Specification

MATERIAL (*) not available in pressed construction
- Galvanized steel conforming to ASTM standards A653 and A924
- Stainless steel type 304 conforming to ASTM standard A240*
- Stainless steel type 316 conforming to ASTM standard A240*
- Aluminum T3003*
- Insulation specifications:
    1. Standard inner liner is perforated for pipe and solid for fittings.
    2. Perforated liner will consist of 1⁄8" perforations on 1⁄4" staggered centers corresponding to an overall open area of 23%.
    3. Standard 1" thick x 1.0 pound per cubic foot (pcf) density, glass fiber insulation has a maximum conductivity factor (k) of 0.26 BTU-in/hr x ft^2 x °F at 75°F mean ambient temperature (R = 3.8).
    4. Available in 1" and 2" insulation thickness. Please call for thicknesses over 2".
    5. Retaining fabric will be 0.008" thick, 15.6 lb/ft^3 density non-woven polyester fabric with an air permeability rate of 9.2 ft^3/ft^2/s.

SURFACE FINISH
- Galvanized steel (galvanized in accordance with SMACNA 2005 Duct Construction Standards).
- Stainless steel type 304 - Mill Finish
- Stainless steel type 316 - #2 Mill Finish
- Coated with an average thickness of 4 mils (0.004") inside and out. Coating to meet or exceed 1,000 hour Salt Spray Test per ASTM B117-97. Baked-on epoxy is used on duct and fittings or a PVC option can be used for duct only.
- Antimicrobial - EPA listed coating containing an antimicrobial compound complies with UL standard - not to exceed flame or smoke developed ratings of 25/50.

THICKNESS
EHG Oval components are constructed from galvanized steel of thickness conforming to latest SMACNA's HVAC Duct Construction Standards for +10" water gauge pressure.

CONNECTIONS
EHG Oval is available with two connection methods: Standard slip-fit or Flanged connections.
- Flanged connections can be factory installed or delivered loose.
- All fittings that are either spot-welded or button punched construction are internally sealed.
- All transitions and divided flow fittings which convert from flat-oval to round 60" diameter or less incorporate EHG's triple-lipped EPDM rubber gaskets as the duct sealing system.

Specification

CONSTRUCTION

Duct is of spiral lock seam construction with a mechanically formed seam locking indentation evenly spaced along the spiral seam. All spiral duct 8" diameter and larger incorporates multiple corrugations between spiral seams.

Double wall duct and fittings will consist of a perforated or solid inner liner; 1" thick x 1.0 lb/ft^3 (unless otherwise specified) layer of glass fiber insulation and a solid outer pressure shell. When a perforated inner liner is specified, the retaining fabric must be wrapped around the inside diameter, between the perforated inner and the glass fiber insulation. This is to prevent glass fiber tearing and maintains the desired acoustical properties.

Double wall has 1" thick insulation standard and 2" thick insulation available. The outer pressure shell dimensions shall be two times the insulation thickness larger than the inner liner. Inner and outer duct will be of spiral lock seam construction.

Fittings shall be manufactured using one or more of the following construction methods:
- Overlapped edges stitch welded along the entire length of the fitting
- Standing seam gore locked and internally sealed
- Button punched and internally sealed

NOTE: For systems under negative pressure, please refer to the Industrial Catalog or a EHG representative.
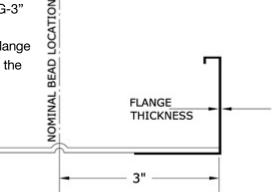
JOINT SEALING

All joints must be sealed by the installer during the installation process. The type of sealant used as well as the method and level of application should be as directed by the specification and in accordance with the sealant manufacturer's published installation instructions.

Fitting Slip Dimension

Standard EHG products are designed with a male/female slip connections. Nongasketed connections have a 2" slip fit connection. For gasketed, or "G-3" connections, refer to the "e" dimension listed in the TOLERANCE chart on page 10 in the EHG Single Wall Catalog. If flanges are utilized, add 3" per flange and the flange thickness to the published length (L) dimension as shown in the product catalog as depicted in the diagram on the right.

Factory-applied Flange	
Collar Length	Make-up Length
3"	3" + flange thickness

Specification - Sizes

Minor Nom, in	Major Nom, in	Equiv Round, in	Max Pipe Length, ft	Spiral Gauge	Fitting Gauge	Weight/ Linear ft, lbs
4	10	6.6	6	24	20	2.6
6	9	7.6	6	24	20	2.6
6	10	8.1	6	24	20	2.9
6	12	8.9	8	24	20	3.2
6	14	9.6	8	24	20	3.5
6	15	9.9	8	24	20	3.8
6	17	10.5	8	24	20	4.2
6	19	11.1	8	24	20	4.5
6	20	11.3	8	24	20	4.8
6	22	11.8	12	24	20	5.1
6	23	12.1	12	24	20	5.5
6	25	12.5	12	22	20	7.0
6	26	12.7	12	22	20	7.4
6	28	13.1	12	22	20	7.8
6	29	13.3	12	22	20	8.2
6	31	13.7	12	22	20	8.6
6	34	14.3	12	22	20	9.4
6	37	14.8	12	22	18	10.1
6	41	15.4	12	22	18	10.9
6	44	15.9	12	22	18	11.7
6	47	16.3	12	22	18	12.5
6	50	16.8	12	20	18	15.6
6	53	17.2	12	20	18	16.5
6	56	17.5	12	20	18	17.5
6	59	17.9	12	20	18	18.4
6	63	18.4	12	20	18	19.3
6	66	18.7	12	20	16	20.2
6	69	19.1	12	20	16	21.1
6	72	19.4	12	18	16	28.7
6	75	19.7	12	18	16	29.9
8	10	9.2	6	24	20	2.9
8	11	9.7	6	24	20	3.2
8	12	10.2	8	24	20	3.5
8	14	11.0	8	24	20	3.8
8	16	11.8	8	24	20	4.2
8	17	12.2	8	24	20	4.5
8	19	12.9	8	24	20	4.8
8	21	13.5	12	24	20	5.1
8	22	13.8	12	24	20	5.5
8	24	14.4	12	24	20	5.8
8	25	14.7	12	22	20	7.4
8	27	15.2	12	22	20	7.8
8	28	15.4	12	22	20	8.2
8	30	15.9	12	22	20	8.6
8	33	16.6	12	22	20	9.4
8	36	17.3	12	22	20	10.1
8	39	17.9	12	22	18	10.9
8	43	18.6	12	22	18	11.7
8	46	19.2	12	22	18	12.5
8	49	19.7	12	20	18	15.6
8	52	20.2	12	20	18	16.5

Minor Nom, in	Major Nom, in	Equiv Round, in	Max Pipe Length, ft	Spiral Gauge	Fitting Gauge	Weight/ Linear ft, lbs
8	55	20.6	12	20	18	17.5
8	58	21.1	12	20	18	18.4
8	61	21.5	12	20	18	19.3
8	65	22.1	12	20	18	20.2
8	68	22.5	12	20	16	21.1
8	71	22.9	12	18	16	28.7
8	74	23.3	12	18	16	29.9
8	77	23.7	12	18	16	31.1
8	80	24.1	12	18	16	32.3
10	12	11.2	8	24	20	3.5
10	13	11.7	8	24	20	3.8
10	14	12.2	8	24	20	4.2
10	16	13.2	8	24	20	4.5
10	18	14.0	8	24	20	4.8
10	19	14.4	8	24	20	5.1
10	21	15.2	12	24	20	5.5
10	23	15.9	12	24	20	5.8
10	24	16.2	12	24	20	6.1
10	26	16.8	12	22	20	7.8
10	27	17.1	12	22	20	8.2
10	29	17.7	12	22	20	8.6
10	32	18.5	12	22	20	9.4
10	35	19.3	12	22	20	10.1
10	38	20.0	12	22	18	10.9
10	41	20.7	12	22	18	11.7
10	45	21.6	12	22	18	12.5
10	48	22.2	12	22	18	13.3
10	51	22.8	12	20	18	16.5
10	54	23.3	12	20	18	17.5
10	57	23.9	12	20	18	18.4
10	60	24.4	12	20	18	19.3
10	63	24.9	12	20	18	20.2
10	67	25.5	12	20	16	21.1
10	70	26.0	12	20	16	22.1
10	73	26.5	12	18	16	29.9
10	76	26.9	12	18	16	31.1
10	79	27.3	12	18	16	32.3
10	82*	27.7	12	18	16	33.5
12	14*	13.2	8	24	20	4.2
12	15	13.8	8	24	20	4.5
12	16	14.3	8	24	20	4.8
12	18	15.3	8	24	20	5.1
12	20	16.1	8	24	20	5.5
12	21	16.6	8	24	20	5.8
12	23	17.4	8	24	20	6.1
12	25	18.1	12	22	20	7.8
12	26	18.5	12	22	20	8.2
12	28	19.2	12	22	20	8.6
12	31	20.1	12	22	20	9.4
12	34	21.0	12	22	20	10.1
12	37	21.9	12	22	18	10.9

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EHG

Specification - Sizes

Minor Nom, in	Major Nom, in	Equiv Round, in	Max Pipe Length, ft	Spiral Gauge	Fitting Gauge	Weight/Linear ft, lbs
12	40	22.7	12	22	18	11.7
12	43	23.4	12	22	18	12.5
12	47	24.4	12	22	18	13.3
12	50	25.0	12	20	18	16.5
12	53	25.7	12	20	18	17.5
12	56	26.3	12	20	18	18.4
12	59	26.9	12	20	18	19.3
12	62	27.5	12	20	18	20.2
12	65	28.0	12	20	18	21.1
12	69	28.7	12	20	16	22.1
12	72	29.3	12	18	16	29.9
12	75	29.8	12	18	16	31.1
12	78	30.3	12	18	16	32.3
12	81	30.7	12	18	16	33.5
12	84	31.2	12	18	16	34.7
14	17	15.8	8	24	20	5.1
14	18	16.3	8	24	20	5.5
14	20	17.3	8	24	20	5.8
14	22	18.3	12	24	20	6.1
14	23	18.7	12	24	20	6.4
14	25*	19.5	12	18	16	8.2
14	27	20.3	12	22	20	8.6
14	30	21.4	12	22	20	9.4
14	33	22.5	12	22	20	10.1
14	36	23.4	12	22	20	10.9
14	39	24.3	12	22	18	11.7
14	42	25.2	12	22	18	12.5
14	45	26.0	12	22	18	13.3
14	49	27.0	12	20	18	16.5
14	52	27.7	12	20	18	17.5
14	55	28.4	12	20	18	18.4
14	58	29.1	12	20	18	19.3
14	61	29.8	12	20	18	20.2
14	64	30.4	12	20	18	21.1
14	67	31.0	12	20	16	22.1
14	71	31.8	12	18	16	29.9
14	74	32.4	12	18	16	31.1
14	77	32.9	12	18	16	32.3
14	80	33.4	12	18	16	33.5
14	83*	34.0	12	18	16	34.7
16	18	17.2	6	24	20	5.5
16	19	17.8	6	24	20	5.8
16	20	18.3	6	24	20	6.1
16	22	19.4	6	24	20	6.4
16	24*	20.3	6	24	20	6.7
16	25	20.8	12	22	20	8.6
16	29	22.5	12	22	20	9.4
16	32	23.7	12	22	20	10.1
16	35	24.7	12	22	20	10.9
16	38	25.8	12	22	18	11.7
16	41	26.7	12	22	18	12.5
16	44	27.6	12	22	18	13.3
16	47	28.5	12	22	18	14.0
16	51	29.6	12	20	18	17.5
16	54	30.4	12	20	18	18.4
16	57	31.1	12	20	18	19.3
16	60	31.8	12	20	18	20.2
16	63	32.5	12	20	18	21.1
16	66	33.2	12	20	16	22.1
16	69	33.9	12	20	16	23.0
16	73	34.7	12	18	16	31.1
16	76	35.3	12	18	16	32.3
16	79	35.9	12	18	16	33.5
16	82*	36.5	12	18	16	34.7
18	20*	19.2	6	24	20	6.1
18	21*	19.8	6	24	20	6.4
18	22*	20.4	6	24	20	6.7
18	24	21.4	12	24	20	7.1
18	27	22.9	12	22	20	9.4
18	31	24.6	12	22	20	10.1
18	34	25.9	12	22	20	10.9
18	37	27.0	12	22	18	11.7
18	40	28.1	12	22	18	12.5
18	43	29.1	12	22	18	13.3
18	46	30.0	12	22	18	14.0
18	49	30.9	12	20	18	17.5
18	53	32.1	12	20	18	18.4
18	56	32.9	12	20	18	19.3
18	59	33.7	12	20	18	20.2
18	62	34.5	12	20	18	21.1
18	65	35.2	12	20	18	22.1
18	68	35.9	12	20	16	23.0
18	71	36.6	12	18	16	31.1
18	75	37.5	12	18	16	32.3
18	78	38.2	12	18	16	33.5
18	81	38.8	12	18	16	34.7
18	84	39.4	12	18	16	35.9
20	26	23.5	12	22	20	9.4
20	29	25.0	12	22	20	10.1
20	33	26.8	12	22	20	10.9
20	36	28.0	12	22	20	11.7
20	39	29.2	12	22	18	12.5
20	42	30.3	12	22	18	13.3
20	45	31.4	12	22	18	14.0
20	48	32.4	12	22	18	14.8
20	51	33.3	12	20	18	18.4
20	55	34.5	12	20	18	19.3
20	58	35.4	12	20	18	20.2
20	61	36.2	12	20	18	21.1
20	64	37.1	12	20	18	22.1
20	67	37.8	12	20	16	23.0
20	70	38.6	12	20	16	23.9

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Specification - Sizes

Minor Nom, in	Major Nom, in	Equiv Round, in	Max Pipe Length, ft	Spiral Gauge	Fitting Gauge	Weight/ Linear ft, lbs
20	73	39.3	12	18	16	32.3
20	77	40.3	12	18	16	33.5
20	80	41.0	12	18	16	34.7
20	83*	41.6	12	18	16	35.9
22	28	25.5	12	22	20	10.1
22	31	27.0	12	22	20	10.9
22	35	28.9	12	22	20	11.7
22	38	30.2	12	22	18	12.5
22	41	31.4	12	22	18	13.3
22	44	32.5	12	22	18	14.0
22	47	33.6	12	22	18	14.8
22	50	34.7	12	20	18	18.4
22	53	35.7	12	20	18	19.3
22	57	36.9	12	20	18	20.2
22	60	37.8	12	20	18	21.1
22	63	38.7	12	20	18	22.1
22	66	39.6	12	20	16	23.0
22	69	40.4	12	20	16	23.9
22	72	41.2	12	18	16	32.3
22	75	42.0	12	18	16	33.5
22	79	42.9	12	18	16	34.7
22	82	43.7	12	18	16	35.9
24	30	27.5	12	22	20	10.9
24	33	29.1	12	22	20	11.7
24	37	31.0	12	22	18	12.5
24	40	32.3	12	22	18	13.3
24	43	33.5	12	22	18	14.0
24	46	34.7	12	22	18	14.8
24	49	35.9	12	20	18	18.4
24	52	36.9	12	20	18	19.3
24	55	38.0	12	20	18	20.2
24	59	39.3	12	20	18	21.1
24	62	40.2	12	20	18	22.1
24	65	41.2	12	20	18	23.0
24	68	42.0	12	20	16	23.9
24	71	42.9	12	18	16	32.3
24	74	43.7	12	18	16	33.5
24	77	44.5	12	18	16	34.7
24	81*	45.6	12	18	16	35.9
24	84*	46.3	12	18	16	37.1
26	29	27.9	8	22	20	10.9
26	32	29.5	8	22	20	11.7
26	35	31.1	8	22	20	12.5
26	39	33.0	8	22	18	13.3
26	42	34.4	8	22	18	14.0
26	45	35.7	8	22	18	14.8
26	48	36.9	8	22	18	15.6
26	51	38.1	8	20	18	19.3
26	54	39.2	8	20	18	20.2
26	57	40.3	8	20	18	21.1
26	61	41.6	8	20	18	22.1

Minor Nom, in	Major Nom, in	Equiv Round, in	Max Pipe Length, ft	Spiral Gauge	Fitting Gauge	Weight/ Linear ft, lbs
26	64	42.6	8	20	18	23.0
26	67	43.5	8	20	16	23.9
26	70	44.5	8	20	16	24.8
26	73	45.3	8	18	16	33.5
26	76	46.2	8	18	16	34.7
26	79	47.0	8	18	16	35.9
26	83*	48.1	8	18	16	37.1
28	31	29.9	8	22	20	11.7
28	34	31.6	8	22	20	12.5
28	37	33.2	8	22	18	13.3
28	41	35.1	8	22	18	14.0
28	44	36.5	8	22	18	14.8
28	47	37.8	8	22	18	15.6
28	50	39.1	8	20	18	19.3
28	53	40.3	8	20	18	20.2
28	56	41.4	8	20	18	21.1
28	59	42.5	8	20	18	22.1
28	63	43.9	8	20	18	23.0
28	66	44.9	8	20	16	23.9
28	69	45.9	8	20	16	24.8
28	72	46.8	8	18	16	33.5
28	75	47.8	8	18	16	34.7
28	78	48.7	8	18	16	35.9
28	81*	49.5	8	18	16	37.1
30	33*	31.9	8	22	20	12.5
30	36	33.6	8	22	20	13.3
30	39	35.2	8	22	18	14.0
30	43	37.2	8	22	18	14.8
30	46	38.6	8	22	18	15.6
30	49	39.9	8	20	18	19.3
30	52	41.2	8	20	18	20.2
30	55	42.4	8	20	18	21.1
30	58	43.6	8	20	18	22.1
30	61	44.7	8	20	18	23.0
30	65	46.2	8	20	18	23.9
30	68	47.2	8	20	16	24.8
30	71	48.2	8	18	16	33.5
30	74	49.2	8	18	16	34.7
30	77	50.1	8	18	16	35.9
30	80	51.1	8	18	16	37.1
30	83	52.0	8	18	16	38.3
32	38	35.6	6	22	18	14.0
32	41	37.2	6	22	18	14.8
32	45	39.2	6	22	18	15.6
32	48	40.7	6	22	18	16.4
32	51	42.0	6	20	18	20.2
32	54	43.3	6	20	18	21.1
32	57	44.6	6	20	18	22.1
32	60	45.8	6	20	18	23.0
32	63	46.9	6	20	18	23.9
32	67	48.4	6	20	16	24.8

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EHG

Specification - Sizes

Minor Nom, in	Major Nom, in	Equiv Round, in	Max Pipe Length, ft	Spiral Gauge	Fitting Gauge	Weight/ Linear ft, lbs
32	70	49.5	6	20	16	25.7
32	73	50.5	6	18	16	34.7
32	76	51.5	6	18	16	35.9
32	79	52.5	6	18	16	37.1
32	82*	53.4	6	18	16	38.3
34	40	37.6	6	22	18	14.8
34	43	39.3	6	22	18	15.6
34	47	41.3	6	22	18	16.4
34	50	42.7	6	20	18	20.2
34	53	44.1	6	20	18	21.1
34	56	45.5	6	20	18	22.1
34	59	46.7	6	20	18	23.0
34	65	49.1	6	20	18	24.8
34	69	50.6	6	20	16	25.7
34	72	51.7	6	18	16	34.7
34	75	52.8	6	18	16	35.9

Minor Nom, in	Major Nom, in	Equiv Round, in	Max Pipe Length, ft	Spiral Gauge	Fitting Gauge	Weight/ Linear ft, lbs
34	81	54.8	6	18	16	38.3
34	84*	55.8	6	18	16	39.5
36	42*	39.6	6	18	16	15.6
36	45*	41.3	6	18	16	16.4
36	49*	43.3	6	18	16	20.2
36	52*	44.8	6	18	16	21.1
36	55*	46.2	6	18	16	22.1
36	58*	47.6	6	18	16	23.0
36	61*	48.9	6	18	16	23.9
36	64*	50.1	6	18	16	24.8
36	67*	51.3	6	18	16	25.7
36	71*	52.9	6	18	16	34.7
36	74*	54.0	6	18	16	35.9
36	77*	55.1	6	18	16	37.1
36	80*	56.1	6	18	16	38.3
36	83*	57.1	6	18	16	39.5

PLEASE NOTE

· The sizes outlined here are available in single and double wall spiral unless noted with an asterisk (*). An asterisk indicates the size is available in single wall only.

· Pipe can be constructed in any minor/major combination using long seam construction.

· Fittings can be constructed in any minor/major combination under 83" major.

Flat Oval to Round $\quad D_e = 1.55 \times \dfrac{(A)^{0.625}}{(P)^{0.250}}$

Rectangular to Round $\quad D_e = 1.3 \times \dfrac{(a + b)^{0.625}}{(a + b)^{0.250}}$

D_e = Equivalent round diameter (equal pressure loss), in
A = Coss sectional area, in^2
P = Flat oval perimeter, in
a = Rectangular dimension, in
b = Rectangular dimension, in

EHG