



STEPHENS
Catering Equipment

Energy & Labour-Saving Solutions



Introduction

Stephens Catering Equipment will continue to support our customers through both innovative and well-established solutions to help save costs during this current energy crisis.

Energy & Labour-Saving Tips

- Reduce Running Costs of your Fryer
 - Heat up oil slowly
 - Keep lid on fryer
 - Filter regularly
 - Rotate Oil
- Reduce Refrigeration Costs
 - Put doors on all open refrigeration- either glass or Perspex
 - Include more racks
 - Packing your fridge/ freezer tightly will use less energy and alleviate the need for additional fridges/ freezers
 - Use baskets for small items

Energy & Labour-Saving Tips

- Find the best energy supplier
 - Gas: LPG v's Natural Gas can save on running costs
 - Electric- consider induction to reduce running costs
 - Green Gas will reduce carbon footprint
- Service & clean equipment regularly
- Shutdown idle equipment
- Placement of equipment
 - Refrigeration equipment needs room & proper ventilation around it, will use more energy without it to stay cool
 - Separate areas for heating & cooling equipment
- Focus on training- Ensure new staff are trained on best practises and how to use equipment efficiently

Energy & Labour-Saving Tips

- Energy efficient lighting & bulbs
 - If you are not already, look for energy-saving compact fluorescent lights (CFLs) and light-emitting diodes (LED) bulbs
- Reduce Water Consumption
 - Use Low-Flow Spray Valves
 - Install Low-Flow Aerators for your hand-washing sinks
 - Fix leaks in taps & pipes
- Decrease Heat usage
 - Adjust or invest in a smart thermostat
 - Upgrade to energy efficient unheated hand dryers

Energy & Labour-Saving Tips

- Use Energy Efficient Equipment
 - Upgrade fryer to an energy efficient fryer
 - Upgrade to high efficiency dishwasher
 - Invest in low running cost refrigeration
 - An iCombi oven or iVario cooking system will reduce the amount of equipment you require in your kitchen
 - Use Induction Equipment
 - Upgrade to self-cleaning equipment that requires far less labour to operate than conventional equipment
 - Upgrading older oven models will save energy, money & environment

Energy & Labour-Saving kit

Eikon Series Cost Saving

	Energy Cost / kWh	Merrychef	Merrychef	Merrychef	Merrychef	Merrychef	Merrychef	Merrychef	Merrychef
UK	0.281	eikon e3	eikon e4	eikon e4s	conneX 16	conneX 12 SP	conneX 12 HP	eikon e2s 13A/20A	eikon e2s 30A
	kg CO2e/ kWh								
EU	0.94								
	Startup Time / min	10.00	14.34	12.50	12.40	13.36	13.36	14.03	14.03
	Startup Energy / kWh	0.498	0.783	0.653	0.675	0.522	0.522	0.550	0.550
	Standby Energy / kWh	0.923	0.920	0.724	0.915	0.670	0.670	0.680	0.670
	Cook Energy / kWh	3.215	5.410	5.180	5.410	3.330	4.950	3.330	4.950
	Hours Per Day	16	16	16	16	16	16	16	16
	Days Per Week	7	7	7	7	7	7	7	7
	Cycles Per Day	150	150	150	150	150	150	150	150
	Average Cycle Length / min	3.00	1.00	1.00	1.15	1.50	1.05	1.55	1.05
Energy	Startup	£ 50.94	£ 80	£ 67	£ 69	£ 53	£ 53	£ 56	£ 56
	Standby	£ 802.47	£ 1,270	£ 1,000	£ 1,228	£ 839	£ 917	£ 843	£ 917
	Cook	£ 2,466.32	£ 1,383	£ 1,325	£ 1,591	£ 1,277	£ 1,329	£ 1,320	£ 1,329
	Total	£ 3,319.73	£ 2,734	£ 2,391	£ 2,888	£ 2,170	£ 2,299	£ 2,219	£ 2,302
kg CO2e	Startup	170	268	223	231	179	179	188	188
	Standby	2,684	4,250	3,344	4,109	2,808	3,066	2,821	3,066
	Cook	8,250	4,628	4,431	5,322	4,273	4,446	4,415	4,446
	Total	11,105	9,145	7,999	9,662	7,260	7,691	7,424	7,700

Competitor Energy Charts

	Energy Cost / kWh	Turbochef	Turbochef	Turbochef	Electrolux	Turbochef	Turbochef	Amana	Amana	Panasonic
UK	0.281	i3	i5	High H Batch	High Speed Grill	Bullet	Sota	AXP22T	ARX 2000W	NE-SCV2
	kg CO2e/ kWh									
EU	0.94									
	Startup Time / min	16.42	25.00	16.53	4.31	8.03	34.330	11.32	22.35	8.00
	Startup Energy / kWh	1.070	1.109	1.149	0.110	0.583	0.938	0.930	0.760	0.290
	Standby Energy / kWh	1.780	2.070	1.120	0.160	1.130	0.830	1.330	0.960	0.720
	Cook Energy / kWh	1.218	8.080	5.940	5.280	6.840	6.400	4.770	4.770	3.750
	Hours Per Day	16	16	16	16	16	16	16	16	16
	Days Per Week	7	7	7	7	7	7	7	7	7
	Cycles Per Day	150	150	150	150	150	150	150	150	150
	Average Cycle Length / min	3.00	2.00	2.80	2.50	1.50	1.20	1.00	2.00	3.00
Energy	Startup	£ 109.44	£ 113.43	£ 117.52	£ 11.25	£ 59.63	£ 95.94	£ 95.12	£ 77.74	£ 29.66
	Standby	£ 1,547.56	£ 2,329.01	£ 1,031.02	£ 159.56	£ 1,415.87	£ 1,103.64	£ 1,836.51	£ 1,080.12	£ 625.98
	Cook	£ 934.36	£ 4,132.27	£ 4,252.97	£ 3,375.37	£ 2,623.58	£ 1,963.85	£ 1,219.74	£ 2,439.47	£ 2,876.74
	Total	£ 2,591.37	£ 6,574.71	£ 5,401.52	£ 3,546.19	£ 4,099.08	£ 3,163.44	£ 3,151.37	£ 3,597.33	£ 3,532.38
kg CO2e	Startup	109	113	118	11	60	96	£ 318.21	£ 77.74	99
	Standby	1,548	2,329	1,031	160	1,416	1,104	£ 1,836.51	£ 1,080.12	2,094
	Cook	934	4,132	4,253	3,375	2,624	1,964	£ 1,219.74	£ 2,439.47	9,623
	Total	2,591	6,575	5,402	3,546	4,099	3,163	3,374	3,597	11,816



Energy Saving

- Oil Conserving Fryer
- 40% Less Oil, 10% Less Energy
- Saving up to £2,500 annually per well if you filter your oil
- 30-lbs versus 50-lbs
- 2-4 frypot battery models



FLORIGO

Frying Equipment

Energy Saving Ranges

- Triple Filtration
 - Prolongs the life of the oil
 - Saves Money
 - Saves Time
- High Efficiency Pans
 - Save 50% on energy bills
 - Reduce carbon footprint



Warewashing Energy Smart Solutions

- Low water consumption
- Eco Programme
- Short cycle times reduces water & detergent consumption
- 2In1 Double Rack System: Double the wash volume- half the costs. Reduces the consumption of water, energy & chemicals by up to 50%
- Genius-X² Fine Filter System – reduces detergent consumption by up to 35%
- Senso-Active Resource management



Warewashing Energy Smart Solutions

- Hood Type Dishwashers
 - Drain Heat Recovery/ Exhaust Energy Storage- transfer of heat from outgoing hot water to incoming cold water to reduce electrical energy consumption
- Four-Sided Self-Condensing Hood for Pass Through Dishwashers
 - Retains energy instead of releasing into the environment
 - Removes the need for a condensation/extraction hood to be installed over the top on the dishwasher
 - Patented VAPOSTOP captures the steam that would usually be released
 - Saves over 3 KW per hour





Efficiency improvements of the iCombi Oven

- Upgrade iCombi Oven to use Active Green Tablets
 - Reduces consumption of chemicals
 - Reduces water consumption
 - Reduces electricity consumption per cycle
 - Reduces Carbon Footprint



	Improvements of iCombi Pro compared to		
	SelfCookingCenter® 2016-2020	units before 2016 2012-2016	conventional cooking systems
Raw material	ø 10 % less	ø 15 % less	ø 25 % less
Energy Consumption	ø 10 % less	ø 18 % less	ø 70 % less



Improvements in cleaning the iCombi Oven

101 E light cleaning

	Time	Water consumption (l)	Energy consumption (kWh)	Tabs
<u>SelfCookingCenter®</u>	84	55	4,3	2
<u>iCombi Pro Eco</u>	137	44	4	1
<u>icombi Pro Standard</u>	98	44	4,05	1

today vs Eco	-63%	20%	7%	50%
today vs. Standard	-17%	20%	6%	50%

101 E medium cleaning

	time	Water consumption (l)	Energy consumption (kWh)	Tabs
<u>SelfCookingCenter®</u>	156	66	4,8	3
<u>iCombi Pro Eco</u>	172	44	4,8	1
<u>icombi Pro Standard</u>	118	44	3,6	2

<u>today vs Eco</u>	-10%	33%	0%	67%
today vs. Standard	24%	33%	25%	33%

101 E strong cleaning

	time	Water consumption (l)	Energy consumption (kWh)	Tabs
<u>SelfCookingCenter®</u>	216	66	5,4	5
<u>iCombi Pro Eco</u>	205	44	4,5	2
<u>icombi Pro Standard</u>	158	44	3,9	4

today vs Eco	5%	33%	17%	60%
today vs. Standard	27%	33%	28%	20%



Energy consumption values for the iVario Multifunctional cooking appliance v's Bratt Pan

Comparative table

Energy and time	Multifunctional cooking appliance 2 GN, 17.5 kW	Tilting pan 2 GN, 15 kW	iVario Pro L 27 kW	Difference
Deep-frying*				
Energy per kg French fries [kWh/kg]	1,457	–	1,078	26 % less
French fries per hour [kg/h]	7,4	–	23,7	2,2 times faster
Frying**				
Energy for preheating [kWh/dm ²]	0,067***	0,047	0,026	46–62 % less
Preheating (Time until steady state) [min]	9,8***	9,5	2,8	2,4–2,5 times faster
Frying minced meat: Energy per kg minced meat [kWh/kg]	0,57***	0,48	0,42	13–27 % less
Boil**				
Preheating of water [kWh/kg]	0,094***	0,099	0,089	5–10% less
Preheating of water [min]	35,25*** (100 l)	27,41 (70 l)	17,32 (100 l)	0,4–0,5 times faster

* according to DIN 18873-3:2011-12

** according to DIN 18873-5:2011-02

*** established by an independent testing institute

Competitive cooking for the iVario

Menu	Production plan for 100 covers		
<p>Starters</p> <p>Cream of pumpkin soup with roasted pumpkin seeds</p> <p>Greek salad</p> <p>Free range poached eggs with beurre blanc and spinach</p> <p>Main courses</p> <p>Red thai chicken curry with fresh vegetables and basmati rice</p> <p>Medaillons of pork filet with tagliatelli or new season potatoes and ratatouille</p> <p>Italian risotto with parmesan, parma ham and sun dried tomatoes</p> <p>Black linguini or tortellini with stir fried vegetables and pesto</p> <p>Desserts</p> <p>Panna cotta with red fruit coulis</p> <p>Apple tarte tatin with vanilla ice cream</p> <p>Profiteroles</p>	<p>Product</p> <p>Pumpkin soup</p> <p>Pumpkin seeds</p> <p>Croutons</p> <p>Poached eggs</p> <p>Beurre blanc white wine reduction</p> <p>Ratatouille</p> <p>Panna cotta</p> <p>Risotto</p> <p>Red fruit coulis</p> <p>Caramelized apple slices</p> <p>Baby potatoes</p> <p>Crème patissière</p> <p>Blanched vegetables</p> <p>Red Thai chicken curry</p> <p>Pork medaillons</p> <p>Fresh pasta (3 types)</p> <p>Rice</p> <p>Choux pastry</p>	<p>Volume</p> <p>80 portions 12 l</p> <p>80 portions 1.5 kg</p> <p>40 portions 1 kg</p> <p>20 portions 20 pcs</p> <p>250 portions 7 l</p> <p>80 portions 8 kg</p> <p>60 portions 6 l</p> <p>30 portions 2 kg rice</p> <p>10 l liquid</p> <p>60 portions 5 kg</p> <p>60 portions 12 kg</p> <p>25 portions 2 l</p> <p>40 portions 4.5 kg</p> <p>35 portions 6.3 kg chicken</p> <p>40 portions 4 kg</p> <p>30 portions 3 kg</p> <p>70 portions 5 kg</p> <p>15 portions 2 l</p>	<p>Mise en place</p> <p>2 days</p> <p>3 days</p> <p>3 days</p> <p>1 day</p> <p>1 Week</p> <p>2 days</p> <p>2 days</p> <p>1 day</p> <p>1 week</p> <p>3 days</p> <p>2 days</p> <p>2 days</p> <p>1 day</p> <p>1 day</p> <p>1 day</p> <p>1 day</p> <p>2 days</p> <p>3 days</p>

Summary

Equipment	Six Burner Gas Range	iVario Pro	Comparison Results
Production time	3 hours 33 minutes	2 hours 12 minutes	2/3 less time
Water consumption	80L cooking water & 100L cleaning water	38L cooking & cleaning water	1/2 water used
Cleaning	Cleaning of the pots and pans still to be completed	Cleaning is carried out during the production	No cleaning of pots & pans, cleaning as you go
Energy	79kWh	23kWh	38% less energy
Lifted Weight	676 kg	215 kg	1/3 less lifting time





EcoPro G3 low running cost cabinet & counter fridges

- With PureControl, the G3's controller display uses pure LEDs, incorporating InGaN technology, which means it achieves higher resolution, lasts longer - all while using less power.
- Fitted with new and improved +stayclear condenser which helps increase product life and reduce energy consumption, +stayclear helps your low energy fridge stay a low energy fridge
- After 12 months of typical usage, +stayclear consumed 36% less energy than a traditional fin condenser
- **Low noise condenser**





Premium Line-cabinets with GN-pans

- Save costs on electric energy
- Use LED-lights instead of several quartz lamps, 120W each
- Upper heat is regulated thermostatically whereas on standard Classic Line-cabinets upper heat comes only from the quartz lamps. And these can either be switched on or off.





Hot & Cold Holding

- The Moffat Sahara-Fan heater provides excellent balanced heating coupled with energy savings
- Faster heat up times, quicker heat recovery & an even distribution of heat saving energy & time
- MHC1
 - Presenting both hot and cold food in complementary displays offering a complete meal deal in a small footprint



INDUCS[®]

GARLAND[®]
A Welbilt Brand



Induction Range, Grill & Holding

- Energy efficient
- Faster heat up times
- Easy cleaning
- More efficient than radiant heat
- Heat occurs only in the cooking vessel itself – no pan, no heat





Induction v's Electric v's Gas



PLAY:

<https://youtu.be/kLHv3Qlyf4k>



Auto Clean Rotisserie

- Reduces energy consumption
- Auto clean function reduces labour
- Saves time
- Low water consumption
- Ventless Hood saves money on installation of central extraction system



PUDU

Smart Delivery Robots

- Labour-saving innovation
- Concentrates on delivering customer meals & returning dirties to washup
- Improves efficiency
- Alternative to employing additional staff
- Works 365 days





STEPHENS
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The Art of Cooking
by Stephens Catering Equipment