

Exergy input			Exergy output		
Mass and energy flows	GJ/t	%	Mass and energy flows	GJ/t	%
Version 1					
Ammonia	4.300	84.70	Ammonium nitrate (99 % melt)	3.774	74.34
Nitric acid (60%)	0.585	11.52	Clean steam condensate	0.041	0.71
Additives	0.003	0.06	Purified process steam condensate	0.073	1.44
Steam (1.6 MPa)	0.126	2.48	Total useful exergy output	3.868	76.19
Electricity	0.063	1.24	Exergy losses	1.209	23.81
Total exergy input	5.077	100.0	Exergy degree of perfection	$\eta_e= 76.19 \%$	
Version 2					
Ammonia	4.300	84.40	Ammonium nitrate (solid)	3.706	72.74
Nitric acid (60%)	0.585	11.48	Clean steam condensate	0.041	0.80
Additives	0.003	0.06	Purified process steam condensate	0.073	1.43
Steam (1.6 MPa)	0.126	2.47	Total useful exergy output	3.820	74.98
Electricity	0.081	1.59	Exergy losses	1.275	25.02
Total exergy input	5.095	100.0	Exergy degree of perfection	$\eta_e= 74.98 \%$	

*Neutralization at atmospheric pressure, pipe reactor. Solidification by prilling. Steam condensate is purified by RO.