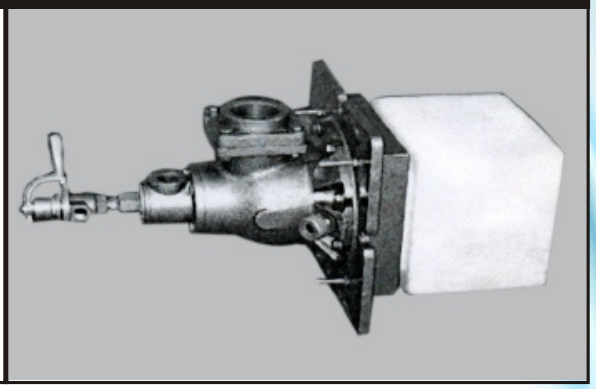
RAY ENTERPRISES

CONTITHERM EXCESS AIR OIL BURNER SERIES 52

SALIENT FEATURES

- ***CONSIDERABLE FUEL SAVING COMPARED TO OTHER CONVENTIONAL BURNERS***
- ***NO MOVING PARTS AND HENCE REDUCED MAINTENANCE***
- ***EFFECTIVE OIL ATOMISATION DUE TO SEPERATE ATOMISING AIR INLET***
- ***OIL CONTROL BY A SPECIAL MICROTROL OIL VALVE***
- ***INTERNAL PARTS EASILY REMOVABLE FOR CLEANING***
- ***FIRST CHOICE OF ORIGINAL EQUIPMENT MANUFACTURERS***



CONTITHERM
SERIES 52 FORWARD FLAME EXCESS AIR OIL BURNERS are used on heat treament, non-ferrous melting furnaces, kilns, ovens, air heaters, dryers and chemical process equipment. They are well suited where superior temperature uniformity is required (For higher temperature Service, use series 525). These sealed - in burners are suitable for high speed diesel, Light Distillate oil and kerosene and are stable at correct ratio with up to 50% excess oil provided additional air for complete combustion is available in the furnace near the burner. Burners can also be operated with excess air up to 450 to 900% depending upon the burner size,if lean operation is necessary or desirable for temperature uniformity. Excess air can improve temperature uniformity by:

1. Reducing hot mix temperature to eliminate hot spots in front of burners,
2. Churning furnace atmosphere to reduce stratification,
3. Creating positive furnace pressure to stop cold air infiltration and
4. Increasing effective turndown.

OPERATION

Burners can be lighted at rich, lean, or correct air/oil ratio, then immediately turned to high fire. Required oil pressure at burner is nearly zero, but a pressure drop of about

If furnace temperatures after shut down exceed 1000oC, pass some air through the burner to prevent over heat- ing.

FALME SUPERVISION

An ultra voilet cell can be used to monitor pilot and main flame. For maximum safety Continental Thermal recommends interrupted pilot when flame safeguards are used. Pilot should be on only for a preset ignition period (usually 15 seconds) after which flame supervision detects main burner flame only.

CONSTRUCTION FEATURES

Mounting plates are cast iron. Standard burner blocks are 9" long. For installation in furnace walls thicker than the tile length, the tunnel beyond the end of the tile should be flared atleast 30o included angle, starting at the tile OD. (Larger included angles are preferred). Extension tiles are not recommended. Quick disconnect oil atomisers can be with - drawn easily. Air inlets can be rotated in 90o intervals, but air pipes should be brought in from top or side to prevent oil dripping into them.
JACKETED TILES : Burners can be supplied with a carbon steel support jacket around the tile for furnace walls with no refractory around the tiles where temperatures surrounding the jacket do not exceed 400o C. Alloy jackets are available for higher temperature.

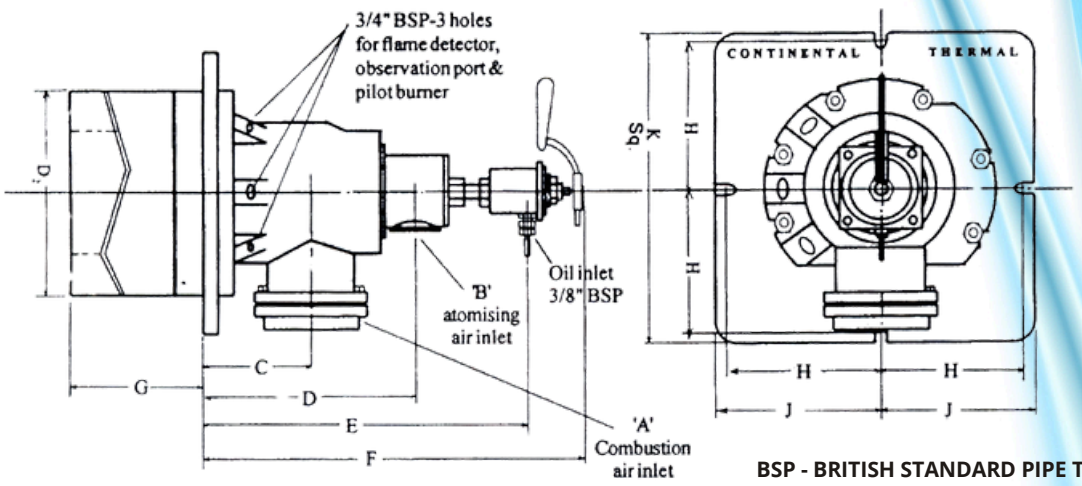
TOTAL AIR CAPACITIES IN CFH

BURNER DESIGNATION	52 - 2	52 - 3	52 - 4	52 - 5	52 - 6	52 - 7A	52 - 7B
AIR PRESSURE AT BURNER Combustion air & Atomising air at 25"WG	2450	3800	5900	9450	14700	25300	31300
Combustion air & Atomising air at 38"WG	3000	4700	7400	11800	18300	31700	39000

OIL BURNING CAPACITIES IN LITRES PER HOUR

BURNER DESIGNATION	52 - 2	52 - 3	52 - 4	52 - 5	52 - 6	52 - 7A	52 - 7B
AIR PRESSURE AT BURNER Combustion air & Atomising air at 25"WG	6.0	9.5	14.5	23.5	36.5	63.0	78.0
Combustion air & Atomising air at 38"WG	7.5	11.5	18.5	29.5	45.0	80.0	97.0

We reserve the right to make changes in specifications and constructional features as a result of continuous development and improvement



BSP - BRITISH STANDARD PIPE THREAD

BURNER DESIGNATION	DIMENSIONS IN INCHES ALL DIMENSIONS EXCEPT MOUNTING HOLES ARE FOR ESTIMATION PURPOSE ONLY											
	A	B	C	D	D2	E	F	G	H	J	K	Microtrol oil valve
52-2	1 1/4	3/4	4 3/8	8 3/8	8 1/2	12 7/8	15 7/16	9	5 1/4	6	12	02A
52-3	1 1/2	3/4	4 3/8	8 3/8	8 1/2	12 7/8	15 7/16	9	5 1/4	6	12	02A
52-4	2	3/4	4 3/8	8 3/8	8 1/2	12 7/8	15 7/16	9	5 1/4	6	12	02A
52-5	2 1/2	1	4 3/8	8 3/8	8 1/2	12 7/8	15 7/16	9	5 1/4	6	12	02A
52-6	3	1	4 3/8	8 3/8	8 1/2	12 7/8	15 7/16	9	5 1/4	6	12	02B
52-7A	4	1 1/4	5 7/8	10 7/8	10	15 13/16	18 3/8	9	6 1/8	6 3/4	13 1/2	02C
52-7B	4	1 1/4	5 7/8	10 7/8	10	15 13/16	18 3/8	9	6 1/8	6 3/4	13 1/2	02C

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