Ultimate coffee pleasure
In this training brochure

The humble cup of coffee has evolved into a whole range of modern drinks. The aromatic espresso remains ever-popular, but coffee’s horizons are expanding. Combinations with hot milk and soft, light-as-air milk foam create the latest in creative coffee beverages such as a latte macchiato, flat white or cortado.

This brochure will illustrate that achieving the perfect coffee is about more than just the coffee beans, with a whole range of other factors affecting what ultimately ends up in the cup.

JURA coffee machines prepare perfect speciality coffees at the touch of a button. The barista tips in this brochure are designed to inspire you with all kinds of different ideas for preparing and serving these beverages.
The perfect espresso –
The four contributing factors

The black espresso with no milk is coffee in its most original and pristine form. But not every espresso tastes the same. There are four factors that influence its quality.

1
In this chapter
What factors affect the perfect espresso?
What settings are available on JURA coffee machines?
What brewing processes are integrated into JURA coffee machines?
1.1 The water

Water makes up 98% of an espresso, so it is crucial to the quality of the finished product. Ideally, it should be fresh, contain minerals and oxygen and have a low to moderate water hardness. CLARIS filter cartridges are designed to ensure that water quality remains consistently high – and therefore ideal for coffee preparation.

1.2 The coffee beans

Coffee is one of the most aromatic foodstuffs, and beans can vary enormously in flavour.

The flavour is influenced by:

- The variety (arabica or robusta)
- Whether a blend of different beans or pure origin coffee is used
- The climate and soil conditions of the country of origin
- The method of processing (dry or wet)
- The degree of roast

With a JURA automatic speciality coffee machine, you can choose from the virtually unlimited selection of fresh coffee beans available to brew coffee just as you like it.

1.3 The machine

JURA automatic speciality coffee machines always extract the very best from the fresh beans, freshly ground and brewed.

Consistency of grind

The fineness of the grind depends on the beans being used and personal taste. The grinder in JURA coffee machines has different settings. The more finely the beans are ground, the longer the water takes to flow through the ground coffee and the more aroma is extracted. This makes for a stronger flavour in the cup. If the grind is too fine, the water and coffee remain in contact for too long. This may cause the coffee to come out of the spout in drips and the coffee will taste bitter. On the other hand, if the consistency of grind is too coarse, the coffee flows too quickly into the cup. This results in coffee that is less aromatic.

Coffee temperature

The different temperature levels you can select on your JURA automatic speciality coffee machine are all within an optimised temperature range so that the full aroma of your favourite coffee can always develop. It is your taste that determines which temperature is right for you.

Coffee strength

The coffee strength – in other words, the amount of ground coffee used to prepare a cup of coffee – can be adapted to the speciality coffee and your individual taste. JURA’s patented variable brewing units consistently process the ground coffee under perfect conditions.
Amount of water

The amount of water can be adjusted depending on the speciality coffee you want to prepare or the cup you are using.

Brewing processes

JURA automatic speciality coffee machines use three different brewing processes. The machine automatically selects the correct brewing process depending on the speciality coffee to be prepared at the touch of a button.

1 Standard brewing process

- The standard brewing process is used for classic coffee drinks with medium cup sizes, such as café crème.
- The I.P.B.A.S.© (Intelligent Pre-Brew Aroma System) makes classic speciality coffees highly aromatic.

2 Pulse Extraction Process (P.E.P.*)

- P.E.P.* is used when preparing short speciality coffees such as ristretto, espresso, macchiato and cortado.
- P.E.P.* pulses the water through the ground coffee at the optimum frequency for the amount of water. This extends the extraction time and means the water has more time to extract aroma compounds from the ground coffee, resulting in an even more intense and even more aromatic cup of coffee.

3 One-Touch Lungo function

- This function is ideal for preparing long speciality coffees. After a particular brewing time, the flavours of all the coffee aromas are able to develop in full. If the coffee continues to be extracted, the finished product will contain a higher proportion of unpleasant acidic and bitter components.
- The One-Touch Lungo function prevents this by mixing hot water with long coffees during the preparation phase, optimising the extraction time.

4 Cold Extraction Process

- The Cold Extraction Process is used for preparing genuine cold brew specialities. While many conventional cold specialty coffees consist mostly of hot-brewed coffee which is then chilled, extraction in the Z10 takes place with cold water, pulsed at high pressure.
- The amount of water required for preparation is pumped directly into the brewing unit without being heated. This takes place at a slow frequency in order to extract the very best aroma from the ground coffee during the Cold Extraction Process.
- The end result is a natural, energising and refreshing beverage in which the fruity aromas of the coffee can be fully enjoyed without being overwhelmed by a bitter taste. Anything else would just be a cold coffee.
Speciality coffees with milk

Preparing the milk first, then the coffee
This preparation method is used for cappuccino, macchiato and latte macchiato varieties. The coffee is prepared after the hot milk and the milk foam, then flows through the milk foam at the top. The milk foam, which weighs less than the coffee, floats above it. This is what creates the white foam top that is so characteristic of this type of beverage.

Preparing the coffee first, then the milk
This preparation method is used for flat white and cortado varieties. The milk foam is prepared after the coffee and lies under the crema. This results in the milk foam at the top taking on the colour and flavour of the crema.

Preparing coffee and milk at the same time
This preparation method is used for caffè latte. Preparing the milk and coffee at the same time causes them to mix as they are flowing into the cup, creating the perfect result.

1.4 The individual

The JURA coffee machine performs the most important coffee preparation steps at the touch of a button.

All the user of the machine needs to do is select the right cup or glass. A small accompaniment such as chocolates, confectionery or biscuits can bring out and intensify the specific aromas in the coffee. And last but not least, the overall ambience in which the speciality coffee is served is an essential factor for ensuring it can be enjoyed in a relaxed atmosphere. Find out more in the next chapter, ‘Barista tips’.
These barista tips are designed to give you inspiration when preparing and serving speciality coffees, and contain lots of other fascinating pieces of information all about coffee.
2.1 The perfect milk foam

The protein in the milk is responsible for creating the perfect milk foam – not the fat, as is often thought to be the case. Almost any type of milk can be used to create foam: full-fat, semi-skimmed or skimmed, sheep’s or goat’s milk, soya or lactose-free. Whichever type of milk you choose is purely a matter of your personal taste. To create a fine-textured milk foam using the innovative milk systems in JURA coffee machines, the milk temperature should ideally be between 4 and 8°C.

2.2 Coffee perishability

Coffee contains around 800 different aroma compounds, making it one of the most aromatic of all foodstuffs. However, coffee beans lose their aroma very quickly when exposed to oxygen and light. For this reason, always store packs of coffee in a dry, dark and cool place in a tightly sealed container, particularly once they have been opened. Once the beans are poured into the JURA coffee machine’s bean container, the freshness is retained by the aroma preservation cover. The oils and fats in coffee can also become rancid, so you should always wipe down the inside of the bean container with a dry cloth before refilling it.

2.3 The secret of a perfect crema

The crema on an espresso consists of oils, proteins and sugars, and contains a major part of the aroma. The density and consistency of the crema is affected by the blend. Robusta beans usually result in a fuller-bodied crema than arabica beans due to the smaller proportion of coffee oils in robusta beans: 10% compared with 16% in arabica coffee. The oils are important flavour carriers and therefore vital to the coffee’s aroma, but on the other hand they tend to prevent a good crema from forming.

2.4 Maintenance of your automatic speciality coffee machine

Follow these maintenance tips to produce consistently good coffee and extend the service life of your machine:

- Empty the coffee grounds container and drip tray every day and rinse out with a little warm water.
- Clean the milk system daily.
- Run the cleaning programmes when prompted by a message on the display.
- Perform filter changes/descaling when prompted by a message on the display.
- Clean the surface of the machine with a JURA cleaning cloth.
- Polish chrome surfaces with a JURA microfibre cloth.
- Wipe down the bean container with a dry cloth before refilling it.

Clean cups

If the cups are not clean and if they have grease residues on the insides, the crema will also collapse more quickly due to the lowered surface tension.

Age of the coffee

The older the coffee beans, the less crema will be produced because ageing coffee loses the CO₂ needed to form the crema.
2.5 Serving suggestions

These serving suggestions will give you ideas and tips for preparing speciality coffees.

Sugar

Use a teaspoon to add sugar and use loose sugar rather than lumps to keep the crema or milk foam intact.

A glass of water

Together, coffee and water make an unbeatable team. Serve espresso beverages with a glass of water. Water reinforces the positive characteristics of the coffee and has a refreshing effect. In traditional coffee-drinking countries, this synergy has been understood for centuries.

55 °C – The perfect temperature

In prewarmed cups, the wonderful taste experience can fully develop. If hot coffee is served in a cold cup, however, too much heat and therefore flavour will be lost. The JURA cup warmer keeps the cups at a constant temperature of around 55 °C – ideal for preparing the full range of classic coffee drinks.

Flavoured syrups

Speciality coffees with a dash of flavoured syrup are particularly popular at the moment. These flavoured syrups work very well in speciality coffees with milk and are added to the glass or cup before the rest of the beverage. The milk absorbs the aroma and gives the speciality coffee the desired flavour. This means that you only need a small amount of flavoured syrup. The range of available flavours is almost limitless.

The right crockery

Use appropriate crockery that is the perfect size for your speciality coffees, as the results should be a feast for the eyes as well as the taste buds. Choosing the right saucer and teaspoon will add the perfect finishing touch to the speciality coffee you are serving up.
In this chapter

What is latte art?
What techniques are used to create latte art?
What motifs can be used for decorations with chocolate sauce?
How do you create latte art in a cappuccino?

Latte art

One of the barista’s most impressive skills is the ability to create latte art. This kind of decoration offers enormous scope for creativity, the only limit being your imagination. Exciting new speciality coffees are appearing on coffee bar menus all the time, and this creative trend has also given rise to ever more artistic decorations on the classic cappuccino. Originally, latte art consisted of skilfully pouring milk foam over an espresso to create a design with the brown crema and the white foam. The first motifs used were the heart and the rosetta.
3.1 Creative decorations

The technique of creating decorative patterns with chocolate sauce began later. This involves using the sauce to draw simple shapes on the milk foam and then expanding them into more elaborate, creative patterns with a wooden skewer. It is a skill that can be picked up quickly, making it easy to try out for yourself. A cappuccino with light, velvety foam can be prepared at the touch of a button with a JURA coffee machine.

Then all you need is:

- Chocolate sauce
- Squeezy bottle
- Wooden skewer
Speciality coffees are enjoying huge popularity all over the globe. In German-speaking Europe, café crème is still the firm favourite, closely followed by espresso – but cappuccino, latte macchiato and other specialities are catching up and are especially popular with younger coffee drinkers.

In this chapter

What speciality coffees does the JURA coffee machine prepare at the touch of a button?
What is the correct way to serve classic coffee drinks?
What machine settings does JURA recommend for classic coffee drinks?

Speciality coffees – JURA classics

Speciality coffees are enjoying huge popularity all over the globe. In German-speaking Europe, café crème is still the firm favourite, closely followed by espresso – but cappuccino, latte macchiato and other specialities are catching up and are especially popular with younger coffee drinkers.
Ristretto

It couldn’t be more concentrated… espresso ‘ristretto’ (which means restricted in Italian, or strong for a beverage). A highly concentrated espresso, prepared with less water than normal, but the same amount of ground coffee. This is what gives the ristretto its aromatic taste.

Ingredients
- 25 ml ristretto

Preparation
- Place an espresso glass under the coffee spout.
- Prepare a ristretto with 25 ml of water.

Espresso

‘Espresso should be as black as the devil, as hot as hell, as pure as an angel and as sweet as love.’
Charles-Maurice de Talleyrand-Périgord (1754 – 1838)

Espresso is the most popular type of coffee in southern European countries like Italy and Spain.

Ingredients
- 45 ml espresso

Preparation
- Place an espresso glass under the coffee spout.
- Prepare an espresso with 45 ml of water.
The macchiato – which means ‘stained espresso’ – is an espresso which is topped with milk foam to give it an elegant finish.

**Ingredients**
- 40 ml espresso
- Milk foam

**Preparation**
- Place an espresso glass under the coffee spout.
- Prepare a macchiato.

**Machine settings**
- Amount of water: 40 ml
- Coffee strength: strong
- Temperature: high
- Milk foam: 3 sec.

**Serving suggestion**

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True to its Spanish roots, the cortado is the perfect blend of aromatic espresso with a smooth and fine milk foam.

**Ingredients**
- 25 ml espresso
- Warm milk and milk foam

**Preparation**
- Place an espresso glass under the coffee spout.
- Prepare a cortado.

**Machine settings**
- Amount of water: 25 ml
- Coffee strength: strong
- Temperature: high
- Warm milk: 2 sec.
- Milk foam: 1 sec.

**Serving suggestion**
Espresso doppio

At the touch of a button, the JURA coffee machine can prepare two cups of espresso in two preparation cycles – grinding twice, then brewing twice.

Ingredients
- 2 × 45 ml espresso

Preparation
- Place the coffee cup under the coffee spout.
- Prepare an espresso doppio.

Machine settings
- Amount of water: 90 ml
- Coffee strength: strong
- Temperature: high

Serving suggestion

Café crème

With its light-coloured crema, this drink is also known in Switzerland as a ‘Schümli’ and in Italy as a ‘caffè lungo’. It is made with much more water than an espresso.

Ingredients
- 100 ml coffee

Preparation
- Place the coffee cup under the coffee spout.
- Prepare a coffee with 100 ml of water.

Tip
- Add coffee cream to taste.

Machine settings
- Amount of water: 100 ml
- Coffee strength: normal
- Temperature: normal

Serving suggestion
The lungo Barista is the longest speciality coffee without milk. During preparation the JURA coffee machine adds hot water in a fully automatic process. This results in optimum extraction of the desired aroma compounds while avoiding the unpleasant bitter substances and acidic flavours. The result is a full-bodied, delicious and easy-to-digest long speciality at the touch of a button.

**Machine settings**
- Amount of water: 120 ml
- Amount of bypass water: 100 ml
- Coffee strength: strong
- Temperature: normal

**Ingredients**
- 120 ml coffee
- 100 ml water

**Preparation**
- Place the lungo cup under the coffee spout.
- Prepare a lungo Barista.

**Serving suggestion**
The word cappuccino probably comes from the Capuchin monks, and came to be used because the milk foam resembles the monk’s hood (cappuccio). The colour of the monks’ hoods also recalls the brown hue of the beverage.

Ingredients
- 50 ml espresso
- Milk foam

Preparation
- Place the cappuccino cup under the coffee spout.
- Prepare a cappuccino.

Tip
- Decorate the cappuccino with a little chocolate sauce

Machine settings
- Amount of water: 50 ml
- Coffee strength: strong
- Temperature: high
- Milk foam: 14 sec.

Cappuccino

Coffee with plenty of warm milk, known in Switzerland as a ‘Schale’. This milky coffee, which is often enjoyed at breakfast time, is made from coffee with warm milk.

Ingredients
- 100 ml coffee
- Warm milk

Preparation
- Place the cappuccino cup under the coffee spout.
- Prepare a caffè latte.

Machine settings
- Amount of water: 100 ml
- Coffee strength: normal
- Temperature: normal
- Warm milk: 10 sec.

Caffè Latte
Flat White

The flat white is a drink that is very much in fashion among coffee lovers. Originating in Australia, its secret lies in ensuring that it is prepared correctly by adding the coffee to the cup first, followed by warm milk. The milk foam is prepared in the final stage. This lies under the crema, taking on its colour and taste.

Ingredients
- 60 ml espresso
- Warm milk and milk foam

Preparation
- Place the cappuccino cup under the coffee spout.
- Prepare a flat white.

Machine settings
- Amount of water: 60 ml
- Coffee strength: normal
- Temperature: normal
- Milk foam: 2 sec.
- Warm milk: 14 sec.

Serving suggestion

Latte macchiato

Espresso with warm milk and milk foam. The latte macchiato, which literally means 'stained milk', is made up of three layers: a bottom layer of warm milk, a top layer of milk foam and an espresso in the middle.

Ingredients
- 55 ml espresso
- Warm milk and milk foam

Preparation
- Place a latte macchiato glass under the coffee spout.
- Prepare a latte macchiato.

Tip
- Add a little flavoured syrup or Baileys to the latte macchiato glass, to taste.

Machine settings
- Amount of water: 55 ml
- Coffee strength: strong
- Temperature: high
- Milk foam: 18 sec.
- Warm milk: 4 sec.

Serving suggestion
Cold Brew Espresso

For cold brew espresso the coffee is extracted with cold water pulsed at high pressure and usually with a coarser ground coffee. The result in the cup is an espresso that beautifully accentuates the fine coffee notes.

Ingredients
- 45 ml cold brew espresso

Preparation
- Put 1 ice cube in the glass.
- Place the espresso glass under the coffee spout.
- Prepare a cold brew espresso.

Machine settings
- Amount of water: 45 ml
- Coffee strength: strong

Serving suggestion

Cold Brew Caffè Latte

The coffee flows slowly into the glass. The prolonged contact between the ground coffee and water ensures optimum extraction of the natural aromas. The coffee is topped with a little milk foam. The result is an energising, refreshing beverage.

Ingredients
- 90 ml coffee
- Warm milk and a little milk foam

Preparation
- Put 2 ice cubes in the glass.
- Place a small latte macchiato glass under the dual spout.
- Prepare a cold brew caffè latte.

Tipp
- Add about 10 ml flavoured syrup as desired and stir well before enjoying.

Machine settings
- Amount of water: 90 ml
- Coffee strength: normal
- Warm milk: 7 sec.
- Milk foam: 3 sec.