



R3-R7 SERIES - EXPLOSION PROOF MOTORS



R3105N-50



R4 - R7 Series

| MODELS | Maximum Pressure ("H ₂ O) | | Maximum Vacuum ("H ₂ O) | | Maximum Air Flow (CFM) | |
|--------------------------|--------------------------------------|----------|------------------------------------|----------|------------------------|------------|
| | 60 Hz | 50 Hz | 60 Hz | 50 Hz | 60 Hz | 50 Hz |
| R3105N-50 | 43 | 31 | 40 | 28 | 53 | 44 |
| R4110N-50 R4310P-50 | 51 | 38 | 48 | 35 | 92 | 74 |
| R4P115N-50 | 65 | 45 | 60 | 40 | 133 | 112 |
| R5125Q-50 R5325R-50 | 55 65 | - 50 | 60 65 | - 47 | 160 160 | - 133 |
| R6130Q-50 R6340R-50 | 60 100 | 75 75 | 70 80 | 65 65 | 215 215 | 180 180 |
| R6P155Q-50 R6P355R-50 | 95 100 | 80 80 | 85 85 | 65 65 | 280 280 | 235 232 |
| R7100R-50 | 100 | 90 | 110 | 85 | 425 | 350 |

PRODUCT FEATURES

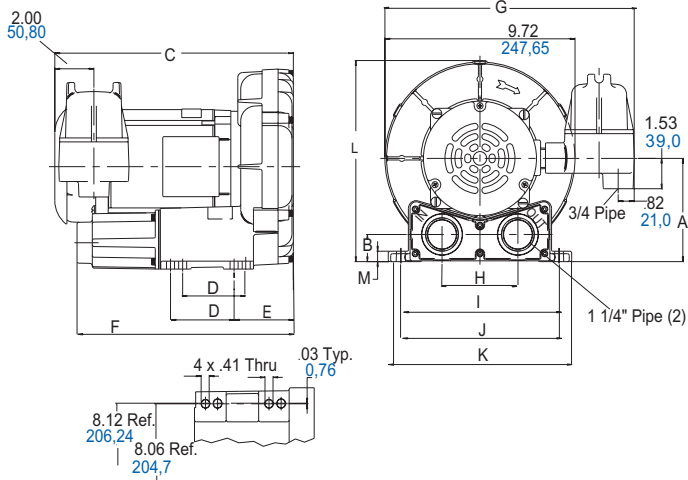
- Rugged design, maintenance free
- Quiet operation within OSHA standards
- Blowers and motors rated for continuous duty
- UL and CSA approved multi-voltage motors, incorporating approved thermal protection
- Motors classified as Explosion Proof Division 1 and 2, for Group D explosive atmospheres
- Motors carry full rated load at temperatures below Class B motor insulation limits
- Class F motor insulation used in motors larger than 1 HP
- Motors conform to NEMA frame sizes; motor enclosures conform to IP54 (suitable for outdoor use)
- Pilot duty thermal overload protection is standard on all 1 HP and larger motors
- Double sealed motor ball bearings with a B10 life exceeding 30,000 hours of continuous operation at the maximum rated continuous blower load
- Sealed air streams
- Aluminum impeller, housing and cover; viton shaft seal.
- Pressurized and leak-tested to less than 5cc/minute

| Recommended Accessories | R3 Series | R4 Series | R4P Series | R5 Series | R6 Series | R6P Series | R7 Series |
|-------------------------|-----------|-----------|------------|-----------|-----------|------------|-----------|
| Pressure Gauge | AJ496 | AJ496 | AE133 | AE133 | AE133 | AE133 | AE133 |
| Vacuum Gauge | AJ497 | AJ497 | AE134 | AE134 | AE134 | AE134 | AE134 |
| Pressure Filter | AJ126C | AJ126D | AJ126D | AJ126D | AJ126F | AJ126F | AJ126G |
| Vacuum Filter (Inline) | AJ151C | AJ151D | AJ151D | AJ151E | AJ151G | AJ151G | AJ151H |

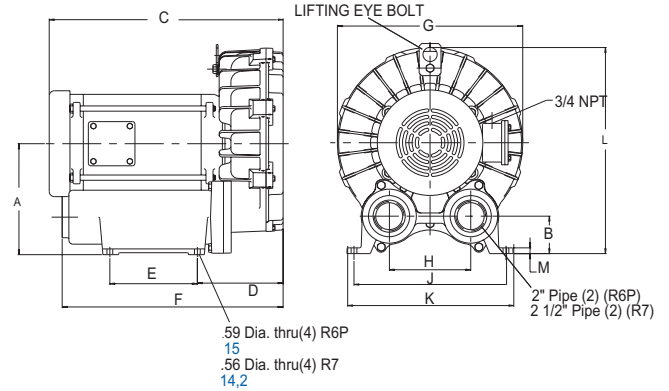


Product Dimensions (in. mm)

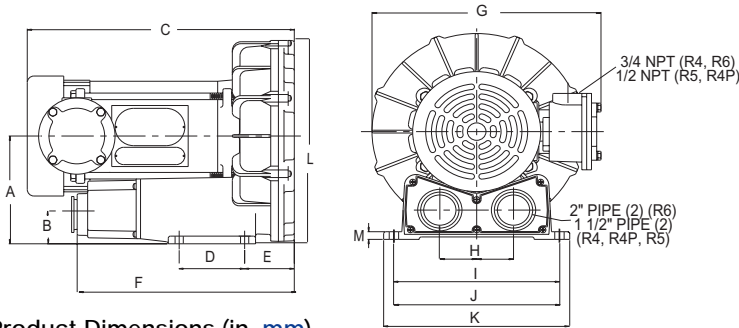
Model R3



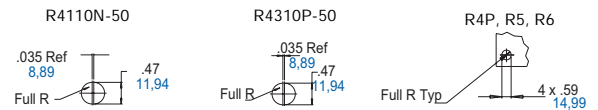
Models R6P, R7



Models R4, R4P, R5, R6



Mounting Hole Detail



Product Dimensions (in. mm)

| Model | A | B | C | D | E | F | G | H | I | J | K | L | M |
|-------------------|--------------|------------|--------------|-------------|-------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|-----------|
| R3105N-50 | 5.21 132 | 1.37 35 | 12.3 312 | 3.25 83 | 3.06 78 | 11.06 281 | 12.75 324 | 3.88 99 | 8.06 205 | 8.12 206 | 9.38 238 | 10.15 258 | .53 13 |
| R4110N-50 | 6.18 157 | 1.68 43 | 15.34 390 | 3.75 95 | 2.85 72 | 12.44 316 | 12.34 313 | 3.96 101 | 8.86 225 | 8.93 227 | 10.00 254 | 11.80 300 | .44 11 |
| R4310P-50 | 6.18 157 | 1.68 43 | 14.09 358 | 3.75 95 | 2.84 74 | 12.44 316 | 12.34 313 | 3.96 101 | 8.86 225 | 8.93 227 | 10.00 254 | 11.80 300 | .44 11 |
| R4P115N-50 | 6.98 177 | 1.84 47 | 17.41 442 | 4.50 114 | 3.25 83 | 13.93 354 | 13.75 349 | 4.75 121 | 10.25 260 | 10.31 262 | 11.75 298 | 13.61 346 | .60 15 |
| R5125Q-50 | 7.02 178 | 1.82 46 | 17.59 447 | 4.50 114 | 3.55 90 | 14.22 361 | 13.72 348 | 4.75 121 | 10.25 260 | 10.31 262 | 11.75 298 | 13.80 351 | .59 15 |
| R5325R-50 | 7.02 178 | 1.82 46 | 16.75 425 | 4.50 114 | 3.55 90 | 14.22 361 | 13.56 344 | 4.75 121 | 10.25 260 | 10.31 262 | 11.75 298 | 13.80 351 | .59 15 |
| R6130Q-50 | 7.75 197 | 1.94 49 | 18.97 482 | 5.50 140 | 3.85 98 | 16.02 407 | 15.17 385 | 4.92 125 | 11.38 289 | 11.42 290 | 12.96 329 | 15.34 390 | .52 13 |
| R6340R-50 | 7.75 197 | 1.94 49 | 18.82 478 | 5.50 140 | 3.85 98 | 15.89 404 | 15.17 385 | 4.92 125 | 11.38 298 | 11.42 290 | 12.96 329 | 15.34 390 | .52 13 |
| R6P155Q-50 | 9.77 248 | 3.15 80 | 22.81 579 | 5.12 130 | 5.51 140 | 16.85 428 | 16.75 425 | 5.00 127 | - - | 11.42 290 | 12.80 325 | 18.14 461 | .50 13 |
| R6P355R-50 | 9.77 248 | 3.15 80 | 19.92 506 | 5.12 130 | 5.51 140 | 16.85 428 | 16.75 425 | 5.00 127 | - - | 11.42 290 | 12.80 325 | 18.14 461 | .50 13 |
| R7100R-50 | 10.79 274 | 3.64 92 | 22.77 578 | 8.36 212 | 8.50 216 | 21.50 546 | 18.00 457 | 7.90 201 | - - | 14.76 375 | 16.14 410 | 20.03 509 | .56 14 |

Notice: Specifications subject to change without notice.



Product Specifications

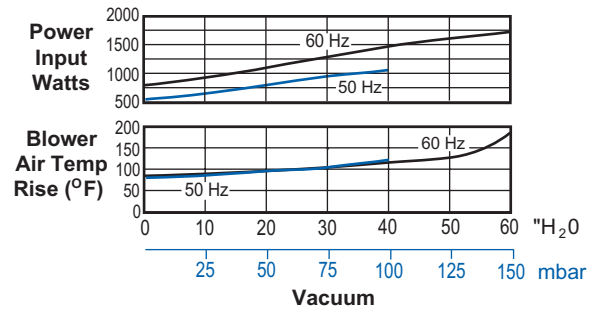
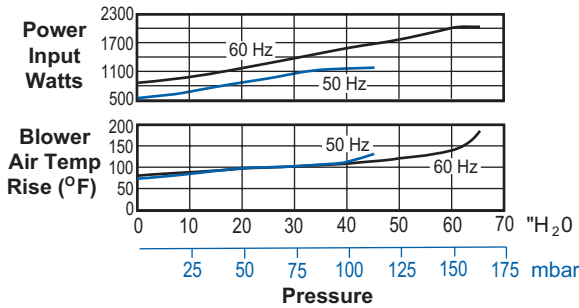
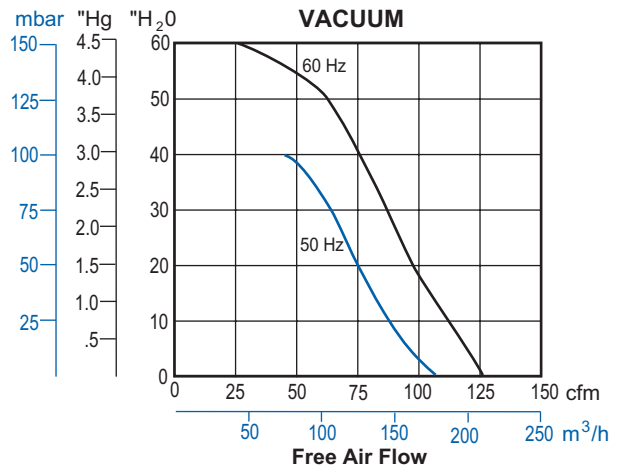
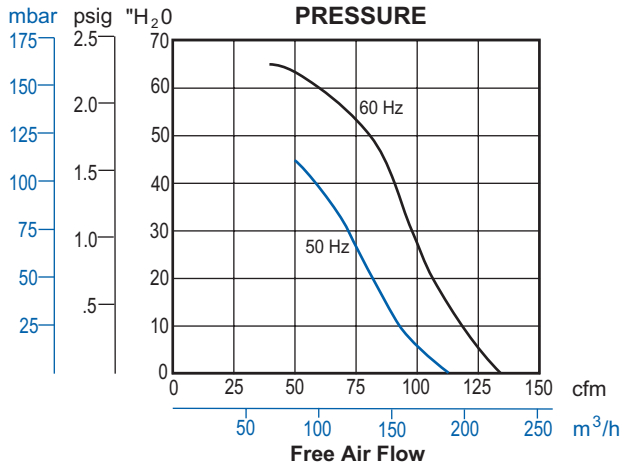
| MODEL NUMBER | | R3105N-50 | R4110N-50 | R4310P-50 | R4P115N-50 |
|-------------------------------|-------|---------------|---------------|---------------|-----------------|
| Motor Enclosure | | XPFC | XPFC | XPFC | XPFC |
| HP/kW | 60 Hz | .50/0,37 | 1.0/0,75 | 1.0/0,75 | 1.5/1,1 |
| | 50 Hz | .33/0,25 | .60/0,45 | .60/0,45 | 1.0/0,75 |
| Voltage | 60 Hz | 115/208-230-1 | 115/208-230-1 | 208-230/460-3 | 115/208-230-1 |
| | 50 Hz | 110/220-240-1 | 110/220-240-1 | 220/380-3 | 110/220-240-1 |
| Amps | 60 Hz | 5.2/2.9-2.6 | 11.4/6.2-5.6 | 3.4-3.3/1.6 | 20.3/11.2-10.6 |
| | 50 Hz | 4.8/2.4-2.2 | 9.2/5.2-4.6 | 3.2/1.6 | 15.2/7.6-8 |
| Starting Amps | 60 Hz | 12.5 @ 230V | 36.5 @ 230V | 19.7 @ 230V | 60.6 @ 230V |
| | 50 Hz | 13 @ 220V | 40.6 @ 240V | 23.3 @ 220V | Consult Factory |
| Insulation Class | | B | B | B | F |
| Recommended NEMA Starter Size | | 00/00 | 0/00 | 0/0 | 1/0 |
| Net Weight (lbs/kg) | | 52/24 | 60/28 | 58/27 | 79/36 |

| MODEL NUMBER | | R5125Q-50 | R5325R-50 | R6130Q-50 | R6340R-50 |
|-------------------------------|-------|-----------|-------------------|-----------------|-------------------|
| Motor Enclosure | | XPFC | XPFC | XPFC | XPFC |
| HP/kW | 60 Hz | 2.0/1,5 | 2.0/1,5 | 3.0/2,2 | 4.0/3,0 |
| | 50 Hz | - | 1.5/1,1 | 2.5/1,9 | 3.0/2,2 |
| Voltage | 60 Hz | 115/230-1 | 208-230/460-3 | 230-1 | 208-230/460-3 |
| | 50 Hz | - | 190-220/380-415-3 | 220-240-1 | 190-220/380-415-3 |
| Amps | 60 Hz | 25/12.5 | 6.6-6.1/3.05 | 16.3 | 13-12/6 |
| | 50 Hz | - | 5.0-4.4/2.5-2.6 | 14.7-13.5 | 14.4-13.4/7.2-6.8 |
| Starting Amps | 60 Hz | 78 @ 230V | 48 @ 230V | 64 @ 230V | 125 @ 230V |
| | 50 Hz | - | Consult Factory | Consult Factory | Consult Factory |
| Insulation Class | | F | F | F | F |
| Recommended NEMA Starter Size | | 1/0 | 0/0 | 1 | 1/0 |
| Net Weight (lbs/kg) | | 77/35 | 75/34 | 129/59 | 112/51 |

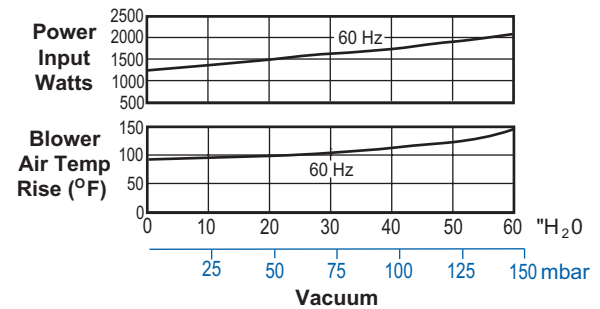
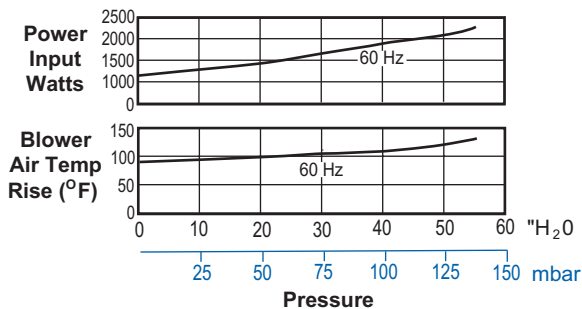
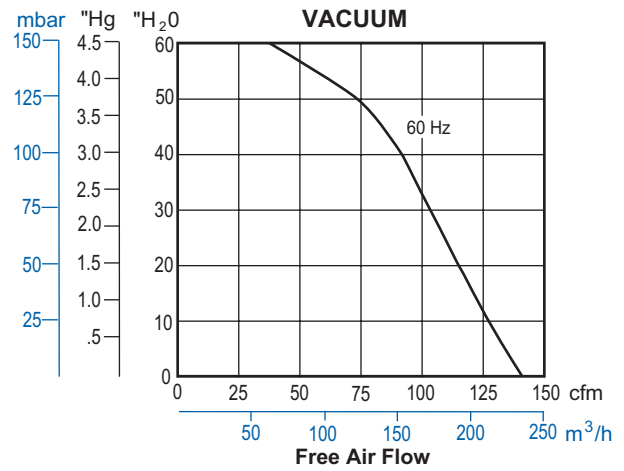
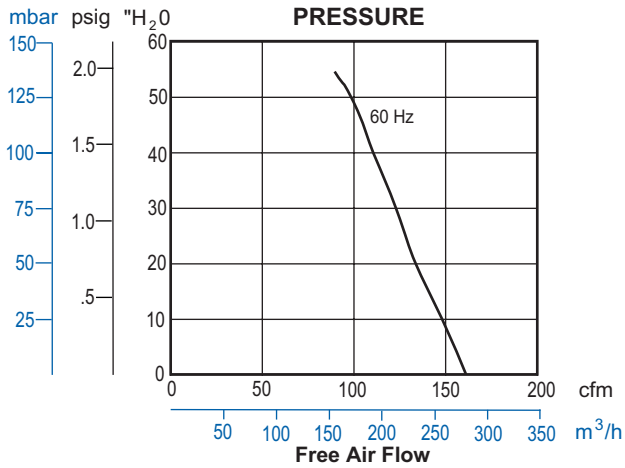
| MODEL NUMBER | | R6P155Q-50 | R6P355R-50 | R7100R-50 |
|-------------------------------|-------|--------------|-------------------|---------------------|
| Motor Enclosure | | XPFC | XPFC | XPFC |
| HP/kW | 60 Hz | 5.5/4,1 | 6.0/4,5 | 10/7,5 |
| | 50 Hz | 4.0/3,0 | 4.5/3,4 | 8.0/6,0 |
| Voltage | 60 Hz | 230-1 | 208-230/460-3 | 208-230/460-3 |
| | 50 Hz | 220-240-1 | 190-220/380-415-3 | 190-220/380-415-3 |
| Amps | 60 Hz | 29.9 | 20-18/9 | 26.5-24/12 |
| | 50 Hz | 20.8-19.1 | 14.9-11/7.45-5.8 | 23.2-21.0/11.6-10.9 |
| Starting Amps | 60 Hz | 198.4 @ 230V | 59 @ 460V | 105 @ 460V |
| | 50 Hz | 189 @ 240V | Consult Factory | Consult Factory |
| Insulation Class | | F | F | F |
| Recommended NEMA Starter Size | | 0/2 | 1/0 | 2/1 |
| Net Weight (lbs/kg) | | 243/110 | 233/105 | 297/134 |



R4P115N-50



R5125Q-50





- Q. What happens to the noise when I locate two blowers close together?
- A. If the blowers are of the same design they produce sound frequencies that are close together. These may cause a “beating” change in volume of the blower noise. This is because the units are not synchronized. If two small blowers are needed this change in volume can be reduced by moving them further apart. With larger blowers a dual blower with two blowers on one motor will solve this problem.
- Q. What causes the noise relief valves make?
- A. Air rush through the valve.
- Q. How do I control relief valve or bleed off valve noise?
- A. Attach AJ121 series silencer on the port of the relief valve that is open to atmosphere.
- Contact Gast at 616-926-6171 or www.gastmfg.com with any further questions you may have on reducing blower noise in your application.

Noise Reduction and Absorption Coefficients for Common and Specialty Noise Reduction Materials

| | 125Hz | 250Hz | 500Hz | 1000Hz | 2000Hz | 4000Hz | NRC |
|--------------------|-------|-------|-------|--------|--------|--------|------|
| Brick, unglazed | .03 | .03 | .03 | .04 | .05 | .07 | .04 |
| Carpet | | | | | | | |
| 1/4 in pile height | .05 | .10 | .15 | .30 | .50 | .55 | .26 |
| Fabric | | | | | | | |
| Heavy Velour | | | | | | | |
| 18 oz per sq. yd | | | | | | | |
| draped to 1/2 area | .14 | .35 | .55 | .72 | .70 | .65 | .62 |
| Hardwood | | | | | | | |
| Plywood Paneling | | | | | | | |
| 1/4 in thick | | | | | | | |
| wood frame | .58 | .22 | .07 | .04 | .03 | .07 | .09 |
| TecniFoam* | | | | | | | |
| TFP4 | | | | | | | |
| Pyramid shape | .39 | .60 | 1.21 | 1.14 | 1.16 | 1.13 | 1.05 |
| TecniFoam* | | | | | | | |
| TFW4000 | | | | | | | |
| Anaechoic | | | | | | | |
| Wedge shape | .64 | 1.10 | 1.34 | 1.23 | 1.24 | 1.21 | 1.25 |

Source: Mechanical Engineering Reference Manual

*TFP4 and TFW4000 are products of TecniFoam, Inc., 7145 Boone Avenue North, Minneapolis, MN., 55428

Blower Sound Levels of Gast Blowers

Data is highest sound level out of 4 places around the blower at 1 meter.

Data represents average of several units run at nominal voltage.

Lowest to highest maximum dba level throughout performance range is shown.

Readings at other than the maximum around the blower at 1 meter may be from 2 to 10 dba less than data shown.

Readings taken in a laboratory sound room that does not reflect much noise.

Note: For comparison purposes, some blower manufacturers show sound data from 1–1/2 meters instead of from 1 meter; also, some blower manufacturers show an “average” sound level across performance instead of the full range between minimum and maximum sound levels; either of these methods will provide different and usually lower sound levels compared to Gast’s sound level method.

| 60Hz | dBa at Pressure | 50Hz | dBa at Pressure |
|------|-----------------|------|-----------------|
| R1 | 59-67 | R1 | 59-64 |
| R2 | 66 | R2 | 61-63 |
| R3 | 67-70 | R3 | 63-68 |
| R4 | 69-73 | R4 | 64-69 |
| R4P | 69-75 | R4P | 64-71 |
| R5 | 73-77 | R5 | 71-77 |
| R6 | 73-79 | R6 | 70-79 |
| R6P | 82-83 | R6P | 77-80 |
| R6PP | 77-79 | R6PP | 73-76 |
| R6PS | 76-77 | R6PS | 72-75 |
| R7 | 82-84 | R7 | 77-79 |
| R7P | 77-80 | R7P | 74-79 |
| R7S | 75-77 | R7S | 72-76 |
| R9 | 82-85 | R9 | 78-85 |
| R9P | 81-88 | R9P | 79-86 |
| R9S | 79-81 | R9S | 77-81 |
| R4H | 80-82 | R4H | 75-81 |
| R4M | 82-83 | R4M | 78-79 |
| R7H | 83 | R7H | 79-81 |

| 60Hz | dBa at Vacuum | 50Hz | dBa at Vacuum |
|------|---------------|------|---------------|
| R1 | 58-63 | R1 | 54-60 |
| R2 | 67 | R2 | 63-64 |
| R3 | 67-71 | R3 | 64-69 |
| R4 | 70-72 | R4 | 66-70 |
| R4P | 73-74 | R4P | 68-71 |
| R5 | 75-76 | R5 | 71-73 |
| R6 | 78-80 | R6 | 74-77 |
| R6P | 81-85 | R6P | 79-81 |
| R6PP | 81-83 | R6PP | 78-79 |
| R6PS | 79-81 | R6PS | 76-77 |
| R7 | 85-87 | R7 | 79-84 |
| R7P | 84-86 | R7P | 80-83 |
| R7S | 82-83 | R7S | 78-80 |
| R9 | 85-90 | R9 | 83-84 |
| R9P | 88-90 | R9P | 84-87 |
| R9S | 87-88 | R9S | 83-86 |
| R4H | 82-89 | R4H | 79-88 |
| R4M | 85-89 | R4M | 80-85 |
| R7H | 82-91 | R7H | 80-90 |