

Results of the realisation of the GNS-procedure for wood gasification

<i>gasifier 1</i>		basic value	improvement by using the GNS-procedure	increase by
gas heating value	MJ/Nm ³	3,5	5,0	43%
timber throughput	kg/h	22	40	82%
gas rate	kW	39	150	285%
gasification efficiency	%	45	90	100%
<i>gasifier 2</i>				
gas heating value	MJ/Nm ³	3,7	5,1	38%
timber throughput	kg/h	170	250	47%
gas rate	kW	300	790	163%
gasification efficiency	%	45	72	60%
<i>gasifier 3</i>				
gas heating value	MJ/Nm ³	5,4	7	30%
timber throughput	kg/h	250	250	0%
gas rate ¹	kW	750	875	17%
gasification efficiency	%	68	79	17%
<i>gasifier 4</i>				
gas heating value	MJ/Nm ³	4,83	6,37	32%
timber throughput	kg/h	178	152	-15%
gas rate ²	kW	684	684	0%
gasification efficiency	%	74	87	18%
<i>gasifier 5</i>				
gas heating value	MJ/Nm ³	4,98	5,83	17%
timber throughput	kg/h	47	37	-21%
gas rate	kW	141	148	5%
gasification efficiency	%	69	85	23%

¹ increase in gas output at constant timber throughput; ² less wood consumption at constant gas output