

Project:

Østfold Avfallssortering IKS - MRF

Title:

APPENDIX A4

PERFORMANCE GUARANTEES



C1		For Contract			
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1 GENERAL

During the Trial Run (see Appendix A5), following commissioning of the MRF sorting plant, various performance tests shall be carried out.

The values listed below are required to be achieved. Contractor has to fill in those values which he commits to attain during such tests in the columns as defined.

2 CAPACITY

Hourly capacity of the plant		Client's requirement	Value guaranteed by Contractor
Minimum hourly capacity during 3 weeks (availability test) Capacity over 3 weeks Average per week ≥ 40 t/h	t/h	≥ 40	

3 AVAILABILITY

Availability		Client's requirement	Value guaranteed by Contractor
Measured during a 3 weeks performance test with 1 shift (7,5 h/day) in operation in the trial period		$\geq 85\%$	

4 GUARANTEED VALUES SORTING PRODUCTS

			Client's request	Value guaranteed by Contractor
Magnets ¹⁾				
Ferrous metal (small fraction)				
	Yield	m-%	≥ 95	
	Purity	m-%	≥ 90	
Ferrous metal (medium and large fraction)				
	Yield	m-%	≥ 95	
	Purity	m-%	≥ 88	
Eddy Current ²⁾				
Non ferrous metal (small fraction)				
	Yield		≥ 85	
	Purity		≥ 85	
Non ferrous metal (medium and large fraction)				
	Yield	m-%	≥ 85	
	Purity	m-%	≥ 85	
NIR machines - Mix plastic C)				
Recyclable material Polymer				
	Yield ³⁾	m-%	≥ 85	
	Purity ⁴⁾	m-%	≥ 95	
NIR machines - Mix paper				
Recyclable material Paper > 150 mm				
	Yield	m-%	≥ 80	
	Purity	m-%	≥ 90	

Contractor to prepare test procedures and test program to be made two weeks before start of the first test to verify the guaranteed values.

This program to be approved by Client.

5 INDIVIDUAL EQUIPMENT SORTING PLANT

Individual equipment		Client's requirement	Value guaranteed by Contractor
Shredder			
- minimum hourly capacity during 24 hours (capacity test at end of lifetime knives)	t/h	45	

Opening rate of bags by number	%	≥ 98	
Lifetime knives (operating hours with material)	hr	>700 hr	
Lifetime stator knives (operating hours with material)		>700 hr	
Baler			
Capacity mixed plastic (25 kg/m ³)	t/h	> 15	
Capacity mixed paper (50 kg/m ³)	t/h	> 15	
Bale weight (1,1 x 1,1 x 1,2 m)			
Mix plastic	kg/bale	> 600	
Mix paper	kg/bale	> 800	
Broken bale (two broken steel-wires = bale is broken – not accepted) for each product fraction	%	Max 2%	
Dedusting			
Dust emission behind the filter system	mg/m ³ N	< 3	
Noise			
Outlet air outlet/stack ⁵⁾	dB	<LwA = 85	
External, from air intake compressor room and other external coolers ⁵⁾	dB	<LwA = 65	

Notes:

¹⁾ Testbodys VDE, DIN 0580, St Ø 20 mm, L = 120 mm

²⁾ Testbodys NE-plates 50 * 50 *5 mm

³⁾ From polymer material in the fraction of >60 mm after drum screen.

⁴⁾ Impurities:

[1] The max. amount of impurities is 5 weight-%.

[2] The fraction contains < 0,5 M.-% metals

[3] Fines < 60 mm will be eliminated from evaluation

Examples of impurities:

Glass, paper, cardboard, composite paper/cardboard materials (e.g. beverage cartons), foreign materials (e.g. rubber, stones, wood, napkins), organic waste (e.g. food-, garden waste) etc.

⁵⁾ The Norwegian guideline T-1442 applies.

To comply with the limits set in the guideline at the nearest residence, offices etc., the maximum noise from the finished plant in operation must not exceed the following values (distance of 1 meter from the equipment):