

Lampiran 1. Rekapitulasi *Troughed Belt Conveyor*

REKAPITULASI <i>TROUGHED BELT CONVEYOR</i>				
NO	PART NAME	MATERIAL	DIMENSI	QUANTITY
1	<i>Frame</i>	Plat MS 3 mm	750 mm x 60 mm	2
2	<i>Head Frame</i>	Plat MS 3 mm	150 mm x 75 mm	2
3	<i>Tail Frame</i>	Plat MS 3 mm	155 mm x 75 mm	2
4	<i>Head Pulley</i>	Pipa Sch 40 As Pelat Tebal <i>Aligning Ball Bearing</i> 1202 <i>Snub Ring</i> H-35	Ø 48 mm x 244 mm Ø 20 mm x 391 mm 20 mm x 72 mm	1 2 2 2 2
5	<i>Tail Pulley</i>	Pipa Sch 40 As Pelat Tebal <i>Aligning Ball Bearing</i> 1202 <i>Snub Ring</i> S-15	Ø 42 mm x 244 mm Ø 15 mm x 310 mm 20 mm x 42 mm	1 2 2 2 2
6	<i>Return Roller</i>	Pipa Nylon As	Ø 27 mm x 190 mm Ø 27 mm x 17 mm Ø 12 mm x 230 mm	2
7	<i>Tumpuan Belt</i>	Plat MS 3 mm	150 mm x 22 mm	1
8	<i>Support</i>	Pipa Kotak	30 mm x 30 mm x 1.5 mm	1
9	<i>Adjustable</i>	Plat	Tebal 10 mm Ø 100 mm	4
10	Motor	PEEI Moger M-5IK 40N-C 1 Ø 4P 40W CONT 2.3 µF 220V 50Hz 0.30A 1375 RPM 220V 60Hz 0.29A 1675 RPM		
11	<i>Belt</i>	PVC	1500 mm x 200 mm	1
12	<i>Hopper</i>	Plat MS 1 mm	250 mm x 200 mm x 225 mm Sudut 151°	1
13	Akrilik	tebal 2 mm	60 mm x 225 mm	1
14	Pneumatik	FESTO DSNU -20-50-PPV-A 19237 A90B P max = 10 bar		1
15	<i>Solenoid</i>	MFH -5 -718 -B 2 - 10 bar 28 - 145 psi		1
16	Sensor	<i>proximity capacitive</i>		1

**Lampiran 2. Bulk Density**

Ingredient	Bulk Density (lb/cu.ft.)		Ingredient	Bulk Density (lb/cu.ft.)	
	Loose	Packed		Loose	Packed
Adipic Acid		45	Barley, fine, ground	24	38
Alfalfa Meal	14	22	Barley, malted		31
Alfalfa Pellets	41	43	Barley, meal		28
Alfalfa Seed	10	15	Barley, whole	36	48
Almonds broken	27	30	Basalt	80	105
Almonds whole shelled	28	30	Bauzite, dry, ground		68
Alum fine	45	50	Bauzite, crushed - 3"	75	85
Alum lumpy	50	60	Beans, castor, meal	35	40
Alumina	55	65	Beans, castor, whole, shelled		36
Alumina fines		35	Beans, navy, dry		48
Alumina sized or briquette		65	Beans, navy, steeped		60
Aluminate gel		45	Bentonite, crude	34	40
			Bentonite, 100-mesh	50	60



Lampiran 3.

Table Length Factor

Length coefficient $C_l$ depending on conveying length L							
L in m	C	L in m	C	L in m	C	L in m	C
1	12.2	80	1.92	250	1.38	700	1.14
3	9.0	90	1.86	300	1.31	800	1.12
6	5.9	100	1.78	350	1.27	900	1.10
10	4.5	120	1.70	400	1.25	1000	1.09
16	3.6	140	1.63	450	1.22	1500	1.06
20	3.2	160	1.56	500	1.20	2000	1.05
25	2.9	180	1.50	550	1.18	2500	1.04
32	2.6	200	1.45	600	1.17	5000	1.03
40	2.4						
50	2.2						
63	2.0						



**Lampiran 4. Friction Factor**

<b>Horizontal, inclined or slightly declined installations - Motor driven</b>	
Favourable working conditions, easily rotating idlers, material with low internal friction and good tracking, good maintenance	0.017
Normal installation, normal material	0.020
Unfavourable conditions, low temperature, material with high internal friction, subject to overload, poor maintenance	0.023 - 0.027
<b>Installations with steep declines creating regenerative conditions</b>	0.012 - 0.016



**Lampiran 5. Drive Efficiency**

Types of Drive	$\eta$
Wormgear drive	0.7 - 0.8
Toothed chain drive	0.9 - 0.95
V-Rope drive	0.95
Pulley motor	0.96
Normal coupled drive	0.94
Geared and hydraulic coupling	0.90
Hydraulic motor	0.86
Braked installations	0.95 - 1.0

