

# MARINE DUTY VENTILATION SOLUTIONS



## MARINE DUTY DUCT FANS

This fan is ideal for all marine applications. It is a robust, cost-effective fan that exceeds industry needs and standards.

These fans are backed by solid engineering that comes from our first-hand experience in the offshore ventilation business.

Design was analyzed using the latest in 3D CAD and Finite Element Analysis technology, and we are confident that we have designed the best fans available to the marine market.



#### SIZES

US STANDARD: 12" through 79" with ranging performance up to 200,000 CFM and pressures up to 8" SP

#### HOUSINGS

Available in both short and long versions
Constructed of ¼\* thick carbon steel or greater
Seal welded interior and exterior seams
SP-10 sandblasted to a near white finish
Powder-coated with marine duty zinc rich primer and super durable polyester topcoat

#### **PROPELLERS**

Axial blades with efficient airfoil shape
Pressure die-cast aluminum hubs and adjustable pitch blades
Taper lock bushings and straight bore arrangments available
Balanced in accordance with ISO Standard 1940 G 6.3
Tested in accordance with AMCA standard 210
Superior low noise levels

METRIC: 315 mm through 2,000 mm with ranging performance up to 340,000 m³/hr. and pressures up to 2,000 Pa.

#### **MOTORS**

Totally enclosed IEEE45 marine duty 50°C ambient 60/50 Hz

#### HAZARDOUS DUTY

Explosion-proof NEMA/IEC Motor voltages to match specific requirements

#### **ELECTRICAL CONNECTIONS**

To match customer-specified voltages Electrical leads extend to the housing exterior to a cast junction box when placed in a duct arrangement

#### SPECIAL OPTIONS

Companion flanges
Inlet bells
Louvers
Dampers
Mounting feet and brackets
Vibration isolators
Sound mufflers

Aluminum rub ring on the inner housing surface of the prop path for non-sparking fans Lift lug(s) Special coatings Special construction materials Safety guards Custom design for special applications



www.eldridgefan.com

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#### **DIMENSIONS**

#### US STANDARD (inches)

FAN SIZE	А	В	С	D	E	F	C	н
12	12 7/8	16 7/16	15 1/8	12	9/16	21	1/4	1/4
14	14 7/8	18 7/16	17 1/8	12	9/16	21	1/4	1/4
16	16 7/8	20 7/16	19 1/8	12	9/16	25	1/4	1/4
18	18 7/8	22 7/16	21 1/8	12	9/16	25	1/4	1/4
20	20 7/8	24 7/16	23 1/8	12	9/16	25	1/4	1/4
24	24 7/8	29 7/16	27 5/8	12	9/16	25	1/4	1/4
28	28 7/8	33 7/16	31 5/8	12	9/16	33	1/4	1/4
30	30 7/8	35 7/16	33 5/8	12	9/16	33	1/4	1/4
32	33	37 9/16	35 3/4	12	9/16	33	1/4	1/4
35	35 1/2	39 7/8	38	12	9/16	40	1/4	1/4
36	37	41 9/16	39 3/4	12	9/16	40	1/4	1/4
39	39 3/8	43 7/8	41 7/8	12	9/16	40	1/4	1/4
40	41	45 9/16	43 3/4	12	9/16	45	1/4	1/4
42	42 7/8	47 7/16	45 5/8	12	9/16	45	1/4	1/4
44	44 1/8	49 5/8	47 3/8	12	9/16	45	1/4	1/4
45	45	49 4/7	47 3/4	12	9/16	45	1/4	1/4
48	49 1/8	54 15/16	52 3/4	12	9/16	50	1/4	1/4
49	49 1/4	54 3/4	52 1/2	12	9/16	50	1/4	1/4
54	55 3/8	61 3/16	59	12	9/16	50	1/4	3/8
55	55 1/8	60 5/8	58 3/8	12	9/16	50	1/4	3/8
57	57 1/8	62 5/8	60 3/8	12	9/16	50	1/4	3/8
60	61 3/8	67 3/16	65	12	9/16	50	3/8	3/8
63	63	68 1/2	66 1/4	16	11/16	63	3/8	3/8
71	70 7/8	77 5/8	75	16	11/16	63	3/8	3/8
79	78 3/4	85 1/2	82 7/8	16	11/16	63	3/8	3/8

#### METRIC (millimeters)

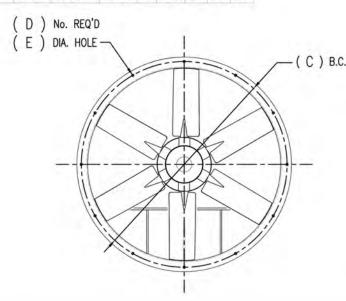
FAN SIZE	A	В	С	D	E	F	G	н
315	315	395	365	8	10	535	6	6
350	350	435	405	8	10	535	6	6
400	400	480	450	8	12	635	6	6
450	450	530	500	8	12	635	6	6
500	500	600	560	12	12	635	6	6
560	560	660	620	12	12	635	6	6
600	600	700	660	12	12	635	6	6
630	630	730	690	12	12	635	6	6
650	650	750	710	12	12	635	6	6
710	710	810	770	16	12	840	6	6
800	800	900	860	16	12	840	6	6
900	900	1010	970	16	16	1015	6	6
1000	1000	1110	1070	16	16	1015	6	6
1100	1100	1260	1190	20	16	1150	6	6
1200	1200	1340	1270	20	16	1270	6	6
1250	1250	1390	1320	20	16	1270	6	10
1400	1400	1540	1470	20	16	1270	6	10
1500	1500	1640	1570	20	16	1270	6	10
1530	1530	1670	1600	20	16	1270	10	10
1600	1600	1760	1680	20	20	1600	10	10
1800	1800	1960	1880	20	20	1600	10	10
2000	2000	2160	2080	20	20	1600	10	10

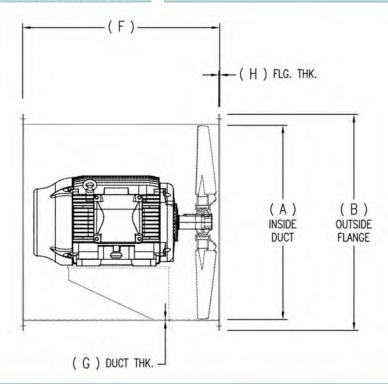
#### INFORMATION PACKAGE

For each piece of equipment sold, you will be provided with an information package that contains the following:

- 1. Test Report This is the record that Eldridge has tested the equipment prior to shipment and that it meets the required manufacturing and performance standards.
- Equipment Drawings -Drawings and specification for the equipment.
- Motor Specifications –
   Drawings, specifications,
   performance curves, and electrical wiring schematic provided by the motor manufacturer.
- 4. IOM Manual Installation, Operation, and Maintenace Manual.

Eldridge recommends that the equipment information package be stored where it can be easily accessed by personnel that will store, handle, install, start up, and maintain the equipment.





#### LIMITED WARRANTY

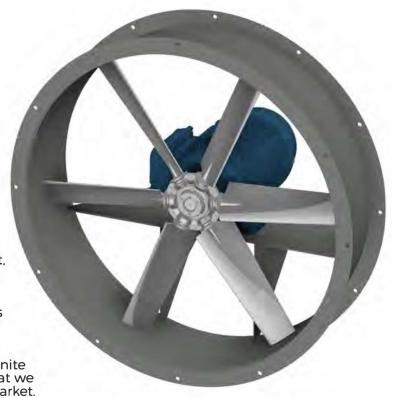
Eldridge is proud of its ventilation equipment and stands behind its superior design and construction with a (12) twelve-month limited operational warranty. This warranty begins when the equipment is placed in service, not to exceed (18) eighteen months from the date of shipment from the factory. If for any reason related to workmanship or materials, and under normal use and service, any equipment or subcomponent should fail during the warranty period, Eldridge will repair or replace the equipment or subcomponent at no cost. For full warranty details, please refer to the IOM Manual.

## MARINE DUTY RING FANS

This fan is ideal for all marine applications. It is a robust, cost-effective fan that exceeds industry needs and standards.

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#### SIZES

US STANDARD: 12" through 60" with ranging performance up to 100,000 CFM and pressures up to 1.5" SP

#### HOUSINGS

Constructed of heavy gauge carbon steel Seal welded interior and exterior seams SP-10 sandblasted to a near white finish Powder-coated with marine duty zinc rich primer and super durable polyester topcoat

#### **PROPELLERS**

Axial blades with efficient airfoil shape
Pressure die-cast aluminum hubs and adjustable pitch blades
Taper lock bushings and straight bore arrangments available
Balanced in accordance with ISO Standard 1940 G 6.3
Tested in accordance with AMCA standard 210
Superior low noise levels

METRIC: 315 mm through 1,530 mm with ranging performance up to 170,000 m<sup>3</sup>/hr. and pressures up to 400 Pa.

#### **MOTORS**

Totally enclosed IEEE45 marine duty 50°C ambient 60/50 Hz

HAZARDOUS DUTY
Explosion-proof NEMA/IEC
Motor voltages to match specific
requirements

ELECTRICAL CONNECTIONS

To match customer-specified voltages

#### SPECIAL OPTIONS

Companion flanges
Inlet bells
Louvers
Dampers
Aluminum rub ring on the inner housing surface of the prop
path for non-sparking fans

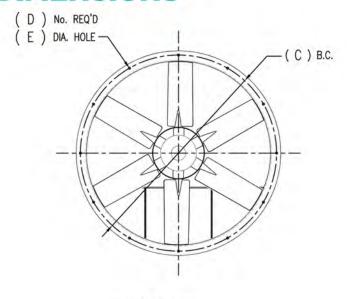
Lift lug(s)
Special coatings
Special construction materials
Safety guards
Custom design for special applications

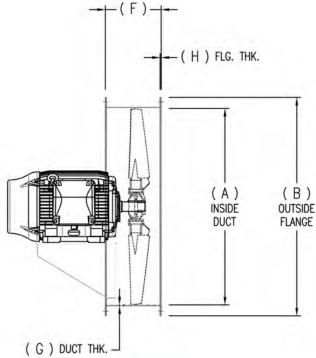


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#### **DIMENSIONS**





#### US STANDARD (inches)

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14	14 7/8	18 7/16	17 1/8	12	9/16	9	10 GA	10 GA
16	16 7/8	20 7/16	19 1/8	12	9/16	9	10 GA	10 GA
18	18 7/8	22 7/16	21 1/8	12	9/16	9	10 GA	10 GA
20	20 7/8	24 7/16	23 1/8	12	9/16	9	10 GA	10 GA
24	24 7/8	29 7/16	27 5/8	12	9/16	9	10 GA	10 GA
28	28 7/8	33 7/16	31 5/8	12	9/16	9	10 GA	10 GA
32	33	37 9/16	35 3/4	12	9/16	9	7 GA	7 GA
36	37	41 9/16	39 3/4	12	9/16	12	7 GA	7 GA
40	41	45 9/16	43 3/4	12	9/16	12	7 GA	7 GA
44	44 1/8	49 5/8	47 3/8	12	9/16	12	7 GA	7 GA
48	49 1/8	54 15/16	52 3/4	12	9/16	14	1/4	1/4
54	55 3/8	61 3/16	59	12	9/16	14	1/4	1/4
60	61 3/8	67 3/16	65	12	9/16	14	1/4	1/4

#### METRIC (millimeters)

FAN SIZE	A	В	С	D	E	F	G	Н
315	315	395	365	12	15	150	3	3
350	350	435	405	12	15	230	3	3
400	400	480	450	12	15	230	3	3
450	450	530	500	12	15	230	3	3
500	500	600	560	12	15	230	3	3
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1250	1250	1390	1320	12	15	355	6	6
1400	1400	1540	1470	12	15	355	6	6
1530	1530	1670	1600	12	15	355	6	6

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### STORM GUARD HOOD

The Eldridge Storm Guard Hood prevents the entrainment of water into machinery space ventilation systems on a Mobile Offshore Drilling Unit (MODU) or any kind of offshore vessel/installation.

The Storm Guard Hood was designed with a smaller footprint and to outperform previous traditional marine ventilation hoods.

#### OPTIONAL FEATURES

- Vent cover with manual or motor driven screw down lid
- Acoustical lining for critical noise abatement applications

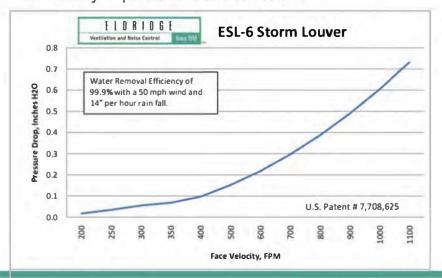


US Patent No. 7,708,625

#### **DESIGN AND FUNCTION**

Our patented Storm Guard Hood uses the Eldridge ESL-6 Vertical Storm Louver to create a smaller footprint where deck space is at a premium. The ESL-6 louver blades are spaced close together vertically. There are turbulators on the interior surfaces of the blades that change the direction of the airflow and collect the driven water. Water free falls to the bottom of the louver and drains out on to the deck

The Eldridge ESL-6 Storm Louvers' water eliminating and construction features make them superior to any other louver on the market. Our hood is all seal welded rather than bolted or sheet metal screwed together. The louvers are also all welded construction of 0.125" thick extruded aluminum and treated with a one-hour clear anodized finish, making them as effective as 316 stainless steel and virtually impervious to salt corrosion.



#### PERFORMANCE

- Rated for velocity and pressure drop in accordance with tests performed per AMCA Publication 511
- Maintains 99.9% efficiency from 400 to 4,000 fpm through the free area
- 99.7% effective in the removal of fog particles down to 20 micron size



Storm Guard Hood SGH-A-001

# WAVE PLATE BLOWER



US PATENTS 8,470,064 AND 8,801,823

The Eldridge Wave Plate Blower delivers clean air to cool your drilling motor without sacrificing airflow and pressure.

#### **HOW IT WORKS**

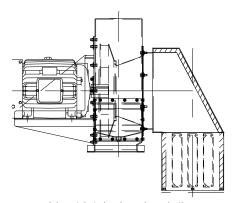
An internal wave plate diverts contaminants and water into a trap bolted into the side of the blower housing. This allows water and contaminants to drain out away from the blower resulting in only clean air passing into the drilling motor.

#### **FEATURES**

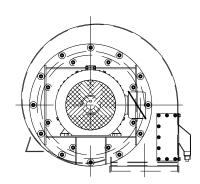
- Airflow to the motor is not compromised and pressure is not reduced
- Various sizes and horsepowers based on cooling requirements
- Designed to match the specific bolt pattern on motor

#### **OPTIONS**

- Non-sparking and explosion-proof construction
- · Inlet weather hood and safety guard
- Inlet Noise Silencer
- Inlet Vertical Storm Louver



Assembly with inlet hood and silencer



Wave Plate Blower



Eldridge Vertical Storm Louver

E L D R I D G E

Ventilation and Noise Control Since 1946

INDUSTRIAL · MARINE · PROCESS · POWER

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## Optimal Ventilation System Design

for Machinery Efficiency and Personnel Health & Safety



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