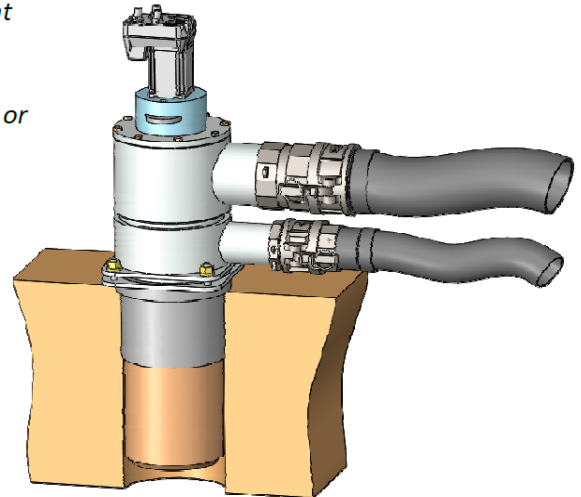


QUADRAFLO® SWEEP GC BURNER: Glass Melter Crown Application

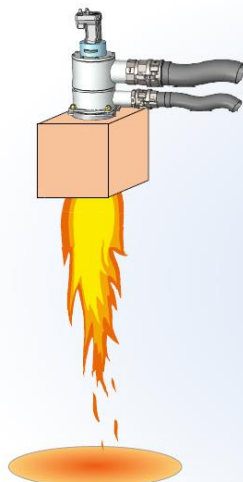
The next progression in moving flame technology builds on the success of the original Quadraflo Sweep burner system. The newly developed Quadraflo burner meets the needs for glass melter crown installation with the following features:

- Compact size with integral flame sweep motor and adjustment
- Variable flames shape and movement times
- Moving flame provides larger more even heat coverage
- Fewer number of burners required as compared to breastwall or fixed position crown burners
- Simple analog operation for easy application on a variety of control systems

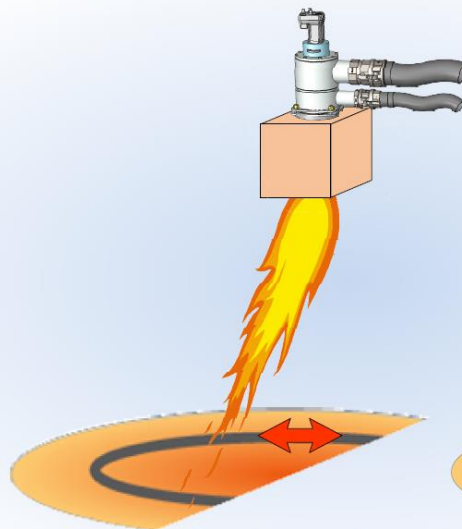


| PERFORMANCE OXYGEN/NATURAL GAS | | | | |
|--------------------------------|---------------|-----|---------------|------------|
| MODEL # | NOMINAL RANGE | | MAXIMUM RANGE | |
| | MMBtu/Hr | MW | MMBtu/Hr | MW |
| WM05G### | 5.0 | 1.5 | 2.5 – 10.0 | 0.75 – 3.0 |
| WM04G### | 4.0 | 1.2 | 2.0 – 8.0 | 0.60 – 2.4 |
| WM03G### | 3.0 | 0.9 | 1.5 – 6.0 | 0.45 – 1.8 |

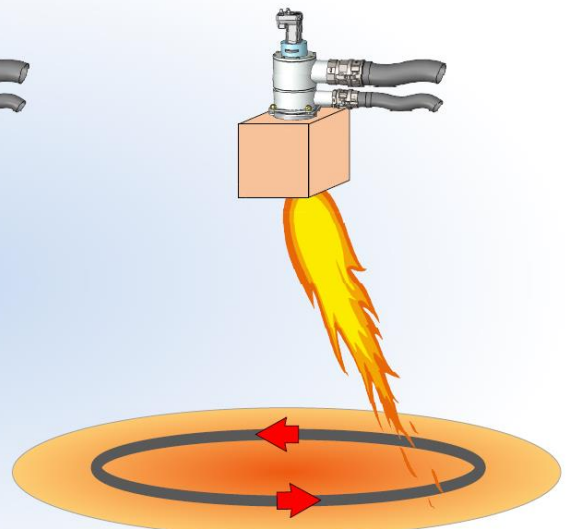
HEAT AFFECTED ZONE: TYPICAL MODES OF OPERATION



FIXED, NO MOVEMENT

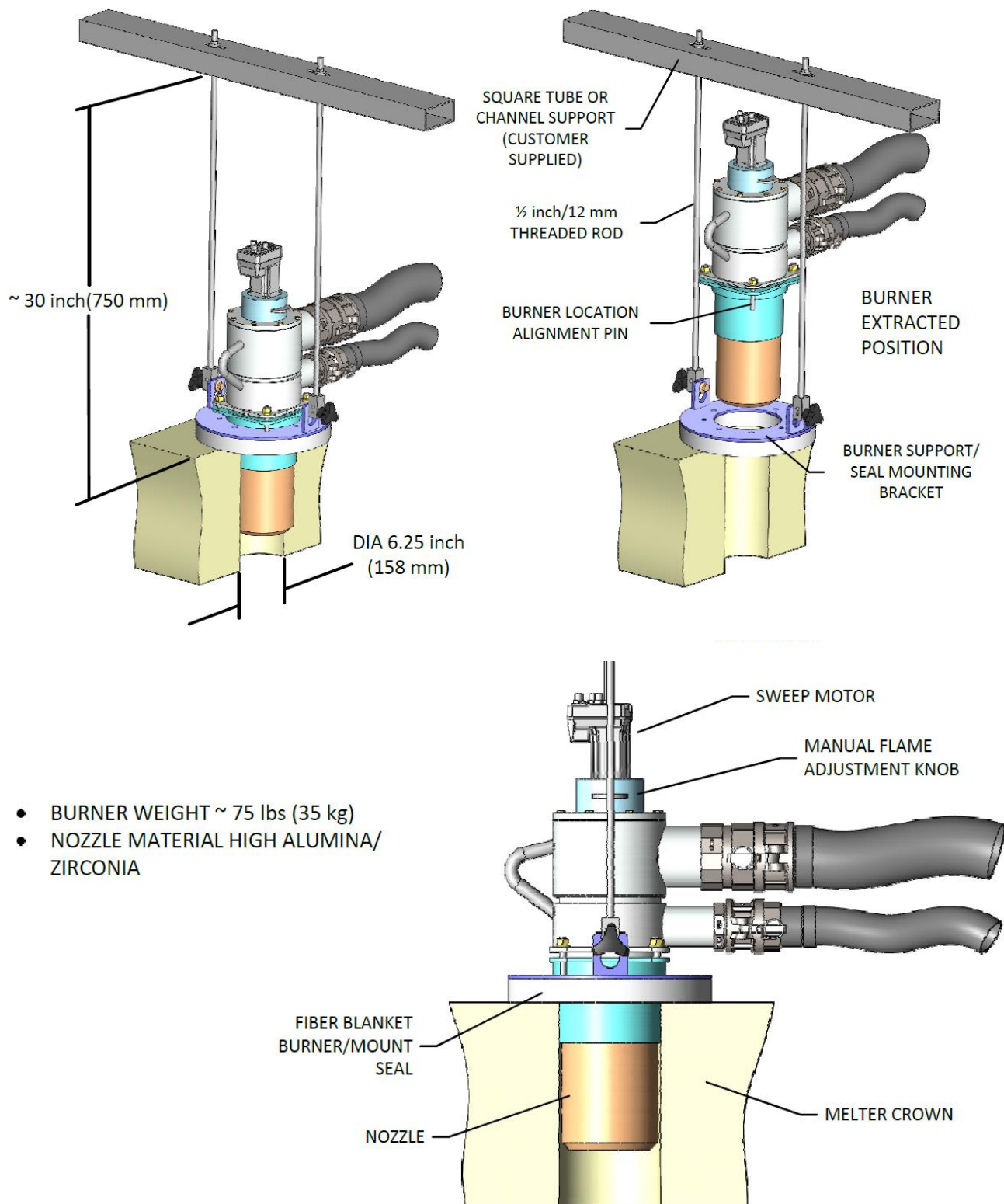


LIMITED PATH TRAVEL



FULL CIRCULAR PATH TRAVEL

QUADRAFLO® SWEEP GC BURNER: Glass Melter Crown Application



- BURNER WEIGHT ~ 75 lbs (35 kg)
- NOZZLE MATERIAL HIGH ALUMINA/ ZIRCONIA