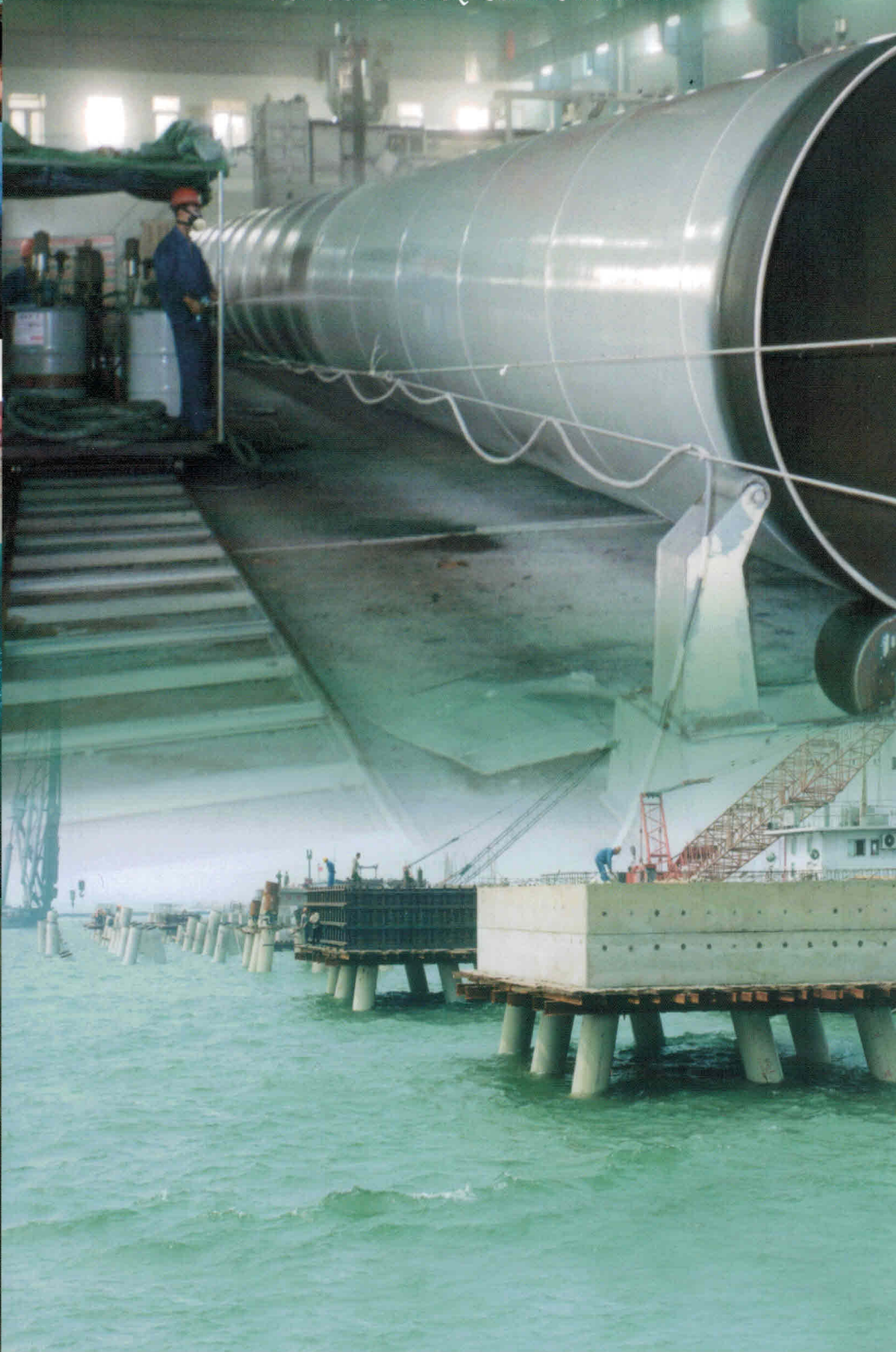
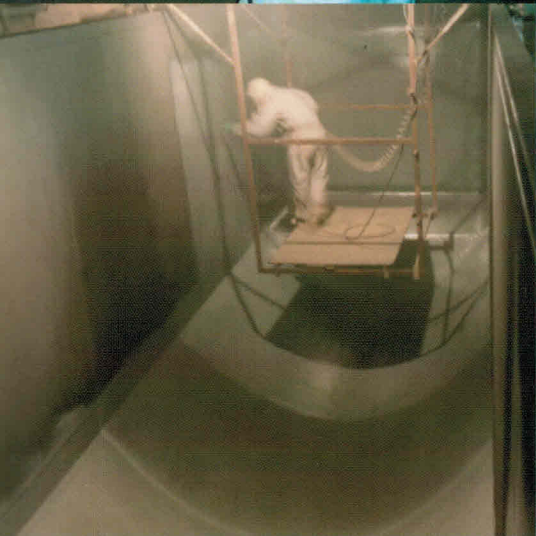


# ELASTUFF

*Abrasion, Corrosion & Chemical Resistance  
For Concrete & Steel Substrates*





# ELASTUFF

Although they have been the construction materials of choice for decades, the fact remains that even the highest quality concrete and steel require protection from adverse service conditions to provide long-term performance. Steel is subject to corrosion and chemical attack, while concrete is also subject to water intrusion, deterioration and cracking. ELASTUFF polyurethane and polyurea coatings systems provide proven, cost effective solutions to maintain the integrity, and extend the service life, of these construction materials.

Over 30 years ago, QCP introduced "ELASTUFF", a unique line of elastomeric coatings systems offering cost-effective solutions for a variety of industrial surface protection problems. Since then, the name ELASTUFF has become synonymous with products that provide unsurpassed corrosion protection, abrasion and chemical resistance, waterproofing and durability.

The ELASTUFF line has grown to include a number of versatile polyurethane, polyurea and hybrid systems designed to fulfill a wide range of surface protection solutions – in wet or dry environments. Several have been independently tested and certified to meet ANSI/NSF 61 standards for potable water containment and transfer.

QCP'S ELASTUFF line includes several 100% solids, fast-cure plural component systems, which not only meet today's challenging corrosion protection requirements, but also satisfy environmental (VOC) concerns. We were a pioneer in this unique, fast-set technology, and continue to be a worldwide leader in the field. Our ELASTUFF line also includes high solids, pot life elastomers designed to provide unique solutions to specific problems.

Polyurethane and polyurea technology is rapidly expanding into new markets due to their unique performance characteristics, cost effectiveness and environmental friendliness. From waste/water treatment and aqueous containment and transfer, to pipeline protection and bridge deck encapsulation, QCU provides a proven solution engineered to perform.

This brochure provides a brief introduction to the ELASTUFF family of elastomeric polymers. For additional information, guide specifications, samples or recommendations for your specific application, please don't hesitate to contact us. Engineered solutions from the world leader in polymeric coatings technology.



## *The United Advantage*

QCP is unique among coatings formulators/manufacturers in that we are one of a very few to offer polyurethane systems, polyurea systems and hybrid systems. This allows us to offer, without prejudice, the best coatings solution for the specific application. Our line includes a selection of the 3 basic types of 100% solids coatings systems currently available: polyurea elastomers, polyurethane elastomers and rigid polyurethanes. Each system has distinct performance advantages, based upon the jobsite conditions and desired end result.

## *Polyurethane vs. Polyurea*

Two component polyurethanes generally consist of an isocyanate-containing component (typically designated as Part A) and a hydroxyl end-group component such as a polyol (typically designated as Part B). Upon thorough mixing, an exothermic chemical reaction takes place, allowing the coating to set and cure under most any ambient condition, at virtually unlimited film builds.

Polyurea chemistry involves a reaction of the isocyanate component with an active hydrogen group, such as an amine, typically resulting in a more rapid reaction. This results in short initial gel times, providing excellent moisture and temperature insensitivity during application.

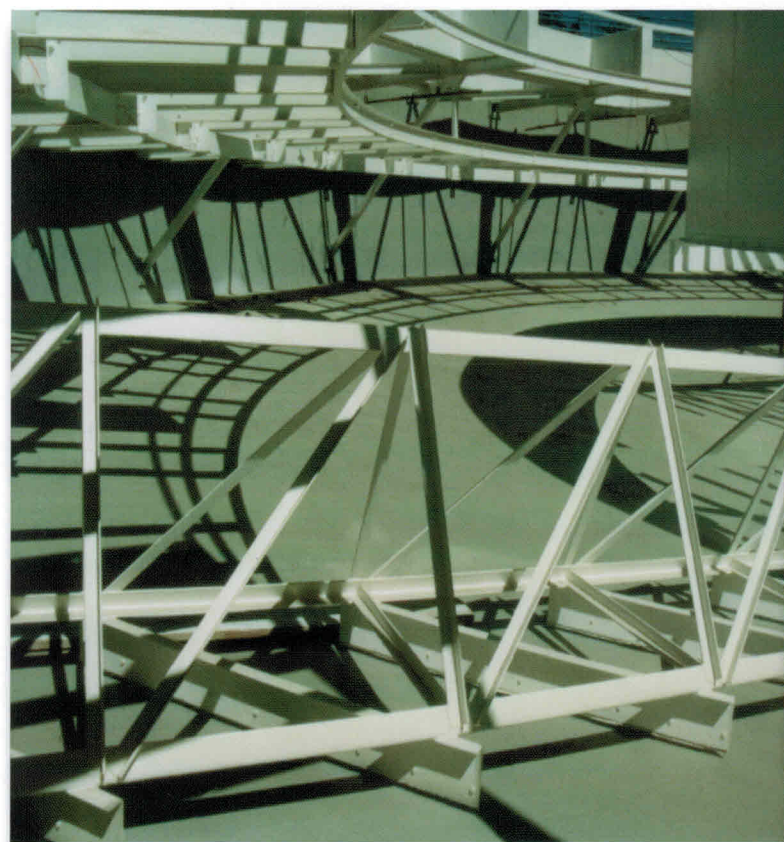
There are an unlimited number of isocyanate and polyol/amine combinations, allowing for a great deal of formulation versatility – from resilient, flexible membranes to high durometer, rigid films. Each system is available in UV stable aliphatic formulations, as well as lower cost aromatic versions.

Rigid polyurethanes are highly cross-linked, which provides excellent chemical and moisture resistance properties. They also exhibit outstanding adhesion properties, particularly for corrosion resistance over metal in immersion service. Since elastomeric polyurethanes have less cross-linking, they typically exhibit better abrasion resistance, impact strength and flexibility.

Polyurea elastomers typically have higher heat resistance and UV stability properties than polyurethanes. Since they are insensitive to moisture or high humidity, the film will not blister or become cellular when sprayed under these conditions. Because of their fast reaction time, polyurea elastomers are also well suited for application to surfaces such as cold steel







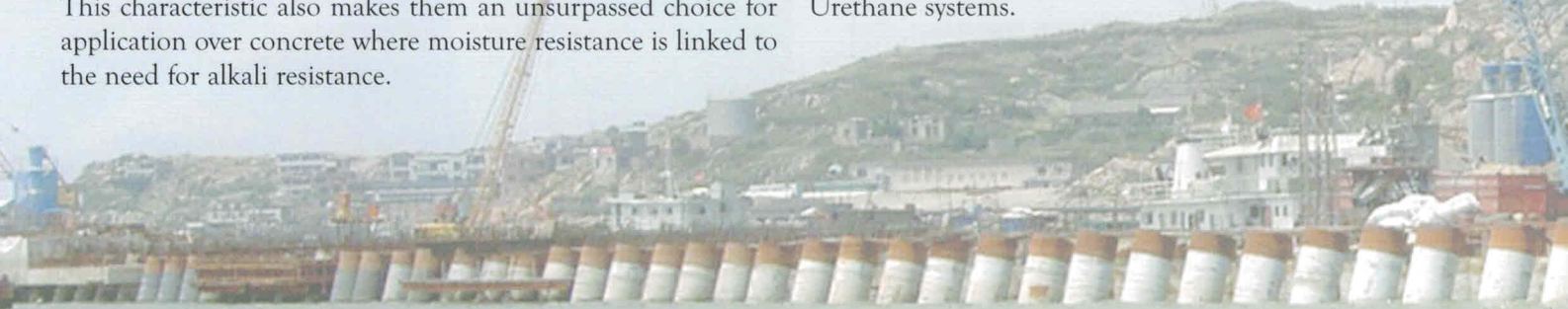
## *The Poly BD Edge*

Among QCP'S most unique systems are 100% solids polyurethanes based on a technology known as Poly BD, which forms the backbone of several ELASTUFF coatings. What makes these products unique is that they incorporate several of the most desirable qualities of polyureas and polyurethanes into one product, including excellent moisture insensitivity and exceptional cold temperature cure characteristics.

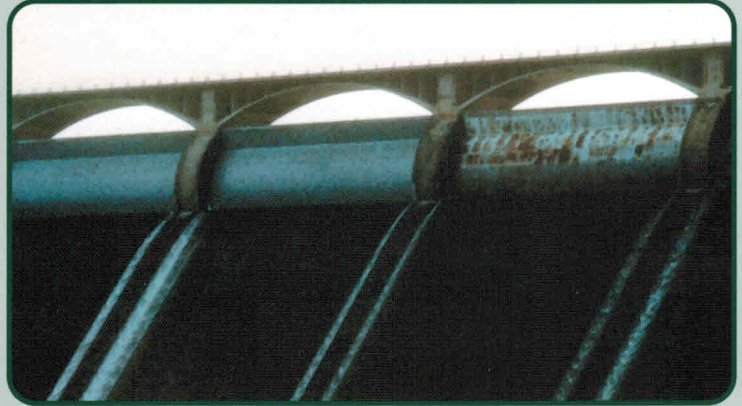
Poly BD Urethanes fundamentally exhibit superior water resistance and flexibility. Polyurethane coatings made using Poly BD cure rapidly and are approximately 10 times more water resistant than comparable urethane and polyurea elastomers. This characteristic also makes them an unsurpassed choice for application over concrete where moisture resistance is linked to the need for alkali resistance.

Another key feature of Poly BD Urethanes is their extended gel time. This allows for a broader selection of application equipment, which translates into a more consistent end result. Several of QCP'S Poly BD-based Urethanes have passed ANSI/NSF 61 certification for drinking water containment and transfer, due in part to the very complete cure that is achieved.

Because of their extended gel time, Poly BD Urethanes are able to "wet" into the substrate, enabling them to achieve a superior bond over metal, concrete and other porous surfaces, even when cold. These excellent bond characteristics provide the primerless feature available with several of QCP'S Poly BD Urethane systems.







## *Western U.S. Dam Projects*

The uniqueness of one ELASTUFF System became apparent after a 5 year study by the Bureau of Reclamation at Grand Coulee Dam. Products from dozens of manufacturers were tested to determine the best coating system for use in protecting the drum gates on the numerous hydroelectric dams in the northwestern United States. ELASTUFF'S superior performance resulted in a "no equal" specification for use in protecting the drum gates, trash racks, hoist cable abrasion areas and penstocks on dozens of dams.





## Elastuff

ELASTUFF provides proven protection under a wide range of application conditions, providing abrasion, chemical and/or corrosion resistance under immersion or atmospheric exposure. Typical applications include:

- Waste/Water Processing Tanks
- Water Containment & Transfer Vessels
- Pipelines and Valves
- Tank Coatings & Linings
- Petroleum & Chemical Storage, Transfer & Containment
- Bridge Deck Encapsulation
- Railcar Linings
- Pipe & Sheet Piling
- Traffic Deck Protection
- Industrial Floors
- Power Plants
- Cooling Tower Basins
- Floatation Tubes
- EPS Floats, Props and Stage Settings
- Water Parks, Water Slides & Playgrounds
- Secondary Containment
- Manhole & Sewer Lining
- Reservoirs & Evaporation Ponds
- Water Inlet/Outlet Flumes
- Sand/Salt Spreader Trucks
- Ore Hoppers
- Mineral Processing Equipment
- Truck Bed Liners
- Roof Coatings

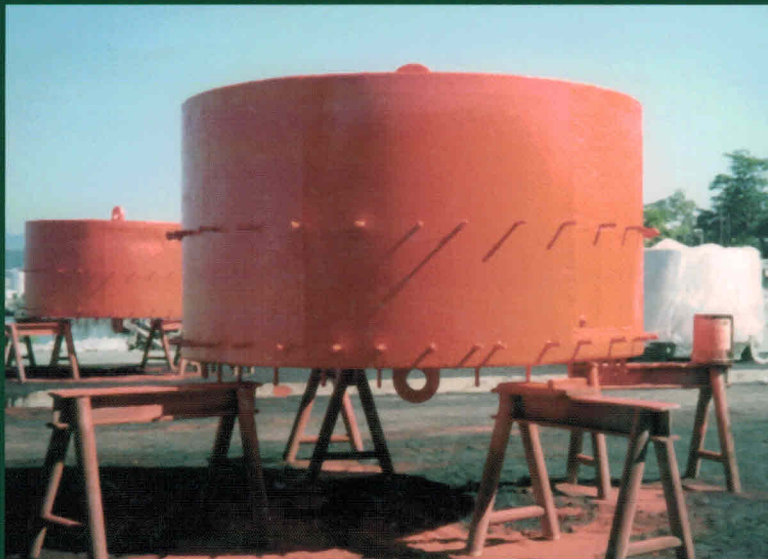




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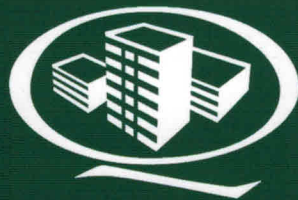


# ELASTUFF



## *Tough Enough?*

These huge steel ocean buoys are used by the U.S. Navy to guide their fleet of vessels into port. To withstand the punishment of continuous exposure to pounding ocean waves, the Navy selected ELASTUFF due to its superior resistance to abrasion, corrosion and saltwater attack.



# QUEST

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