

A DIFFERENT FILTER BASKET DEPENDING ON THE BEANS “QUALITY”?

RENEKA MICRO-SIEVE VS VST AND IMS PRECISION BASKETS
DE1 PRO V1.1 DECENT ESPRESSO MACHINE



STÉPHANE RIBES – DECEMBER 2019

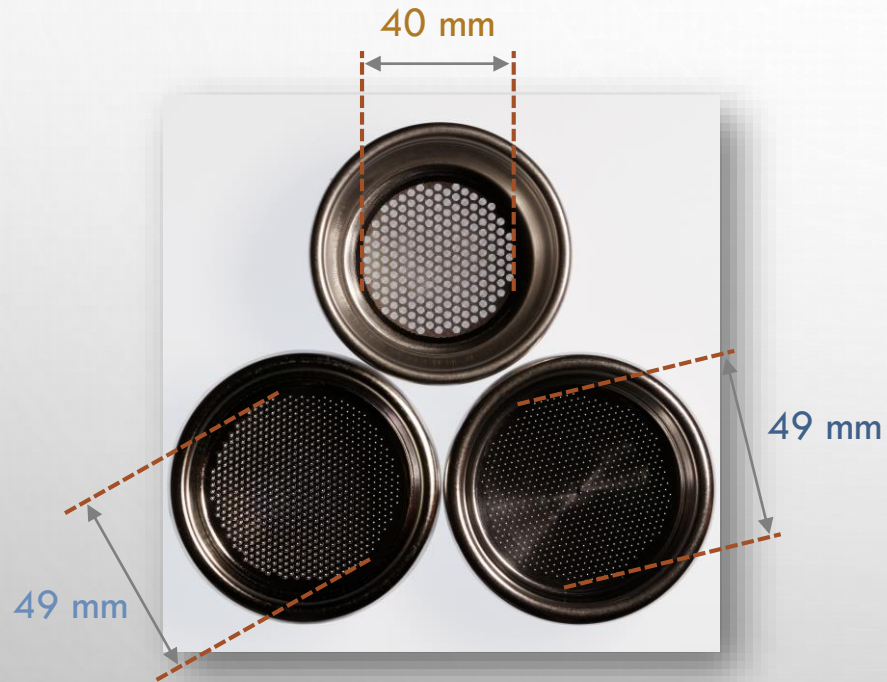
RENEKA MICRO-SIEVE BASKET

MAIN RESULTS

- **Tested in flow priority mode: more constant extraction pressure with the Reneka basket: much softer pressure drop after the pressure peak**
- **Strong loss of Extraction Yield with the Reneka basket (from 19.8% to 16.4%)**
- With the beans used for these tests, **higher flavor clarity with the Reneka basket**, when (unpleasant) roasting notes were present with the VST or IMS precision baskets
- No major differences between the VST 15g and IMS precision filter baskets

RENEKA MICRO-SIEVE BASKET TEST PROTOCOL (1/3)

Reneka Micro-Sieve filter basket
15000 holes of 0.170 mm



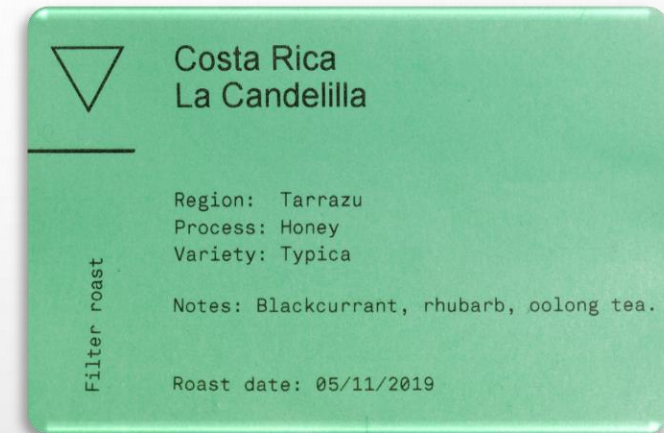
IMS B702TFh22NT
715 holes of 0.300 mm diameter



VST ridgeless precision basket (15g)
727 holes (diameter?)

RENEKA MICRO-SIEVE BASKET TEST PROTOCOL (2/3)

- **Decent Espresso Machine DE1PRO v1.1** with a (red) Cafelat 8.0 mm silicone gasket
- IMS SI 200 IM screen (no spacer)
- Mahlkönig EK43 S grinder – SSP burrs “High Uniformity” with Silver Knight coating
- Montille water (Le Mont Dore, France) – **adjusted to 50 ppm eq. CaCO_3 alkalinity and 100 ppm eq. CaCO_3 total hardness**, with sodium carbonate and Epsom salts
- Thorough drying of the basket and of the shower screen before each shot, with a clean tissue
- Single dosing of frozen beans ground in a double walled stainless steel cup
- WDT in the basket with a Londinium tool (and a Decent funnel) – no taps
- **The Force Tamper with a 58.5 mm flat base – used twice in a row**
- For all espresso shots: dose of 14.5g of ground coffee → beverage mass of 29g
- TDS measurements: Atago PAL zeroed with SCAA water – no additional filtering of the coffee samples – all samples measured at room temperature after thorough agitation – 1 data point = average of 3 to 5 measurements of each coffee sample



RENEKA MICRO-SIEVE BASKET TEST PROTOCOL (3/3)

PRESETS ADVANCED OTHER MACHINE

Steps

1. preinfusion
2. low pressure bloom
3. flow rise
4. hold flow

Insert a step
preinfusion

1: Temperature
goal 94°C
sensor coffee

2: Pump
flow 6.0 mL/s
pressure -
transition fast

3: Duration
time 10 seconds

4: Move on if...
pressure is over
pressure is under
flow is over
flow is under

Steps Limits Cancel Ok

PRESETS ADVANCED OTHER MACHINE

Steps

1. preinfusion
2. low pressure bloom
3. flow rise
4. hold flow

Insert a step
low pressure bloom

1: Temperature
goal 90°C
sensor coffee

2: Pump
flow -
pressure 3.0 bar
transition fast

3: Duration
time 15 seconds

4: Move on if...
pressure is over
pressure is under
flow is over
flow is under

Steps Limits Cancel Ok

PRESETS ADVANCED OTHER MACHINE

Steps

1. preinfusion
2. low pressure bloom
3. flow rise
4. hold flow

Insert a step
flow rise

1: Temperature
goal 90°C
sensor coffee

2: Pump
flow 1.5 mL/s
pressure -
transition smooth

3: Duration
time 6 seconds

4: Move on if...
pressure is over
pressure is under
flow is over
flow is under

Steps Limits Cancel Ok

PRESETS ADVANCED OTHER MACHINE

Steps

1. preinfusion
2. low pressure bloom
3. flow rise
4. hold flow

Insert a step
hold flow

1: Temperature
goal 90°C
sensor coffee

2: Pump
flow 1.5 mL/s
pressure -
transition fast

3: Duration
time 45 seconds

4: Move on if...
pressure is over
pressure is under
flow is over
flow is under

Steps Limits Cancel Ok

- Mix between a Londinium profile and a blooming shot
- The objective of the low pressure bloom (step 2) is to maintain a constant volume of the air pocket above the puck in order to limit further damages to the puck surface during the water flow increase (step 3)

RENEKA MICRO-SIEVE BASKET– RESULTS (1 / 3)

IMS

Grind setting 1 (EK1.2)

Max P:
10.2 bar

Final P:
3.3 bar

EY: 19.8%



Reneka

Grind setting 1 (EK1.2)

Max P:
9.8 bar

Final P:
8.5 bar

EY: 16.4%



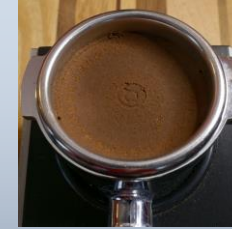
VST 15g

Grind setting 1 (EK1.2)

Max P:
10.3 bar

Final P:
3.7 bar

EY: 19.8%

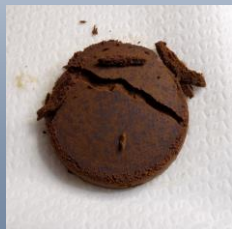
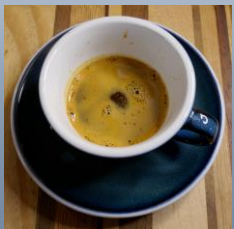
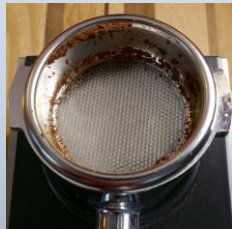
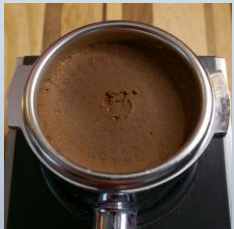


Grind setting 2 (EK1.3)

Max P:
7.2 bar

Final P:
3.0 bar

EY: 19.7%

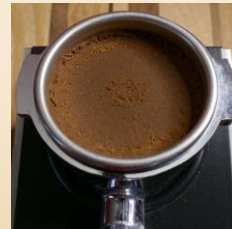


Grind setting 2 (EK1.3)

Max P:
7.0 bar

Final P:
5.7 bar

EY: 16.3%

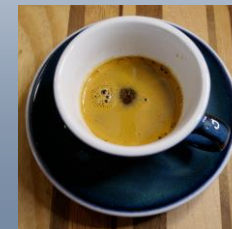
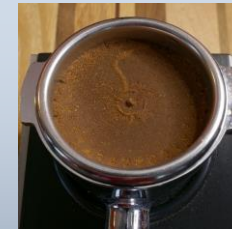


Grind setting 2 (EK1.3)

Max P:
6.8 bar

Final P:
3.3 bar

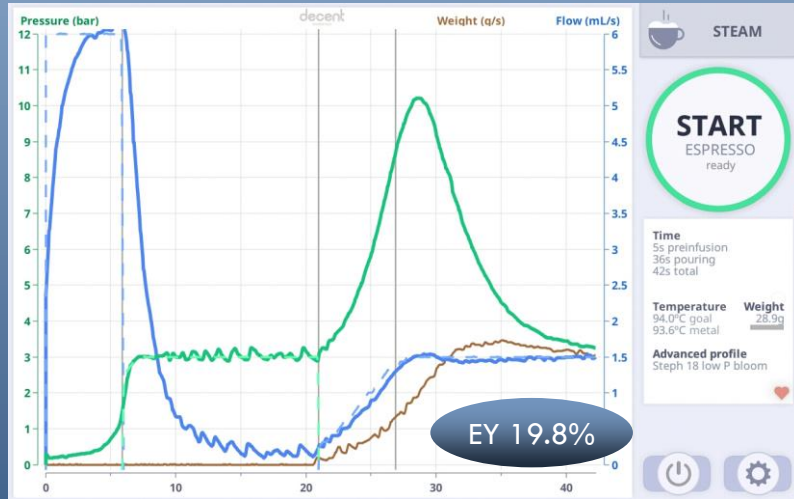
EY: 20.0%



RENEKA MICRO-SIEVE BASKET– RESULTS (2/3)

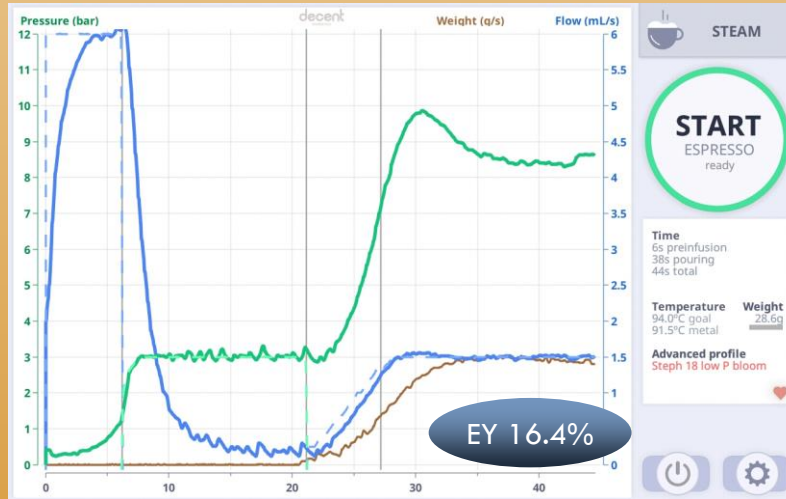
IMS

Grind setting 1 (EK1.2)



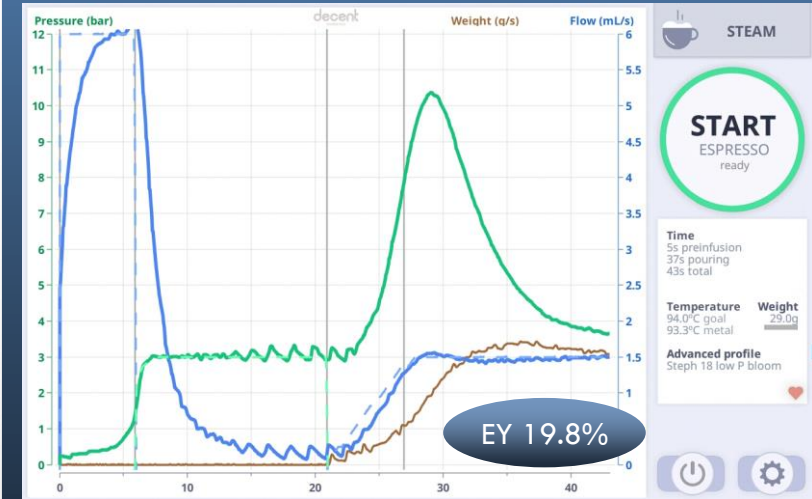
Reneka

Grind setting 1 (EK1.2)

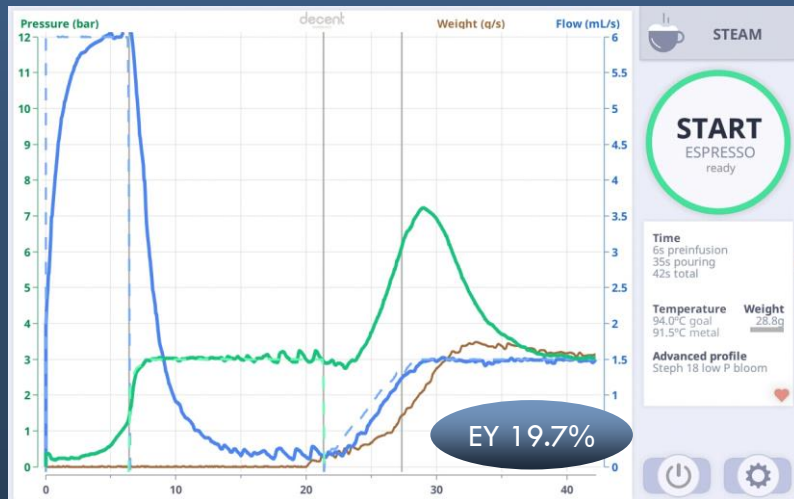


VST 15g

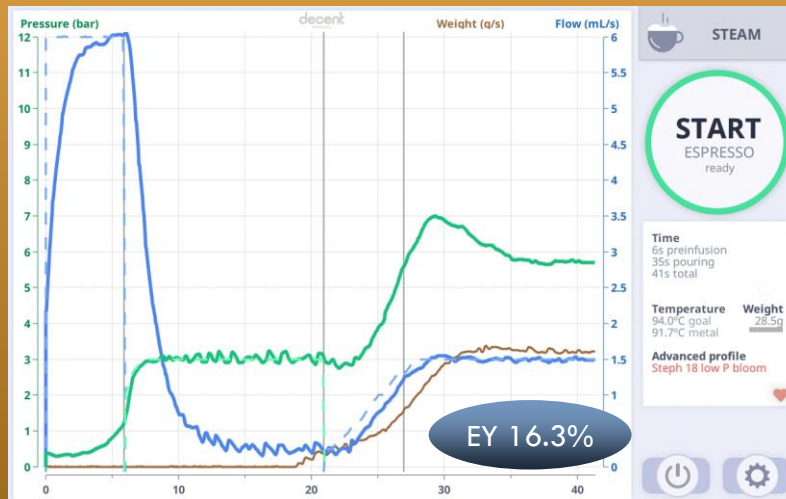
Grind setting 1 (EK1.2)



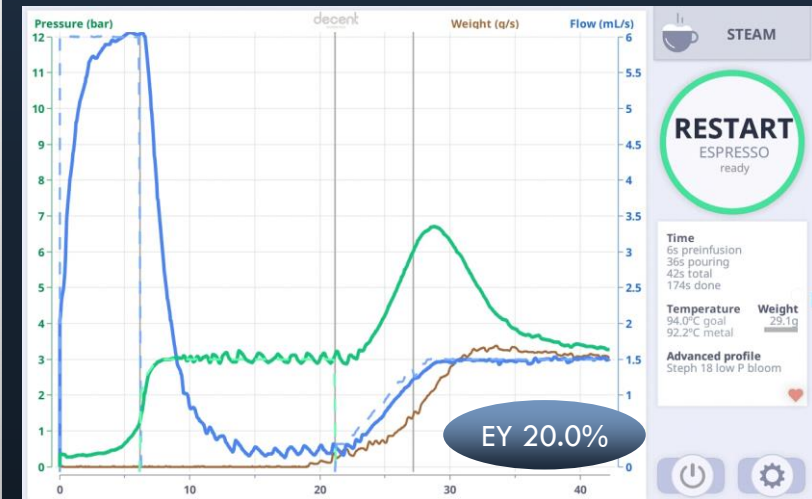
Grind setting 2 (EK1.3)



Grind setting 2 (EK1.3)



Grind setting 2 (EK1.3)

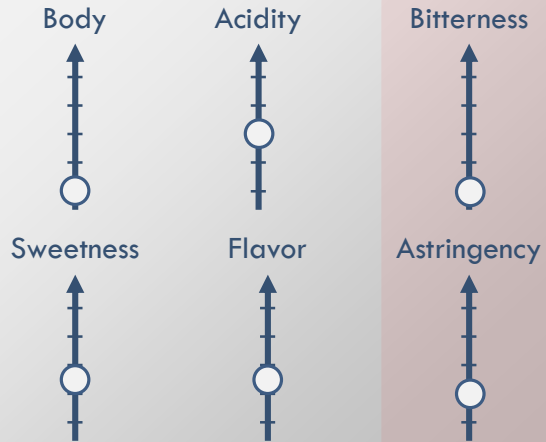


RENEKA MICRO-SIEVE BASKET– RESULTS (3/3)

IMS

Grind setting 1 (EK1.2)

Taste assessment (intensity)

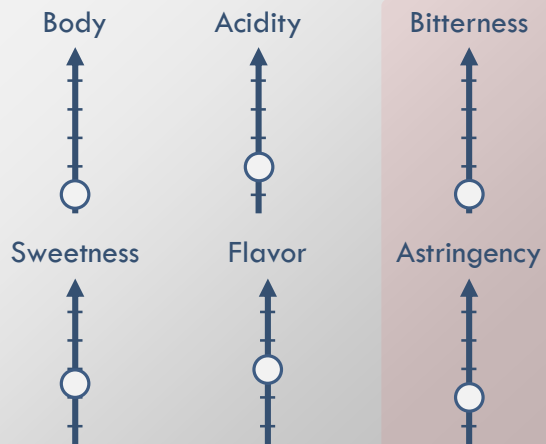


Taste score



Grind setting 2 (EK1.3)

Taste assessment (intensity)



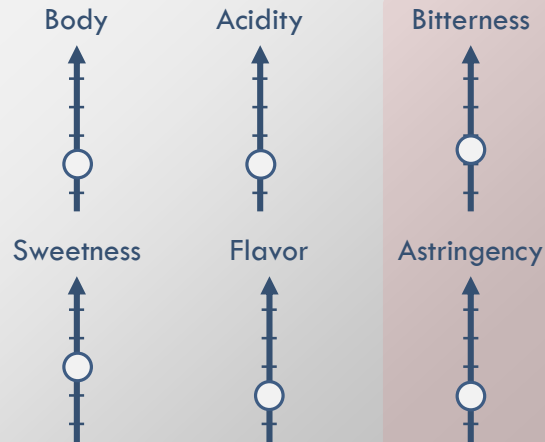
Taste score



Reneka

Grind setting 1 (EK1.2)

Taste assessment (intensity)

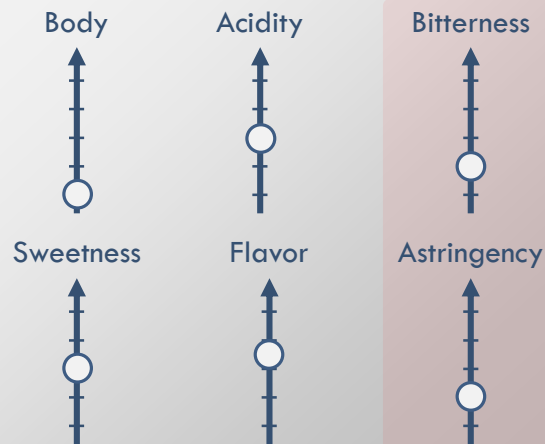


Taste score



Grind setting 2 (EK1.3)

Taste assessment (intensity)



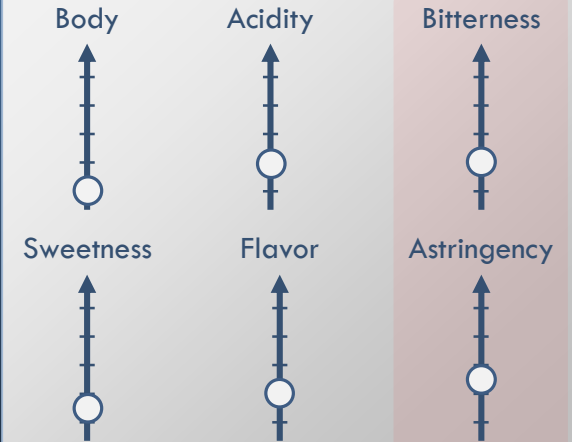
Taste score



VST 15g

Grind setting 1 (EK1.2)

Taste assessment (intensity)

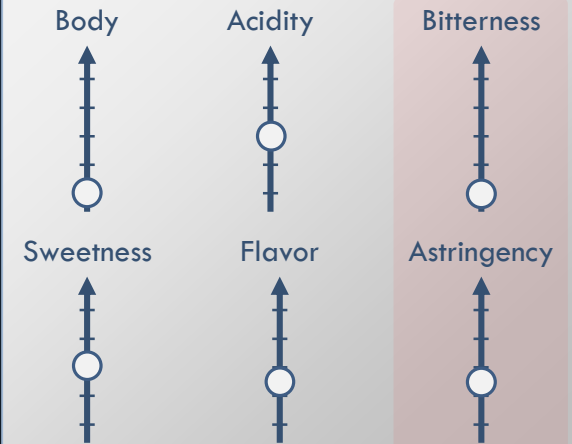


Taste score



Grind setting 2 (EK1.3)

Taste assessment (intensity)



Taste score

