

Wärtsilä Ballistic Ignition System

PRODUCT LEAFLET



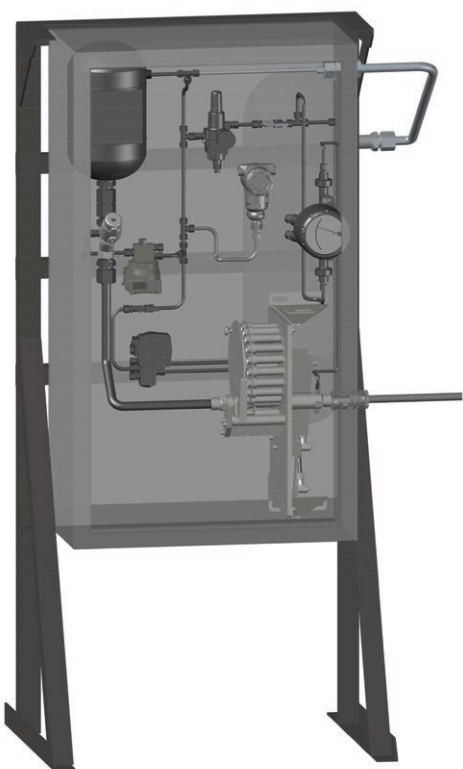
The Wärtsilä ballistic ignition system has been developed to guarantee safe and reliable ignition of the flare whenever required, providing a highly reliable source of ignition for flare tips when flammable gas is present.

The ballistic ignition system will deliver a cascade of Zirconium sparks over the flare tip to ignite the flare gas and can be used under any weather or operating conditions. With no electronic equipment or movable parts located in the high heat radiation areas, the system is reliable and easy to maintain.

Nearly one hundred pellet type ignition systems have been supplied by Wärtsilä worldwide.

The complete system consists of a cabinet installed at an easy accessible area, a guide tube installed from the cabinet to the flare tip, and a fragment collector installed near the flare tip where the guide tube ends.

Ballistic Ignition Cabinet



BALLISTIC IGNITION CABINET

The ballistic ignition cabinet is instrument air driven (15 barg design pressure), and has a rotating magazine with room for 20 unarmed ballistic ignition pellets ready for use whenever needed.

The cabinet design is simple to use, with one valve to rotate the pellet magazine and one valve to launch a pellet. Launching can be achieved manually from the cabinet, remote from the control room, or as a part of an automatic sequence based on client request. The pellet is both armed and launched by the same pressure and valve.

The standard system is usually supplied with a 10 litre launching vessel, as well as buffer vessel to guarantee one launch in case of emergency (no instrument air, or electrical systems operational).

GUIDE TUBE

The guide tube is a 25mm tube connected with special Parker Ermeto couplings designed to have the right amount of space for ease of passage of the ballistic pellet. It has been successfully tested to lengths up to 1000 metres, which can locate the cabinet in an easy accessible and safe area and is available in 316SS as well as 6MO.

The top spool is delivered in Incolloy 800HT, which is capable to withstand high temperatures (additional 800HT lengths can be supplied at request). These sections are flanged due to the size.

FRAGMENT COLLECTOR

The fragment collector basically collects and stores the converted pellets after the launch. Supplied in Incolloy 800HT, it is also designed to withstand high temperatures.

The Collector is capable to contain up to 2000 pellets, therefore allowing up to 2000 ignitions between maintenance and emptying.

LP2000 PELLET

The LP2000 pellet is our well established source of ignition for the ballistic ignition system. It has a spring loaded mechanism which is armed by the 5 barg launching pressure, and held back by the guide tubes internal wall. When exiting the guide tube, the pellet releases its mechanism, converting the zirconium charge at the tip, spreading thousands of sparks as a cone of 60 degrees at approximately 20 metres.

The pellet has the highest achievable safety classification – 1.4S, and is shipped in boxes containing 32 pellets using ordinary air freight.

eLP PELLET

The eLP (electronic low pressure) pellet is a pyrotechnical article like the LP2000 pellet, and the function is equal to the LP2000 pellet.

Although they do the same job, the eLP pellet comes with many advantages compared to the LP2000 pellet.

Advantages of eLP pellet:

- Is armed through passing a series of magnets at a certain speed
- Has no manual safety pin – easy to use
- Has a “kill battery” function that will render the pellet harmless after 6 minutes in cases of malfunction – safe use
- Has an electronic trigger
- Faster production making it more available to the customers

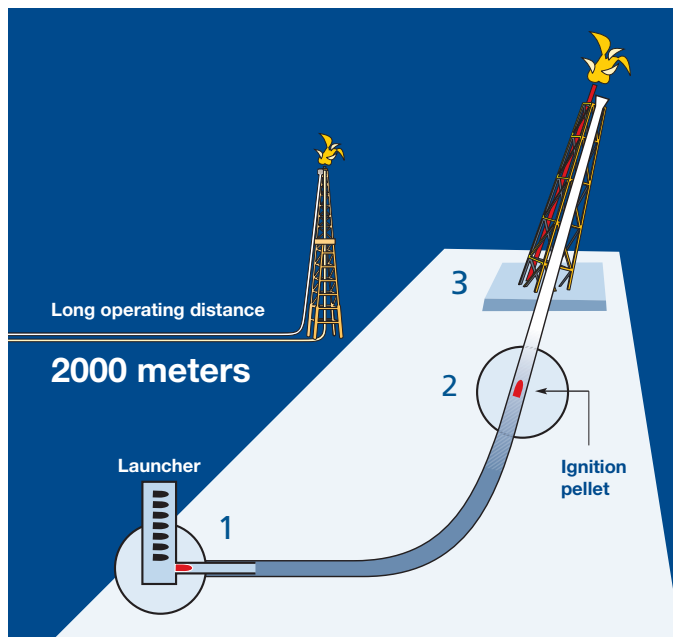
It has the highest achievable safety classification – 1.4S, and is shipped in boxes containing 50 pellets using ordinary air freight.

The manufacturer of the eLP – Nammo Raufoss AS – has been a part of developing, testing and producing the flare gas ignition pellets for over 20 years and is recognized globally.

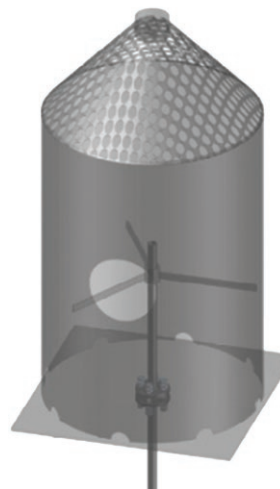
The eLP pellet can replace the existing mechanical pellet by a simple and low cost upgrade of the system.

BASIC SPECIFICATION

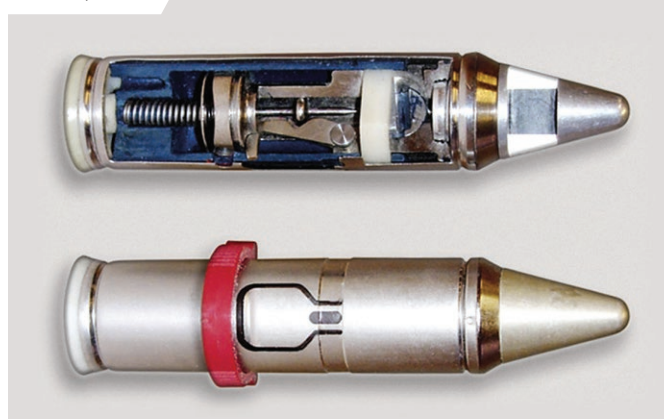
Launching medium:	Compressed air
Launching pressure:	5-7 bar (110 psi)
Launching range:	up to 2000m+
Min. bending radius:	3.6 m



Fragment collector



LP2000 pellet



eLP pellet

