#### DESCRIPTION

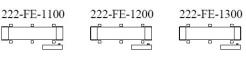
NEVER USED, NEVER ASSEMBLED – There are 11 Belt Feeders in this package. These 11 units were originally intended to be placed in a crushing and conveying plant to receive and feed materials from the stockpile, secondary and tertiary crushing areas and agglomerators. ALL 11 BELT FEEDERS ARE ESSENTIALLY THE SAME AND COULD BE USED FOR VARIOUS APPLICATIONS.

Each belt feeder comes fully equipped with drive system, motor, endless belt, pulleys, idlers, jack screw, belt cleaners, frame, hopper, chute, wear plating, wear rubber, take-up-beams, various sensors and switches, horn, beacon and a full SPILE BAR assembly. This package comes with maintenance items such as hydraulic tools and hammers, belt replacement tools and some spare parts. See full equipment list attached.

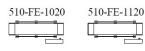


ID	11C-AR03
ОЕМ	Sistema de Transport de Materials S.A. (STM)
YOM	2014
Location	Indoor Warehouse Dunkirk, France
Condition	NEVER USED
Packaging	Original Crates and Bulk

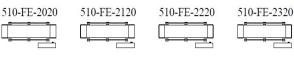
#### 3 Stockpile Belt Feeders



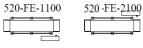
#### 2 Secondary Belt Feeders



#### 4 Tertiary Belt Feeders



#### 2 Agglomeration Belt Feeders



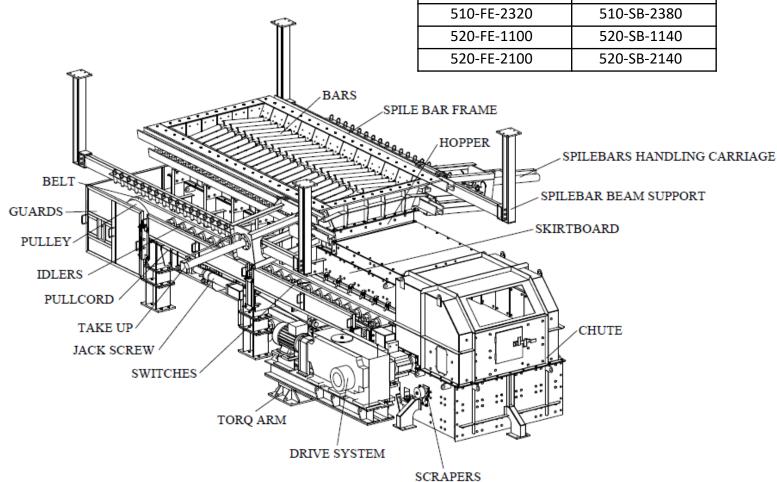
Specification	(3) Stockpile Feeders	(2) Secondary Feeders	(4) Tertiary Feeders	(2) Agglomeration Feeders
Tag Numbers	222-FE-1100 222-FE-1200 222-FE-1300	510-FE-1020 510-FE-1120	510-FE-2020 510-FE-2120 510-FE-2220 510-FE-2320	520-FE-1100 520-FE-2100
Fixed Position / On Rails	Fixed	On Rails	On Rails	On Rails
Length [mm] (between pully centers)	7 900	7 900	7 900	7 900
Belt width [mm]	1 800	1 800	1 800	1 800
Capacity [t/h]	785	785	625	780
Belt speed [m / s]	0.20 to 0.40	0.20 to 0.40	0.20 to 0.40	0.20 to 0.40
Material Density [kg/m3]	1 800	1 800	1 800	1 800
Power [kW]	37	37	37	37
Drive Pulley Max. Running Tension T1 [N]	189 758	189 758	185 875	172 312
Drive Pulley Min. Running Tension T2 [N]	86 870	86 870	86 870	81 870



#### DESCRIPTION

Each <u>FEEDER ASSEMBLY</u> is matched with a <u>SPILE BAR ASSEMBLY</u>. Example: Feeder 222-FE-1100 is matched with 222-SB-1130.

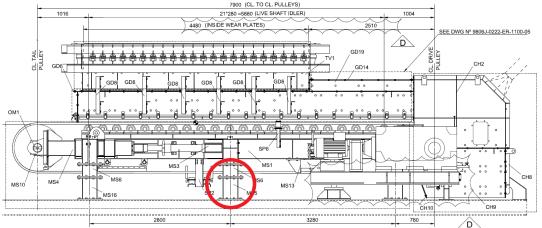
FEEDER ASSEMBLY TAG NO.	MATCHING SPILE BAR ASSEMBLY TAG
222-FE-1100	222-SB-1130
222-FE-1200	222-SB-1230
222-FE-1300	222-SB-1330
510-FE-1020	510-SB-1080
510-FE-1120	510-SB-1180
510-FE-2020	510-SB-2080
510-FE-2120	510-SB-2180
510-FE-2220	510-SB-2280
510-FE-2320	510-SB-2380
520-FE-1100	520-SB-1140
520-FE-2100	520-SB-2140



Assembly View

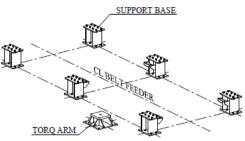


#### FIXED AND MOBILE DESIGNS



#### **FIXED – Foundation Mounted**

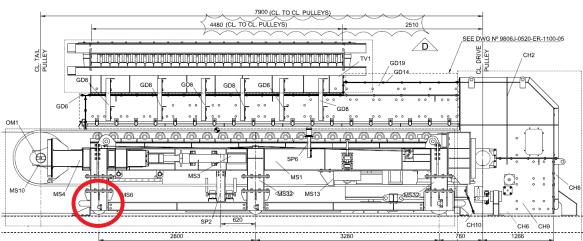
The 3 Stockpile Feeders are designed to be fixed in place as indicated in the drawing to the left. (222-FE-1100, 1200 & 1300)

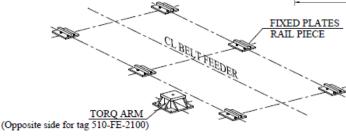


BASE FOR BELT FEEDER FIXED TO FLOOR

#### **Mobile - Rail Mounted**

The 8 remaining Feeders are rail mounted for ease of maintenance.





BASE FOR BELT FEEDER UPON RAIL



#### **SPECIFICATIONS**

#### **NOTE:**

See APPENDIX "A" for complete list of specs on all Belt Feeder and Spile Bar Assembly Systems

#### EQUIPMENT LIST

#### **SUMMARY**

GROUP	QTY	TOTAL GROUP WEIGHT (KGS)
Belt Feeders (Complete Assembly)	11	343,508
Spile Bar (Complete Assembly)	11	84,643
Belt Replacement Tool Sets	4	7,051
Hydraulic Hammer Tool Sets	8	3,212
Hydraulic Mobile Unit	3	1,050
Mobile Platforms	6	1,200
Tension Take-Up Tool	1	250
	TOTAL KGS	440.914





#### DETAILED EQUIPMENT LIST

#### **STOCKPILE BELT FEEDERS / SPILE BAR ASSEMBLIES**

Resume						
Belt Feeders & Spilebars per Area	: 3					
Belt Feeder Tags	: 222-FE-1100; 222-FE-1200; 222-FE-1300					
Spilebar Tags	: 222-SB-1130; 222-SB-1230; 222-SB-1330					
Weight per Belt Feeders	: 29.950					
Weight per Spilebars	: 7.928					
Total Wt per Belt Feeders & Spilebars	: 113.636					
Total Wt per Auxiliary Tools	: 3.533					
Total Wt per Area	: 117.169					

	Electromechanical Devices to be Erected/Installed							
id	id Device	Large	Width	High	Unit Wt	Qty Required	Qty Required	
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area	
1	Drive System - (include motor)	3100	940	1500	3870	1	3	
2	Switch - Tilt Level Control	360	280	230	2	1	3	
3	Switch - Pull Cord	360	280	230	5,5	2	6	
4	Switch - Belt Misalignment	360	280	230	5,5	2	6	
5	Switch - Zero Speed	130	130	80	1	1	3	
6	Switch - Damaged Belt Detector	290	210	200	5,5	2	6	
7	Horn & Siren	140	100	90	0,5	1	3	
8	Stroke Beacon	140	140	120	1,5	1	3	
9	Spile Bars Hydraulic Unit	1600	1000	1400	300	-	1	
10	Spile Bars Hydraulic System - Cyld.Ø125	1600	400	400	125	-	2	
11	Spile Bars Hydraulic System - Piping	1200	1000	800	50	-	1	
12	Take Up Hydraulic System	2000	800	800	250	-	1	

	Mechanical Devices to be Erected/Installed							
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required	
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area	
1	Belt	8000	1800	1000	1730	1	3	
2	Drive Pulley	3886	1016	1346	3720	1	3	
3	Tail Pulley	2640	1040	1090	2360	1	3	
4	Live Shaft Impact Flat Carrier Idler	2185	265	178	163	23	69	
5	Live Shaft Flat Carrier Idler	2185	265	178	159	2	6	
6	Live Shaft Flat Carrier Idler	1270	265	178	113	2	6	
7	Primary Belt Cleaner	2972	250	250	106	1	3	



#### DETAILED EQUIPMENT LIST

#### STOCKPILE BELT FEEDERS / SPILE BAR ASSEMBLIES - CONTINUED

8	Secondary Belt Cleaner	1800	250	350	82	1	3
9	Standard V-Plow Cleaner	2795	925	300	81	1	3
10	Rubber – CH4	640	13	340	2,8	2	6
11	Rubber – CH7	2050	13	150	4,0	1	3
12	Rubber – GD9	4610	6	400	11,1	2	6
13	Rubber – GD10	1570	13	130	2,7	1	3
14	Rubber – GD13	6666	13	150	13,0	1	3
15	Rubber – GD15	1696	6	80	0,8	1	3
16	Rubber – GD17	1715	5	229	2,0	1	3
17	Rubber – GD18	6666	13	150	13,0	1	3
18	UHMW wear plate	1870	25	370	16.9	1	3
19	Jack Screw	1100	605	200	118	2	6
20	Pull Cord Accesories	400	400	200	9	1	3
18 19	UHMW wear plate Jack Screw	1870 1100	25 605	370 200	16.9 118	1 2 1	

	Steel Structures to be Erected/Installed							
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required	
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area	
1	Frame	7000	3260	1500	4950	1	3	
2	Chute Top Part (w/ wear plates)	2250	1910	1460	1700	1	3	
3	Chute Bottom Part (w/ wear plates)	2230	800	1000	1200	1	3	
4	Skirtboard (w/ wear plates)	6680	300	620	635	1	3	
5	Skirtboard (supports, deckplate)	1800	1200	1000	680	1	3	
6	Hopper (w/ wear plates and bars)	4700	1800	1050	2930	1	3	
7	Take Up (beams)	3020	700	500	750	1	3	
8	Spile Bars (flange + wear plates)	4950	2250	500	4890	1	3	
9	Spile Bars (beams VL-01)	6320	300	240	305	2	6	
10	Spile Bars (Columns CL-01)	1605	300	300	100	4	12	
11	Spile Bars (pins tub)	250	55	55	3,5	44	132	
12	Spile Bars (Tubular bars)	1450	140	120	42.6	44	132	
13	Other (guards, supports)	2000	1000	800	500	1	3	
14	Change Belt Structure (beams)	8300	500	300	99	-	3	
15	Change Belt Structure ("C" hooks)	2250	1040	300	172	-	2	
16	Spile Bars (Hyd. Hammer Car)	1250	850	800	305	-	2	
17	Spile Bars (Platform)	2500	1300	1700	200	-	2	



#### DETAILED EQUIPMENT LIST

#### SECONDARY CRUSHER BELT FEEDERS / SPILE BAR ASSEMBLIES

	Resume
Belt Feeders & Spilebars per Area	: 2
Belt Feeder Tags	: 510-FE-1020; 510-FE-1120
Spilebar Tags	: 510-SB-1080; 510-SB-1180
Weight per Belt Feeders	: 31.708
Weight per Spilebars	: 7.969
Total Wt per Belt Feeders & Spilebars	: 79.351
Total Wt per Auxiliary Tools	: 2.292
Total Wt per Area	: 81.643

	Electromechanical Devices to be Erected/Installed							
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required	
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area	
1	Drive System - (include motor)	3100	940	1500	3870	1	2	
2	Switch - Tilt Level Control	360	280	230	2	1	2	
3	Switch - Pull Cord	360	280	230	5,5	2	4	
4	Switch - Belt Misalignment	360	280	230	5,5	2	4	
5	Switch - Zero Speed	130	130	80	1	1	2	
6	Switch - Damaged Belt Detector	290	210	200	5,5	2	4	
7	Horn & Siren	140	100	90	0,5	1	2	
8	Stroke Beacon	140	140	120	1,5	1	2	

	Mechanical Devices to be Erected/Installed							
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required	
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area	
1	Belt	8000	1800	1000	1730	1	2	
2	Drive Pulley	3886	1016	1346	3720	1	2	
3	Tail Pulley	2640	1040	1090	2360	1	2	
4	Live Shaft Impact Flat Carrier Idler	2185	265	178	163	23	46	
5	Live Shaft Flat Carrier Idler	2185	265	178	159	2	4	
6	Live Shaft Flat Carrier Idler	1270	265	178	113	2	4	
7	Primary Belt Cleaner	2972	250	250	106	1	2	
8	Secondary Belt Cleaner	1800	250	350	82	1	2	
9	Standard V-Plow Cleaner	2795	925	300	81	1	2	
10	Rubber – CH4	640	13	340	2,8	2	4	
11	Rubber – CH7	2050	13	150	4,0	1	2	



#### DETAILED EQUIPMENT LIST

#### SECONDARY CRUSHER BELT FEEDERS / SPILE BAR ASSEMBLIES - CONTINUED

12       Rubber - GD9       4610       6       400       11,1       2       4         13       Rubber - GD10       1570       13       130       2,7       1       2         14       Rubber - GD13       6666       13       150       13,0       1       2         15       Rubber - GD15       1696       6       80       0,8       1       2         16       Rubber - GD17       1715       5       229       2,0       1       2         17       Rubber - GD18       6666       13       150       13,0       1       2         18       Rubber - SP9       100       100       100       0,5       2       4         19       UHMW wear plate       1870       25       370       16.9       1       2         20       Jack Screw       1100       605       200       118       2       4         21       Bogie - A type       1700       500       430       220       2       4         22       Bogie - B1 type       1700       500       430       145       2       4								
14       Rubber - GD13       6666       13       150       13,0       1       2         15       Rubber - GD15       1696       6       80       0,8       1       2         16       Rubber - GD17       1715       5       229       2,0       1       2         17       Rubber - GD18       6666       13       150       13,0       1       2         18       Rubber - SP9       100       100       100       0,5       2       4         19       UHMW wear plate       1870       25       370       16.9       1       2         20       Jack Screw       1100       605       200       118       2       4         21       Bogie - A type       1700       500       430       220       2       4	12	Rubber – GD9	4610	6	400	11,1	2	4
15       Rubber – GD15       1696       6       80       0,8       1       2         16       Rubber – GD17       1715       5       229       2,0       1       2         17       Rubber – GD18       6666       13       150       13,0       1       2         18       Rubber – SP9       100       100       100       0,5       2       4         19       UHMW wear plate       1870       25       370       16.9       1       2         20       Jack Screw       1100       605       200       118       2       4         21       Bogie – A type       1700       500       430       220       2       4	13	Rubber – GD10	1570	13	130	2,7	1	2
16     Rubber - GD17     1715     5     229     2,0     1     2       17     Rubber - GD18     6666     13     150     13,0     1     2       18     Rubber - SP9     100     100     100     0,5     2     4       19     UHMW wear plate     1870     25     370     16.9     1     2       20     Jack Screw     1100     605     200     118     2     4       21     Bogie - A type     1700     500     430     220     2     4	14	Rubber – GD13	6666	13	150	13,0	1	2
17     Rubber – GD18     6666     13     150     13,0     1     2       18     Rubber – SP9     100     100     100     0,5     2     4       19     UHMW wear plate     1870     25     370     16.9     1     2       20     Jack Screw     1100     605     200     118     2     4       21     Bogie – A type     1700     500     430     220     2     4	15	Rubber – GD15	1696	6	80	0,8	1	2
18     Rubber – SP9     100     100     100     0,5     2     4       19     UHMW wear plate     1870     25     370     16.9     1     2       20     Jack Screw     1100     605     200     118     2     4       21     Bogie – A type     1700     500     430     220     2     4	16	Rubber – GD17	1715	5	229	2,0	1	2
19     UHMW wear plate     1870     25     370     16.9     1     2       20     Jack Screw     1100     605     200     118     2     4       21     Bogie – A type     1700     500     430     220     2     4	17	Rubber – GD18	6666	13	150	13,0	1	2
20 Jack Screw     1100 605 200 118     2     4       21 Bogie – A type     1700 500 430 220 2     2     4	18	Rubber – SP9	100	100	100	0,5	2	4
21 Bogie – A type 1700 500 430 220 2 4	19	UHMW wear plate	1870	25	370	16.9	1	2
21 20gic 11 type	20	Jack Screw	1100	605	200	118	2	4
22 Bogie – B1 type 1700 500 430 145 2 4	21	Bogie – A type	1700	500	430	220	2	4
	22	Bogie – B1 type	1700	500	430	145	2	4
23 Bogie – B2 type 1700 500 430 143 2 4	23	Bogie – B2 type	1700	500	430	143	2	4
24         Pull Cord Accesories         400         400         200         9         1         2	24	Pull Cord Accesories	400	400	200	9	1	2

	Steel Structu	res to b	e Erec	ted/In	stalled		
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required
	24,110	[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area
1	Frame	7000	3260	1500	4950	1	2
2	Chute Top Part (w/ wear plates)	2250	1910	1460	1700	1	2
3	Chute Bottom Part (w/ wear plates)	2230	800	1000	1200	1	2
4	Skirtboard (w/ wear plates)	6680	300	620	635	1	2
5	Skirtboard (supports, deckplate)	1800	1200	1000	680	1	2
6	Hopper (w/ wear plates and bars)	4700	1800	1050	2930	1	2
7	Take Up (beams)	3020	700	500	750	1	2
8	Bottom Frame Structures (ms5)	2460	370	150	83,4	1	2
9	Bottom Frame Structures (ms16)	2460	370	150	77,6	1	2
10	Bottom Frame Structures (ms17)	2830	370	150	96,2	1	2
11	Bottom Frame Structures (ms19)	2830	370	150	90	1	2
12	Bottom Frame Structures (ms20)	3483	300	150	121,6	1	2



#### DETAILED EQUIPMENT LIST

#### SECONDARY CRUSHER BELT FEEDERS / SPILE BAR ASSEMBLIES - CONTINUED

13	Bottom Frame Structures (ms21)	3600	100	100	63,8	1	2
14	Bottom Frame Structures (ms22)	3483	300	150	121,6	1	2
15	Bottom Frame Structures (ms24)	2420	100	100	42,9	2	4
16	Spile Bars (flange + wear plates)	4950	2250	500	4890	1	2
17	Spile Bars (beams VL-01)	6320	300	240	305	2	4
18	Spile Bars (Columns CL-04)	1805	300	300	110	4	8
19	Spile Bars (pins tub)	250	55	55	3,5	44	88
20	Spile Bars (Tubular bars)	1450	140	120	42.6	44	88
21	Other (guards, supports)	2000	1000	800	500	1	2
22	Change Belt Structure (beams)	8300	500	300	99	-	3
23	Change Belt Structure ("C" hooks)	2250	1040	300	172	-	2
24	Spile Bars (Hyd. Hammer Car)	1250	850	800	305	-	2
25	Spile Bars (Platform)	2500	1300	1700	200	-	2





#### DETAILED EQUIPMENT LIST

#### **TERTIARY CRUSHER BELT FEEDERS / SPILE BAR ASSEMBLIES**

Resume								
Belt Feeders & Spilebars per Area	: 4							
Belt Feeder Tags	: 510-FE-2020; 510-FE-2120; 510-FE-2220; 510-FE-2320							
Spilebar Tags	: 510-SB-2080; 510-SB-2180; 510-SB-2280; 510-SB-2380							
Weight per Belt Feeders	: 31.708							
Weight per Spilebars	: 6.833							
Total Wt per Belt Feeders & Spilebars	: 154.158							
Total Wt per Auxiliary Tools	: 3.910							
Total Wt per Area	: 158.068							

	Electromechanical l	Device	s to be	Erect	ed/Installed	il .	
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area
1	Drive System - (include motor)	3100	940	1500	3870	1	4
2	Switch - Tilt Level Control	360	280	230	2	1	4
3	Switch - Pull Cord	360	280	230	5,5	2	8
4	Switch - Belt Misalignment	360	280	230	5,5	2	8
5	Switch - Zero Speed	130	130	80	1	1	4
6	Switch - Damaged Belt Detector	290	210	200	5,5	2	8
7	Horn & Siren	140	100	90	0,5	1	4
8	Stroke Beacon	140	140	120	1,5	1	4
9	Pull Cord Accesories	400	400	200	9	1	4
10	Spile Bars Hydraulic Unit	1600	1000	1400	300	-	1
11	Spile Bars Hydraulic System - Cyld.Ø125	1600	400	500	125	-	2
12	Spile Bars Hydraulic System - Cyld.Ø100	1400	300	300	68	-	2
13	Spile Bars Hydraulic System - Piping	1200	1000	800	50	-	1

	Mechanical Devices to be Erected/Installed										
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required				
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area				
1	Belt	8000	1800	1000	1730	1	4				
2	Drive Pulley	3886	1016	1346	3720	1	4				
3	Tail Pulley	2640	1040	1090	2360	1	4				
4	Live Shaft Impact Flat Carrier Idler	2185	265	178	163	23	92				
5	Live Shaft Flat Carrier Idler	2185	265	178	159	2	8				
6	Live Shaft Flat Carrier Idler	1270	265	178	113	2	8				
7	Primary Belt Cleaner	2972	250	250	106	1	4				



#### DETAILED EQUIPMENT LIST

#### TERTIARY CRUSHER BELT FEEDERS / SPILE BAR ASSEMBLIES - CONTINUED

	1						
8	Secondary Belt Cleaner	1800	250	350	82	1	4
9	Standard V-Plow Cleaner	2795	925	300	81	1	4
10	Rubber – CH4	640	13	340	2,8	2	8
11	Rubber – CH7	2050	13	150	4,0	1	4
12	Rubber – GD9	4610	6	400	11,1	2	8
13	Rubber – GD10	1570	13	130	2,7	1	4
14	Rubber – GD13	6666	13	150	13,0	1	4
15	Rubber – GD15	1696	6	80	0,8	1	4
16	Rubber – GD17	1715	5	229	2,0	1	4
17	Rubber – GD18	6666	13	150	13,0	1	4
18	Rubber – SP9	100	100	100	0,5	2	8
19	UHMW wear plate	1870	25	370	16.9	1	4
20	Jack Screw	1100	605	200	118	2	8
21	Bogie – A type	1700	500	430	220	2	8
22	Bogie – B1 type	1700	500	430	145	2	8
23	Bogie – B2 type	1700	500	430	143	2	8

	Steel Structures to be Erected/Installed										
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required				
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area				
1	Frame	7000	3260	1500	4950	1	4				
2	Chute Top Part (w/ wear plates)	2250	1910	1460	1700	1	4				
3	Chute Bottom Part (w/ wear plates)	2230	800	1000	1200	1	4				
4	Skirtboard (w/ wear plates)	6680	300	620	635	1	4				
5	Skirtboard (supports, deckplate)	1800	1200	1000	680	1	4				
6	Hopper (w/ wear plates and bars)	4700	1800	1050	2930	1	4				
7	Take Up (beams)	3020	700	500	750	1	4				
8	Bottom Frame Structures (ms5)	2460	370	150	83,4	1	4				
9	Bottom Frame Structures (ms16)	2460	370	150	77,6	1	4				
10	Bottom Frame Structures (ms17)	2830	370	150	96,2	1	4				



#### DETAILED EQUIPMENT LIST

#### TERTIARY CRUSHER BELT FEEDERS / SPILE BAR ASSEMBLIES - CONTINUED

$\overline{}$							
11	Bottom Frame Structures (ms19)	2830	370	150	90	1	4
12	Bottom Frame Structures (ms20)	3483	300	150	121,6	1	4
13	Bottom Frame Structures (ms21)	3600	100	100	63,8	1	4
14	Bottom Frame Structures (ms22)	3483	300	150	121,6	1	4
15	Bottom Frame Structures (ms24)	2420	100	100	42,9	2	8
16	Change Belt Structure (beams)	8300	500	300	99	-	3
17	Change Belt Structure ("C" hooks)	2250	1040	300	172	-	2
18	Spile Bars(flange+w. plates&bars)	4950	2250	500	4849	1	4
19	Spile Bars (Hyd. Hammer Car)	1250	850	800	305	-	2
20	Spile Bars (beams VL-02)	6320	300	240	314	2	8
21	Spile Bars (Columns CL-02)	1780	300	300	109	4	16
22	Spile Bars (pins t)	240	49	49	2,6	24	96
23	Spile Bars ("T" profile bars)	1370	147	125	35.7	24	96
24	Other (guards, supports)	2000	1000	800	500	1	4



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#### DETAILED EQUIPMENT LIST

#### **AGGLOMERATOR BELT FEEDERS / SPILE BAR ASSEMBLIES**

	Resume
Belt Feeders & Spilebars per Area	: 2
Belt Feeder Tags	: 520-FE-1100; 510-FE-2100
Spilebar Tags	: 520-SB-1140; 520-SB-2140
Weight per Belt Feeders	: 31.708
Weight per Spilebars	: 8.796
Total Wt per Belt Feeders & Spilebars	: 81.006
Total Wt per Auxiliary Tools	: 2.778
Total Wt per Area	: 83.784

	Electromechanical l	Device	s to be	Erect	ed/Installed	1	
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area
1	Drive System - (include motor)	3100	940	1500	3870	1	2
2	Switch - Tilt Level Control	360	280	230	2	1	2
3	Switch - Pull Cord	360	280	230	5,5	2	4
4	Switch - Belt Misalignment	360	280	230	5,5	2	4
5	Switch - Zero Speed	130	130	80	1	1	2
6	Switch - Damaged Belt Detector	290	210	200	5,5	2	4
7	Horn & Siren	140	100	90	0,5	1	2
8	Stroke Beacon	140	140	120	1,5	1	2
9	Pull Cord Accesories	400	400	200	9	1	2
10	Spile Bars Hydraulic Unit	1600	1000	1400	300	-	1
11	Spile Bars Hydraulic System - Cyld.Ø100	1400	300	300	68	-	2
12	Spile Bars Hydraulic System - Piping	1200	1000	800	50	-	1

	Mechanical Devices to be Erected/Installed										
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required				
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area				
1	Belt	8000	1800	1000	1730	1	2				
2	Drive Pulley	3886	1016	1346	3720	1	2				
3	Tail Pulley	2640	1040	1090	2360	1	2				
4	Live Shaft Impact Flat Carrier Idler	2185	265	178	163	23	46				
5	Live Shaft Flat Carrier Idler	2185	265	178	159	2	4				
6	Live Shaft Flat Carrier Idler	1270	265	178	113	2	4				
7	Primary Belt Cleaner	2972	250	250	106	1	2				
8	Secondary Belt Cleaner	1800	250	350	82	1	2				



#### DETAILED EQUIPMENT LIST

#### AGGLOMERATOR BELT FEEDERS / SPILE BAR ASSEMBLIES - CONTINUED

9	Standard V-Plow Cleaner	2795	925	300	81	1	2
10	Rubber – CH4	640	13	340	2,8	2	4
11	Rubber – CH7	2050	13	150	4,0	1	2
12	Rubber – GD9	4610	6	400	11,1	2	4
13	Rubber – GD10	1570	13	130	2,7	1	2
14	Rubber – GD13	6666	13	150	13,0	1	2
15	Rubber – GD15	1696	6	80	0,8	1	2
16	Rubber – GD17	1715	5	229	2,0	1	2
17	Rubber – GD18	6666	13	150	13,0	1	2
18	Rubber – SP9	100	100	100	0,5	2	4
29	UHMW wear plate	1870	25	370	16.9	1	2
20	Jack Screw	1100	605	200	118	2	4
21	Bogie – A type	1700	500	430	220	2	4
22	Bogie – B1 type	1700	500	430	145	2	4
23	Bogie – B2 type	1700	500	430	143	2	4

	Steel Structu	res to b	e Erec	ted/In	stalled		
id	Device	Large	Width	High	Unit Wt	Qty Required	Qty Required
		[mm]	[mm]	[mm]	Net [Kg]	Per Feeder	Total Area
1	Frame	7000	3260	1500	4950	1	2
2	Chute Top Part (w/ wear plates)	2250	1910	1460	1700	1	2
3	Chute Bottom Part (w/ wear plates)	2230	800	1000	1200	1	2
4	Skirtboard (w/ wear plates)	6680	300	620	635	1	2
5	Skirtboard (supports, deckplate)	1800	1200	1000	680	1	2
6	Hopper (w/ wear plates and bars)	4700	1800	1050	2930	1	2
7	Take Up (beams)	3020	700	500	750	1	2
8	Bottom Frame Structures (ms5)	2460	370	150	83,4	1	2
9	Bottom Frame Structures (ms16)	2460	370	150	77,6	1	2
10	Bottom Frame Structures (ms17)	2830	370	150	96,2	1	2
11	Bottom Frame Structures (ms19)	2830	370	150	90	1	2
12	Bottom Frame Structures (ms20)	3483	300	150	121,6	1	2



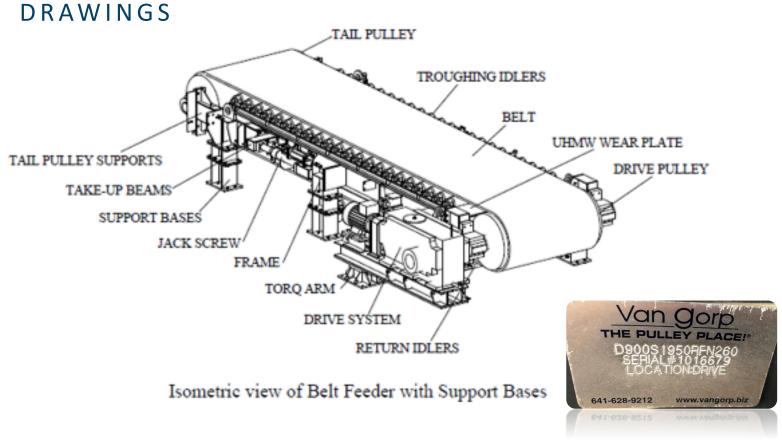
#### DETAILED EQUIPMENT LIST

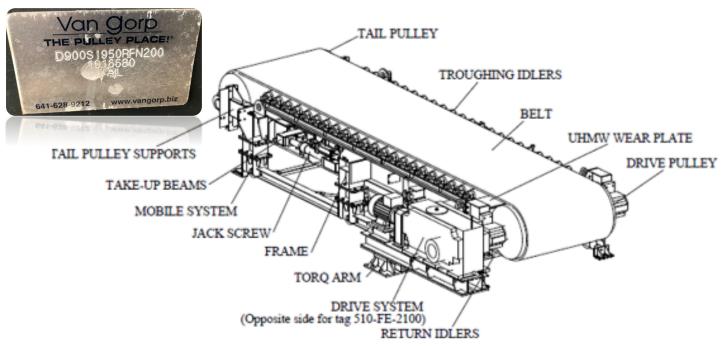
#### AGGLOMERATOR BELT FEEDERS / SPILE BAR ASSEMBLIES - CONTINUED

13	Bottom Frame Structures (ms21)	3600	100	100	63,8	1	2
14	Bottom Frame Structures (ms22)	3483	300	150	121,6	1	2
15	Bottom Frame Structures (ms24)	2420	100	100	42,9	2	4
16	Spile Bars(flange+w. plates&bars)	4950	2250	500	6044	1	1
17	Spile Bars (beams VL-01)	6320	300	240	305	2	4
18	Spile Bars (beams VL-03)	6320	300	240	314	2	4
19	Spile Bars (Columns CL-03)	1995	300	300	120	4	8
20	Spile Bars (pins t)	240	49	49	2,6	27	54
21	Spile Bars ("T" profile bars)	1370	147	125	35.7	27	54
22	Other (guards, supports)	2000	1000	800	500	1	2
23	Change Belt Structure (beams)	8300	500	300	99	-	3
24	Change Belt Structure ("C" hooks)	2250	1040	300	172	-	2
25	Spile Bars (Hyd. Hammer Car)	1250	850	800	305	-	2
26	Spile Bars (Platform)	2500	1300	1700	200	-	2



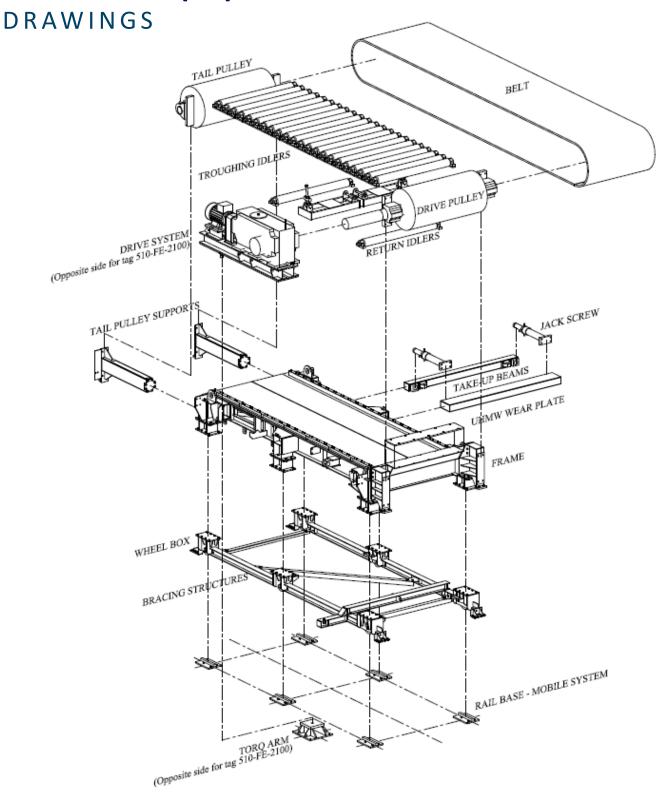






Isometric view of Belt Feeder with Mobile System (wheel box and bracing beams).

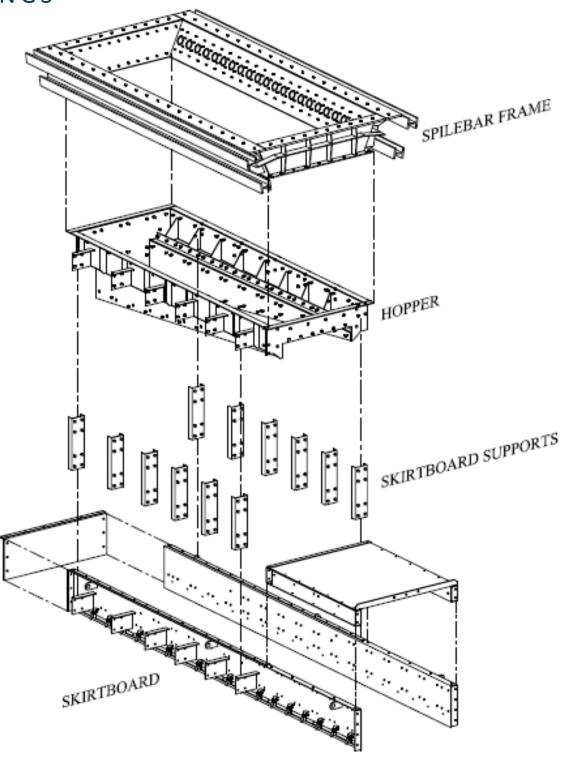




Belt Feeders upon rail diagram.

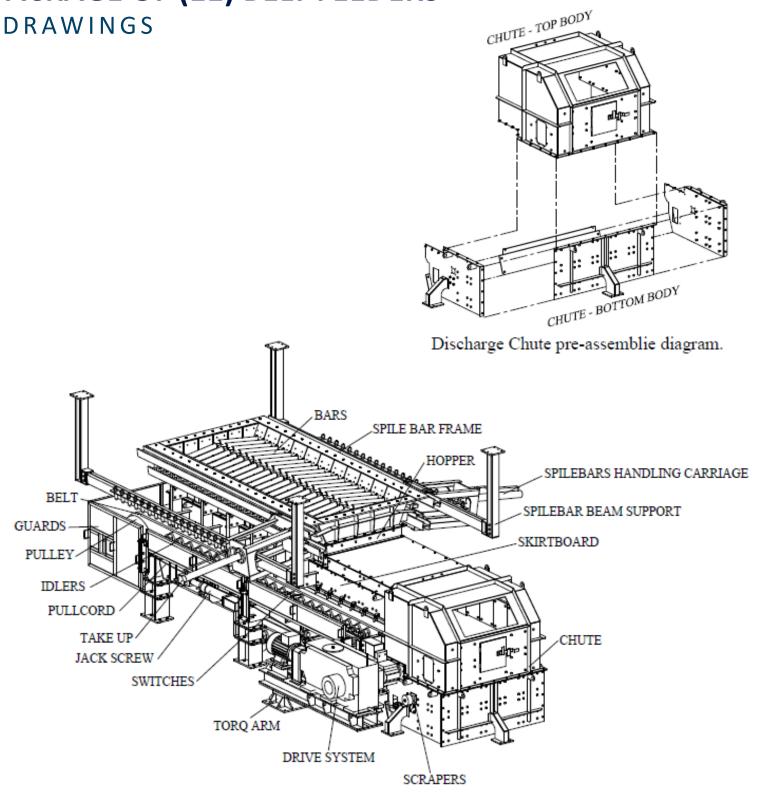


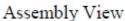
DRAWINGS



Spilebar frame, Hopper and Skirtboard pre-assemblies diagram.



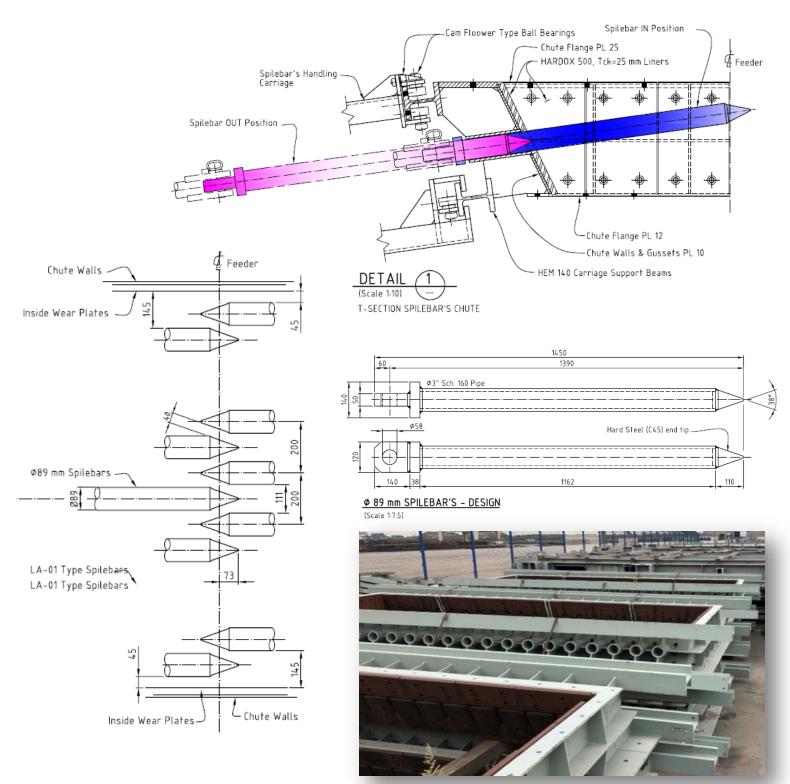






#### DRAWINGS - SPILE BAR ASSEMBLIES

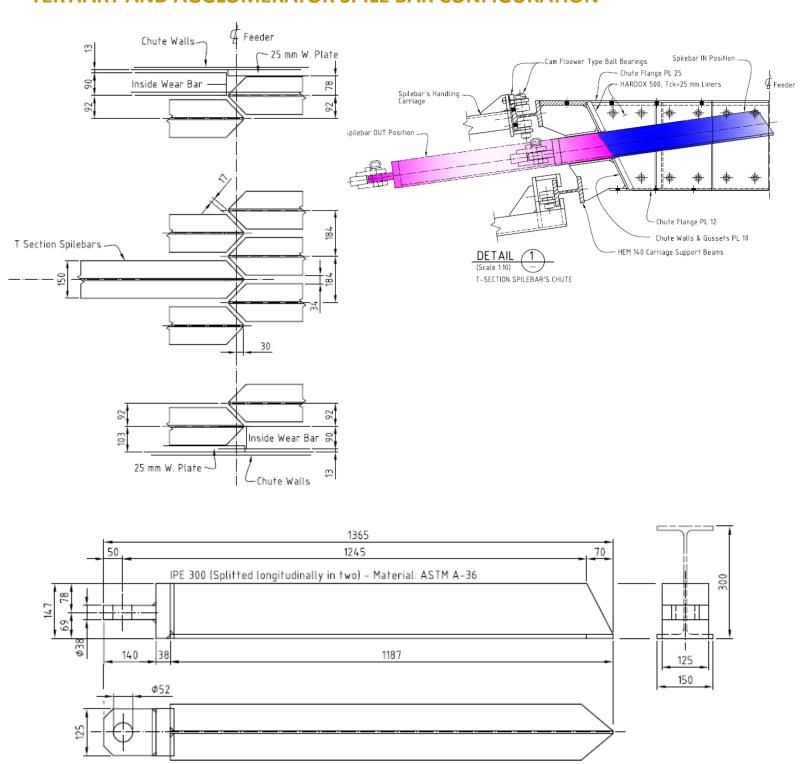
#### STOCKPILE AND SECONDARY SPILE BAR CONFIGURATION





#### DRAWINGS - SPILE BAR ASSEMBLIES

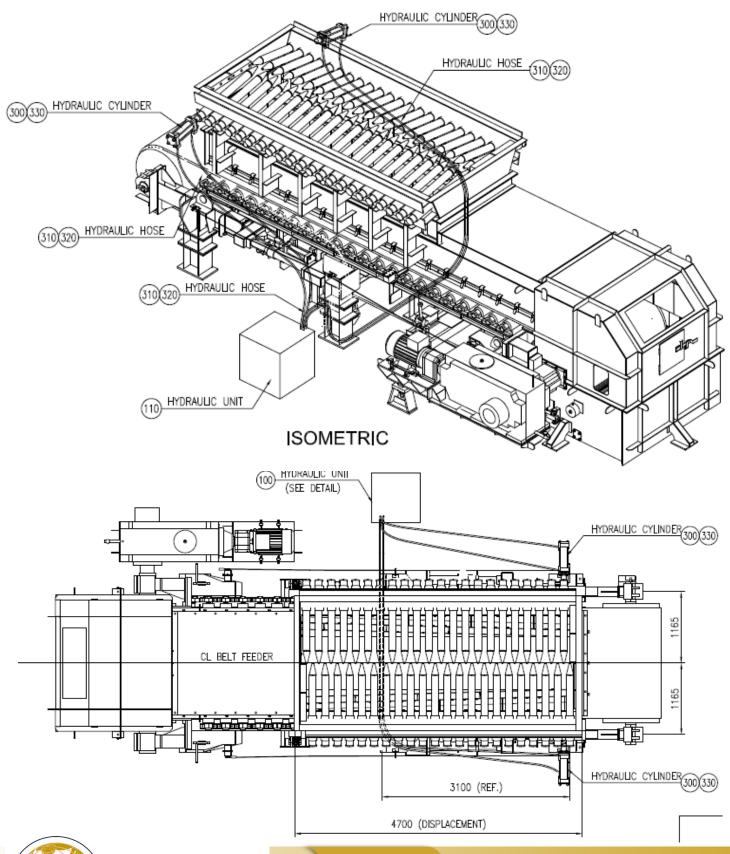
#### TERTIARY AND AGGLOMERATOR SPILE BAR CONFIGURATION



FINE ORE "T" SECTION SPILEBAR'S - DESIGN (Scale 1:7.5)

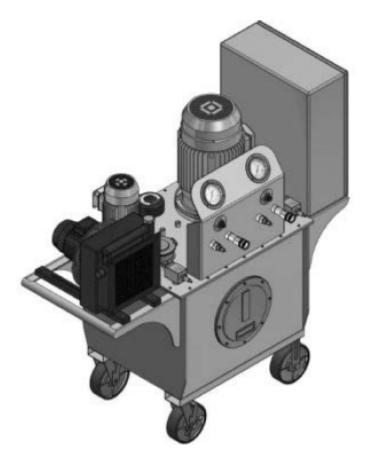


DRAWINGS - SPILE BAR HYDRAULIC SYSTEM



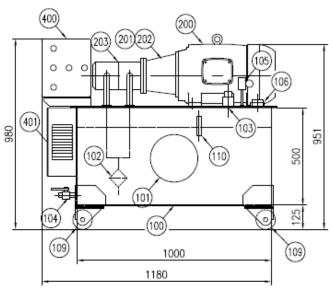
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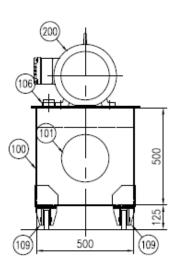
#### DRAWINGS - SPILE BAR HYDRAULIC SYSTEM





SPECIFICATION	VALUE
Pressure	130 BAR
Flow Rate	20 + 20 BPM Double Pump
Power	25 Hp / 18.5 kW
Hydraulic Tank	280 Liters





DETAIL HYDRAULIC UNIT SCALE 1:20





#### SUB-SUPPLIERS - MAJOR COMPONENTS

Sub-Order	Sub-Vendor	Main Part	Material	
Reducer	Sumitomo	Housing	Ductil Iron	
		Drum	A36	
		Shaft	AISI 4140 HR	
Pulleys	Vangorp	Lagging	70 DURO SBR	
		PTI-Bearing	DUCTIL IRON (SAFD)	
		Spacer	AISI 1020	
Live Shaft	PPI	Tube	ASTM A36	
Live Shart	FFI	Shaft	C1018 CD	
Belt	SimmaTrans	Covers	SBR rubber; High antiabrasive	
		Housing	Cast Iron	
		Stator	Insulated low carbon magnetic	
Electric	Leroy Somer	Statol	steel laminations	
Motor	Letoy Somer	Rotor	Insulated low carbon magnetic	
		Rotor	steel laminations / Aluminum	
		Shaft	Steel	
		Steel Structure	ASTM A36	
Structures		Bars and Plate Wars	A500-BHN; ASTM A532	
		Rubber	40 Shore A; 50 Shore A	





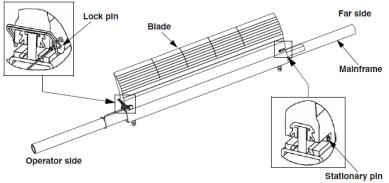
#### SUB-SUPPLIERS - INSTRUMENTATION

Id	Component	Details
3.1	Zero Speed Switch [Manufacturer]	: Conveyor Component Company
	Type / Enclosure	: RMS-2G, Nema 4.
	Power Supply [VAC / Hz]	: 240 VAC / 50Hz
	Qty. [per feeder]	:1
	Supplementary Documents:	: DOC-A3401, A3001, DOC-A4001
3.2	Misalignment Switch [Manufacturer]	: Conveyor Component Company
	Type / Enclosure	: TA-2, Nema 4X.
	Power Supply	: 120 / 220 / 480 VAC / 50Hz
	Qty. [per feeder]	:2
	Supplementary Documents:	: DOC-A3401, A3001, DOC-A4001
3.3	Belt Rip Switch [Manufacturer]	: Conveyor Component Company
	Type / Enclosure	: DB-100, Nema 4X.
	Power Supply	: 120 / 220 / 480 VAC / 50Hz
	Qty. [per feeder]	:2
	Supplementary Documents:	: DOC-A3401, A3001, DOC-A4001
3.4	Pull Cord Switch [Manufacturer]	: Conveyor Component Company
	Type / Enclosure	: RS-2, Nema 4X.
	Power Supply	: 120 / 220 / 480 VAC / 50Hz
	Qty. [per feeder]	: 2
	Supplementary Documents:	: DOC-A3401, A3001, DOC-A4001
3.5	Beacon [Manufacturer]	: Federal Signal
3.5		:LP3M-240R
	Type Power Supply	: 240 VAC
	Qty. [per feeder]	: 1
	Supplementary Documents:	: DOC-A3401, A3001, DOC-A4001
	Supplementary Documents.	. DOC-A3401, A3001, DOC-A4001
3.6	Horn [Manufacturer]	: Federal Signal
	Type / Enclosure	: 350-240-30+WB / 4X
	Power Supply	: 240 VAC / 50Hz
	Qty. [per feeder]	:1
	Supplementary Documents:	: DOC-A3401, A3001, DOC-A4001
3.7	Level Tilt Switch [Manufacturer]	: Conveyor Component Company
3.1	Unit Control / Enclosure	: CT-105B, Nema 4X
	Power Supply	: 240 VAC
	Tilt Level Probe: Type / Enclosure	: CT-200S, Nema 4X.
	Qty. [per feeder]	: 1 ea Unit control + Tilt Level Probe
	Supplementary Documents:	: 1 ea Unit control + 11it Level Probe : DOC-A3401, A3001, DOC-A4001
	Supplementary Documents:	. DOC-A3401, A3001, DOC-A4001



SUB-SUPPLIERS - BELT CLEANERS

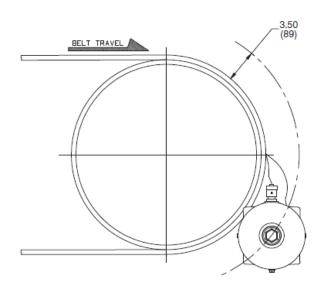
## Martin<sup>®</sup> QC1<sup>™</sup> Cleaner HD

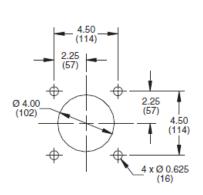


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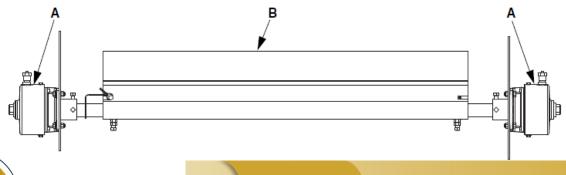
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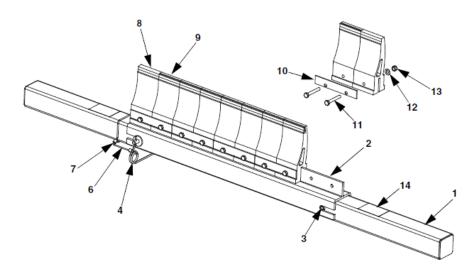


Tensioner Chute Wall Cutout Detail



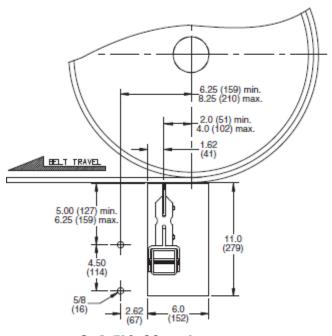
SUB-SUPPLIERS - BELT CLEANERS

# Martin<sup>®</sup> SAF2<sup>™</sup> Cleaner & Martin<sup>®</sup> SQC2S<sup>™</sup> Cleaner

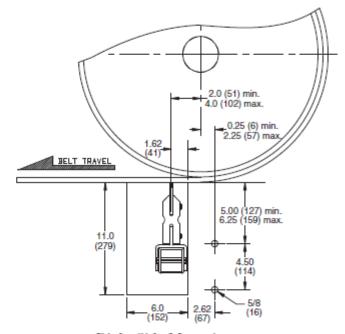




#### Martin® SQC2STM Blade and Martin® SAF2TM Reversing Blade Mounting Location



Left Side Mounting



Right Side Mounting



SUB-SUPPLIERS - BELT CLEANERS

## **Martin® V-Plow**

The Martin V-Plow floats on the inside surface of a conveyor belt to effectively remove stray material in light- to moderate-duty applications. The self-adjusting design provides effective cleaning in all states of blade wear.

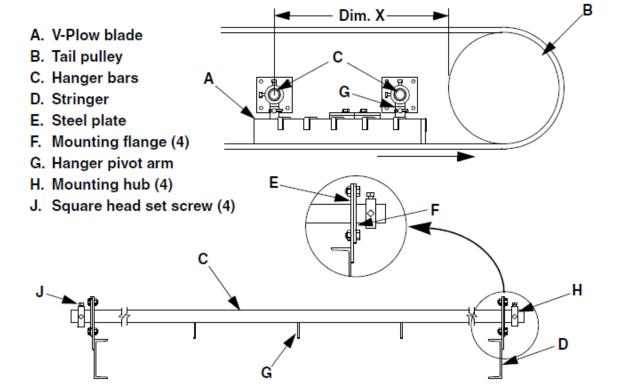


#### Minimum Distance for V-Plow Location

Belt Width in (mm)	Dim. X in (mm)
18 (400-500)	24 (610)
24 (500-650)	24 (610)
30 (650-800)	36 (914)
36 (800-1000)	36 (914)
42 (1000-1200)	48 (1219)

Belt Width in (mm)	Dim. X in (mm)
48 (1200-1400)	60 (1524)
54 (1400-1600)	60 (1524)
60 (1600-1800)	72 (1829)
66 (1600-1800)	72 (1829)
72 (1800-2000)	84 (2134)

Belt Width in (mm)	Dim. X in (mm)
78 (1800-2000)	84 (2134)
84 (2000-2200)	96 (2438)
96 (2200-2400)	108 (2743)





## PACKAGE OF (11) BELT FEEDERS PICTURES













## PACKAGE OF (11) BELT FEEDERS PICTURES







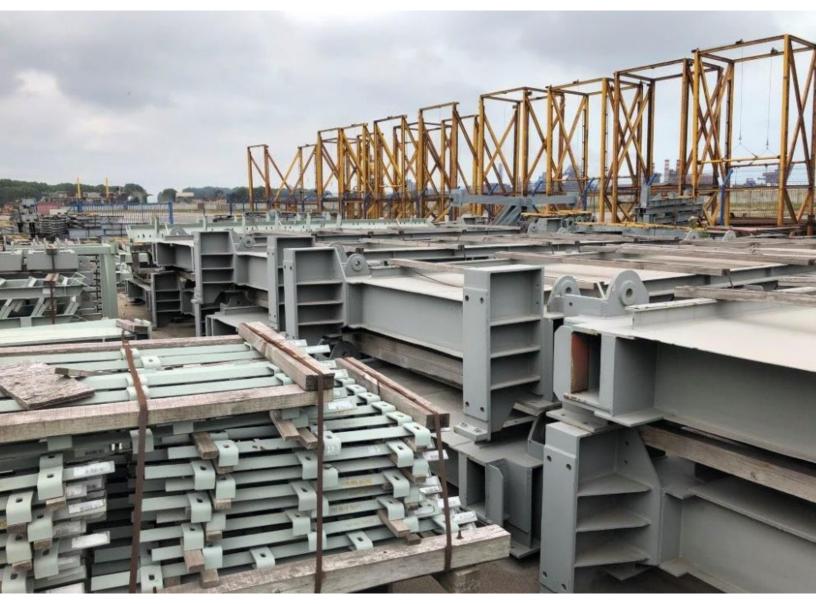
+1 (530) 534-7965 info@amking.com

dustrias P

HP

ENTRADA

#### DESCRIPTION











# APPENDIX A PACKAGE OF (11) BELT FEEDERS

DATA SHEETS



#### SPECIFICATIONS



	STO	CKPILE	FEEDERS				D.
Process Data Sheet	<u> </u>		9806J-0222-P	DS-4011-003-	n		Re
							—⊨
Technical Report			9806J-0000-R	T-0000-001-C			
Equipment item in Package			ITEM				
Stockpile Fixed Belt Feeder 1,2 and 3		3	222 - FE - 110	0/1200/1300			
Stockpile Spile Bar 1,2 and 3		3	222 - SB - 113				
,							
							$\dashv$
ENVIRONMENTAL CONDITIONS Installation			In aida Ctaalm	ila Callam <i>i I C</i>	Nutria au		
			Inside Stockp				
Climate			Desert and du	evor shall be	equipped witl	h belt cover	-
Temperature Average	°C	35		.,			
Min	°C	5					
Max	°C	47 / 80	Hot season / S	Sun radiation	1		
PROCESS DATA	dovo / · · · · ·	205	Stockpile extr	action proce	ss		
Working time per year	days / year	365					—⊩
Working time per day	hours / day	24					_
Equipment Availability	%	99%	Excluding sch	neduled main	tenance		$\dashv \vdash$
ORE PROPERTIES							$-\parallel$
Туре					lassified sand	y ore	
			IMFOUT	IMCA25			
Bond Impact Work index (1) Cwi	kWh/t		6,65 to 7,72	8,84			
Bond Abrasion index (1) Ai			0,048 - 0,179	0,214			
Crushability work index (2)	g %			Very easy cr	uchability		
Crushability work index (2)	%		79 to 95	very easy cr	usnability		
Absolute specific gravity	(-)	2,1 to 2,40					
Bulk density	t/m³	1,4 - 1,6	1,4 for belt de	sign			
Bulk density - compacted ore	t/m³	1,8	for power des	ign			
Moisture	%W	3					
Angle of repose	0	36 - 40	Horizontal				
							_
Fusing risk		No					_
Building-up and sticking risk		No					
Chute	٥	70	Face angle				_  -
CRUSHING PROCESS DISCHARGE (4)			<del> </del>				$\dashv\vdash$
Nominal Flowrate (wet @ 3,7%)	t/h	680	Average prod	uction per fe	eder		
Design Flowrate (wet @ 3,7%)	t/h	785	For conveyor				
Particule Size Distribution - PSD			EVDEC	TED ORE DIS	SCHARGE RAN	(CE (2)	
Particule Size distribution - PSD		М	AXIMUM (mi			INIMUM (mm)	
Top oizo 200v2	00v4E0 mm	P100	35	•	P100	· /	
Top size 300x2	UUX43U IIIIII					350	$-\!\!\!-\!\!\!\!-$
		P99	30		P99	300	╨
		P80	17		P80	110	
		P50	10		P50	41	
		P30	5	0	P30	24	
		P20	2:	9	P20	17	
		P10	3		P10	5	
		•					
EQUIPMENTS				-			_
							士
Stockpile Spile Bar 1,2 and 3							_
							$\dashv \vdash$
							$\dashv \vdash$
							$-\!$
			1				$-\!$

- Note 1 : Based on Hazen Research studies report- 22 Aug 2007 Note 2 : Process Desigh Criteria BGM/DI/EST/SUT NT 2803 00, date : 26/02/10
- Note 3 : Indicated passing sizas based on a square hole mesh. The maximum dimensions of any particle passing shall not be higher than 60%x100%x160% of mesh size.
- Note 4: 2 belt feeders work in parallel to feed a belt conveyor, 785 t/h x 2 = 1570 t/h

Location: DUNKIRK FRANCE
Unit: CRUSHED ORE STOCKPILE

## DATA - SHEET STOCKPILE BELT FEEDER 1,2 and 3 222-FE-1100/1200/1300

Manufacturer : **STM**Type : **FEEDER** 

		E-1100/120			
		Unit		Vendor data	Rev
1	General design				
2	Manufacturer and country of origin			STM in Chile	
3	Installation (Outdoor / Indoor)		Outdoor Installatio	n - Desert and dusty environment	
4					
5	Mechanical Details				
6	Conveyor length (between pulley centers)	(L1) mm		7900	
7	Conveyor overall length	mm	9	9808	
8	Conveyor overall width	mm	4	4205	
9	Height to top of belt (from top of steelwork)	(H1) mm		1500	
10	Dimension from rear wall of feed hopper to centerline of discharge	(L2) mm		7850	
11	Height between belt and discharge chute flange	(H3) mm		1496	
12	Belt feeder slope	۰		0°	
13	Discharge silo opening - Internal			2000 x 4500	
14	Fixed system		,	yes	
15	Discharge hopper details (internal dimensions	s)			
16	Length of hopper discharge	(L3) mm		4500	
17	Width of discharge at rear wall	(W2) mm		900	
18	Width of discharge at front wall	(W3) mm		1145	t
19	Height between belt and hopper at rear wall	(H4) mm		26	t
20	Height between belt and hopper at front wall	(H5) mm		750	t
21	Height between belt and hopper discharge flange	(H2) mm		1564	t
22	Others dimensions	(L4, L5) mm	9	900 / 2500	t
23	Belt	. , -,	, <u>'</u>		t
24	Belt manufacturer			Sempertrans	
25	Belt type			M 1400 20+10 Degree D50	
26	Belt width	(W1) mm	+	1800	1
27	Belt length	mm		20000	l
28	Belt thickness	mm		35,5	l
29	Cover thickness (upper and lower)	mm		20 / 10	H
30	Belt tension	N/mm		108	
31	Belt strength	N/mm		1400	H
32	Belt speed	m/s		0,21	1
33	Belt splice method	11//0	+	Finger tips	H
34	Expected belt lifetime	years	·	Later	
35	Belt scraper / plow details	years		Head:Primary and Secondary - Tail : V-Plow	
36	Vulcanized belt lenght	mm		18840	G
37				20000	G
38	Belt lenght without vulcanisation  Max./Min belt lenght with belt tensioning system	mm mm		Max. 18887 mm / Min. 18840	G
39	Max./Milit belt length with belt tensioning system	111111		WIAX. 10007 HHII / WIIII. 10040	G
40	Pulleys				╂
41	Pulleys Pulley manufacturer		I Iy	Van Gorp	
42	Pulley type			Straight	1
_	* **			1950 / 900	-
43	Pulley width / diameter (D1)	mm			
44	Rotational speed	rpm		4,28	-
45 46	Lagging thickness			SBR 70 Shore A Flat faces Drive : Diamond groove Tail : rubber plane	1
46	Lagging thickness	mm		19 head / 13 tail	1
47	Shaft locking assembly details			B-Loc RFN 7515-260x325 / RFN 7515-200x260	1
48	Shaft diameter (at bearing / at locking assembly)	mm		Drive: 227,0125 / 260 - Tail: 200 / 210	1
49	Bearing type			Antifriction - Selfaligning SAFD Drive: 23048 / Tail: 22536	1
50	Bearing lifetime (L10)	hours		100.000	1
51					-
52	Idlers	Į.	T 1.	P.D.	1
53	Idler manufacturer	-		PPI	<u> </u>
54	Idler configuration			Live shaft	1
55	Picking idler angle	deg	·	Not applicable	1
56	Idler diameter	mm		178	1
57	Idler width (main carry, picking, return)	mm		1895	1
58	Carry idler spacing	mm		280	L
59	Return idler spacing	mm		3000	L
60	Number of idlers (carry / return)			22 / 3	L
61	Rotational speed of idlers	rpm		22,56	
62	Idler bearing type			Multi labyrinth - sealed for life	
02					$\Gamma$
63	Impact bar details			yes with rubber discs	

Location: DUNKIRK FRANCE
Unit: CRUSHED ORE STOCKPILE

#### DATA - SHEET STOCKPILE BELT FEEDER 1,2 and 3 222-FE-1100/1200/1300

Manufacturer : **STM**Type : **FEEDER** 

	Unit: CRUSHED ORE STOCKPILE		
		Unit	Vendor data
65	Drive	•	1 70.100. 00.10
66	Drive configuration		Right angle
67	Installed power	kW	45
68	Absorbed power	kW	37
69	Variable speed drive (out of scope )	Yes	yes operation range 30% to 100 %
70	Low speed coupling details		Not applicable
71	High speed coupling details		Flexible
72	Gearbox torque rating	Nm	120012
73	Gearbox service factor		1,5
74	Gearbox bearing lifetime	h	60.000
75	Gearbox reduction ratio		344,230
76	Gearbox lubrication		VG320 EP
77	Motor type		Squirrel cage
78	Motor service factor		1,15
79	Motor (voltage / number of phases / frequency)		690 / 3 / 50
80	Motor Speed		1500
31	Motor cooler additional fan 30-100% operation		Not applicable
32	Take-up device	ı	1
33	Take-up configuration		Screw with hydraulic cilinders operated by manual hydraulic pump
34	Take-up tension	kN	175
35	. and ap condition	IVI A	
36	Hopper / Chute	<u> </u>	1
87	Material		A36
38			8/8
	Thickness - Hopper / Chute Liner - Material / Thickness	mm / mm	
39		/	BHN500 / 25 - 12
90	Inspection door details - Dimension	mm x mm	550 x 550
91	De-dusting connection point details	<u> </u>	Extreme
92	Slide Gate		Not required
93	Skirts device	<u> </u>	I I I I I I I I I I I I I I I I I I I
94	Skirt board configuration		Module
95	Skirtbord length	mm	6690
96 97	Skirtbord liner material / thickness	- / mm	BHN500 / 12
	Structural / Frame		
98 99	Structural / Frame	<u> </u>	A36
100	Materials of construction		A30
	Instrumentation		
01	Instrumentation Emergency pull cords		Included
01	Emergency pull cords		Included Included
01 02 03	Emergency pull cords Belt misaligament switches		Included
01 02 03 04	Emergency pull cords Belt misaligament switches Plugged chute		Included Included
01 02 03 04 05	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch		Included Included Included
01 02 03 04 05 06	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn		Included Included Included Included Included
01 02 03 04 05 06 07	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch		Included Included Included
01 02 03 04 05 06 07	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection		Included Included Included Included Included
01 02 03 04 05 06 07	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn		Included Included Included Included Included Included
01 02 03 04 05 06 07 08	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection		Included Included Included Included Included Included Included Included Included
01 02 03 04 05 06 07 08 09	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location		Included Inc
01 02 03 04 05 06 07 08 09 10	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter	mm	Included Inc
01 02 03 04 05 06 07 08 09 10	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location	mm	Included Inc
01 02 03 04 05 06 07 08 09 10	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure	mm	Included Inc
01 02 03 04 05 06 07 08 09 10 11 11 12	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure		Included Inc
01 02 03 04 05 06 07 08 09 110 111 112 113	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords	V	Included Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM It's not scope of STM
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches	V	Included Inc
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches  Plugged chute	V V	Included Inc
01 02 03 04 05 06 07 08 09 10 11 11 12 13 14 15 16	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches  Plugged chute Zero speed switch	V V V V	Included Inc
01   02   03   04   05   06   07   08   09   10   11   12   13   14   15   16   17   18   19	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn	V	Included Inc
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches  Plugged chute Zero speed switch	V V V V	Included Inc
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection	V	Included Inc
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Weight	V V V V V V	Included Inc
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Weight  Frame	V	Included Inc
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device	V	Included Inc
01 02 03 04 05 06 07 08 09 10 11 11 12 13 14 15 16 17 18 19 120 21 22 22 23	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Weight  Frame  Skirts device  Chutes ( Feed and Discharge)	V	Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230 230 230 30 230 1961 Hopper: 3248 / Chute: 2667
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear)	V	Included Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230 230 230 23
101 102 103 104 105 106 107 108 110 111 111 111 111 111 111 111 111	Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear) Head and Tail Pulleys	V	Included Inc
101	Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear)	V	Included
101	Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear) Head and Tail Pulleys	V	Included Inc
101	Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Dedusting connection  Location  Diameter  Flowrate / Pressure  Utilities  Emergency pull cords  Belt misaligament switches  Plugged chute  Zero speed switch  Beacon and start horn  Rip detection  Weight  Frame  Skirts device  Chutes ( Feed and Discharge)  Drive system (Motor and gear)  Head and Tail Pulleys  Idlers and Pulley head / tail / tensionning	V	Included

Location: DUNKIRK FRANCE
Unit: CRUSHED ORE STOCKPILE

## DATA - SHEET STOCKPILE BELT FEEDER 1,2 and 3 222-FE-1100/1200/1300

Manufacturer : **STM** 

Type: **FEEDER** 

	Unit: CRUSHED ORE STOCKPILE	300		
		I I m i 4	Vandar deta	<del></del>
1	General design STOCKPILE SPILE BAR	Unit	Vendor data	Rev.
2	Manufacturer and country of origin	1,2 and 3 - 11 Elvi3 222-	(*) To be Completed by Vendor	
3	Installation (Outdoor / Indoor)		Outdoor Installation - Desert and dusty environment	
4	Quantity	Unit	3	-
5	Mechanical Details	Omt	<u> </u>	
6	Drawing Number		later	
7	FRAME		iator	
8		mm	4700	
9	Length	mm	Top: 2200 / Bottom: 1776	-
10	Width	mm	500	
11	Height FRANCE	mm	300	
12	FRAME FLANGE Internal dimension (A x B)		1980 x 4480	-+
13		mm/mm	Upper: 255 / 200; Lower: 95 / 90	
	Flange width	mm	Upper: 25 ; Lower: 12	
14 15	Flange thickness	mm 	Upper: 25 , Lower: 12	
_	Hole Number	unit		
16	Bolt Hole diameter	mm	Upper: 27 ; Lower: 22	
17	Bolt diameter	mm	Upper: M24 ; Lower: M20	
18	BAR		1450	
19	Length	mm	1450	
20	Bar Number	unit	22 on each side	
21	Diameter	mm	88,9	
22	GUIDE			
23	Internal diameter	mm	92,04	
24	External diameter	mm	114,3	
25	Length	mm	298	
26	Materials			
27	Frame		A36	
28	Guide		later	
29	Bars		ASTM A-53	
30	Bolts		Later	
31	Weight			
32	Frame (without bars and wear plate)	kg	3601,6	
33	Bar (unit)	kg	47,5	
34	Total Weight	kg	5696,1	
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
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46				-
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51				-+
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55				-+
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57				-+
				-+
58				
59				
60				
61				

### PACKAGE OF (11) BELT FEEDERS

**SPECIFICATIONS** 



SECONDARY CRUSHING FEEDERS Rev 9806J-0510-PDS-4011-006-D Technical Report 9806J-0000-RT-0000-001-C **Equipment item in Package** ITEM 10 - FF - 1020/1120 Secondary Crushing Mobile Belt Feeder 1 and 2 Secondary Crushing Feed Spile Bar 1 and 2 510 - SB - 1080/1180 **ENVIRONMENTAL CONDITIONS** Installation Outdoor Climate Desert and dusty environment Temperature Average 35 Min 47 / 80 Max Hot season / Sun radiation PROCESS DATA Dry Crushing process 365 Working time per year days / year Working time per day hours / day 24 99% % Excluding scheduled maintenance Equipment Availability ORE PROPERTIES Uranium ore sandstone - classified sandy ore IMCA25 IMFOUT Bond Impact Work index (1) Cwi kWh/t 6,65 to 7,72 8,84 Bond Abrasion index (1) Αi 0,048 - 0,179 0,214 Crushability work index (2) 79 to 95 Very easy crushability Absolute specific gravity (-) 2,1 to 2,40 1,4 - 1,6 1,4 for belt design Bulk density t/m<sup>3</sup> Bulk density - compacted ore t/m³ 1,8 for power design %W Moisture 36 - 40 Angle of repose Horizontal No Fusing risk Building-up and sticking risk No Chute 70 Face angle CRUSHING PROCESS DISCHARGE (4) Average production per feeder Control variation 30 to 100% t/h 680 Nominal Flowrate (wet @ 3.7%) Design Flowrate (wet @ 3,7%) t/h 785 For feeder design **EXPECTED ORE DISCHARGE RANGE (3)** Particule Size Distribution - PSD MAXIMUM MINIMUM (mm) (mm) P100 Top size 300x200x450 mm 350 P100 350 P99 300 P98 300 P80 170 P80 110 P50 P50 100 41 P30 50 P30 24 P20 P20 17 P10 P10 3 EQUIPMENTS Spile Bar 1 & 2

### Particular notes

- Note 1 : Based on Hazen Research studies report- 22 Aug 2007
- Note 2 : Process Desigh Criteria BGM/DI/EST/SUT NT 2803 00, date : 26/02/10
- Note 3 : Indicated passing sizes based on a square hole mesh. The maximum dimensions of any particle passing shall not be higher than 60%x100%x160% of mesh size.
- Note 4: 2 belt feeders work in parallel, 785 t/h x 2 = 1570 t/h design

Location: DUNKIRK FRANCE
Unit: SECONDARY CRUSHING

# DATA - SHEET SECONDARY CRUSHING BELT FEEDER 1 and 2 510-FE-1020/1120

	Unit: SECONDARY CRUSHING	510	-FE-1020/1	120		
		İ	Hait		Vonden dete	Ta.
- 1	Concret decima		Unit		Vendor data	Rev.
1	General design				Iorna: Oliv	-
2	Manufacturer and country of or	igin		0.44	STM in Chile	₩
3	Installation (Outdoor / Indoor)			Outdoor Installation	on - Desert and dusty environment	₩
4						
5	Mechanical Details				I	╄
6	Conveyor length (between pulle	ey centers)	(L1) mm		7900	₩
7	Conveyor overall length		mm		9808	—
8	Conveyor overall width		mm		4205	1
9	Height to top of belt (from top o	f steelwork)	(H1) mm		1500	1
10	Dimension from rear wall of fee	ed hopper to centerline of discharg	(L2) mm		7850	
11	Height between belt and discha	arge chute flange	(H3) mm		1496	
12	Belt feeder slope		۰		0°	
13	Discharge silo opening - Intern	al			2000 x 4500	
14	Mobile system				yes	
15	Discharge hopper detai	Is (internal dimensions	s)			
16	Length of hopper discharge		(L3) mm		4500	
17	Width of discharge at rear wall		(W2) mm		900	
18	Width of discharge at front wall		(W3) mm		1145	
19	Height between belt and hoppe		(H4) mm		26	T
20	Height between belt and hoppe		(H5) mm		750	T
21	Height between belt and hoppe		(H2) mm		1564	T
22	Others dimensions	J J-	(L4, L5) mm		900 / 2500	1
23	Belt		, -,			1
24	Belt manufacturer				Sempertrans	1
25	Belt type				M 1400 20+10 Degree D50	+
26	Belt width		(W1) mm		1800	+
27	Belt length		mm		20000	+
28	Belt thickness		mm		35,5	+
29		uan)			20 / 10	+
_	Cover thickness (upper and lov	ver)	mm			╁
30	Belt tension		N/mm		108	+
31	Belt strength		N/mm		1400	+
32	Belt speed		m/s		0,21	1
33	Belt splice method				Finger tips	—
34	Expected belt lifetime		years		Later	_
35	Belt scraper / plow details				Head:Primary and Secondary - Tail : V-Plow	_
36	Vulcanized belt lenght		mm		18840	G
37	Belt lenght without vulcanisation	n	mm		20000	G
38	Max./Min belt lenght with belt to	ensioning system	mm		Max. 18887 mm / Min. 18840	G
39						
40	Pulleys					
41	Pulley manufacturer				Van Gorp	
42	Pulley type				Straight	
43	Pulley width / diameter (D1)		mm		1950 / 900	
44	Rotational speed		rpm		4,28	
45	Lagging type				SBR 70 Shore A Flat faces Drive : Diamond groove Tail : rubber plane	•
46	Lagging thickness		mm		19 head / 13 tail	T
47	Shaft locking assembly details				B-Loc RFN 7515-260x325 / RFN 7515-200x260	1
48	Shaft diameter (at bearing / at l	ocking assembly)	mm		Drive: 227,0125 / 260 - Tail: 200 / 210	1
49	Bearing type	- "			Antifriction - Selfaligning SAFD Drive: 23048 / Tail: 22536	1
50	Bearing lifetime (L10)		hours		100.000	1
51	3 ()		- = - =			1
52	Idlers				ı	†
53	Idler manufacturer				PPI	1
54	Idler configuration				Live shaft	+
55	Picking idler angle		deg		Not applicable	+
56	0 0	r	·		178	+
57	Roller diameter / Shaft diamete		mm / mm			╂
_	Idler width (main carry, picking,	return)	mm		1895	╀
58	Carry idler spacing		mm		280	+
59	Return idler spacing		mm		3000	┺
60	Number of idlers (carry / return)	)			23/3	4
61	Rotational speed of idlers		rpm		22,56	1_
62	Idler bearing type / Lifetime 100	000h / Lubrication type			Multi labyrinth - sealed for life	
63	Impact bar details				yes with rubber discs	
64						1

Location: DUNKIRK FRANCE
Unit: SECONDARY CRUSHING

# DATA - SHEET SECONDARY CRUSHING BELT FEEDER 1 and 2 510-FE-1020/1120

Manufacturer : STM
Type : FEEDER
Serial Number : LTER

	Unit: SECONDARY CRUSHING	510-FE-1020/1	120 Serial Number : LTER	
		Unit	Vendor data	Rev
65	Drive	Onit	vendor data	
66	Drive configuration		Right angle	
67	Installed power	kW	45	
68	Absorbed power	kW	37	
69	Variable speed drive ( out of scope )	Yes	yes operation range 30% to 100 %	
70	Low speed coupling details		Not applicable	
71	High speed coupling details		Flexible	
72	Gearbox torque rating	Nm	120012	
73	Gearbox service factor		1,5	
74	Gearbox bearing lifetime	h	60.000	
75	Gearbox reduction ratio		344,230	
76	Gearbox lubrication		VG320 EP	
77	Motor type		Squirrel cage	
78	Motor service factor		1,15	
79	Motor (voltage / number of phases / frequency)		690 / 3 / 50	
80	Motor Speed		1500	
81	Motor cooler additional fan 30-100% operation		Not applicable	
82	Take-up device	<u> </u>		
83	Take-up configuration		Screw with hydraulic cilinders operated by manual hydraulic pump	
84	Take-up tension	kN	175	
85	****	1		
86	Hopper / Chute		l	
87	Material		A36	
88	Thickness - Hopper / Chute	mm / mm	8/8	
89	Liner - Material / Thickness	/	BHN500 / 25 - 12	
90	Inspection door details - Dimension	mm x mm	550 x 550	
91	De-dusting connection point details	11111 × 111111	Extreme	
92	Slide Gate			
93	Skirts device		Not required	
94	Skirt board configuration		Module	
95	Skirtbord length	mm	6690	
96	Skirtbord liner material / thickness	- / mm	BHN500 / 12	
97	Charles a mile material, anothers	,		
98	Structural / Frame	ı		
99	Materials of construction		A36	
100				
101	Instrumentation			
102	Emergency pull cords		Included	
103	Belt misaligament switches		Included	
104	Plugged chute		Included	
105	Zero speed switch		Included	
106	Beacon and start horn		Included	
107	Rip detection		Included	
108				
109	Dedusting connection			
110	Location		Chute. STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.	
111	Diameter	mm	It's not scope of STM	
112	Flowrate / Pressure		It's not scope of STM	
113				
114	Utilities			
115	Emergency pull cords	V	230	
116	Belt misaligament switches	V	230	
117	Plugged chute	V	230	
118	Zero speed switch	V	230	
119	Beacon and start horn	V	230	
120	Rip detection	V	230	
121				
122	Weight			
123	Frame	kg	6146	
124	Skirts device	kg	1961	
125	Chutes ( Feed and Discharge)	kg	Hopper: 3248 / Chute: 2667	
126	Drive system (Motor and gear)	kg	4300	
127	Head and Tail Pulleys	kg	Head: 3574 / Tail: 2261	
128	Idlers and Pulley head / tail / tensionning	kg	ldlers: 3981	
129	Take-up device	kg	950	
130	Belt	kg	1978	
131	Total Conveyor weight	kg	Components + Structure ( w/o spile bar) : 31066	
132		•		

	Client: AREVA	DATA -	CHEET	-	Manufacturer : <b>STM</b>	
	ation: IMOURAREN	SECONDARY CRUSHING	_		Type: <b>FEEDER</b>	
	Unit: SECONDARY CRUSHING	510-FE-10			Serial Number : LATER	
		0.0.12.1	020/112		Condition in Extrem	
		Un	nit		Vendor data	Rev.
1	General design	SECONDARY CRUSHING FEED SPILE	BAR 1 a	and 2 - ITEMS 510-SB-1080/11	80	
2	Manufacturer and country of o				STM in Chile	
3	Installation (Outdoor / Indoor)			Outdoor Installation	on - Desert and dusty environment	
4	Quantity	Ur	nit	2		
5	Mechanical Details					
6	Drawing Number				Later	
7	FRAME					
8	Length	mı	m		4700	
9	Width	mı	m		Top: 2200 / Bottom: 1776	
10	Height	mı	m		500	
11	FRAME FLANGE					
12	Internal dimension (A >	(B) mm/	/mm		1980 x 4480	
13	Flange width	mr	m		Upper: 225 / 200 ; Lower: 90 / 95	
14	Flange thickness	mı	m		Upper: 25 ; Lower: 12	
15	Hole Number	un	nit		Upper: 56 ; Lower: 62	
16	Bolt Hole diameter	mı	m		Upper: 27 ; Lower: 22	
17	Bolt diameter	mı	m		Upper: M24 and Lower: M20	
18	BAR					
19	Length	mı	m		1450	
20	Bar Number	un	nit		22 on each side	
21	Diameter	mı	m		88,9	
22	GUIDE					
23	Internal diameter	mi	m		92,04	
24	External diameter	mı	m		114,3	
25	Length	mi	m		298	
26	Materials					
27	Frame				A36	
28	Guide				Later	
29	Bars				ASTM A-53	
30	Bolts				Later	
31	Weight					
32	Frame (without bars and wea	r plate) kç	g		3601,6	
33	Bar (unit)	kį	g		47,5	
34	Total Weight	kį	g		5696,1	
35						
36						
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59						$\neg$
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### PACKAGE OF (11) BELT FEEDERS

SPECIFICATIONS



### **TERTIARY CRUSHING FEEDERS**

						F
Process Data Sheet			9806J-0510-PDS-4011-007-			
Technical Report			9806J-0000-RT-0000-001-C			
Equipment item in Package			ITEM			
Tertiary Crushing Mobile Belt Feeder 1,2 and 3		4	510 - FE - 2020/2120/2220/2			
Tertiary Crushing Feed Spile Bar 1,2 and 3		4	510 - SB - 2080/2180/2280/2	2380		
ENVIRONMENTAL CONDITIONS						
Installation			Outdoor			
Climate			Desert and dusty environm	ent		
			Descri and dusty environm	iciit		
Temperature Average	°C	35				
Min	°C	5	H-1			
Max	°C	47 / 80	Hot season / Sun radiation			
PROCESS DATA			Dry Crushing process			
Working time per year	days / year	365				
Working time per day	hours / day	24				
Equipment Availability	%	99%	Excluding scheduled main	tenance		
ORE PROPERTIES						
Туре			Uranium ore sandstone - c	lassified sand	y ore	
7.			IMFOUT IMCA25		-	
Bond Impact Work index (1) Cwi	kWh/t		6,65 to 7,72 8,84			
Bond Abrasion index (1) Ai	g		0,048 - 0,179 0,214			
Crushability work index (2)	%		79 to 95 Very easy cru	shability		
Absolute specific gravity	(-)	2,1 to 2,40				
Bulk density	t/m³	1,4 - 1,6	1,4 for belt design			
Bulk density - compacted ore	t/m³	1,8	for power design			
Moisture	%W	3				
Angle of repose	0	36 - 40	Horizontal			
Fusing risk		No				+
Building-up and sticking risk		No				
Chute	0	70	Face angle			
CRUSHING PROCESS DISCHARGE (4)						
Nominal Flowrate (wet @ 3,7%)	t/h	545	Average production per fee	eder Control v	ariation 30 to 100%	
Design Flowrate (wet @ 3,7%)	t/h	625	For feeder design	ouci Goillioi V	unation so to 10070	
Particule Size Distribution - PSD			EXPECTED ORE DIS	CHADGE DAI	VGE (3)	_
Tartiodic Oize Distribution 1 0D		М	AXIMUM (mm)		INIMUM (mm)	╅╢
		P100	60	P100	60	
		P98	50	P97	40	
		P80	35	P80	24	
		P50	14	P50	12	
		P30	10	P30	8	
		P20	8	P20	3	
		P10	5	P15	1,8	
		P5	<1	P12	<1	
EQUIPMENTS						
Spile Bar 1, 2 & 3						

#### Particular notes

- Note 1 : Based on Hazen Research studies report- 22 Aug 2007
- Note 2 : Process Desigh Criteria BGM/DI/EST/SUT NT 2803 00, date : 26/02/10
- Note 3 : Indicated passing sizes based on a square hole mesh. The maximum dimensions of any particle passing shall not be higher than 60%x100%x160% of mesh size.
- Note 4: 3 belt feeders work in parallel, 625 t/h x 3 = 1875 t/h design (6Mt/year)
  - 4 belt feeders work in parallel, 625 t/h x 4 = 2500 t/h design (8Mt/year) FUTURE

Location: DUNKIRK FRANCE
Unit: TERTIARY CRUSHING

## DATA - SHEET TERTIARY CRUSHING BELT FEEDER 1,2, 3 and 4 510-FE-2020/2120/2220/2320

	Unit: TERTIARY CRUSHING	510-FE-	2020/2120/2	2220/2320		
			Unit		Vendor data	Rev.
1	General design		Onic		Vendor data	Nev.
2	Manufacturer and country of o	origin			STM in Chile	1
3	Installation (Outdoor / Indoor)	5.1g.1.		Outdoor Installation	on - Desert and dusty environment	1
4	motanation (Gatagor / mason)					1
5	Mechanical Details					╅
6	Conveyor length (between pu	llov contore)	(L1) mm		7900	+
7	Conveyor overall length	ney centers)	mm		9808	1
8	Conveyor overall width		mm		4205	1
9	Height to top of belt (from top	of stoolwork)	(H1) mm		1500	1
10		eed hopper to centerline of discha	· · ·		7850	╁
11					1496	+
12	Height between belt and disch	large criute flarige	(H3) mm		0°	+
13	Belt feeder slope	en al			2000 x 4500	+
14	Discharge silo opening - Inter	mai			yes	+
15	Mobile system	ails (internal dimension	) c)		yes	╁
16	Discharge hopper deta	ans (internal differsion			4500	+
_	Length of hopper discharge		(L3) mm			+
17	Width of discharge at rear wa		(W2) mm		900	4-
18	Width of discharge at front wa		(W3) mm		1145	+
19	Height between belt and hopp		(H4) mm		26	4
20	Height between belt and hopp		(H5) mm		750	╄
21	Height between belt and hopp	per discharge flange	(H2) mm		1564	
22	Others dimensions		(L4, L5) mm		900 / 2500	
23	Belt				<u></u>	
24	Belt manufacturer				Sempertrans	
25	Belt type				M 1400 20+10 Degree D50	
26	Belt width		(W1) mm		1800	
27	Belt length		mm		20000	
28	Belt thickness		mm		35,5	
29	Cover thickness (upper and lo	ower)	mm		20 / 10	1
30	Belt tension		N/mm		108	1
31	Belt strength		N/mm		1400	1
32	Belt speed		m/s		0,21	1
33	Belt splice method		,		Finger tips	+
34	Expected belt lifetime		years		Later	+
35	Belt scraper / plow details		youro		Head:Primary and Secondary - Tail : V-Plow	+-
36	Vulcanized belt lenght		mm		18840	G
37	Belt lenght without vulcanisati	ion			20000	G
38	-		mm mm		Max. 18887 mm / Min. 18840	G
39	Max./Min belt lenght with belt	terisioning system	111111		Max. 10007 IIIII17 WIIII. 10040	- 6
	Dellara					+
40	Pulleys		1		V 0	+
41	Pulley manufacturer				Van Gorp	+
42	Pulley type				Straight	₩
43	Pulley width / diameter (D1)		mm		1950 / 900	1
44	Rotational speed		rpm		4,28	₩
45	Lagging type				SBR 70 Shore A Flat faces Drive : Diamond groove Tail : rubber plane	-
46	Lagging thickness		mm		19 head / 13 tail	1
47	Shaft locking assembly details				B-Loc RFN 7515-260x325 / RFN 7515-200x260	1
48	Shaft diameter (at bearing / at	t locking assembly)	mm		Drive: 227,0125 / 260 - Tail: 200 / 210	
49	Bearing type				Antifriction - Selfaligning SAFD Drive: 23048 / Tail: 22536	
50	Bearing lifetime (L10)		hours		100.000	
51						
52	Idlers					
53	ldler manufacturer				PPI	
54	Idler configuration				Live shaft	
55	Picking idler angle		deg		Not applicable	T
56	Roller diameter / Shaft diame	ter	mm / mm		178	
57	ldler width (main carry, picking		mm		1895	
58	Carry idler spacing	-	mm		280	1
59	Return idler spacing		mm		3000	T
60	Number of idlers (carry / retur	n)			22 / 3	t
61	Rotational speed of idlers	••1	rpm		22,56	t
U 1	Idler bearing type / Lifetime 10	20 000h / Lubrication type	.piii		Multi labyrinth - sealed for life	╁
62						1
62 63	Impact bar details	50 000117 Eublication type			yes with rubber discs	

Location: DUNKIRK FRANCE
Unit: TERTIARY CRUSHING

# DATA - SHEET TERTIARY CRUSHING BELT FEEDER 1,2, 3 and 4 510-FE-2020/2120/2220/2320

		Unit	Vendor data	Rev
65	Drive	Oilit	Volidor data	
66	Drive configuration		Right angle	1
67	Installed power	kW	45	t
68	Absorbed power	kW	37	T
69	Variable speed drive ( out of scope )	Yes	yes operation range 30% to 100 %	
70	Low speed coupling details		Not applicable	
71	High speed coupling details		Flexible	
72	Gearbox torque rating	Nm	120012	
73	Gearbox service factor		1,5	
74	Gearbox bearing lifetime	h	60.000	
75	Gearbox reduction ratio		344,230	
76	Gearbox lubrication		VG320 EP	
77	Motor type		Squirrel cage	
78	Motor service factor		1,15	
79	Motor (voltage / number of phases / frequency)		690 / 3 / 50	
80	Motor Speed		1500	t
81	Motor cooler additional fan 30-100% operation		Not applicable	T
82	Take-up device		[	╁
83	Take-up configuration		Screw with hydraulic cilinders operated by manual hydraulic pump	╁
84	Take-up tension	kN	175	t
85	raise up terioreri	NIN	""	╁
86	Hopper / Chute			╂
			1026	╁
87	Material Thiskness Happer (Chute	/	A36 8 / 8	╀
88	Thickness - Hopper / Chute	mm / mm		╂
89	Liner - Material / Thickness	/	BHN500 / 25 - 12	-
90	Inspection door details - Dimension	mm x mm	550 x 550	1
91	De-dusting connection point details		Extreme	-
92	Slide Gate		Not required	_
93	Skirts device		[	-
94	Skirt board configuration		Module	-
95	Skirtbord length	mm	6690	┡
96	Skirtbord liner material / thickness	- / mm	BHN500 / 12	-
97	Other strengt / France			1
98	Structural / Frame	1	Lanc	+
99	Materials of construction		A36	1
100 101	Instrumentation			╂
102	Instrumentation Emergency pull cords		Included	╂
			Uncluded	1
103	Belt misaligament switches		Included Included	
103 104	Plugged chute		Included	
103 104 105	Plugged chute Zero speed switch		Included Included	
103 104 105 106	Plugged chute Zero speed switch Beacon and start horn		Included Included Included Included	
103 104 105 106 107	Plugged chute Zero speed switch		Included Included	
103 104 105 106 107 108	Plugged chute Zero speed switch Beacon and start horn Rip detection		Included Included Included Included	
103 104 105 106 107 108 109	Plugged chute Zero speed switch Beacon and start horn		Included Included Included Included	
103 104 105 106 107	Plugged chute Zero speed switch Beacon and start horn Rip detection		Included Included Included Included Included Included Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening	1
103 104 105 106 107 108 109	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location		Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.	
103 104 105 106 107 108 109 110	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter		Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM	1
103 104 105 106 107 108 109 110	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location		Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.	
103 104 105 106 107 108 109 110 111 111 112	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure		Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM	
103 104 105 106 107 108 109 110 111 112 113	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure	V	Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM It's not scope of STM	
103 104 105 106 107 108 109 110 111 112 113 114 115	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords	V	Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM It's not scope of STM	
103 104 105 106 107 108 109 110 111 112 113 114 115	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches	V	Included Inc	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute	V	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM It's not scope of STM  230 230 230	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch	V	Included Inc	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn	V V	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch	V V V	Included Inc	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection	V V V	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight	V V V V V	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230 230	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 121	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame	V V V V V V kg	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230 230 230	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device	V   V   V   V   V   V   V     kg   kg	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230 230 230 23	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge)	V   V   V   V   V   V   V   V     kg   kg	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230 230 40 230 40 40 4146 41961 41961 41961 41967	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear)	V   V   V   V   V   V   V   V     kg   kg	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230 230 430 6146 1961 Hopper: 3248 / Chute: 2667 4300	_
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 121 122 123 124 125 126 127	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear) Head and Tail Pulleys	V   V   V   V   V   V   V   V   V     kg   kg	Included Inc	
103 104 105 106 107 108 110 111 112 113 114 115 116 117 120 121 122 123 124 125 126 127 128	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear) Head and Tail Pulleys Idlers and Pulley head / tail / tensionning	V   V   V   V   V   V   V   V   V     kg   kg	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230 230 430 46146 1961 Hopper: 3248 / Chute: 2667 4300 Head: 3574 / Pulley: 2261 Idlers: 3981	
103 104 105 106 107 108 110 111 1112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear) Head and Tail Pulleys Idlers and Pulley head / tail / tensionning Take-up device	V   V   V   V   V   V   V   V   V   V	Included	
103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128	Plugged chute Zero speed switch Beacon and start horn Rip detection  Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear) Head and Tail Pulleys Idlers and Pulley head / tail / tensionning	V   V   V   V   V   V   V   V   V     kg   kg	Included Included Included Included Included Included Included  Chute.STM only take account the internal dimensions of the dedusting connection in this components. Internal opening 1150x 550 mm. It's not scope of STM It's not scope of STM  230 230 230 230 230 230 230 230 430 46146 1961 Hopper: 3248 / Chute: 2667 4300 Head: 3574 / Pulley: 2261 Idlers: 3981	

		I DA	TA CUE	<b></b>	Manufastura CTM	
Loc	cation: DUNKIRK FRANCE		TA - SHE		Manufacturer : STM	
LOC	Unit: TERTIARY CRUSHING	TERTIARY CRUSHIN 510-FE-20			Type: <b>FEEDER</b>	
	Unit: TERTIART CRUSHING	510-FE-20	J20/2   20/2	220/2320		
		ſ	Unit		Vendor data	Rev.
1	General design	TERTIARY CRUSHING FEED SPI		, 3 and 4 - ITEMS 510-SB-2080		T
2	Manufacturer and country of				STM in Chile	1
3	Installation (Outdoor / Indoor	r)		Outdoor Installati	on - Desert and dusty environment	1
4	Quantity		Unit	4		1
5	Mechanical Details	·				1
6	Drawing Number				Later	
7	FRAME					
8	Length		mm		4700	1
9	Width		mm		Top: 2200 / Bottom: 1776	1
10	Height		mm		500	
11	FRAME FLANGE					1
12	Internal dimension (A	x B)	mm/mm		1980 x 4480	1
13	Flange width		mm		Upper: 255 / 200 ; Lower: 90 / 95	1
14	Flange thickness		mm		Upper: 25 ; Lower: 12	1
15	Hole Number		unit		Upper: 56 ; Lower: 62	
16	Bolt Hole diameter		mm		Upper: 27 ; Lower: 22	1
17	Bolt diameter		mm		Upper: M24 ; Lower: M20	1
18	BAR					1
19	Length		mm		1365	
20	Bar Number		unit		24 on each side	
21	Diameter		mm		147 x 150 x 10,7 x 7,1 (IPN 300 splitted longitudinally in two)	1
22	GUIDE					1
23	Internal section		mm		TE 161 x 152 x 17 x 11 ; TE 161 x 139 x 161 x 17 x 11	
24	External Ssection		mm		NA	
25	Length		mm		Upper: 186 ; Lower: 237	1
26	Materials					
27	Frame				A36	
28	Guide				A36	
29	Bars				A36	
30	Bolts				Later	1
31	Weight					
32	Frame (without bars and we	ar plate)	kg		3540	
33	Bar (unit)		kg		35,7	
34	Total Weight		kg		5253,6	
35						
36						
37						
38						
39						
40						
41						1
42						1
43						1
44						
45						1
46						1
47						1
48						1
49						1
50						1
51						1
52						1
53		-				1
54						1
55						1
56						T
57						1
58						1
59						1
60						1

## PACKAGE OF (11) BELT FEEDERS

SPECIFICATIONS



### **AGGLOMERATION FEEDERS**

							Re
Process Data Sheet			9806J-0520-PI				
Technical Report			9806J-0000-R	T-0000-001-C			
Equipment item in Package			ITEM				
Agglomeration Belt Feeder 1 and 2		2	520 - FE - 110	0/2100			
Agglomeration Feed Spile Bar 1 and 2		2	520 - SB - 114	0/2140			
ENVIRONMENTAL CONDITIONS							
Installation			Outdoor				
Climate			Desert and du	ısty environm	nent		
Temperature Average	°C	35					
Min	°C	5					
Max	°C	47 / 80	Hot season / S	Sun radiation			
PROCESS DATA			Dry Crushing	process			
Working time per year	days / year	365	,	•			
Working time per day	hours / day	24	1				
Equipment Availability	%	99%	Excluding sch	neduled main	tenance		
1-1	,,,	1 -2.0					
ORE PROPERTIES							
Type	<b>†</b>	1	Uranium ore	sandstone - c	lassified sand	v ore	
.,,,,,			IMFOUT	IMCA25		,	
Bond Impact Work index (1) Cw	/ kWh/t		6,65 to 7,72	8,84			
Bond Abrasion index (1)			0,048 - 0,179				
Crushability work index (2)	%		79 to 95	Very easy cru	ıshahility		
Cracinasinty Work index (2)	70		101000	Tory oddy or	aonabinty		
Absolute specific gravity	(-)	2,1 to 2,40					
Bulk density	t/m³	1,4 - 1,6	1,4 for belt de	sian			
Bulk density - compacted ore	t/m³	1,8	for power des				
Moisture	%W	3	Tor power des	,,,,,,			0
Angle of repose	0	36 - 40	Horizontal				——————————————————————————————————————
7 trigle of repose		00 40	Horizontal				
Fusing risk		No					
Building-up and sticking risk		No					
Chute	0	70	Face angle				
Criate		70	i ace angle				
CRUSHING PROCESS DISCHARGE							
Nominal Flowrate (wet @ 3,7%)	t/h	680	Average prod	uction per fee	odor Control v	ariation 30 to 100%	
Design Flowrate (wet @ 3,7%)	t/h	780	For feeder de	cian	eder Control v	ariation 30 to 100 /6	
Design Flowrate (wet @ 3,7 %)	VII	700	For reeder des	sigii			
Particule Size Distribution - PSD			l .	EXPECTED C	RE DISCHAR	GE RANGE (3)	<del></del>
1 di tiodio dizo Distribution - 1 db	<del> </del>	NA.	AXIMUM (mi			INIMUM (mm)	
	1	P100	AXIMOM (III		P100	14	
	1	P100 P98	1:		P100 P98	14 12	
							-
		P80	10		P80	9	-
		P50	7,		P50	6,5	-
	ļ	P30	6		P30	5,2	
	ļ	P20	4,		P20	4	
	ļ	P10	2		P10	0,5	
	1	P9	<	I			
FOLUBATION	ļ	ļ					
EQUIPMENTS	ļ	ļ					
		<b> </b>					
Spile Bar 1 & 2							

#### Particular notes

Note 1 : Based on Hazen Research studies report- 22 Aug 2007

Note 2 : Process Desigh Criteria - BGM/DI/EST/SUT NT 2803 00, date : 26/02/10

Note 3 : Indicated passing sizes based on a square hole mesh. The maximum dimensions of any particle passing shall not be higher than 60%x100%x160% of mesh size.

Location: DUNKIRK FRANCE
Unit: AGGLOMERATION

## DATA - SHEET AGGLOMERATION BELT FEEDER 1 and 2 520-FE-1100/2100

	Unit: AGGLOMERATION 52	0-FE-1100/	2100		
		Unit		Vendor data	Rev.
1	General design				
2	Manufacturer and country of origin			STM in CHILE	
3	Installation (Outdoor / Indoor)		Outdoor Installatio	n - Desert and dusty environment	
4					
5	Mechanical Details	1			
6	Conveyor length (between pulley centers)	(L1) mm		7900	
7	Conveyor overall length	mm	+	9664	
8	Conveyor overall width	mm	-	4205	
9	Height to top of belt (from top of steelwork)	(H1) mm		1500	
10	Dimension from rear wall of feed hopper to centerline of discharge	1		7850	
11	Height between belt and discharge chute flange	(H3) mm		1496 0°	
12	Belt feeder slope			2000 x 4500	
14	Discharge silo opening - Internal  Mobile system		†	yes	
15	Discharge hopper details (internal dimension	c)		yes	+
16	Length of hopper discharge	(L3) mm		4500	
17	Width of discharge at rear wall	(W2) mm		900	
18	Width of discharge at front wall	(W3) mm		1145	
19	Height between belt and hopper at rear wall	(H4) mm		26	H
20	Height between belt and hopper at front wall	(H5) mm		750	
21	Height between belt and hopper discharge flange	(H2) mm		1564	
22	Others dimensions	(L4, L5) mm		900 / 2500	
23	Belt				
24	Belt manufacturer			Sempertrans	
25	Belt type			M 1400 20+10 Degree D50	
26	Belt width	(W1) mm		1800	
27	Belt length	mm		20000	
28	Belt thickness	mm		35,5	
29	Cover thickness (upper and lower)	mm	-	20 / 10	
30	Belt tension	Nmm		108	
31	Belt strength	N/mm		1400	4
32	Belt spleed	m/s	+	0,21	1
33	Belt splice method  Expected belt lifetime	voore		Finger tips  Later	1
35	Belt scraper / plow details	years		Head:Primary and Secondary - Tail : V-Plow	$\vdash$
36	Vulcanized belt lenght	mm		18840	G
37	Belt lenght without vulcanisation	mm		20000	G
38	Max./Min belt lenght with belt tensioning system	mm	†	Max. 18887 mm / Min. 18840	G
39	3,,				
40	Pulleys				
41	Pulley manufacturer			Van Gorp	
42	Pulley type			Straight	
43	Pulley width / diameter (D1)	mm		1950 / 900	
44	Rotational speed	rpm		4,28	
45	Lagging type		-	SBR 70 Shore A Flat faces Drive : Diamond groove Tail : rubber plane	Ш
46	Lagging thickness	mm	-	19 head / 13 tail	Ш
47	Shaft locking assembly details			B-Loc RFN 7515-260x325 / RFN 7515-200x260	Ш
48	Shaft diameter (at bearing / at locking assembly)	mm		Drive: 227,0125 / 260 - Tail: 200 / 210	Щ
49	Bearing type	<b>L</b> .		Antifriction - Selfaligning SAFD Drive: 23048 / Tail: 22536	Н
50	Bearing lifetime (L10)	hours		100.000	Н
51	Idlara				$\vdash$
52 53	Idlers Idler manufacturer			PPI	Н
54	Idler configuration			Live shaft	Н
55	Picking idler angle	deg	-	Not applicable	Н
56	Roller diameter / Shaft diameter	mm / mm		178	H
57	Idler width (main carry, picking, return)	mm		1895	H
58	Carry idler spacing	mm	-	280	H
59	Return idler spacing	mm	-	3000	
60	Number of idlers (carry / return)	****		22 / 3	
61	Rotational speed of idlers	rpm		22,56	l
62	Idler bearing type / Lifetime 100 000h / Lubrication type			Multi labyrinth - sealed for life	
63	Impact bar details			yes with rubber discs	
			-		

Location: DUNKIRK FRANCE
Unit: AGGLOMERATION

# DATA - SHEET AGGLOMERATION BELT FEEDER 1 and 2 520-FE-1100/2100

			1
05	Duise	Unit	Vendor data
65 66	Drive		Right angle
67	Drive configuration Installed power	kW	45
68	Absorbed power	kW	37
69	Variable speed drive (out of scope)	Yes	yes operation range 30% to 100 %
70	Low speed coupling details	103	Not applicable
71	High speed coupling details		Flexible
72	Gearbox torque rating	Nm	120012
73	Gearbox service factor	14	1,5
74	Gearbox bearing lifetime	h	60.000
75	Gearbox reduction ratio		344,230
76	Gearbox leduction ratio		VG320 EP
77	Motor type		Squirrel cage
78	Motor service factor		1,15
79	Motor (voltage / number of phases / frequency)		690 / 3 / 50
80			1500
_	Motor Speed		
31	Motor cooler additionnal fan 30-100% operation		Not applicable
32	Take-up device	ı	I
83	Take-up configuration		Screw with hydraulic cilinders operated by manual hydraulic pump
34	Take-up tension	kN	175
35			
36	Hopper / Chute		
87	Material		A36
38	Thickness - Hopper / Chute	mm / mm	8/8
39	Liner - Material / Thickness	/	BHN500 / 25 - 12
90	Inspection door details - Dimension	mm x mm	550 x 550
91	De-dusting connection point details		Extreme
92	Slide Gate		Not required
93	Skirts device		<u>'</u>
94	Skirt board configuration		Module
95	Skirtbord length	mm	6690
96	Skirtbord liner material / thickness	- / mm	BHN500 / 12
97			
98	Structural / Frame		
99	Materials of construction		A36
100			
101	Instrumentation		·
102	Emergency pull cords		Included
03	Belt misaligament switches		Included
04	Plugged chute		Included
05	Zero speed switch		Included
06	Beacon and start horn		Included
			Included
07	Rip detection		
_	Rip detection		
80	Rip detection  Dedusting connection		
08 09	Dedusting connection		Chute.STM only take account the internal dimensions of the
08 09			dedusting connection in this components. Internal opening
08 09 10	Dedusting connection  Location		dedusting connection in this components. Internal opening 1150x 550 mm.
08 09 10	Dedusting connection  Location  Diameter		dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM
08 09 10 11	Dedusting connection  Location		dedusting connection in this components. Internal opening 1150x 550 mm.
08 09 10 11 12 13	Dedusting connection  Location  Diameter Flowrate / Pressure		dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM
08 09 10 11 12 13	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities		dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM
08 09 10 11 12 13 14	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords	V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM
08 09 10 11 12 13 14 15 16	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches	V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230  230
08 09 10 11 12 13 14 15 16 17	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute	V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230
08 09 10 11 12 13 14 15 16 17 18	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch	V V V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230  230  230  230  230
08	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn	V V V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230
08	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch	V V V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230  230  230  230  230
08	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn	V V V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230
08	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection	V V V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230
08	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight	V V V V V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230 230
08 09 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 1	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame	V V V V V V V V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230 230 230
08   09   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24   25   25	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device	V V V V V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230 230 6146 1961
08   09   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24   25   25	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame	V V V V V V V V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230 230 230
08   09   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24   25   26   6	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device	V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230 230 6146 1961
08   09   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24   25   26   27	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes (Feed and Discharge)	V	dedusting connection in this components. Internal opening
08   09   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24   25   26   27   28	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear)	V   V   V   V   V   V   V   V     kg   kg	dedusting connection in this components. Internal opening   1150x 550 mm.   It's not scope of STM   It's not scope of STM   It's not scope of STM     230
08   09   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24   25   26   27   28   29	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear) Head and Tail Pulleys	V   V   V   V   V   V   V   V   V     kg   kg	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230 430 230 Hopper: 3248 / Chute: 2471 4300 Head: 3574 / Tail: 2261
1007 1008 1009 1110 1111 1112 1113 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123 1124 1125 1126 1127 1128 1129 1130 1131	Dedusting connection  Location  Diameter Flowrate / Pressure  Utilities  Emergency pull cords Belt misaligament switches Plugged chute Zero speed switch Beacon and start horn Rip detection  Weight Frame Skirts device Chutes ( Feed and Discharge) Drive system (Motor and gear) Head and Tail Pulleys Idlers and Pulley head / tail / tensionning	V   V   V   V   V   V   V   V   V   V	dedusting connection in this components. Internal opening 1150x 550 mm.  It's not scope of STM  It's not scope of STM  230 230 230 230 230 230 230 430 230 446 4961 40pper: 3248 / Chute: 2471 4300 4300 446: 3574 / Tail: 2261 Idlers: 3981

Loc	notion: DUNKINK EDANCE		A - SHE		Manufacturer : STM	
LOC	unit: AGGLOMERATION	AGGLOMERATION 520-FI	N BELT 1 E-1100/2		Type: <b>FEEDER</b>	
	OTHE AGGLOWERATION	320-11	L-1100/2	.100		
		Г	Unit		Vendor data	Rev.
1	General design	AGGLOMERATION FEED SPILE BA	AR 1 and 2	2 - 520-SB-1140/2140		
2	Manufacturer and country of				STM in CHILE	
3	Installation (Outdoor / Indoor	r)		Outdoor Installation	on - Desert and dusty environment	
4	Quantity		Unit	2		_
5	Mechanical Details	1				_
6	Drawing Number				Later	_
7	FRAME				4700	-
8	Length		mm		Top: 2200 / Bottom: 1776	+
10	Width		mm		500	+
11	Height FRAME FLANGE		mm		300	+
12	Internal dimension (A	( x B)	mm/mm		1980 x 4480	+
13	Flange width	1	mm		Upper: 255 / 200 ; Lower: 90 / 95	+
14	Flange thickness		mm		Upper: 25 ; Lower: 12	+
15	Hole Number		unit		Upper: 56 ; Lower: 62	T
16	Bolt Hole diameter		mm		Upper: 27 ; Lower: 22	
17	Bolt diameter		mm		Upper: M24 ; Lower: M20	1
18	BAR					
19	Length		mm		1365	
20	Bar Number		unit		28 on each side	
21	Dimension		mm		147 x 150 x 10,7 x 7,1 (IPN 300 splitted longitudinally in two)	
22	GUIDE					
23	Internal section		mm		TE 161 x 152 x 17 x 11 ; TE 161 x 139 x 161 x 17 x 11	
24	External section		mm		NA	$\perp$
25	Length		mm		Upper: 186 ; Lower: 237	+
26	Materials				A36	+
27 28	Frame				A36	+
29	Guide Bars				A36	+
30	Bolts				Later	+
31	Weight					+
32	Frame (without bars and we	ear plate)	kg		3688	+
33	Bar (unit)	. ,	kg		35,7	
34	Total Weight		kg		5615,8	
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