



**DELTA  
FIRE**



# ATTACK 100 PRO DE-ICING / ANTI-ICING

## KEY USERS

- International Airports
- Airfields
- Off-Shore Operators
- Defence Sectors

## KEY FACTS

- Manufactured in the UK
- ISO9001 Quality Controlled
- 6 or 7 Bar NFPA / EN Options
- For De-Icing & Anti-Icing Aircraft
- Compatible with most De-Icing & Anti-Icing Fluids
- Jet & Spray Functionality
- Use for Hot Spray or Cool Stream Operations
- Effortless On/Off Control
- Stainless Steel Ball Valve
- 10 Year Guarantee



**Attack 100-Pro Series Nozzle**

Doc Ref: DDS200



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## GENERAL DESCRIPTION

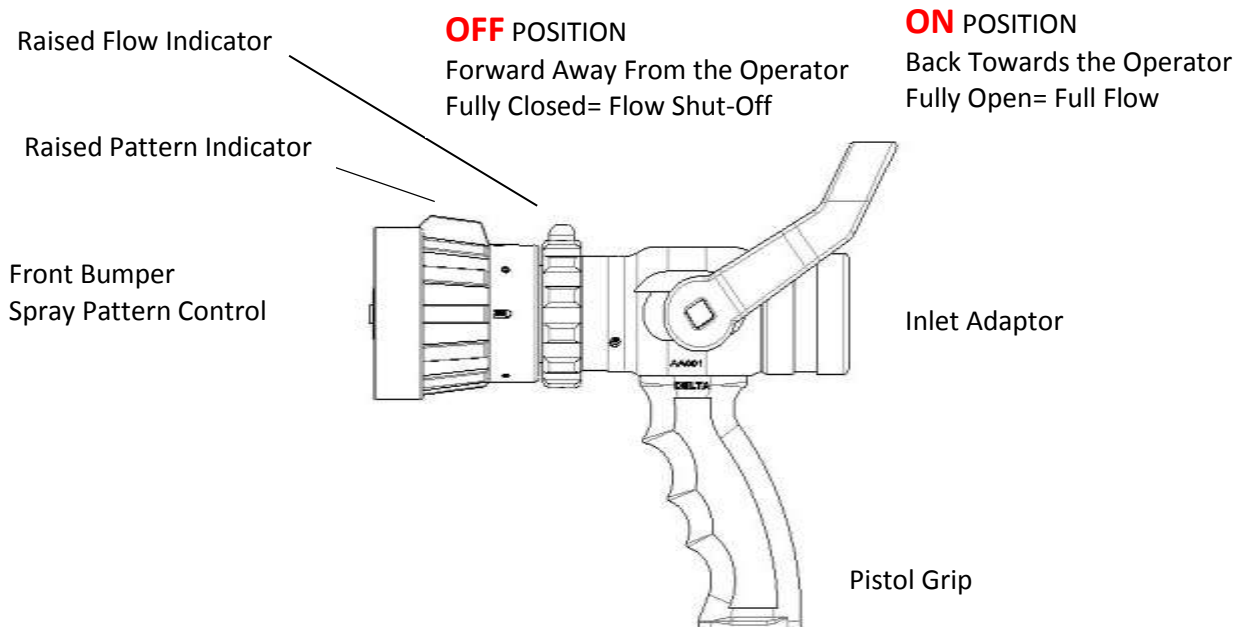
During periods of freezing weather it is essential for aircraft ground maintenance crews to ensure that all aircraft are appropriately de-iced and anti-iced prior to take off.

The tight scheduling at most airports requires that de-icing and anti-icing procedures are carried out thoroughly and efficiently minimising downtimes between flights and choosing the right equipment for this critical task is paramount.

Delta Fire have a long history of providing high quality, UK manufactured anti-icing and de-icing nozzles to the aviation industry, currently supplying some of the world's biggest International airports.

Combining the very latest in flow dynamics and enhanced performance Delta's Attack 100 Pro nozzle provides the ability to rapidly deliver de-icing and anti-icing fluids in hot spray or cold stream modes to affected aircrafts.

Delivering a constant flow of 50lpm at 7 bar the Attack 100 Pro is ideally suited to this purpose.



The Attack Pro Series range of nozzles has been the culmination of an extensive design and innovation process to ensure modern-day aviation requirements are both met and exceeded at all times. Exhaustive trials and evaluations have been conducted over an extended timeframe culminating in a range of nozzles offering superior performance and exceptional durability in even the harshest of environments. Precision engineered componentry and the use of high quality materials provides the very best in reliability and enhanced safety.

The Attack 100 Pro is approved for use under the BSEN 15182-2 Type 2 & 3 Standard and is also the most compact and lightest nozzle in its class making it easy to store in lockers and operationally easy to use. The ergonomically designed pistol grip and control handle are suited for use with gloves conforming to both the BSEN 659:2003+A1:2008 and BSEN 388:2003 Standards.



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## DESIGN FEATURES

The Delta Attack 100 Pro nozzles boast a host of special features designed to maximise performance and ensure the highest possible level of safety for the operator. More than 25 years of ongoing research and development has culminated in a state-of-the-art De-Icing/Anti-Icing nozzle highly regarded by industry professionals globally.



### Spinning Teeth

Computer designed stainless steel spinning turbine teeth chop the water up into finely divided, small diameter water droplets producing extremely dense fog patterns enhancing capabilities. Impervious to damage, even when dropped onto a hard surface, the stainless steel teeth provide considerable advantages over the more commonly used plastic teeth.



### Profiled Ball Valve

Using a specially profiled stainless steel ball valve designed to minimise 'jet-reaction', the Attack 100 Pro is ideal for 'pulsing' techniques. Unlike plastic ball valves as used by most manufacturers the stainless steel Delta valve ensures long-term durability and enhanced performance.



### Raised Indicators

The Attack 100 Pro incorporates a tactile raised indicator on both the front bumper and dial collar to assist in selecting spray patterns in low light levels where visibility is impaired. The indicators are easy to locate in a gloved hand and ensure the operative is fully in control at all times.



### On-Off Control Handle

The Pro-Series range incorporates an ergonomically designed flow control handle that is designed to allow enhanced clearance between the nozzle body handle in any operating position when using a gloved hand. Manufactured from high-impact materials the control handle will absorb impact when dropped or dragged and allows for smooth flow control in all operational situations.



### PTFE Top Hat

The Attack 100 Pro incorporates friction-resistant PTFE bearings on the control handle spindles to ensure wear is minimised during use. Test results on a repetitive action simulation unit carried out to replicate many thousands of operations of the control handle show that this innovative addition contributes to a significant reduction in wear, extending the service life of the nozzle and minimizing the need for maintenance.



### Flow Engineering

The Pro-Series incorporate the very latest in computer-aided flow engineering with enhanced design concepts that stabilise flow and performance where water pressures are low to maximise operational capability. High quality UK manufactured componentry precision made to rigorously controlled tolerances guarantee powerful jet function and coherent spray patterns.



### Permanent Markings

All markings on the Attack Pro-Series are laser etched providing a permanent reference to spray patterns and on/off control settings. A unique serial number provides full traceability throughout the life of the nozzle and bespoke markings such as stock numbers, tag numbers or customer-specific code numbers can be added upon request.



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## THE RANGE

The Attack 100 Pro De-Icing / Anti-Icing Nozzle is available in a constant flow model to suit all de-icing & anti-icing scenarios. Designed for use with a range of hose types the Attack 100 is supplied with BSP (British) or NH (American) threads to allow the user to fit any international inlet adaptor. Supplied in standard with yellow decals a range of alternative colourways are available on request.



Product Code	N21C60401
Usage	De-Icing / Anti-Icing
Model	6 BAR EN15182
Main Body / Barrel	Hard Anodised Aluminium
Spinning Teeth	Stainless Steel
Profiled Ball Valve	Stainless Steel
Front Bumper	Shockproof Polyurethane
Weight	1.5 KG
Inlet Type	1" (25mm) BSP Female
Flow Range litres/min @6 bar	Constant Flow 50
Flow Range USG/min @ 6 bar	Constant Flow 13
Maximum Use Pressure	40 Bar Factory Tested to 50 Bar
Maximum Advised Working Pressure	Maximum 40 Bar Static
Recommended Inlet Pressure	5 – 8 Bar
Minimum Operational Pressure	3 Bar**

*Alternative Flow Options are Available upon Request*

*\*Maximum Pressure rating is dictated by the recommended maximum working pressure rating of the inlet adaptor used.*

*\*\*Recommended Only – Nozzle will function down to 1 Bar*



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