

DESIGN DATA 96" COLLECTING CONVEYOR

MATERIAL	COAL, METALLURGICAL/THERMAL	WT. PER CU. FT.	60/45 lbs./ CU. FT. MAX.	DRIVE DESIGN S.T.P.H.	6000
SIZE	-2.0"	TEMP. F.	14°F TO 104°F	DESIGN RATE S.T.P.H.	6000
BELT SPEED	600 FPM (NOM)	SPEED FORMULA	1780/26.72 x (TT x 37/12) = 645 FPM		
BELT TENSIONS	T ₁ = 10783	T ₂ = 6132	T _E = 4651		

DRIVE MECHANICAL COMPONENTS

NO.	NO. REQ'D	DRIVE MECHANICAL COMPONENTS						P.O.No.	
1	1	MOTOR MFG.	SEIMENS	100 H.P.	R.P.M.	1780	FR. NO.	405TC	
		ENCL.	TEFC-XP	PH.	3	CY.	60	VOLTS	460V
2	1	H.S. FLUID COUPLING MFG.	ROTEX	SIZE	75R	DRIVER SIDE DIA.	2.875"		
		DRIVEN SIDE DIA.	1.4967" (38mm)	DRIVER KEY	3/4" x 3/4"	DRIVEN KEY	10 x 8 mm		
3	1	REDUCER MFG.	NORDGEAR	MFG. NO.	SK6407 V 404/405TC				
		NOM. RATIO	26.72 : 1	OUTPUT R.P.M.	66.6	CLASS	1.5 S.F. ASSEMBLY	M4	
		BASE	N/A	BACKSTOP	NO	EXTERNAL COOLING FAN REQ'D.	NO		
4	1	L.S. COUPLING	RINGSPANN RFK	SIZE	115/140	DRIVER SIDE DIA.	120 mm		
		DRIVEN SIDE DIA.	140 mm	DRIVER KEY	N/A	DRIVEN KEY	N/A		
5		BACK STOP	N/A						

BELT CONVEYOR MECHANICAL COMPONENTS

PULLEY LIST

NO.	NO. REQ'D	PULLEY	DIA.	FACE WIDTH	TYPE FACE	LAGGING	BUSHING	HUB TYPE	BORE	K.S.	KEY	P.O. No.
20	1	DRIVE	36"	102"	S.F.	LAGGING NOTE 1		PXT80B	7.5"	1 1/4" x 5/8"	1 1/4" SQ.	
30												
40												
50												
60	1	TAIL	36"	102"	S.F.	N/A		PXT70B	7"			
70												
80												
90												

SHAFTING LIST

BEARING LIST

NO.	NO. REQ'D	SHAFT	DIA.	TURNED	TURNED DIA.	STEEL	NO.	NO. REQ'D	MFG.	TYPE	BORE	EXP.	NON EXP.	BOLT BASE	P.O. No.
21	1	DRIVE	7 1/2"	YES	6.4375"	C-1045	22	2	*PPI	22536	6.4375"	1	1	4 - 1"	
31															
41															
51															
61	1	TAIL	7"	YES	5.4375"	C-1045	62	2	*PPI	22532	5.4375"	1	1	4 - 1"	
71							72								
81							82								

LAGGING NOTES:
1. 1/2" HOLZ SIDE LAG - DIAMOND LAGGING - DUROMETER HARDNESS 55-65 A SCALE

IDLER LIST

NO.	NO. REQ'D	IDLER	MFG.	MFG. No.	ROLL DIA.	ROLL ANG.	NO. BOLTS	BOLT HOLES	SYM.	SPECIAL	P.O. No.
95	32	TROUGHING	FMC	E4628S-96	6"	35°	128	3/4"	○	STEEL ROLL	
96	-	-	-	-	-	-	-	-	●	STEEL ROLL	
97	13	RETURN	FMC	E4617S-96	6"	FLAT	52	3/4"	○	STEEL ROLL	
98	1	RETURN TR.	ASGCO	ASG-TTDR-240	6"	FLAT	4	11/16"	⊕	STEEL ROLL	
99	7	IMPACT	FMC	E4630S-96	6"	35°	28	3/4"	⊕	RUBBER DISC ROLL SLIDE SEAL FRAME	
100	2	TRANSITIONS	FMC	E4601S-96	6"	20°	8	3/4"	⊗	STEEL ROLL	
101	16	SCALE QUALITY	FMC	E4628W-96	6"	35°	64	3/4"	⊖		
102	1	TRANSITIONS	FMC	E4606S-96	6"	10-35°	4	3/4"	○	1752-044HS	
103	4	SCALE	FMC	E4628W-96	6"	35°	16	3/4"	⊖	MODIFIED FEET	

BELTING

NO.	NO. REQ'D	ITEM	TYPE	MFG.	MFG. NO.	WIDTH	PLY	TOP COVER	BOT. COVER	BRKR.	SPLICE	TAPE-LENGTH	SPECIAL	P.O. No.
104	1	BELTING	PLYLON PLUS	CONTINENTAL	1250	96"	5	3/16"	1/8"		VULCANIZED	247'-8"	MSHA FR COVERS	

ACCESSORIES

NO.	NO. REQ'D	ITEM	DESCRIPTION	P.O. No.
105	1	PRIMARY BELT CLEANER	ASGCO 96" SUPER-SKALPER WITH E-Z TORQUE 90" BLADE WIDTH PN M-SSK4-SYS-96-2EZT-90-1-SS	
106	1	SECONDARY BELT CLEANER	ASGCO 96" RAZORBACK BOLT UP WITH C-TIPS - 304 S.S. PN M-RBC-SYS-96-BU-SS	
107	1	BELT PLOW	ASGCO 96" HINGED V-PLOW PN M-ASG-VP-96-H	
108	2	PLUG CHUTE SWITCH	CONVEYOR COMPONENTS MODEL CT-106 w/ CT-201GN PROBE	
109	4	ALIGNMENT SWITCHES	CONVEYOR COMPONENTS MODEL TA-2D	
110	1	SPEED SWITCH	ELECTRO SENSOR MODEL SCP-1000	
111	4	PULL CORD SWITCHES	CONVEYOR COMPONENTS MODEL RSB-2D	
112	1	PULL CORD STRAND	3/16"DIA. STAINLESS STEEL AIRCRAFT CABLE, SAFETY CODED ORANGE PLASTIC COATED 250'-0" LG., CUT STRAND TO SUIT @ INSTALLATION	
113	12	PULL CORD THIMBLES	3/16" DIA. PULL CORD CROSBY THIMBLE G-411 MODEL No. 1037274	
114	24	PULL CORD CLIPS	3/16" DIA. PULLCORD CROSBY CLIPS G-450 MODEL No. 1010033	
115	30	PULL CORD EYEBOLTS	PIG TAIL EYEBOLTS 5/16" DIA. x 5" LG. (EQ. SPACED @ 8'-0" APPROX.)	
116	4	BELT SCALE	MERRICK HEAVY DUTY SINGLE IDLER BELT SCALE MODEL 475EZ	
117	2	TAKE-UP	BRYANT 500-30-MS-SF-BP (SP) TELESCOPE TAKE-UP (1-LH/1-RH)	
118	2	HORN	FEDERAL SIGNAL MODEL 350WBX-120	
119	1	SCALE SPEED SENSOR	MERRICK MODEL DSP-825 P/N A46772-1	
120	1	INSPECTION DOOR	ASCO 12x12 INSPECTION DOOR	
121	2	FLASHING LIGHT	FEDERAL SIGNAL 191XL-120-240R	
122	1	PUSH BUTTON STATION	ALLEN-BRADLEY 800H PUSH BUTTON	
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ISSUED FOR CONSTRUCTION

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Rev.	Description	Date	Made	Chk'd	App'd
0	ISSUED FOR CONSTRUCTION	07MAY21	JRH	HD	-
B	FINAL REVIEW	27MAY21	JRH	GML	-
A	ISSUED FOR FINAL CLIENT REVIEW	16MAY21	JRH	GML	-

Drawn By: JSD	Checked: JRH	Approved: -	Scale: 1 : 1
Date: 17FEB21	Date: 09APR21	Date: -	
96" COLLECTION CONVEYOR BILL OF MATERIALS		ALABAMA STATE PORT AUTHORITY McDUFFIE ISLAND TERMINAL MOBILE, AL	
-		S03497-9301	Rev. 0

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