



# Furnace Engineering

*Leaders in Heat Processing Solutions*

## Swarf Burn-Off Furnaces



### Applications:

Pollution free drying of compacted metal briquettes to assist in safe remelt process.

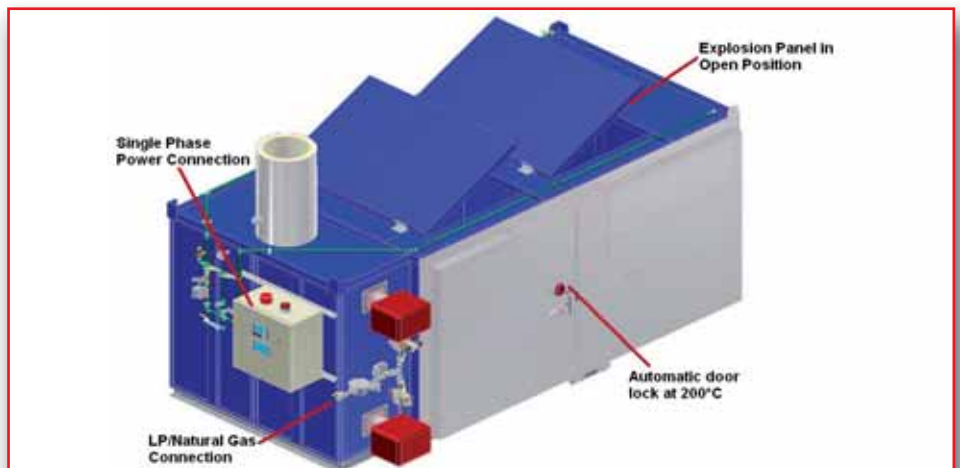
Furnace Engineering offers a range of standard sized burn-off furnaces which are ideal for removing cutting oils from compacted swarf prior to remelt.

Ideally suited for use with swarf crushing & compacting equipment, these furnaces offer users:

- Easy to operate touch screens
- Meet strict environmental requirements
- Afterburner eliminates smoke & odours
- Excellent insulation improves energy efficiency
- Easily loaded/unloaded by forklift

For metal recyclers, burning off residual oils prior to melting enables users to:

- Ensure safe melting practices
- Eliminate most smoke at the melting furnace
- Reduce dross levels
- Reduce metal loss
- Improve efficiency
- Improve metal quality



**Key Features of Burn-Off Furnace**



**Pallets of briquettes stacked within a Burn-Off Furnace**



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## BODY

The furnace interior will be manufactured from heavy gauge sheet metal reinforced for rigidity and strength. All welded construction with sealed seams to prevent air leakage gives maximum fuel economy.

## FLOOR

Hard castable refractory, 75mm thick, reinforced with structural steel channels, allow easy removal of any residual ashes.

## DOORS

Equipped with cam type lock assemblies and tadpole sealing gaskets. Access to the furnace is via swing aside door(s) located at one end of the work chamber. The doors are manually operated, and when in the open position, they provide full access to the oven interior.

## WATER SUPPLY

Minimum pressure 275kPa: maximum 700kPa for water injection system. Maximum flow rate 1.2 litres per minute.

## FUEL

Natural Gas, Propane Gas or Fuel Oil.

## EXPLOSION RELIEF

Required on all furnaces of this type. Unique gravity sealed top relief automatically opens to relieve excess pressure, then closes, preventing air from reaching combustible material.

Conventional spring latched front doors or blow out panels used for explosion relief do not provide this important safety feature because, once opened, such doors or panels do not close to keep out air, and material inside will burn freely.

## INSULATION

Walls, ceilings and doors are covered with 75mm two layered light-weight ceramic fibre blanket insulation anchored on stainless steel pins, stainless wire mesh, and stainless locking washers. Contains no asbestos and has superior properties to asbestos or fibreglass. Hot face insulation utilising low thermal mass ceramic fibre producing lighter equipment and combining efficient energy usage.

## POLLUTION STANDARDS

Complies with strict environmental regulations.

## NORMAL CYCLE TIME

30 minutes to 4 hours plus cooling time. Longer cycle may be required for extra heavy loads.

## CYCLE TEMPERATURE

Typically set between 300°C and 480°C.

## SAFETY AND HEALTH STANDARDS

Complies with OHS regulations.

## ELECTRICAL SERVICE

240 volts, 50Hz, single phase, 5Amp draw. Optional transformers available for other voltages.

## VENT STACK

Made in 900mm long lightweight sections for easy installation. Stainless steel metal exterior lined with high temperature ceramic fibre in hard form. Sections snap together.

## MODELS

Different specially designed models to best handle your cleaning and stripping jobs from 2% combustible content up to 50% for those heavily coated components.

MODELNO	USABLE INSIDE DIMENSIONS			INSIDE DIMENSIONS			OUTSIDE DIMENSIONS			APPROX.
	WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH	HEIGHT	SHIP WEIGHT
SP 13	0.77	0.48	2x0.2	0.86	0.79	1.00	1.70	1.19	1.15	730
PTR 81T	0.73	0.93	1.90	0.98	1.28	2.24	1.48	1.47	3.12	1600
PTR 27	0.69	0.69	0.64	0.91	0.91	0.91	1.55	1.65	1.07	777
PTR 52	0.84	1.14	0.84	1.07	1.22	1.14	1.70	1.80	1.40	950
PTR 88	1.10	1.22	1.12	1.15	1.98	1.50	1.90	2.22	1.90	1600
PTR 150	1.48	1.52	1.40	1.50	1.63	1.83	2.15	2.41	2.16	2141
PTR 260	1.55	2.13	1.73	1.68	2.24	2.13	2.54	3.20	2.49	2918
PTR 300S	2.80	1.40	1.52	3.80	1.46	1.52	4.00	1.80	2.20	3458
PTR 450	1.90	2.39	2.15	2.13	2.54	2.43	2.75	3.32	2.79	3783
PTR 577	2.20	2.74	2.03	2.43	2.84	2.43	3.05	3.71	2.82	4330
PTR 728	2.00	3.56	2.13	2.00	3.66	2.62	2.74	4.50	3.10	4800

