

**Process guidelines for
Jarlsberg**

raw material	raw milk
↓	
standardization	to 2.9 - 3.5 % fat depending on the protein content
↓	
heating	72 - 75 °C for 15 - 30 s
↓	
cooling	to renneting temperature: 33 ± 1 °C
↓	
inoculation	1 x Choozit ALP LYO 100 DCU + 1 x Holdbac YM-B LYO 100 DCU per 1000 l
↓	
preripening	≥ 45 min to pH 6.50 ± 0.05
↓	
renneting	16 - 18 ml / 100 l, 1 : 15 000
↓	
coagulation	setting time: 15 - 18 min coagulation time: 30 - 40 min
↓	
cutting	curd grain diameter: green pea to hazelnut size
and stirring	for 5 - 10 min
↓	
stirring	20 - 30 min
↓	
separating	draw off whey, approx. 30 %
↓	
stirring	5 - 15 min
↓	
washing	pH before washing: 6.40 - 6.45
and	SH before washing: 3.9 - 4.2 °
scalding	addition of water: 20 - 25 %, approx. 60 °C scalding at 37 - 42 °C, within 15 - 30 min
↓	
stirring	0 - 30 min
↓	
prepressing	under whey, depending on equipment (e.g. 10 min with 6 bar)
↓	

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Process guidelines for Jarlsberg

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<p>↓</p> <p>pressing</p> <p>↓</p> <p>immersing in brine bath</p> <p>↓</p> <p>packaging</p> <p>↓</p> <p>ripening</p>	<p>with increasing pressure, depending on equipment, e.g. 15 min, 0.3 - 0.6 bar with 4 kg-weights</p> <p>pH before brine bath: 5.40 ± 0.2 $16 - 18^{\circ}\text{Bé}$, $16 - 18^{\circ}\text{C}$ salting time: $24 - 54$ h, depending on weight pH after brine bath: 5.30 ± 0.1</p> <p>in special foil for large eye formation cheese, or coating</p>
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winter	summer
cool storage temperature : $8 - 10^{\circ}\text{C}$ time : $10 - 12$ d <p>↓</p> warm storage temperature : 18°C time : 4 weeks	cool storage temperature : $10 - 14^{\circ}\text{C}$ time : $7 - 10$ d <p>↓</p> warm storage temperature : $20 - 22^{\circ}\text{C}$ time : 4 - 5 weeks
<p>↓</p> <p>final packaging</p>	

Possibilities to enhance eye formation:

- higher inoculation amount of propionic acid bacteria type 2
- higher scalding temperature up to $40 - 41^{\circ}\text{C}$
- shorter salting time with a weaker salt concentration
- higher pH after salting: not under pH $5.30 - 5.40$
- shorter ripening time in cool storage, with a higher temperature, e.g. 7 days at $11 - 14^{\circ}\text{C}$
- longer ripening time in warm storage, e.g. 5 - 6 weeks at $22 - 24^{\circ}\text{C}$

The data indicated in these process guidelines are empirical values closely connected with the application of our cultures. They should be considered as guidelines only since technological changes may be necessary depending on the quality of milk, technology and desired product composition and properties. Furthermore we cannot guarantee that these process guidelines consider every national law and do not break any patent rights of third parties.

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draft: V. Bruns / EL date: 01.10.1998		checked: date: 01.10.1998	