

Rectangular Duct Standards

| 2" W.G. Positive or Negative | | | | | |
|------------------------------|----------------|--------------------------|------------|-------------|--------------------------------------------------------------|
| | Duct Dimension | Joint Connection | Max Length | Metal Gauge | Reinforcing Size and Longitudinal Spacing |
| Width | 0" – 12" | Flat "S" Slip | 59" | 26 | Transverse Connection 59" O.C. |
| Depth | 0" – 30" | Drive Slip | | | |
| Width | 13" – 20" | 1" Standard "S" Slip | 59" | 26 | Transverse Connection 59" O.C. |
| Depth | 0" – 30" | Drive Slip | | | |
| Width | 21" – 26" | 1 5/8" Standard "S" Slip | 59" | 26 | Transverse Connection 59" O.C. |
| Depth | 0" – 30" | Drive Slip | | | |
| Width | 27" – 36" | 1 5/8" Standard "S" Slip | 59" | 24 | Transverse Connection 59" O.C. |
| Depth | 0" – 30" | Drive Slip | | | |
| Width | 37" – 42" | 1 5/8" Standing "S" Slip | 59" | 24 | Transverse Connection 59" O.C. 1 1/2" x 1" x 18 ga. @ 48" |
| Depth | 0" – 30" | Drive Slip | | | |
| Width | 43" – 48" | 1 5/8" Standard "S" Slip | 59" | 24 | Transverse Connection 59" O.C. 1 1/2" x 1" x 18 ga. @ 36" |
| Depth | 0" – 30" | Drive Slip | | | |
| Width | 49" – 54" | 1 5/8" Standing "S" Slip | 59" | 24 | Transverse Connection 59" O.C. 1 1/2" x 1" x 18 ga. @ 30" |
| Depth | 0" – 30" | Drive Slip | | | |
| Width | 55" – 60" | *TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 1/2" x 1" x 16 ga. @ 36" |
| Depth | 0" – 30" | *TDF Flange | | | |
| Width | 61" – 84" | *TDF Flange | 56" | 20 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. @ 48" |
| Depth | 0" – 30" | *TDF Flange | | | |
| Width | 85" – 96" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. @ 36" |
| Depth | 0" – 30" | *TDF Flange | | | |

1. Reference: 2020 SMACNA for +/- 2" W.G.
2. All duct to be fabricated from G90 galvanized sheets.
3. All duct to be stiffened with machine-formed beads at 12" O.C.
4. All reinforcing to be galvanized.
5. All reinforcing to be secured to duct with screws at 8" O.C.
6. All drives over 18" to be reinforced by others.
7. Longitudinal seams to be snap-lock through 22 gauge and Pittsburgh for over 22 gauge.
8. * Reinforce all TDF Flange 55" and over with tie rod maximum 48" O.C. at each end except where heavier gauge is used in lieu of gauge specified for that size.

3" W.G. Positive or Negative

| | Duct Dimension | Joint Connection | Max Length | Metal Gauge | Reinforcing Size and Longitudinal Spacing |
|-------|----------------|------------------|------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Width | 0" – 26" | TDF Flange | 56" | 24 | Transverse Connection 56" O.C. |
| Depth | | | | | |
| Width | 27" – 30" | TDF Flange | 56" | 24 | Transverse Connection 56" O.C. 1 ½" x 1" x 18 ga. "Z" Maximum 48" from Connection |
| Depth | | | | | |
| Width | 31" – 36" | TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 18 ga. "Z" Maximum 48" from Connection |
| Depth | | | | | |
| Width | 37" – 42" | TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 18 ga. "Z" Maximum 36" from Connection |
| Depth | | | | | |
| Width | 43" – 48" | *TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 16 ga. "Z" Maximum 36" from Connection |
| Depth | | | | | |
| Width | 49" – 54" | *TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 16 ga. "Z" Maximum 30" from Connection |
| Depth | | | | | |
| Width | 55" – 72" | *TDF Flange | 56" | 20 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 36" from Connection |
| Depth | | | | | |
| Width | 73" – 84" | *TDF Flange | 56" | 20 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 24" from Connection |
| Depth | | | | | |
| Width | 85" – 96" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 24" from Connection |
| Depth | | | | | |
| Width | 97" – 108" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 3" x 1 1/8" x 12 ga. "Z" Maximum 24" from Connection OR 3" x 1 1/8" x 10 ga. "Z" Maximum 30" from Connection |
| Depth | | | | | |
| Width | 109" – 120" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 3" x 1 1/8" x 12 ga. "Z" Maximum 24" from Connection OR 3" x 1 1/8" x 10 ga. "Z" Maximum 30" from Connection |
| Depth | | | | | |

1. Reference: 2020 SMACNA for +/- 3" W.G.
2. All duct to be fabricated from G90 galvanized sheets.
3. All duct to be stiffened with machine-formed beads at 12" O.C.
4. All reinforcing to be galvanized.
5. All reinforcing to be secured to duct with screws at 8" O.C.
6. Longitudinal seams to be Pittsburgh.
7. * Reinforce all TDF Flange 43" and over with tie rod maximum 48" O.C. at each end except where heavier gauge is used in lieu of gauge specified for that size.

4" W.G. Positive or Negative

| | Duct Dimension | Joint Connection | Max Length | Metal Gauge | Reinforcing Size and Longitudinal Spacing |
|----------------|----------------|------------------|------------|-------------|----------------------------------------------------------------------------------------|
| Width Depth | 0" – 22" | TDF Flange | 56" | 24 | Transverse Connection 56" O.C. |
| Width Depth | 23" – 26" | TDF Flange | 56" | 24 | Transverse Connection 56" O.C. 1 ½" x 1" x 18 ga. "Z" Maximum 48" from Connection |
| Width Depth | 27" – 30" | TDF Flange | 56" | 24 | Transverse Connection 56" O.C. 1 ½" x 1" x 18 ga. "Z" Maximum 36" from Connection |
| Width Depth | 31" – 36" | TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 18 ga. "Z" Maximum 36" from Connection |
| Width Depth | 37" – 42" | *TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 16 ga. "Z" Maximum 36" from Connection |
| Width Depth | 43" – 60" | *TDF Flange | 56" | 20 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 36" from Connection |
| Width Depth | 61" – 72" | *TDF Flange | 56" | 20 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 30" from Connection |
| Width Depth | 73" – 84" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 30" from Connection |
| Width Depth | 85" – 96" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 3" x 1 1/8" x 12 ga. "Z" Maximum 30" from Connection |
| Width Depth | 97" – 120" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 3" x 1 1/8" x 10 ga. "Z" Maximum 30" from Connection |

1. Reference: 2020 SMACNA for +/- 4" W.G.
2. All duct to be fabricated from G90 galvanized sheets.
3. All duct to be stiffened with machine-formed beads at 12" O.C.
4. All reinforcing to be galvanized.
5. All reinforcing to be secured to duct with screws at 8" O.C.
6. Longitudinal seams to be Pittsburgh.
7. * Reinforce all TDF Flange 37" and over with tie rod maximum 48" O.C. at each end except where heavier gauge is used in lieu of gauge specified for that size.
8. Where reinforcing is required ONLY on two sides, a frame will be provided.

6" W.G. Positive or Negative

| | Duct Dimension | Joint Connection | Max Length | Metal Gauge | Reinforcing Size and Longitudinal Spacing |
|----------------|----------------|------------------|------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Width Depth | 0" – 12" | TDF Flange | 56" | 24 | Transverse Connection 56" O.C. |
| Width Depth | 13" – 24" | TDF Flange | 56" | 22 | Transverse Connection 56" O.C. |
| Width Depth | 25" – 30" | TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 18 ga. "Z" Maximum 36" from Connection |
| Width Depth | 31" – 36" | *TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 16 ga. "Z" Maximum 30" from Connection |
| Width Depth | 37" – 42" | *TDF Flange | 56" | 20 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 30" from Connection |
| Width Depth | 43" – 60" | *TDF Flange | 56" | 20 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 30" from Connection |
| Width Depth | 61" – 72" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 30" from Connection |
| Width Depth | 73" – 84" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 3" x 1 1/8" x 12 ga. "Z" Maximum 24" from Connection OR 3" x 1 1/8" x 10 ga. "Z" Maximum 30" from Connection |
| Width Depth | 85" – 108" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 3" x 1 1/8" x 10 ga. "Z" Maximum 24" from Connection |

1. Reference: 2020 SMACNA for +/- 6" W.G.
2. All duct to be fabricated from G90 galvanized sheets.
3. All duct to be stiffened with machine-formed beads at 12" O.C.
4. All reinforcing to be galvanized.
5. All reinforcing to be secured to duct with screws at 8" O.C.
6. Longitudinal seams to be Pittsburgh.
7. * Reinforce all TDF Flange 31" and over with tie rod maximum 48" O.C. at each end except where heavier gauge is used in lieu of gauge specified for that size.
8. Where reinforcing is required ONLY on two sides, a frame will be provided.

10" W.G. Positive or Negative

| | Duct Dimension | Joint Connection | Max Length | Metal Gauge | Reinforcing Size and Longitudinal Spacing |
|----------------|----------------|------------------|------------|-------------|------------------------------------------------------------------------------------------|
| Width Depth | 0" – 8" | TDF Flange | 56" | 24 | Transverse Connection 56" O.C. |
| Width Depth | 9" – 12" | TDF Flange | 56" | 24 | Transverse Connection 56" O.C. 1" x 1" x 18 ga. "Z" Maximum 48" from Connection |
| Width Depth | 13" – 18" | TDF Flange | 56" | 24 | Transverse Connection 56" O.C. 1 ½" x 1" x 18 ga. "Z" Maximum 36" from Connection |
| Width Depth | 19" – 22" | TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 18 ga. "Z" Maximum 36" from Connection |
| Width Depth | 23" – 26" | *TDF Flange | 56" | 22 | Transverse Connection 56" O.C. 1 ½" x 1" x 16 ga. "Z" Maximum 36" from Connection |
| Width Depth | 27" – 36" | *TDF Flange | 56" | 20 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 36" from Connection |
| Width Depth | 37" – 42" | *TDF Flange | 56" | 20 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 30" from Connection |
| Width Depth | 43" – 48" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 2" x 1 1/8" x 12 ga. "Z" Maximum 30" from Connection |
| Width Depth | 49" – 54" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 2" x 1 1/8" x 10 ga. "Z" Maximum 30" from Connection |
| Width Depth | 55" – 60" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 3" x 1 1/8" x 12 ga. "Z" Maximum 30" from Connection |
| Width Depth | 61" – 72" | *TDF Flange | 56" | 18 | Transverse Connection 56" O.C. 3" x 1 1/8" x 10 ga. "Z" Maximum 30" from Connection |
| Width Depth | 73" – 84" | *Ward J | 60" | 16 | Transverse Connection 60" O.C. 3" x 1 1/8" x 10 ga. "Z" Maximum 30" from Connection |
| Width Depth | 85" – 120" | *Ward J | 60" | 16 | Transverse Connection 60" O.C. **3" x 1 1/8" x 10 ga. "Z" Maximum 24" from Connection |

1. Reference: 2020 SMACNA for +/- 10" W.G.
2. All duct to be fabricated from G90 galvanized sheets.
3. All duct to be stiffened with machine-formed beads at 12" O.C.
4. All reinforcing to be galvanized.
5. All reinforcing to be secured to duct with screws at 8" O.C.
6. Longitudinal seams to be Pittsburgh.
7. *Reinforce all Ward J and TDF Flange 23" and over with tie rod 48" maximum at each end except where heavier gauge is used in lieu of gauge specified for that size.
8. **Reinforce Z-bar 85" and over with tie rod at 48" maximum.