

## Sparkling Steel Dortmunder Export

Guide utilizing the Brewolution brew kettle		
This kit contains the ingredients to brew 23-25 litres of beer in a Brewolution Brewster brew kettle. It is suitable for any brewing system able to achieve a mash efficiency of around 80%.		
<b>Content:</b> Pouch 2: Yeast Pouch 3: <b>Pilsner malt, Cara Blond, approx. 5800 g.</b> Pouch 4: Bitter hops – Tettnanger Pouch 5: Flavouring hops, Mittelfruh and clearing agent Pouch 6: Aroma hops, Saaz		
Mashing		
0 minutes	Add 19 litres of water to the Brewster kettle and set the temperature to 64°C Submerge the kettle sieve into the kettle and add the malt (pouch 3). Start the mash pump and recirculate for 90 minutes. Top of with water during the process for water table. Stop the pump if the bottom of the kettle runs dry.	
60 minutes	Heat 10-14 litres of sparge water to 78°C (for mash-out and sparging)	
90 minutes	After 90 minutes, at the sound of the alarm, set the temperature to 77°C. The mash is complete when the alarm sounds again for 77°C. Raise the kettle sieve on the sieve hangers and sparge with the 78°C sparge water prepared earlier. Bring the wort level to 29 litres. Hang the kettle sieve to drain over a plastic fermenter.	
Boiling and chilling		
0 minutes	Set the temperature on the Brewster kettle to 100°C, and the time for 60 minutes. When the temperature reach 100°C, and the alarm sounds, add the bittering hops (pouch 4)	
30 minutes	Add flavouring hops and clearing agent (pouch 5)	
55 minutes	Add the aroma hops (pouch 6) Sanitize your chiller.	
60 minutes	After another 5 minutes, the Brewster kettle turns off. Chill the wort to approximately 20°C, and rack to a clean and sanitised fermenter.	
Fermentation		
0 days	Pitch the yeast and ferment at 12°C – 14°C	
14 days	After 14 days, rack the beer to a secondary clean and sanitised fermenter.	
21 days	After a further 7 days, bottle the beer. To bottle carbonate, rack the beer to a plastic fermenter containing tepid sugar water to a sanitized plastic fermenter. (5-7 g caster sugar per litre beer dissolved in 200 ml water. Boil for 10 minutes and cool to 26°C). Bottle the beer and place at room temperature for a couple of weeks.	
35 days	The beer is carbonated and ready to drink. Store at cellar temperature (13°C – 17°C) For an even better result in stock at 2° - 10° for another month before bottling.	
Notes		
It is advantageous to take notes during a brew:		
<b>Typical stats::</b>		
Bitterness: 24 IBU	Colour: 10 EBC	Alcohol (ABV): 5,2 %
OG: 1052	Your OG: _____	
FG: 1012	Your FG: _____	Your alcohol % (OG-FG) / 7,5 = _____%
For general guidance using the Brewster kettle, please refer to <a href="http://www.brewolution.com/brewsterscan">www.brewolution.com/brewsterscan</a> , or scan this QR-code.		
		