

# Buffalo HT Fan Company Inc.

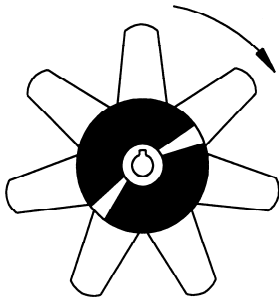
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## Typical fan wheel designs, features, and applications



### Axial Flow (AX)

Static Efficiency (Es): 31-52%

Specific Speed Range (Ns):

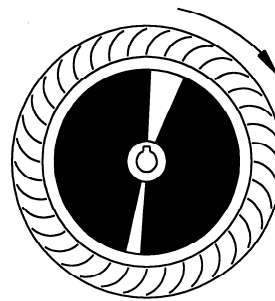
115,000 – 184,230

Peak efficiency range (Ns):

125,000 – 175,000

**FEATURES:** Single or reversing flow capability; high volumes at low pressures.

**USES:** High temperature furnaces; soaking pit recirculation; usable up to 2,000°F and above.



### Forward Curved (FC)

Static Efficiency (Es): 45-57%

Specific Speed Range (Ns):

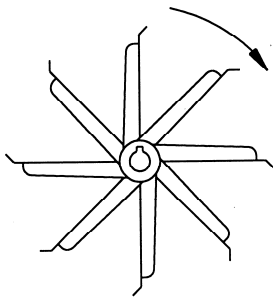
24,440 – 39,070

Peak efficiency range (Ns):

26,000 – 30,000

**FEATURES:** High pressure in small diameter wheel. Also known as Sirocco™ or squirrel cage wheel.

**USES:** High temperature furnaces; gas recirculation; plug fans; base annealing; heat treating; usable up to 2,000°F and above.



### Paddle Wheel (PW)

Static Efficiency (Es): 55-68%

Specific Speed Range (Ns):

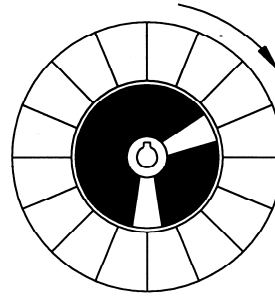
8,100 – 34,740

Peak efficiency range (Ns):

18,000 – 22,000

**FEATURES:** Reversible; surgeless design; low to medium volumes at medium to high pressures.

**USES:** High temperature furnace, ovens; carburizing; abrasive and dirty airstreams; usable up to 2,000°F and above.



### Radial Bladed (RB)

Static Efficiency (Es): 55-75%

Specific Speed Range (Ns):

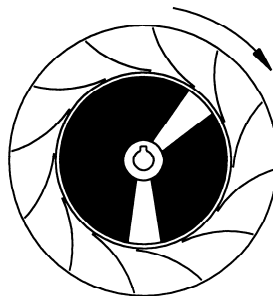
3,200 – 31,650

Peak efficiency range (Ns):

7,000 – 22,000

**FEATURES:** Low to medium volumes at very high pressures.

**USES:** Scrubbers; high pressure applications; dirty airstreams; combustion air; turbo pressure blowers; usable up to 1,500°F.



### Radial Tipped (RT)

Static Efficiency (Es): 64-76%

Specific Speed Range (Ns):

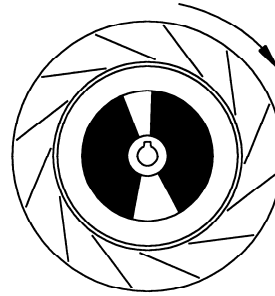
19,310 – 46,100

Peak efficiency range (Ns):

28,000 – 35,000

**FEATURES:** Medium volumes at medium to high pressures.

**USES:** Often in abrasive or dirty airstreams; scrubbers; large baghouses; usable up to 1,200°F.



### Backward Inclined (BI)

Static Efficiency (Es): 70-78%

Specific Speed Range (Ns):

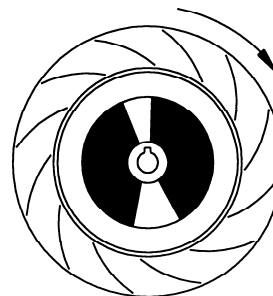
29,120 – 66,900

Peak efficiency range (Ns):

35,000 – 42,000

**FEATURES:** Non-overloading HP; high volumes at low to medium pressures.

**USES:** Dust collection; general ventilation; oven plug fans; usable up to 1,200°F.



### Backward Curved (BC)

Static Efficiency (Es): 74-82%

Specific Speed Range (Ns):

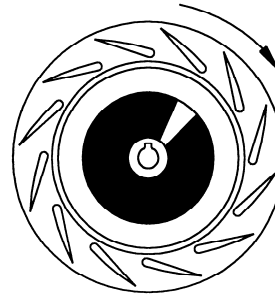
11,200 – 51,650

Peak efficiency range (Ns):

22,000 – 27,000

**FEATURES:** Non-overloading HP; high volumes at medium to high pressures.

**USES:** Boiler FD/ID fans; HRSG; heat recovery; thermal oxidizers; usable up to 1,200°F.



### Airfoil Bladed (AF)

Static Efficiency (Es): 76-87%

Specific Speed Range (Ns):

16,340 – 62,750

Peak efficiency range (Ns):

40,000 – 45,000

**FEATURES:** Non-overloading HP; high volumes at low to medium pressures; highest efficiency.

**USES:** Clean airstreams; cooling fans; boiler FD fans; heat recovery; general ventilation usable up to 1,000°F.

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