

The unique and patented design of the **Xtreme®** product family from Prime Line Industrial Controls assures unmatched smoothness and efficiency with scarcely any backlash, even in the longest and highly complex cable routings. This brand offers the utmost in control and feel for the operators and superior performance over the long haul.



Traditional cables, with their higher coefficients of friction, offer very low backlash but also require higher input forces to actuate the device at the other end. Add to that complex cable routings and it makes for a difficult system to operate. This is the standard trade-off of better control (lower backlash) versus input force required. Opposite to this is an easier movement (lower input forces) causing higher backlash/lost motion/sloppier control which is manifested in poor RPM control or difficult gear engagements and/or a loss of operator feel.

The **Xtreme** design incorporates splines on the core to reduce friction / surface area between the core and the conduit to achieve the impossible: excellent feel

and control for the operator and more accurate actuation at the working end of the cable. Furthermore, back-lash is dramatically reduced as are input forces.

THE RESULT:

The result is a control cable with easy movement AND minimum lost motion.

High Efficiency Cable Controls

The **Xtreme** family of cables is like no other cable available today. The differences can easily be felt from the first use. They glide through their conduits. Here is why they are so easy to use: (it's a function of the friction between the core and the conduit),

$Fr = \mu N$, where

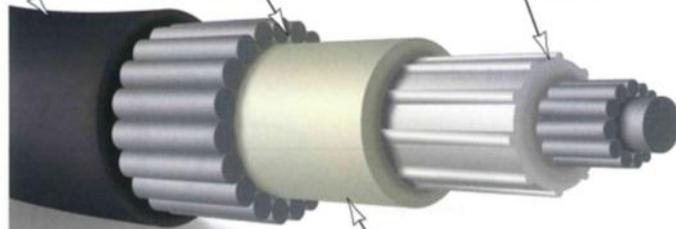
- Fr is the resistive force of friction in the cable,
- μ is the coefficient of friction for the two surfaces of the core and the conduit,
- N is the normal or perpendicular force pushing the two objects together which is a function of the surface area between the cable and the conduit, and
- μN is μ times N.

THE CORE DIFFERENCE:

.34" Super Tough HDPE Jacket for Ultimate Protection Against the Elements.

Oil Tempered Lay Wires for Superior Strength & Performance.

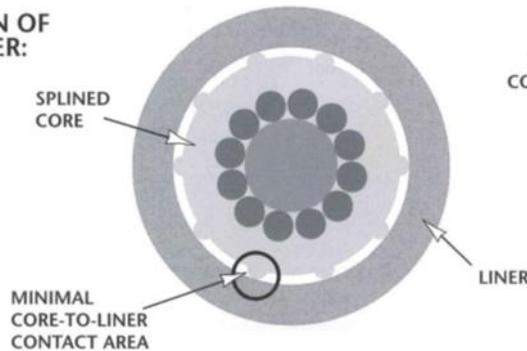
UNIQUE SPLINED CORE!



Long Wearing HDPE Liner: Ultra Smooth and Lubed for Life.

Notice the splines on the external diameter of the core (the inner three layers). The surface area between the core and the conduit (the outer three layers) is far less than standard smooth cores. Therefore, **Xtreme** cores glide through their conduits providing long life of smooth, efficient operations. Of course, the friction in normal cables increases with length of the cable which is yet another advantage of the **Xtreme** technology. Plus **Xtreme** provides the added benefit of smaller minimum bend radii which is important as more cables, harnesses, etc. are added to ever-decreasing space.

CROSS SECTION OF CORE AND LINER:



And the longer the cable is, the more noticeable how well **Xtreme** cables operate compared to other products on the market today.

The cores of the **Xtreme** cables are designed to tolerate more than 3 million cycles in high load / high vibration installations (and have been tested to more than 1.3 million full load cycles). The combination of the splines on the external jacket of the core and the tensile and compressive strengths of the metallic core makes them the one of the best industrial cables available.

The essence of the **Xtreme** design can be easily felt when using them for the first time and during a lifetime of use. They withstand excessive vibration, dirt, grease, etc. to provide long and trustworthy usage and still are easy to push and pull. The conduit ends protect the cable within from dirt, spray and abusive and corrosive environments for a lifetime of trouble-free usage.