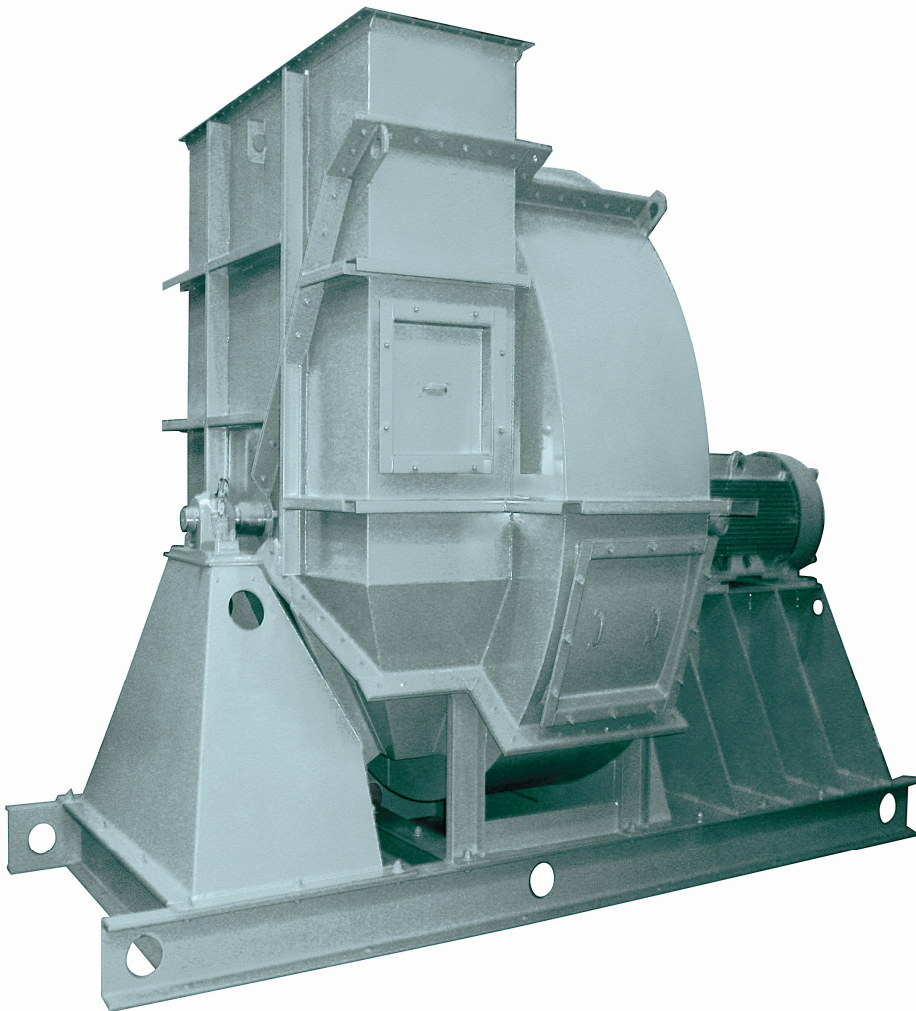


# Mechanical Draft Fans

## Designed For Multiple Applications

<b>Industrial Duty Fans</b>
Designed to meet the requirements of the high pressure & volume industrial process systems serving the following Industries:.
<b>Ethanol</b> <b>Power Generation</b> <b>Petrochemical</b> <b>Steel</b> <b>Paper &amp; Pulp</b> <b>Mining</b> <b>Dust Control</b> <b>Pollution Control</b>
<b>Wheel Types:</b>
Radial Bladed (DH, LS, RIM) Backwardly Inclined (Airfoil & Single Thickness) Radial Tip (RTS)
<b>Fan Types:</b>
General Industrial (Series 30 & 45) AF- Fans (AF-40 & 50) RTS Single Width AcF9@/PLR Fans (Class III & IV) Double Width AcF@/PLR Fans (Class III & IV)
<b>Size Range:</b>
24" diameter to 89" diameter
<b>Design Features:</b>
Volumes to 220,000 CFM Pressures to 52" W.G. Temperatures to 750°F API & PIP Specifications Available Special Alloys (AR-Construction Available)
<b>Standard Construction Features:</b>
Flanged Inlet Flanged Outlet Split Housing Construction (for removal of wheel/shaft/bearings as an assembly) Bearing Pedestals (inlet side and drive) Inlet Box Cleanout Door (Flush Bolted) Fan Cleanout Door (Flush Bolted) Inlet Box Ceramic Felt Shaft Seal (Fan Housing) Ceramic Felt Shaft Seal (Inlet Box)



**Performance Charts:**

**Performance Chart ratings based on 70°F air.**

AF40 FAN SIZE	FAN SPEED (rpm)						
	900	1000	1200	1500	1800	3000   3600	
WHEEL WIDTH (%)							
24	100%						85
27							
30							
33							
36							
40							
44							
49							
54							
60							
66							
73	82	57	25				
80	67	46	BELOW 25%				

AF50 FAN SIZE	FAN SPEED (rpm)						
	900	1000	1200	1500	1800	3000   3600	
WHEEL WIDTH (%)							
24	100%						80
27							
30							
33							
36							
40							
44							
49							
54							
60							
66							
73	94	65	28				
80	76	53	BELOW 25%				

AcF CLASS III FAN SIZE	FAN SPEED (rpm)							
	900	1000	1200	1500	1800	3000   3600		
WHEEL WIDTH (%)								
24	100%						96	66
27							71	49
30							57	40
33							48	33
36							37	
40							85	30
44							69	
49							86	60
54							68	47
60							86	56
66	71	46	32					
73	86	59	38					
				BELOW 30%				

AcF CLASS IV FAN SIZE	FAN SPEED (rpm)							
	900	1000	1200	1500	1800	3000   3600		
WHEEL WIDTH (%)								
24	100%						94	65
27							76	53
30							63	44
33							51	35
36							42	29
40							36	25
44							80	28
49							93	65
54							76	53
60							63	44
66	80	50	35					
73					BELOW 25%			

PLR CLASS III FAN SIZE	FAN SPEED (rpm)							
	900	1000	1200	1500	1800	3000   3600		
WHEEL WIDTH (%)								
24	100%						78	54
27							60	42
30							49	34
33							40	
36							91	33
40							76	
44							89	62
49							73	51
54							62	43
60							76	49
66	91	63	41					
73	78	54	35					
				BELOW 30%				

PLR CLASS IV FAN SIZE	FAN SPEED (rpm)							
	900	1000	1200	1500	1800	3000   3600		
WHEEL WIDTH (%)								
24	100%						94	65
27							76	53
30							63	44
33							51	35
36							42	29
40							36	25
44							80	28
49							82	65
54							76	53
60							63	44
66	81	52	36					
73					BELOW 25%			

DWDI CLASS III FAN SIZE	FAN SPEED (rpm)							
	900	1000	1200	1500	1800	3000	3600	
	WHEEL WIDTH (%)							
24	100%						97	67
27							72	49
30							58	40
33							48	33
36							37	
40							86	30
44							70	
49							88	61
54							68	47
60							87	55
66	72	46	32					
73	87	59	37	BELOW 30%				

RTS FAN SIZE	FAN SPEED (rpm)							
	900	1000	1200	1500	1800	3000	3600	
	WHEEL WIDTH (%) - [100% DIAMETER WHEEL]							
27	100% WIDTH							81
30								59
33								77
36								56
40								
44								
49								
54								77
60								57
66								75
73	80	60						
80	80							
89	60							

RTS FAN SIZE	FAN SPEED (rpm)							
	900	1000	1200	1500	1800	3000	3600	
	WHEEL DIAMETER (%) - [100% WIDTH WHEEL]							
27	110% DIAMETER							81
30								
33								91
36								
40								
44								
49								
54								91
60								90
66								
73	93							
80								
89								

DH S/30 FAN SIZE	FAN SPEED (rpm)									
	900	1000	1200	1500	1800	3000	3600			
	WHEEL DIAMETER (%)									
264	110%						100			
294										
334										
364										
404							106			
454							94			
504							101			
574							88			
644							100	89	BELOW 88% DIAMETER	
714							107	97		
784	108	97								
854	100	89								

LS/RIM S/30 FAN SIZE	FAN SPEED (rpm)											
	900	1000	1200	1500	1800	3000	3600					
	WHEEL WIDTH (%) - 100% DIAMETER											
264	100%							67				
294								75	50			
334								59	38			
364								47	30			
404								35				
454								88				
504								68				
574								77	51	BELOW 30%		
644								60	39			
714								78	47	30		
784	96	63	37									
854	78	51										

LS/RIM S/30 FAN SIZE	FAN SPEED (rpm)									
	900	1000	1200	1500	1800	3000	3600			
	WHEEL DIAMETER (%) - 100% WIDTH									
264	105%							100		
294										
334										
364										
404										
454								95		
504								101		
574										
644								100	BELOW 90%	
714								90		
784	98									
854	100	90								

DH S/45 FAN SIZE	FAN SPEED (rpm)									
	900	1000	1200	1500	1800	3000	3600			
	WHEEL DIAMETER (%)									
264	110%						100			
294										
334										
364										
404										
454										
504							101			
574							106	88		
644							94		BELOW 88% DIAMETER	
714							107	97		
784	107	88								
854	107	88								

LS/RIM S/45 FAN SIZE	FAN SPEED (rpm)											
	900	1000	1200	1500	1800	3000	3600					
	WHEEL WIDTH (%) - 100% DIAMETER											
264	100%							71				
294												
334								84	55			
364								67	43			
404								54	34			
454								35				
504												
574								76	BELOW 30%			
644								89	59			
714								70	45			
784	96	57	34									
854	80	46										

LS/RIM S/45 FAN SIZE	FAN SPEED (rpm)									
	900	1000	1200	1500	1800	3000	3600			
	WHEEL DIAMETER (%) - 100% WIDTH									
264	105%							103		
294										
334										
364										
404										
454										
504								101		
574										
644								95	BELOW 90%	
714								99		
784	99									
854	90									

MATERIAL GAGES								
FAN TYPE	FAN SIZE	HOUSING		INLET BOX	BEARING PEDESTAL			
		SIDES	SCROLL		BASE	SIDES	TOP	BEARING BAR
SW III/IV S/30	24-33 264-334	3/16	3/16	3/16	3/8	1/4	3/8	1/2
SW III/IV S/30 AF40/50 RTS S/45 DWDI	36-49 364-504 24-49 27-49 264-504 24-49	1/4	1/4	1/4	3/8	3/8	3/8	5/8
SW III/IV S/30 AF40/50 RTS S/45 DWDI	54-73 574-854 54-80 54-89 574-854 54-73	3/8	1/4	1/4	1/2	3/8	1/2	1

FAN ALIGNMENT BASES	
CHANNEL LENGTH	"MC" CHANNEL SIZE
< 72"	6"
72" to 100"	8"
Over 100" to 200"	10"
Over 200" to 250"	12"
Over 250"	14"

- Notes:**
- 1 Shaft and bearing selections are custom and completed on a case per case basis. Contact NYB Sales for details.
  - 2 Fan pricing is custom and completed on a case per case basis. Contact NYB Sales For Details
  - 3 Contact Sales for API and PIP Spec Considerations.