



Power Dynamics Innovations LLC

In addition to the leasing of Fluid Power Equipment, PDI can supply material and services related to your fluid deliver system.

Our knowledge of manufacturing hydraulic equipment fully qualifies us in the practices and procedures needed to produce reliable hydraulic systems plumbing to meet our client's needs. Our expertise includes: design services based on fluid power design standards, shop and field fabrication, site installation, hydro-testing, flushing and qualification of completed product.

Hydraulic Tubes:

Seamless steel precision pipes that are manufactured exclusively for hydraulic machinery and deliver the hydraulic fluids to the tools. There are standardized sizes for these pipes, depending on the pressure ranges specified. Hydraulic tubes are manufactured in lengths of 6m, and are cleaned, oiled and plugged. These precision tubes are interconnected by various types of flanges, welding cones, flare connections and cut-rings; yet they are not joined due to the need for inspectors to view the interior of the tubes. **PDI can engineer and provide these fluid delivery systems for your rental equipment fluid delivery requirements.**

Hydraulic Pipes:

In cases where standard hydraulic tubes are not available and or for hydraulic machinery that uses low pressure, these pipes might be used. These hydraulic pipes are generally connected by welds, because their large diameter allows for internal inspection. Non-galvanized black pipe is suitable for welding. Most piping for marine applications is stainless steel, which resists corrosion. **PDI can engineer and provide these fluid delivery systems for your rental equipment fluid delivery requirements.**

Hydraulic Hose:

These hoses are used when hydraulic pipes or tubes cannot be used, and are graded—or categorized—by pressure, temperature and fluid capacity. The design includes a rubber interior, which is surrounded by several layers of woven wire and rubber. The exterior is intended to resist abrasion, and the bend radius is carefully designed into the exact specifications of the machine (hose failures can cause the hydraulic machinery to malfunction, resulting in deadly situations). Steel fittings are swaged to the ends of the hoses. Hydraulic hoses tend to have a shorter lifespan than pipes or tubes, and generally need replacement every five to seven years. **PDI can engineer and provide these fluid delivery systems for your rental equipment fluid delivery requirements.**

Hydraulic Fluid:

Hydraulic tubes and pipes are internally oiled before the tools are even commissioned. Sometimes known as “tractor fluid”, this lubricant is the lifeblood of the hydraulic machinery. The general composition of hydraulic fluid is petroleum oil with other additives, including some fire resistant fluids for particular applications. Hydraulic fluid functions to: Transfer energy, Lubricate components, Suspend Contaminants and filings for transportation to the filter. **PDI can perform Fluid Condition Monitoring for your rental equipment fluid requirements.**

We offer both sales and rentals, and offer our client's top-quality used fluid power equipment at very competitive prices. To take advantage of our 300 years of experience in the Fluid Power Industry, call us at 228-689-8560 or email us at sales@powerdynamicsllc.com.

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