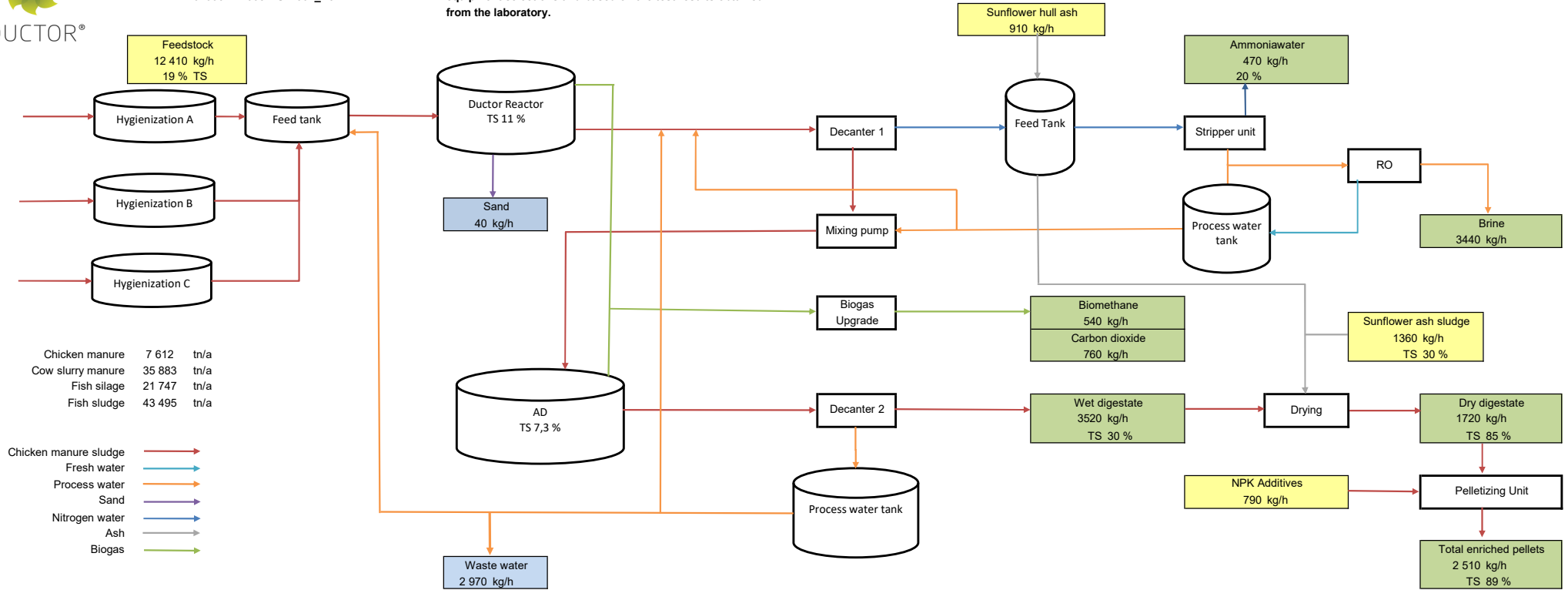




Sunnalsora
16.03.2021
01006-EN-005-DUC-001_R9

Please note, that the calculations are based on current data. The values shown will change with more detailed equipment selections and based on the test results obtained from the laboratory.



Chicken manure	7 612	tn/a
Cow slurry manure	35 883	tn/a
Fish silage	21 747	tn/a
Fish sludge	43 495	tn/a

Chicken manure sludge	→
Fresh water	→
Process water	→
Sand	→
Nitrogen water	→
Ash	→
Biogas	→

In	
Feedstock	108 737 tn/a
NPK Additives	6 900 tn/a
Sunflower hull ash	7 940 tn/a

Out	
Wet digestate + sunflower ash	42 770 tn/a
Dry digestate + sunflower ash	15 090 tn/a
Total enriched pellets	22 000 tn/a
Ammonia Water 20 %	4 140 tn/a
Liquefied biogas	4 750 tn/a
Carbon dioxide	6 710 tn/a
Brine	30 090 tn/a

Energy balance	
Available heat from process (60 °C)	5 360 MWh/a
Hot water consumption (60 & 70 °C)	32 940 MWh/a
Total external hot water need	27 580 MWh/a
Steam consumption (115-130 °C)	19 050 MWh/a
Electricity demand for steam boiler	4 010 MWh/a
Total external steam need	15 240 MWh/a
Total electricity demand	17 830 MWh/a

Waste	
Sand	320 tn/a
Process water	25 980 tn/a

	Date	Initials
Owner	15.10.2020	VMI
Checked	16.10.2020	LHI
Approved	16.10.2020	LHI
Revisio 7	15.12.2020	MSE
Revisio 8	26.1.2021	MSE
Revisio 9	16.3.2021	VMI