PIPE AND FITTINGS are fabricated from G-90 galvanized steel sheet meeting ASTM A-924 standards (formerly A-653). The outer wall performs as the pressure shell and will be constructed and sealed according to pressure class.

SPIRAL PIPE is roll formed, continuous interlocked pipe which combines the economics of light metal and a spiral lockseam construction that assures maximum strength and rigidity. The lockseam combines four plys of metal to form a continuous interlocking rib on the outside which permits the fabrication of long lengths of pipe with a smooth interior. Inner wall can be solid or perforated with 3/32 diameter holes on 3/16 staggered centers. All pipe is available up to 20\('\) lengths and is stocked in 10\('\) lengths.

INSULATION - Fiberous glass blanket with UL 723 classification, flame spread rating of 25, smoke development rating of 50, R factor of 4.2, and K factor of 0.24.

FITTINGS - Construction features spot welds with all joints shop sealed. Optional construction features solid welds with weld area coated for protection when specified. Inner wall can be solid or perforated with 3/32 diameter holes on 3/16 staggered centers.

ELBOWS - are gored type with the number of gores in accordance with SMACNA 2005. All elbows have standard 1.5 x diameter center line radius.

ALL CONSTRUCTION STANDARDS IN ACCORDANCE WITH SMACNA AND ASHRAE STANDARDS.
HSM IS A MEMBER OF SPIRAL DUCT MANUFACTURERS ASSOCIATION (SPIDA).
FITTING STANDARDS
DOUBLE WALL STRAIGHT TEES

STRAIGHT TEE
DWT1

DIMENSIONAL DATA:
- S=2"
- V=C+4"

REDUCING TEE
DWT1R

DIMENSIONAL DATA:
- S=2"
- V=C+4"
- L=A-B (4" MIN.-12" MAX.)

STRAIGHT CROSS
DWT2

DIMENSIONAL DATA:
- S=2"
- V=LARGEST TAP+4"

REDUCING CROSS
DWT2R

DIMENSIONAL DATA:
- S=2"
- V=LARGEST TAP+4"
- L=A-B (4" MIN.-12" MAX.)
FITTING STANDARDS
DOUBLE WALL CONICAL TEES

CONICAL TEE
DWCT1

REDUCING CONICAL TEE
DWCT1R

DIMENSIONAL DATA:
- S=2"
- V=C+6"

DIMENSIONAL DATA:
- S=2"
- V=C+6"
- L=A−B (4" MIN.−12" MAX.)

CONICAL CROSS
DWCT2

REDUCING CONICAL CROSS
DWCT2R

DIMENSIONAL DATA:
- S=2"
- V=LARGEST TAP+6"

DIMENSIONAL DATA:
- S=2"
- V=LARGEST TAP+6"
- L=A−B (4" MIN.−12" MAX.)

HAMLIN 06/11/2012
FITTING STANDARDS
DOUBLE WALL COMBINATION TEES

COMBINATION TEE
DWCMBT1

REDUCING COMBINATION TEE
DWCMBT1R

DIMENSIONAL DATA:
- S=2"
- V=(C+6)+2
- C= 3–16   Y=6"
- C= 17–24   Y=9"
- C= 25–UP   Y=12"

DIMENSIONAL DATA:
- S=2"
- V=(C+6)+2
- L=A–B (4" MIN., 12" MAX.)
- C= 3–16   Y=6"
- C= 17–24   Y=9"
- C= 25–UP   Y=12"

COMBINATION CROSS
DWCMBT2

REDUCING COMBINATION CROSS
DWCMBT2R

DIMENSIONAL DATA:
- S=2"
- V=(LARGEST TAP+6)+2
- C= 3–16   Y=6"
- C= 17–24   Y=9"
- C= 25–UP   Y=12"

DIMENSIONAL DATA:
- S=2"
- V=(LARGEST TAP+6)+2
- L=A–B (4" MIN, 12" MAX.)
- C= 3–16   Y=6"
- C= 17–24   Y=9"
- C= 25–UP   Y=12"
FITTING STANDARDS
DOUBLE WALL LATERALS

LATERAL
DWL1

DIMENSIONAL DATA:
• S=2"
• V=(1.414x(C+2"))+4"

REDUCING LATERAL
DWL1R

DIMENSIONAL DATA:
• S=2"
• V=(1.414x(C+2"))+4"
• L=A−B (4" MIN.-12" MAX.)

LATERAL CROSS
DWL2

DIMENSIONAL DATA:
• S=2"
• V=(1.414x(LARGEST TAP+2"))+4"

REDUCING LATERAL CROSS
DWL2R

DIMENSIONAL DATA:
• S=2"
• V=(1.414x(LARGEST TAP+2"))+4"
• L=A−B (4" MIN.-12" MAX.)
FITTING STANDARDS
DOUBLE WALL FITTINGS
REDUCER

**CONCENTRIC REDUCER**
DWR1

**ECCENTRIC REDUCER**
DWER1

**DIMENSIONAL DATA:**
- $S=2''$
- $L=A-B$ (4" MIN.-12" MAX.)

**DIMENSIONAL DATA:**
- $S=2''$
- $L=A-B$ (4" MIN.-12" MAX.)
- $Z=(A-B)/2$
FITTING STANDARDS
DOUBLE WALL FITTINGS
Y—BRANCH

Y—BRANCH
DWY2

DIMENSIONAL DATA:
• S=2"
• L=(A/2)+1"

REDUCING Y—BRANCH
DWY2R

DIMENSIONAL DATA:
• S=2"

HAMLIN 06/11/2012
FITTING STANDARDS
DOUBLE WALL ELBOWS

GORED ELBOW
DWE90

DIMENSIONAL DATA:
• S = 2"
• R = 1.5x A

GORED ELBOW
DWE45

DIMENSIONAL DATA:
• S = 2"
• R = 1.5x A

GORED ELBOW
DWE____
DWE(ANGLE)

DIMENSIONAL DATA:
• S = 2"
• R = 1.5x A
• ANY ANGLE

MITERED 90°
DWEV90

DIMENSIONAL DATA:
• S = 2"
• 90° TYPICAL

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<td>15&quot;–19&quot;</td>
<td>4</td>
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<td>20&quot;–60&quot;</td>
<td>5</td>
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<tr>
<td>OVER 60&quot;</td>
<td>12&quot; SPACING</td>
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HAMLIN 06/11/2012
FITTING STANDARDS
MISC. DOUBLE WALL FITTINGS

INSULATION END
DSA

DIMENSIONAL DATA:
• S=2"

ROUND OFFSET
DWSET

DIMENSIONAL DATA:
• S=2"
• MINIMUM L=2A+4"

HAMLIN 06/11/2012
BULLHEAD TEE DWBT

DIMENSIONAL DATA:
- S = 2"
- WITH OR WITHOUT TURNING VANES
  - 3" - 5" 1
  - 6" - 9" 2
  - 10" - 14" 3
  - 15" - 19" 4
  - 20" - 60" 5
  - OVER 60" 12" SPACING

REDUCING BULLHEAD TEE DWBTR

DIMENSIONAL DATA:
- S = 2"
- WITH OR WITHOUT TURNING VANES
  - 3" - 5" 1
  - 6" - 9" 2
  - 10" - 14" 3
  - 15" - 19" 4
  - 20" - 60" 5
  - OVER 60" 12" SPACING
FITTING STANDARDS
MISC. TAPS

STRAIGHT SADDLE TAP
DWTST

DIMENSIONAL DATA:
- S=2"
- W=2"
- R=1/2 DIAMETER

GRILL BOX TAP
DWGBST

DIMENSIONAL DATA:
- C MUST BE LESS THAN 2A
- R=1/2 DIAMETER

CONICAL SADDLE TAP
DWCST

DIMENSIONAL DATA:
- S=2"
- W=2"
- R=1/2 DIAMETER

CONICAL LATERAL SADDLE TAP
DWLST

DIMENSIONAL DATA:
- S=2"
- L=(Bx1.414)+2W
- R=1/2 DIAMETER
FITTING STANDARDS
MISC. TAPS OFF FLAT

STRaight Saddle Tap
On Flat
DWTST ON FLAT

DIMENSIONAL DATA:
- S = 2"
- W = 2"

GRILL BOX TAP
On Flat
DWGBST ON FLAT

DIMENSIONAL DATA:
- C MUST BE LESS THAN 2A

CONICAL Saddle Tap
On Flat
DWCST ON FLAT

DIMENSIONAL DATA:
- S = 2"
- W = 2"

LATERAL Saddle Tap
On Flat
DWLST ON FLAT

DIMENSIONAL DATA:
- S = 2"
- L = (A x 1.414) + 2W
- W = 2"
### Combination Saddle DWCMBST

**DIMENSIONAL DATA:**
- $S = 2''$
- $V = (C+6)+2$
- $C = 3–16\ Y = 6''$
- $C = 17–24\ Y = 9''$
- $C = 25–UP\ Y = 12''$

### Combination Saddle DWCMBST ON FLAT

**DIMENSIONAL DATA:**
- $S = 2''$
- $V = (C+6)+2$
- $C = 3–16\ Y = 6''$
- $C = 17–24\ Y = 9''$
- $C = 25–UP\ Y = 12''$
FITTING STANDARDS
MISC. FITTINGS

INSIDE PLUG
DWEP

OUTSIDE CAP
DWEC

DIMENSIONAL DATA:
• S = 2"

PIPE COUPLING
DWS1
(INSIDE COUPLING)

FITTING COUPLING
DWS2
(OUTSIDE COUPLING)

SPUN INSIDE—OUTSIDE COUPLING
DWS3

HAMLIN 06/11/2012
LEGEND

DWBT - BULLHEAD TEE
DWT2 - CROSS
DWC - CONICAL
DWCM - COMBINATION
DWE - ELBOW
DWER - ECCENTRIC REDUCER
DWL - LATERAL
DWEC - END CAP
DWEP - PLUG

DWR - REDUCER
DWS - COUPLING
DWSET - OFFSET
DWDSA - SPUN INSULATION END
DWSIO - SPUN INSIDE-OUTSIDE COUPLING
DWTST - SADDLE TAP
DWT - TEE
DWY - WYE BRANCH

DIMENSIONING CODE

A - Inside Diameter of Main Inlet
B - Inside Diameter of Main Outlet, if Reducing
C, D, E, F - Inside Diameters of Take Off Taps
P - Angle Between Cross Tap Centerlines
R - Radius
S - Length of Male End of Fittings
Z - Offset Height

ORDERING

Specify type of fittings and list the following dimensions:

ELBOWS  - A, (B, C)
TEES    - A, C, (B, D)
LATERALS - A, C, (B, D)
CROSSES - A, C, D, (B, E, F, P)
ACCESSORIES - As Noted

The drawings shown are illustrative of the types fabricated.

All fittings, unless noted, are fabricated as a male part on each end for slip-joint assembly with spiral pipe.

Van Stone angle ring, Solid welded flange, Accuflange, Hamlin flange, or Spiralmate flanges are available on special order.
**DOUBLE WALL HAMLIN FLANGE**

**DIMENSIONAL DATA AS OD:**

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<th>A-ACTUAL</th>
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**MATERIALS AVAILABLE:** GALVANIZED, PAINT GRIP, STAINLESS STEEL AND ALUMINUM - 18 GA. TYP.
DOUBLE WALL NEW HAMLIN FLANGE

DIMENSIONAL DATA AS OD:

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<th>B</th>
<th>A-NOMINAL</th>
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MATERIALS AVAILABLE: GALVANIZED, PAINT GRIP, STAINLESS STEEL AND ALUMINUM- 18 GA. TYP.