



Eight Aggregate Industries Plants Upgraded By Autoflame

Autoflame were initially approached to work with Aggregate Industries (AI) at their Darwen plant in the North of England. This delivered a rapid payback period and led them to upgrade a further eight sites across the country, with more locations planned for years ahead. The objectives were to reduce fuel consumption and emissions, while completing installations with minimal manufacturing downtime.

Bespoke upgrade projects were implemented across eight Aggregate Industry sites using the existing burners where possible to minimise upgrade costs. AI's Darwen plant was able to be 'retrofitted' – a cost-effective solution which involves modifying the existing burners with Autoflame's Combustion Management System to improve overall performance, reliability and reduce operating costs.

The existing burner at AI Stockport required a complete upgrade. Limpsfield burners were chosen for their reliability and to enhance the Autoflame system. Variable Speed Drives (VSD) were also included in each project to control the running speed of the combustion fan – reducing electricity costs.

With the nature of this industry, any maintenance or upgrade work on aggregate dryers can result in suspended production. Autoflame engineers successfully completed the installations on time, working with on-site electricians in staged fixes to avoid disruption.

Aggregate Industries are a leading supplier to the construction industry specialising in producing building materials such as asphalt and concrete.

Existing Equipment:

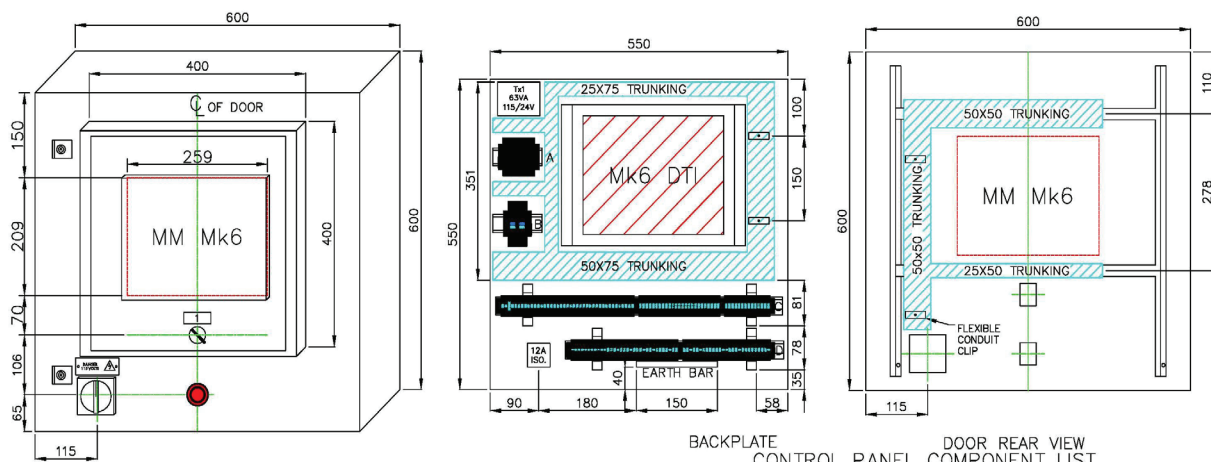
Ineffective Dryer Burners
in 8 sites

Solution:

Autoflame Combustion
Management System
Retrofits, VDS's, Limpsfield
Burner for AI Stockport

Benefits:

- Reduced fuel consumption
- Minimal manufacturing downtime
- Reduced electricity costs and emissions
- Ability to control the running speed of the combustion fan



A = DIN RAIL 90mm LONG FITTED WITH 2 x 14 PIN RELAY
 B = DIN RAIL 90mm LONG FITTED WITH 2 x S.P. MCB
 C = G RAIL 530mm LONG FITTED WITH 140 x SAK2.5 TERMINALS WITH COVER
 D = G RAIL 400mm AND 60 x SAK2.5 TERMINALS

No.	DESCRIPTION	TYPE
1	STAT. CCT. OK BURNER OFF-ON	GREEN LENS 2 POSITION SWITCH

PANEL NET WEIGHT	25 kg
APPROXIMATE GROSS WEIGHT	50 kg
BODY AND DOOR FINISH	RAL 7035
PROTECTION CATEGORY	IP 66 ENCLOSURE WITH IP 54 WINDOW

BACKPLATE DOOR REAR VIEW
 CONTROL PANEL COMPONENT LIST

No.	MANUFACTURER	DESCRIPTION	CATALOGUE No.	QUANTITY
1	RITTAL	IP 66 CONTROL PANEL	AE1054.500	1
2	RITTAL	VIEWING WINDOW	FT.2785.000	1
3	WEIDMULLER	KLIPPON SAK2.5 TERMINAL	027966	200
4	WEIDMULLER	KLIPPON TS 35 x 7.5 TOP HAT RAIL	038340	180mm
5	WEIDMULLER	KLIPPON TS 32 G RAIL	012280	930mm
6	ALLEN BRADLEY	6A DP D CURVE MCB	1492-SP1D060	1
7	ALLEN BRADLEY	2A SP D CURVE MCB	1492-SP1B020	1
8	ALLEN BRADLEY	2 POLE SWITCH BODY	194L-A12-1752	1
9	ALLEN BRADLEY	MAIN SWITCH ACTUATOR	194L-HE6N-175	1
10	ALLEN BRADLEY	GREEN ILLUMINATED 2 POSITION SWITCH	194L-A12-1752	1
11	ALLEN BRADLEY	110V LED POWER MODULE	800F-N5G	1
12	ALLEN BRADLEY	RED EMERGENCY STOP, TWIST TO RELEASE	800FM-MT44	1
13	ALLEN BRADLEY	N/O CONTACT UNIT	800F-X10	1
14	ALLEN BRADLEY	N/C CONTACT UNIT	800F-X01	3
15	ALLEN BRADLEY	BODY/FIXING COLLAR	800F-ALP	2
16	ALLEN BRADLEY	METAL LOCKING WASHER	800F-ALC	2
17	OMRON	110V 14 PIN GOLD FLASHED RELAYS	MY4N/110	2
18	BLOCK	115Vac/24Vac 63VA TRANSFORMER	ST 63/11/24	1

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ISSUE	DATE	AUTH.	AMG.No
1	05/03/10	J.H.	0

SPECIAL NOTES
 THIRD ANGLE
 IF IN DOUBT ASK

DRAWING TITLE
 AUTOFLAME MM MK6
 IP 66 REMOTE PANEL
 PANEL LAYOUT
 1 OF 3

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CLIENT/SITE - AGGREGATE INDUSTRIES
 SCALE - 1:4(A1) DATE - 05/03/10 JOB No. - A1089153
 DRAWN - J.H. CHECKED - DWG No. - 7530-1

Project Drawings

The daily use of aggregate dryers mean that energy consumption is high on the agenda, and it is essential for plants to run reliably.

Dryer burners are responsible for 80% of the energy used in aggregate production and emit more CO₂ than any other equipment on site. With this in mind and the fact that most aggregate dryer burners are not as effective as they could be, Aggregate Industries realised the urgency to upgrade their plants and have reaped the benefits of investing in Autoflame.



Autoflame operates worldwide with 60+ technology centres performing installation and support. Founded in 1972, Autoflame is a British manufacturer based near London. It ensures industry-leading quality control and innovation by performing in-house R&D, engineering, software development, manufacturing production, and technical support.

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