PRODUCT CUT SHEET · SANITARY SEWER LIFT STATIONS

Lift Station Air Mixing

FOG control with a Gast REGENAIR® R4 Series 1 HP regenerative blower

THE FOG PROBLEM

Fats, oils and grease (FOG) float to the top of the wet well and harden into mats, while heavier solids settle on the floor. FOG is the leading cause of clogs, pump failures and foul odors in lift stations, driving emergency call-outs, vac-truck cleanings and early pump wear.

HOW AIR MIXING WORKS

The blower pushes oil-free air through a stainless drop pipe into the basin. Rising bubbles roll the wet well, breaking up grease mats and keeping solids and FOG in suspension so the pumps carry them out with every cycle instead of letting them build up.

Typical installation: blower (circled) on the slab beside the control panel, with a stainless air line into the wet well hatch.

BENEFITS

- **Fewer grease mats and clogs**
  Continuous mixing keeps FOG from collecting and hardening on the surface and walls.
- **Less pump ragging and fewer failures**
  Solids leave in small amounts each cycle rather than as a slug that binds impellers.
- **Fewer vac-truck cleanings**
  Less buildup in the wet well means longer intervals between cleanouts.
- **Helps control odors**
  Added air helps limit septic conditions in the basin that produce foul odors.
- **Low maintenance, oil-free**
  Sealed ball bearings and a single moving part: no oil, belts or lubrication.
- **Simple retrofit**
  Mounts on the existing slab; one air line runs through the wet well hatch.

BLOWER SPECIFICATIONS (60 HZ)

Model	R4110-2	R4310A-2	R4310B-1
Voltage / phase	115/208-230 V, 1-ph	208-230/460 V, 3-ph	575 V, 3-ph
Full-load amps	9.8 / 5.2-4.9	3.4-3.2 / 1.6	1.25
Starting amps	31.2 @ 230 V	26.5 @ 230 V	7.6
NEMA starter	0/00	00/00	00
All models	1 HP (0.75 kW) TEFC motor, UL/CSA, Class B insulation · aluminum housing and impeller · internal inlet/outlet muffling · mounts in any plane · 1-1/2" NPT ports · 12.8 × 11.3 × 11.8 in. · 41 lb · thermal auto-restart (1-ph)		

PERFORMANCE

Max air flow	92 CFM
Max pressure	52 in. H_2O
Sound @ 1 m	69–73 dBA

Back-pressure	≈ Air flow
20 in. H_2O	70 CFM
30 in. H_2O	60 CFM
40 in. H_2O	53 CFM

Flows read from Gast 60 Hz pressure curve. Back-pressure ≈ air release depth below water surface plus pipe losses.

JHW
JH Wright

JH Wright • (888) 655-7867
jhwpump@jhwright.com • www.jhwright.com/

Data: Gast R4 Series literature.
REGENAIR® is a Gast trademark.