

The Super Lightweight

LIQUIP POLYFLEX HYDRANT PIT

Innovation
through Design

PIT BODY (COMBINATION 24" PIT AND LID PART#HPC200)

High density polyethylene
UV stabilised for outdoor storage
Working temp range -40 degrees Celsius to +200 degrees Celsius
Yield 18 Mpa
Elongation 450%
Flex modulus 690 Mpa
S.G. 0.94
Non-conducting

PIT RIM AND OUTER LID

Aluminium AA601 heat treated and aged to T6 (UK equiv. LM25T6)
Same material as current aluminium lids

WELD NECK (FLANGE PART#HCL200-12, BONDING KIT PART#HLC200-11)

100mm ANSI 150 pattern with fully sealed blind drilled and tapped stud holes, machine finish outside diameter and fastening point for bonding strap. The bonding strap runs from the pipe to the pit rim and is stainless steel.

COMPOSITE LID (PART#HLC100)

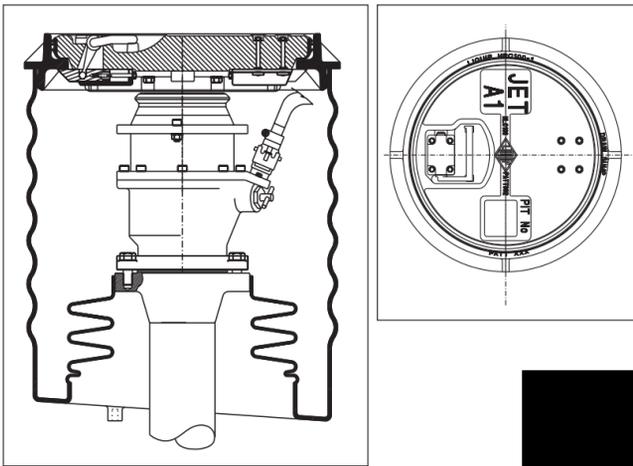
Blend of fibreglass and kevlar in skin construction
Composite core
Stainless steel handles, latches and springs
Nylon bearing housing and rubbing strips
Moulded polyurethane lip seal and buffer ring

TESTING - PIT BODIES

Extensive field and cycle testing was undertaken throughout the development process.

HOW TO ORDER

HPC200 24" x 18" Polyflex Pit and composite lid with integral bellows
HPC201 24" x 18" Polyflex Pit and composite lid with no bellows
HPA200 24" x 18" Polyflex Pit and aluminium lid with integral bellows
HPA201 24" x 18" Polyflex Pit and aluminium lid with no bellows
HLC100 18" Lightweight lid with double latch and single tongue
HLC130 18" Lightweight lid with double latch and double tongue (for retrofit of non-Liquip pits)
HLC200-12 Base flange to suit HPC200 and HPC201 pits
HLC200-11 Bonding kit for Polyflex Pits



WEIGHT COMPARISONS

Conventional steel pit body only (18") -	82kg
Polyflex Hydrant Pit (18")	18kg
Conventional steel pit body only (24") -	125kg
Polyflex Hydrant Pit (24")	31kg
Conventional aluminium lid	24.5kg
New lid	13kg

Liquip Sales Pty Limited is a world recognised manufacturer and supplier of components and systems for petrochemical industries.

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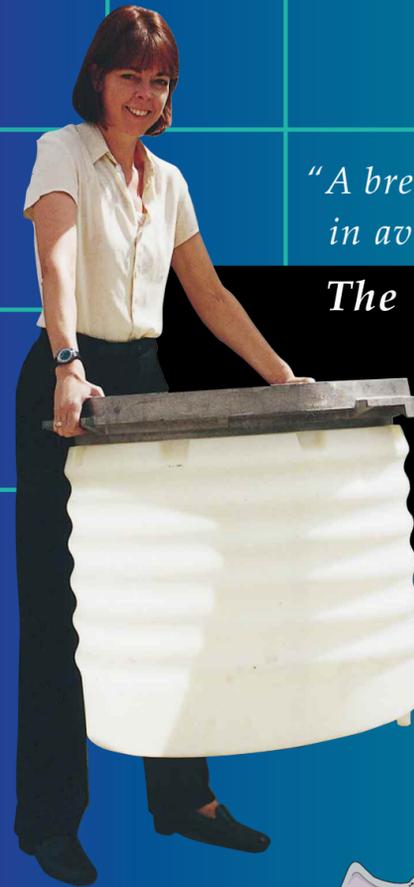


Innovation
through Design

"A breakthrough
in aviation technology"

The Super Lightweight

POLYFLEX HYDRANT PIT



Super Strong!
Super Light!
Super Value!



KEEP
ON-GROUND

POLYFLEX HYDRANT PIT

Innovation through Design



The future of hydrant pit technology is here now and available in the form of the Liqip Polyflex Hydrant Pit complete with composite lid.

With a primary focus on health and safety, environmental and commercial considerations, the Liqip Polyflex Hydrant Pit is one quarter the weight of conventional pits, providing a non-conductive, seamless, advanced sealing pit at an attractive price.

You'll save money right from the initial purchase, from shipping, to installation, and throughout the life of the pit with easy maintenance and improved product retention in case of spills or drips.

The durable long lasting pit body is a high-tech polyethylene one-piece construction with a cast aluminium rim fitted into the body to provide a liquid tight bond. The Liqip Polyflex Hydrant Pit will hold up to 100 litres of product with the valve in place – up to 45 litres before the first possible leak point which is the joint between the bellows and riser pipe. There are no separate seals as the bellows are moulded with the body, which is electrically non-conductive and consumes no cathodic protection power.

No other pit gives that amount of added safety, value and environmental benefits.

Make the Liqip Polyflex Hydrant Pit your first choice for new airports or for extensions to existing installations.

The Liqip Polyflex Hydrant Pit is the lightest pit/lid combination in the world for aviation fuel hydrant systems

HIGHLIGHTS

What you said and what we did about it . . .

"Aluminium lids are too heavy"

Our lids are half the weight, and just as strong.

"Ordinary lids don't seal and they flood in storms"

The moulded polyurethane lip seal provides a long-wearing superior seal.

"If lids are not correctly latched they can be dangerous"

Automatic latches similar to a door latch provide guaranteed latching if the lid is in place.

"Pit bodies corrode"

The pit body is a high tech non-corroding polyethylene hybrid.

"Pit body-to-pipe seals never last for long then cannot be repaired"

No separate seal is required. The extended bellows provides a perfect sealing face for a 100mm ANSI 150 bolt pattern weld neck flange also available from Liqip.

"We have to prevent fuel entering the ground and water table – but how?"

The whole pit body and integral bellows is entirely seamless with the pit rim cast into the pit while still in the mould to provide a liquid tight shrink bond. The pit will hold an immense amount of product before the first possible leak point.

"Pit bodies must be heavily coated with an insulating compound so as not to overload the cathodic protection system"

Not the Liqip Polyflex Hydrant Pit –the pit body is electrically non conductive, eliminating the need for insulating compounds. A stainless steel bonding strap provides the electrical bond between the riser pipe and the pit rim.

"Current pit bodies are so large and heavy, they are really difficult to transport, handle & install"

The body only is 31kg (68 lb) versus 125 (275 lb) for the steel equivalent. At 1/4 the weight, the Liqip Polyflex Hydrant Pit offers distinct advantages for transport, handling and installation.

"They cost how much?"

Available in the fullsize 600mm diameter (24") with dual lid or the low cost 450mm diameter (18") version with single lid, the Liqip Polyflex Hydrant Pit offers huge savings in the initial purchase, not to mention the associated handling costs which are also saved.

(If cost is the major factor, aluminium lids are available as an option)



Lid Specifications

Extensively field tested and well proven, Liqip's composite pit lid withstands the harshest conditions and the heaviest commercial aircraft, and is half the weight of a conventional aluminium equivalent. The unique self-locking mechanism works like a door latch, automatically latching as soon as the lid is dropped into place.

The polyurethane buffer ring protects the latching mechanism, and the body is a combination of synthetic compounds to provide a light, yet robust, superior sealing lid.

The **Liqip Lightweight Lid** features an anti-slip UV treated surface and is available as a retrofit to existing hydrant pits.



Sloped Bottom

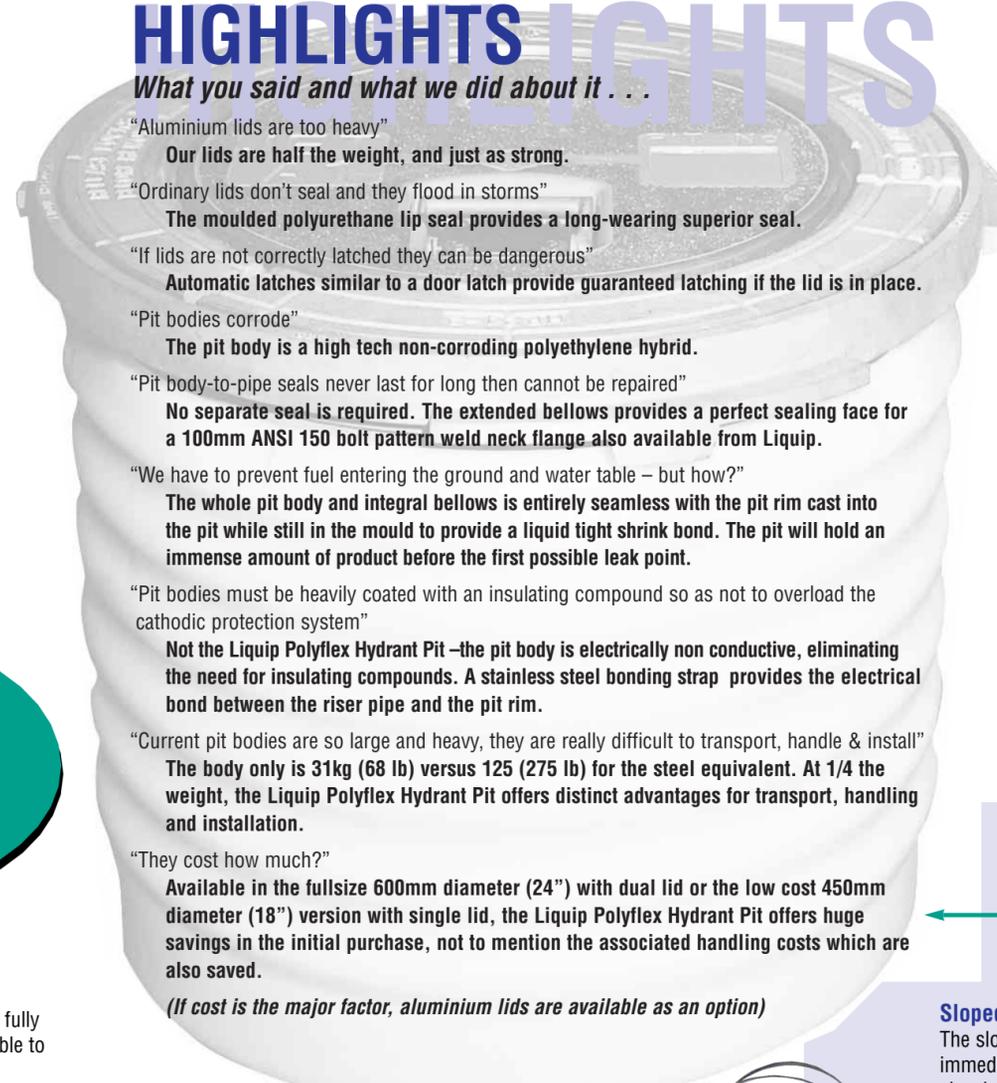
The sloped bottom ensures fluid build-up in the pit is drained to one side and is immediately noticeable. This simple yet important feature also enables easier cleaning as the fluids are collected in one low point. A support on the underside of the high point provides a level base for installation.

Integral Bellows

Pictured separately of the pit and cross sectioned for viewing purposes, the integral moulded bellows provide seamless flexibility to accommodate the riser pipe, and the 24" pit retains 45 litres before the liquid level reaches the top of the bellows which is the first possible leak point.

Liqip's companion flange for the Polyflex Hydrant Pit has an o-ring on the outer circumference for sealing against the bellows of the pit. It is specifically modified to suit the Polyflex Pit and should be specified with the pit.

The bellows have an extended top, allowing variable installation height, and the surplus can be trimmed back. Entry point is designed for 100mm ANSI 150 bolt pattern weld neck flange with thick flange for improved sealing.



Adaptor

Available in 18" and 24" diameters, the Hydrant Pit accepts the same lid whichever the size by way of a fully sealed aluminium adaptor ring. It is quickly detachable to provide access for maintenance of the pit valve.

An O-ring between the adaptor ring and the pit rim fully seals the join.

Pit Lids

Liqip's lightweight hydrant pit lid completes the **Liqip Polyflex Hydrant Pit** package, providing further health and safety features not available in similar conventional lids.

Half the weight of conventional aluminium lids, with automatic self-latching, the composite pit lid provides the answer to those problems of water in pits and the dangerous phenomenon of "flying saucers" as conventional lids may be lifted by the draft of the engines if not properly secured. Just step on it to secure the spring-latch catches. The moulded-in lip seals then provide a superior seal.

Built tough to withstand the forces and weights exerted by all commercial aircraft, existing or due for release in the near future, the composite lid is half the weight and the same strength as aluminium, thanks to its carbon fibre construction.

