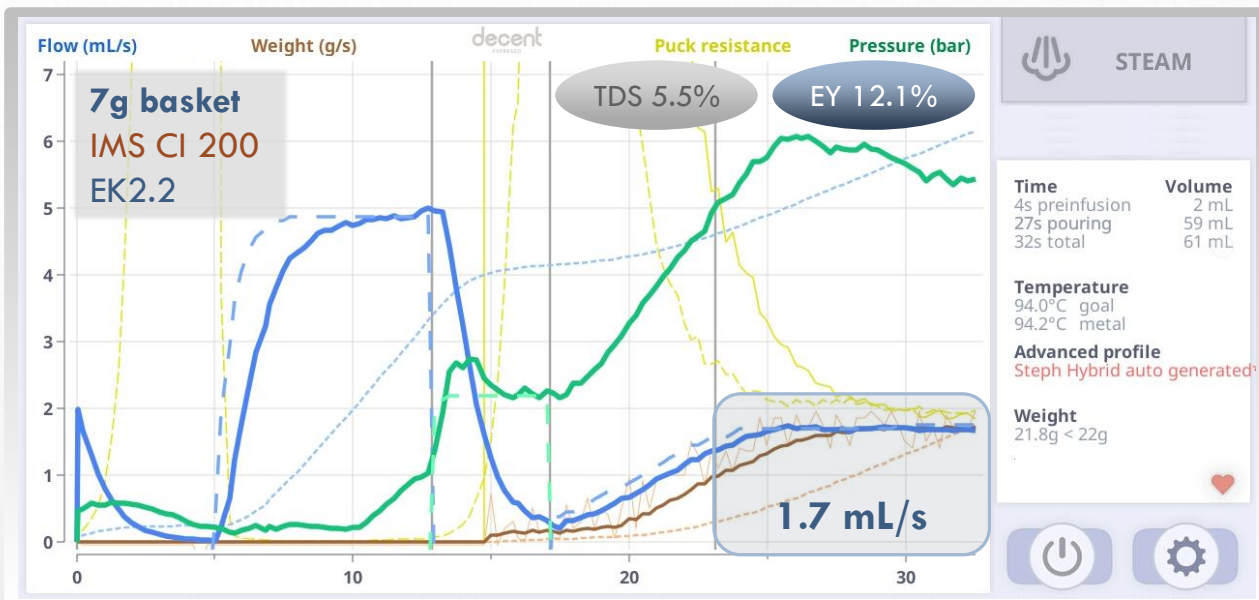
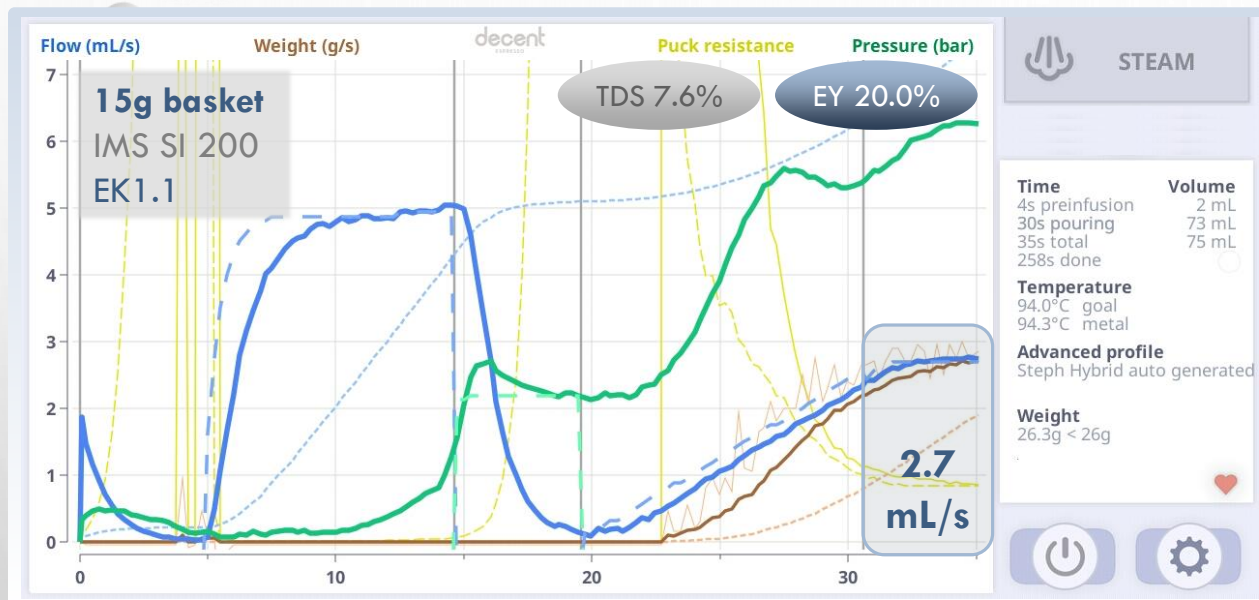


10 GRAM DOSE ESPRESSO: SINGLE OR DOUBLE BASKET?



STÉPHANE RIBES — MAY 2020

10 GRAM DOSE ESPRESSO SINGLE OR DOUBLE FILTER BASKET?



Main observations and required changes to pull a comparable shot with the 7g basket (reference shot = VST 15g basket):

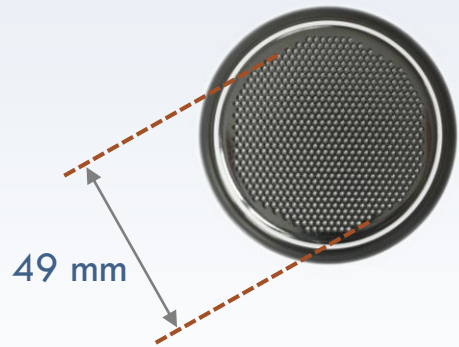
- To maintain a similar clearance between the puck surface and the shower screen (ca. 4 mm), an **IMS CI 200** screen was used with the 7g Decent filter basket, when the **IMS SI 200** screen was used with the VST 15 basket
- A much **coarser grind setting** was required with the 7g basket (from EK1.1 to EK2.2)
- A **lower extraction flow rate** was used, to further reduce the extraction pressure and prevent channeling and sprays
- The length of the flow ramp was reduced, in order to keep a constant rate of rise of the water flow
- With the 7g basket, the **Extraction Yield was significantly reduced** (from 20% to 12%)
- A **smaller brew ratio (from 1:2.6 to 1:2.2)** could partly offset the impact of the low EY on the TDS, and led to a more balanced (and quite pleasant) shot
- Less crema and thinner body with the 7g basket

STEP 1: GRIND ADJUSTMENT

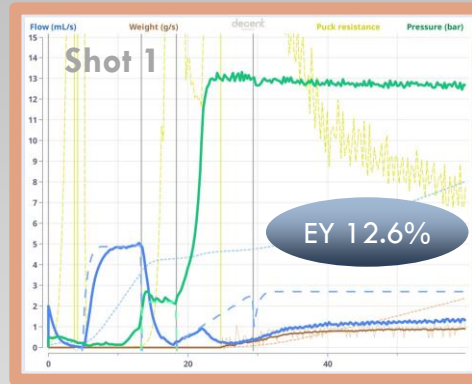
15g basket + IMS SI 200



EK1.1



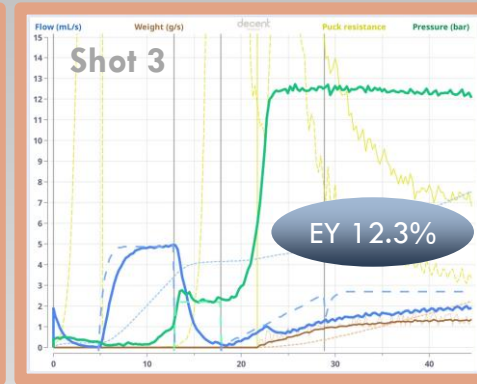
7g basket + IMS CI 200



EK1.1



EK1.4



EK1.8

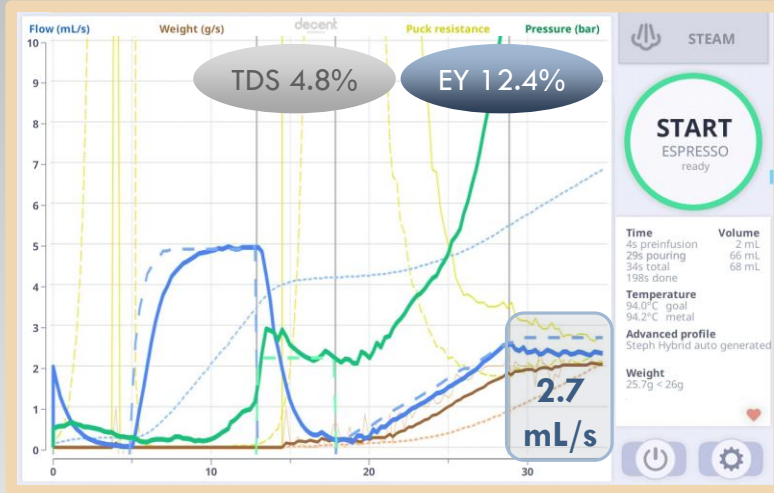


EK2.2

- Massive grind setting adjustment needed, from EK1.1 (gap between burrs: 45 microns) to **EK2.2** (burr gap doubled: 90 microns)
- This is likely a consequence of the much lower perforated surface area of the 7g basket (- 65% vs the double basket)

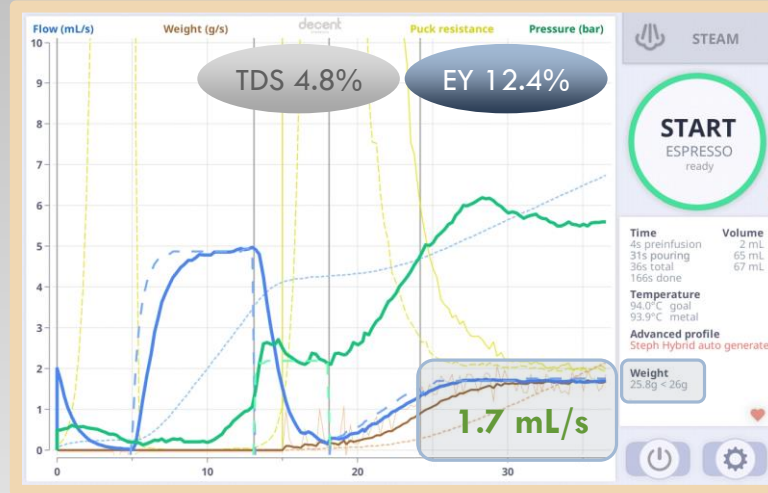
STEP 2: EXTRACTION FLOW RATE AND BREW RATIO

7g basket + **IMS CI 200** (Grind setting **EK2.2**)



Shot 8:

- 2.7 mL/s
- 10g in – 26g out (BR 1:2.6)
- 29s shot



Shot 9:

- 1.7 mL/s
- 10g in – 26g out (BR 1:2.6)
- 31s shot



Shot 10:

- 1.7 mL/s
- 10g in – 22g out (BR 1:2.2)
- 27s shot

- The last shot pulled was still low in TDS but more balanced (brighter, no more bitter) than the previous one

10 GRAM DOSE ESPRESSO SINGLE OR DOUBLE FILTER BASKET?

15g basket + IMS SI 200 (Grind setting EK1.1)



7g basket + IMS CI 200 (Grind setting EK2.2)



10 GRAMS DOSE ESPRESSO TEST PROTOCOL

- **Decent Espresso Machine DE1PRO v1.1** with a (red) Cafelat 8.0 mm silicone gasket
- IMS SI 200 IM shower screen with the VST 15g (ridgeless) filter basket
- **IMS CI 200 IM** with the Decent 7g basket (no spacer)
- Mahlkönig EK43 S grinder – SSP burrs “High Uniformity” with Silver Knight coating
- Montille water (Le Mont Dore, France) – **adjusted to 40 ppm eq. CaCO_3 alkalinity and 90 ppm eq. CaCO_3 total hardness**, with sodium carbonate and Epsom salts
- Portafilter pre-heating: 70°C in a kettle
- Complete drying of the basket and shower screen before each shot, with a clean tissue
- Single dosing of the beans, ground frozen in a double walled stainless steel cup
- **WDT in the basket with a Londinium tool** (and a Decent funnel) – gentle raking of the coffee grounds with a hog tool, to obtain a uniform surface
- **The Force Tamper with a 58.5 mm smooth flat base** – Force set to 33 lbs (vs standard: 24 lbs)
- TDS measurements: Atago PAL zeroed with adjusted Montille water – no filtering of the coffee samples – all samples measured at room temperature after vigorous stirring
1 data point = average of 3 to 5 measurements of each coffee sample

