

## FLARE SYSTEM DESIGN



## INTRODUCTION

**THE FLARE IS THE MAIN AND MOST CRITICAL PART OF AN EMERGENCY PROCESS RELIEF SYSTEM.**

The purpose of a flare system is to safely dispose of waste gases from a process and to oxidise them into less harmful substances especially where the wastes are toxic or corrosive.

Flare types commonly available can be put into three main groups:

### ELEVATED FLARES

### GROUND FLARES

### BURN PITS

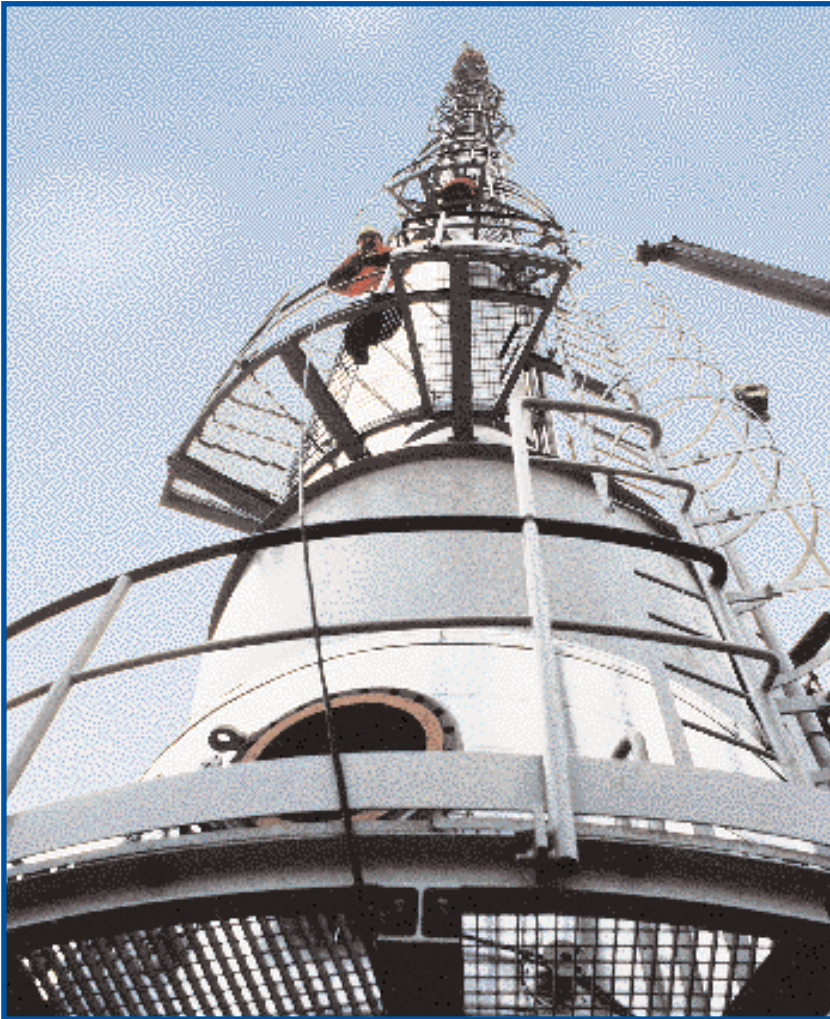
### ITAS FLARE DESIGN

Flares have to perform as safe, effective and efficient operating systems. All ITAS designed flares operate at optimised levels with regard to stringent international standards, safeguarding plant operation, maximising destruction efficiencies and reducing noise levels.

ITAS also has full range of equipment to complement the flares available. This is particularly important with regard to controlled smokeless flares utilising forced air, steam, water or gas pressure as we are able to offer complete systems on a turnkey basis.

In addition a wide range of instrumentation is available to monitor safety interlocks, combustion efficiency, emissions and utility consumptions.

## ELEVATED FLARES



## INTRODUCTION

### ELEVATED FLARES

The term elevated flare is used to describe flares which comprise a single tube riser arranged vertically like a chimney so that the flame at the top is well above ground level and does not constitute a hazard to personnel or plant. Elevated flares may vary in height from as little as 3m to as much as 200m.

### BENEFITS

Elevated flares are selected in preference to other equipment primarily on economic grounds, having a large capacity for a relatively small capital outlay. The use of elevated flares is particularly important where toxic gases are burned and height is required to assist dispersion or where the radiation from the flare flame has to be kept within safe limits at ground level.

### TYPES OF STRUCTURES

The type of structure used for an elevated flare depends on economic and structural design considerations rather than on process requirements. There are commonly three different designs used:

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#### GUY SUPPORTED FLARES

#### SELF SUPPORTED FLARES

#### DERRICK SUPPORTED FLARES

