



Roller Grinder

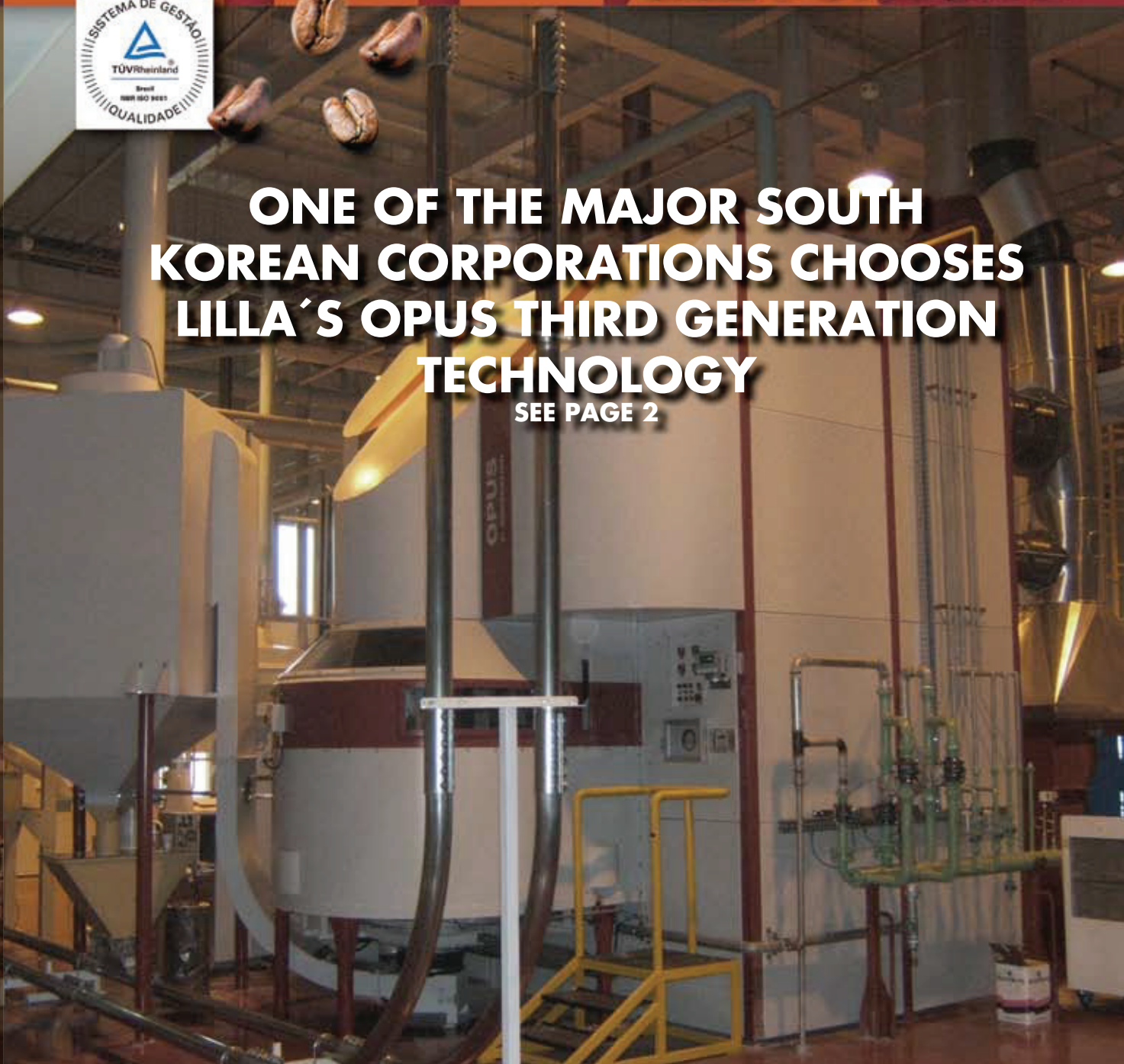
3G Roaster

# LILLA GAZETTE



## ONE OF THE MAJOR SOUTH KOREAN CORPORATIONS CHOOSES LILLA'S OPUS THIRD GENERATION TECHNOLOGY

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## Customer Insight

# MAJOR SOUTH KOREAN CORPORATION CHOOSES LILLA'S OPUS THIRD GENERATION TECHNOLOGY!

After a highly competitive evaluation of the worlds most prestigious coffee equipment and suppliers, the Lotte Group business conglomerate with 38,000 employees and operations in 9 countries, has chosen the Lilla Opus 20 3rdGeneration roasting unit, to place them at the forefront of coffee roasting technology.

The Lotte Group is South Korea's fifth largest business conglomerate with interests including candy, beverages, fast food networks, hotels, industrial chemicals, and even computer equipment. With operations in Korea, Japan, China, the Philippines, Thailand, Indonesia, Vietnam, Russia, and the United States, Lotte is clearly a global business with tremendous market reach. As would be expected from such a major company, the Lotte Group closely examined the equipment, technology and support from all major roaster manufacturers. Included in the evaluation were close examinations of roasting performance and coffee quality and visits to Lilla equipped facility in the Czech Republic. Making their final choice for Lilla, the Lotte Group highlighted these features as key in selecting Lilla's 3rd Generation Opus 20;

■ **Roast profiling flexibility** - Total programmability with unprecedented user control variables which allow the operator to obtain several distinct product and flavor characteristics from the same raw ingredients by selecting high yield or conventional roasting speeds on a single roaster.

■ **Less shrinkage** – Lilla's pre-cooling cycle of introducing cold air and controlled water injection into the roasting chamber, makes it possible to rapidly and precisely stop pyrolysis (the roast process) and obtain better retention of the coffee aromatics, improving quality and consistency while also minimizing shrinkage.

■ **Low fuel consumption** - Lilla's integrated smoke elimination system "built-in" afterburner. Approx. fuel consumption of 2,8 liters of diesel per bag (60 Kg.).

■ **Beverage quality** – the use of Lilla's 3rdGeneration Profile Roasting makes it possible to achieve excellent sensorial analysis results by changing the roast profile parameters to control the beverage characteristics, such as reducing bitterness, changing acidity levels, or even, emphasizing particular aroma and flavor characteristics. Equally, oil migration and other bean appearance characteristics, which can be altered according to the desired results.

Lotte's new Opus 20 3rd Generation roaster is now installed in its new 3.000 m2 plant facility in South Korea. With an output production of 4000 tons of roasted coffee per year, the new factory will service the entire South Korean market. Lilla is pleased to add the Lotte Group to its growing family of satisfied customers worldwide.

## New Agent

Lilla welcomes Mr. Alberto Tenorio from Grupo Solpersa as its new agent for Mexico.

Solpersa has vast experience in the market, whose agencies ranges from packaging equipment to the food industry to telecommunication solutions.

We understand that this partnership will be very fruitful not only for both companies, but also for the present and future Mexican customers.

Please feel free to contact Mr. Tenorio for any assistance or inquiries on Lilla products.

### Grupo Solpersa

Tel.: + 52 55 2652 4588

Tel.: + 52 55 5673 2356

Tel.: + 52 55 5523 3055

ventas@gruposolpersa.com.mx

www.gruposolpersa.com.mx





## Trends

# BRAZILIAN SPECIALITY COFFEE MARKET

Brazil is one of the largest coffee consumers in the world, second only to the USA. The quality of the product was in past years widely accepted in Brazil, and used as components in blends elsewhere in the world - accepted for its unique characteristics, but not valued as mountain grown arabicas from Central America and parts of Africa, and not priced as premium coffee. Foreign companies were prohibited by law from entering the Brazil market, and prices were fixed by the government.

The scenario began to change when Brazil refused to sign on to the International Coffee Agreement (ICA) in 1989. For one thing, several international companies entered the market, forcing local roasters to change their strategies in order to survive in the new competitive environment, and to respond to the change in consumer demands. In that year, 1989, ABIC (Association of Brazilian Coffee Industry – Founded in 1971) introduced the Purity Seal program, its first initiative to increase coffee consumption by improving product quality. In 2004, ABIC launched the PQC (Coffee Quality Program) with the goal of recruiting roasters committed to the adoption of standards for raw material, flavor consistency and

good manufacturing practices; and, ultimately, to convince Brazilian consumers that all coffee is not the same.

The end of the ICA of 1989, also allowed the formation of the BSCA – Brazilian Specialty Coffee Association - bringing together producers of specialty coffees and to promote Brazilian specialty coffees, also known as gourmet coffees, while stimulating constant technical improvement and more efficient services during their commercialization. Founded in 1991, it has been present in major international events related to the specialty coffees. Since 1992, BSCA has attended all conferences and shows of the Specialty Coffee Association of America (SCAA). It has its own booth with a large variety of Brazilian gourmet coffees, and organizes lectures and promotional events as well. Another great step towards the improvement of the quality of Brazilian coffee was taken recently with the implementation of PSI in 2002, a project headed by São Paulo State Coffee Roasters Association (Sindicafé-SP) in conjunction of APEX (Brazil's Trade and Investment Promotion Agency) with the participation of about 20 companies, including coffee roasters, exporters

and producers. The main goal of the project was to increase the exports of roasted and ground coffee, by improving its quality and promoting the brand "Cafes do Brasil" (translation: Coffees from Brazil) worldwide.

The efforts described above have resulted in Brazil today producing about 10% of the specialty coffees consumed in the world, which ranges from 8 to 10 million bags annually. This is no small feat, and justifies the efforts of the Brazilian coffee trade to raise the image of Brazilian coffee not only at home, but abroad.

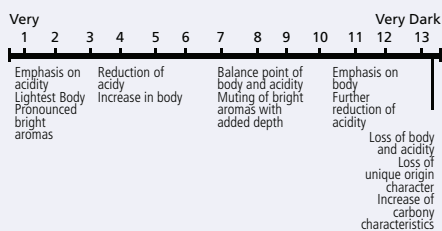
Since the sales of specialty coffees grow more rapidly than the traditional types, and there is a trend indicating lower grades of coffee sales are losing ground in Brazil, one should expect to see an increase in the demand for compact coffee roasters with more sophisticated resources, such as profile roasting controls. Lilla believes strongly in this trend, and to meet it has developed and introduced the Opus compact roasters. In the short time they have been available these roasters have met with considerable success in the marketplace, being sold to Europe, Africa and Central America.

# ROASTING FOR FLAVOR - PART II

By Robert Hensley

Considering aromatics is actually quite essential as it is generally in the aromas that we can make significant assessments of coffee quality. This can be especially helpful in guiding us in considering what kind of time temperature profile to apply in roasting.

Reducing to graph form how roasting parameters influence the spectrum of aromatics, is no easy task. In fairness to our coffees it is in fact probably impossible to do so without lopping off a whole range of nuanced subtleties that coffee aromatics contain. Nevertheless we can make a crude working model of how roasting influences aromatics and relative levels of acidity and body in the following way:



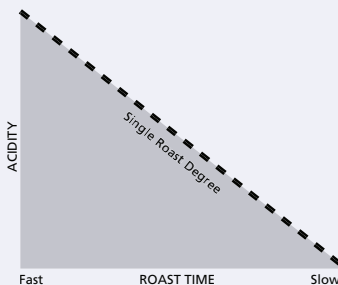
Even though this model gives us a rough idea of which aspects of a coffee's character will be emphasized at a given roast level, it in no way gives us a clear profile of how a specific coffee may react and develop. This can only be discovered by taking a coffee and roasting samples across the roast degree spectrum. "Spectral" roasting and cupping allows us to discover the relative strengths, weaknesses, and subtleties, of each coffee. In doing so what is quickly uncovered are the roast degrees wherein a particular coffee shows its greatest virtues. For some coffees this may be only one or two points along the spectrum and anything outside those points the coffee simply fails to deliver anything special. For the best of coffees we will find that they respond well to virtually every degree of roast and at each degree present another facet of their special and desirable character.

However the most common result will be the discovery of multiple points wherein the roast flavor is highly desirable yet unique as it moves along from light roasts emphasizing acidity and bright vivid aromas but with little body, to medium roasts with a balance point of body and acidity with deeper perhaps richer aromas, and further into deep roasts that accentuate body over acidity and rich aromas but without the earlier aromatic complexity, and then finally into the darkest roasts where body also begins to diminish and the carbony notes of flavor and aroma take over most of the coffees individuality.

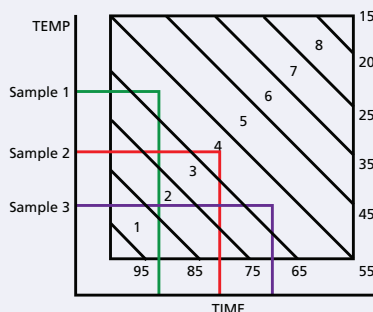
Each roast master will have to select for themselves how many points across the roast spectrum they want to roast and cup. For some that choice may be limited to the roasting range the company is focused on, for others the range will cover the entire spectrum and here some practical decisions need to be made. One guideline for this choice might be the Roast Color Classification System developed a few years ago by the SCAA. In this system eight levels of roast were selected as spanning the potential spectrum of quality roast degrees. These ranged as follows with corresponding Agtron M Basic levels.

1	VERY LIGHT	95
2	LIGHT	85
3	MODERATELY LIGHT	75
4	LIGHT MEDIUM	65
5	MEDIUM	55
6	MODERATELY DARK	45
7	DARK	35
8	VERY DARK	25

What is not made reference to in this classification or in anything discussed so far is how the speed of the roasting cycle may also affect coffee character. Some years back equipment designers began to engineer roasters that were capable of reducing roasting times considerably. Conventional 15-minute roast levels were achieved in less than 5 minutes. The results of these designs proved quite interesting on several levels. For one the beans themselves were appreciably larger in volume having generated greater internal pressures due to the heat transfer building much quicker than normal and the internal bean pressure not having the time to release as fully during roasting. But more significantly the acidity of the coffee was also greatly enhanced. Although the level of enhancement may or may not be desirable for a specific flavor target objective, understanding that it can occur, is useful in selecting the roasting profile for a given coffee. The following chart illustrates this principal.

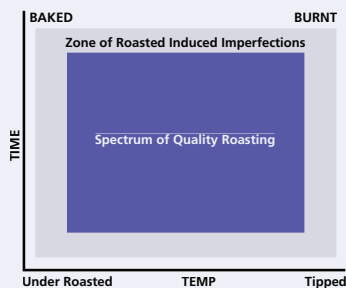


Understand this principle allows us to return once again to our spectral roast sampling and consider how we might utilize the boost in acidity a more rapid roast can achieve with the fuller development of body that a darker roast can create. Once this is really understood then the possibilities of achieving varying flavor profiles while maintaining the same degree of roast, opens up another level of creativity for the roast master. The following chart combines a view of three samples with widely varying time temperature profiles but with equal final roast degree levels.



As illustrated, samples 1, 2, and 3 have each achieved an Agtron roast level of approximately 60. However what is significant to note that is each case the overall roasting time and temperature vary considerably, and the flavor and aromatic profiles will likewise exhibit significant and easily discernable differences. While this may not enable roast masters to create the proverbial silk purse out of a sows ear, it does undoubtedly give a very significant added capability in deriving flavors and aromas that otherwise would remain unexpressed.

Of course even though we may understand the principal of how major shifts in roast speed can alter coffee character we may be constrained by the limits of what a specific roasting machine is capable of. In the past the achievement of rapid roasts versus conventional roasts also meant the investment in separate roasting machines each designed to work with one spectrum or the other. However some select breakthrough roasting designs today have transcended this limitation and offer on a single roaster the ability to selectively adjust a whole range of operational parameters that can allow full batch roasting to targeted roast degrees achievable anywhere from a high speed 3 minutes out to more conventional speeds of 15 minutes or more according to the operators choice of settings. There is no question that the options available today are marvelous. However even with the best equipment we can still run the risk of roast induced imperfections if we stray outside the limits a quality roasting spectrum that is always a marriage of both bean and machine.



As our final chart aptly illustrates, as long as roast masters keep a watchful eye on the excesses that can ruin the best of coffees, there remains a wide spectrum of wonderful coffees for the palates of coffee lovers everywhere.

With the production and lab equipment available today roast masters can develop wonderful coffees bringing out the full range of flavor and aromatic nuances, with a complexity, sophistication, and programmable repeatability never before available. Yet as in all the history of coffee there will never be a substitute for good cupping training and the sensitivity of our palates, and, just as importantly, the palates of our customers.

**Robert Hensley** is the owner of Equip For Coffee representing Lilla Roasters for western North America and the founder and chief trainer of the Coffee Training Institute. Anyone interested in learning more may visit his website, [www.specialtycoffee.com](http://www.specialtycoffee.com), or contact Mr. Hensley through his office at 650 259-9308.