

SDSTA	Fan Specification Data Sheet								
Oro Hondo Backup Fan	Primary Fan - Surface Installation								
Section / Description	Project Design				Units	from Manufacturer			
IDENTIFICATION									
Equipment Type	Centrifugal or Axial Fan				text	-			
Equipment Name	Oro Hondo Backup Fan				text	-			
Equipment Number	XXX.XX				text	-			
Quantity	1 / 2				#	-			
Country of Manufacture	As per Manufacturer (Manf.)				text				
Manufacturer	As per Manf.				text				
Model No.	As per Manf.				text				
REFERENCES									
Equipment Technical Specification Section					text	-			
Bill of Materials					text	-			
Installation, Operation and Maintenance Manuals					text	-			
Painting and Coating Standard					text	-			
SITE CONDITIONS									
Elevation / Air Density	4950 ft above sea level				text	-			
Location (Indoors / Outdoors)	Surface (ambient outdoors)				text	-			
Potential Ambient Temperature Min	- 25				°C Dry Bulb	-			
Potential Ambient Temperature Max	+ 38				°C Dry Bulb	-			
FAN DUTY									
Service	Mine Air				text	-			
Duty	Continuous, 24 Hrs per day				text	-			
Operating Mode	Duty				Duty / Standby	-			
Fan Inlet Density	0.059				lb/ft ³				
Nominal Duty:	Operating Point 1	Operating Point 2	Operating Point 3	Operating Point 4	-	Operating Point 1	Operating Point 2	Operating Point 3	Operating Point 4
Actual Inlet Flow Rate at mine density	265000	395000	465000	-	cfm				
Collar Pressure (Total)	8.8	17.9	15.7	-	inches w.g.				
Design Duty:						-	-	-	-
Actual Inlet Flow Rate	278250	414750	488250	-	cfm				
Mine Static Pressure	9.8	19.9	17.4	-	inches w.g.				
System Pressure Losses	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Entrance Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Inlet Screen Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Inlet Bell Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Inlet Silencer Loss, if required	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Outlet Silencer Loss, if required	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Transition Piece(s) Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Flexible Connection Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Damper Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Evasé/Diffuser Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Outlet Screen Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Exit Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
System Effect Loss	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Other(s), please specify	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Fan Pressure (Static Pressure + System Pressure Losses)	As per Manf.	As per Manf.	As per Manf.	As per Manf.	inches w.g.				
Power Required at Fan Shaft	As per Manf.	As per Manf.	As per Manf.	As per Manf.	bhp				
Fan Static Efficiency	As per Manf.	As per Manf.	As per Manf.	As per Manf.	%				
Fan Total Efficiency	As per Manf.	As per Manf.	As per Manf.	As per Manf.	%				
Required Fan Blade Setting	As per Manf.	As per Manf.	As per Manf.	As per Manf.	Deg				
Percent of Peak Blade Pressure (Maximum 80%)	As per Manf.	As per Manf.	As per Manf.	As per Manf.	%				
Operating Speed	As per Manf.	As per Manf.	As per Manf.	As per Manf.	RPM				
First Critical Speed	As per Manf.				RPM				
First Critical Speed Safety Factor vs Maximum Operating Speed	By Vendor, Minimum 130%				%				
Tip Speed	As per Manf.	As per Manf.	As per Manf.	As per Manf.	fpm				
Half or Full Impeller Blades	By Vendor	By Vendor	By Vendor	By Vendor	Half / Full				
Number of Stages	By Vendor	By Vendor	By Vendor	By Vendor	#				
Motor Rated Power	As per Manf.				bhp				
Motor Load	By Vendor	By Vendor	By Vendor	By Vendor					
Absorbed Power	By Vendor	By Vendor	By Vendor	By Vendor	bhp				
Power Factor	By Vendor	By Vendor	By Vendor	By Vendor	-				
Fan Motor Voltage	4160				V				
Starter Type	VFD				text				
VFD Input Voltage	As per Manf.				V				
Motor Efficiency	By Vendor	By Vendor	By Vendor	By Vendor	%				
Overall Efficiency (Motor and Fan Static Efficiencies)	By Vendor	By Vendor	By Vendor	By Vendor	%				
Overall Efficiency (Motor and Fan Total Efficiencies)	By Vendor	By Vendor	By Vendor	By Vendor	%				
MECHANICAL COMPONENTS									
Fan Type	As per Manf.				text				
Fan Arrangement	As per Manf.				text				
Mounting Arrangement	Horizontal; Skid-mounted suitable for suspension from back				text				
Blade Type	As per Manf.				text				
Quantity of Impeller Blades	As per Manf.				#				
Access Doors (number and location)	As per Manf.				text				
Impeller Hand Brake	Required				text				
Bearings	-				-	-			
Manufacturer	As per Manf.				text				
Model	As per Manf.				text				
L ₁₀ Life	100,000				hours				
Seals	As per Manf.				text				
Lubrication System (Auto/Manual)	As per Manf.				text				
Lubrication Type (Oil/Grease)	As per Manf.				text				
Flexible Element Type	As per Manf.				text				
Coupling	-				-	-			
Manufacturer	As per Manf.				text				
Model	As per Manf.				text				
Type	Disc Pack				text				
Isolation Damper Type	Required, automatic open/close actuation				text				
Noise Control	Inlet	Outlet			-	Inlet	Outlet		
If Required	As per Manf.				Yes/No				
Type	As per Manf.				text				
Drain	-				-	-			
Size	As per Manf.				mm				
Location(s)	As per Manf.				text				
Shaft Blocking for Transport	As per Manf.				text				

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Section / Description	Project Design			Units	from Manufacturer		
ELECTRICAL COMPONENTS							
Drive Type	Direct drive			text			
Motor	-			-	-		
SSA Manufacturer	As per Manf.			text			
SSA Model	As per Manf.			text			
Nameplate Power	As per Manf.			bhp			
Fan Motor Power Safety Factor vs Maximum Fan Duty BHP	As per Manf., Minimum 10%			%			
Speed	As per Manf.			RPM			
Enclosure	NEMA 4x			IP			
Volts/Phase/Frequency	4160 V / 3 phase / 60 Hz			V / - / Hz			
Starter / Variable Frequency Drive	Required (Optional price)			text	-		
SSA Manufacturer	As per Manf.			text			
SSA Model	As per Manf.			text			
Fan Speed Sensor and Transmitter	As per Manf.			text	-		
Type	As per Manf.			text			
SSA Manufacturer	As per Manf.			text			
SSA Model	As per Manf.			text			
Damper Actuator	Required			-	-		
Type	Electric, automatic isolation open/close			text			
Manufacturer	As per Manf.			text			
Model	As per Manf.			text			
Damper Positioner	Required, Open / Closed			-	-		
Type	As per Manf.			text			
SSA Manufacturer	As per Manf.			text			
SSA Model	As per Manf.			text			
Hand Brake Position	Required, Engaged / Disengaged			-	-		
Type	As per Manf.			text			
SSA Manufacturer	As per Manf.			text			
SSA Model	As per Manf.			text			
Condition Based Monitoring Instrumentation:	Required	Position	Critical	Qty per Unit	-	Manufacturer / Model	Comments
Bearing Temperature Sensor and Transmitter	Sensors Only, Transmitters By Others	Inboard and outboard	Yes	2	text		
Bearing Vibration Sensor and Transmitter	Sensors Only, Transmitters By Others	Inboard and outboard	Yes	2	text		
Other(s), please specify	By Vendor				text		
INFRASTRUCTURE							
Housing	As per Manf.			text			
Shaft	As per Manf.			text			
Hub	As per Manf.			text			
Blades	As per Manf.			text			
Noise Control	-			-	-		
Frame	As per Manf.			text			
Acoustic Media	As per Manf.			text			
Flexible Element	-			-	-		
Frame	As per Manf.			text			
Flexible Material	As per Manf.			text			
Damper	As per Manf.			text			
Evasé	As per Manf.			text			
Lining Material	-			-	-		
Impeller	As per Manf.			text			
Housing	As per Manf.			text			
Other (Please Specify)	As per Manf.			text			
ENVIRONMENTAL PROTECTION / COATINGS							
Surface Preparation	As per Manf.			text	-		
Primer	As per Manf.			text	-		
Finish Coat	As per Manf.			text	-		

SDSTA	Fan Specification Data Sheet					ventilation  innovation			
Oro Hondo Backup Fan	Primary Fan - Surface Installation								
Section / Description	Project Design				Units	from Manufacturer			
PHYSICAL PARAMETERS									
Fan Diameter	As per Manf.				inches				
Housing Thickness	By Vendor, Minimum 0.25				inches				
Impeller Diameter	As per Manf.				inches				
Blade Thickness	As per Manf.				inches				
Shaft	-				-				
Diameter	As per Manf.				inches				
Length	As per Manf.				inches				
Inlet Bell	-				-				
Inlet Diameter	As per Manf.				inches				
Thickness	As per Manf.				inches				
Silencers, if required	-				-				
Inlet Silencer Diameter	As per Manf.				inches				
Outlet Silencer Diameter	As per Manf.				inches				
Flexible Connection Diameter	As per Manf.				inches				
Damper Diameter	As per Manf.				inches				
Evasé	-				-				
Outlet Diameter	As per Manf.				inches				
Thickness	By Vendor, Minimum 0.25				inches				
Corrosion Allowance Thickness	As per Manf.				inches				
Wear Lining Material	Vendor to Specify if Required				-				
Impeller Thickness	As per Manf.				inches				
Housing Thickness	As per Manf.				inches				
Overall Assembled Dimensions	-				-				
Length	As per Manf.				inches				
Width	As per Manf.				inches				
Height	As per Manf.				inches				
Total Installed Weight	As per Manf.				lb				
Max Lift For Maintenance (Identify)	As per Manf.				lb / text				
Total Shipping Weight	As per Manf.				lb				
Operating Weight	As per Manf.				lb				
Dry Weight	As per Manf.				lb				
Motor Weight	As per Manf.				lb				
SOUND									
A-Weighted Time-Averaged Emission Sound Pressure Level at 1m	Operating Point 1	Operating Point 2	Operating Point 3	Operating Point 4	-	Operating Point 1	Operating Point 2	Operating Point 3	Operating Point 4
Unsilenced	As per Manf.	As per Manf.	As per Manf.	As per Manf.	dBA				
Silenced	<85	<85	<85	<85	dBA				
PERFORMANCE AND TESTING									
Fan Performance					text				
Resonant Speed Analysis					text				
Bearing Temperature and Vibration					text				
Motor Operating Power					text				
Noise Level					text				
Vibration					text				
Other(s), please specify	As per Manf.				text				
RELIABILITY, MAINTENANCE AND WARRANTIES									
Failure Mode:	Mean Time to Repair (MTTR)	Mean Time Between Failures (MTBF)	"Total Downtime Over 10 year period"		-	Mean Time to Repair (MTTR)	Mean Time Between Failures (MTBF)	"Total Downtime Over 10 year period"	Comments
Bearing wear	As per Manf.	As per Manf.	As per Manf.		hrs				
Fan blades crack	As per Manf.	As per Manf.	As per Manf.		hrs				
Drive coupling wear	As per Manf.	As per Manf.	As per Manf.		hrs				
Flexible connection wear	As per Manf.	As per Manf.	As per Manf.		hrs				
Fan imbalance	As per Manf.	As per Manf.	As per Manf.		hrs				
Motor bearing failure	As per Manf.	As per Manf.	As per Manf.		hrs				
Motor seal failure	As per Manf.	As per Manf.	As per Manf.		hrs				
Starter/VFD wear	As per Manf.	As per Manf.	As per Manf.		hrs				
Fan wear (rotor, runner, inlet bell)	As per Manf.	As per Manf.	As per Manf.		hrs				
Anticipated life of equipment	As per Manf.	As per Manf.	As per Manf.		hrs				
Vendor to identify other failure modes, and add to this section as appropriate.	As per Manf.	As per Manf.	As per Manf.		hrs				
Assembly Based Replacement Strategy	As per Manf.				text				
Minimum Mechanical Availability	99%				%				
Provider shall fill out all cells highlighted grey in 'Provider Data' column and return with bid submission.									
Manufacturer to supply fan performance curves covering all specified flow conditions.									