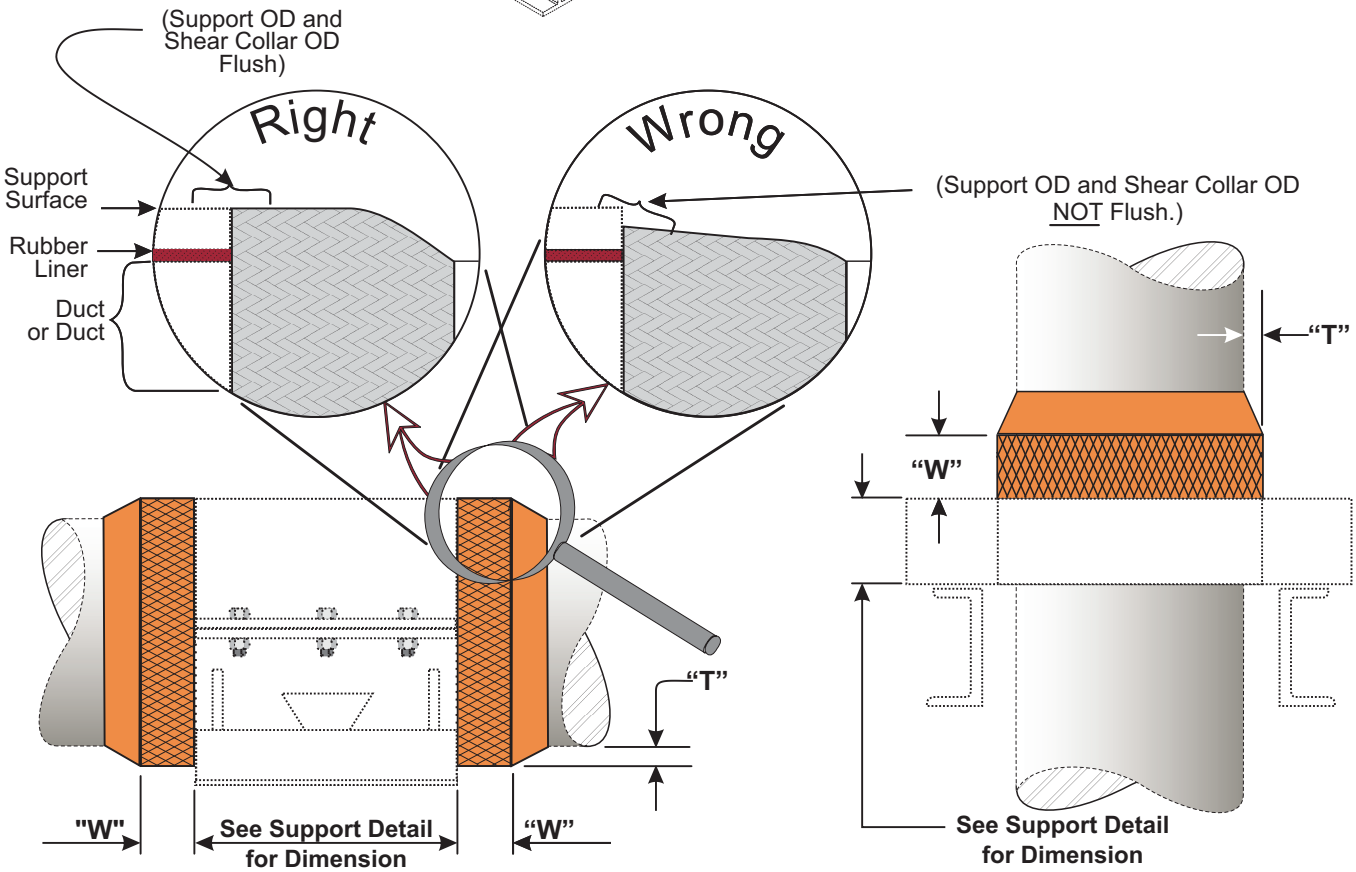
## Model No. SC-(Duct Dia. No.)






**APPLICATION: Anchors and riser supports are to be locked to the duct using FRP Shear Collars built up of layers of Fiberglass Mat and Resin. The layers of Mat shall be 1-1/2 Ounce/Square Foot.**

Note: Shear Collars shall be installed in such a manner that the OD (Outside Diameter) of the finished collar is flush with the OD of the support/anchor.




| DUCT DIA. | 2” | 3” | 4” | 6” | 8” | 10” | 12” | 14” | 16” | 18” | 20” | 24” | 30” | 36” | 42” |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| “W” | 3” | 3” | 3” | 3” | 3” | 3” | 3” | 5” | 5” | 5” | 5” | 5” | 6” | 6” | 6” |
| “T” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 3/8” | 5/8” | 5/8” | 5/8” | 5/8” | 5/8” | 3/4” | 3/4” | 3/4” |

| DUCT DIA. | 48” | 54” | 60” | 72” | 84” | 96” | 120” | 144” |
|---|---|---|---|---|---|---|---|---|
| “W” | 6” | 6” | 6” | 6” | 6” | 6” | 6” | 6” |
| “T” | 3/4” | 3/4” | 3/4” | 3/4” | 3/4” | 3/4” | 3/4” | 3/4” |

NOTE:
Installation kit includes disposable 3” wire-frame paint roller, resin cup for mixing, stir stick, mat cut to length, resin, and MEKP catalyst. Orders less than six kits do not include tools.

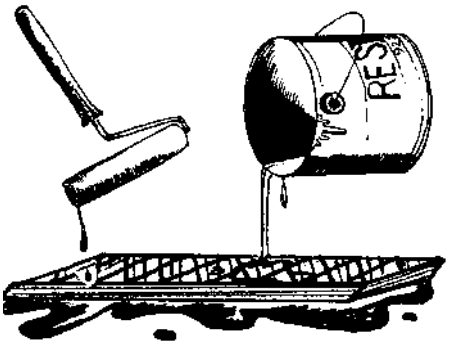
# SHEAR COLLAR INSTALLATION PROCEDURE

27C

1. **Prepare duct surface:**
   Grind through 1/16" of the outer resin layer right down to the first layer of fiberglass. Remove an area an inch wider than the fiber mat strips.

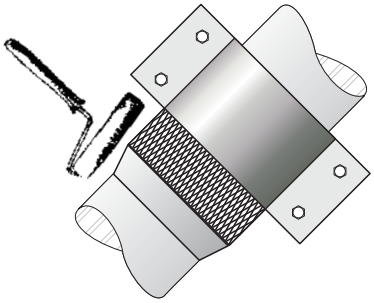
2. **Mix resin and catalyst:**
   Mix only enough resin and catalyst to build up a layer of fiberglass and resin 1/4" thick. Do each shear collar in 1/4" (approx. 6-8 plies) stages.

3. **Wet out fiberglass mat strips:**
   Using a mohair paint roller as an applicator, roll out a thin layer of catalyzed resin on a flat and clean work surface. Then place the first layer of fiberglass in the wet resin. Add more resin on top of the fiberglass making certain that the mat is thoroughly saturated. Repeat layer by layer building up to a thickness of 1/4" evenly wrapped around the duct. Allow no dry area or air bubbles.



4. **Apply shear collar to prepared duct:**
   Place the combined wetted out layers of fiberglass and resin around the roughened area flush with the edge of the metal support. Overlap the ends to ensure even thickness.

5. **Roll out air bubbles:**
   Using the mohair roller, gently roll the surface of the fiberglass mat to eliminate air pockets producing a smooth and even surface around the entire shear collar.



6. **Allow time to cure:**
   Allow the shear collar to cure until the surface is hard enough to sand without rolling up into the sandpaper grit. After catalyzation begins, cure time should be 15 - 20 minutes.

7. **Apply in successive stages:**
   Repeat steps one through six for shear collar thicknesses of more than 1/4". Apply each stage only after the previous stage has cured enough to roughen with sandpaper or grinder.

8. **Apply top coat:**
   When the final stage is cured, roughen the surface thoroughly, and roll on a final layer of catalyzed resin covering the shear collar and any sanded duct extending beyond the shear collar. (If a pigmented resin gel coat will be the top coat, apply it directly over the rough areas in place of the catalyzed resin layer.)

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## RESIN MIXING and PREPARATION:

1. In the resin container, catalyze with 4 to 8 cc of MEKP catalyst per pound of resin to give a curing time of about 20-30 minutes. The use of catalyst amounts above this range can produce a poor joint. After one or two mixes, the proper resin to catalyst ratio will be found to produce the desired curing time.

2. The amount of time it takes to cure a resin mix is temperature sensitive. Therefore, the amount of catalyst required increases as air temperature decreases below approximately 50 degrees F.

3. Water will ruin the wrap. So, before applying resin, ensure that the fiberglass materials, tools, and duct or duct surface are free of moisture.

This procedure has been included as a general guide ONLY. Variations in resin and ambient air temperature will accelerate or retard the cure time. Individual assessment of the amount of catalyst to be used at the time of application is required.

# JOVE DUCT SUPPORT LOAD RATINGS

**If calculated support loads exceed Jove's load ratings, please submit necessary load requirements.**



| NOM. DIA. | DS-1 VERT. | DS-2 VERT. | DS-3 | | DS-4 VERT. | DS-4G VERT. | DS-5 VERT. | DS-5H VERT. | DS-5S VERT. | DS-6 VERT. | DS-6G VERT. | DS-6H VERT. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | VERT. | AXIAL | | | | | | | | |
| 2 | 400 | 400 | 400 | 1,000 | 400A | 400A | 400 | 400A | 400 | 400 | 400 | 400A |
| 3 | 600 | 600 | 600 | 1,500 | 400A | 400A | 400 | 600B | 600 | 400 | 400 | 400A |
| 4 | 800 | 800 | 800 | 2,000 | 400A | 400A | 400 | 800B | 800 | 400 | 400 | 400A |
| 6 | 1,200 | 1,200 | 1,200 | 3,000 | 600B | 600B | 600 | 1,200C | 1,200 | 600 | 400 | 400A |
| 8 | 1,600 | 1,600 | 1,600 | 3,100 | 600B | 600B | 600 | 1,600C | 1,600 | 600 | 400 | 400A |
| 10 | 2,000 | 2,000 | 2,000 | 3,200 | 850B | 850B | 850 | 2,000D | 2,000 | 850 | 600 | 600A |
| 12 | 2,400 | 2,400 | 2,400 | 3,400 | 850B | 850B | 850 | 2,400D | 2,400 | 850 | 600 | 600A |
| 14 | N/A | 2,800 | 2,800 | 3,500 | 850B | 850B | 850 | 2,800E | 2,800 | 850 | 600 | 600A |
| 16 | N/A | 3,200 | 3,200 | 3,600 | 1,100C | 1,100C | 1,100 | 3,200E | 3,200 | 1,100 | 600 | 600A |
| 18 | N/A | 3,300 | 3,300 | 3,800 | 1,100C | 1,100C | 1,100 | 3,300E | 3,300 | 1,100 | 750 | 775A |
| 20 | N/A | 3,400 | 3,400 | 4,000 | 1,400C | 1,400C | 1,400 | 3,400E | 3,400 | 1,400 | 1,000 | 1,000A |
| 24 | N/A | 3,700 | 3,700 | 4,100 | N/A | N/A | 1,400 | 3,700F | 3,700 | 1,400 | 1,000 | 1,000A |
| 30 | N/A | 4,000 | 4,000 | 4,600 | N/A | N/A | 1,900 | 4,000F | 4,000 | 1,900 | 1,300 | 1,200A |
| 36 | N/A | 4,300 | 4,300 | 5,000 | N/A | N/A | 1,900 | 4,300F | 4,300 | 1,900 | 1,300 | 1,600B |
| 42 | N/A | 4,600 | 4,600 | 5,500 | N/A | N/A | 2,200 | 4,600F | 4,600 | 2,200 | 1,300 | 1,750B |
| 48 | N/A | 4,900 | 4,900 | 6,000 | N/A | N/A | 3,000 | 4,900G | 4,900 | 3,000 | 1,300 | 1,750B |
| 54 | N/A | 5,400 | 5,400 | 6,500 | N/A | N/A | 3,000 | 5,400G | 5,400 | 3,000 | 1,445 | 1,750B |
| 60 | N/A | 5,600 | 5,600 | 7,000 | N/A | N/A | 3,000 | 5,600G | 5,600 | 3,000 | 1,445 | 1,750B |
| 72 | N/A | 5,800 | 5,800 | 7,500 | N/A | N/A | 3,000 | 5,800G | 5,800 | 3,700 | 2,800 | 1,750B |
| 84 | N/A | 6,000 | 6,000 | 8,000 | N/A | N/A | 3,000 | 6,000G | 6,000 | 3,700 | 2,800 | 2,000B |
| 96 | N/A | 6,200 | 6,200 | 8,500 | N/A | N/A | 3,000 | 6,200G | 6,200 | 3,700 | 2,800 | 2,750C |
| 120 | N/A | 6,400 | 6,400 | 9,000 | N/A | N/A | 3,000 | 6,400G | 6,400 | 3,700 | 2,800 | 2,750C |
| 144 | N/A | 6,700 | 6,700 | 9,500 | N/A | N/A | 3,000 | 6,700G | 6,700 | 3,700 | 2,800 | 2,850C |

NOTE: Rod size for use with hangers indicated by letters after the loads in the columns on this page. Refer to the chart on the General Notes page for the Rod Size corresponding to each hanger load. (See Page 30, General Note No. 15 )

# JOVE® DUCT SUPPORT LOAD RATINGS

## If calculated support loads exceed Jove's load ratings, please submit necessary load requirements.



| NOM. DIA. | DS-6Q VERT. | DS-6GQ VERT. | DS-6HQ VERT. | DS-6T VERT. | DS-7 VERT. | DS-8 VERT. | DS-9 | | DS-10 | | DS-11 VERT. | DS-11C VERT. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | VERT. | AXIAL | VERT. | AXIAL | | |
| 2 | 900 | 900 | 900A | 900A | 400 | 400 | 400 | 1,500 | 400 | 1,500 | 400A | 400A |
| 3 | 900 | 900 | 900A | 900A | 600 | 600 | 600 | 2,200 | 600 | 2,200 | 400A | 600B |
| 4 | 900 | 900 | 900A | 900A | 800 | 800 | 800 | 3,000 | 800 | 3,000 | 400A | 800B |
| 6 | 1,465 | 1,465 | 1,465B | 1,465B | 1,200 | 1,200 | 1,200 | 3,000 | 1,200 | 4,000 | 600B | 1,200C |
| 8 | 1,465 | 1,465 | 1,465B | 1,465B | 1,600 | 1,600 | 1,600 | 4,000 | 1,600 | 5,000 | 600B | 1,600C |
| 10 | 2,500 | 2,500 | 2,500C | 2,500C | 2,000 | 2,000 | 2,000 | 4,000 | 2,000 | 6,500 | 850B | 2,000D |
| 12 | 2,485 | 2,485 | 2,485C | 2,485C | 2,400 | 2,400 | 2,400 | 4,000 | 2,400 | 7,500 | 850B | 2,400D |
| 14 | 2,430 | 2,430 | 2,430C | 2,430C | N/A | 2,800 | N/A | N/A | 2,800 | 8,500 | 850B | 2,800E |
| 16 | 3,226 | 3,226 | 3,226C | 3,226C | N/A | 3,200 | N/A | N/A | 3,200 | 12,500 | 1,100C | 3,200E |
| 18 | 3,208 | 3,208 | 3,208C | 3,208C | N/A | 3,300 | N/A | N/A | 3,300 | 14,000 | 1,100C | 3,300E |
| 20 | 4,820 | 4,820 | 4,820D | 4,820D | N/A | 3,400 | N/A | N/A | 3,400 | 15,000 | 1,400C | 3,400E |
| 24 | 4,680 | 4,680 | 4,680D | 4,680D | N/A | 3,700 | N/A | N/A | 3,700 | 22,000 | N/A | 3,700F |
| 30 | 8,079 | 8,079 | 8,079F | 8,079F | N/A | 4,000 | N/A | N/A | 4,000 | 27,000 | N/A | 4,000F |
| 36 | 9,439 | 9,439 | 9,439F | 9,439F | N/A | 4,300 | N/A | N/A | 4,300 | 32,000 | N/A | 4,300F |
| 42 | 8,998 | 8,998 | 8,998F | 8,998F | N/A | 4,600 | N/A | N/A | 4,600 | 32,000 | N/A | 4,600F |
| 48 | 15,160 | 15,160 | 15,160G | 15,160G | N/A | 4,900 | N/A | N/A | 4,900 | 32,000 | N/A | 4,900G |
| 54 | 14,650 | 14,650 | 14,650G | 14,650G | N/A | 5,400 | N/A | N/A | 5,400 | 32,000 | N/A | 5,400G |
| 60 | 14,177 | 14,177 | 14,177G | 14,177G | N/A | 5,600 | N/A | N/A | 5,600 | 32,000 | N/A | 5,600G |
| 72 | 17,950 | 17,950 | 17,950G | 17,950G | N/A | 5,800 | N/A | N/A | 5,800 | 32,000 | N/A | 5,800G |
| 84 | 21,310 | 21,310 | 21,310G | 21,310G | N/A | 6,000 | N/A | N/A | 6,000 | 32,000 | N/A | 6,000G |
| 96 | 20,150 | 20,150 | 20,150G | 20,150G | N/A | 6,200 | N/A | N/A | 6,200 | 32,000 | N/A | 6,200G |
| 120 | 21,900 | 21,900 | 21,900G | 21,900G | N/A | 6,400 | N/A | N/A | 6,400 | 32,000 | N/A | 6,400G |
| 144 | 30,877 | 30,877 | 30,877G | 30,877G | N/A | 6,700 | N/A | N/A | 6,700 | 32,000 | N/A | 6,700G |

NOTE: Rod size for use with hangers indicated by letters after the loads in the columns on this page. Refer to the chart on the General Notes page for the Rod Size corresponding to each hanger load.
(See Page 30, General Note No. 15 )

# GENERAL NOTES & SUPPORT SUBSTITUTION SCHEDULE



## GENERAL NOTES ~ HDPE PIPE SUPPORTS

1. All dimensions are in inch units. Size of support is based on nominal pipe diameter. Envelope dimensions that are affected by the pipe O.D. are approximate and will vary depending on pipe wall thickness.
2. Pipe supports are manufactured to the following tolerances:

### TOLERANCES

| SIZE | Inside Diameter | Roundness (Circularity) | Cylindricity (L = Length) |
|---|---|---|---|
| 2 - 8 | 1/16" | 0.070" | L / 260 |
| 10 - 42 | 1/8" | 0.138" | L / 260 |
| 48 - 72 | 5/32" | 0.172" | L / 280 |
| 84 - 144 | 3/16" | 0.207" | L / 280 |

NOTE: All other dimensional tolerance plus or minus 1/8".

3. Supports that are designed to fit the O.D. of the pipe must be located to clear all pipe welds at fittings and joints.
4. Riser supports and anchors are to be locked to the pipe using HDPE ELECTROFUSION FLEX RESTRAINTS. JOVE can supply the EFR but they must be ordered separately from the pipe supports. EFR are required with the following: HDS-6, HDS-6G, HDS-6GQ, HDS-6H, HDS-6HQ, HDS-6Q, HDS-6T, HDS-9, HDS-10. (See EFR Detail for specifications) Anchors shall be secured to the support structure using field welds or bolts.
5. Pipe supports with a "G" suffix (e.g. HDS-3G, HDS-5G) shall be laterally restrained using guide clips. JOVE can supply guide clips, but they must be ordered separately from pipe supports. (See Guide Clip Detail for specifications.)
6. HDS-7 guides are to have U-Bolt clearances as indicated in the detail. Under no circumstances may HDPE pipe be clamped tightly by a U-Bolt nor supported without a cradle.
7. Pipe supports HDS-1 and HDS-7 must be secured to the pipe using stainless steel banding (.075 x .020"). Bands and seals are not included and must be ordered separately.
8. All cradle type supports include an elastomeric liner of red rubber bonded to the cradle to prevent physical contact between the metallic cradle and the non-metallic pipe. Alternate materials such as neoprene and EPDM are available.
9. JOVE's HDS-3, HDS-5H, and HDS-5S support components such as valves, mixers, etc. and join them to pipe flanges. HDPE flange bolts are longer by 1/2 inch than those used with metallic flanges. For ease of installation, all-thread rod studs may substitute for bolts. A washer and a nut should be placed between the support and the HDPE flange to facilitate tightening of the flanges independent of securing the support. (See Flange Bolting Detail)
10. Component supports 12" and larger are scalloped to provide clearance for the HDPE flange hub reinforcement.
11. JOVE's supports have a standard finish of 2-1/2 Mil DFT of rust red epoxy primer or hot dip galvanized unless another finish is requested. Supports can be fabricated using stainless steel and other higher alloys when requested.
12. To avoid damage to pipe systems, all supports should be checked for proper installation prior to startup and testing.
13. For corrosive environments, all JOVE supports have full seal welds to eliminate hidden corrosion areas.
14. When simple support is required over three feet in elevation the HDS-2 is recommended. THE HDS-1 SHALL NOT BE USED OVER THREE FEET IN ELEVATION.
15. Letters following loads in the LOADS TABLE are to designate the type of Rod to use as shown by chart. →

### SUPPORT DESIGN SUBSTITUTION SCHEDULE

| TYPE | SUPPORT | GUIDE | ANCHOR | INVERTED MOUNTING |
|---|---|---|---|---|
| HDS-1 | YES | NO | NO | NO |
| HDS-2, 2R | YES | NO | NO | NO |
| HDS-3 | YES | Ⓐ HDS-3G | Ⓐ HDS-3A | YES |
| HDS-4, 4R | YES | NO | NO | NO |
| HDS-4G, 4GR | YES | YES | Ⓑ YES | NO |
| HDS-5 | YES | Ⓐ HDS-5G | Ⓐ HDS-5A | N/A |
| HDS-5H | YES | NO | NO | NO |
| HDS-5S | YES | HDS-5SG | Ⓒ YES | YES |
| HDS-6, 6Q, 6T | YES | Ⓐ YES | YES | N/A |
| HDS-6G, 6GQ | YES | YES | NO | N/A |
| HDS-6H, 6HQ | YES | Ⓐ YES | Ⓓ YES | N/A |
| HDS-7 | YES | YES | NO | NO |
| HDS-8 | YES | YES | NO | YES |
| HDS-8R, 8X | YES | YES | YES | NO |
| HDS-9 | YES | YES | YES | YES |
| HDS-10, 10R | YES | YES | YES | YES |
| HDS-11 | YES | NO | NO | NO |
| HDS-11C | YES | NO | NO | NO |

Ⓐ Supports other than HDS-7, HDS-8, HDS-9, or HDS-10 when used as guides or anchors are designated by a suffix of "G" for Guide, and "A" for Anchor.

Ⓑ HDS-4G can be used as a suspended anchor by special design.

Ⓒ HDS-5S Supports may be used as full stop anchors only for pipe 12 inches and less.

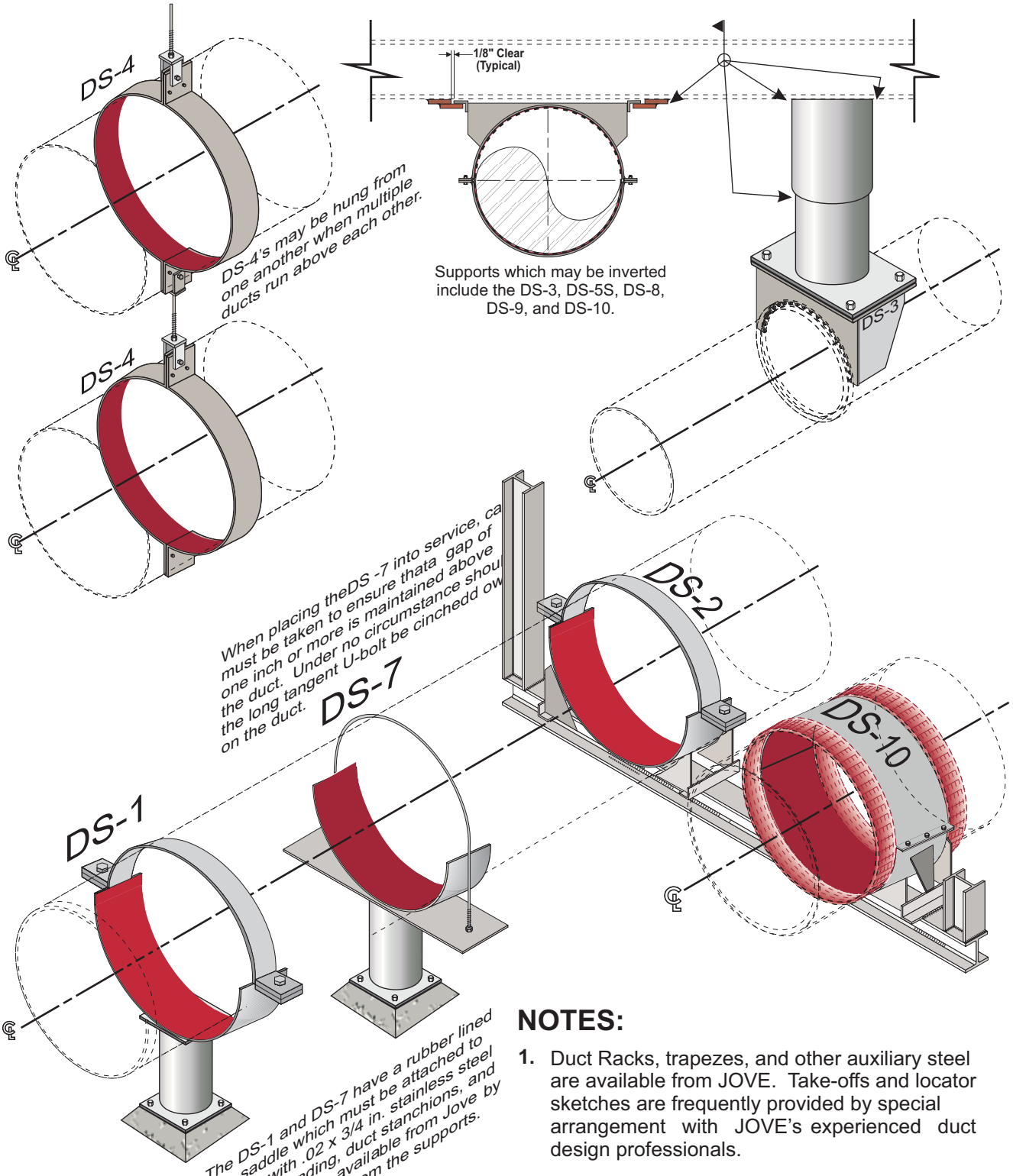
Ⓓ HDS-6H and HDS-6HQ may be used as anchors with EFR above as well as below the riser support.

N/A Not Applicable

| ROD SIZES | | |
|---|---|---|
| Type | Dia. | Load |
| A | 3/8" | 610 |
| B | 1/2" | 1,130 |
| C | 5/8" | 1,810 |
| D | 3/4" | 2,710 |
| E | 7/8" | 3,770 |
| F | 1" | 4,960 |
| G | 1-1/4" | 8,000 |
| H | 1-1/2" | 11,630 |
| K | 2" | 20,700 |

# VARIOUS **JOVE®** HANGER/SUPPORT APPLICATIONS





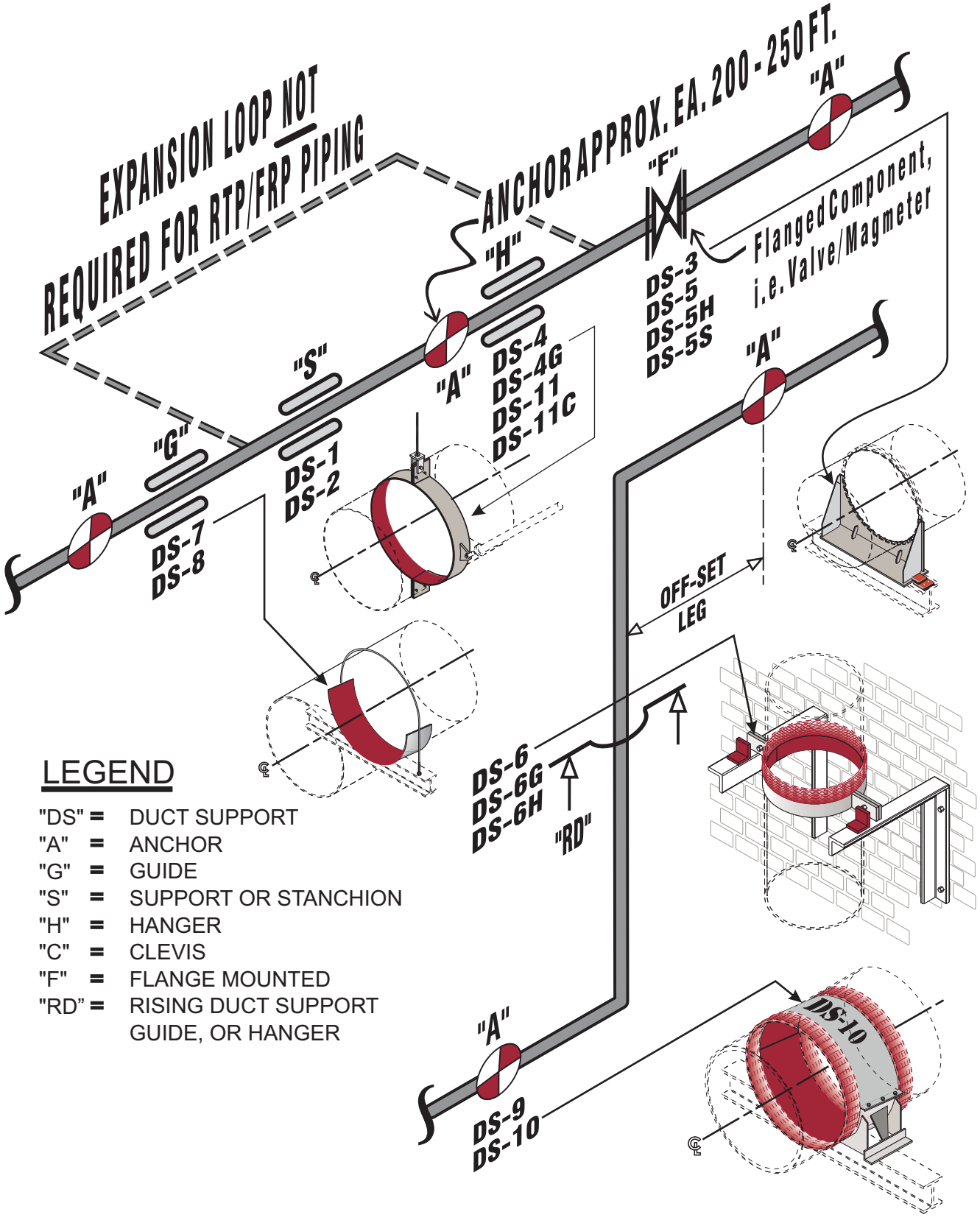

## NOTES:

1. Duct Racks, trapezes, and other auxiliary steel are available from JOVE. Take-offs and locator sketches are frequently provided by special arrangement with JOVE's experienced duct design professionals.

2. Shear Collar kits are required with each anchor and are quoted with each RFQ by duct diameter as items separate from each support order.

# Support Location Guide for **JOVE®** Products






## LEGEND

"DS" = DUCT SUPPORT
"A" = ANCHOR
"G" = GUIDE
"S" = SUPPORT OR STANCHION
"H" = HANGER
"C" = CLEVIS
"F" = FLANGE MOUNTED
"RD" = RISING DUCT SUPPORT GUIDE, OR HANGER

# JOVE® | Duct Support Systems



