



FRYER ANGEL

Redefining the Safety Standards in Commercial Fryers

Patent applied for, Patent Application No. 2002725.6 (UK), PCT/GB2020/050462 (International)



Understanding Fryer Safety Needs

- Preventing fires (turning on fryer with no / insufficient oil in pan)
- Operator safety (automatic oil filtration)
- Operator misuse (reducing reliance on operator)

2020 Fryer Enhancements

All now standard features



W shape element support



Safety stat



Oil check reminder and start button



Reprogrammed controller

FRYER ANGEL

Making Kitchen Fires a Thing of the Past

An integrated safety system that reduces the risk to kitchen staff, customers and the general public, while also stopping any direct damage to equipment, premises and surrounding facilities.

Patent applied for, Patent Application No. 2002725.6 (UK), PCT/GB2020/050462 (International)

How Does It Work?

- Sensor located in the fryer tank
- Detects oil level at 2 different points
- When oil goes below top up level operator is alerted
- If oil level falls further, the Fryer Angel™ will disable the elements to prevent an unsafe scenario occurring
- If not enough oil is in pan fryer won't switch on

This is done automatically, without the need for any operator input





Scenario 1 – Switching fryer on with no oil in pan

- End of service, fryer oil is emptied (either into drain bucket or taken away completely) as part of the cleaning process
- Next shift / day a different staff member comes into kitchen, switches equipment on
- Doesn't check for oil in the fryer
- The Fryer Angel™ recognises there is not enough oil in pan, prevents the elements from energising and alerts the user with an audible & visual alarm

Scenario 2 – oil dropping during service

- During service, oil level naturally drops
- Sensor alerts operator that oil needs topped up via red warning light
- Light goes out when oil topped up
- If no action taken and oil level falls further, the Fryer Angel™ will disable the elements to prevent an unsafe scenario occurring



Scenario 3 – Draining oil without switching fryer off

- Operator is filtering the oil using the automatic filtration system
- Opens the drain valve but forgets to switch fryer off
- The Fryer Angel™ activates and automatically disables the elements to prevent an unsafe scenario occurring



It's not just about preventing fires...

- Oil flare-ups are a common occurrence in fryers
- Generally damage the safety stat, putting the unit out of operation until an engineer can visit
- Good result is just a replacement stat, though sometimes it can be a replacement unit

The Fryer Angel™ stops flare-ups too!



Third Party Verification & Testing

- World leading independent testing, inspection & certification body KIWA put the Fryer Angel™ through extensive testing:
 - Physical abuse tests
 - Batter encroachment
 - Accelerated aging tests
- The Fryer Angel™ has also been approved and certified by BSI, the standard setters of UK industry.

FRYER ANGEL



“The functionality of the Falcon Fryer Angel™ was maintained under all test conditions ... the sensor will prevent burner ignition sequence activation under low oil level occurrences. This will in turn prevent pan fires occurring due to ignition with low oil.”

Mark Crowther, Technical Director, KIWA

*Patent applied for, Patent Application No. 2002725.6 (UK),
PCT/GB2020/050462 (International)*

Models Proposed

	G401FX	G402FX	E401FX	E402FX	E421FX	E422FX
Pans	1	1	1	1	2	2
Controls	Manual	Programmable	Manual	Programmable	Manual	Programmable
Oil	18 litres	19 litres	20 litres	20 litres	2 x 10 litres	2 x 10 litres
Output	34kg per hour	34kg per hour	58kg per hour	58kg per hour	2 x 25kg per hour	2 x 25kg per hour
Power	23kw	23kw	20kw	20kw	20kw	20kw
Integrated Filtration	Yes	Yes	Yes	Yes	Yes	Yes
Fryer Angel	Yes	Yes	Yes	Yes	Yes	Yes
IOT Compatible	Yes	Yes	Yes	Yes	Yes	Yes



G401FX



G402FX



E401FX



E402FX



E421FX

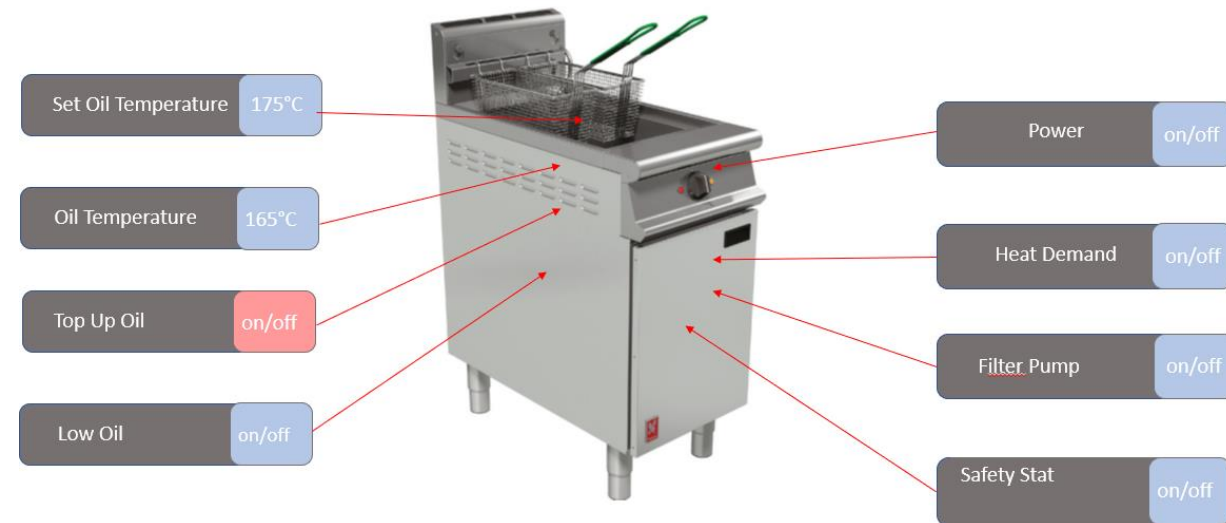


E422FX

Fryer Connectivity

- Full 360° view of fryer performance via remote instant access monitoring
- Record of temperature food is fried at and fryer pattern of use
- Analyse data to improve food quality and reduce
 - Food waste
 - Energy
 - Carbon footprint (assists in net zero carbon targets)
- User defined alarms & notifications of performance
- Store and download reports simply
- Identify training issues
- Resilient encrypted LoRa network doesn't burned WiFi networks

E401FX fryer - (Demo box 3 - 12244)		
Power Supply		ON
Oil Temperature		165.5°C
Heat Demand		OFF
Top-up Oil		TOP UP OIL
Low Oil		LOW OIL
Filter Pump		OFF
Safety Stat		OFF



FRYER ANGEL

Fire prevention is much better than fire suppression!



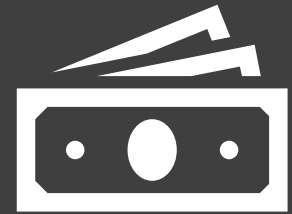
No danger to staff
or premises



No fryer or kitchen
downtime



No mess to clear
up



No costly repairs or
replacements



FRYER ANGEL

Redefining the Safety Standards in Commercial Fryers

Patent applied for, Patent Application No. 2002725.6 (UK), PCT/GB2020/050462 (International)